

CITY OF GREEN COVE SPRINGS CITY COUNCIL REGULAR SESSION

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, MAY 17, 2022 – 7:00 PM



Anyone wishing to address the city council regarding any topic on this agenda is requested to complete a card available at the city clerk's desk. Speakers are respectfully requested to limit their comments to three (3) minutes.

The city council prohibits the use of cell phones and other electronic devices which emit an audible sound during all meetings with the exception of law enforcement, fire and rescue or health care providers on call. Persons in violation may be requested to leave the meeting

AGENDA

Invocation & Pledge of Allegiance to the Flag - **Pastor Bob Brown, Cornerstone Church**

Roll Call

Mayor to call on members of the audience wishing to address the Council on matters not on the Agenda.

AWARDS & RECOGNITION

1. Proclamation - National Safe Boating Week
2. Recognition - Plaque Presentation to Van Royal for his years of support and service to the City of Green Cove Springs. **Mayor Gaw**

REORGANIZATION

3. Swearing-In Ceremony for three (3) year terms of office for Constance Butler for Seat 3, Steven Kelley for Seat 5, and Thomas Smith for Seat 4. **Circuit Judge, Steven B. Whittington**
4. City Council election of a Mayor and Vice Mayor to serve from May 17, 2022 to May 16, 2023. **Erin West**

PUBLIC HEARINGS

5. Rezoning of parcel 017172-000-00 consisting of 2.11 acres located on Roberts St, north of Green Cove Avenue from R-2 to Planned Unit Development. **Michael Daniels**

The applicant has requested that the application be deferred to the June 7, 2022 City Council meeting.

6. Rezoning of parcel 017172-000-01 consisting of .63 acres located on Roberts St, north of Green Cove Avenue from R-2 to Planned Unit Development. **Michael Daniels**

The applicant has requested that the application be deferred to the June 7, 2022 City Council meeting.

- [7.](#) Second and final reading of the Development Agreement for approximately 559.9 acres for the Rookery Residential Development located on CR 15 A south of Green Cove Avenue, parcel # 016515-008-00. *Michael Daniels*
- [8.](#) First Reading of Ordinance O-11-2022, an Annexation Application for the Preserve Development for parcel number 016499-007-00, approximately 13.92 acres located on South US Highway 17 and CR 209. *Michael Daniels*
- [9.](#) First Reading of Ordinance O-12-2022, a Future Land Use Map Amendment of parcel # 016499-007-00 from Industrial (County) to Mixed Use for 13.92 acres for property located at US 17 and CR 209. *Michael Daniels*
- [10.](#) First Reading of Ordinance O-13-2022, a Rezoning of parcel # 016499-007-00 from Light Industrial (County) to Planned Unit Development (PUD) for 13.92 acres for property located at US 17 and CR 209. *Michael Daniels*

CONSENT AGENDA

All matters under the consent agenda are considered to be routine by the city council and will be enacted by one motion in the form listed below. There will be no separate discussion on these items. If discussion is desired, that item will be removed from the consent agenda and will be considered separately. Backup documentation and staff recommendations have been previously submitted to the city council on these items.

- [11.](#) City Council acceptance of the Official Results of the April 12, 2022 Municipal Election. *Erin West*
- [12.](#) City Council approval of two Agreements to Reimburse the Clay County Property Appraiser and Tax Collector for necessary administrative and actual costs incurred to implement non-ad valorem assessments programs for collection of stormwater, solid waste and nuisance abatement costs. The two proposed Agreements are attached hereto. *L.J. Arnold, III*
- [13.](#) City Council approval of Minutes from 3/15/2022, 4/5/2022, and 4/19/2022 Regular Sessions. *Erin West*
- [14.](#) City Council approval of the Military Service Day Proclamation. *Erin West*

COUNCIL BUSINESS

- [15.](#) City Council Passage of Ordinance O-16-2022 correcting a date for Credited Service in the Retirement Plan and Trust for Police Officers. *L.J. Arnold, III*
- [16.](#) City Council approval of Nominees for Planning & Zoning Board Seats 3 and 4. *Michael Daniels*
- [17.](#) City Manager & City Attorney Reports / Correspondence

18. City Council Reports / Correspondence

Adjournment

The City Council meets the first and third Tuesday of each month beginning at 7:00 p.m., unless otherwise scheduled. Meetings are held in City Hall at 321 Walnut Street. Video and audio recordings of the meetings are available in the City Clerk's Office upon request.

City may take action on any matter during this meeting, including items that are not set forth within this agenda.

Minutes of the City Council meetings can be obtained from the City Clerk's office. The Meetings are usually recorded, but are not transcribed verbatim for the minutes. Persons requiring a verbatim transcript may make arrangements with the City Clerk to duplicate the recordings, if available, or arrange to have a court reporter present at the meeting. The cost of duplication and/or court reporter will be at the expense of the requesting party.

Persons who wish to appeal any decision made by the City Council with respect to any matter considered at this meeting will need a record of the proceedings, and for such purpose may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is based. The City is not responsible if the in-house recording is incomplete for any reason.

ADA NOTICE

In accordance with Section 286.26, Florida Statutes, persons with disabilities needing special accommodations to participate in this meeting should contact the City Clerk's office no later than 5:00 p.m. on the day prior to the meeting.

PUBLIC PARTICIPATION:

Pursuant to Section 286.0114, Florida Statutes, effective October 1, 2013, the public is invited to speak on any "proposition" before a board, commission, council, or appointed committee takes official action regardless of whether the issue is on the Agenda. Certain exemptions for emergencies, ministerial acts, etc. apply. This public participation does not affect the right of a person to be heard as otherwise provided by law.

EXPARTE COMMUNICATIONS

Oral or written exchanges (sometimes referred to as lobbying or information gathering) between a Council Member and others, including staff, where there is a substantive discussion regarding a quasi-judicial decision by the City Council. The exchanges must be disclosed by the City Council so the public may respond to such exchanges before a vote is taken.

Proclamation

WHEREAS, for nearly 100 million Americans, boating continues to be a popular recreational activity. From coast to coast, and everywhere in between, people are taking to the water and enjoying time together boating, sailing, paddling and fishing. During National Safe Boating Week, the U.S. Coast Guard and its federal, state, and local safe boating partners encourage all boaters to explore and enjoy America's beautiful waters responsibly; and

WHEREAS, safe boating begins with preparation. The Coast Guard estimates that human error accounts for most boating accidents and that life jackets could prevent nearly 86 percent of boating fatalities. Through basic boating safety procedures - carrying lifesaving emergency distress and communications equipment, wearing life jackets, attending safe boating courses, participating in free boat safety checks, and staying sober when navigating - we can help ensure boaters on America's coastal, inland, and offshore waters stay safe throughout the season; and

WHEREAS, National Safe Boating Week is observed to bring attention to important life-saving tips for recreational boaters so that they can have a safer, more fun experience out on the water throughout the year; and

WHEREAS, on average, 600 people die each year in boating-related accidents in the U.S.; 79 percent of these are fatalities caused by drowning; and

WHEREAS, the vast majority of these accidents are caused by human error or poor judgment and not by the boat, equipment or environmental factors; and

WHEREAS, a significant number of boaters who lose their lives by drowning each year would be alive today had they worn their life jackets.

NOW, THEREFORE, BE IT PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, AS FOLLOWS:

SECTION 1. The City of Green Cove Springs, Florida hereby support the goals of the Safe Boating Campaign and proclaim May 21– 27, 2022 as National Safe Boating Week and the start of the year-round effort to promote safe boating and urges those who boat to practice safe boating habits and wear a life jacket at all times while boating.

SECTION 2. A true copy of this Proclamation shall be spread upon the Official Minutes of the City Council of the City of Green Cove Springs.

DONE AND PROCLAIMED BY THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA, IN REGULAR SESSION THIS 17TH DAY OF MAY, 2022.



CITY OF GREEN COVE SPRINGS, FLORIDA

Edward R. Gaw, Mayor

ATTEST:

Erin West, City Clerk

MAYOR AND VICE MAYOR HISTORICAL TERMS REORGANIZATION AT 2ND MEETING IN MAY

YEAR	MAYOR	VICE MAYOR
Mid 1870's	THADDEUS DAVIDS (PER CLAY TODAY ARTICLE – 10/16/14)	
1981 – 82	JOHN K. BRADLEY (5)	GEORGE W. KILLIAN (4)
1982 – 83	GEORGE W. KILLIAN (4)	DONALD A. FULLERTON (2)
1983 – 84	GEORGE W. KILLIAN (4)	DONALD A. FULLERTON (2)
1984 – 85	DONALD A. FULLERTON (2)	M. CALVIN WILCOX (1)
1985 – 86	M. CALVIN WILCOX (1)	PAUL R. BESELER (3)
1986 – 87	PAUL R. BESELER (3)	DONALD A. FULLERTON (2)
1987 – 88	DONALD A. FULLERTON (2)	JERRY K. WILLIAMS (5)
1988 – 89	JERRY K. WILLIAMS (5)	SANDRA DUNNAVANT (4)
1989 – 90	SANDRA DUNNAVANT (4)	M. CALVIN WILCOX (1)
1990 – 91	M. CALVIN WILCOX (1)	PAUL R. BESELER (3)
1991 – 92	DONALD A. FULLERTON (2)	JERRY K. WILLIAMS (5)
1992 – 93	JERRY K. WILLIAMS (5)	SANDRA DUNNAVANT (4)
1993 – 94	SANDRA DUNNAVANT (4)	JAMES W. LONER (3)
1994 – 95	JAMES W. LONER (3)	M. CALVIN WILCOX (1)
1995 – 96	M. CALVIN WILCOX (1)	DIANE HUTCHINGS (2)
1996 – 97	DIANE HUTCHINGS (2)	JERRY K. WILLIAMS (5)
1997 – 98	JERRY K. WILLIAMS (5)	GREG WILL (4)
1998 – 99	M. CALVIN WILCOX (1)	JAMES W. LONER (4)
1999 – 2000	JAMES W. LONER (4)	JERRY K. WILLIAMS (5)
2000 – 2001	JERRY K. WILLIAMS (5)	MATTHEW TINNEY, JR. (3)
2001 – 2002	MATTHEW TINNEY, JR. (3)	VIRGINIA HALL (2)
2002 – 2003	VIRGINIA HALL (2)	RICHARD K. HOBBS (1)
2003 – 2004	RICHARD K. HOBBS (1)	JERRY K. WILLIAMS (5)
2004 – 2005	MATTHEW TINNEY, JR. (3)	ROBERT C. PAGE (4)
2005 – 2006	ROBERT C. PAGE (4)	DEBORAH L. RICKS (5)
2006 – 2007	DEBORAH L. RICKS (5)	JOHN E. BUCHANAN (2)
2007 – 2008	JOHN E. BUCHANAN (2)	MICHAEL E. KELTER (1)
2008 – 2009	MICHAEL E. KELTER (1)	C. FELECIA HAMPSHIRE (3)
2009 – 2010	C. FELECIA HAMPSHIRE (3)	RONALD L. SNOW (5)
2010 – 2011	ROBERT C. PAGE (4)	DEBORAH L. RICKS (5)
2011 – 2012	DEBORAH L. RICKS (5)	PAMELA J. LEWIS (1)
2012 – 2013	PAMELA J. LEWIS (1)	ROY M. TIMBERLAKE, JR. (2)
2013 – 2014	ROY M. TIMBERLAKE, JR. (2)	C. FELECIA HAMPSHIRE (3)
2014 – 2015	C. FELECIA HAMPSHIRE (3)	B. VAN ROYAL (4)
2015 – 2016	B. VAN ROYAL (4)	D. RAY BRALY (5)
2015 – 2016	B. VAN ROYAL (4)	PAMELA J. LEWIS (1)
2016 – 2017	PAMELA J. LEWIS (1)	ROY M. TIMBERLAKE, JR. (2)
2017 – 2018	ROY M. TIMBERLAKE, JR. (2)	CONSTANCE W. BUTLER (3)
2018 – 2019	CONSTANCE W. BUTLER (3)	STEVEN KELLEY (5)
2019 – 2020	STEVEN KELLEY (5)	B. VAN ROYAL (4)
2020 – 2021	B. VAN ROYAL (4)	ED GAW (1)
2021 – 2022	ED GAW (1)	MATT JOHNSON (2)
2022 – 2023		

From: Janis Fleet <jfleet@fleetarchitectsplanners.net>
Sent: Friday, May 6, 2022 3:28 PM
To: Michael P. Daniels
Subject: Roberts Street PUDs - Request for Deferral

CAUTION: This email originated from outside of the organization. . Do not click links or open attachments unless you recognize the sender and know the content is safe.
Mike-

We would like to request a deferral on the Robert Street PUDs from the May 17th City Council meeting to the June 7th meeting. Please let me know what we need to do to request the deferral.

If you have any questions or need additional information, please let me know.

Thanks-
Janis

Janis K. Fleet, AICP
Fleet & Associates Architects/Planners, Inc.
904-666-7038 (office)
904-476-3220 (cell)
jfleet@fleetarchitectsplanners.net

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jfleet@fleetarchitectsplanners.net



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council **MEETING DATE:** May 17, 2022
FROM: Michael Daniels, AICP, Planning & Zoning Director
SUBJECT: Development Agreement for approximately 559.9 acres for the Rookery Residential Development located on CR 15 A south of Green Cove Avenue, parcel # 016515-008-00

PROPERTY DESCRIPTION

APPLICANT: Ellen Avery-Smith, Esq. of Rogers Tower, PA **OWNER:** Gustafson's Cattle, Inc.

PROPERTY LOCATION: CR 15 A

PARCEL NUMBER: 016515-008-00

FILE NUMBER: CDA-22-001

CURRENT ZONING: Planned Unit Development

FUTURE LAND USE DESIGNATION: Neighborhood

SURROUNDING LAND USE

NORTH: **FLU:** Recreation
Z: Recreation
Use: Undeveloped

SOUTH: **FLU:** Industrial (County)
Z: Heavy Industrial (County)
Use: Industrial / Undeveloped

EAST: **FLU:** Industrial (County)
Z: Heavy Industrial (County)
Use: Industrial

WEST: **FLU:** Rural Residential / Commercial / Agriculture (County)
Z: Agricultural Residential / Commercial (County)
Use: Single Family Homes, Commercial, Undeveloped

BACKGROUND

The applicant, Ellen Avery Smith Esq, of Rogers Tower PA has submitted a development agreement on behalf of her client, D.R. Horton, as part of their contractual agreement to purchase the property from the current owner Gustafson's Cattle Inc. The property is located on the east side of CR 15A, west of the railroad tracks, south of Green Cove Avenue, and north of Jersey Avenue. The Development Agreement is related to the Rookery Development which has been approved by the City for the development of 2,100 residential dwelling units on 559.9 acres.

The site is located within the City's Electric Service Boundary. It will be served by the City's electric and sanitation services and by the Clay County Utility Authority for water and sewer.

The City Council held the first public hearing on Tuesday, May 3, 2022, to consider a Development Agreement to be entered into pursuant to Sections 163.3220 through 163.3243, Florida Statutes, between the City of Green Cove Springs (City) and DR Horton Inc - Jacksonville (Owner). The item was unanimously approved with conditions to incorporate changes requested by the City Attorney and to add an option at the City's discretion to accept a cash payment in lieu of the construction of the Police Substation. The Development Agreement is required to have two public hearings.

A summary of the Future Land Use and Rezoning Amendments related to the Development Agreements listed below were approved by City Council on May 3, 2022:

Application #	Parcel #	Description	Reference
FLUS-22-001	016515-008-00	Small Scale FLU Map Amendment: 21.89 acres Neighborhood to Public	South Parcel*
ZON-22-001	016515-008-00	Conventional Rezoning: 21.89 acres PUD to Recreation	South Parcel*
FLUS-22-002	016515-002-00	Small Scall FLU Map Amendment: 21.3 acres Recreation to Neighborhood	North Parcel
PUD-22-001	016515-002-00 & 016515-008-00	PUD Rezoning: 21.3 acres Recreation to PUD + Rookery PUD amendment for full project site	North Parcel

The Development Agreement includes the following sections:

- **Public Facility Improvements**
 - Applicant shall comply with City requirements regarding the construction and installation of electric lines, streetlights and stormwater system.
 - Applicant shall comply with Clay County Utility Authority (CCUA) regarding the installation of water and sewer facilities.
- **Transportation Mobility Improvements**
 - Shall construct Pearce Boulevard from US Highway to the Regional Park Site
 - Limiting construction to 231 units until such time as construction is completed
 - Applicant shall construct connector road to Pearce Boulevard through Regional Park Site
 - Applicant has provided an approved traffic study that was reviewed and approved by City Staff, City Transportation Consultant and the Florida Department of Transportation.
 - Applicant has agreed to pay \$1,000 per unit transportation contribution.
 - Applicant has agreed to the Oakridge Improvement Plan, constructing sidewalks and crosswalks to improve pedestrian access for Oakridge Avenue from Green Cove Avenue to Charles E. Bennett Elementary School
- **Land Contributions**

- Applicant shall dedicate a .5 acre of land and provide funding for the construction of a 2,000 square foot police substation
- Applicant has agreed to pay proportionate share mitigation to the Clay County School Board
- **Parks**
 - Within a year of the commencement of construction the applicant shall provide the following improvements as part of the Gustafson Regional Park:
 - Tennis Courts
 - Parking lot
 - Open air restroom facilities
 - Applicant has agreed to pay a \$400 per unit park impact fee and an additional \$400 per unit impact fee per unit to be used solely for the Regional Park.
- **Development Timing:** Project shall have a 20-year duration.

The following changes were made to the Development Agreement from the first public hearing:

- Setting the maximum # of units to 2,100 residential units as set forth in paragraph J.
- Providing the City with the option to elect a cash contribution in lieu of the development of the police substation site set forth in paragraph 5A.
- Clarifying the duration of the agreement is 20 years in paragraph 8.
- Voluntary waiver of a jury trial in the event litigation arises in connection with this agreement in paragraph 14.
- Other minor non-substantive changes

The proposed Development Agreement addresses the reservation of capacity (1,889 net new external PM peak hour trips) for the 559.9 acres. The reservation of capacity granted to the owner by the City shall have a term commencing on the effective date of this agreement and ending with the duration of the agreement pursuant to the requirements set forth in paragraph 7 of the agreement. The reservation is based on an approved traffic study dated February 28, 2022, for the Rookery Planned Unit Development. This is the second of two public hearings.

STAFF RECOMMENDATION

Motion to approve second and final reading of the Rookery Development Agreement concerning 559.9 acres located on CR 15 A, south of Green Cove Avenue.

PREPARED BY AND RETURN TO:
Ellen Avery-Smith, Esq.
Rogers Towers, P.A.
100 Whetstone Place, Suite 200
St. Augustine, Florida 320286

ROOKERY DEVELOPMENT AGREEMENT

THIS ROOKERY DEVELOPMENT AGREEMENT (the “**Agreement**”) is made and entered into on this ____ day of _____, 2022, by and between **D.R. HORTON, INC. – JACKSONVILLE**, a Delaware corporation (the “**Applicant**”), and the **CITY OF GREEN COVE SPRINGS**, a municipal corporation organized and existing under the laws of the State of Florida (the “**City**”). City, and Applicant may sometimes be referred to herein, collectively, as the “**Parties.**”

A. The Applicant attests and warrants that it is the contract purchaser of the property described in **Exhibit “A-1”** attached hereto and incorporated herein by this reference, which is located within the City of Green Cove Springs, Florida (the “**Property**”), and that Philip A. Fremento, as the Division President of Applicant, is authorized to execute all binding documents on behalf of Applicant.

B. The Applicant applied to voluntarily annex the Property into the City pursuant to Section 171.044, Florida Statutes, and Ordinance No. 0-02-2021 and the City Council approved such annexation.

C. The Property has a Future Land Use Map (“**FLUM**”) designation of Residential Low Density. The Property is zoned to Planned Unit Development (the “**PUD**”) and will be developed in accordance with the applicable future land use and zoning designations.

D. The Applicant desires to develop a residential project to be called Rookery on the Property, with a maximum of 2,100 single-family and townhome residential units (the “**Development**”).

E. The Applicant will construct certain public roadway, utility and other improvements, both on the Property and off-site, to mitigate for impacts of the Development, as set forth herein.

F. The Applicant and the City desire to enter into this Agreement to provide for the provision of certain on-site and off-site improvements that will benefit the Development and the public.

G. This Agreement is consistent with the City Charter, the City 2045 Comprehensive Plan and the City Land Development Code, as well as, with provisions of Chapter 163, Florida Statutes, Chapter 166, Florida Statutes, Chapter 187, Florida Statutes, Article VIII, Section 2(b), Constitution of the State of Florida and other applicable law and serves a public purpose.

H. The City has determined that the requirements of Section 163.3231, Florida Statutes, have been met in that:

- i. The City has adopted a local Comprehensive Plan that is in compliance.
- ii. The proposed development of the Property is consistent with the City of Green Cove Springs 2045 Comprehensive Plan, including the Future Land Use Map.
- iii. This Agreement constitutes a binding commitment on the part of the Applicant, its successors and assigns, to develop the Property consistent with the Comprehensive Plan, applicable provisions of the City of Green Cove Springs Land Development Code (the “**City Code**”) and this Agreement.

I. The following is the Public Facility Schedule applicable to the development of the Property through the thirty (30) years of this Development Agreement, to 2052:

- i. Transportation. Transportation capacities will be provided by the City or other agency as set forth in its regulations and Capital Improvement Program, as amended from time to time, and in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- ii. Potable Water and Sanitary Sewer. The Clay County Utility Authority (the “CCUA”) will provide adequate water and wastewater service to the Property in accordance with local government development orders and interlocal agreements that have been and will be issued for development of the Property from time to time. The Applicant will construct water and sewer line extensions necessary to serve the Property, as well as other improvements in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- iii. Solid Waste. The City will provide solid waste disposal to the Property as outlined in Chapter 66 of the City Code.
- iv. Electric. The City will provide electric utility service to the Property as set forth in its regulations.
- v. Drainage. Concurrently with development of the Property or portions thereof, the Applicant will provide drainage in accordance with St. Johns River Water Management District rules and in accordance with local government development orders that have been and will be issued for development of the Property from time to time, as well as other improvements in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- vi. Parks/Open Space. Concurrently with development of the Property or portions thereof, the Applicant will provide parks and open space as required in applicable provisions of the City Comprehensive Plan and PUD ordinance for the Property.

J. The population density and maximum height possible for the Development under its FLUM, the PUD and current City Code include all uses in the Residential Low Density (R-1) zoning district, up to a maximum of four (4) units per acre, with a maximum of 2,100 single-family and townhome units.

K. This Agreement strengthens the public planning process, encourages sound capital improvement planning and financing, assists in assuring there are adequate capital facilities for the development, encourages private participation and comprehensive planning and reduces the costs of development.

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

1. **Findings of Fact**. The Recitals set forth above are true and correct and are incorporated herein by reference as Findings of Fact.

2. **Purpose and Intent**. The Applicant and the City desire to enter into this Agreement to address their respective responsibilities for both on-site and off-site improvements related to the Development. The Parties intend to utilize this Agreement to identify the methodology to be used for allocating costs for the potable water system, the sanitary sewer system, the electric system, the stormwater system and the transportation system. In addition, the Agreement identifies the available credits to the Applicant, the potential for future credits, and the City's share of financial responsibility for improvements that may benefit the City's overall utility, stormwater and transportation systems beyond that needed for this Development. The Parties do not intend to vest the Development to current land development regulations, and Applicant or its successors and assigns will be required to meet all applicable codes at the time individual development orders or permits are sought.

3. **Public Facility Improvements**. CCUA will provide water and sanitary sewer services to the Property pursuant to separate utility agreements between CCUA and the Applicant. CCUA is the applicant for temporary City water and sewer service for the site. The Applicant agrees that Applicant or the developer of each parcel, as it is developed, within the Property, shall pay the water/sewer connection/tap costs/fees for lots, units or structures within the project at the time of issuance of a building permit for the particular improvement. The Applicant agrees that Applicant or the developer of each property, as they are developed, within the Property, shall abide by all applicable federal, state and local codes, design, permitting and construction standards, requirements, policies, rules and regulations for civil site plan, utilities, stormwater and buildings. In addition, the Parties agree to the following utility and infrastructure improvements:

A. **Potable Water System**.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs

associated with providing potable water on-site to the Property for its intended uses.

- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the potable water system.
- iii. Applicant shall be permitted to temporarily connect to the City water system for the first phase of the Development. If temporary capacity is needed, the Applicant will provide such capacity in coordination with the City's Public Works Department.

B. Sanitary Sewer System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing sanitary sewer onsite to the Property for its intended uses.
- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the sanitary sewer system.
- iii. Applicant shall be permitted to temporarily connect to the City sewer system for the first phase of the Development. If temporary capacity is needed, the Applicant will provide such capacity in coordination with the City's Public Works Department.

C. Reclaimed Water System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing reclaimed water service to the Property for its intended uses.
- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the reclaimed water system.

D. Electric System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing electric service to the Property for its intended uses.

- ii. Applicant agrees to provide to the City any necessary easements on, under and across the Property for the construction, operation and maintenance of the electric system.

E. Stormwater System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing stormwater capture, retention and treatment on-site to the Property for its intended uses.
- ii. Applicant agrees to provide to the City any necessary easements on, under and across the Property for the construction, operation and maintenance of the stormwater system. All stormwater infrastructure within the Property shall be maintained by either a homeowners' association ("**HOA**") or community development district ("**CDD**") in perpetuity.

F. Street Lights.

- i. Applicant shall install street lights along all roads within the Property, including the Connector Road (as hereinafter defined), in conformance with all applicable codes, laws and regulations. Applicant or an HOA or CDD shall maintain such street lights, including paying applicable electrical power charges to the City for the same; provided, however, that the City will be responsible for maintenance of the street lights along the Connector Road.

G. Police Substation.

- i. Applicant will work with the City on a police substation, as detailed in Section 5.A hereof.

4. **Transportation/Mobility Improvements.** In addition to the public facility improvements provided for in Section 3 hereof, the Applicant and the City will cooperate in providing the following transportation and mobility improvements related to the Development:

A. The Applicant shall construct, at the Applicant's expense, a collector road (the "**Connector Road**" or "**Pearce Boulevard**") that will run west from U.S. Highway 17, abutting the Gustafson regional park site, into the Property and connect to County Road 15A. The four (4)-lane Connector Road section shall begin at U.S. Highway 17 and end at the roundabout, and a three (3)-lane Connector Road section, with center turn lane(s), shall be constructed from the roundabout to County Road 15A, as depicted on the conceptual plan attached hereto as **Exhibit "B"** and incorporated herein by this reference (the "**Conceptual Plan**"). A typical section for the Connector Road is attached hereto as **Exhibit "C"** and incorporated herein by this reference (the "**Connector Road Typical Section**"). The Applicant,

its successors and assigns, shall pay for the cost of designing, permitting and constructing the Connector Road and shall receive road impact fee credits (or proportionate share or mobility fee credits, if applicable) equal to the actual cost of designing, permitting and constructing the Connector Road. Design and construction of the Connector Road will conform to applicable requirements of the Florida Department of Transportation and the City. Once constructed, the Connector Road will be maintained by the City. The City will not issue certificates of occupancy for more than 231 residential units within the Development until either the Applicant completes construction of the Connector Road to U.S. 17 or provides a new traffic study if such connection to U.S. 17 cannot be achieved due to the location of the railroad tracks west of U.S. 17. In the event the Connector Road is not connected to U.S. Highway 17, the Applicant shall provide an updated traffic study that removes the U.S. Highway 17 connection prior to the City's approval of a plat containing the 232nd lot within the Property. Following completion of such traffic study, the City and the Applicant will negotiate in good faith a transportation proportionate share agreement, pursuant to Section 163.3180(5)(h), Florida Statutes, to address roadway improvements needed to mitigate for project traffic impacts.

B. The Applicant shall construct the Connector Road abutting the Gustafson regional park site, at the Applicant's expense. The Applicant will also stub out water and sewer lines it installs within the Property to the southern boundary of the City regional park site, if so requested by the City.

C. The Applicant and the City agree that based on the Applicant's traffic study submitted with the companion Comprehensive Plan Amendment application for the Property, no proportionate fair share, mobility or other similar mitigation payment shall be due related to the Development's projected impacts to the regional roadway network. An interim traffic study addressing traffic distribution shall be required by the Applicant every five (5) years. The interim traffic study shall examine the Development's traffic distribution and its impact on segment and intersection analysis to determine if additional traffic mitigation requirements are required.

D. Notwithstanding that the Development is not legally obligated to make a transportation proportionate fair share or other similar mitigation payment, the Applicant has agreed to make a transportation contribution to the City of \$1,000.00 per unit (the "**Per-Unit Transportation Contribution**"). Such per-unit payment shall be made to the City upon the filing of a building permit application for each home. The City shall use the Per-Unit Transportation Contribution to make transportation improvements in the vicinity of the Development, which improvements may include but not be limited to construction of any crosswalks and sidewalks along South Oakridge Avenue, as depicted on **Exhibit "D"** attached hereto and incorporated herein by this reference (the "**Oakridge Avenue Improvements Plan**"), that the Applicant is not able to construct, at the Applicant's expense, due to right-of-way limitations or difficulty in getting landowner consent to construct the crosswalks and sidewalks along South Oakridge Avenue depicted on the Oakridge Avenue Improvements Plan. In the event the City enacts a mobility fee, road impact fee or other similar fee following the effective date of this Agreement, the Development shall not be subject to such fee.

5. Land Contributions.

A. Police Substation. The Applicant shall dedicate to the City a parcel of approximately one-half (1/2) acre (the “**Substation Site**”) and provide funding to the City for the construction of a 2,000-square-foot police substation (the “**Substation**”) prior to the approval of a certificate of occupancy for the 200th residential unit within the Property. The Applicant will work with the City on the location of the Substation Site. Prior to the City’s approval of a certificate of occupancy for the 231st residential unit within the Property, the City reserves the option to elect to accept a cash contribution from the Applicant not to exceed Five Hundred Thousand and No/100 Dollars (\$500,000.00) for the City to use for law enforcement capital expenses.

B. Schools. The Applicant, its successors and assigns, will comply with applicable provisions of Section 163.3180(6), Florida Statutes, in providing any required school proportionate share mitigation and will pay any applicable school impact fees for the Development in the timing and manner required by law.

C. Land Exchange. In order for the Applicant to construct the Connector Road, it will be necessary for the Applicant and the City to exchange certain real property. The Applicant will exchange an approximately 21.89-acre parcel within the Property, as described in **Exhibit “E”** attached hereto and incorporated herein by this reference (the “**Applicant Exchange Parcel**”) and labeled “Land Swap” on the Conceptual Plan, with the City for the 100-foot-wide (minimum) right-of-way for the Connector Road abutting the City’s regional park site, which is approximately 21.3 acres, as described in **Exhibit “F”** attached hereto and incorporated herein by this reference (the “**City Exchange Parcel**”), which is depicted on the Conceptual Plan. The Applicant’s parcel has a value greater than the City parcel, as required in Rule 62-818.016, Florida Administrative Code, which regulates such land exchanges. The Applicant has prepared all deeds, legal descriptions and sketches of description for the parcel exchange, at its expense. Once the Applicant and the City exchange the Applicant Exchange Parcel and the City Exchange Parcel, the legal description of the Property will be as set forth in **Exhibit “A-2”** attached hereto and incorporated herein by this reference.

D. Exchange Park Improvements. Within a year after the Applicant begins development of the Property, the Applicant will commence the design, permitting and construction of improvements on the Applicant Exchange Parcel (which will then be owned by the City) as part of the Gustafson Regional Park. Such improvements shall include two tennis courts (or like facilities, at the discretion of the City) and a related gravel parking lot and open-air restrooms (the “**Exchange Park Improvements**”). Once the Applicant has completed construction of the Exchange Park Improvements, the City shall be required to maintain such improvements.

E. Gustafson Regional Park Fee. In addition to making the Exchange Park Improvements, the Applicant shall pay a per-unit park fee to the City for construction of other improvements within the Gustafson Regional Park. The per-unit fee shall be \$400 per unit (individually, the “**Regional Park Fee**” and collectively, the “**Regional Park Fees**”), which shall be paid by the Applicant to the City upon the filing of a building permit application for each

home. The City shall be responsible for constructing improvements within Gustafson Regional Park with the Regional Park Fees.

6. **Parks.** The Applicant shall pay a per-unit park fee to the City for construction of improvements to Public Parks within the City of Green Cove Springs. The per-unit fee shall be \$400 (individually, the “**Public Park Fee**” and collectively, the “**Public Park Fees**”), which shall be paid by the Applicant to the City upon the filing of a building permit application for each home. The Applicant will also provide an approximately ten (10)-acre passive park adjacent to the large pond located in the central portion of the Property that contains bird rookeries (the “**Passive Park**”). The Passive Park will be owned by a community development district and will be available for use by Rookery residents and other residents of Green Cove Springs. The Passive Park will contain walking trails and an observation tower overlooking the rookeries.

7. **Development Timing.** The Property is intended to be developed with the phasing set forth in the PUD, which provides the Development will be constructed in one (1), 20-year phase. Construction will be commenced by December 31, 2024 and shall be completed by December 31, 2044. For purposes of the PUD, “commencement” means securing approved construction drawings for the first portion of the Development and “completion” is defined as the installation of horizontal infrastructure and City approval of as-builts. After Development commencement has occurred, there shall be development activity, which is defined as active building permits for residential development, for a five (5)-year period. If the Applicant fails to obtain a building permit from the City for the first home within the Property within five (5) years from the Applicant commencing the Development, the Applicant will lose its transportation concurrency/reserved roadway capacity for the Property and shall have to reapply for said transportation concurrency/reserved roadway capacity before commencing development. Once the Applicant obtains its first building permit for residential development within the Property, it shall be vested for transportation concurrency/reserved roadway capacity. The City shall review the Development at least once every twelve (12) months to determine if there has been demonstrated good faith compliance with this Agreement, pursuant to Section 163.3235, Florida Statutes.

8. **Authority and Duration.** This Agreement is made and granted pursuant to Sections 163.3220-163.3243, Florida Statutes, and is effective through the twentieth (20th) anniversary of the Effective Date of this Agreement, and any extension of this Agreement.

9. **Amendment, Extension of Agreement.** If state or federal laws are enacted after the execution of this Agreement that are applicable to and preclude the Parties’ compliance with the terms of this Agreement, this Agreement shall be modified or revoked as necessary to comply with the relevant State or federal laws, pursuant to Section 163.3241, Florida Statutes, as may be amended from time to time. The duration of this Agreement may be extended by the City pursuant to law and after conducting a public hearing in the manner specified in Section 163.3225, Florida Statutes, as may be amended from time to time.

10. **Necessity to Obtain Permits.** The Applicant acknowledges its obligation to obtain all necessary federal, state and other local development permits (not mentioned herein) for development of the Property. The failure of this Agreement to address any particular permit, condition, term or restriction applicable to development of the Property shall not relieve the

Applicant or any successors or assigns of the necessity of complying with federal, state, and other local permitting requirements, conditions, terms or restrictions as may be applicable.

11. **Agreement Consistent with Comprehensive Plan and Section 163.3180, Florida Statutes (2020).** The City hereby acknowledges and agrees that (i) the Development is consistent with Florida Statutes and with the City's Comprehensive Plan and Land Development Regulations, and (ii) that the City's Comprehensive Plan is in compliance with the State of Florida Comprehensive Plan.

12. **Remedies.** Each party to this Agreement shall be entitled to seek enforcement of this Agreement against the other party consistent with Section 163.3243, Florida Statutes, as may be amended from time to time.

13. **Binding Effect.** The burdens of this Agreement shall be binding upon, and the benefits of this Agreement shall inure to, all successors in interest to the Parties to this Agreement. When Applicant is used in this Agreement, it includes Applicant and any successors and assigns owning any rights to the Property, jointly and severally, assuming all their obligations set out in the Agreement, unless the obligations have been fully discharged.

14. **Applicable Law: Jurisdiction and Venue.** This Agreement and the rights and obligations of the City and Applicant under this Agreement shall be governed by, construed under, and enforced in accordance with the laws of the State of Florida (2021). This Agreement may be enforced as provided in Section 163.3243, Florida Statutes, as may be amended from time to time. Venue for any litigation pertaining to the subject matter of this Agreement shall be exclusively in Clay County, Florida. If any provision of this Agreement, or the application of this Agreement to any person or circumstances, shall to any extent be held invalid or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

The fact that this Agreement does not detail all laws, rules, regulations, permits, conditions, terms and restrictions that must be satisfied to complete the Development contemplated by this Agreement shall not relieve Applicant or its successors in interest of the obligation to comply with the law governing such permit requirements, conditions, terms and restrictions.

Each of the parties hereby voluntarily and intentionally waives any right that it may have to a trial by jury in respect of any litigation based hereon, or arising out of, under or in connection with this Agreement, or in respect of any course of conduct, statements (whether oral or written), or actions of either party in respect hereof. This provision is a material inducement for each of the parties to enter into this Agreement.

15. **Joint Preparation.** Preparation of this Agreement has been a joint effort of the parties and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

16. **Exhibits.** All exhibits attached to this Agreement contain additional terms of this Agreement and are incorporated into this Agreement by reference.

17. **Captions or Paragraph Headings.** Captions and paragraph headings contained in this Development Agreement are for convenience and reference only, and in no way define, describe, extend or limit the scope of intent of this Agreement, nor the intent of any provision of this Agreement.

18. **Counterparts.** This Agreement may be executed in counterparts, each constituting a duplicate original; such counterparts shall constitute one and the same Agreement.

19. **Effective Date and Recordation.** This Agreement shall become effective fifteen (15) days after it has been recorded in the Public Records of Clay County (the “**Effective Date**”).

20. **Amendment.** This Agreement may be amended, cancelled or revoked consistent with the notice and hearing procedures of Section 163.3225, Florida Statutes, and the terms of Section 163.3237, Florida Statutes, as may be amended from time to time.

21. **Further Assurances.** Each party to this Agreement agrees to do, execute, acknowledges and deliver, or cause to be done, executed, acknowledged and delivered, all such further acts, and assurances in a manner and to the degree allowed by law, as shall be reasonably requested by the other party in order to carry out the intent of and give effect to this Agreement. Without in any manner limiting the specific rights and obligations set forth in this Agreement or illegally limiting or infringing upon the governmental authority of the City, the Parties declare their intention to cooperate with each other in effecting the purposes of this Agreement, and to coordinate the performance of their respective obligations under the terms of this Agreement.

22. **Notices.** Any notices or reports required by this Development Agreement shall be sent to the following:

To the City: City Manager
City of Green Cove Springs
321 Walnut Street
Green Cove Springs, Florida 32043

With copies to: Jim Arnold, Attorney
City of Green Cove Springs
321 Walnut Street and P.O Box 1570
Green Cove Springs, Florida 32043
cityattorney@greencovesprings.com

To the Applicant: D.R. Horton, Inc. – Jacksonville
Attn: John R. Gislason
4220 Race Track Road
St. Johns, Florida 32259

With copies to: Ellen Avery-Smith, Esq.
Rogers Towers, P.A.
100 Whetstone Place, Suite 200
St. Augustine, Florida 32086

Passed and Duly Adopted by the City Council of the City of Green Cove Spring, Florida
this ____ day of _____, 2022.

Attest: Erin West, City Clerk

CITY OF GREEN COVE SPRINGS,
FLORIDA, a municipal corporation

By: _____
Edward R. Gaw, Mayor

By: _____
Steve Kennedy, City Manager

Approved as to form, legal sufficiency and
execution:

By: _____
L.J. Arnold, III, City Attorney

Signed, sealed and delivered in the presence of:

D.R. HORTON INC. -JACKSONVILLE,
a Delaware corporation

Witness
Print Name:_____

By: _____
Its: _____
Date: _____

Witness
Print Name:_____

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ___ physical presence or ___ online notarization on this day ___ of _____, 2022, by _____, as _____ of D.R. Horton, Inc. - Jacksonville., a Delaware corporation, on behalf of the corporation, who is (check one) personally known to me or has produced a valid driver’s license as identification.

Notary Public
Name: _____
Commission Expires: _____

EXHIBIT "A-1"**The Property Before Land Exchange**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513 of the Public Records of said county and being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Easterly right of way line of County Road 15A, (South Oakridge Avenue), a 100 foot right of way as presently established with the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established; thence Southerly along said Easterly right of way line and along the arc of a curve concave Westerly having a radius of 1959.86 feet, through a central angle of 14°47'09", an arc length of 505.76 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 05°15'37" East, 504.36 feet; thence South 02°07'57" West, continuing along last said Easterly right of way line, 1331.79 feet to the Southwest corner of those lands described and recorded in Official Records Book 3863, page 203 of said Public Records and the Point of Beginning.

From said Point of Beginning, thence Easterly and Northeasterly along the Southerly and Southeasterly boundary of last said lands, the following 12 courses: Course 1, thence South 88°31'42" East, departing last said Easterly right of way line, 282.59 feet; Course 2, thence North 21°17'17" East, 161.55 feet; Course 3, thence South 68°42'43" East, 287.10 feet; Course 4, thence South 58°52'43" East, 32.90 feet; Course 5, thence South 37°48'54" East, 22.40 feet; Course 6, thence North 70°53'31" East, 15.20 feet; Course 7, thence North 34°14'49" East, 52.23 feet; Course 8, thence South 88°17'22" East, 94.17 feet; Course 9, thence North 31°43'31" East, 427.82 feet; Course 10, thence North 73°46'32" West, 158.11 feet; Course 11, thence North 13°06'51" East, 477.10 feet; Course 12, thence North 10°55'57" East, 142.00 feet to a point lying on the Southwesterly line of those lands described and recorded as Parcel "A" in Official Records Book 3316, page 1098 of said Public Records; thence South 77°06'26" East, along last said line, 2932.48 feet to the Northwest corner of those lands described and recorded in Official Records Book 3855, page 1391 of said Public Records; thence Southerly along the westerly line thereof, the following 3 courses: Course 1, thence South 21°54'49" East, 3242.16 feet; Course 2, thence South 68°05'09" West, 1307.43 feet; Course 3, thence South 21°54'51" East, 1003.87 feet to a point lying on the Northerly line of an Access and Maintenance Easement as described and recorded in Official Records Book 3855, page 1394 of said Public Records; thence Westerly along said Northerly line, the following 26 courses: Course 1, thence South 37°01'31" West, 149.07 feet to the point of curvature of a curve concave Northwesterly having a radius of 955.00 feet; Course 2, thence Southwesterly along the arc of said curve, through a central angle of 16°37'06", an arc length of 276.99 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South 45°20'05" West, 276.02 feet; Course 3, thence South 67°24'13" West, along a non-tangent line, 105.10 feet; Course 4, thence South 53°45'05" West, 12.16 feet; Course 5, thence South 13°14'26" West, 24.72 feet; Course 6, thence South 63°07'28" West, 859.11 feet; Course 7, thence North 26°52'32" West, 5.00 feet; Course 8, thence South 63°07'28" West, 382.73 feet; Course 9, thence North 26°52'32" West,

31.65 feet; Course 10, thence South $63^{\circ}07'28''$ West, 74.60 feet; Course 11, thence South $26^{\circ}52'32''$ East, 36.65 feet; Course 12, thence South $63^{\circ}07'28''$ West, 102.14 feet to the point of curvature of a curve concave Northerly having a radius of 955.00 feet; Course 13, thence Westerly along the arc of said curve, through a central angle of $22^{\circ}47'15''$, an arc length of 379.82 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South $74^{\circ}31'05''$ West, 377.32 feet; Course 14, thence South $85^{\circ}54'43''$ West, 731.91 feet; Course 15, thence North $04^{\circ}05'17''$ West, 5.00 feet to a point on a non-tangent curve concave Northerly having a radius of 250.00 feet; Course 16, thence Westerly along the arc of said curve, through a central angle of $05^{\circ}44'03''$, an arc length of 25.02 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South $88^{\circ}46'45''$ West, 25.01 feet; Course 17, thence North $88^{\circ}21'14''$ West, 61.78 feet; Course 18, thence North $19^{\circ}49'14''$ West, 8.30 feet; Course 19, thence North $55^{\circ}44'57''$ West, 30.16 feet; Course 20, thence South $67^{\circ}18'10''$ West, 29.23 feet; Course 21, thence South $07^{\circ}09'24''$ West, 17.00 feet; Course 22, thence North $88^{\circ}21'14''$ West, 362.37 feet; Course 23, thence South $01^{\circ}38'46''$ West, 5.00 feet; Course 24 thence North $88^{\circ}21'14''$ West, 800.00 feet; Course 25, thence North $01^{\circ}38'46''$ East, 10.00 feet; Course 26, thence North $88^{\circ}21'14''$ West, 355.52 feet to a point lying on the aforementioned Easterly right of way line of County Road 15A; thence North $02^{\circ}07'57''$ East, along last said Easterly right of way line, 5150.65 feet to the Point of Beginning.

Containing 560.52 acres, more or less.

EXHIBIT "A-2"**The Property After Land Exchange**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513 and a portion of Parcel "A" as described and recorded in Official Records Book 3316, page 1098, both of the Public Records of said county and being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South 21°54'49" East, along said Westerly right of way line, 1424.74 feet to the Point of Beginning.

From said Point of Beginning, thence South 21°54'49" East, continuing along said Westerly right of way line, 1502.39 feet to the Northeast corner of those lands described and recorded in Official Records Book 3855, page 1391, of said Public Records; thence North 77°06'26" West, departing said Westerly right of way line and along the Northerly line of last said lands, 66.98 feet to the Northwesterly corner thereof; thence Southerly along the Westerly boundary line of last said lands the following 3 courses: Course 1, thence South 21°54'49" East, 3242.16 feet; Course 2, thence South 68°05'09" West, 1307.43 feet; Course 3, thence South 21°54'51" East, 1003.87 feet to a point lying on the Northerly line of that certain Access & Maintenance Easement described and recorded in Official Records Book 3855, page 1394, of said Public Records; thence Westerly along said Northerly line the following 26 courses: Course 1, thence South 37°01'31" West, departing said Westerly boundary line, 149.07 feet to the point of curvature of a curve concave Northwesterly having a radius of 955.00 feet; Course 2, thence Southwesterly along the arc of said curve, through a central angle of 16°37'06", an arc length of 276.99 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South 45°20'05" West, 276.02 feet; Course 3, thence South 67°24'13" West, along a non-tangent line, 105.10 feet; Course 4, thence South 53°45'05" West, 12.16 feet; Course 5, thence South 13°14'26" West, 24.72 feet; Course 6, thence South 63°07'28" West, 859.11 feet; Course 7, thence North 26°52'32" West, 5.00 feet; Course 8, thence South 63°07'28" West, 382.73 feet; Course 9, thence North 26°52'32" West, 31.65 feet; Course 10, thence South 63°07'28" West, 74.60 feet; Course 11, thence South 26°52'32" East, 36.65 feet; Course 12, thence South 63°07'28" West, 102.14 feet to the point of curvature of a curve concave Northerly having a radius of 955.00 feet; Course 13, thence Westerly along the arc of said curve, through a central angle of 22°47'15", an arc length of 379.82 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 74°31'05" West, 377.32 feet; Course 14, thence South 85°54'43" West, 731.91 feet; Course 15, thence North 04°05'17" West, 5.00 feet to a point on a non-tangent curve concave Northerly having a radius of 250.00 feet; Course 16, thence Westerly along the arc of said curve, through a central angle of 05°44'03", an arc length of 25.02 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 88°46'45" West, 25.01 feet; Course 17, thence North 88°21'14" West, 61.78 feet; Course 18, thence North 19°49'14" West, 8.30 feet; Course 19, thence North 55°44'57" West, 30.16 feet; Course 20, thence South 67°18'10" West, 29.23 feet; Course 21, thence South 07°09'24" West, 17.00 feet; Course 22, thence North 88°21'14" West, 362.37 feet;

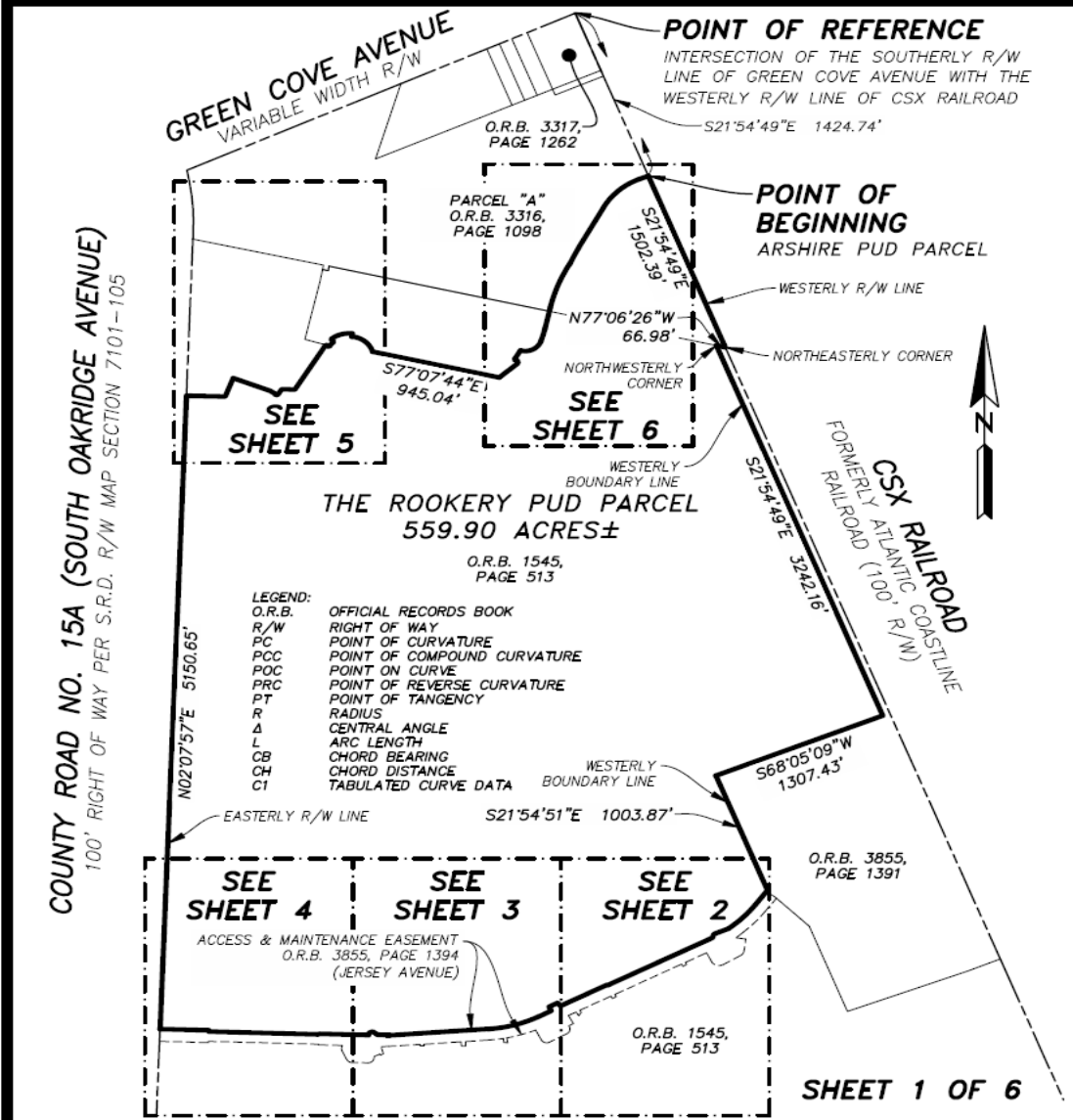
Course 23, thence South $01^{\circ}38'46''$ West, 5.00 feet; Course 24, thence North $88^{\circ}21'14''$ West, 800.00 feet; Course 25, thence North $01^{\circ}38'46''$ East, 10.00 feet; Course 26, thence North $88^{\circ}21'14''$ West, 355.52 feet to a point lying on the Easterly right of way line of County Road 15A (South Oakridge Avenue), a 100 foot right of way as presently established; thence North $02^{\circ}07'57''$ East, along said Easterly right of way line, 5150.65 feet to the Southwest corner of those lands described and recorded in Official Records Book 3863, page 203, of said Public Records; thence Easterly along the Southerly and Southeasterly lines of last said lands the following 9 courses: Course 1, thence South $88^{\circ}31'42''$ East, departing said Easterly right of way line, 282.59 feet; Course 2, thence North $21^{\circ}17'17''$ East, 161.55 feet; Course 3, thence South $68^{\circ}42'43''$ East, 287.10 feet; Course 4, thence South $58^{\circ}52'43''$ East, 32.90 feet; Course 5, thence South $37^{\circ}48'54''$ East, 22.40 feet; Course 6, thence North $70^{\circ}53'31''$ East, 15.20 feet; Course 7, thence North $34^{\circ}14'49''$ East, 52.23 feet; Course 8, thence South $88^{\circ}17'22''$ East, 94.17 feet; Course 9, thence North $31^{\circ}43'31''$ East, 427.82 feet to the Easterly most corner thereof; thence South $58^{\circ}16'29''$ East, departing said Southeasterly line, 30.00 feet to a point on a non-tangent curve concave Southeasterly having a radius of 175.00 feet; thence Northeasterly along the arc of said curve, through a central angle of $16^{\circ}53'45''$, an arc length of 51.61 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $40^{\circ}10'24''$ East, 51.42 feet; thence North $41^{\circ}22'44''$ West, along a non-tangent line, 29.96 feet to a point on a non-tangent curve concave Southerly having a radius of 198.38 feet; thence Easterly along the arc of said curve, through a central angle of $47^{\circ}45'50''$, an arc length of 165.38 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $73^{\circ}41'49''$ East, 160.63 feet; thence South $05^{\circ}22'04''$ West, along a non-tangent line, 24.76 feet to a point on a non-tangent curve concave Southwesterly having a radius of 175.00 feet; thence Southeasterly along the arc of said curve, through a central angle of $67^{\circ}09'24''$, an arc length of 205.12 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $51^{\circ}03'13''$ East, 193.58 feet; thence South $77^{\circ}07'44''$ East, along a non-tangent line, 945.04 feet; thence North $49^{\circ}36'09''$ East, 172.16 feet; thence North $27^{\circ}02'28''$ East, 20.00 feet; thence North $60^{\circ}40'11''$ West, 35.15 feet; thence North $31^{\circ}37'11''$ East, 86.00 feet to a point on a non-tangent curve concave Northwesterly having a radius of 120.00 feet; thence Northeasterly along the arc of said curve, through a central angle of $87^{\circ}21'29''$, an arc length of 182.96 feet to a point of compound curvature, said arc being subtended by a chord bearing and distance of North $63^{\circ}04'27''$ East, 165.75 feet; thence Northerly along the arc of a curve concave Westerly having a radius of 950.00 feet, through a central angle of $06^{\circ}31'27''$, an arc length of 108.17 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $16^{\circ}08'00''$ East, 108.12 feet; thence North $12^{\circ}52'16''$ East, 174.12 feet to the point of curvature of a curve concave Easterly having a radius of 1250.00 feet; thence Northerly along the arc of said curve, through a central angle of $17^{\circ}35'55''$, an arc length of 383.94 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $21^{\circ}40'14''$ East, 382.43 feet; thence Northeasterly along the arc of a non-tangent curve concave Southeasterly having a radius of 1441.24 feet, through a central angle of $05^{\circ}53'59''$, an arc length of 148.41 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $26^{\circ}05'53''$ East, 148.34 feet; thence North $29^{\circ}02'53''$ East, 373.29 feet to the point of curvature of a curve concave Southeasterly having a radius of 517.02 feet; thence Northeasterly along the arc of said curve, through a central angle of $39^{\circ}09'19''$, an arc length of 353.33 feet to a point on said curve, said arc being subtended by a chord bearing and distance of

North $48^{\circ}37'32''$ East, 346.49 feet; thence North $68^{\circ}05'11''$ East, along a non-tangent line, 70.00 feet to the Point of Beginning.

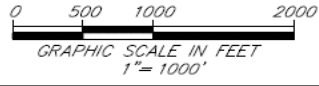
Containing 559.90 acres, more or less.

SKETCH TO ACCOMPANY DESCRIPTION OF

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED IN SEPARATE ATTACHMENT.



GENERAL NOTES:
 1) THIS IS NOT A SURVEY.
 2) BEARINGS BASED ON THE WESTERLY RIGHT OF WAY LINE OF CSX RAILROAD, BEING SOUTH 21°54'49" EAST.



14775 Old St. Augustine Road, Jacksonville, FL. 32258
 Tel: (904) 642-8550 Fax: (904) 642-4165
 Certificate of Authorization No.: LB 3624

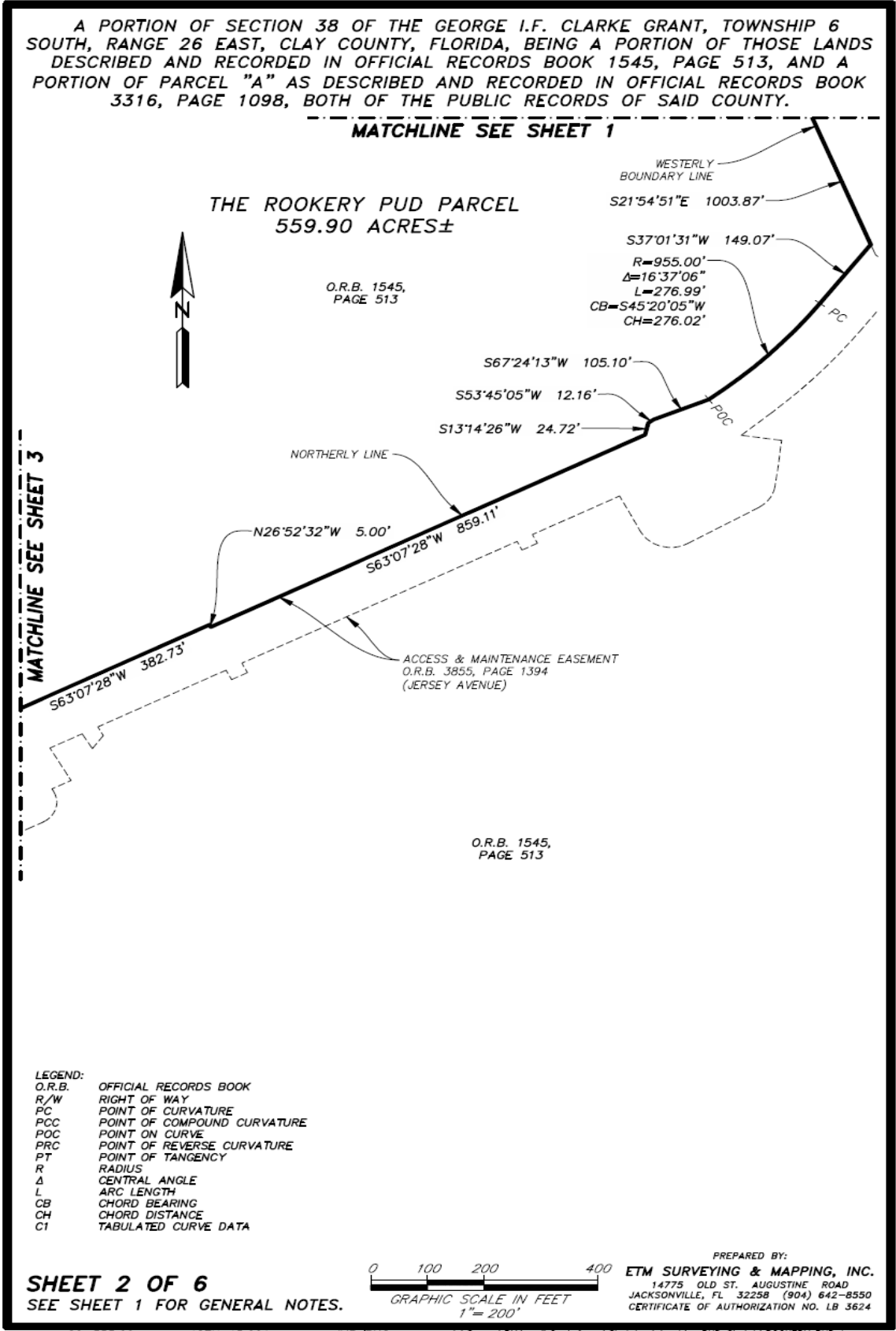
THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Digital Signature by: Bob L. Pittman, P.S.M.

BOB L. PITTMAN
 PROFESSIONAL SURVEYOR AND MAPPER
 STATE OF FLORIDA PSM No. 4827

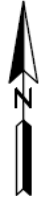
SCALE: 1"=1000'
 DATE: MARCH 3, 2022

ORDER NO.: 20-355.06 FILE NO.: 127H-15.06A DRAWN BY: JMB/BNC CAD FILE: F:\Survey\RM\pro\Gustafsons\Sketches\Arshire PUD Sketch\ROOKERY PUD.dwg

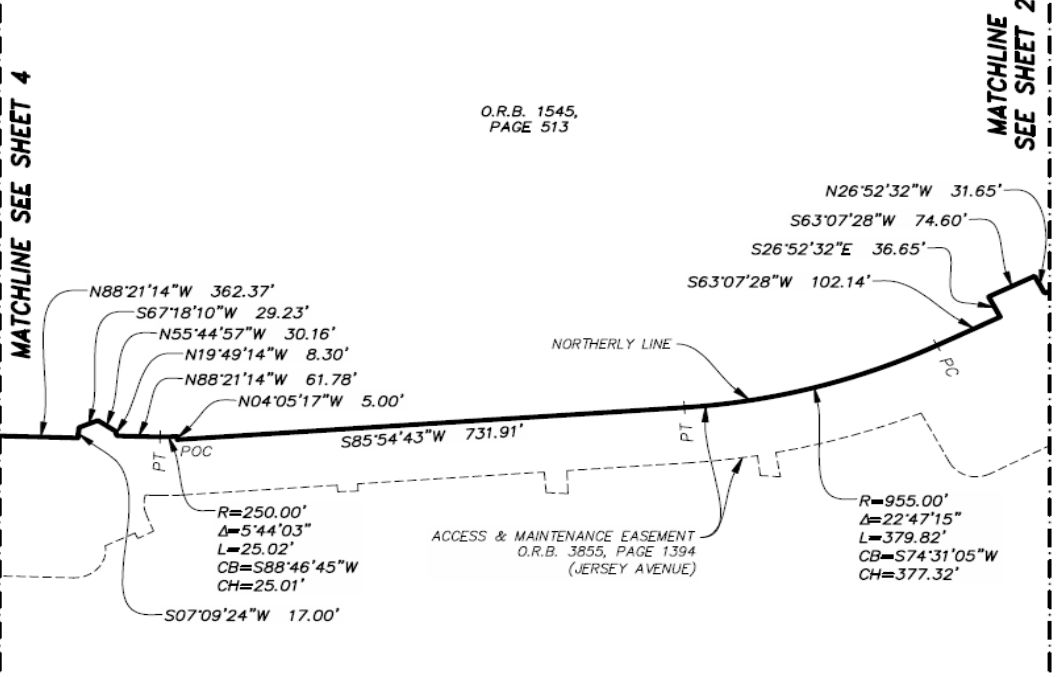


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A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.



THE ROOKERY PUD PARCEL
559.90 ACRES±



- LEGEND:
- O.R.B. OFFICIAL RECORDS BOOK
 - R/W RIGHT OF WAY
 - PC POINT OF CURVATURE
 - PCC POINT OF COMPOUND CURVATURE
 - POC POINT ON CURVE
 - PRC POINT OF REVERSE CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS
 - Δ CENTRAL ANGLE
 - L ARC LENGTH
 - CB CHORD BEARING
 - CH CHORD DISTANCE
 - CI TABULATED CURVE DATA

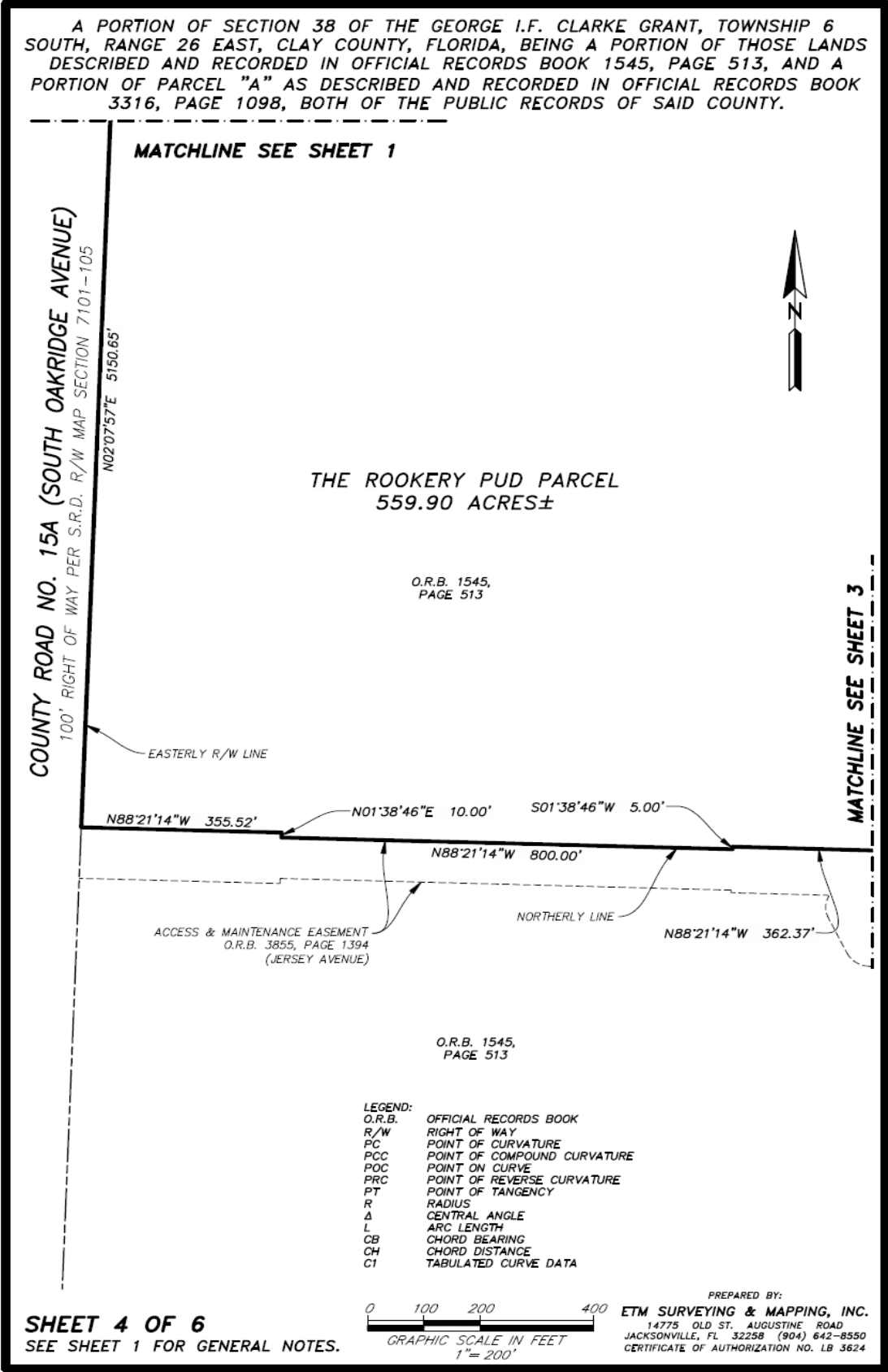
O.R.B. 1545,
PAGE 513

SHEET 3 OF 6
SEE SHEET 1 FOR GENERAL NOTES.



PREPARED BY:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

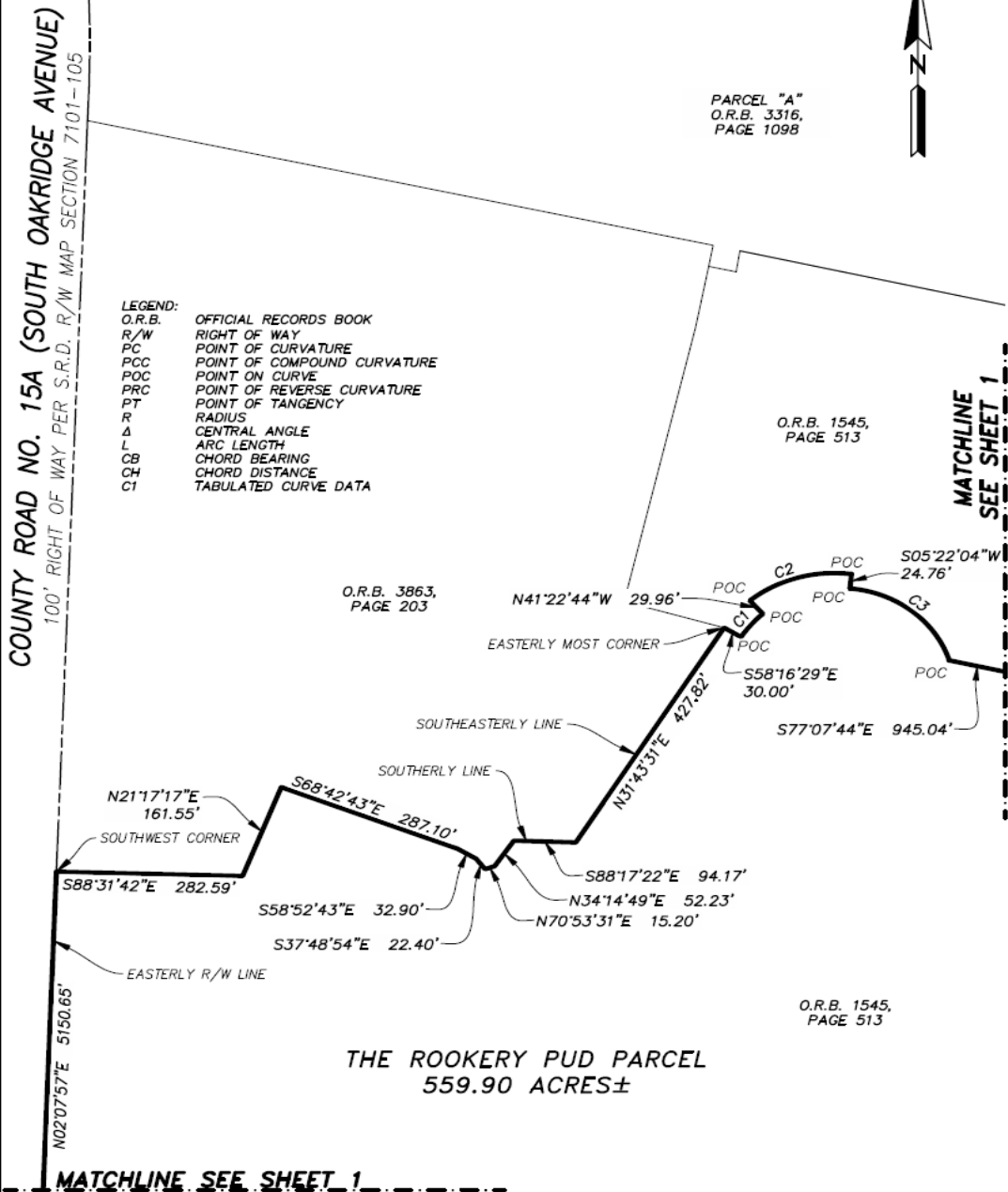
ORDER NO.: 20-355.06 FILE NO.: 12/H-15.06A DRAWN BY: JMB/BNC CAD FILE: I:\Survey\RM\Apr\Gustafsons\Sketches\Ayrshire PUD Sketch\ROOKERY PUD.dwg



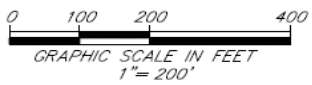
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A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.

CURVE TABLE					
CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	175.00'	16°53'45"	51.61'	N40°10'24"E	51.42'
C2	198.38'	47°45'50"	165.38'	N73°41'49"E	160.63'
C3	175.00'	67°09'24"	205.12'	S51°03'13"E	193.58'



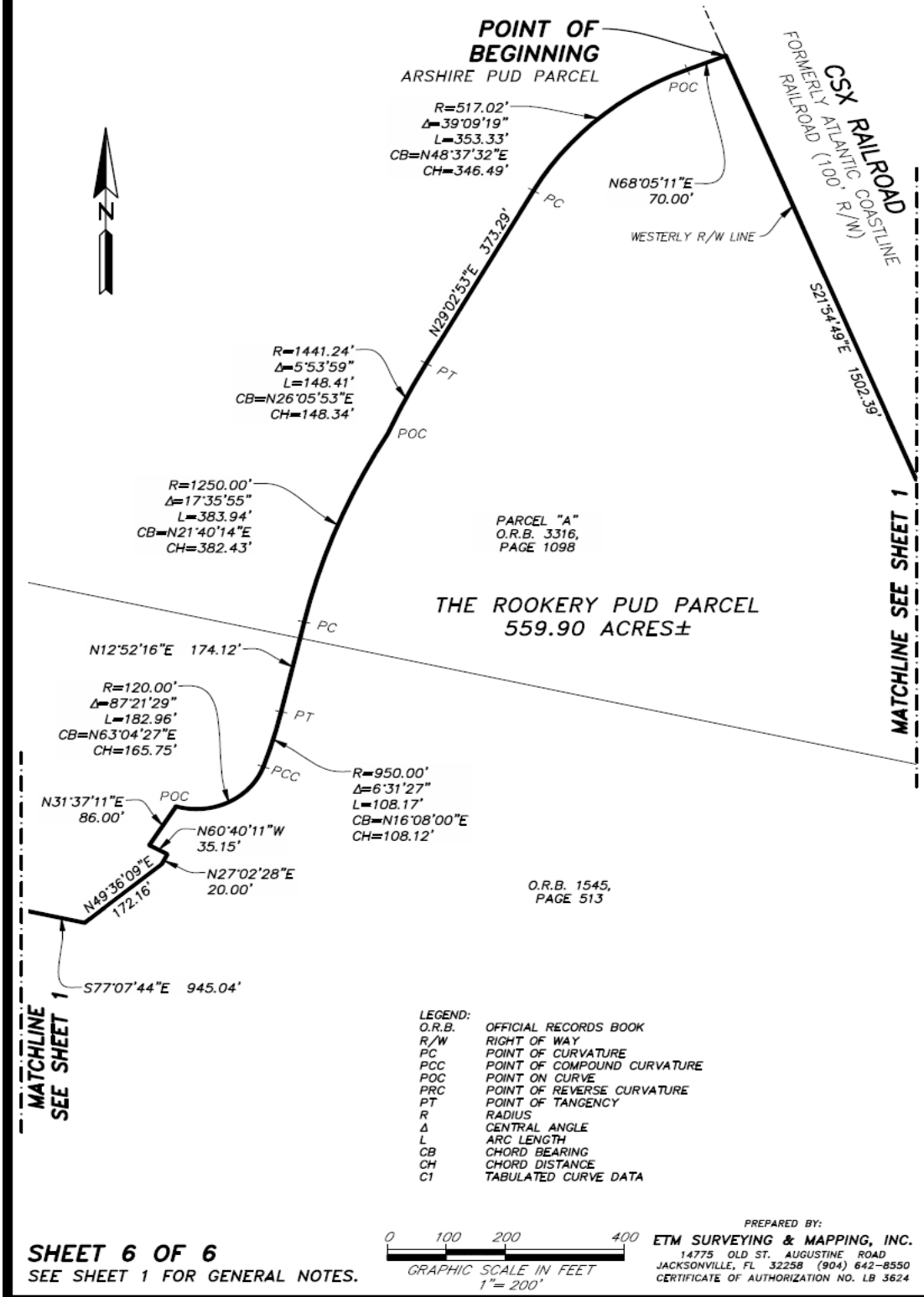
SHEET 5 OF 6
SEE SHEET 1 FOR GENERAL NOTES.



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JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

ORDER NO.: 20-355.06 FILE NO.: 127H-15.06A DRAWN BY: JMB/BNC CAD FILE: I:\Survey\RM\Apro\Gustafsons\Sketches\Ayrshire PUD Sketch\ROOKERY PUD.dwg

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.



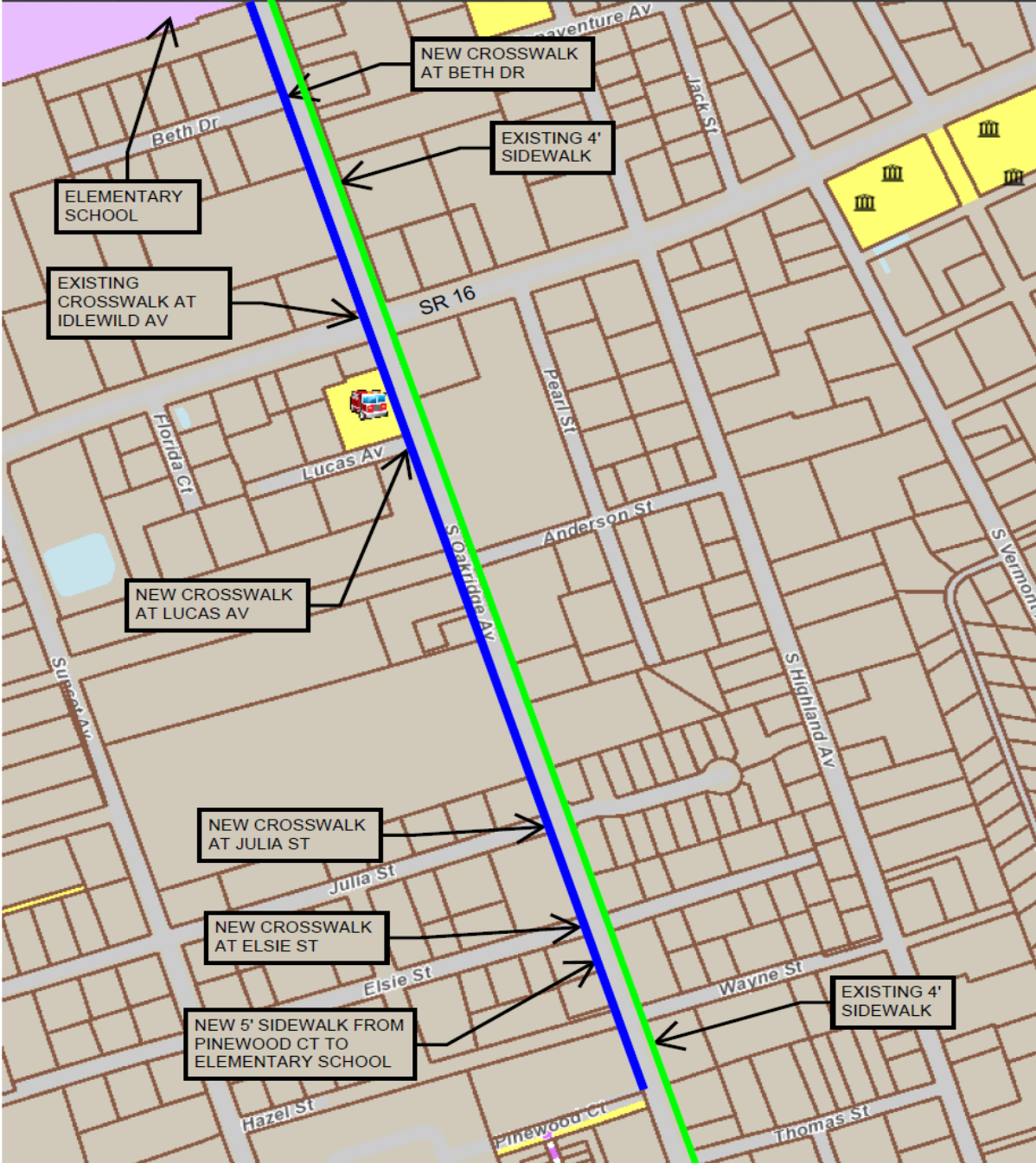
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EXHIBIT "B"
Conceptual Plan

EXHIBIT "D"

Oakridge Avenue Improvements Plan

S. OAKRIDGE AVE. SIDEWALK IMPROVEMENTS



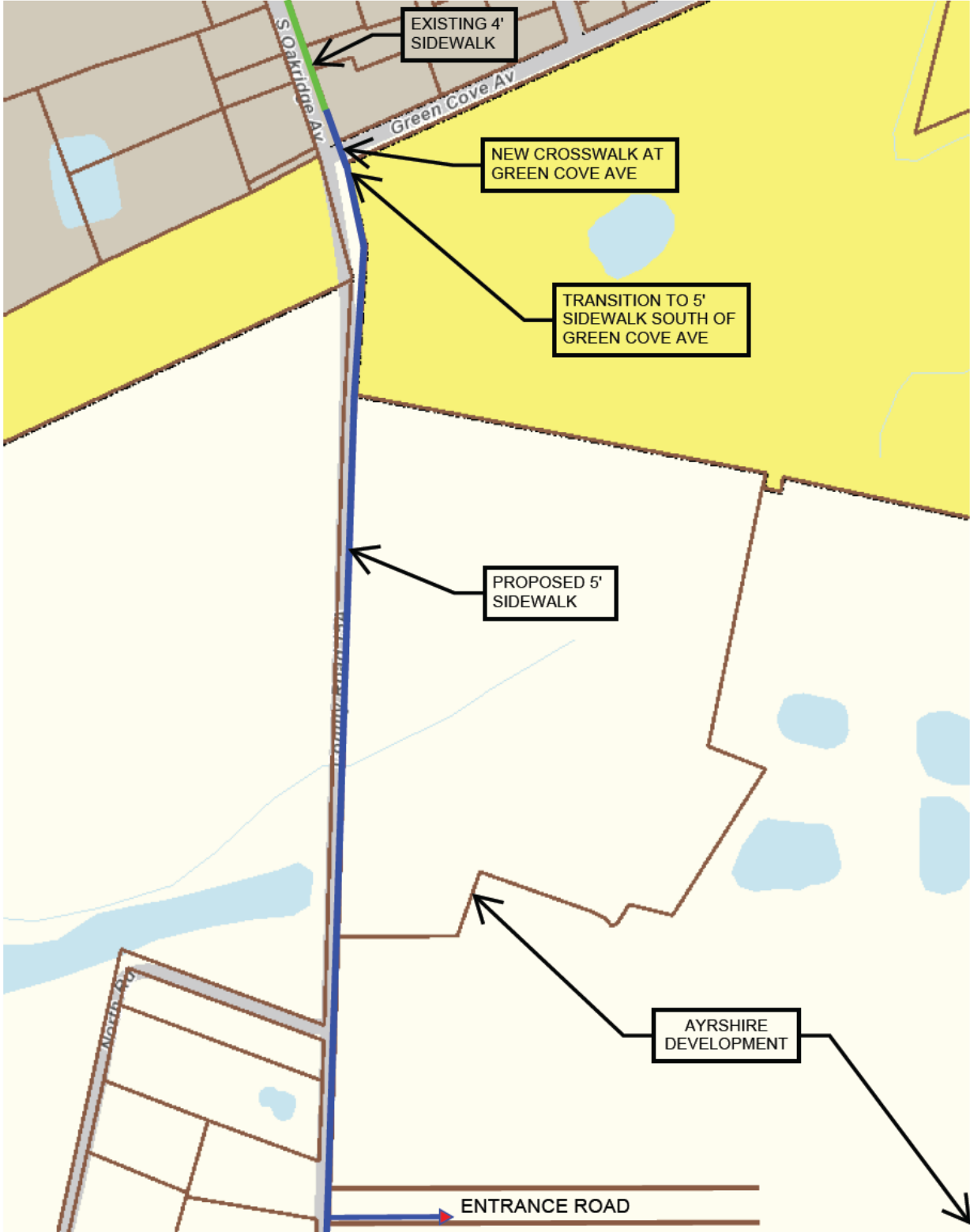


EXHIBIT "E"**Applicant Exchange Parcel**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513, of the Public Records of said county, being more particularly described as follows:

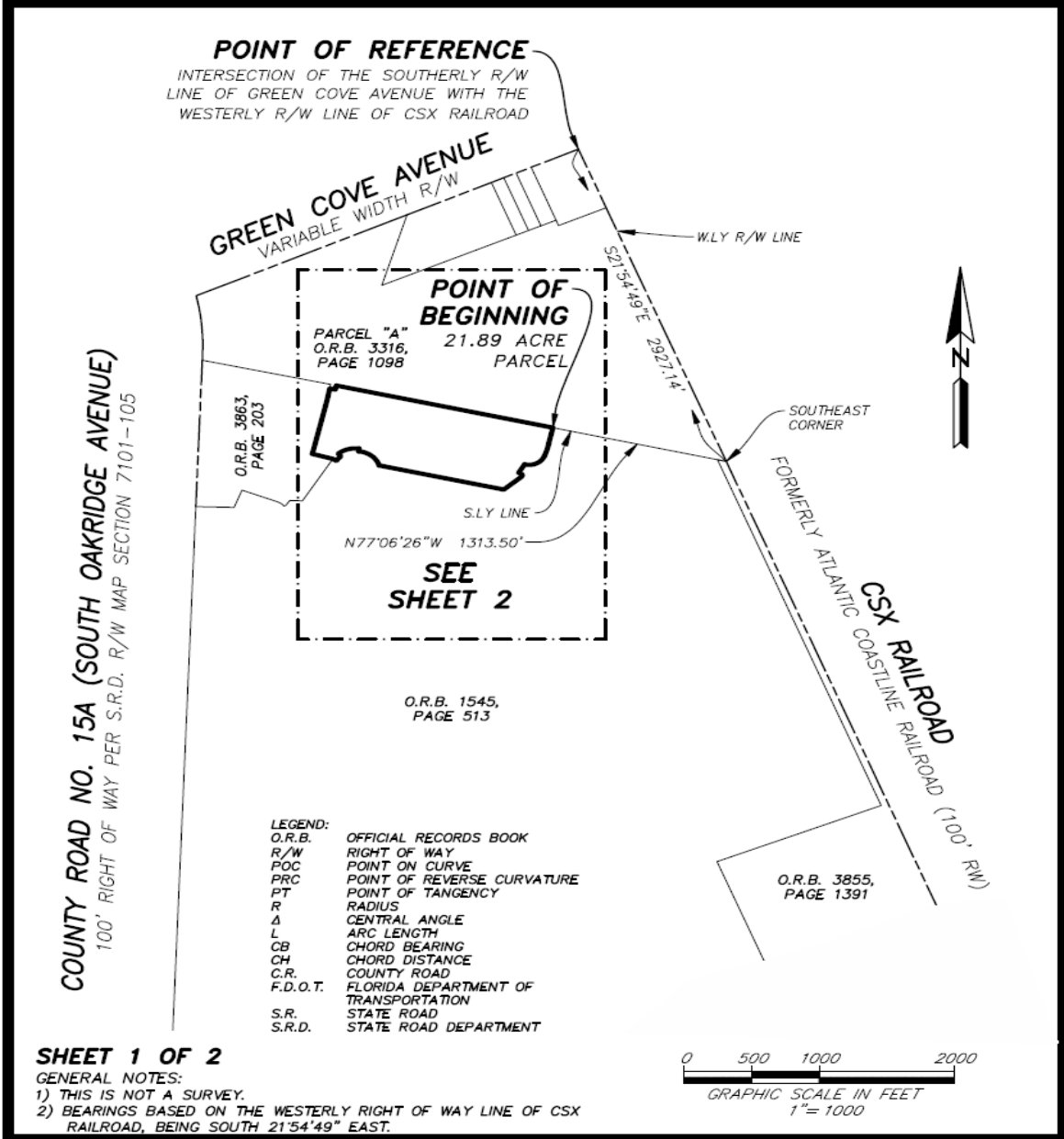
For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South $21^{\circ}54'49''$ East, along said Westerly right of way line, 2927.14 feet to the Southeast corner of those lands described as Parcel "A" and recorded in Official Records Book 3316, page 1098, of said Public Records; thence North $77^{\circ}06'26''$ West, departing said Westerly right of way line and along the Southerly line of said Parcel "A", 1313.50 feet to the Point of Beginning.

From said Point of Beginning, thence South $12^{\circ}52'16''$ West, departing said Southerly line, 142.67 feet to the point of curvature of a curve concave Westerly having a radius of 950.00 feet; thence Southerly along the arc of said curve, through a central angle of $06^{\circ}31'27''$, an arc length of 108.17 feet to a point of compound curvature, said arc being subtended by a chord bearing and distance of South $16^{\circ}08'00''$ West, 108.12 feet; thence Southwesterly along the arc of a curve concave Northwesterly having a radius of 120.00 feet, through a central angle of $87^{\circ}21'29''$, an arc length of 182.96 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $63^{\circ}04'27''$ West, 165.75 feet; thence South $31^{\circ}37'11''$ West, along a non-tangent line, 86.00 feet; thence South $60^{\circ}40'11''$ East, 35.15 feet; thence South $27^{\circ}02'28''$ West, 20.00 feet; thence South $49^{\circ}36'09''$ West, 172.16 feet; thence North $77^{\circ}07'44''$ West, 945.04 feet to a point on a non-tangent curve concave Southwesterly having a radius of 175.00 feet; thence Northwesterly along the arc of said curve, through a central angle of $67^{\circ}09'24''$, an arc length of 205.12 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $51^{\circ}03'13''$ West, 193.58 feet; thence North $05^{\circ}22'04''$ East, along a non-tangent line, 24.76 feet to a point on a non-tangent curve concave Southerly having a radius of 198.38 feet; thence Westerly along the arc of said curve, through a central angle of $47^{\circ}45'50''$, an arc length of 165.38 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $73^{\circ}41'49''$ West, 160.63 feet; thence South $41^{\circ}22'44''$ East, along a non-tangent line, 29.96 feet to a point on a non-tangent curve concave Southeasterly having a radius of 175.00 feet; thence Southwesterly along the arc of said curve, through a central angle of $16^{\circ}53'45''$, an arc length of 51.61 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $40^{\circ}10'24''$ West, 51.42 feet; thence North $58^{\circ}16'29''$ West, along a non-tangent line, 30.00 feet to a point lying on the Westerly line of those lands described and recorded in Official Records Book 3863, page 203, of said Public Records; thence Westerly and Northerly along said Westerly line the following 3 courses: Course 1, thence North $73^{\circ}46'32''$

West, 158.11 feet; Course 2, thence North $13^{\circ}06'51''$ East, 477.10 feet; Course 3, thence North $10^{\circ}55'57''$ East, 105.79 feet to a point lying on said Southerly line of Parcel "A"; thence Easterly along said Southerly line the following 3 courses: Course 1, thence South $77^{\circ}17'55''$ East, 42.83 feet; Course 2, thence North $08^{\circ}55'45''$ East, 36.14 feet; Course 3, thence South $77^{\circ}06'26''$ East, 1644.39 feet to the Point of Beginning.

Containing 21.89 acres, more or less.

SKETCH TO ACCOMPANY DESCRIPTION OF
A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP
6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF
THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545,
PAGE 513, OF THE PUBLIC RECORDS OF SAID COUNTY,
BEING MORE PARTICULARLY DESCRIBED IN SEPARATE ATTACHMENT.



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

ETM
Surveying & Mapping, Inc.
VISION • EXPERIENCE • RESULTS

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 Tel: (904) 642-8550 Fax: (904) 642-4165
 Certificate of Authorization No.: LB 3624

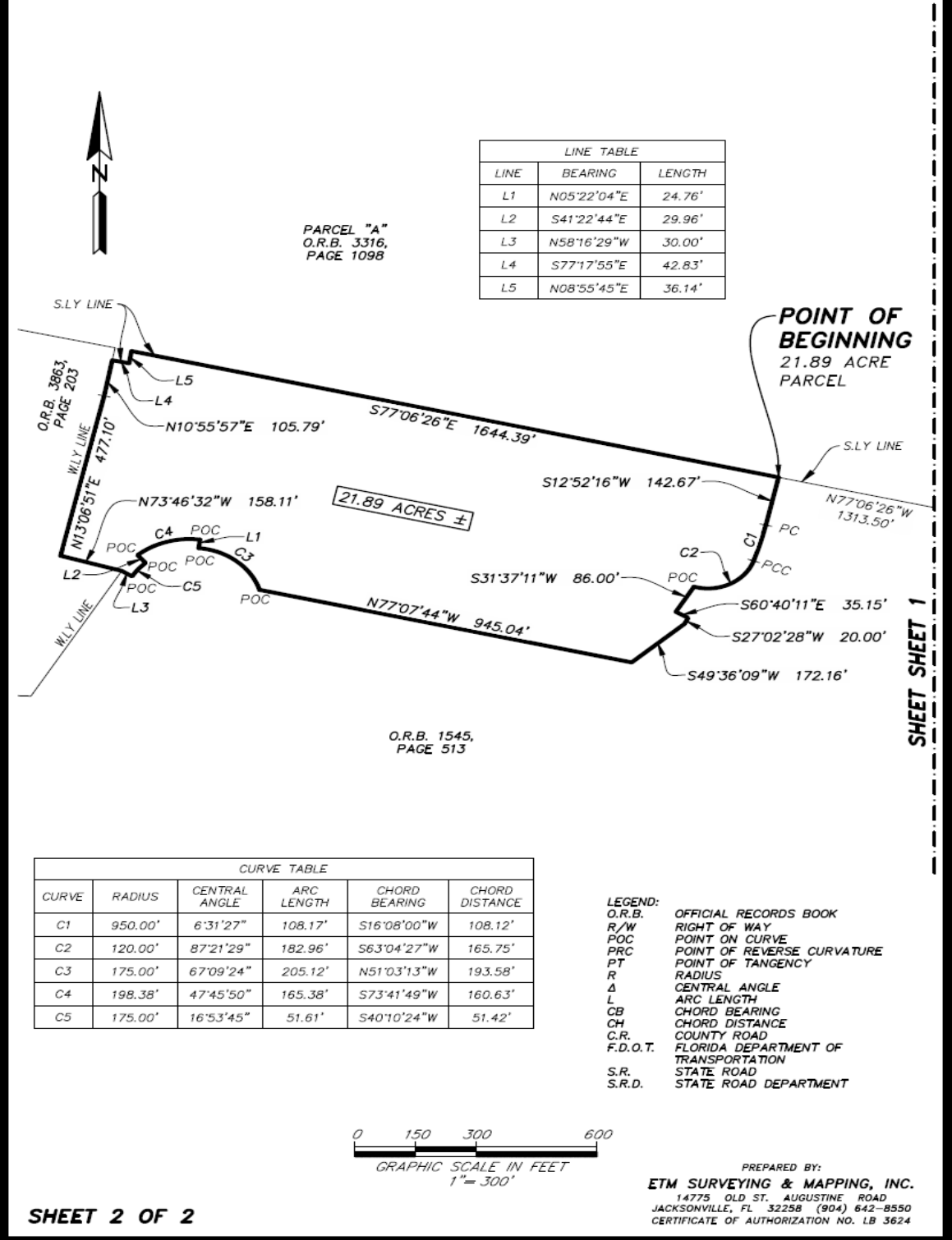
Digital Signature
 by: Bob L.
 Pittman, P.S.M.

BOB L. PITTMAN
 PROFESSIONAL SURVEYOR AND MAPPER
 STATE OF FLORIDA PSM No. 4827

SCALE: 1"=1000'
 DATE: FEBRUARY 14, 2022

ORDER NO.: 20-355.07 FILE NO.: 127H-15.07A DRAWN BY: JMB CAD FILE: I:\Survey\RM\Proj\Gustafsons\Sketches\RW LAND SWAP SKETCHES\21.89 ACRE SWAP PARCEL.dwg

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, OF THE PUBLIC RECORDS OF SAID COUNTY,



LINE TABLE		
LINE	BEARING	LENGTH
L1	N05°22'04"E	24.76'
L2	S41°22'44"E	29.96'
L3	N58°16'29"W	30.00'
L4	S77°17'55"E	42.83'
L5	N08°55'45"E	36.14'

PARCEL "A"
O.R.B. 3316,
PAGE 1098

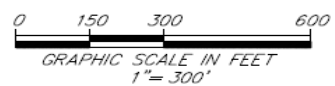
POINT OF BEGINNING
21.89 ACRE
PARCEL

21.89 ACRES ±

O.R.B. 1545,
PAGE 513

CURVE TABLE					
CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	950.00'	6°31'27"	108.17'	S16°08'00"W	108.12'
C2	120.00'	87°21'29"	182.96'	S63°04'27"W	165.75'
C3	175.00'	67°09'24"	205.12'	N51°03'13"W	193.58'
C4	198.38'	47°45'50"	165.38'	S73°41'49"W	160.63'
C5	175.00'	16°53'45"	51.61'	S40°10'24"W	51.42'

- LEGEND:
- O.R.B. OFFICIAL RECORDS BOOK
 - R/W RIGHT OF WAY
 - POC POINT ON CURVE
 - PRC POINT OF REVERSE CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS
 - Δ CENTRAL ANGLE
 - L ARC LENGTH
 - CB CHORD BEARING
 - CH CHORD DISTANCE
 - C.R. COUNTY ROAD
 - F.D.O.T. FLORIDA DEPARTMENT OF TRANSPORTATION
 - S.R. STATE ROAD
 - S.R.D. STATE ROAD DEPARTMENT



SHEET 2 OF 2

PREPARED BY:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

ORDER NO.: 20-355.07 FILE NO.: 127H-15.07A DRAWN BY: JMB CAD FILE: I:\Survey\RM\proj\Outstations\Sketches\RW LAND SWAP SKETCHES\21.89 ACRE SWAP PARCEL.dwg

EXHIBIT "F"**City Exchange Parcel**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described as Parcel "A" and recorded in Official Records Book 3316, page 1098, of the Public Records of said county, being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South $21^{\circ}54'49''$ East, along said Westerly right of way line, 1424.74 feet to the Point of Beginning.

From said Point of Beginning, thence continue South $21^{\circ}54'49''$ East, along said Westerly right of way line, 1502.39 feet to the Northeast corner of those lands described and recorded in Official Records Book 3855, page 1391, of said Public Records; thence North $77^{\circ}06'26''$ West, departing said Westerly right of way line and along the Northerly line of last said lands and along the Southerly line of said Parcel "A", 1313.50 feet; thence North $12^{\circ}52'16''$ East, departing said Southerly line, 31.45 feet to the point of curvature of a curve concave Easterly having a radius of 1250.00 feet; thence Northerly along the arc of said curve, through a central angle of $17^{\circ}35'55''$, an arc length of 383.94 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $21^{\circ}40'14''$ East, 382.43 feet; thence Northeasterly along the arc of a non-tangent curve concave Southeasterly having a radius of 1441.24 feet, through a central angle of $05^{\circ}53'59''$, an arc length of 148.41 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $26^{\circ}05'53''$ East, 148.34 feet; thence North $29^{\circ}02'53''$ East, 373.29 feet to the point of curvature of a curve concave Southeasterly having a radius of 517.02 feet; thence Northeasterly along the arc of said curve, through a central angle of $39^{\circ}09'19''$, an arc length of 353.33 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $48^{\circ}37'32''$ East, 346.49 feet; thence North $68^{\circ}05'11''$ East, along a non-tangent line, 70.00 feet to the Point of Beginning.

Containing 21.30 acres, more or less.

PREPARED BY AND RETURN TO:
 Ellen Avery-Smith, Esq.
 Rogers Towers, P.A.
 100 Whetstone Place, Suite 200
 St. Augustine, Florida 320286

ROOKERY DEVELOPMENT AGREEMENT

THIS ROOKERY DEVELOPMENT AGREEMENT (the “**Agreement**”) is made and entered into on this ____ day of _____, 2022, by and between **D.R. HORTON, INC. – JACKSONVILLE**, a Delaware corporation (the “**Applicant**”), and the **CITY OF GREEN COVE SPRINGS**, a municipal corporation organized and existing under the laws of the State of Florida (the “**City**”). City, and Applicant may sometimes be referred to herein, collectively, as the “**Parties.**”

A. The Applicant attests and warrants that it is the contract purchaser of the property described in **Exhibit “A-1”** attached hereto and incorporated herein by this reference, which is located within ~~unincorporated Clay County~~ the City of Green Cove Springs, Florida (the “**Property**”), and that Philip A. Fremento, as the Division President of Applicant, is authorized to execute all binding documents on behalf of Applicant.

B. The Applicant applied to voluntarily annex the Property into the City pursuant to Section 171.044, Florida Statutes, and Ordinance No. 0-02-2021 and the City Council approved such annexation.

C. The Property has a Future Land Use Map (“**FLUM**”) designation of Residential Low Density. The Property is zoned to Planned Unit Development (the “**PUD**”) and will be developed in accordance with the applicable future land use and zoning designations.

D. The Applicant desires to develop a residential project to be called Rookery on the Property, with a maximum of 2,100 single-family and townhome residential units (the “**Development**”).

E. The Applicant will construct certain public roadway, utility and other improvements, both on the Property and off-site, to mitigate for impacts of the Development, as set forth herein.

F. The Applicant and the City desire to enter into this Agreement to provide for the provision of certain on-site and off-site improvements that will benefit the Development and the public.

G. This Agreement is consistent with the City Charter, the City 2045 Comprehensive Plan and the City Land Development Code, as well as, with provisions of Chapter 163, Florida Statutes, Chapter 166, Florida Statutes, Chapter 187, Florida Statutes, Article VIII, Section 2(b), Constitution of the State of Florida and other applicable law and serves a public purpose.

H. The City has determined that the requirements of Section 163.3231, Florida Statutes, have been met in that:

- i. The City has adopted a local Comprehensive Plan that is in compliance.
- ii. The proposed development of the Property is consistent with the City of Green Cove Springs 2045 Comprehensive Plan, including the Future Land Use Map.
- iii. This Agreement constitutes a binding commitment on the part of the Applicant, its successors and assigns, to develop the Property consistent with the Comprehensive Plan ~~and~~, applicable provisions of the City of Green Cove Springs Land Development Code (the “**City Code**”~~”~~) and this Agreement.

I. The following is the Public Facility Schedule applicable to the development of the Property through the thirty (30) years of this Development Agreement, to 2052:

- i. Transportation. Transportation capacities will be provided by the City or other agency as set forth in its regulations and Capital Improvement Program, as amended from time to time, and in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- ii. Potable Water and Sanitary Sewer. The Clay County Utility Authority (the “CCUA”) will provide adequate water and wastewater service to the Property in accordance with local government development orders and interlocal agreements that have been and will be issued for development of the Property from time to time. The Applicant will construct water and sewer line extensions necessary to serve the Property, as well as other improvements in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- iii. Solid Waste. The City will provide solid waste disposal to the Property as outlined in Chapter 66 of the City Code.
- iv. Electric. The City will provide electric utility service to the Property as set forth in its regulations.
- v. Drainage. Concurrently with development of the Property or portions thereof, the Applicant will provide drainage in accordance with St. Johns River Water Management District rules and in accordance with local government development orders that have been and will be issued for development of the Property from time to time, as well as other improvements in compliance with the provisions of this Agreement and the respective responsibilities of the parties.
- vi. Parks/Open Space. Concurrently with development of the Property or portions thereof, the Applicant will provide parks and open space as required in applicable provisions of the City Comprehensive Plan and PUD ordinance for the Property.

J. The population density and maximum height possible for the Development under its FLUM, the PUD and current City Code include all uses in the Residential Low Density (R-1) zoning district, up to a maximum of four (4) units per acre, with a maximum of 2,100 single-family and townhome units.

K. This Agreement strengthens the public planning process, encourages sound capital improvement planning and financing, assists in assuring there are adequate capital facilities for the development, encourages private participation and comprehensive planning and reduces the costs of development.

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

1. **Findings of Fact.** The Recitals set forth above are true and correct and are incorporated herein by reference as Findings of Fact.

2. **Purpose and Intent.** The Applicant and the City desire to enter into this Agreement to address their respective responsibilities for both on-site and off-site improvements related to the Development. The Parties intend to utilize this Agreement to identify the methodology to be used for allocating costs for the potable water system, the sanitary sewer system, the electric system, the stormwater system and the transportation system. In addition, the Agreement identifies the available credits to the Applicant, the potential for future credits, and the City's share of financial responsibility for improvements that may benefit the City's overall utility, stormwater and transportation systems beyond that needed for this Development. The Parties do not intend to vest the Development to current land development regulations, and Applicant or its successors and assigns will be required to meet all applicable codes at the time individual development orders or permits are sought.

3. **Public Facility Improvements.** CCUA will provide water and sanitary sewer services to the Property pursuant to separate utility agreements between CCUA and the Applicant. CCUA is the applicant for temporary City water and sewer service for the site. The Applicant agrees that Applicant or the developer of each parcel, as it is developed, within the Property, shall pay the water/sewer connection/tap costs/fees for lots, units or structures within the project at the time of issuance of a building permit for the particular improvement. The Applicant agrees that Applicant or the developer of each property, as they are developed, within the Property, shall abide by all applicable federal, state and local codes, design, permitting and construction standards, requirements, policies, rules and regulations for civil site plan, utilities, stormwater and buildings. In addition, the Parties agree to the following utility and infrastructure improvements:

A. **Potable Water System.**

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs

associated with providing potable water on-site to the Property for its intended uses.

- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the potable water system.
- iii. Applicant shall be permitted to temporarily connect to the City water system for the first phase of the Development. If temporary capacity is needed, the Applicant will provide such capacity in coordination with the City's Public Works Department.

B. Sanitary Sewer System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing sanitary sewer onsite to the Property for its intended uses.
- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the sanitary sewer system.
- iii. Applicant shall be permitted to temporarily connect to the City sewer system for the first phase of the Development. If temporary capacity is needed, the Applicant will provide such capacity in coordination with the City's Public Works Department.

C. Reclaimed Water System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing reclaimed water service to the Property for its intended uses.
- ii. Applicant agrees to provide to CCUA any necessary easements on, under and across the Property for the construction, operation and maintenance of the reclaimed water system.

D. Electric System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing electric service to the Property for its intended uses.

- ii. Applicant agrees to provide to the City any necessary easements on, under and across the Property for the construction, operation and maintenance of the electric system.

E. Stormwater System.

- i. Applicant shall comply with all codes, laws and regulations necessary for the development of the Property applicable at the time each development permit is issued and will pay all usual and customary costs associated with providing stormwater capture, retention and treatment on-site to the Property for its intended uses.
- ii. Applicant agrees to provide to the City any necessary easements on, under and across the Property for the construction, operation and maintenance of the stormwater system. All stormwater infrastructure within the Property shall be maintained by either a homeowners' association ("**HOA**") or community development district ("**CDD**") in perpetuity.

F. Street Lights.

- i. Applicant shall install street lights along all roads within the Property, including the Connector Road (as hereinafter defined), in conformance with all applicable codes, laws and regulations. Applicant or an HOA or CDD shall maintain such street lights, including paying applicable electrical power charges to the City for the same; provided, however, that the City will be responsible for maintenance of the street lights along the Connector Road.

G. Police Substation.

- i. Applicant will work with the City on a police substation, as detailed in Section 5.A hereof.

4. **Transportation/Mobility Improvements.** In addition to the public facility improvements provided for in Section 3 hereof, the Applicant and the City will cooperate in providing the following transportation and mobility improvements related to the Development:

A. The Applicant shall construct, at the Applicant's expense, a collector road (the "**Connector Road**" or "**Pearce Boulevard**") that will run west from U.S. Highway 17, ~~through~~abutting the ~~City's~~Gustafson regional park site, into the Property and connect to County Road 15A. The four (4)-lane Connector Road section shall begin at U.S. Highway 17 and end at the roundabout, and a three (3)-lane Connector Road section, with center turn lane(s), shall be constructed from the roundabout to County Road 15A, as depicted on the conceptual plan attached hereto as **Exhibit "B"** and incorporated herein by this reference (the "**Conceptual Plan**"). A typical section for the Connector Road is attached hereto as **Exhibit "C"** and incorporated herein by this reference (the "**Connector Road Typical Section**"). The Applicant,

its successors and assigns, shall pay for the cost of designing, permitting and constructing the Connector Road and shall receive road impact fee credits (or proportionate share or mobility fee credits, if applicable) equal to the actual cost of designing, permitting and constructing the Connector Road. Design and construction of the Connector Road will conform to applicable requirements of the Florida Department of Transportation and the City. Once constructed, the Connector Road will be maintained by the City. The City will not issue certificates of occupancy for more than 231 residential units within the Development until either the Applicant completes construction of the Connector Road to U.S. 17 or provides a new traffic study if such connection to U.S. 17 cannot be achieved due to the location of the railroad tracks west of U.S. 17. In the event the Connector Road is not connected to U.S. Highway 17, the Applicant shall provide an updated traffic study that removes the U.S. Highway 17 connection prior to the City's approval of a plat containing the 232nd lot within the Property. Following completion of such traffic study, the City and the Applicant will negotiate in good faith a transportation proportionate share agreement, pursuant to Section 163.3180(5)(h), Florida Statutes, to address roadway improvements needed to mitigate for project traffic impacts.

B. The Applicant shall construct the Connector Road throughabutting the CityGustafson regional park site, at the Applicant's expense. The Applicant will also stub out water and sewer lines it installs within the Property to the southern boundary of the City regional park site, if so requested by the City.

C. The Applicant and the City agree that based on the Applicant's traffic study submitted with the companion Comprehensive Plan Amendment application for the Property, no proportionate fair share, mobility or other similar mitigation payment shall be due related to the Development's projected impacts to the regional roadway network. An interim traffic study addressing traffic distribution shall be required by the Applicant every five (5) years. The interim traffic study shall examine the Development's traffic distribution and its impact on segment and intersection analysis to determine if additional traffic mitigation requirements are required.

D. Notwithstanding that the Development is not legally obligated to make a transportation proportionate fair share or other similar mitigation payment, the Applicant has agreed to make a transportation contribution to the City of \$1,000.00 per unit (the "**Per-Unit Transportation Contribution**"). Such per-unit payment shall be made to the City upon the filing of a building permit application for each home. The City shall use the Per-Unit Transportation Contribution to make transportation improvements in the vicinity of the Development, which improvements may include but not be limited to construction of any crosswalks and sidewalks along South Oakridge Avenue, as depicted on Exhibit "D" attached hereto and incorporated herein by this reference (the "**Oakridge Avenue Improvements Plan**"), that the Applicant is not able to construct, at the Applicant's expense, due to right-of-way limitations or difficulty in getting landowner consent to construct the crosswalks and sidewalks along South Oakridge Avenue depicted on the Oakridge Avenue Improvements Plan. In the event the City enacts a mobility fee, road impact fee or other similar fee following the effective date of this Agreement, the Development shall not be subject to such fee.

5. Land Contributions.

A. Police Substation. The Applicant shall dedicate to the City a parcel of approximately one-half (1/2) acre (the “**Substation Site**”) and provide funding to the City for the construction of a 2,000-square-foot police substation (the “**Substation**”) prior to the approval of a certificate of occupancy for the 200th residential unit within the Property. The Applicant will work with the City on the location of the Substation Site. Prior to the City’s approval of a certificate of occupancy for the 231st residential unit within the Property, the City reserves the option to elect to accept a cash contribution from the Applicant not to exceed Five Hundred Thousand and No/100 Dollars (\$500,000.00) for the City to use for law enforcement capital expenses.

B. Schools. The Applicant, its successors and assigns, will comply with applicable provisions of Section 163.3180(6), Florida Statutes, in providing any required school proportionate share mitigation and will pay any applicable school impact fees for the Development in the timing and manner required by law.

C. Land Exchange. In order for the Applicant to construct the Connector Road, it will be necessary for the Applicant and the City to exchange certain real property. The Applicant will exchange an approximately 21.89-acre parcel within the Property, as described in Exhibit “E” attached hereto and incorporated herein by this reference (the “**Applicant Exchange Parcel**”) and labeled “Land Swap” on the Conceptual Plan, with the City for the 100-foot-wide (minimum) right-of-way for the Connector Road withinabutting the City’s regional park site, which is approximately 21.3 acres, as described in Exhibit “F” attached hereto and incorporated herein by this reference (the “**City Exchange Parcel**”), which is depicted on the Conceptual Plan. The Applicant’s parcel has a value greater than the City parcel, as required in Rule 62-818.016, Florida Administrative Code, which regulates such land exchanges. The Applicant has prepared all deeds, legal descriptions and sketches of description for the parcel exchange, at its expense. Once the Applicant and the City exchange the Applicant Exchange Parcel and the City Exchange Parcel, the legal description of the Property will be as set forth in Exhibit “A-2” attached hereto and incorporated herein by this reference.

D. Exchange Park Improvements. Within a year after the Applicant begins development of the Property, the Applicant will commence the design, permitting and construction of improvements on the Applicant Exchange Parcel (which will then be owned by the City) as part of the Gustafson Regional Park. Such improvements shall include two tennis courts (or like facilities, at the discretion of the City) and a related gravel parking lot and open-air restrooms (the “**Exchange Park Improvements**”). Once the Applicant has completed construction of the Exchange Park Improvements, the City shall be required to maintain such improvements.

E. Gustafson Regional Park Fee. In addition to making the Exchange Park Improvements, the Applicant shall pay a per-unit park fee to the City for construction of other improvements within the Gustafson Regional Park. The per-unit fee shall ~~be~~ be \$400 per unit (individually, the “**Regional Park Fee**” and collectively, the “**Regional Park Fees**”), which shall be paid by the Applicant to the City upon the filing of a building permit application for each

home. The City shall be responsible for constructing improvements within Gustafson Regional Park with the Regional Park Fees.

6. **Parks.** The Applicant shall pay a per-unit park fee to the City for construction of improvements to Public Parks within the City of Green Cove Springs. The per-unit fee shall be \$400 (individually, the “**Public Park Fee**” and collectively, the “**Public Park Fees**”), which shall be paid by the Applicant to the City upon the filing of a building permit application for each home. The Applicant will also provide an approximately ten (10)-acre passive park adjacent to the large pond located in the central portion of the Property that contains bird rookeries (the “**Passive Park**”). The Passive Park will be owned by a community development district and will be available for use by Rookery residents and other residents of Green Cove Springs. The Passive Park will contain walking trails and an observation tower overlooking the rookeries.

7. **Development Timing.** The Property is intended to be developed with the phasing set forth in the PUD, which provides the Development will be constructed in one (1), 20-year phase. Construction will be commenced by December 31, 2024 and shall be completed by December 31, 2044. For purposes of the PUD, “commencement” means securing approved construction drawings for the first portion of the Development and “completion” is defined as the installation of horizontal infrastructure and City approval of as-builts. After Development commencement has occurred, there shall be development activity, which is defined as active building permits for residential development, for a five (5)-year period. If the Applicant fails to obtain a building permit from the City for the first home within the Property within five (5) years from the Applicant commencing the Development, the Applicant will lose its transportation concurrency/reserved roadway capacity for the Property and shall have to reapply for said transportation concurrency/reserved roadway capacity before commencing development. Once the Applicant obtains its first building permit for residential development within the Property, it shall be vested for transportation concurrency/reserved roadway capacity. The City shall review the Development at least once every twelve (12) months to determine if there has been demonstrated good faith compliance with this Agreement, pursuant to Section 163.3235, Florida Statutes.

8. **Authority and Duration.** This Agreement is made and granted pursuant to Sections 163.3220-163.3243, Florida Statutes, and is effective through the ~~thirtieth~~ **(~~30th~~twentieth (20th))** anniversary of the Effective Date of this Agreement, and any extension of this Agreement.

9. **Amendment, Extension of Agreement.** If state or federal laws are enacted after the execution of this Agreement that are applicable to and preclude the Parties’ compliance with the terms of this Agreement, this Agreement shall be modified or revoked as necessary to comply with the relevant State or federal laws, pursuant to Section 163.3241, Florida Statutes, as may be amended from time to time. The duration of this Agreement may be extended by the City pursuant to law and after conducting a public hearing in the manner specified in Section 163.3225, Florida Statutes, as may be amended from time to time.

10. **Necessity to Obtain Permits.** The Applicant acknowledges its obligation to obtain all necessary federal, state and other local development permits (not mentioned herein) for development of the Property. The failure of this Agreement to address any particular permit,

condition, term or restriction applicable to development of the Property shall not relieve the Applicant or any successors or assigns of the necessity of complying with federal, state, and other local permitting requirements, conditions, terms or restrictions as may be applicable.

11. **Agreement Consistent with Comprehensive Plan and Section 163.3180, Florida Statutes (2020).** The City hereby acknowledges and agrees that (i) the Development is consistent with Florida Statutes and with the City's Comprehensive Plan and Land Development Regulations, and (ii) that the City's Comprehensive Plan is in compliance with the State of Florida Comprehensive Plan.

12. **Remedies.** Each party to this Agreement shall be entitled to seek enforcement of this Agreement against the other party consistent with Section 163.3243, Florida Statutes, as may be amended from time to time.

13. **Binding Effect.** The burdens of this Agreement shall be binding upon, and the benefits of this Agreement shall inure to, all successors in interest to the Parties to this Agreement. When Applicant is used in this Agreement, it includes Applicant and any successors and assigns owning any rights to the Property, jointly and severally, assuming all their obligations set out in the Agreement, unless the obligations have been fully discharged.

14. **Applicable Law: Jurisdiction and Venue.** This Agreement and the rights and obligations of the City and Applicant under this Agreement shall be governed by, construed under, and enforced in accordance with the laws of the State of Florida (2021). This Agreement may be enforced as provided in Section 163.3243, Florida Statutes, as may be amended from time to time. Venue for any litigation pertaining to the subject matter of this Agreement shall be exclusively in Clay County, Florida. If any provision of this Agreement, or the application of this Agreement to any person or circumstances, shall to any extent be held invalid or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

The fact that this Agreement does not detail all laws, rules, regulations, permits, conditions, terms and restrictions that must be satisfied to complete the Development contemplated by this Agreement shall not relieve Applicant or its successors in interest of the obligation to comply with the law governing such permit requirements, conditions, terms and restrictions.

Each of the parties hereby voluntarily and intentionally waives any right that it may have to a trial by jury in respect of any litigation based hereon, or arising out of, under or in connection with this Agreement, or in respect of any course of conduct, statements (whether oral or written), or actions of either party in respect hereof. This provision is a material inducement for each of the parties to enter into this Agreement.

15. **Joint Preparation.** Preparation of this Agreement has been a joint effort of the parties and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

16. **Exhibits.** All exhibits attached to this Agreement contain additional terms of this Agreement and are incorporated into this Agreement by reference.

17. **Captions or Paragraph Headings.** Captions and paragraph headings contained in this Development Agreement are for convenience and reference only, and in no way define, describe, extend or limit the scope of intent of this Agreement, nor the intent of any provision of this Agreement.

18. **Counterparts.** This Agreement may be executed in counterparts, each constituting a duplicate original; such counterparts shall constitute one and the same Agreement.

19. **Effective Date and Recordation.** This Agreement shall become effective fifteen (15) days after it has been recorded in the Public Records of Clay County (the “**Effective Date**”).

20. **Amendment.** This Agreement may be amended, cancelled or revoked consistent with the notice and hearing procedures of Section 163.3225, Florida Statutes, and the terms of Section 163.3237, Florida Statutes, as may be amended from time to time.

21. **Further Assurances.** Each party to this Agreement agrees to do, execute, acknowledges and deliver, or cause to be done, executed, acknowledged and delivered, all such further acts, and assurances in a manner and to the degree allowed by law, as shall be reasonably requested by the other party in order to carry out the intent of and give effect to this Agreement. Without in any manner limiting the specific rights and obligations set forth in this Agreement or illegally limiting or infringing upon the governmental authority of the City, the Parties declare their intention to cooperate with each other in effecting the purposes of this Agreement, and to coordinate the performance of their respective obligations under the terms of this Agreement.

22. **Notices.** Any notices or reports required by this Development Agreement shall be sent to the following:

To the City: City Manager
City of Green Cove Springs
321 Walnut Street
Green Cove Springs, Florida 32043

With copies to: Jim Arnold, Attorney
City of Green Cove Springs
321 Walnut Street and P.O Box 1570
Green Cove Springs, Florida 32043
cityattorney@greencovesprings.com

To the Applicant: D.R. Horton, Inc. – Jacksonville
Attn: John R. Gislason
4220 Race Track Road
St. Johns, Florida 32259

With copies to: Ellen Avery-Smith, Esq.
Rogers Towers, P.A.
100 Whetstone Place, Suite 200
St. Augustine, Florida 32086

Passed and Duly Adopted by the City Council of the City of Green Cove Spring, Florida
this ____ day of _____, 2022.

Attest: Erin West, City Clerk

CITY OF GREEN COVE SPRINGS,
FLORIDA, a municipal corporation

By: _____
Edward R. Gaw, Mayor

By: _____
Steve Kennedy, City Manager

Approved as to form, legal sufficiency and
execution:

By: _____
L.J. Arnold, III, City Attorney

Signed, sealed and delivered in the presence of:

D.R. HORTON INC. -JACKSONVILLE,
a Delaware corporation

Witness
Print Name:_____

By: _____
Its: _____
Date: _____

Witness
Print Name:_____

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ___ physical presence or ___ online notarization on this day ___ of _____, 2022, by _____, as _____ of D.R. Horton, Inc. - Jacksonville., a Delaware corporation, on behalf of the corporation, who is (check one) personally known to me or has produced a valid driver’s license as identification.

Notary Public
Name: _____
Commission Expires: _____

EXHIBIT "A-1"**The Property Before Land Exchange**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513 of the Public Records of said county and being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Easterly right of way line of County Road 15A, (South Oakridge Avenue), a 100 foot right of way as presently established with the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established; thence Southerly along said Easterly right of way line and along the arc of a curve concave Westerly having a radius of 1959.86 feet, through a central angle of 14°47'09", an arc length of 505.76 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 05°15'37" East, 504.36 feet; thence South 02°07'57" West, continuing along last said Easterly right of way line, 1331.79 feet to the Southwest corner of those lands described and recorded in Official Records Book 3863, page 203 of said Public Records and the Point of Beginning.

From said Point of Beginning, thence Easterly and Northeasterly along the Southerly and Southeasterly boundary of last said lands, the following 12 courses: Course 1, thence South 88°31'42" East, departing last said Easterly right of way line, 282.59 feet; Course 2, thence North 21°17'17" East, 161.55 feet; Course 3, thence South 68°42'43" East, 287.10 feet; Course 4, thence South 58°52'43" East, 32.90 feet; Course 5, thence South 37°48'54" East, 22.40 feet; Course 6, thence North 70°53'31" East, 15.20 feet; Course 7, thence North 34°14'49" East, 52.23 feet; Course 8, thence South 88°17'22" East, 94.17 feet; Course 9, thence North 31°43'31" East, 427.82 feet; Course 10, thence North 73°46'32" West, 158.11 feet; Course 11, thence North 13°06'51" East, 477.10 feet; Course 12, thence North 10°55'57" East, 142.00 feet to a point lying on the Southwesterly line of those lands described and recorded as Parcel "A" in Official Records Book 3316, page 1098 of said Public Records; thence South 77°06'26" East, along last said line, 2932.48 feet to the Northwest corner of those lands described and recorded in Official Records Book 3855, page 1391 of said Public Records; thence Southerly along the westerly line thereof, the following 3 courses: Course 1, thence South 21°54'49" East, 3242.16 feet; Course 2, thence South 68°05'09" West, 1307.43 feet; Course 3, thence South 21°54'51" East, 1003.87 feet to a point lying on the Northerly line of an Access and Maintenance Easement as described and recorded in Official Records Book 3855, page 1394 of said Public Records; thence Westerly along said Northerly line, the following 26 courses: Course 1, thence South 37°01'31" West, 149.07 feet to the point of curvature of a curve concave Northwesterly having a radius of 955.00 feet; Course 2, thence Southwesterly along the arc of said curve, through a central angle of 16°37'06", an arc length of 276.99 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South 45°20'05" West, 276.02 feet; Course 3, thence South 67°24'13" West, along a non-tangent line, 105.10 feet; Course 4, thence South 53°45'05" West, 12.16 feet; Course 5, thence South 13°14'26" West, 24.72 feet; Course 6, thence South 63°07'28" West, 859.11 feet; Course 7, thence North 26°52'32" West, 5.00 feet; Course 8, thence South 63°07'28" West, 382.73 feet; Course 9, thence North 26°52'32" West,

31.65 feet; Course 10, thence South $63^{\circ}07'28''$ West, 74.60 feet; Course 11, thence South $26^{\circ}52'32''$ East, 36.65 feet; Course 12, thence South $63^{\circ}07'28''$ West, 102.14 feet to the point of curvature of a curve concave Northerly having a radius of 955.00 feet; Course 13, thence Westerly along the arc of said curve, through a central angle of $22^{\circ}47'15''$, an arc length of 379.82 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South $74^{\circ}31'05''$ West, 377.32 feet; Course 14, thence South $85^{\circ}54'43''$ West, 731.91 feet; Course 15, thence North $04^{\circ}05'17''$ West, 5.00 feet to a point on a non-tangent curve concave Northerly having a radius of 250.00 feet; Course 16, thence Westerly along the arc of said curve, through a central angle of $05^{\circ}44'03''$, an arc length of 25.02 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South $88^{\circ}46'45''$ West, 25.01 feet; Course 17, thence North $88^{\circ}21'14''$ West, 61.78 feet; Course 18, thence North $19^{\circ}49'14''$ West, 8.30 feet; Course 19, thence North $55^{\circ}44'57''$ West, 30.16 feet; Course 20, thence South $67^{\circ}18'10''$ West, 29.23 feet; Course 21, thence South $07^{\circ}09'24''$ West, 17.00 feet; Course 22, thence North $88^{\circ}21'14''$ West, 362.37 feet; Course 23, thence South $01^{\circ}38'46''$ West, 5.00 feet; Course 24 thence North $88^{\circ}21'14''$ West, 800.00 feet; Course 25, thence North $01^{\circ}38'46''$ East, 10.00 feet; Course 26, thence North $88^{\circ}21'14''$ West, 355.52 feet to a point lying on the aforementioned Easterly right of way line of County Road 15A; thence North $02^{\circ}07'57''$ East, along last said Easterly right of way line, 5150.65 feet to the Point of Beginning.

Containing 560.52 acres, more or less.

EXHIBIT "A-2"**The Property After Land Exchange**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513 and a portion of Parcel "A" as described and recorded in Official Records Book 3316, page 1098, both of the Public Records of said county and being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South 21°54'49" East, along said Westerly right of way line, 1424.74 feet to the Point of Beginning.

From said Point of Beginning, thence South 21°54'49" East, continuing along said Westerly right of way line, 1502.39 feet to the Northeast corner of those lands described and recorded in Official Records Book 3855, page 1391, of said Public Records; thence North 77°06'26" West, departing said Westerly right of way line and along the Northerly line of last said lands, 66.98 feet to the Northwesterly corner thereof; thence Southerly along the Westerly boundary line of last said lands the following 3 courses: Course 1, thence South 21°54'49" East, 3242.16 feet; Course 2, thence South 68°05'09" West, 1307.43 feet; Course 3, thence South 21°54'51" East, 1003.87 feet to a point lying on the Northerly line of that certain Access & Maintenance Easement described and recorded in Official Records Book 3855, page 1394, of said Public Records; thence Westerly along said Northerly line the following 26 courses: Course 1, thence South 37°01'31" West, departing said Westerly boundary line, 149.07 feet to the point of curvature of a curve concave Northwesterly having a radius of 955.00 feet; Course 2, thence Southwesterly along the arc of said curve, through a central angle of 16°37'06", an arc length of 276.99 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South 45°20'05" West, 276.02 feet; Course 3, thence South 67°24'13" West, along a non-tangent line, 105.10 feet; Course 4, thence South 53°45'05" West, 12.16 feet; Course 5, thence South 13°14'26" West, 24.72 feet; Course 6, thence South 63°07'28" West, 859.11 feet; Course 7, thence North 26°52'32" West, 5.00 feet; Course 8, thence South 63°07'28" West, 382.73 feet; Course 9, thence North 26°52'32" West, 31.65 feet; Course 10, thence South 63°07'28" West, 74.60 feet; Course 11, thence South 26°52'32" East, 36.65 feet; Course 12, thence South 63°07'28" West, 102.14 feet to the point of curvature of a curve concave Northerly having a radius of 955.00 feet; Course 13, thence Westerly along the arc of said curve, through a central angle of 22°47'15", an arc length of 379.82 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 74°31'05" West, 377.32 feet; Course 14, thence South 85°54'43" West, 731.91 feet; Course 15, thence North 04°05'17" West, 5.00 feet to a point on a non-tangent curve concave Northerly having a radius of 250.00 feet; Course 16, thence Westerly along the arc of said curve, through a central angle of 05°44'03", an arc length of 25.02 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of South 88°46'45" West, 25.01 feet; Course 17, thence North 88°21'14" West, 61.78 feet; Course 18, thence North 19°49'14" West, 8.30 feet; Course 19, thence North 55°44'57" West, 30.16 feet; Course 20, thence South 67°18'10" West, 29.23 feet; Course 21, thence South 07°09'24" West, 17.00 feet; Course 22, thence North 88°21'14" West, 362.37 feet;

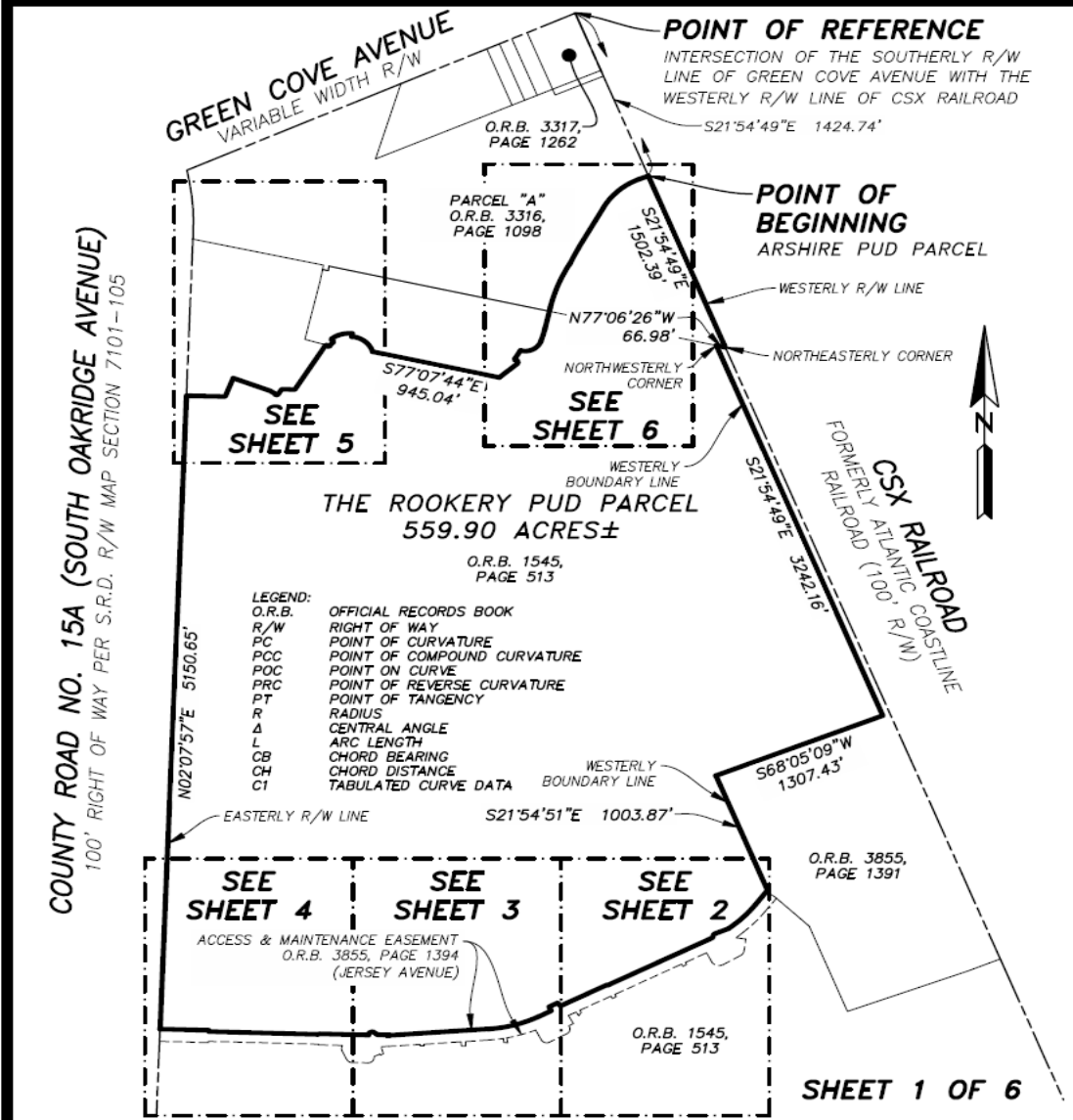
Course 23, thence South $01^{\circ}38'46''$ West, 5.00 feet; Course 24, thence North $88^{\circ}21'14''$ West, 800.00 feet; Course 25, thence North $01^{\circ}38'46''$ East, 10.00 feet; Course 26, thence North $88^{\circ}21'14''$ West, 355.52 feet to a point lying on the Easterly right of way line of County Road 15A (South Oakridge Avenue), a 100 foot right of way as presently established; thence North $02^{\circ}07'57''$ East, along said Easterly right of way line, 5150.65 feet to the Southwest corner of those lands described and recorded in Official Records Book 3863, page 203, of said Public Records; thence Easterly along the Southerly and Southeasterly lines of last said lands the following 9 courses: Course 1, thence South $88^{\circ}31'42''$ East, departing said Easterly right of way line, 282.59 feet; Course 2, thence North $21^{\circ}17'17''$ East, 161.55 feet; Course 3, thence South $68^{\circ}42'43''$ East, 287.10 feet; Course 4, thence South $58^{\circ}52'43''$ East, 32.90 feet; Course 5, thence South $37^{\circ}48'54''$ East, 22.40 feet; Course 6, thence North $70^{\circ}53'31''$ East, 15.20 feet; Course 7, thence North $34^{\circ}14'49''$ East, 52.23 feet; Course 8, thence South $88^{\circ}17'22''$ East, 94.17 feet; Course 9, thence North $31^{\circ}43'31''$ East, 427.82 feet to the Easterly most corner thereof; thence South $58^{\circ}16'29''$ East, departing said Southeasterly line, 30.00 feet to a point on a non-tangent curve concave Southeasterly having a radius of 175.00 feet; thence Northeasterly along the arc of said curve, through a central angle of $16^{\circ}53'45''$, an arc length of 51.61 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $40^{\circ}10'24''$ East, 51.42 feet; thence North $41^{\circ}22'44''$ West, along a non-tangent line, 29.96 feet to a point on a non-tangent curve concave Southerly having a radius of 198.38 feet; thence Easterly along the arc of said curve, through a central angle of $47^{\circ}45'50''$, an arc length of 165.38 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $73^{\circ}41'49''$ East, 160.63 feet; thence South $05^{\circ}22'04''$ West, along a non-tangent line, 24.76 feet to a point on a non-tangent curve concave Southwesterly having a radius of 175.00 feet; thence Southeasterly along the arc of said curve, through a central angle of $67^{\circ}09'24''$, an arc length of 205.12 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $51^{\circ}03'13''$ East, 193.58 feet; thence South $77^{\circ}07'44''$ East, along a non-tangent line, 945.04 feet; thence North $49^{\circ}36'09''$ East, 172.16 feet; thence North $27^{\circ}02'28''$ East, 20.00 feet; thence North $60^{\circ}40'11''$ West, 35.15 feet; thence North $31^{\circ}37'11''$ East, 86.00 feet to a point on a non-tangent curve concave Northwesterly having a radius of 120.00 feet; thence Northeasterly along the arc of said curve, through a central angle of $87^{\circ}21'29''$, an arc length of 182.96 feet to a point of compound curvature, said arc being subtended by a chord bearing and distance of North $63^{\circ}04'27''$ East, 165.75 feet; thence Northerly along the arc of a curve concave Westerly having a radius of 950.00 feet, through a central angle of $06^{\circ}31'27''$, an arc length of 108.17 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $16^{\circ}08'00''$ East, 108.12 feet; thence North $12^{\circ}52'16''$ East, 174.12 feet to the point of curvature of a curve concave Easterly having a radius of 1250.00 feet; thence Northerly along the arc of said curve, through a central angle of $17^{\circ}35'55''$, an arc length of 383.94 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $21^{\circ}40'14''$ East, 382.43 feet; thence Northeasterly along the arc of a non-tangent curve concave Southeasterly having a radius of 1441.24 feet, through a central angle of $05^{\circ}53'59''$, an arc length of 148.41 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $26^{\circ}05'53''$ East, 148.34 feet; thence North $29^{\circ}02'53''$ East, 373.29 feet to the point of curvature of a curve concave Southeasterly having a radius of 517.02 feet; thence Northeasterly along the arc of said curve, through a central angle of $39^{\circ}09'19''$, an arc length of 353.33 feet to a point on said curve, said arc being subtended by a chord bearing and distance of

North $48^{\circ}37'32''$ East, 346.49 feet; thence North $68^{\circ}05'11''$ East, along a non-tangent line, 70.00 feet to the Point of Beginning.

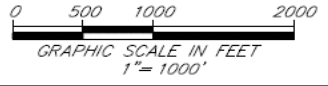
Containing 559.90 acres, more or less.

SKETCH TO ACCOMPANY DESCRIPTION OF

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY, BEING MORE PARTICULARLY DESCRIBED IN SEPARATE ATTACHMENT.



GENERAL NOTES:
 1) THIS IS NOT A SURVEY.
 2) BEARINGS BASED ON THE WESTERLY RIGHT OF WAY LINE OF CSX RAILROAD, BEING SOUTH 21°54'49" EAST.



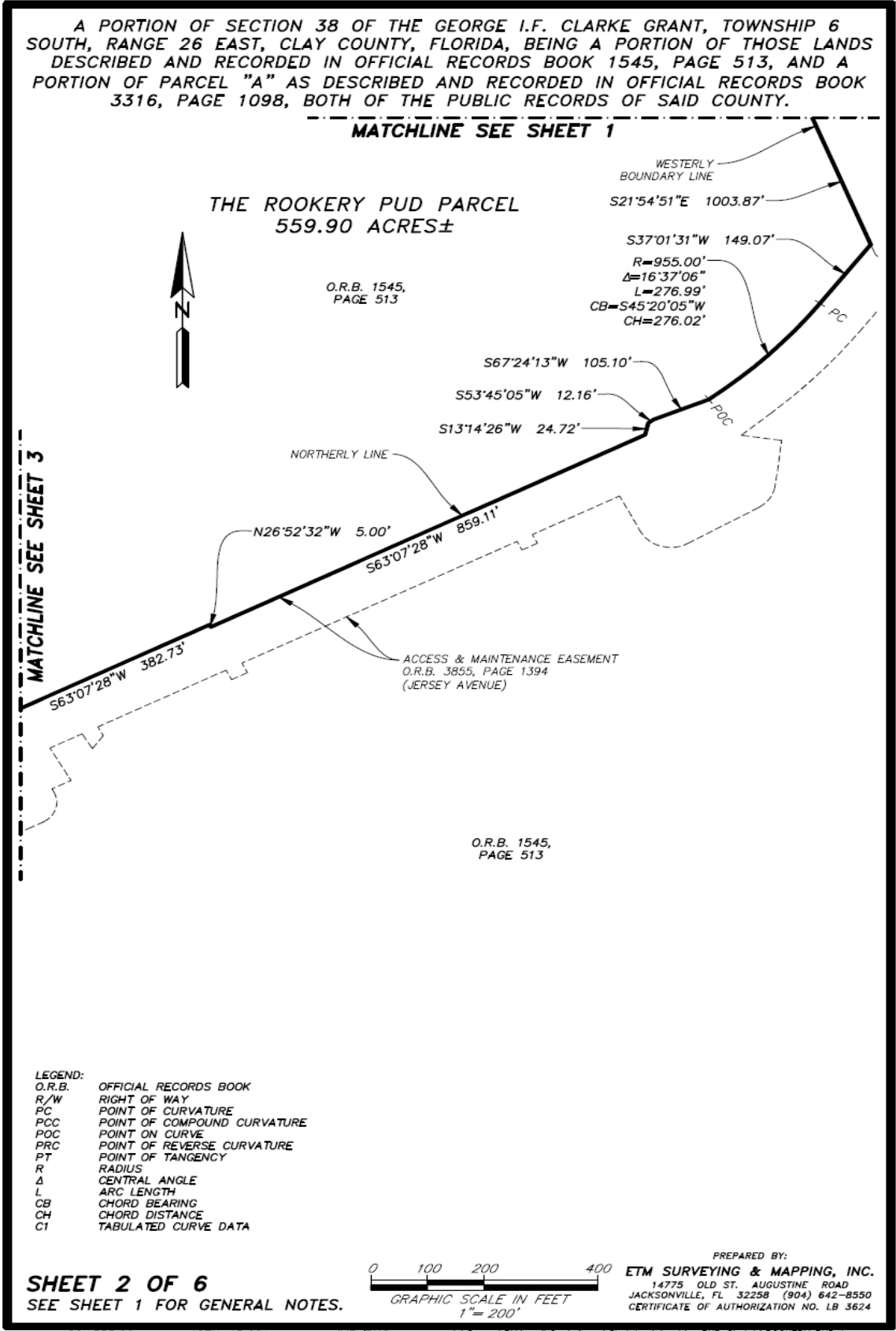
14775 Old St. Augustine Road, Jacksonville, FL. 32258
 Tel: (904) 642-8550 Fax: (904) 642-4165
 Certificate of Authorization No.: LB 3624

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

Digital Signature by: Bob L. Pittman, P.S.M.

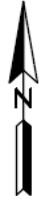
SCALE: 1"=1000'
 DATE: MARCH 3, 2022
 BOB L. PITTMAN
 PROFESSIONAL SURVEYOR AND MAPPER
 STATE OF FLORIDA PSM No. 4827

ORDER NO.: 20-355.06 FILE NO.: 127H-15.06A DRAWN BY: JMB/BNC CAD FILE: F:\Survey\RM\pro\Gustafsons\Sketches\Arshire PUD Sketch\ROOKERY PUD.dwg

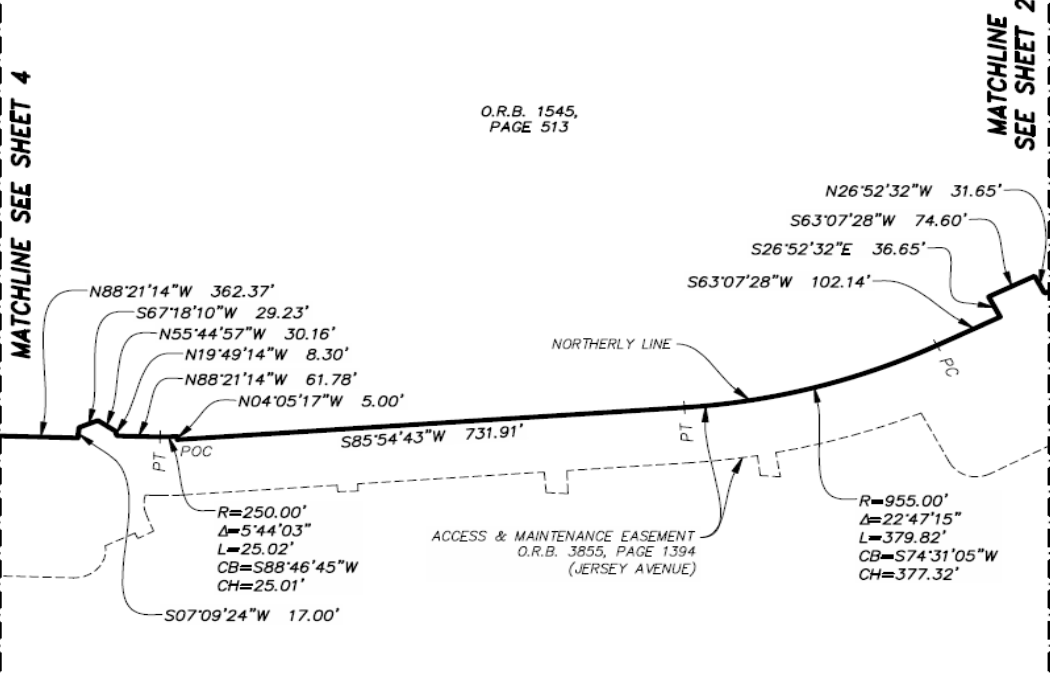


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A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.

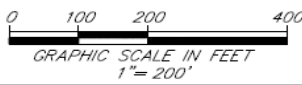


THE ROOKERY PUD PARCEL
559.90 ACRES±



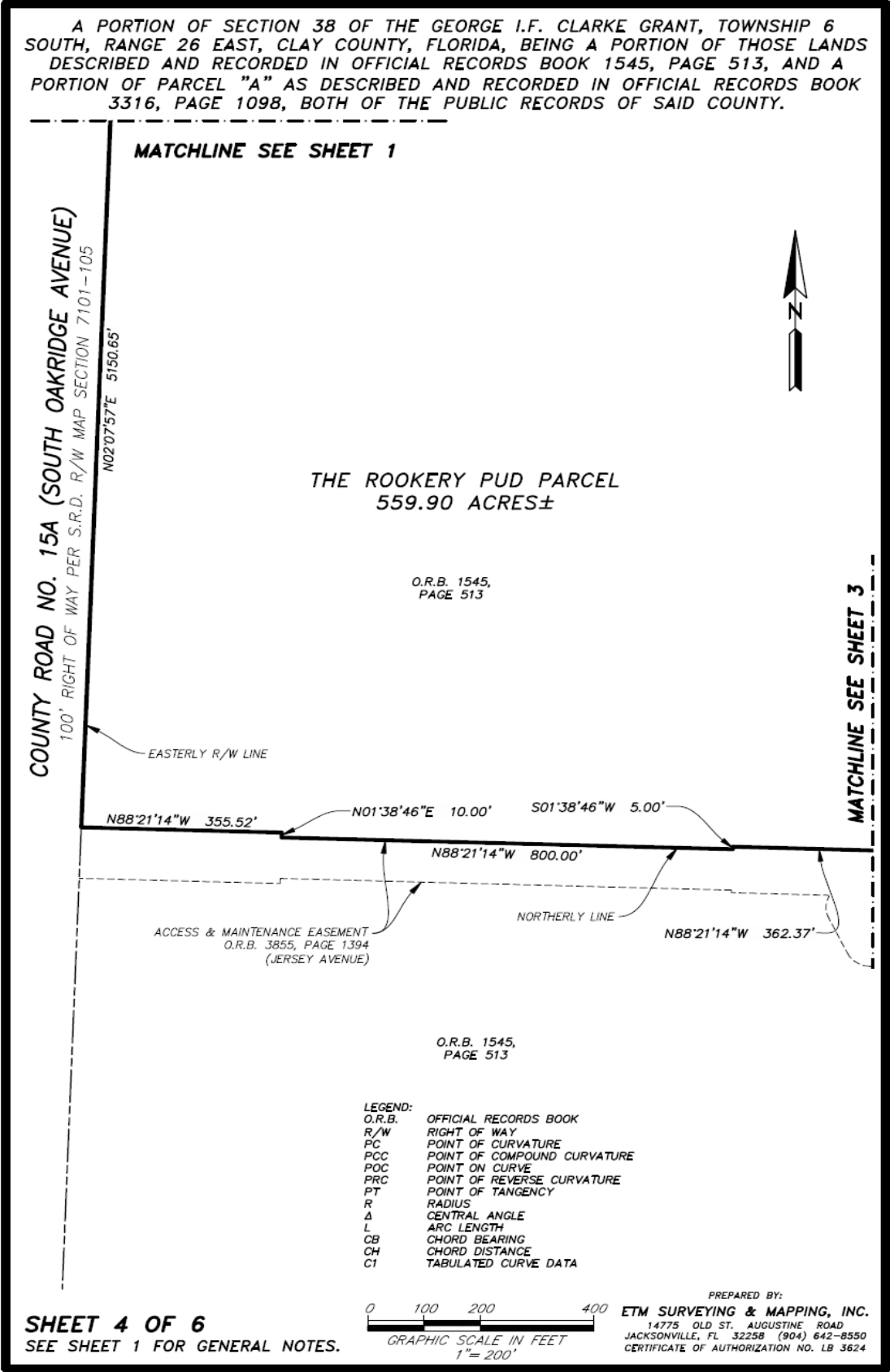
- LEGEND:
- O.R.B. OFFICIAL RECORDS BOOK
 - R/W RIGHT OF WAY
 - PC POINT OF CURVATURE
 - PCC POINT OF COMPOUND CURVATURE
 - POC POINT ON CURVE
 - PRC POINT OF REVERSE CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS
 - Δ CENTRAL ANGLE
 - L ARC LENGTH
 - CB CHORD BEARING
 - CH CHORD DISTANCE
 - CI TABULATED CURVE DATA

SHEET 3 OF 6
SEE SHEET 1 FOR GENERAL NOTES.



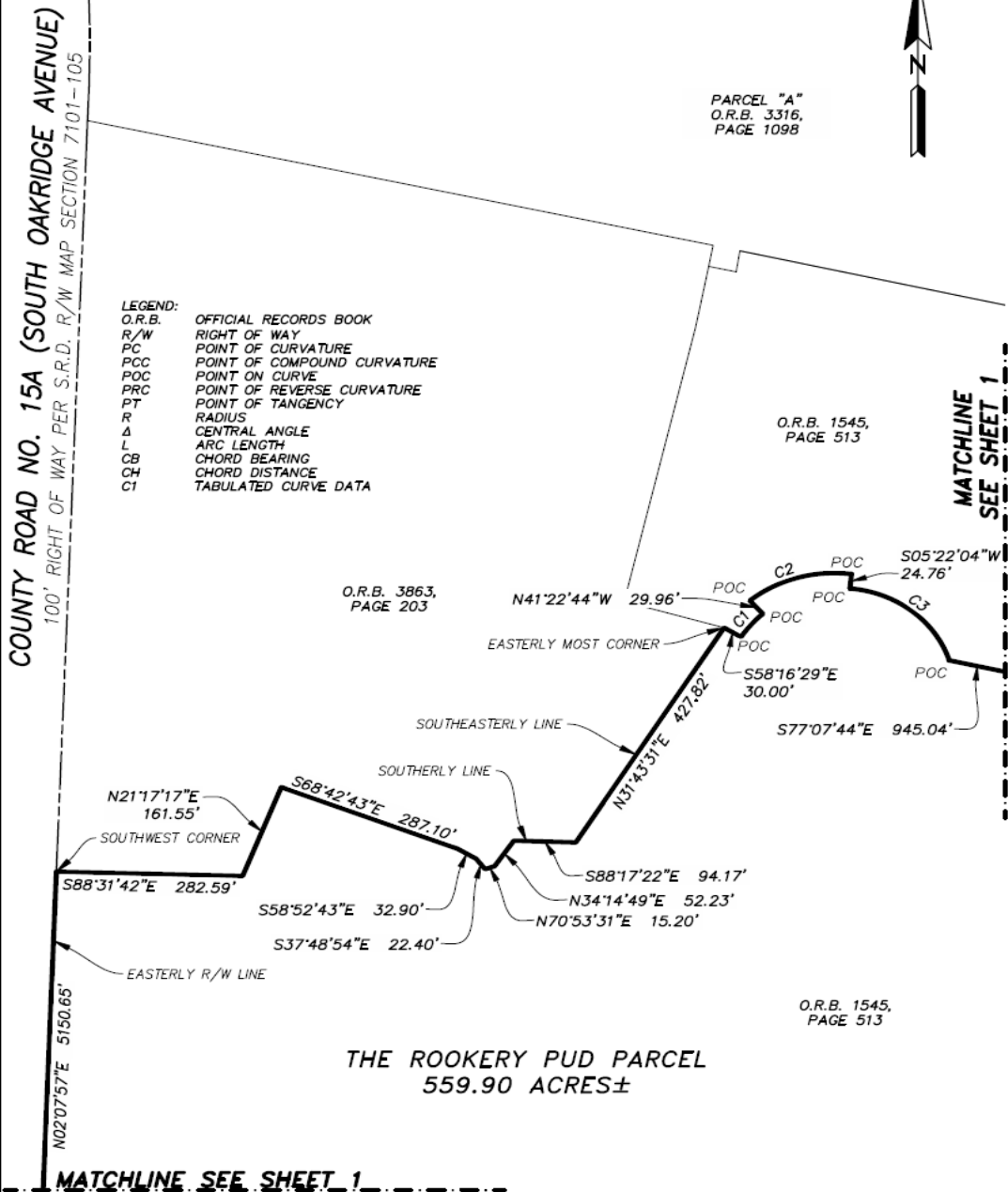
PREPARED BY:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

ORDER NO.: 20-355.06 FILE NO.: 12/H-15.06A DRAWN BY: JMB/BNC CAD FILE: I:\Survey\RM\Apr\Gustafsons\Sketches\Ayrshire PUD Sketch\ROOKERY PUD.dwg



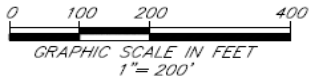
A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.

CURVE TABLE					
CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	175.00'	16°53'45"	51.61'	N40°10'24"E	51.42'
C2	198.38'	47°45'50"	165.38'	N73°41'49"E	160.63'
C3	175.00'	67°09'24"	205.12'	S51°03'13"E	193.58'



- LEGEND:
- O.R.B. OFFICIAL RECORDS BOOK
 - R/W RIGHT OF WAY
 - PC POINT OF CURVATURE
 - PCC POINT OF COMPOUND CURVATURE
 - POC POINT ON CURVE
 - PRC POINT OF REVERSE CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS
 - Δ CENTRAL ANGLE
 - L ARC LENGTH
 - CB CHORD BEARING
 - CH CHORD DISTANCE
 - C1 TABULATED CURVE DATA

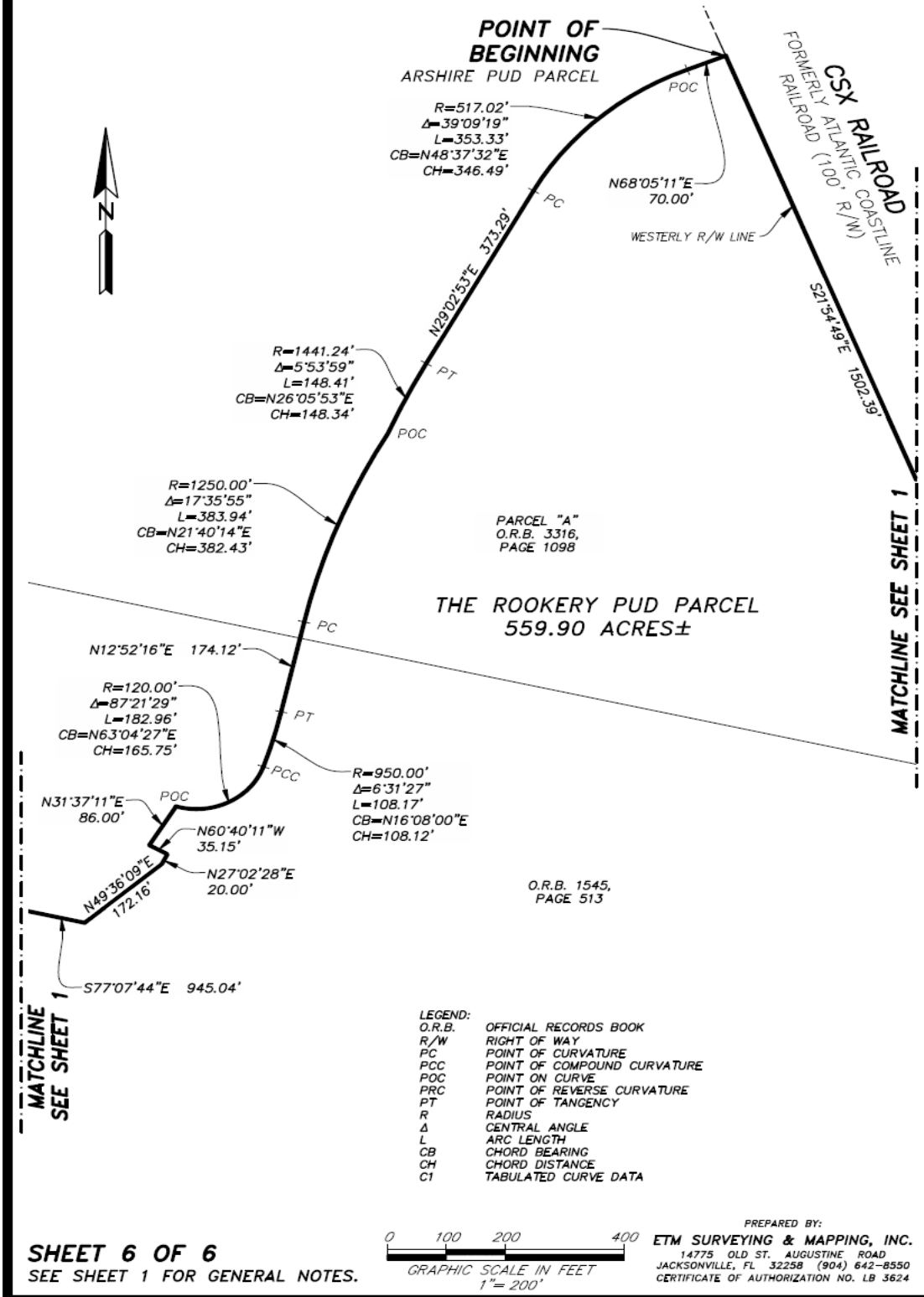
SHEET 5 OF 6
SEE SHEET 1 FOR GENERAL NOTES.



PREPARED BY:
ETM SURVEYING & MAPPING, INC.
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JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

ORDER NO.: 20-355.06 FILE NO.: 127H-15.06A DRAWN BY: JMB/BNC CAD FILE: I:\Survey\RM\Apro\Gustafsons\Sketches\Ayrshire PUD Sketch\ROOKERY PUD.dwg

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, AND A PORTION OF PARCEL "A" AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 3316, PAGE 1098, BOTH OF THE PUBLIC RECORDS OF SAID COUNTY.



ORDER NO.: 20-355.06 FILE NO.: 12/H-15.06A DRAWN BY: JMB/BNC CAD FILE: E:\Survey\RM\Apro\Gustafsons\Sketches\Arshire PUD Sketch\ROOKERY PUD.dwg

EXHIBIT “B”
Conceptual Plan

EXHIBIT "C"

Connector Road Typical Section

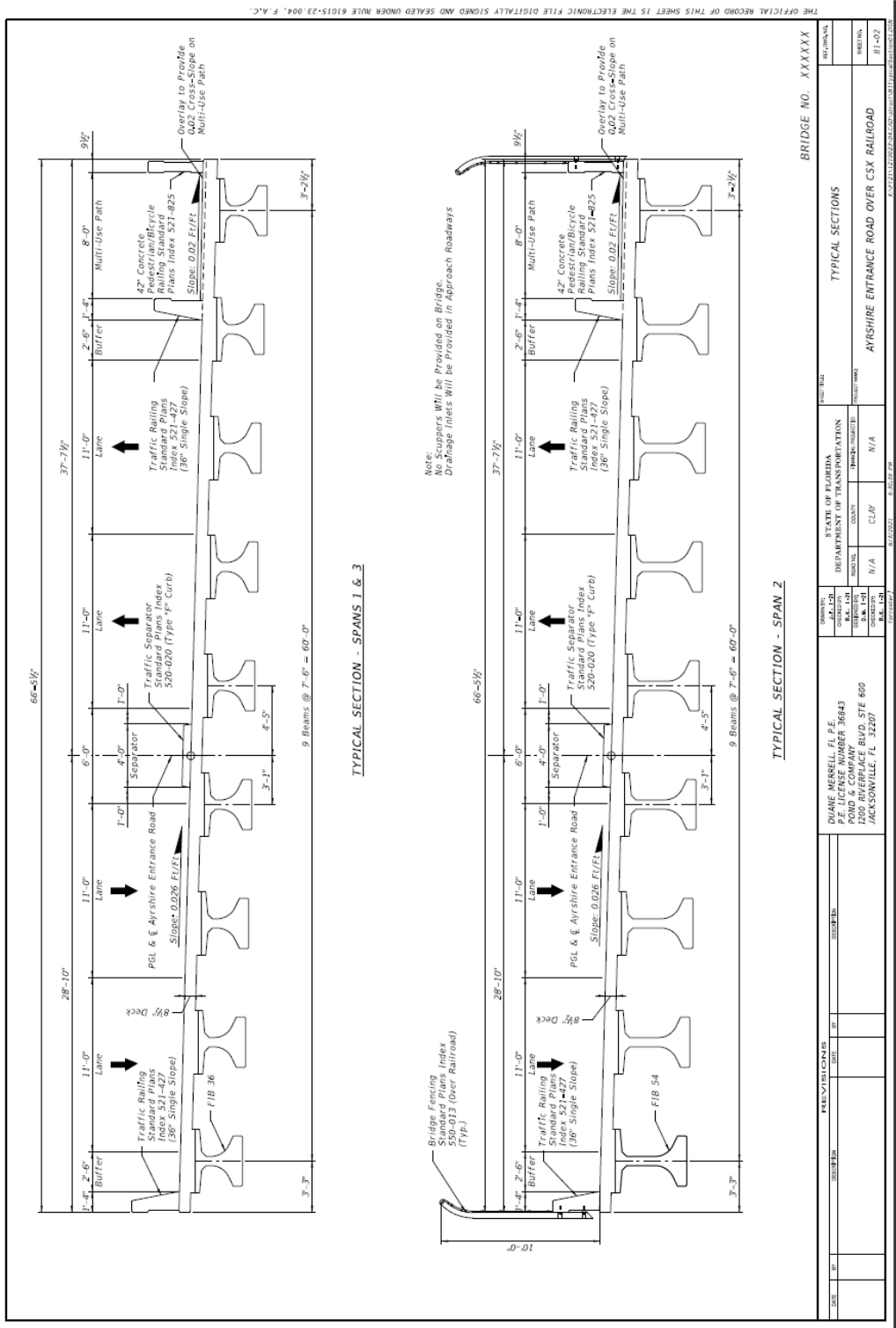
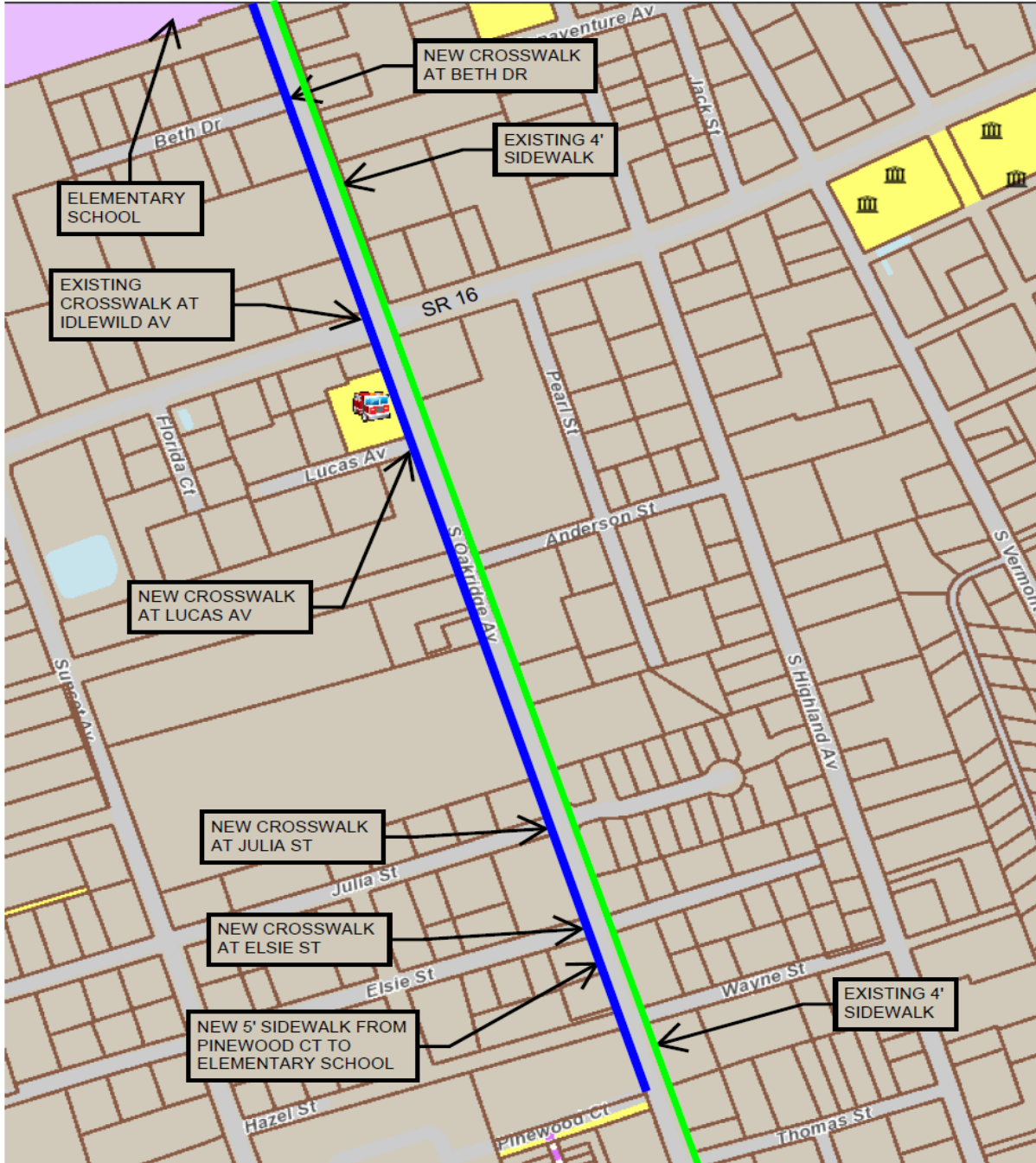


EXHIBIT "D"

Oakridge Avenue Improvements Plan

S. OAKRIDGE AVE. SIDEWALK IMPROVEMENTS



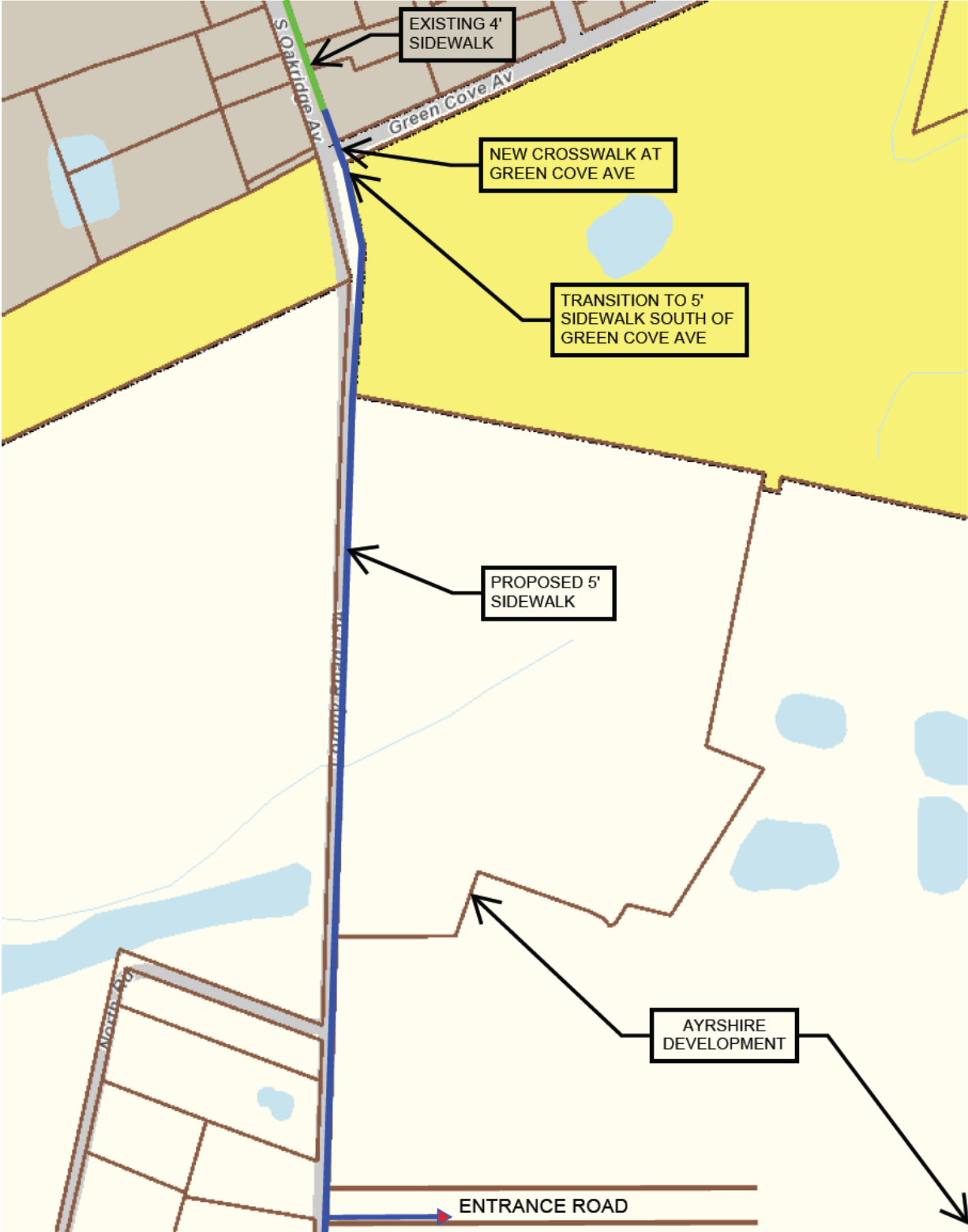


EXHIBIT "E"**Applicant Exchange Parcel**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described and recorded in Official Records Book 1545, page 513, of the Public Records of said county, being more particularly described as follows:

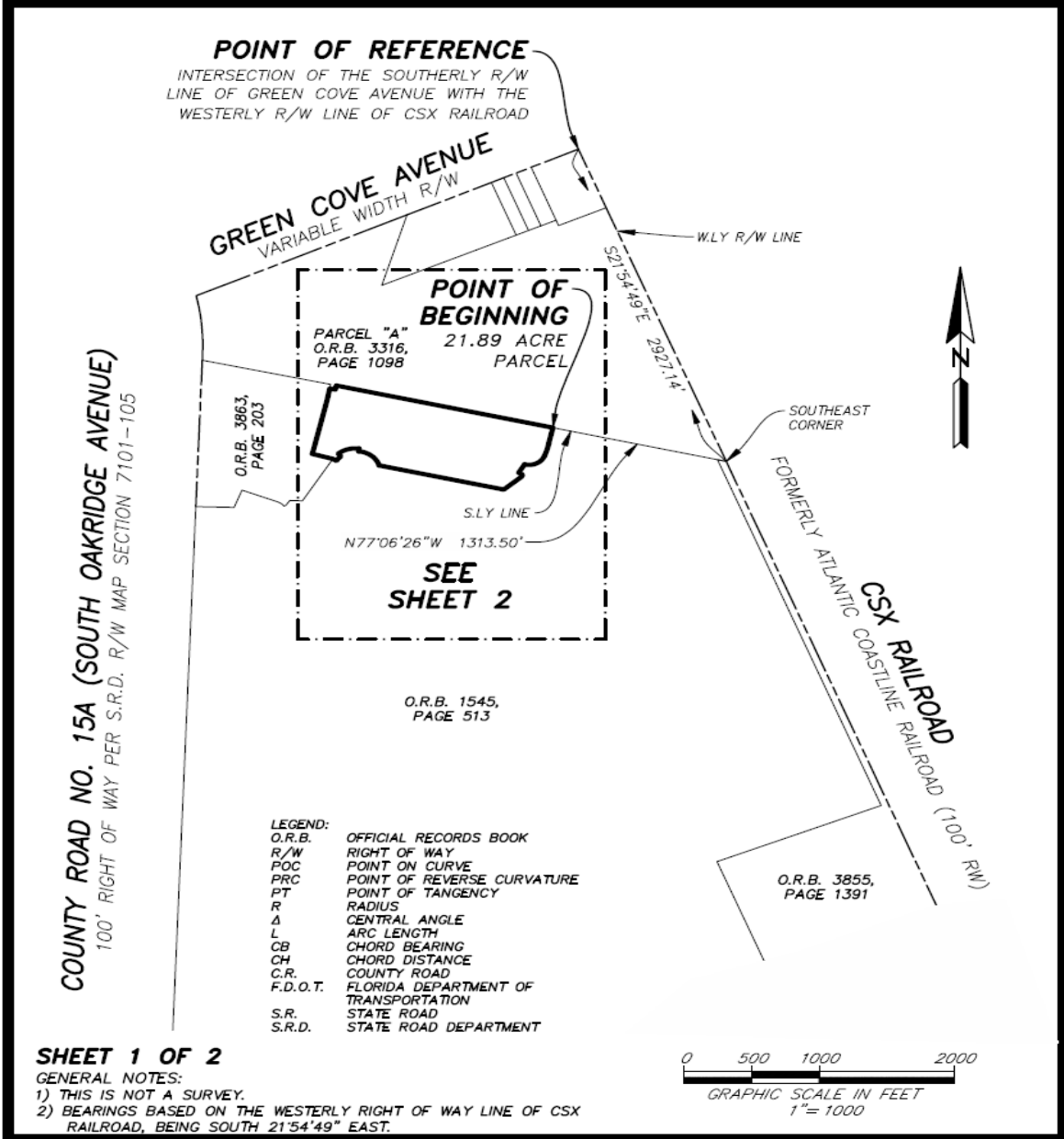
For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South $21^{\circ}54'49''$ East, along said Westerly right of way line, 2927.14 feet to the Southeast corner of those lands described as Parcel "A" and recorded in Official Records Book 3316, page 1098, of said Public Records; thence North $77^{\circ}06'26''$ West, departing said Westerly right of way line and along the Southerly line of said Parcel "A", 1313.50 feet to the Point of Beginning.

From said Point of Beginning, thence South $12^{\circ}52'16''$ West, departing said Southerly line, 142.67 feet to the point of curvature of a curve concave Westerly having a radius of 950.00 feet; thence Southerly along the arc of said curve, through a central angle of $06^{\circ}31'27''$, an arc length of 108.17 feet to a point of compound curvature, said arc being subtended by a chord bearing and distance of South $16^{\circ}08'00''$ West, 108.12 feet; thence Southwesterly along the arc of a curve concave Northwesterly having a radius of 120.00 feet, through a central angle of $87^{\circ}21'29''$, an arc length of 182.96 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $63^{\circ}04'27''$ West, 165.75 feet; thence South $31^{\circ}37'11''$ West, along a non-tangent line, 86.00 feet; thence South $60^{\circ}40'11''$ East, 35.15 feet; thence South $27^{\circ}02'28''$ West, 20.00 feet; thence South $49^{\circ}36'09''$ West, 172.16 feet; thence North $77^{\circ}07'44''$ West, 945.04 feet to a point on a non-tangent curve concave Southwesterly having a radius of 175.00 feet; thence Northwesterly along the arc of said curve, through a central angle of $67^{\circ}09'24''$, an arc length of 205.12 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $51^{\circ}03'13''$ West, 193.58 feet; thence North $05^{\circ}22'04''$ East, along a non-tangent line, 24.76 feet to a point on a non-tangent curve concave Southerly having a radius of 198.38 feet; thence Westerly along the arc of said curve, through a central angle of $47^{\circ}45'50''$, an arc length of 165.38 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $73^{\circ}41'49''$ West, 160.63 feet; thence South $41^{\circ}22'44''$ East, along a non-tangent line, 29.96 feet to a point on a non-tangent curve concave Southeasterly having a radius of 175.00 feet; thence Southwesterly along the arc of said curve, through a central angle of $16^{\circ}53'45''$, an arc length of 51.61 feet to a point on said curve, said arc being subtended by a chord bearing and distance of South $40^{\circ}10'24''$ West, 51.42 feet; thence North $58^{\circ}16'29''$ West, along a non-tangent line, 30.00 feet to a point lying on the Westerly line of those lands described and recorded in Official Records Book 3863, page 203, of said Public Records; thence Westerly and Northerly along said Westerly line the following 3 courses: Course 1, thence North $73^{\circ}46'32''$

West, 158.11 feet; Course 2, thence North $13^{\circ}06'51''$ East, 477.10 feet; Course 3, thence North $10^{\circ}55'57''$ East, 105.79 feet to a point lying on said Southerly line of Parcel "A"; thence Easterly along said Southerly line the following 3 courses: Course 1, thence South $77^{\circ}17'55''$ East, 42.83 feet; Course 2, thence North $08^{\circ}55'45''$ East, 36.14 feet; Course 3, thence South $77^{\circ}06'26''$ East, 1644.39 feet to the Point of Beginning.

Containing 21.89 acres, more or less.

SKETCH TO ACCOMPANY DESCRIPTION OF
A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP
6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF
THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545,
PAGE 513, OF THE PUBLIC RECORDS OF SAID COUNTY,
BEING MORE PARTICULARLY DESCRIBED IN SEPARATE ATTACHMENT.



THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED
 USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS
 DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE
 SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

ETM
Surveying & Mapping, Inc.
VISION • EXPERIENCE • RESULTS

14775 Old St. Augustine Road, Jacksonville, FL. 32258
 Tel: (904) 642-8550 Fax: (904) 642-4165
 Certificate of Authorization No.: LB 3624

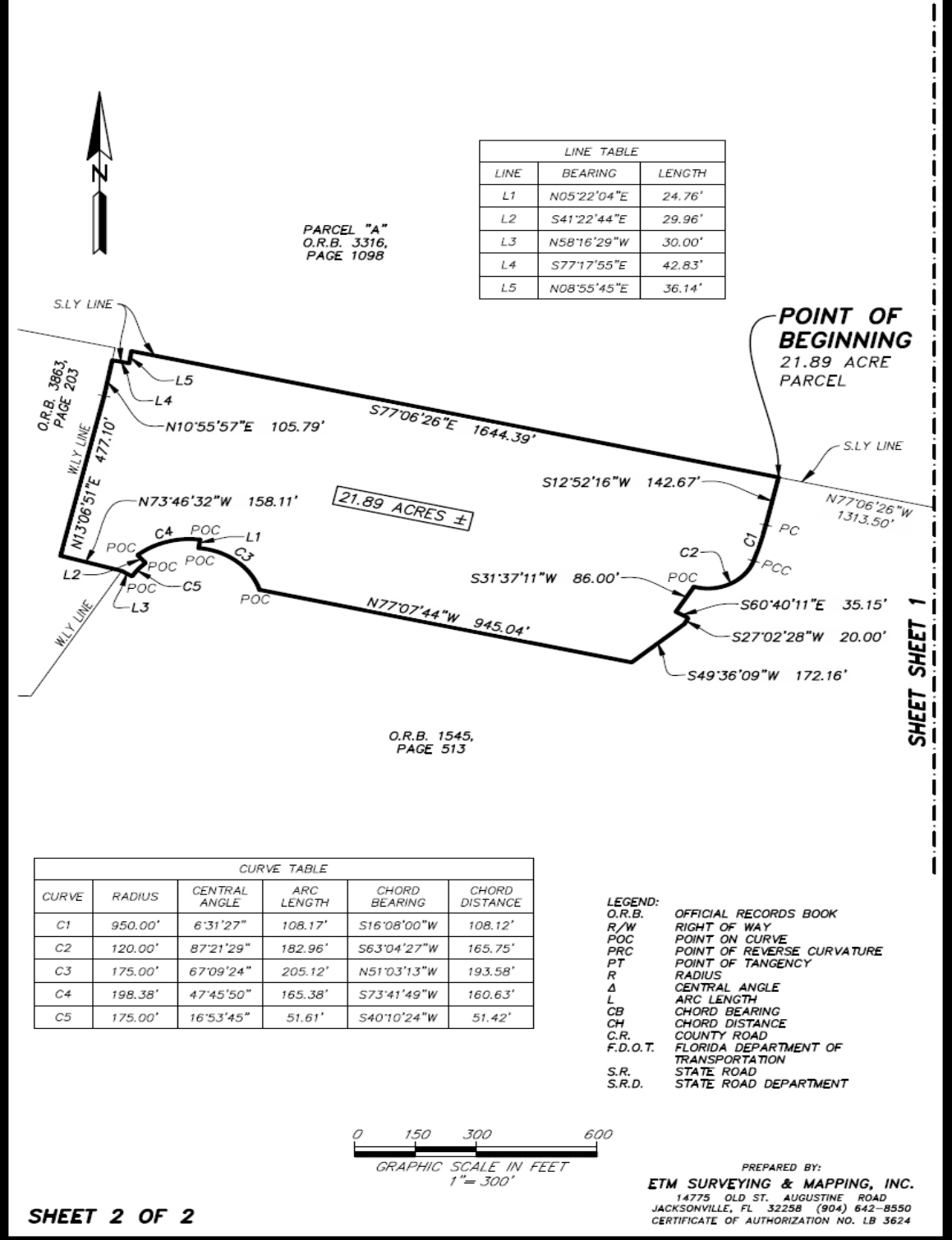
Digital Signature
 by: Bob L.
 Pittman, P.S.M.

BOB L. PITTMAN
 PROFESSIONAL SURVEYOR AND MAPPER
 STATE OF FLORIDA PSM No. 4827

SCALE: 1"=1000'
 DATE: FEBRUARY 14, 2022

ORDER NO.: 20-355.07 FILE NO.: 127H-15.07A DRAWN BY: JMB CAD FILE: I:\Survey\RMAppro\Gustafsons\Sketches\RW LAND SWAP SKETCHES\21.89 ACRE SWAP PARCEL.dwg

A PORTION OF SECTION 38 OF THE GEORGE I.F. CLARKE GRANT, TOWNSHIP 6 SOUTH, RANGE 26 EAST, CLAY COUNTY, FLORIDA, BEING A PORTION OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1545, PAGE 513, OF THE PUBLIC RECORDS OF SAID COUNTY,



LINE TABLE		
LINE	BEARING	LENGTH
L1	N05°22'04"E	24.76'
L2	S41°22'44"E	29.96'
L3	N58°16'29"W	30.00'
L4	S77°17'55"E	42.83'
L5	N08°55'45"E	36.14'

PARCEL "A"
O.R.B. 3316,
PAGE 1098

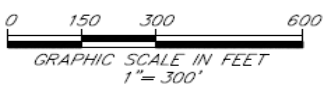
POINT OF BEGINNING
21.89 ACRE
PARCEL

21.89 ACRES ±

O.R.B. 1545,
PAGE 513

CURVE TABLE					
CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	950.00'	6°31'27"	108.17'	S16°08'00"W	108.12'
C2	120.00'	87°21'29"	182.96'	S63°04'27"W	165.75'
C3	175.00'	67°09'24"	205.12'	N51°03'13"W	193.58'
C4	198.38'	47°45'50"	165.38'	S73°41'49"W	160.63'
C5	175.00'	16°53'45"	51.61'	S40°10'24"W	51.42'

- LEGEND:
- O.R.B. OFFICIAL RECORDS BOOK
 - R/W RIGHT OF WAY
 - POC POINT ON CURVE
 - PRC POINT OF REVERSE CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS
 - Δ CENTRAL ANGLE
 - L ARC LENGTH
 - CB CHORD BEARING
 - CH CHORD DISTANCE
 - C.R. COUNTY ROAD
 - F.D.O.T. FLORIDA DEPARTMENT OF TRANSPORTATION
 - S.R. STATE ROAD
 - S.R.D. STATE ROAD DEPARTMENT



SHEET 2 OF 2

PREPARED BY:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE ROAD
JACKSONVILLE, FL 32258 (904) 642-8550
CERTIFICATE OF AUTHORIZATION NO. LB 3624

ORDER NO.: 20-355.07 FILE NO.: 127H-15.07A DRAWN BY: JMB CAD FILE: I:\Survey\RM\proj\Outstations\Sketches\RW LAND SWAP SKETCHES\21.89 ACRE SWAP PARCEL.dwg

EXHIBIT "F"**City Exchange Parcel**

A portion of Section 38 of the George I.F. Clarke Grant, Township 6 South, Range 26 East, Clay County, Florida, being a portion of those lands described as Parcel "A" and recorded in Official Records Book 3316, page 1098, of the Public Records of said county, being more particularly described as follows:

For a Point of Reference, commence at the intersection of the Southerly right of way line of Green Cove Avenue, a variable width right of way as presently established, with the Westerly right of way line of CSX Railroad, a 100 foot right of way as presently established; thence South $21^{\circ}54'49''$ East, along said Westerly right of way line, 1424.74 feet to the Point of Beginning.

From said Point of Beginning, thence continue South $21^{\circ}54'49''$ East, along said Westerly right of way line, 1502.39 feet to the Northeast corner of those lands described and recorded in Official Records Book 3855, page 1391, of said Public Records; thence North $77^{\circ}06'26''$ West, departing said Westerly right of way line and along the Northerly line of last said lands and along the Southerly line of said Parcel "A", 1313.50 feet; thence North $12^{\circ}52'16''$ East, departing said Southerly line, 31.45 feet to the point of curvature of a curve concave Easterly having a radius of 1250.00 feet; thence Northerly along the arc of said curve, through a central angle of $17^{\circ}35'55''$, an arc length of 383.94 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $21^{\circ}40'14''$ East, 382.43 feet; thence Northeasterly along the arc of a non-tangent curve concave Southeasterly having a radius of 1441.24 feet, through a central angle of $05^{\circ}53'59''$, an arc length of 148.41 feet to the point of tangency of said curve, said arc being subtended by a chord bearing and distance of North $26^{\circ}05'53''$ East, 148.34 feet; thence North $29^{\circ}02'53''$ East, 373.29 feet to the point of curvature of a curve concave Southeasterly having a radius of 517.02 feet; thence Northeasterly along the arc of said curve, through a central angle of $39^{\circ}09'19''$, an arc length of 353.33 feet to a point on said curve, said arc being subtended by a chord bearing and distance of North $48^{\circ}37'32''$ East, 346.49 feet; thence North $68^{\circ}05'11''$ East, along a non-tangent line, 70.00 feet to the Point of Beginning.

Containing 21.30 acres, more or less.

LEGEND

- [Symbol] = WETLANDS
- [Symbol] = UPLAND BUFFER
- [Symbol] = WETLAND IMPACT
- [Symbol] = RECREATION
- [Symbol] = GENERAL ENTRY SIGNAGE LOCATION
- [Symbol] = OPEN SPACE

SITE SUMMARY

1. OWNER: GUSTAFSON'S CATTLE, INC. P.O. BOX 600337 JACKSONVILLE, FL. 32260
2. DEVELOPER: D.R. HORTON, INC. - JACKSONVILLE 4220 RACE TRACK ROAD ST. JOHNS, FL 32259
3. ENGINEER: DUNN & ASSOCIATES, INC. 8647 BAYPINE ROAD, SUITE 200 JACKSONVILLE, FL. 32256 PH: (904)363-8916 FA: (904)363-8917
4. SURVEYOR: ETM SURVEYING & MAPPING, INC. 14775 OLD ST. AUGUSTINE RD, JACKSONVILLE, FL. 32258 PH: (904) 642-8550
5. EXISTING/PROPOSED ZONING: EXISTING PUD & REC PROPOSED PUD
6. TOTAL SITE AREA SUMMARY: MINIMUM LOT SIZES = 43' x 100'
- MINIMUM SQUARE FOOTAGE = 4,300 SF
- MINIMUM LOT WIDTH = 43'
- FRONT SETBACK (FACE OF GARAGE) = 20'
- (FACADE OF HOME) = 15'
- SECOND FRONT (CORNER LOTS) = 10'
- SIDE SETBACK (43' LOTS) = 6.5'
- (WIDER LOTS) = 5'
- REAR SETBACK = 10'
- MAX HEIGHT OF STRUCTURES = 35'
7. FOR CORNER LOTS THE MIN. LOT WIDTH SHALL BE INCREASED BY 5'.
8. MIN. FRONTAGE OF EACH LOT SHALL BE 80% OF ITS REQUIRED LOT WIDTH PROVIDED, HOWEVER THAT THE LOT FRONTAGE MAY BE REDUCED TO 25' ON CUL-DE-SACS AND CURVES.
9. WATER SUPPLY: =CCUA
10. SEWER SERVICE: =CCUA
11. ELECTRICAL SERVICE: =CITY OF GREEN COVE
12. STORM WATER SYSTEM: WET DETENTION PONDS
13. FIRE PROTECTION: AS REQUIRED VIA HYDRANTS
14. SIGNAGE: TYPE, LOCATION AND DIMENSIONS TO BE IN ACCORDANCE WITH P.U.D.
15. SIDEWALKS: SHALL BE 5' WIDE ON ONE SIDE OF ALL INTERNAL ROADWAYS AND AN 8' MULTI-PURPOSE PATH FROM SR 17 TO CR 15A.

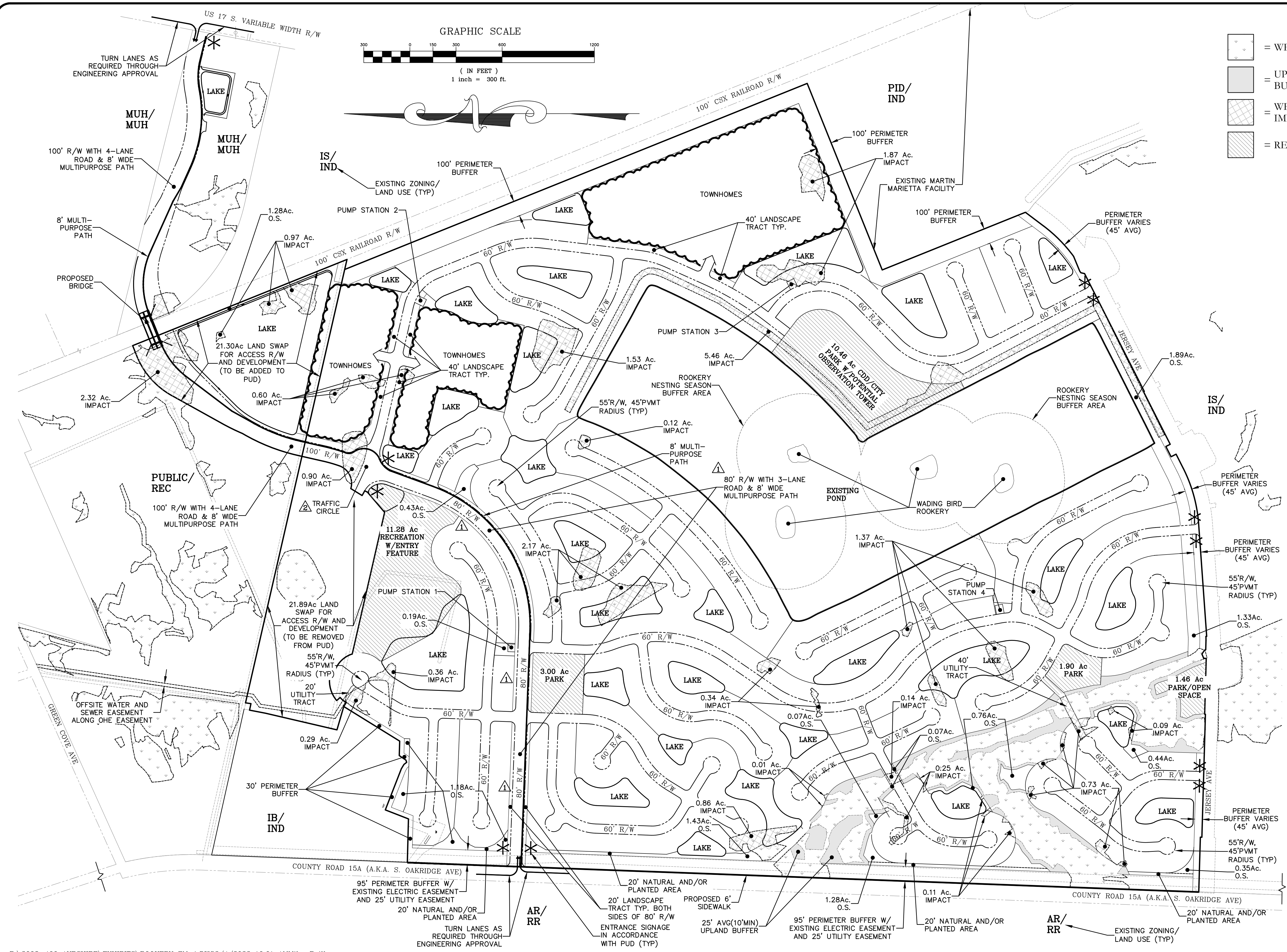
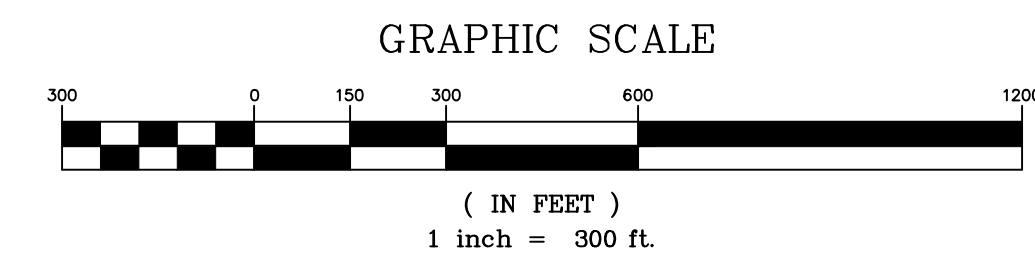
SITE DATA

TOTAL GROSS ACREAGE (POST SWAP)	= 559.90 Ac.
NUMBER OF RESIDENTIAL LOTS	= 2,100 D.U. MAX.
DENSITY	= 3.75 LOTS/ACRE
MAXIMUM COVERAGE OF BLDGS & STRUCTURES	= 60% OF LOT
WETLANDS	= 40.22 ±Ac.
WETLAND IMPACTS	= 20.49 ±Ac.
REMAINING UPLANDS	= 540.17 ±Ac.
EXIST POND	= 86.59 ±Ac.
LAKES	= 59.56 ±Ac.
PUBLIC R/W	= 82.00 ±Ac.
PERIMETER BUFFER	= 27.08 ±Ac.
PARK & RECREATION	= 28.10 ±Ac.
UPLAND BUFFER	= 7.02 ±Ac.
OPEN SPACE	= 10.80 ±Ac.
LANDSCAPE TRACT	= 6.01 ±Ac.

FLOOD ZONE

DEVELOPED AREA LOCATED WITHIN FLOOD ZONE "X" & "A" PER FEMA MAP NO.'S 12019C0277E, 12019C0280E, 12019C0281E & 12019C0283E, DATED MAR 17, 2014. (NO BASE FLOOD ELEVATION ESTABLISHED PER FEMA).

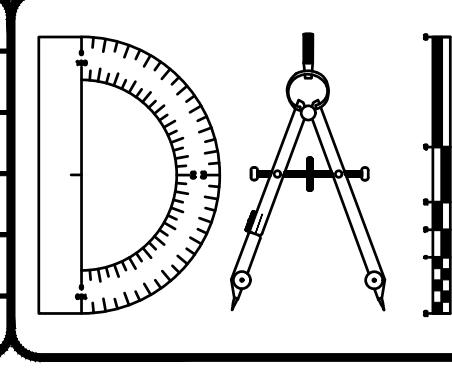
NOTE: THIS PLAN IS CONCEPTUAL IN NATURE. LOT LINES, LOT SIZES, ROADWAY NETWORK, RIGHT-OF-WAYS, STORM WATER PONDS AND SIGNAGE MAY BE ADJUSTED FOR ENGINEERING, GEOMETRY AND ANY GOVERNMENTAL AGENCY REQUIREMENTS AND AS SITE PLANNING REQUIRES.



P:\2008-499 AYRSHIRE\EXHIBITS\ROOKERY ZM-1.DWG/4/2022 10:01 AM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	8-4-21	LABEL 80' R/W WITH 3 LANE RD	VJD
2	9-22-21	REVISED ROUNDABOUT ARRANGEMENT & PROPERTY ACCESS	GRW
3	1-27-22	REV. LAND SWAP PARCEL AND SITE PLAN	VJD
4	3-3-22	INCREASE LAND SWAP PARCEL TO 21.89Ac. & REV. SITE PLAN TO SURVEYED WETLANDS	VJD

DESIGNED BY: DAI
 DRAWN BY: MR
 CHECKED BY: VJD
 SCALE: 1" = 300'
 DATE: March 4, 2022
 PROJ. NO.: 2008-499



Dunn & Associates, Inc.
 CIVIL ENGINEERS / LAND PLANNERS
 8647 Baypine Road, Suite 200
 Jacksonville, Florida 32256
 Phone: (904)363-8916 Fax: (904)363-8917
 www.dunneng.com

THE ROOKERY
 FOR:
D.R. HORTON INC. - JACKSONVILLE
 GREEN COVE SPRINGS, FLORIDA
 ZONING MAP

Sheet No. **1** of **1**
ZM-1
 DWG. NO.

VINCENT J. DUNN ENGINEER NO. 39452
 DAVID M. TAYLOR ENGINEER NO. 44184
 GLEN R. WIEGER ENGINEER NO. 81419
 CERTIFICATE OF AUTHORIZATION NO. 27168

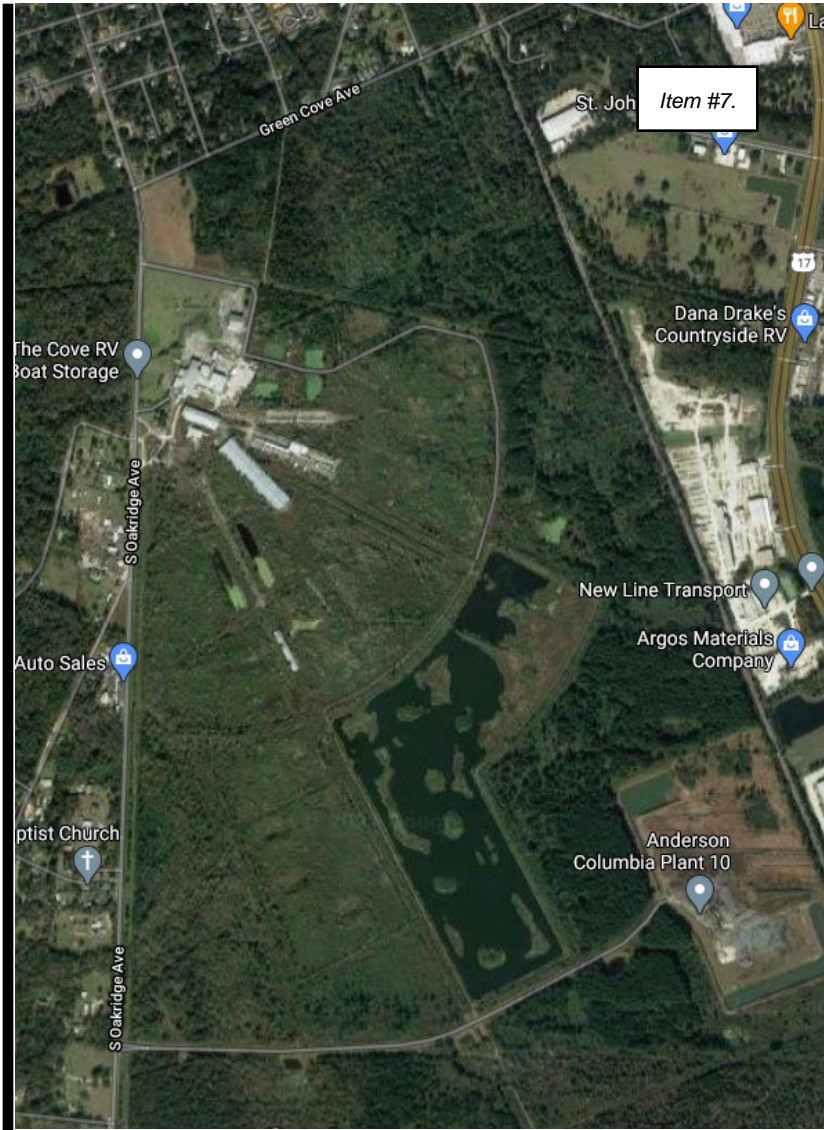
Prepared for:



&



City of
Green Cove Springs
FLORIDA



Ayrshire PUD

Traffic Impact Study

City of Green Cove Springs, Florida

Prepared By:



Chindalur Traffic Solutions, Inc.
8833 Perimeter Park Boulevard, Suite 103
Jacksonville, FL 32216
904.619.3368 | www.ctrfficsolutions.com

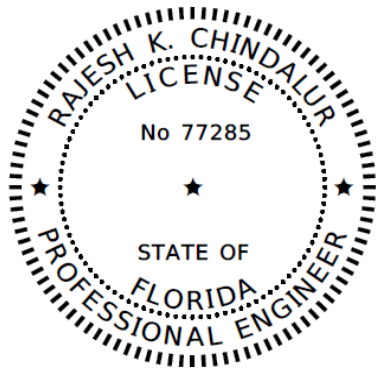
Project #: 1001-200-026
Date: Revised 02/28/2022

PROFESSIONAL ENGINEER CERTIFICATE

I, Rajesh Ramn K. Chindalur, PE #77285, certify that I currently hold an active license in the state of Florida and am competent through education or experience to provide engineering services in the civil discipline contained in this plan, print, specification, or report.

PROJECT:	Ayrshire PUD – Traffic Study
LOCATION:	City of Green Cove Springs, Florida
CLIENT:	DR. Horton, Inc.

I further certify that this plan, print, specification, or report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. Moreover, if offered by a corporation, partnership, or through a fictitious name, I certify that the company offering the engineering services, Chindalur Traffic Solutions, Inc., 8833 Perimeter Park Boulevard, Suite 103, Jacksonville, Florida 32216, holds an active certificate of authorization #30806 to provide engineering service.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Rajesh Ramn K Chindalur
2022.02.28 21:01:16 -05'00'

ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VIRIFIED ON ANY ELECTRONIC COPIES.

*CHINDALUR TRAFFIC SOLUTIONS, INC.
8833 PERIMETER PARK BOULEVARD, SUITE 103
JACKSONVILLE, FL 32216
CERTIFICATE OF AUTHORIZATION #30806
RAJESH RAMN K. CHINDALUR, P.E. NO. 77285*

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THIS DOCUMENT IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

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Attachments

Attachment	A	Site Plan (Dunn and Associates, Inc.)
Attachment	B	Traffic Counts Data and Season Factors
Attachment	C	Historical AADT and Trends Analysis
Attachment	D	Planned and Programmed Improvements
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Attachment	H8	Year 2030 (Analysis Phase 03) Build-Out Conditions - HCM Worksheets
Attachment	H9	Year 2035 (Analysis Phase 04) Build-Out Conditions - HCM Worksheets

Introduction

This traffic impact study (TIS) was performed in support of the proposed Ayrshire PUD rezoning application. The proposed development is anticipated to include a maximum of 2,100 residential dwelling units (1,470 single-family and 630 Multi-family Townhomes). Access to the proposed development is anticipated to be provided via three access points: (1) a roadway (bridge over the CSX railroad) connecting to US 17; (2) a new roadway access on CR 15A (Oak Ridge Avenue), and via (3) existing Jersey Avenue.

For the purpose of this traffic study, the analysis was performed under four (4) analysis phases:

- Year 2025 (Analysis Phase 01) assumed 231 single-family dwelling units with access via a roadway on Oak Ridge Avenue.
- Year 2027 (Analysis Phase 02) assumed 500 single-family dwelling units (cumulative) with access via a roadway on Oak Ridge Avenue and a four-lane bridge from the project northern entrance to US 17 across from Hall Park Road.
- Year 2030 (Analysis Phase 03) assumed 1,000 single-family dwelling units (cumulative).
- Year 2035 (Analysis Phase 04) assumed 2,100 residential dwelling units that includes 1,470 single-family and 630 Multi-family Townhomes (cumulative). A third project access via existing Jersey Avenue was also assumed for this analysis phase.

Figure 01 shows the project location. A copy of the Generalized Site Plan (GSP) provided by Dunn and Associates, Inc. is included as **Attachment A**. The methodology used in this study is consistent with the methodology discussed with the City’s Planning and Zoning Director on October 29th, 2020.

Trip Generation

Trip generation for the proposed project was estimated using the equation provided in the *Trip Generation Manual*, 11th Edition published by Institute of Transportation Engineers (ITE). The proposed development is anticipated to include a maximum of 2,100 residential dwelling units (1,470 single-family and 630 Multi-family Townhomes). However, for the purpose of this analysis, all 2,100 residential dwelling units were considered single-family detached units. **Table 01** summarizes the Daily, AM peak and PM peak hour trip generation for the proposed residential development under each of the development phases.

- Year 2025 (Analysis Phase 01) development is anticipated to generate 2,215 daily trips that include 162 AM peak and 222 PM peak trips.
- Year 2027 (Analysis Phase 02) development is anticipated to generate 4,436 daily trips (cumulative) that include 322 AM peak and 451 PM peak trips
- Year 2030 (Analysis Phase 03) development is anticipated to generate 8,393 daily trips (cumulative) that include 606 AM peak and 865 PM peak trips
- Year 2035 (Analysis Phase 04) development is anticipated to generate 16,609 daily trips (cumulative) that include 1,189 AM peak and 1,738 PM peak trips

Study Area, Existing Conditions and Data Collection

As discussed with the City’s Planning and Zoning Director and the City of Green Cove Springs traffic study guidelines, the study area includes the following intersections:

- SR 16 W at Oak Ridge Avenue
- SR 16 W / Ferris Ave. at US 17
- SR 16 E / Cooks Ln. at US 17
- Oak Ridge Avenue at Green Cove Avenue
- US 17 at Oak Ridge Avenue
- US 17 at Pearce Boulevard/Hall Park Road (Project Access Intersection)
- Oak Ridge Avenue at Pearce Boulevard (Project Access Intersection)
- Oak Ridge Avenue at Jersey Avenue (Project Access Intersection)

Figures 02 and **03** show the existing conditions at the above stated intersections. AM peak (7:00 AM to 9:00 AM) and PM peak (4:00 PM to 6:00 PM) period turning movement counts that includes autos, heavy vehicles, bicycles and pedestrians were obtained at the above stated intersections on April 22, 2021. These counts were further adjusted by applying a season factor of 0.94 to adjust for seasonal variations. The year 2019 season factor was used as the year 2020 season factors are anticipated to be not accurate due to the COVID 19 Pandemic. The season factors were obtained from the FDOT traffic counts online portal. **Attachment B** includes the traffic counts and season factors data. **Figure 04** includes AM peak and PM peak hour turning movements at the study intersections.

Future Background Traffic Volumes

Future year traffic projections were made by applying a growth factor to existing traffic volumes. The growth factor was estimated by performing trends analysis of the historical AADT of the roadway segments within the study area. The historical AADT was obtained from the FDOT traffic counts online portal. **Table 02** summarizes the growth rate calculations. An average growth rate of 3.754% per year was applied to the existing traffic volumes to determine year 2025 Phase 01 and year 2027 Phase 02 background traffic volumes. Additionally, a growth rate of 1.0% per year was further applied to year 2027 background traffic volumes to determine the year 2030 Phase 03 and year 2035 Phase 04 background traffic volumes.

- The future year 2025 traffic volumes at the study intersections were estimated by applying a growth factor of 1.16 (3.754% per year for 4 years) to the year 2021 traffic volumes.
- The future year 2027 traffic volumes at the study intersection were estimated by applying a growth factor of 1.25 (3.754% per year for 9 years) to the year 2021 traffic volumes.
- The future year 2030 traffic volumes at the study intersection were estimated by applying a growth factor of 1.29 (3.754% per year for 9 years and 1% per year for 2 years) to the year 2021 traffic volumes.
- The future year 2035 traffic volumes at the study intersection were estimated by applying a growth factor of 1.35 (3.754% per year for 9 years and 1% per year for 7 years) to the year 2021 traffic volumes.

Attachment C includes the historical AADT and Trends Analysis plots. **Figures 05, 06, 07** and **08** show year 2025, year 2027, year 2030 and year 2035 future conditions background traffic volumes at the study intersections respectively.

Planned and Programmed Improvements

All the planned and programmed improvements within the transportation study area identified from the FDOT Five (5) year work program, FDOT Long Range Plan and Clay County Capital Improvement Plan document were included in the model and the segment analysis. The following planned and programmed improvements were included in the analysis. Details of these projects are included in **Attachment D**.

- First Coast Expressway: I-10 to N. Of Argyle Forest Boulevard
- First Coast Expressway: N. of Argyle Forest Boulevard to Blanding Boulevard (SR 21)
- First Coast Expressway: Blanding Boulevard (SR 21) to North of SR 16
- First Coast Expressway: North of SR 16 to East of CR 209
- First Coast Expressway (New St. Johns River Bridge): SR 16 to CR 16A (St. Johns County) by year 2027
- First Coast Expressway (St. Johns County): CR 16A to I-95
- CR 209: Peters Creek Bridge to US 17 – Widen from 2 to 4 lanes by year 2024
- CR 209: Sandridge Road to Peters Creek Bridge – Widen from 2 to 3 lanes by year 2024
- Sandridge Road: Henley Road to CR 209 – Widen from 2 to 3 lanes by year 2024
- First Coast Connector: SR 23 to CR 315 and Maryland Avenue – New 2-lane Roadway by year 2024
- First Coast Connector: CR 315 and Maryland Avenue to US 17 – Widen from 2 to 4 lanes by year 2024

Trip Distribution and Assignment

Trip distribution for year 2025 (Analysis Phase 01) and year 2027 (Analysis Phase 02) development was determined based on existing traffic patterns (traffic entering and the exiting the City of Green Cove Springs). **Figures 09** and **10** show year 2025 and year 2027 project traffic distribution and peak hour traffic assignment at the study intersections. Following is a summary of the project traffic distribution under the year 2025 and year 2027 development conditions:

- 15% oriented to the west of SR 16 West
- 5% oriented to the south on US 17
- 35% oriented to the north on US 17
- 45% oriented to the east on SR 16E

Upon construction of the First Coast Expressway and other Clay County proposed roadway projects, the traffic patterns in the area are anticipated to change. Hence, trip distribution for year 2030 (Analysis Phase 03) and year 2035 (Analysis Phase 04) development conditions was obtained from the interim year 2030 model set of the Northeast Regional Planning Activity Based Model (NERPM_AB3v1) travel demand forecasting model, provided by the North Florida Transportation Planning Organization (NFTPO). **Figures 11** and **12** show year 2030 and year 2035 project traffic distribution and peak hour traffic assignment at the study intersections. Following is a summary of the project traffic distribution percentages in the vicinity of the proposed project under year 2030 and year 2035 development conditions:

- 35% to the north on US 17 towards Duval County
- 10% to the east on SR 16E (Shands Bridge) towards St. Johns County
- 10% to the west on SR 16W
- 5% to the west via US 17 South and First Coast Expressway to the west
- 35% to the east via US 17 South and First Coast Expressway towards St. Johns County
- 5% to the south on US17

Attachment E includes the travel demand model plots showing the project traffic distributions (unadjusted distributions). **Attachment F** includes a figure depicting the adjusted project traffic distribution percentages in the vicinity of the proposed development under each of the project development phases.

Build-Out Traffic Volumes

Build-out traffic volumes include the future background traffic volumes and the project traffic assignment under each phase for year 2025, 2027, 2030 and 2035 development conditions respectively. **Figures 13, 14, 15** and **16** show the year 2025, year 2027, year 2030 and year 2035 development conditions respectively.

Intersection Capacity Analysis

Intersection capacity analysis of the study intersections was performed during the AM peak and PM peak periods under the existing, future background and build-out conditions using Synchro 10 software. This software uses HCM 6 procedures and methodologies in calculating LOS and delay at signalized and un-signalized intersections. Existing signal timing and phasing information for the signalized study intersections were obtained from Florida Department of Transportation Traffic Operations Department. A copy of these signal timing and phasing details are included in **Attachment G**.

Existing Conditions: **Tables 03** and **04** summarizes the existing conditions intersection capacity analysis Delay and LOS summary during the AM peak and PM peak conditions. As shown in these tables, all the critical approaches at all the study intersections are currently operating at LOS E or better, except for SR 16W/Ferris Street at US 17 intersection. The northbound approach on US 17 is currently operating at LOS F during the PM peak hour.

Background Conditions: **Tables 04** through **11** summarize the future year 2025, year 2027, year 2030 and year 2035 background traffic conditions intersection capacity analysis Delay and LOS summary during the AM peak and PM peak conditions. As summarized in these tables, all the critical approaches at the study intersections are anticipated to operate at **LOS E** or **better**, except for the following:

Year 2025 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2025 AM peak
- The northbound approach on US 17 at SR 16W/Ferris Street intersection during year 2025 PM peak

Year 2027 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2027 AM peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2027 PM peak

Year 2030 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2030 PM peak
- The westbound and northbound approaches at US 17 and SR 16E/Cooks Lane intersection during year 2030 PM peak
- The westbound approach on Hall Park Road at US 17 during year 2030 AM peak

Note: Under the year 2030 background conditions, 50% of the traffic to and from SR 16E was re-assigned as southbound through and northbound through traffic at US 17 and SR 16E/Cooks Lane intersection.

Year 2035 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2035 AM peak
- The westbound approach on SR 16 at Oak Ridge Avenue during year 2035 PM peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2035 PM peak
- The westbound and northbound approaches at US 17 and SR 16E/Cooks Lane intersection during year 2035 PM peak
- The westbound approach on Hall Park Road at US 17 during year 2035 AM peak

Note: Under the year 2035 background conditions, 50% of the traffic to and from SR 16E was re-assigned as southbound through and northbound through traffic at US 17 and SR 16E/Cooks Lane intersection.

Build-Out Conditions: All the signal timing/phasing and splits were optimized under each of the four (4) project development build-out conditions. **Tables 12 through 19** summarize the future year 2025 Phase 01, year 2027 Phase 02, year 2030 Phase 03 and year 2035 Phase 04 development build-out traffic conditions intersection capacity analysis Delay and LOS summary during the AM peak and PM peak conditions. A four-lane bridge connecting the proposed development and US 17 will be built by year 2027 development conditions. Upon construction, the intersection of US 17 and Pearce Boulevard is anticipated to require a traffic signal. Since US 17 is a FDOT roadway, the intersection is subject to FDOT's Intersection Control Evaluation (ICE) review and approval process. The ICE process is anticipated to result in either a traditional traffic signal or a Signalized R-Cut or a Signalized Median U-turn intersection control. However, for the purpose of this analysis a traditional traffic signal is assumed under the year 2027 Phase 02, year 2030 Phase 03 and year 2035 Phase 04 development conditions.

As summarized in these tables, all the critical approaches at the study intersections are anticipated to operate at **LOS E** or **better** except for the following:

Year 2027 Phase 02 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak

Year 2030 Phase 03 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak
- The southbound approach on US 17 at SR 16W/Ferris Street intersection during year 2030 PM peak

Year 2035 Phase 04 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM Peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2035 PM peak

However, upon construction of the First Coast Expressway and other Clay County programmed roadway projects, traffic volumes at both SR 16 intersections on US 17 are anticipated to reduce and the Delay and LOS are anticipated to **improve**. Additionally, due to the change in traffic patterns, FDOT is anticipated to re-time the traffic signals at these two intersections which will result in **improved** operational conditions.

A copy of the HCM worksheets under the existing, future background and build-out conditions are included as **Attachment H**.

Access Intersections and Turn Lanes Evaluation

US 17 and Pearce Boulevard: As stated in the previous section a four-lane bridge connecting the proposed development and US 17 will be built by year 2027 development conditions. Upon construction, the intersection of US 17 and Pearce Boulevard is anticipated to require a traffic signal. Since US 17 is a FDOT roadway, the intersection is subject to FDOT's Intersection Control Evaluation (ICE) review and approval process. The ICE process is anticipated to result in either a traditional traffic signal or a Signalized R-Cut or a Signalized Median U-turn intersection control. However, for the purpose of this analysis a traditional traffic signal is assumed under the year 2027, 2030 and 2035 development conditions. As summarized in the above-mentioned tables, the intersection is anticipated to operate at LOS D or better under the build-out conditions of the proposed development. This intersection will be designed and constructed based on the outcome of the FDOT ICE analysis. In addition to the traffic signal, appropriate auxiliary turn lanes will be constructed on US 17 at Pearce Boulevard intersection.

Oak Ridge Avenue at Pearce Boulevard: **Figure 17** summarizes the southbound left turn lane evaluation on Oak Ridge Avenue at Pearce Boulevard intersection under the year 2035 build-out conditions of the proposed development. As shown in this figure, a southbound left turn lane on Oak Ridge Avenue at Pearce Boulevard is anticipated to be warranted under the build-out conditions of the proposed development. The required deceleration length for 50-mph design

speed is 290-feet (including 50-foot taper) for rural roadways. A storage length of 100-feet (4 vehicles) should be provided. Hence, a 390-feet (including 50-foot taper) southbound left turn lane is recommended on Oak Ridge Avenue at Pearce Boulevard. Separate left and right turn lanes (Westbound) are recommended on Pearce Boulevard at Oak Ridge Avenue intersection. A maximum queue of 50 feet is anticipated on Pearce Boulevard at Oak Ridge Avenue. Hence, the westbound left turn lane on Pearce Boulevard at Oak Ridge Avenue need to provide for at least 100 feet storage plus 50 feet taper.

Oak Ridge Avenue at Jersey Avenue: A 330-foot southbound left turn lane on Oak Ridge Avenue currently exists at Jersey Avenue. The 95th percentile queue length is anticipated to be no greater than 25 feet. Hence the existing southbound left turn lane is anticipated to be adequate.

Summary and Conclusions

This traffic impact study (TIS) was performed in support of the proposed Ayrshire PUD rezoning application. The proposed development is anticipated to include a maximum of 2,100 residential dwelling units (1,470 single-family and 630 Multi-family Townhomes). Access to the proposed development is anticipated to be provided via three access points: (1) a roadway (bridge over the CSX railroad) connecting to US 17; (2) a new roadway access on CR 15A (Oak Ridge Avenue), and via (3) existing Jersey Avenue. For this traffic study, the analysis was performed under four (4) analysis phases:

- Year 2025 (Analysis Phase 01) assumed 231 single-family dwelling units with access via a roadway on Oak Ridge Avenue.
- Year 2027 (Analysis Phase 02) assumed 500 single-family dwelling units (cumulative) with access via a roadway on Oak Ridge Avenue and a four-lane bridge from the project northern entrance to US 17 across from Hall Park Road.
- Year 2030 (Analysis Phase 03) assumed 1,000 single-family dwelling units (cumulative).
- Year 2035 (Analysis Phase 04) assumed 2,100 residential dwelling units that includes 1,470 single-family and 630 Multi-family Townhomes (cumulative). A third project access via existing Jersey Avenue was also assumed for this analysis phase.
- Year 2025 (Analysis Phase 01) development is anticipated to generate 2,215 daily trips that include 162 AM peak and 222 PM peak trips.
- Year 2027 (Analysis Phase 02) development is anticipated to generate 4,436 daily trips (cumulative) that include 322 AM peak and 451 PM peak trips
- Year 2030 (Analysis Phase 03) development is anticipated to generate 8,393 daily trips (cumulative) that include 606 AM peak and 865 PM peak trips
- Year 2035 (Analysis Phase 04) development is anticipated to generate 16,609 daily trips (cumulative) that include 1,189 AM peak and 1,738 PM peak trips

AM peak (7:00 AM to 9:00 AM) and PM peak (4:00 PM to 6:00 PM) period turning movement counts that includes autos, heavy vehicles, bicycles and pedestrians were obtained at the above stated intersections on April 22, 2021. These counts were further adjusted by applying a season factor of 0.94 to adjust for seasonal variations. The year 2019 season factor was used as the year 2020 season factors are anticipated to be not accurate due to the COVID 19 Pandemic.

An average growth rate of 3.754% per year was applied to the existing traffic volumes to determine year 2025 Phase 01 and year 2027 Phase 02 background traffic volumes. Additionally, a growth rate of 1.0% per year was further applied to year 2027 background traffic volumes to determine the year 2030 Phase 03 and year 2035 Phase 04 background traffic volumes.

Trip distribution for year 2025 (Analysis Phase 01) and year 2027 (Analysis Phase 02) development was determined based on existing traffic patterns (traffic entering and the exiting the City of Green Cove Springs). Following is a summary of the project traffic distribution under the year 2025 and year 2027 development conditions:

- 15% oriented to the west of SR 16 West
- 15% oriented to the south on US 17
- 35% oriented to the north on US 17
- 35% oriented to the east on SR 16E

Upon construction of the First Coast Expressway and other Clay County proposed roadway projects, the traffic patterns in the area are anticipated to change. Hence, trip distribution for year 2030 (Analysis Phase 03) and year 2035 (Analysis Phase 04) development conditions was obtained from the interim year 2030 model set of the Northeast Regional Planning Activity Based Model (NERPM_AB3v1) travel demand forecasting model. Following is a summary of the project traffic distribution percentages in the vicinity of the proposed project under year 2030 and year 2035 development conditions:

- 35% to the north on US 17 towards Duval County
- 10% to the east on SR 16E (Shands Bridge) towards St. Johns County
- 10% to the west on SR 16W
- 5% to the west via US 17 South and First Coast Expressway to the west
- 35% to the east via US 17 South and First Coast Expressway towards St. Johns County
- 5% to the south on US17

Build-out traffic volumes include the future background traffic volumes and the project traffic assignment under each of the year 2025, year 2027, year 2030 and year 2035 development conditions.

A 330-foot southbound left turn lane on Oak Ridge Avenue currently exists at Jersey Avenue. The 95th percentile queue length is anticipated to be no greater than 25 feet. Hence the existing southbound left turn lane is anticipated to be adequate.

A southbound left turn lane on Oak Ridge Avenue at Pearce Boulevard is anticipated to be warranted under the build-out conditions of the proposed development. The required deceleration length for 50-mph design speed is 290-feet (including 50-foot taper) for rural roadways. A storage length of 100-feet (4 vehicles) should be provided. A 390-foot (including 50-foot taper) southbound left turn lane is recommended on Oak Ridge Avenue at Pearce Boulevard.

All the critical approaches at all the study intersections are currently operating at LOS E or better except for the northbound approach on US 17 at SR 16W/Ferris Street intersection. The northbound approach on US 17 is currently operating at LOS F during the PM peak hour.

All the critical approaches at the study intersections are anticipated to operate at LOS E or better under the future background conditions except for the following:

Year 2025 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2025 AM peak

- The northbound approach on US 17 at SR 16W/Ferris Street intersection during year 2025 PM peak

Year 2027 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2027 AM peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2027 PM peak

Year 2030 Background Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2030 PM peak
- The westbound and northbound approaches at US 17 and SR 16E/Cooks Lane intersection during year 2030 PM peak
- The westbound approach on Hall Park Road at US 17 during year 2030 AM peak

All the signal timing/phasing and splits were optimized under each of the four (4) project development build-out conditions. All the critical approaches at the study intersections are anticipated to operate at LOS E or better except for the following:

Year 2027 Phase 02 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak

Year 2030 Phase 03 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM peak
- The southbound approach on US 17 at SR 16W/Ferris Street intersection during year 2030 PM peak

Year 2035 Phase 04 Build-Out Conditions:

- The eastbound approach on SR 16 at Oak Ridge Avenue during year 2030 AM Peak
- The northbound and southbound approaches on US 17 at SR 16W/Ferris Street intersection during year 2035 PM peak

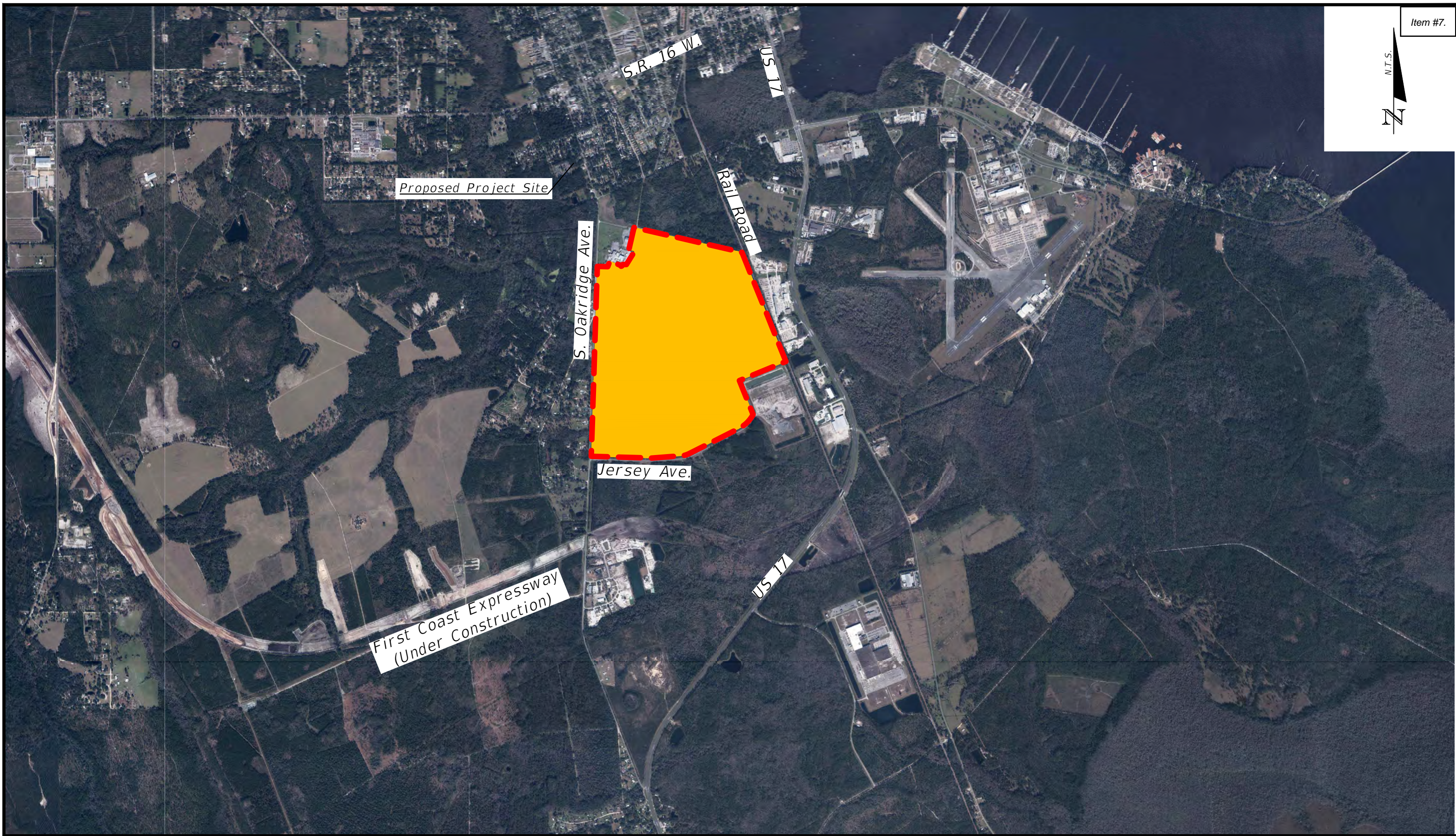
However, upon construction of the First Coast Expressway and other Clay County programmed roadway projects, traffic volumes at both SR 16 intersections on US 17 are anticipated to reduce and the Delay and LOS are anticipated to improve. Additionally, due to the change in traffic patterns, FDOT is anticipated to re-time the traffic signals at these two intersections which will result in improved operational conditions.

A four-lane bridge/roadway (Pearce Boulevard) connecting the proposed development and US 17 will be built by build-out conditions of the Phase 02 development. Upon construction, the intersection of US 17 and Pearce Boulevard is anticipated to require a traffic signal. Since US 17 is a FDOT roadway, the intersection is subject to FDOT’s Intersection Control Evaluation (ICE) review and approval process. The ICE process is anticipated to result in either a traditional traffic signal or

Signalized R-Cut or Signalized Median U-turns intersection control. However, for the purpose of this analysis a traditional traffic signal is assumed under the Phase 02, Phase 03 and Phase 04 development conditions.

A southbound left turn lane on Oak Ridge Avenue at Pearce Boulevard is anticipated to be warranted under the build-out conditions of the proposed development. The required deceleration length for 50-mph design speed is 290-feet (including 50-foot taper) for rural roadways. A storage length of 100-feet (4 vehicles) should be provided. Hence, a 390-feet (including 50-foot taper) southbound left turn lane is recommended on Oak Ridge Avenue at Pearce Boulevard. Separate left and right turn lanes (Westbound) are recommended on Pearce Boulevard at Oak Ridge Avenue intersection. A maximum queue of 50 feet is anticipated on Pearce Boulevard at Oak Ridge Avenue. Hence, the westbound left turn lane on Pearce Boulevard at Oak Ridge Avenue need to provide for at least 100 feet storage plus 50 feet taper.

A 330-foot southbound left turn lane on Oak Ridge Avenue currently exists at Jersey Avenue. The 95th percentile queue length is anticipated to be no greater than 25 feet. Hence the existing southbound left turn lane is anticipated to be adequate.



Proposed Project Site

S.R. 16 W.

US 17

Rail Road

S. Oakridge Ave.

Jersey Ave.

First Coast Expressway
(Under Construction)

US 17



Chindalur Traffic Solutions, Inc.
 8833 Perimeter Park Boulevard,
 Suite 103
 Jacksonville, FL 32216
 Phone: (904) 619-3368
 www.ctrfficsolutions.com

Figure 01 - Project Location



S.R. 16 W. at S. Oakridge Avenue



S.R. 16 W. and Ferris Street at US 17



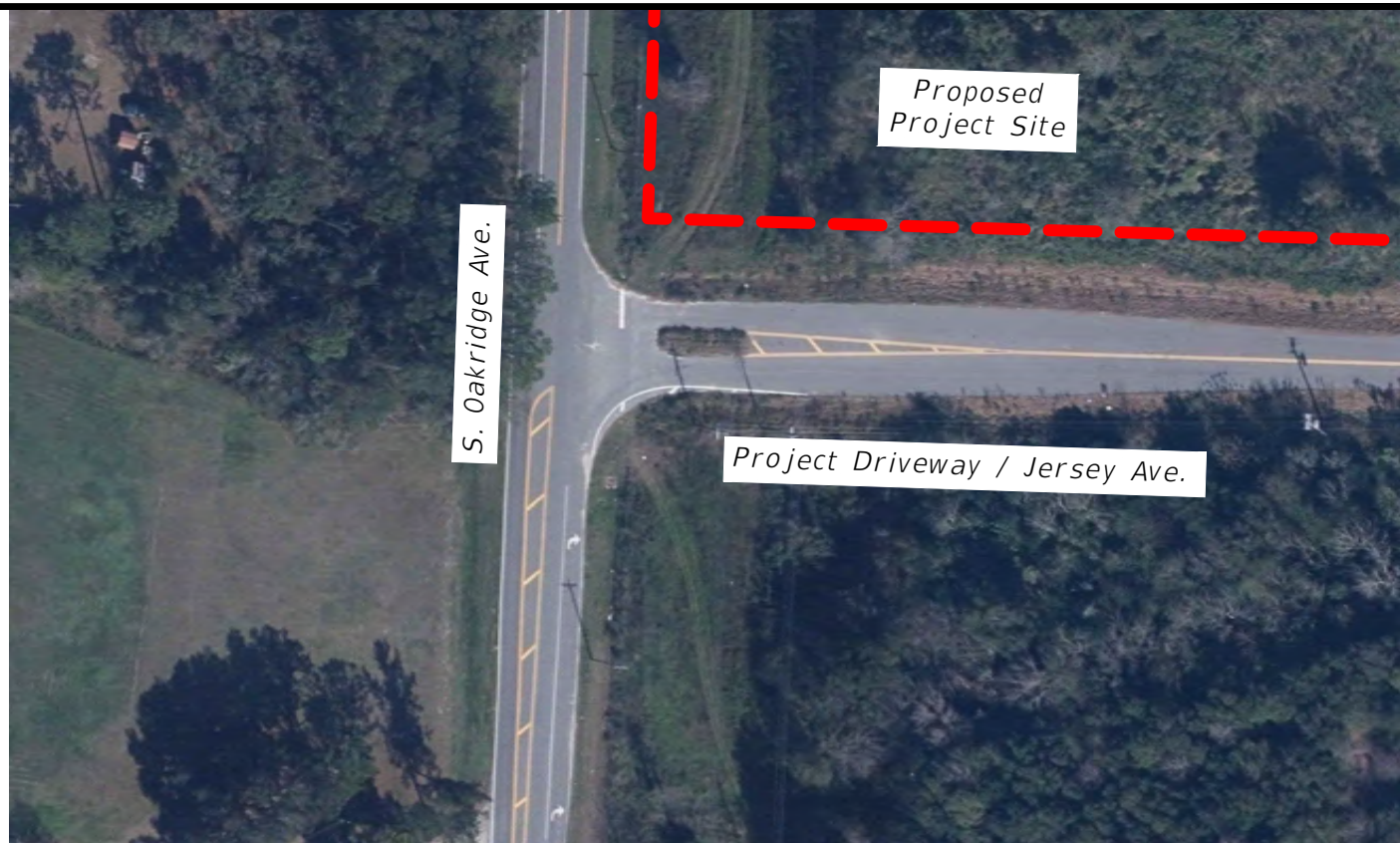
S. Oakridge Avenue at Green Cove Avenue



US 17 at Cooks Lane and S.R. 16 E. / Leonard C. Taylor Pkwy.



S. Oakridge Avenue at Project Driveway



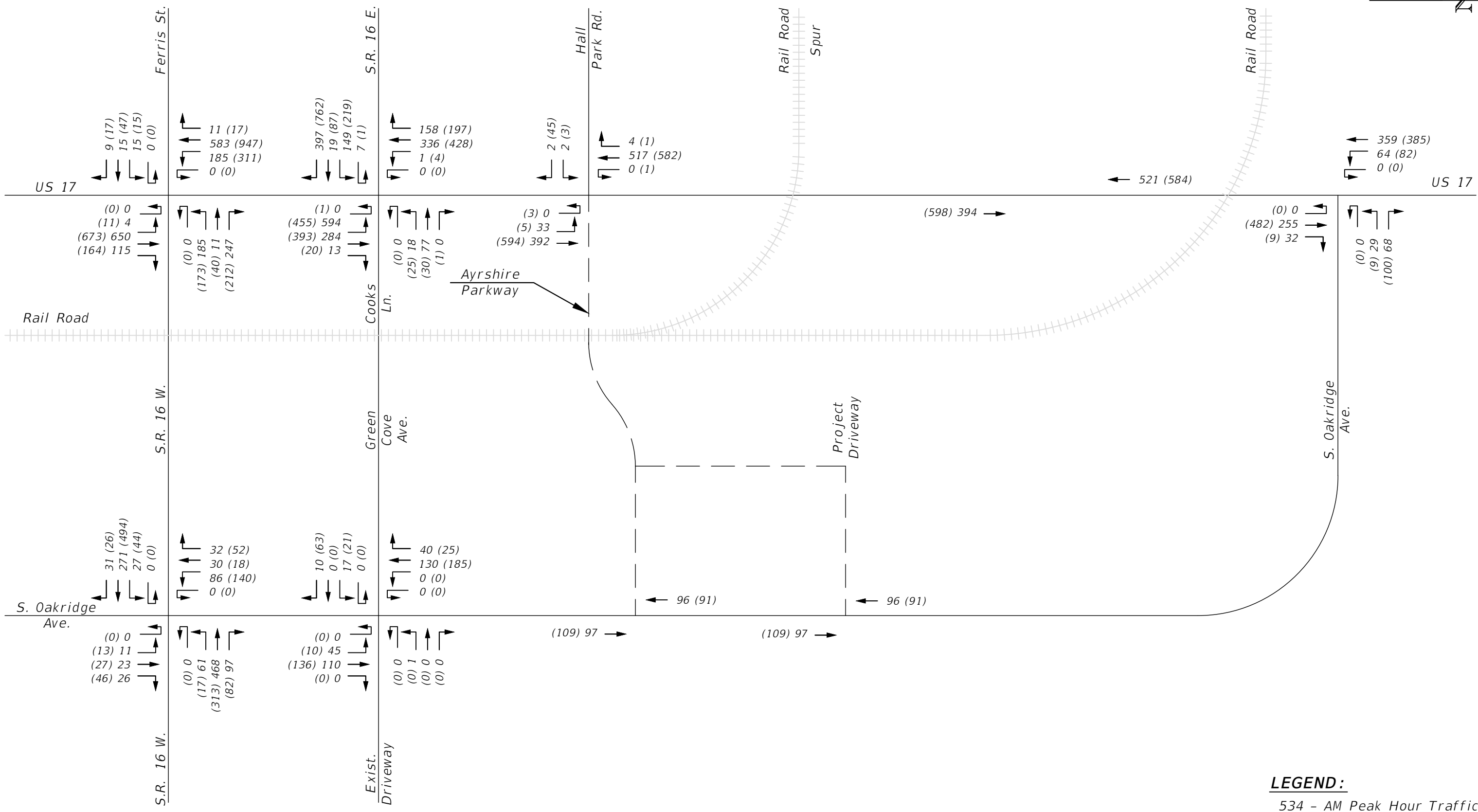
S. Oakridge Avenue at Project Driveway / Jersey Avenue



S. Oakridge Avenue at US 17

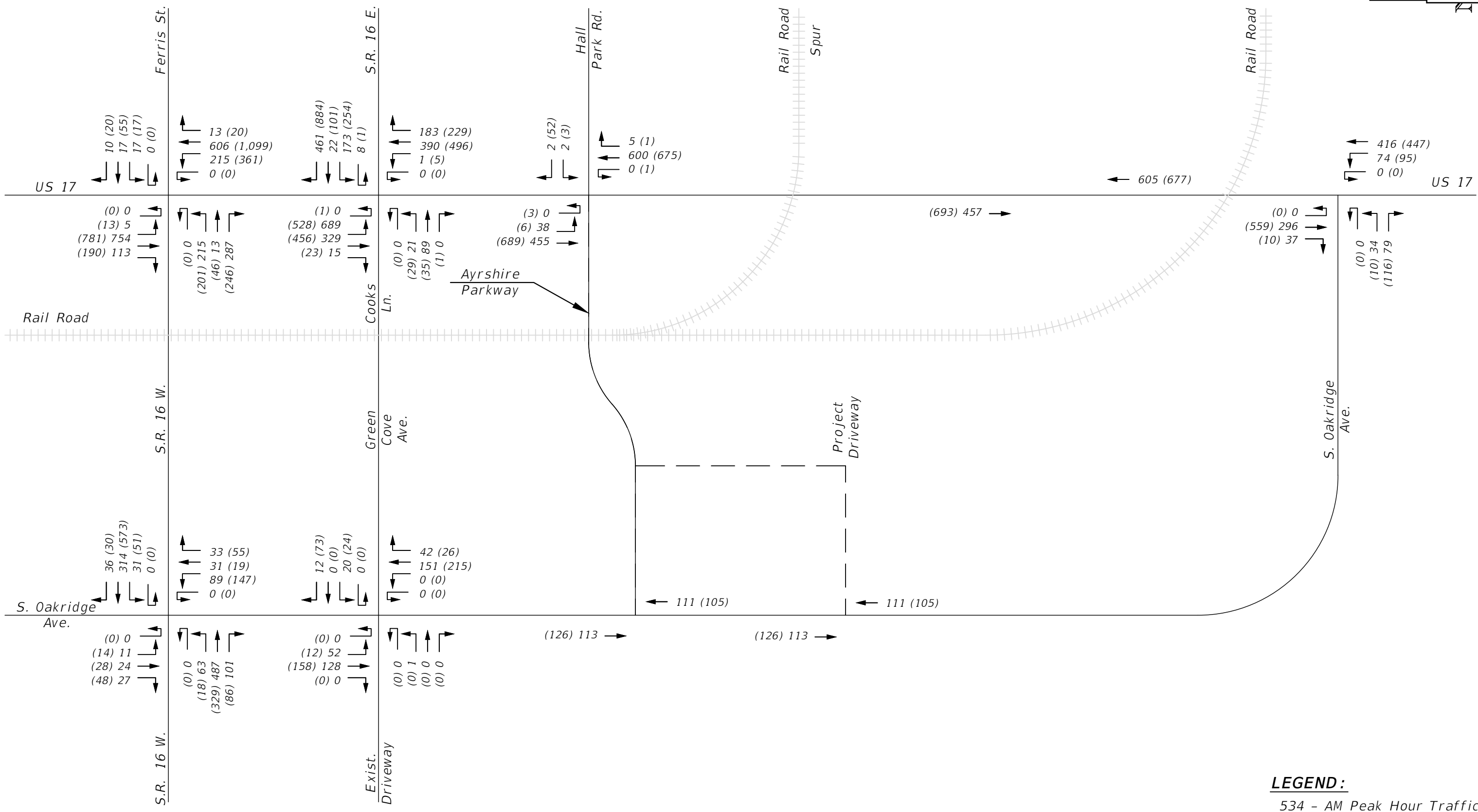


US 17 at Hall Park Road



LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic

Figure 04 - Year 2021 AM and PM Peak Hour Traffic Volumes



LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic

Figure 05 - Year 2025 AM and PM Peak Hour (Analysis Phase 01) Background Traffic Volumes

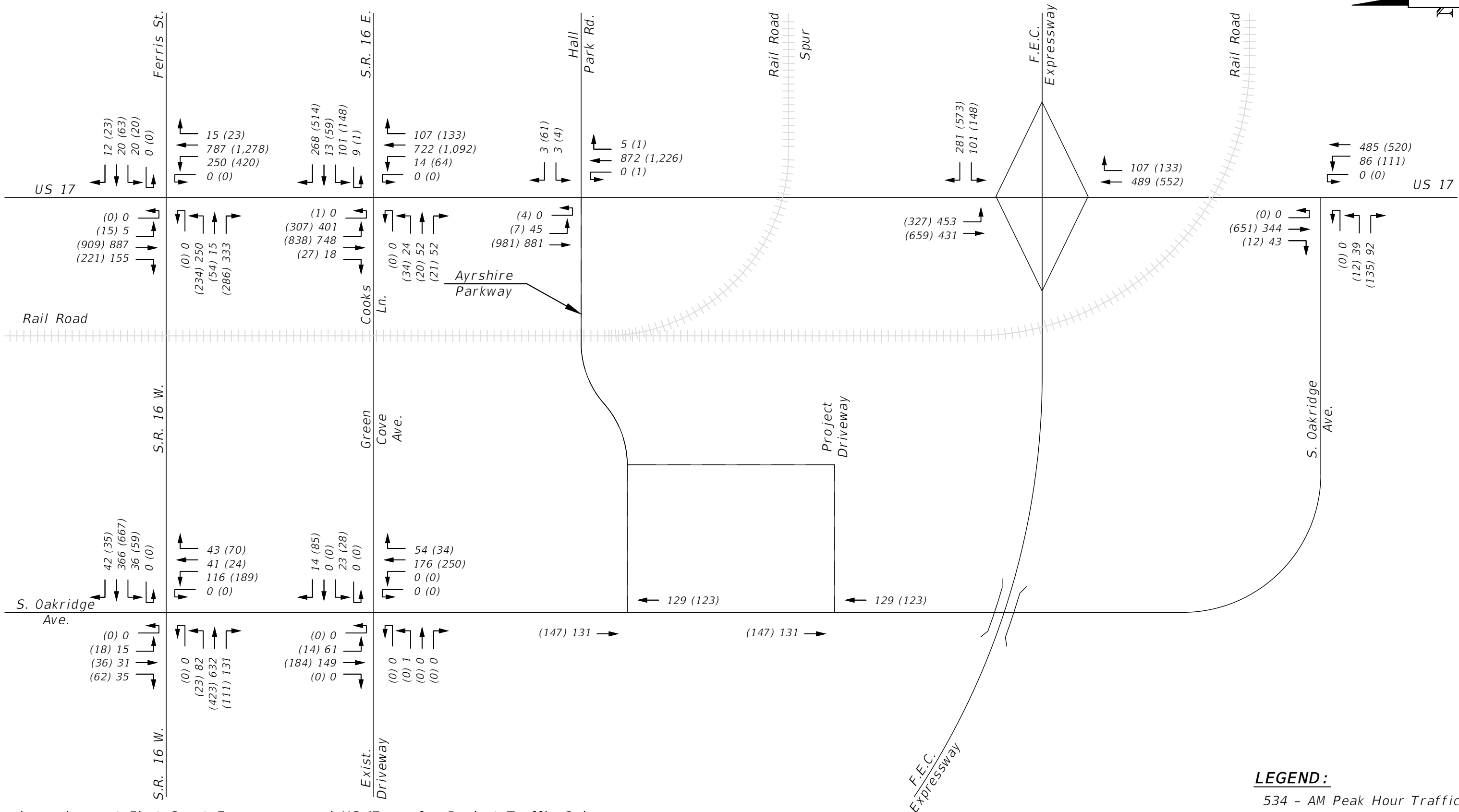
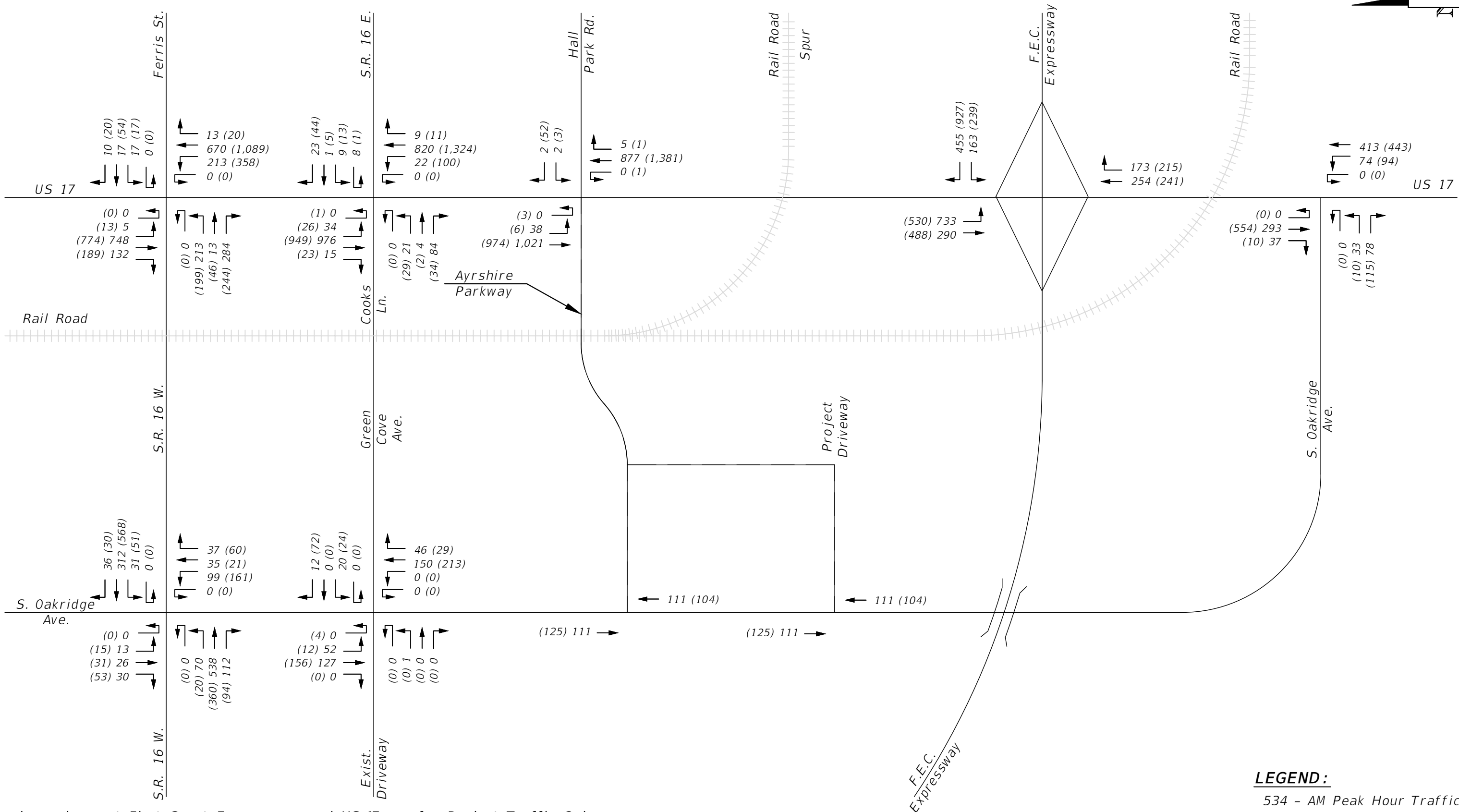


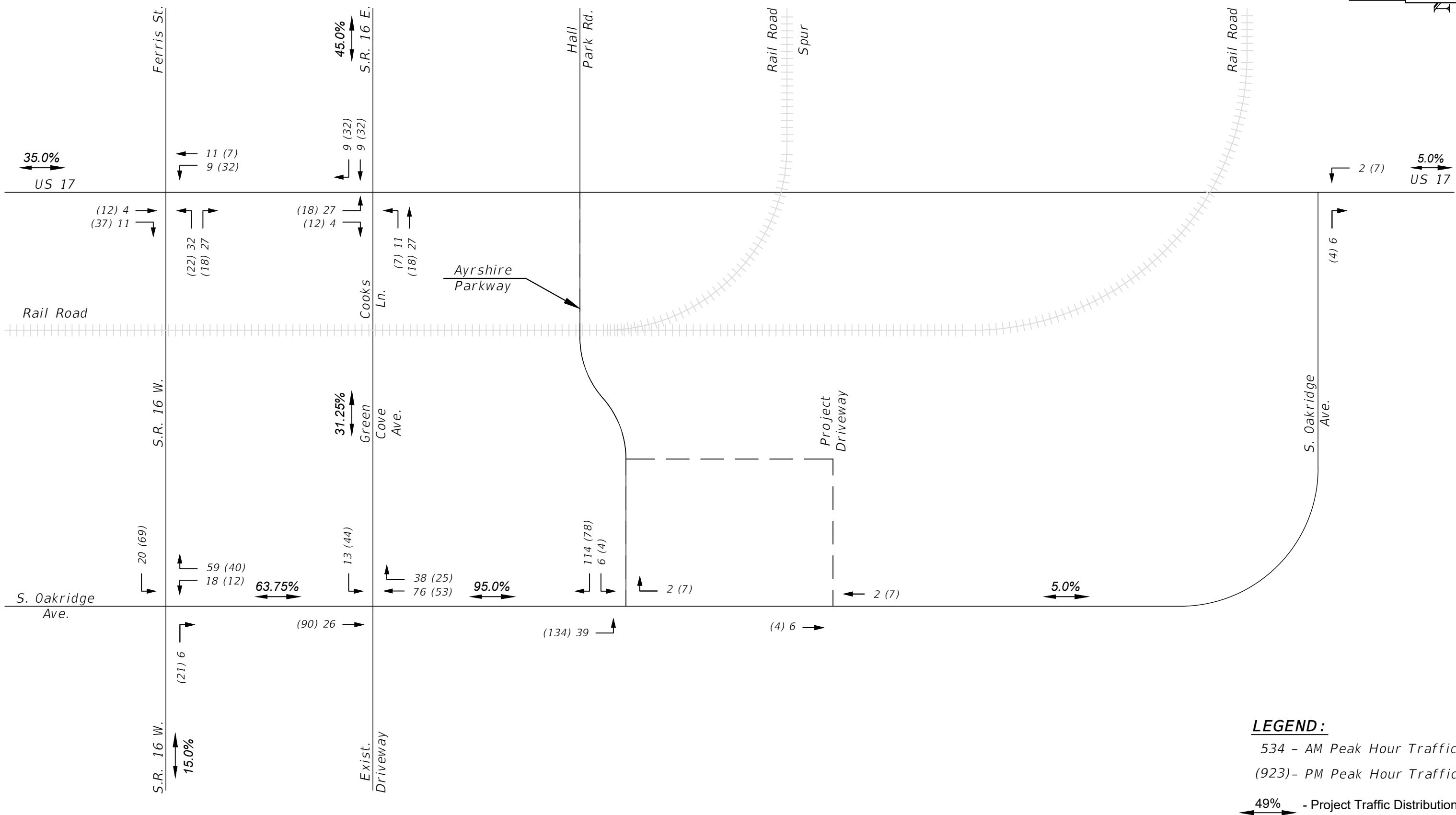
Figure 07 - Year 2030 AM and PM Peak Hour (Analysis Phase 03) Background Traffic Volumes



Numbers shown at First Coast Expressway and US 17 are for Project Traffic Only.

LEGEND:
 534 - AM Peak Hour Traffic
 (923) - PM Peak Hour Traffic

Figure 08 - Year 2035 AM and PM Peak Hour (Analysis Phase 04) Background Traffic Volumes



LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic
 49% - Project Traffic Distribution

Figure 09 - Year 2025 AM and PM Peak Hour (Analysis Phase 01) Project Traffic Distribution and Assignment

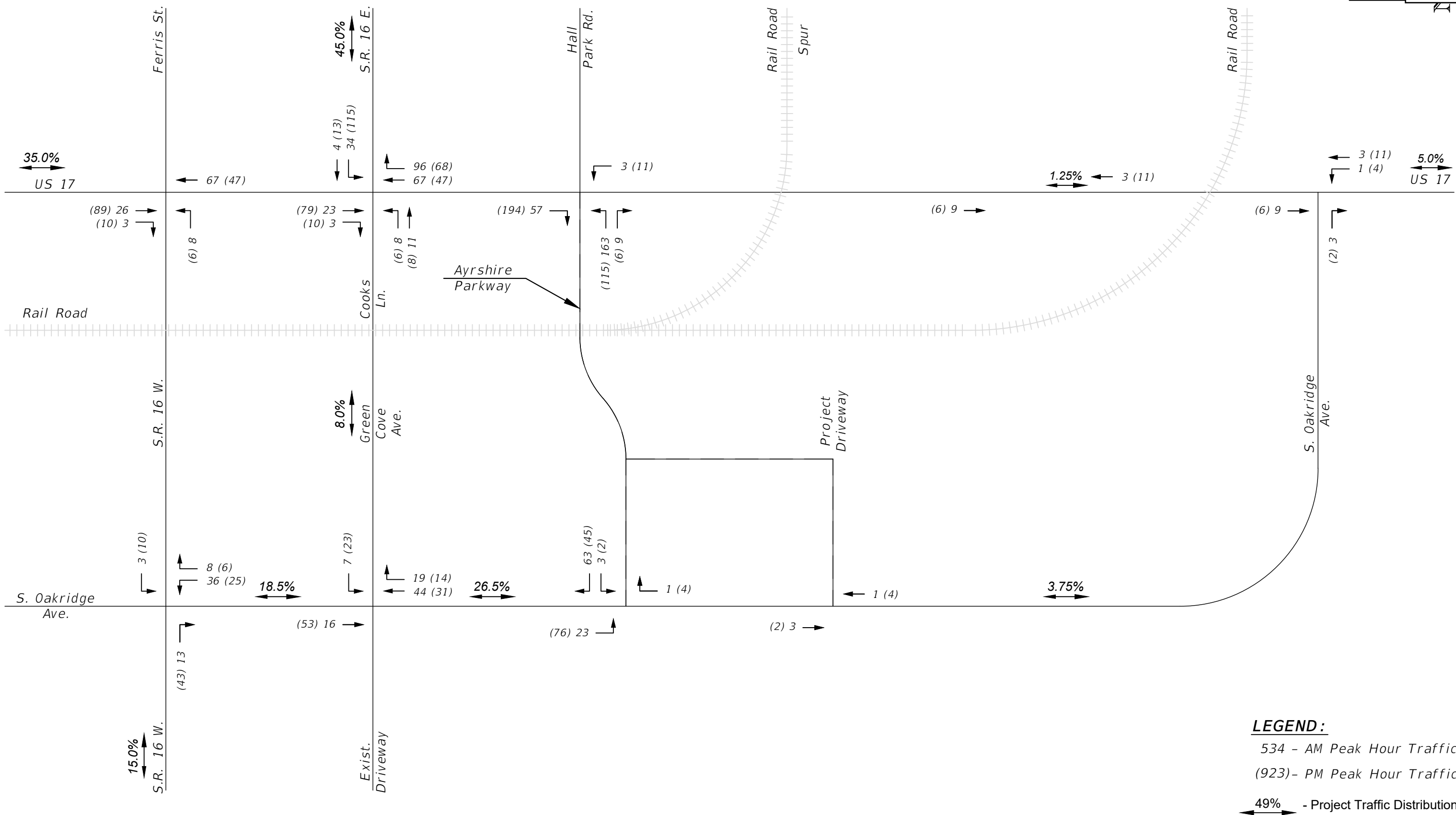
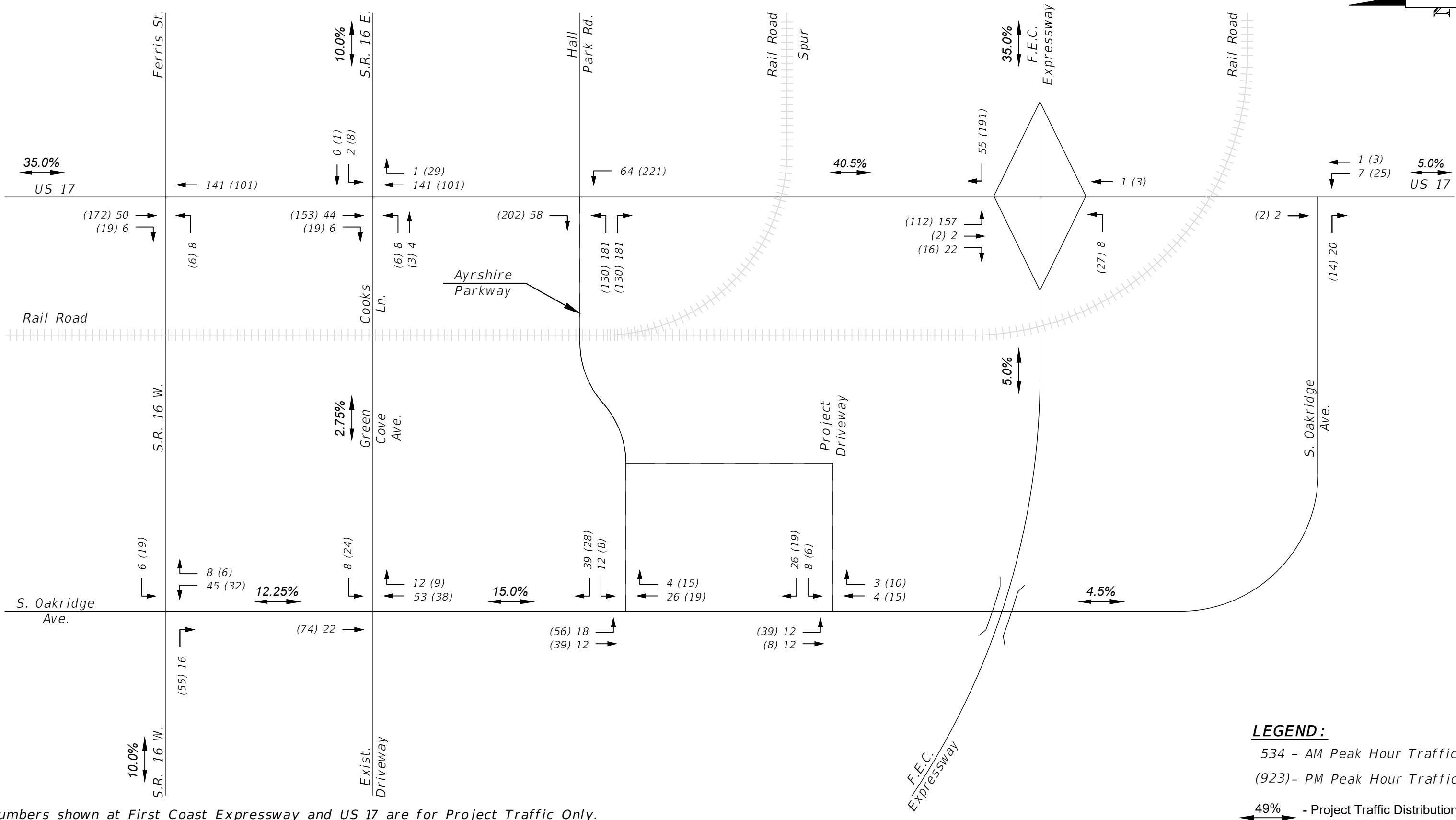
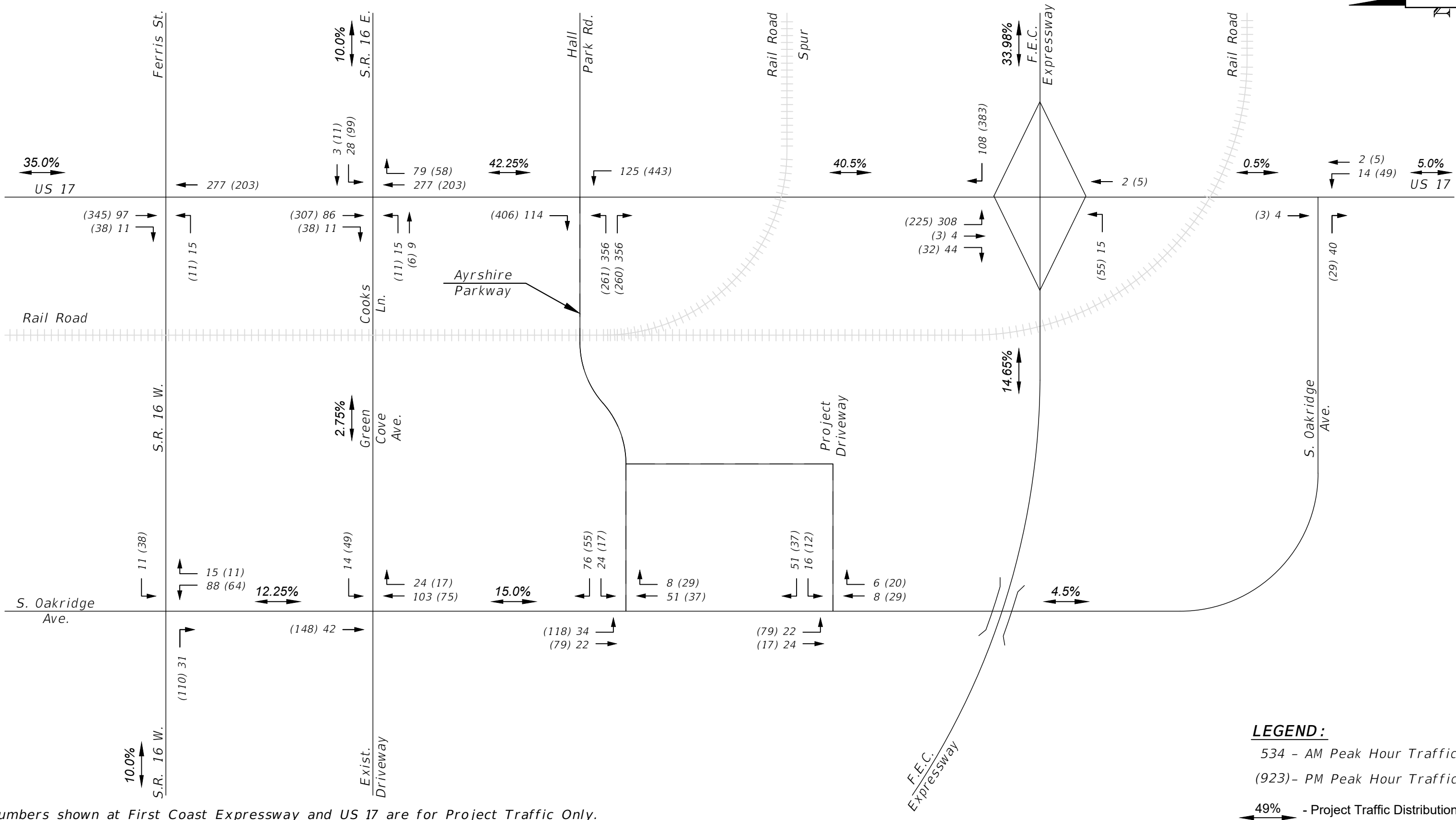


Figure 10 - Year 2027 AM and PM Peak Hour (Analysis Phase 02) Project Traffic Distribution and Assignment



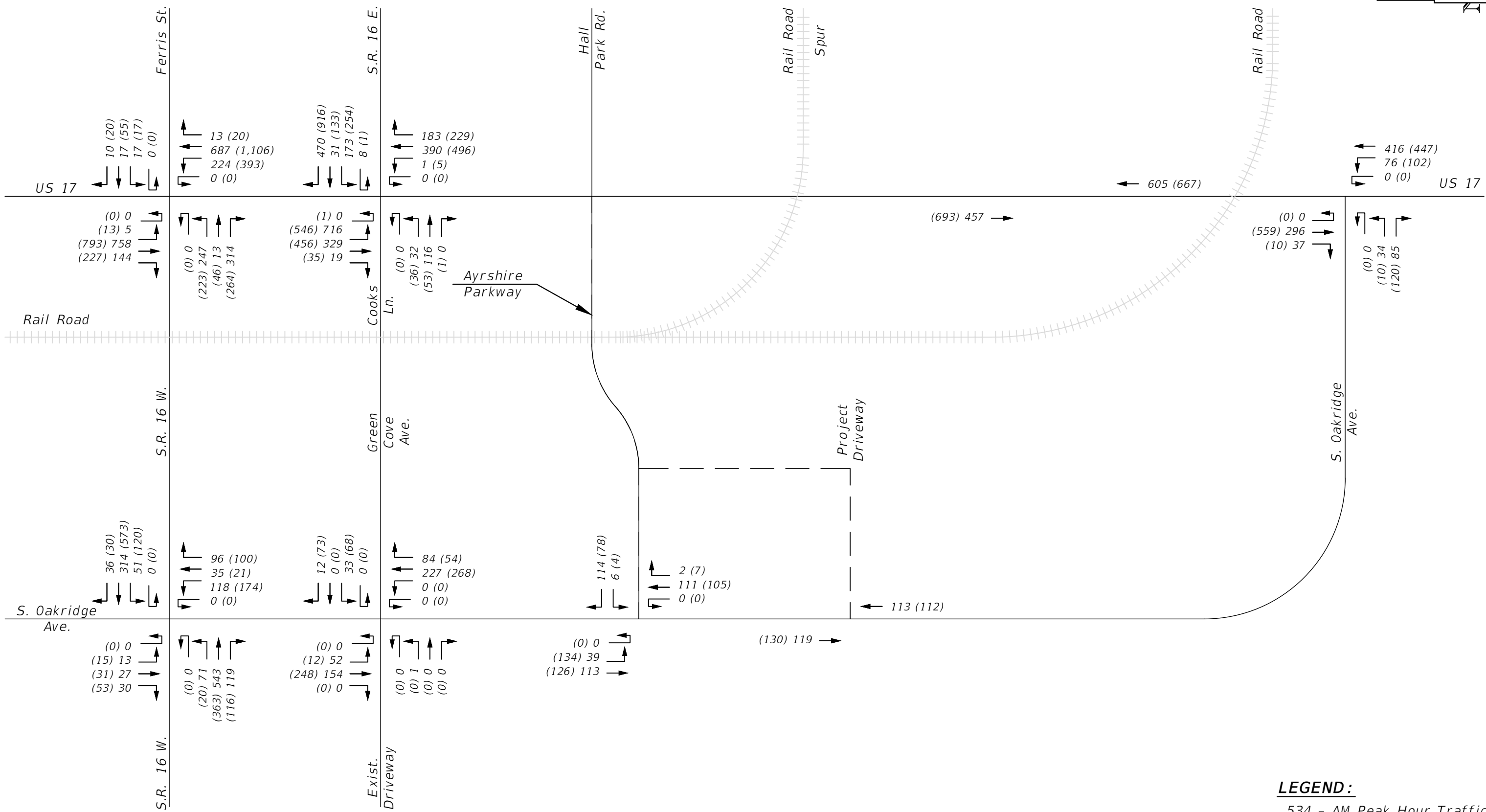
Numbers shown at First Coast Expressway and US 17 are for Project Traffic Only.

Figure 11 - Year 2030 AM and PM Peak Hour (Analysis Phase 03) Project Traffic Distribution and Assignment



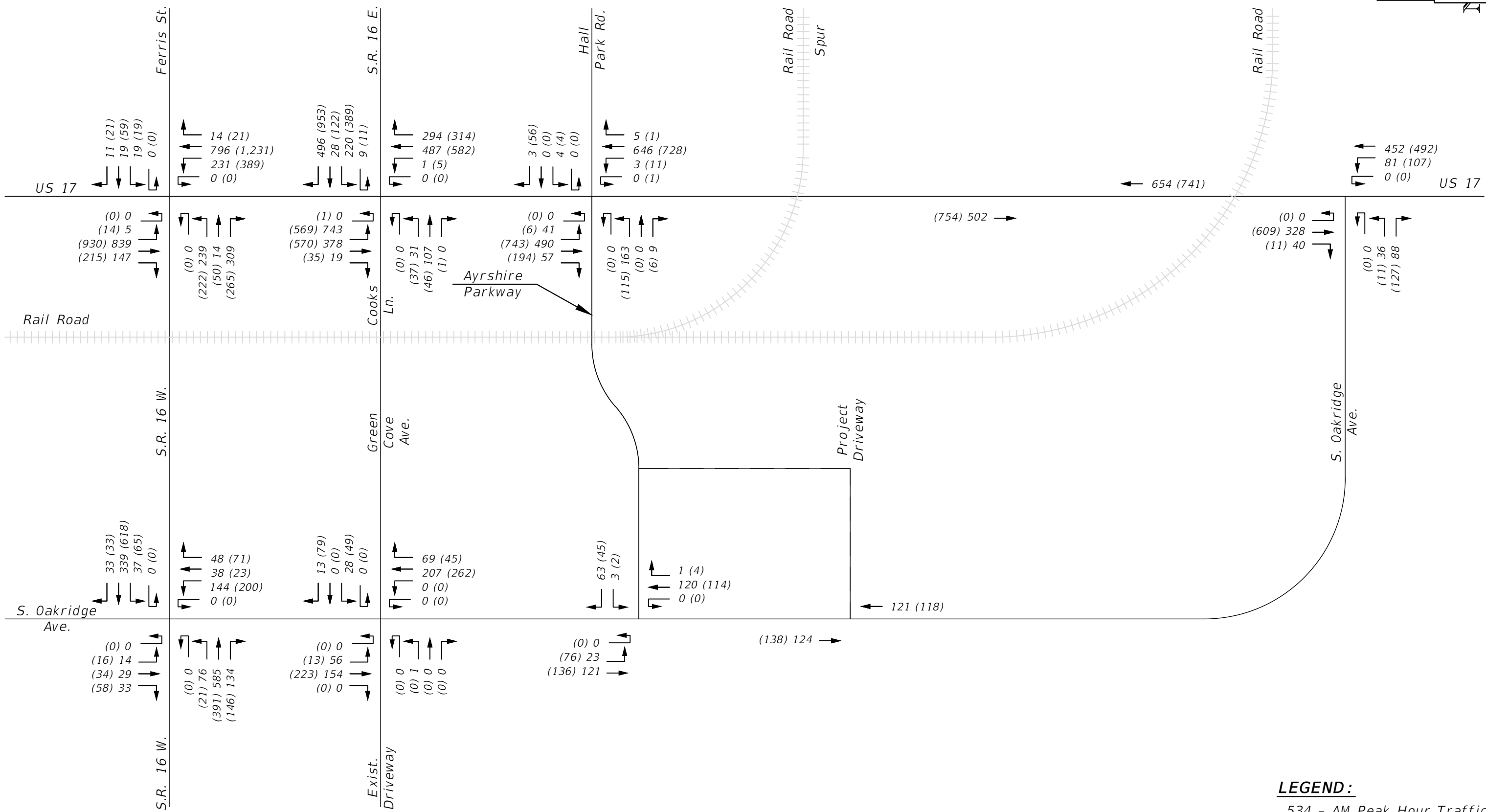
Numbers shown at First Coast Expressway and US 17 are for Project Traffic Only.

Figure 12 - Year 2035 AM and PM Peak Hour (Analysis Phase 04) Project Traffic Distribution and Assignment



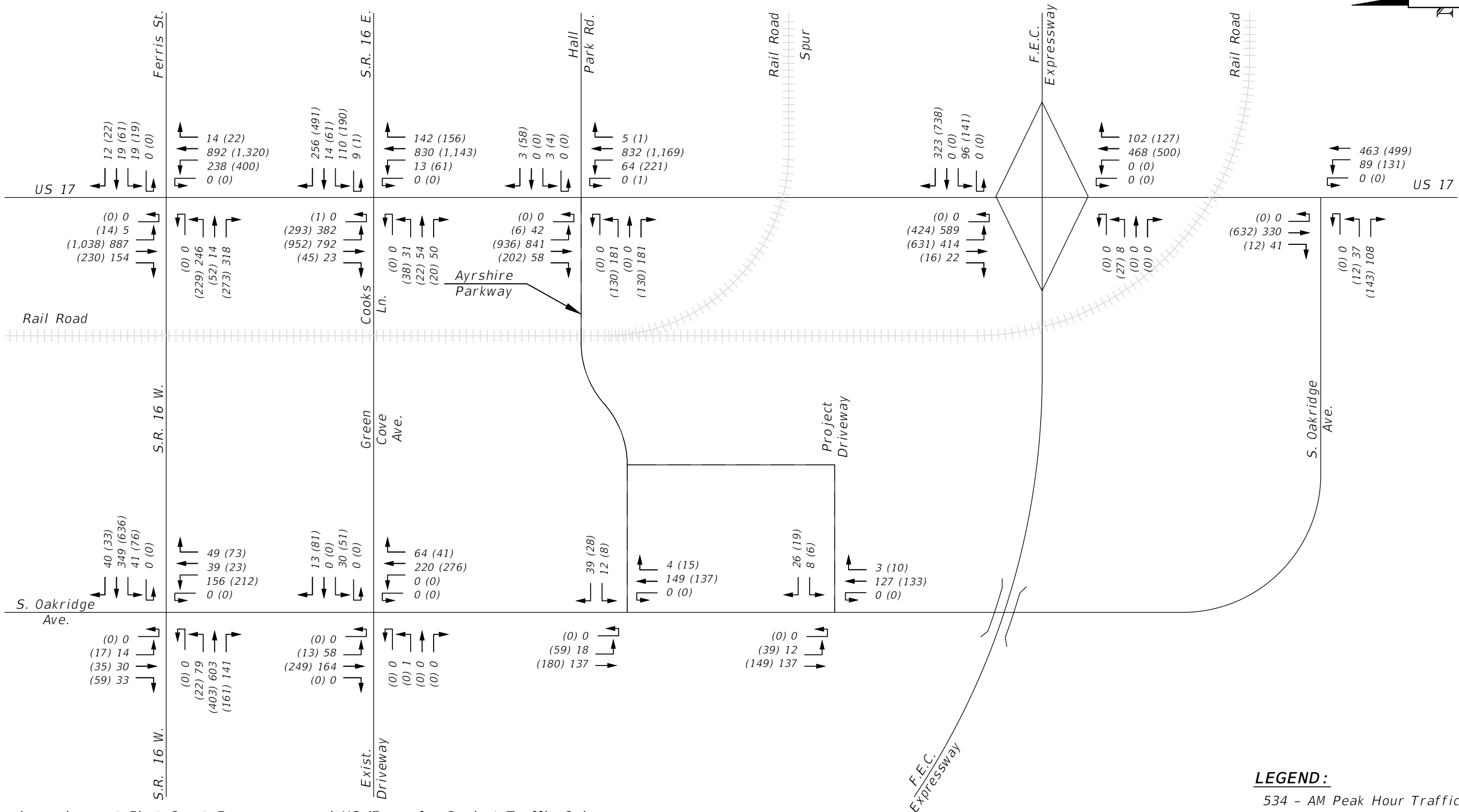
LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic

Figure 13 - Year 2025 AM and PM Peak Hour (Analysis Phase 01) Build-Out Traffic Volumes



LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic

Figure 14 - Year 2027 AM and PM Peak Hour (Analysis Phase 02) Build-Out Traffic Volumes

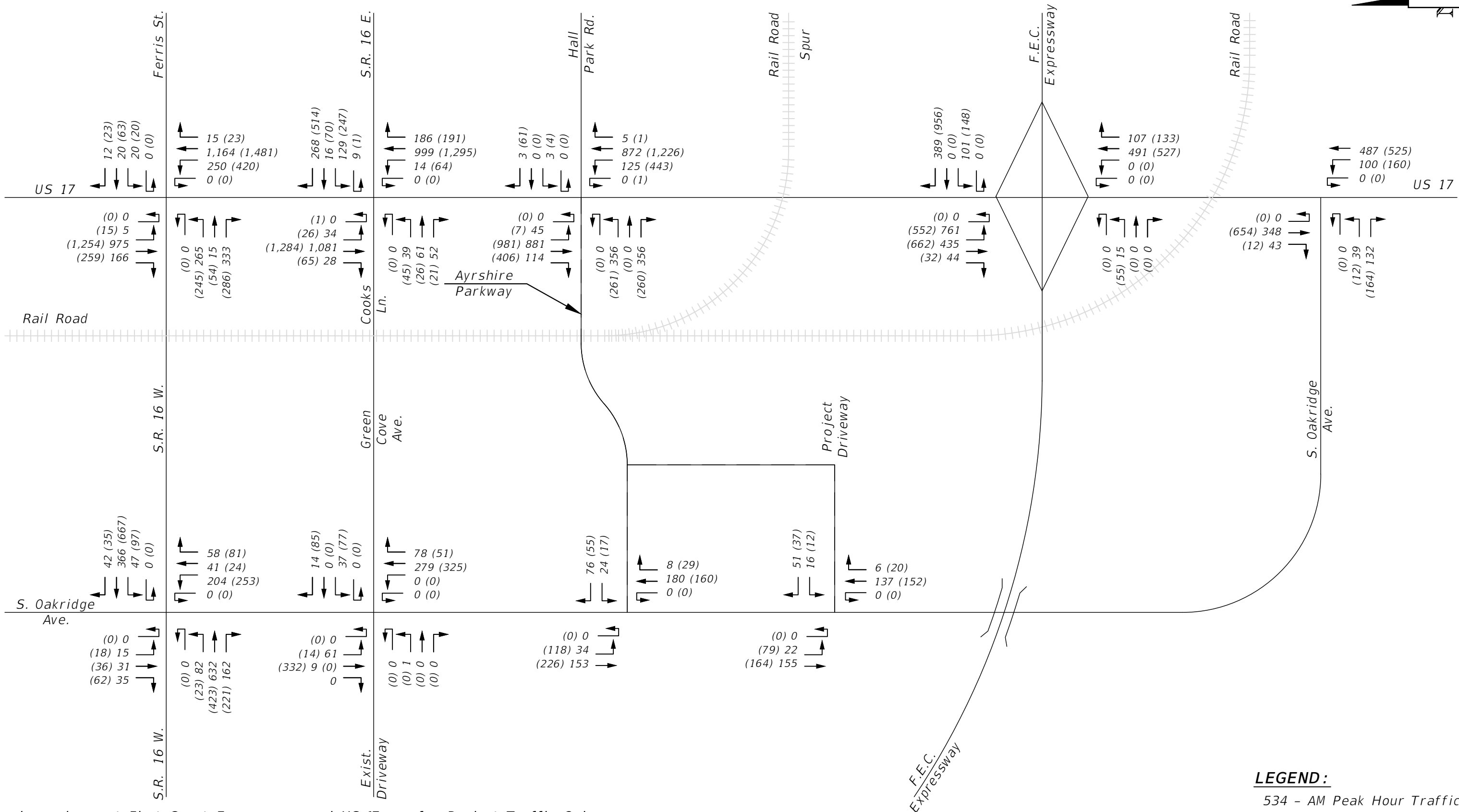


Numbers shown at First Coast Expressway and US 17 are for Project Traffic Only.

LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic


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 8833 Perimeter Park Boulevard,
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 Jacksonville, FL 32216
 Phone: (904) 619-3368
 www.ctransolutions.com

Figure 15 - Year 2030 AM and PM Peak Hour (Analysis Phase 03) Build-Out Traffic Volumes



Numbers shown at First Coast Expressway and US 17 are for Project Traffic Only.

LEGEND:
 534 - AM Peak Hour Traffic
 (923)- PM Peak Hour Traffic

Figure 16 - Year 2035 AM and PM Peak Hour (Analysis Phase 04) Build-Out Traffic Volumes

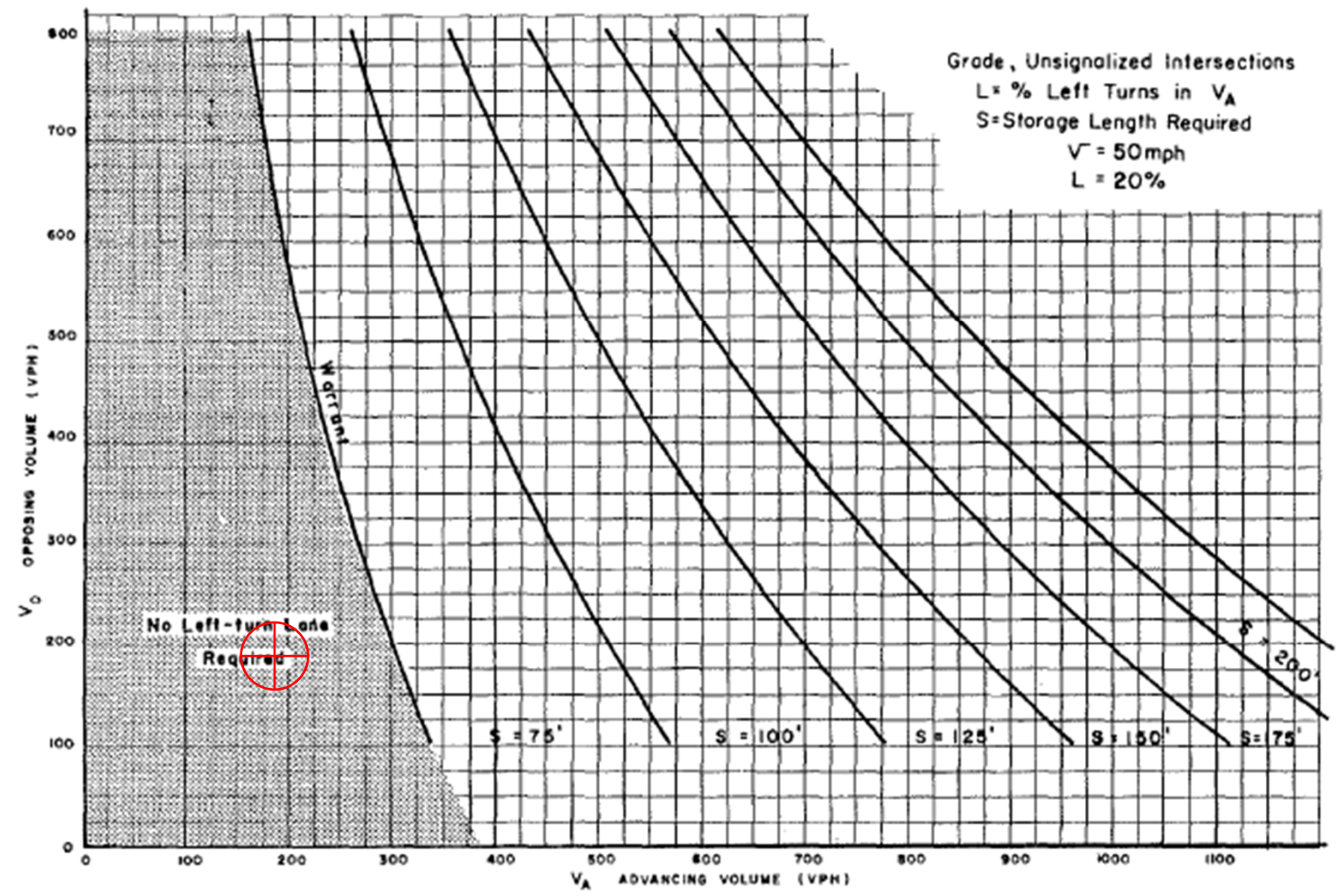


Figure 11. Warrant for left-turn storage lanes on two-lane highways.

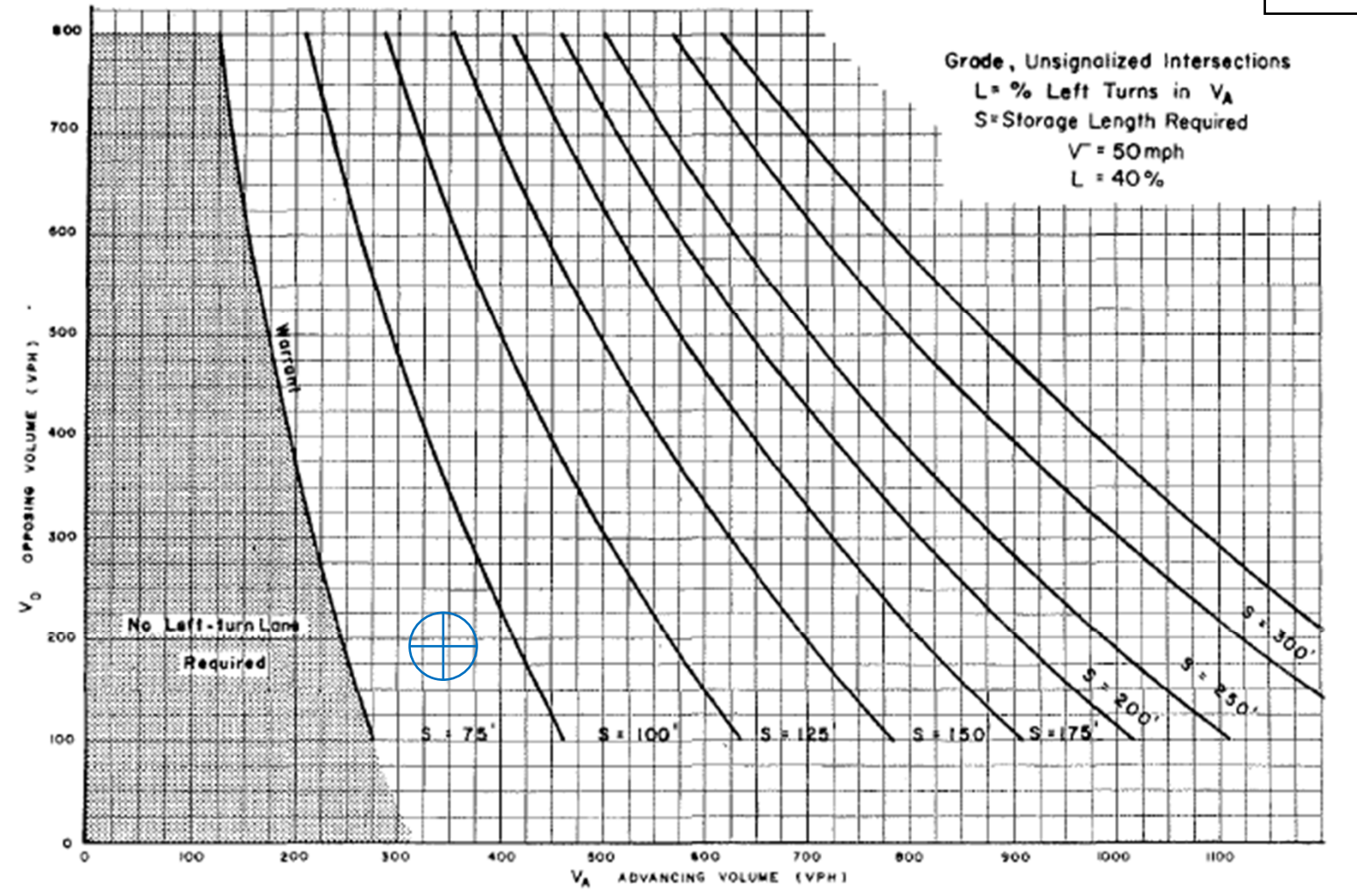


Figure 13. Warrant for left-turn storage lanes on two-lane highways.

Oak Ridge Avenue at Pearce Blvd.

AM Peak

Left Turns:	34
Advancing Volumes V_A :	$153 + 34 = 187$
% Left Turns:	22%
Opposing Volumes V_O :	$180 + 8 = 188$

PM Peak

Left Turns:	118
Advancing Volumes V_A :	$226 + 118 = 344$
% Left Turns:	52%
Opposing Volumes V_O :	$160 + 29 = 189$

Source: Harmelink, M., "Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections," in Highway Research Record 211, Figure 8

Table 01
Trip Generation
Ayrshire PUD, City of Green Cove Springs, FL

ITE Land Use Code	Description	Quantity	Units	Time Period	Rate or Equation	Percent Traffic		Project Trips		
						Entering	Exiting	Total	Entering	Exiting
Phase 01										
210	Single Family Home Detached	235	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.68$	50%	50%	2,215	1,108	1,107
				AM Peak	$\ln(T) = 0.91 \ln(X) + 0.12$	26%	74%	162	42	120
				PM Peak	$\ln(T) = 0.94 \ln(X) + 0.27$	63%	37%	222	140	82
Phase 02 (Cumulative)										
210	Single Family Home Detached	500	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.68$	50%	50%	4,436	2,218	2,218
				AM Peak	$\ln(T) = 0.91 \ln(X) + 0.12$	26%	74%	322	84	238
				PM Peak	$\ln(T) = 0.94 \ln(X) + 0.27$	63%	37%	451	284	167
Phase 03 (Cumulative)										
210	Single Family Home Detached	1,000	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.68$	50%	50%	8,393	4,197	4,196
				AM Peak	$\ln(T) = 0.91 \ln(X) + 0.12$	26%	74%	606	158	448
				PM Peak	$\ln(T) = 0.94 \ln(X) + 0.27$	63%	37%	865	545	320
Phase 04 (Cumulative)										
210	Single Family Home Detached	2,100	Dwelling Units	Daily	$\ln(T) = 0.92 \ln(X) + 2.68$	50%	50%	16,609	8,305	8,304
				AM Peak	$\ln(T) = 0.91 \ln(X) + 0.12$	26%	74%	1,189	309	880
				PM Peak	$\ln(T) = 0.94 \ln(X) + 0.27$	63%	37%	1,738	1,095	643

Source: Trip Generation Manual, 11th Edition, ITE

Table 02
Trends Growth Rate Calculations
Ayrshire PUD, City of Green Cove Springs, FL

Roadway	AADT	Future Growth Rate
Oak Ridge Avenue	2,200	0.91%
SR 16 East of US 17	17,900	5.92%
SR 16 West of Oak Ridge	14,100	4.99%
SR 16 West of US 17	12,300	3.59%
US 17 North of SR 16 E	19,200	3.43%
US 17 North of SR 16 W	22,500	3.52%
US 17 South of SR 16 E	15,000	4.51%
US 17 South of SR 16W	19,400	1.29%
Weighted Average		3.754%

Source: Attachment C

Table 03
Existing Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	37.50	D	34.20	C
	EB	Signal	49.40	D	27.90	C
	WB	Signal	25.50	C	42.30	D
	NB	Signal	30.10	C	28.60	C
	SB	Signal	26.40	C	24.00	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	30.60	C	110.70	F
	EB	Signal	40.50	D	40.60	D
	WB	Signal	46.40	D	40.20	D
	NB	Signal	22.20	C	173.80	F
	SB	Signal	32.20	C	54.80	D
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	35.00	C	38.80	D
	EB	Signal	46.90	D	47.20	D
	WB	Signal	26.50	C	40.00	D
	NB	Signal	44.60	D	48.30	D
	SB	Signal	33.60	C	28.90	C
US 17 at Hall Park Road	SBL	Yield	9.00	A	9.30	A
	WB	Stop	18.60	A	11.90	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	7.80	A	7.70	A
	WB	Stop	11.80	B	10.90	B
US 17 at Oak Ridge Avenue	NBL	Yield	8.70	A	9.00	A
	EB	Stop	13.40	B	12.30	B

Source: Attachment H

Table 04
Existing Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Moveent	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	37.50	D			34.20	C		
	EBL	Signal	15.60	B	0.190	35	18.00	B	0.080	13
	EBTR	Signal	53.60	B	0.000		28.50	C	0.690	
	WBL	Signal	21.50	C	0.150	7	16.90	B	0.190	25
	WBT	Signal	26.50	C	0.580		46.70	D	0.910	
	WBR	Signal	18.30	B	0.060	3	19.70	B	0.060	-
	NB	Signal	30.10	C	0.000	87	28.60	C	0.500	165
	SB	Signal	26.40	C	0.000	37	24.00	A	0.240	33
C										
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	30.60	C			110.70	F		
	EBLT	Signal	42.50	D	0.520	109	42.00	D	0.350	141
	EBR	Signal	38.40	D	0.660	34	39.20	D	0.490	31
	WB	Signal	46.40	D	0.300	46	40.20	D	0.260	58
	NBL	Signal	21.50	C	0.520	115	403.10	F	1.770	545
	NBTR	Signal	22.50	C	0.480		93.10	F	1.040	
	SBL	Signal	14.40	B	0.030	4	30.30	C	0.110	14
	SBTR	Signal	32.40	C	0.710		55.20	E	0.850	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	35.00	C			38.80	D		
	EB	Signal	46.90	D	0.30	125	47.20	D	0.30	77
	WBL	Signal	49.20	D	0.59	168	55.40	E	0.71	273
	WBT	Signal	31.70	C	0.07		33.70	C	0.21	
	WBR	Signal	15.50	B	0.46	152	36.20	D	0.91	650
	NBL	Signal	55.10	E	0.02	5	56.10	E	0.07	13
	NBT	Signal	45.20	D	0.53		48.90	D	0.67	
	NBR	Signal	43.40	D	0.54	32	46.80	D	0.63	45
	SBL	Signal	40.00	D	0.65	303	36.20	D	0.47	216
SBTR	Signal	20.00	C	0.20		20.90	C	0.27		
US 17 at Hall Park Road	SBL	Yield	9.00	A	0.067	25	9.30	A	0.019	25
	WB	Stop	18.60	C	0.050	25	11.90	B	0.152	25
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	7.80	A	0.045	25	7.70	A	0.012	-
	WB	Stop	11.80	B	0.072	25	10.90	B	0.156	25
US 17 at Oak Ridge Avenue	NBL	Yield	8.70	A	0.082	25	9.00	A	0.101	25
	EB	Stop	13.40	B	0.217	25	12.30	B	0.196	25

Source: Attachment H

Table 05
Year 2025 Background Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	56.70	E	38.30	D
	EB	Signal	87.60	F	28.40	C
	WB	Signal	29.50	C	49.70	D
	NB	Signal	32.30	C	31.80	C
	SB	Signal	26.90	C	24.40	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	35.00	C	178.20	F
	EB	Signal	44.30	D	42.20	D
	WB	Signal	47.30	D	40.90	D
	NB	Signal	25.10	C	295.80	F
	SB	Signal	38.50	D	77.50	E
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.90	D	50.90	D
	EB	Signal	47.90	D	49.20	D
	WB	Signal	28.50	C	66.10	E
	NB	Signal	47.10	D	52.90	D
	SB	Signal	35.10	D	29.60	C
US 17 at Hall Park Road	SBL	Yield	9.40	A	9.80	A
	WB	Stop	22.60	C	12.90	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	7.90	A	7.80	A
	WB	Stop	12.70	B	11.50	B
US 17 at Oak Ridge Avenue	NBL	Yield	9.00	A	9.40	A
	EB	Stop	14.90	B	13.40	B

Source: Attachment H

Table 06
Year 2025 Background Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	56.70	E			38.30	D		
	EBL	Signal	18.00	B	0.26	40	18.70	B	0.1	14
	EBTR	Signal	96.20	F	1.11		29.00	C	0	
	WBL	Signal	22.50	C	0.18	8	16.70	B	0.22	28
	WBT	Signal	31.00	C	0.73		55.50	E	0.97	
	WBR	Signal	18.20	B	0.07	4	181.00	B	0.07	0
	NB	Signal	32.30	C	0.52	102	31.80	C	0	199
	SB	Signal	26.90	C	0.26	44	24.40	C	0	39
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	35.00	C			178.20	F		
	EBLT	Signal	44.50	D	0.6	111	43.10	D	0.36	162
	EBR	Signal	44.00	D	0.76	38	41.50	D	0.57	32
	WB	Signal	47.30	D	0.33	52	40.90	D	0	111
	NBL	Signal	28.60	C	0.67	208	700.20	F	2.44	645
	NBTR	Signal	24.10	C	0.55		152.80	F	1.21	
	SBL	Signal	14.90	B	0.04	5	30.60	C	0.13	16
	SBTR	Signal	38.80	D	0.82		78.50	E	0.99	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.90	D			50.90	D		
	EB	Signal	47.90	D	0.35	143	49.20	D	0	87
	WBL	Signal	53.80	D	0.67	193	69.30	E	0.85	383
	WBT	Signal	31.80	C	0.08		34.20	C	0.24	
	WBR	Signal	17.00	B	0.55	230	69.50	F	1.05	1019
	NBL	Signal	55.10	E	0.02	5	56.50	E	0.09	15
	NBT	Signal	47.20	D	0.61		53.20	D	0.78	
	NBR	Signal	46.80	D	0.63	32	52.20	D	0.73	47
	SBL	Signal	42.10	D	0.75	360	37.10	D	0.55	254
SBTR	Signal	20.30	C	0.23		21.30	C	0.32		
US 17 at Hall Park Road	SBL	Yield	9.40	A	0.084	25	9.80	A	0.023	25
	WB	Stop	22.60	C	0.064	25	12.90	B	0.191	25
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	7.90	A	0.053	25	7.80	A	0.015	-
	WB	Stop	12.70	B	0.094	25	11.50	B	0.192	25
US 17 at Oak Ridge Avenue	NBL	Yield	9.00	A	0.1	25	9.40	A	0.125	25
	EB	Stop	14.90	B	0.277	50	13.40	B	0.245	25

Source: Attachment H

Table 07
Year 2027 Background Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	71.00	E	47.50	D
	EB	Signal	116.40	F	31.50	C
	WB	Signal	29.20	C	67.00	E
	NB	Signal	33.90	C	34.70	C
	SB	Signal	27.30	C	24.70	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	38.90	D	211.30	F
	EB	Signal	47.30	D	43.20	D
	WB	Signal	48.60	D	41.30	D
	NB	Signal	27.50	C	349.50	F
	SB	Signal	44.60	D	98.40	F
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	38.20	D	50.40	D
	EB	Signal	48.60	D	51.90	D
	WB	Signal	30.40	C	65.70	E
	NB	Signal	48.80	D	51.70	D
	SB	Signal	36.00	D	29.40	C
US 17 at Hall Park Road	SBL	Yield	9.70	A	10.10	B
	WB	Stop	28.80	D	13.50	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	7.90	A
	WB	Stop	13.20	B	12.00	B
US 17 at Oak Ridge Avenue	NBL	Yield	9.20	A	9.70	A
	EB	Stop	15.90	C	14.30	B

Source: Attachment H

Table 08
Year 2027 Background Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	71.00	E			47.50	D		
	EBL	Signal	18.20	B	0.28	42	19.20	B	0.11	15
	EBTR	Signal	128.50	F	1.19	811	32.20	C	0.8	427
	WBL	Signal	22.80	C	0.21	8	17.90	B	0.26	30
	WBT	Signal	30.80	C	0.72		75.80	F	1.05	
	WBR	Signal	18.20	B	0.08	5	18.10	B	0.07	0
	NB	Signal	33.90	C	0.57	111	34.70	C	0.66	226
	SB	Signal	27.30	C	0.28	47	24.70	C	0.29	44
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	38.90	D			211.30	F		
	EBLT	Signal	45.90	D	0.65	112	42.80	D	0.38	172
	EBR	Signal	48.70	D	0.82	40	43.10	D	0.61	33
	WB	Signal	48.60	D	0.38	58	41.30	D	0.33	120
	NBL	Signal	35.30	D	0.76	237	797.50	F	2.66	699
	NBTR	Signal	25.20	C	0.6		191.00	F	1.3	
	SBL	Signal	15.10	B	0.04	5	30.70	C	0.14	17
	SBTR	Signal	44.80	D	0.89		99.70	F	1.07	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	38.20	D			50.40	D		
	EB	Signal	48.60	D	0.38	152	51.90	D	0.4	89
	WBL	Signal	58.00	E	0.73	226	67.30	E	0.84	370
	WBT	Signal	31.90	C	0.08		34.20	C	0.24	
	WBR	Signal	17.90	B	0.58	264	69.50	F	1.05	1019
	NBL	Signal	55.10	E	0.02	5	56.50	E	0.09	15
	NBT	Signal	48.50	D	0.66		53.20	D	0.78	
	NBR	Signal	49.30	D	0.68	41	48.10	D	0.69	46
	SBL	Signal	20.50	C	0.81	395	36.80	D	0.55	254
SBTR	Signal	20.50	C	0.24		21.10	C	0.32		
US 17 at Hall Park Road	SBL	Yield	9.70	A	0.095	25	10.10	B	0.027	25
	WB	Stop	28.80	D	0.107	25	13.50	B	0.209	25
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	0.059	25	7.90	A	0.017	25
	WB	Stop	13.20	B	0.105	25	12.00	B	0.215	25
US 17 at Oak Ridge Avenue	NBL	Yield	9.20	A	0.111	25	9.70	A	0.142	25
	EB	Stop	15.90	C	0.311	50	14.30	B	0.279	50

Source: Attachment H

Table 09
Year 2030 Background Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	78.00	E	52.00	D
	EB	Signal	130.10	F	32.90	C
	WB	Signal	30.10	C	75.40	E
	NB	Signal	34.60	C	35.90	D
	SB	Signal	27.30	C	24.80	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	41.20	D	225.00	F
	EB	Signal	48.70	D	43.70	D
	WB	Signal	48.80	D	41.50	D
	NB	Signal	29.20	C	370.80	F
	SB	Signal	48.00	D	108.40	F
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.40	D	157.80	F
	EB	Signal	50.40	D	52.30	D
	WB	Signal	25.80	C	114.70	F
	NB	Signal	46.20	D	294.50	F
	SB	Signal	30.80	C	26.70	C
US 17 at Hall Park Road	SBL	Yield	10.80	B	13.00	B
	WB	Stop	61.70	F	23.00	C
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	7.90	A
	WB	Stop	13.50	B	12.20	B
US 17 at Oak Ridge Avenue	NBL	Yield	9.20	A	9.80	A
	EB	Stop	16.40	C	14.80	B

Source: Attachment H

Table 10
Year 2030 Background Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	78.00	E			52.00	D		
	EBL	Signal	18.80	B	0.3	43	19.20	B	0.11	15
	EBTR	Signal	144.00	F	1.23		33.70	C	0.82	
	WBL	Signal	22.90	C	0.21	7	18.50	B	0.28	30
	WBT	Signal	31.80	C	0.75		85.60	F	1.08	
	WBR	Signal	18.30	B	0.08	5	18.10	B	0.07	0
	NB	Signal	34.60	C	0.59	114	35.90	D	0.69	249
	SB	Signal	27.30	C	0.29	49	24.80	C	0.29	45
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	41.20	D			225.00	F		
	EBLT	Signal	46.50	D	0.67	112	43.10	D	0.4	178
	EBR	Signal	51.00	D	0.84	40	43.70	D	0.63	34
	WB	Signal	48.80	D	0.38		41.50	D	0.33	
	NBL	Signal	41.00	D	0.8	249	832.20	F	2.74	722
	NBTR	Signal	25.70	C	0.61		207.60	F	1.34	
	SBL	Signal	15.30	B	0.04	5	30.70	C	0.14	17
	SBTR	Signal	48.20	D	0.91		109.70	F	1.1	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.40	D			157.80	F		
	EB	Signal	50.40	D	0.44	149	52.30	D	0.49	101
	WBL	Signal	42.20	D	0.4	111	46.90	D	0.53	161
	WBT	Signal	31.40	C	0.04		32.60	C	0.13	
	WBR	Signal	18.00	B	0.34	142	146.40	F	1.18	0
	NBL	Signal	60.00	E	0.22	28	157.20	F	1.05	108
	NBT	Signal	48.30	D	0.82		339.20	F	1.63	
	NBR	Signal	30.30	C	0.28	8	39.50	D	0.4	0
	SBL	Signal	43.30	D	0.55	209	33.50	C	0.3	100
SBTR	Signal	24.10	C	0.5		24.30	C			
								55		
US 17 at Hall Park Road	SBL	Yield	10.80	B	0.118	25	13.00	B	0.043	25
	WB	Stop	61.70	F	0.222	25	23.00	C	0.379	50
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	0.061	25	7.90	A	0.017	25
	WB	Stop	13.50	B	0.112	25	12.20	B	0.224	25
US 17 at Oak Ridge Avenue	NBL	Yield	9.20	A	0.116	25	9.80	A	0.149	25
	EB	Stop	16.40	C	0.328	50	14.80	B	0.299	50

Source: Attachment H

Table 11
Year 2035 Background Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	89.20	F	60.90	E
	EB	Signal	152.30	F	36.30	D
	WB	Signal	31.70	C	91.80	F
	NB	Signal	36.20	D	38.50	D
	SB	Signal	27.60	C	25.00	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	46.00	D	249.20	F
	EB	Signal	51.70	D	44.60	D
	WB	Signal	49.10	D	41.80	D
	NB	Signal	32.50	C	407.70	F
	SB	Signal	55.50	E	127.70	F
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	37.40	D	173.70	F
	EB	Signal	50.90	D	53.50	D
	WB	Signal	26.20	C	130.10	F
	NB	Signal	48.40	D	324.50	F
	SB	Signal	31.00	C	27.00	C
US 17 at Hall Park Road	SBL	Yield	11.10	B	13.50	B
	WB	Stop	69.80	F	25.50	D
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.10	A	8.00	A
	WB	Stop	13.90	B	12.50	B
US 17 at Oak Ridge Avenue	NBL	Yield	9.40	A	10.00	B
	EB	Stop	17.30	C	15.40	C

Source: Attachment H

Table 12
Year 2035 Background Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Moveent	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	89.20	F			60.90	E		
	EBL	Signal	19.90	B	0.33	45	19.30	B	0.12	16
	EBTR	Signal	168.70	F	1.29		37.30	D	0.86	
	WBL	Signal	22.90	C	0.21	7	19.50	B	0.3	31
	WBT	Signal	33.70	C	0.78		104.80	F	1.13	
	WBR	Signal	18.30	B	0.09	5	18.20	B	0.08	0
	NB	Signal	36.20	D	0.62	121	38.50	D	0.73	273
	SB	Signal	27.60	C	0.3	51	25.00	C	0.31	48
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	46.00	D			249.20	F		
	EBLT	Signal	47.60	D	0.7	112	43.60	D	0.42	186
	EBR	Signal	55.80	E	0.88	42	45.10	D	0.66	35
	WB	Signal	49.10	D	0.39	60	41.80	D	0.35	128
	NBL	Signal	52.50	D	0.87	269	894.20	F	2.88	762
	NBTR	Signal	26.60	C	0.64		235.00	F	1.4	
	SBL	Signal	15.50	B	0.04	5	30.90	C	0.15	18
	SBTR	Signal	55.50	E	0.96		129.10	F	1.15	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	37.40	D			173.70	F		
	EB	Signal	50.90	D	0.46	154	53.50	D	0.53	108
	WBL	Signal	43.00	D	0.43	116	48.70	D	0.57	170
	WBT	Signal	31.40	C	0.04		32.70	C	0.14	
	WBR	Signal	18.30	B	0.35	151	168.20	F	1.24	96
	NBL	Signal	60.50	E	0.24	30	173.20	F	1.11	94
	NBT	Signal	50.90	D	0.86		374.20	F	1.71	
	NBR	Signal	30.60	C	0.29	11	39.90	D	0.42	34
	SBL	Signal	43.50	D	0.57	220	33.60	C	0.32	146
SBTR	Signal	24.40	C	0.53		24.60	C	0.57		
US 17 at Hall Park Road	SBL	Yield	11.10	B	0.123	25	13.50	B	0.05	25
	WB	Stop	69.80	F	0.247	25	23.50	D	0.423	50
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.10	A	0.065	25	8.00	A	0.019	25
	WB	Stop	13.90	B	0.123	25	12.50	B	0.241	25
US 17 at Oak Ridge Avenue	NBL	Yield	9.40	A	0.124	25	10.00	B	0.16	25
	EB	Stop	17.30	C	0.356	50	15.40	C	0.32	50

Source: Attachent H

Table 13
Year 2025 (Analysis Phase 01) Development Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	42.60	D	36.80	D
	EB	Signal	58.20	E	34.10	C
	WB	Signal	23.00	C	42.70	D
	NB	Signal	32.80	C	31.20	C
	SB	Signal	25.30	C	23.40	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	32.70	C	55.80	E
	EB	Signal	44.80	D	47.00	D
	WB	Signal	45.90	D	50.30	D
	NB	Signal	23.50	C	63.10	E
	SB	Signal	33.70	C	49.90	D
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.30	D	52.70	D
	EB	Signal	51.80	D	51.40	D
	WB	Signal	26.80	C	72.00	E
	NB	Signal	45.20	D	50.10	D
	SB	Signal	35.40	D	30.30	C
US 17 at Hall Park Road	SBL	Yield	9.00	A	9.80	A
	WB	Stop	16.90	C	12.60	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.10	A	8.00	A
	WB	Stop	13.10	B	14.40	B
US 17 at Oak Ridge Avenue	NBL	Yield	8.70	A	9.40	A
	EB	Stop	12.70	B	12.80	B
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.5	A	7.7	A
	WBL	Stop	10.6	B	13.1	B
	WBR	Stop	9.5	A	9.2	A

Source: Attachment H

Table 14
Year 2025 (Analysis Phase 01) Development Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	42.60	D			36.80	D		
	EBL	Signal	14.20	B	0.15	42	17.90	B	0.7	16
	EBTR	Signal	62.90	E	1		34.80	C	0.82	
	WBL	Signal	23.30	C	0.24	5	21.10	C	0.39	62
	WBT	Signal	23.50	C	0.46		48.50	D	0.93	
	WBR	Signal	18.00	B	0.06	4	18.90	B	0.06	0
	NB	Signal	32.80	C	0.54	237	31.20	C	0.6	268
	SB	Signal	25.30	C	0.14	53	23.40	C	0.2	58
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	32.70	C			55.80	E		
	EBLT	Signal	42.50	D	0.52	108	51.70	D	0.54	186
	EBR	Signal	46.60	D	0.8	43	42.50	D	0.62	40
	WB	Signal	45.90	D	0.27	58	50.30	D	0.38	119
	NBL	Signal	25.00	C	0.61	178	141.80	F	1.19	586
	NBTR	Signal	23.10	C	0.51		35.80	D	0.78	
	SBL	Signal	14.40	B	0.01	6	21.80	C	0.05	14
	SBTR	Signal	33.80	C	0.74		50.00	D	0.87	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.30	D			52.70	D		
	EB	Signal	51.80	D	0.5	193	51.40	D	0.44	126
	WBL	Signal	51.80	D	0.62	207	67.60	E	0.83	381
	WBT	Signal	31.60	C	0.06	45	34.50	C	0.26	
	WBR	Signal	17.30	B	0.55	226	78.70	F	1.08	1059
	NBL	Signal	54.90	D	0.01	7	55.60	E	0.04	18
	NBT	Signal	46.00	D	0.56		50.60	D	0.72	
	NBR	Signal	43.40	D	0.54	53	49.00	D	0.67	59
	SBL	Signal	42.70	D	0.75	368	38.00	D	0.58	270
SBTR	Signal	20.50	C	0.24	129	21.70	C	0.33		
US 17 at Hall Park Road	SBL	Yield	9.00	A	0.044	25	9.80	A	0.013	-
	WB	Stop	16.90	C	0.014	-	12.60	B	0.112	25
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.10	A	0.044	25	8.00	A	0.011	-
	WB	Stop	13.10	B	0.014	25	14.40	B	0.287	50
US 17 at Oak Ridge Avenue	NBL	Yield	8.70	A	0.078	25	9.40	A	0.119	25
	EB	Stop	12.70	B	0.217	25	12.80	B	0.234	25
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.5	A	0.029	25	7.7	A	0.099	25
	WBL	Stop	10.6	B	0.01	-	13.1	B	0.01	-
	WBR	Stop	9.5	A	0.133	25	9.2	A	0.091	25

Source: Attachment H

Table 15
Year 2027 (Analysis Phase 02) Development Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	55.80	E	41.10	D
	EB	Signal	82.50	F	40.10	D
	WB	Signal	23.50	C	48.30	D
	NB	Signal	31.80	C	31.80	C
	SB	Signal	25.40	C	23.60	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	34.50	C	67.20	E
	EB	Signal	44.20	D	47.10	D
	WB	Signal	46.80	D	51.00	D
	NB	Signal	25.70	C	75.50	E
	SB	Signal	37.60	D	65.90	E
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	40.80	D	58.90	E
	EB	Signal	50.90	D	54.70	D
	WB	Signal	31.70	C	79.40	E
	NB	Signal	55.70	E	54.90	D
	SB	Signal	35.40	D	36.90	D
US 17 at Pearce Blvd/Hall Park Road	Intersection	Signal	13.20	B	12.90	B
	EB	Signal	17.20	B	17.50	B
	WB	Signal	22.50	C	23.70	C
	NB	Signal	14.30	B	12.30	B
	SB	Signal	10.70	B	12.10	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	7.90	A
	WB	Stop	12.70	B	13.10	B
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.5	A	7.6	A
	WBL	Stop	10.4	B	11.6	B
	WBR	Stop	9.2	A	9.1	A
US 17 at Oak Ridge Avenue	NBL	Yield	8.80	A	9.70	A
	EB	Stop	13.30	B	13.50	B

Source: Attachment H

Table 16
Year 2027 (Analysis Phase 02) Development Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	55.80	E			41.10	D		
	EBL	Signal	14.60	B	0.17	44	18.30	B	0.08	16
	EBTR	Signal	89.70	F	1.09		41.00	D	0.89	
	WBL	Signal	22.40	C	0.17	3	19.10	B	0.23	37
	WBT	Signal	24.20	C	0.5		53.00	D	0.96	
	WBR	Signal	18.10	B	0.07	5	18.00	B	0.06	0
	NB	Signal	31.80	C	0.5	243	31.80	C	0.61	282
	SB	Signal	25.40	C	0.15	57	23.60	C	0.21	61
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	34.50	C			67.20	E		
	EBLT	Signal	42.20	D	0.51	96	51.80	D	0.55	188
	EBR	Signal	45.70	D	0.78	42	42.60	D	0.62	45
	WB	Signal	46.80	D	0.31	65	51.00	D	0.41	129
	NBL	Signal	28.40	C	0.67	223	183.00	F	1.27	578
	NBTR	Signal	25.00	C	0.59		42.30	D	0.86	
	SBL	Signal	14.90	B	0.01	6	23.60	C	0.06	15
	SBTR	Signal	37.70	D	0.81		67.10	E	0.97	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	40.80	D			58.90	E		
	EB	Signal	50.90	D	0.47	181	54.70	D	0.46	122
	WBL	Signal	62.50	E	0.78	330	73.80	E	0.95	557
	WBT	Signal	31.50	C	0.05		27.30	C	0.19	
	WBR	Signal	18.10	B	0.58	275	88.40	F	1.11	1123
	NBL	Signal	54.90	D	0.01	7	58.10	E	0.06	18
	NBT	Signal	50.10	D	0.7		61.10	E	0.87	
	NBR	Signal	65.00	E	0.86	159	43.30	D	0.72	59
	SBL	Signal	43.20	D	0.78	386	46.60	D	0.76	311
	SBTR	Signal	20.90	C	0.27		27.70	C	0.47	
US 17 at Pearce Blvd/Hall Park Road	Intersection	Signal	13.20	B			12.90	B		
	EB	Signal	17.40	B	0.36	116	17.70	B	0.27	86
	EBTR	Signal	12.70	B	0.02		13.60	B	0.02	
	WB	Signal	22.50	C	0.04	5	23.70	C	0.36	9
	NBL	Signal	10.30	B	0.01	5	9.70	A	0.04	8
	NBTR	Signal	14.30	B	0.64		12.40	B	0.58	
	SBL	Signal	10.10	B	0.13	27	9.70	A	0.02	5
	SBTR	Signal	10.90	B	0.42		12.40	B	0.6	
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	0.048	25	7.90	A	0.011	-
	WB	Stop	12.70	B	0.087	25	13.10	B	0.239	25
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.5	A	0.017	25	7.6	A	0.057	25
	WBL	Stop	10.4	B	0.005	-	11.6	B	0.004	-
	WBR	Stop	9.2	A	0.075	25	9.1	A	0.053	25
US 17 at Oak Ridge Avenue	NBL	Yield	8.80	A	0.086	25	9.70	A	0.131	25
	EB	Stop	13.30	B	0.238	25	13.50	B	0.262	25

Source: Attachment H

Table 17
Year 2030 (Analysis Phase 03) Development Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	62.30	E	45.50	D
	EB	Signal	94.60	F	46.80	D
	WB	Signal	23.70	C	52.80	D
	NB	Signal	32.60	C	33.20	C
	SB	Signal	25.50	C	23.70	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	36.70	D	77.80	E
	EB	Signal	45.30	D	47.80	D
	WB	Signal	47.00	D	51.30	D
	NB	Signal	27.90	C	76.80	E
	SB	Signal	41.10	D	94.10	F
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.60	D	43.40	D
	EB	Signal	50.90	D	48.40	D
	WB	Signal	27.20	C	43.50	D
	NB	Signal	43.20	D	45.40	D
	SB	Signal	32.50	C	41.00	D
US 17 at Pearce Blvd/Hall Park Road	Intersection	Signal	13.40	B	14.70	B
	EB	Signal	18.30	B	21.70	C
	WB	Signal	22.60	C	28.80	C
	NB	Signal	12.30	B	13.40	B
	SB	Signal	12.60	B	13.80	B
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	8.00	A
	WB	Stop	13.10	B	13.60	B
Oak Ridge Avenue at Pearce Boulevard	SBL	Yield	7.6	A	7.7	A
	WBL	Stop	10.8	B	12	B
	WBR	Stop	9.3	A	9.2	A
Oak Ridge Avenue at Jersey Avenue	SBL	Yield	7.50	A	7.60	A
	WB	Stop	9.50	A	9.70	A
US 17 at Oak Ridge Avenue	NBL	Yield	8.90	A	9.90	A
	EB	Stop	13.60	B	14.10	B

Source: Attachment H

Table 18
Year 2030 (Analysis Phase 03) Development Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	62.30	E			45.50	D		
	EBL	Signal	14.80	B	0.18	45	18.80	B	0.08	17
	EBTR	Signal	103.10	F	1.13		47.90	D	0.93	
	WBL	Signal	22.70	C	0.2	3	20.80	C	0.29	38
	WBT	Signal	24.50	C	0.51		58.50	E	0.99	
	WBR	Signal	18.10	B	0.07	5	18.00	B	0.06	0
	NB	Signal	32.60	C	0.53	270	33.20	C	0.64	306
	SB	Signal	25.50	C	0.15	57	23.70	C	0.22	63
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	36.70	D			76.80	E		
	EBLT	Signal	42.50	D	0.52	95	52.30	D	0.56	194
	EBR	Signal	47.60	D	0.81	43	43.40	D	0.64	52
	WB	Signal	47.00	D	0.32	60	51.30	D	0.42	131
	NBL	Signal	31.50	C	0.72	244	210.30	F	1.34	600
	NBTR	Signal	27.00	C	0.66		37.10	D	0.85	
	SBL	Signal	15.40	B	0.01	6	26.10	C	0.09	25
	SBTR	Signal	41.30	D	0.85		96.90	F	1.08	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	36.60	D			43.40	D		
	EB	Signal	50.90	D	0.46	163	48.40	D	0.34	105
	WBL	Signal	41.90	D	0.39	136	49.20	D	0.6	215
	WBT	Signal	31.20	C	0.03		32.40	C	0.12	
	WBR	Signal	20.70	C	0.36	158	42.70	D	0.82	449
	NBL	Signal	57.30	E	0.12	33	48.70	D	0.24	93
	NBT	Signal	45.50	D	0.83		48.30	D	0.93	
	NBR	Signal	28.10	C	0.3	34	22.20	C	0.28	36
	SBL	Signal	47.70	D	0.61	214	54.10	D	0.74	182
SBTR	Signal	25.40	C	0.55		37.10	D	0.83		
US 17 at Pearce Blvd/Hall Park Road	Intersection	Signal	13.40	B			14.70	B		
	EBL	Signal	19.10	B	0.4	135	22.60	C	0.33	130
	EBTR	Signal	17.50	B	0.46		20.90	C	0.38	
	WB	Signal	22.60	C	0.03	0	28.80	C	0.36	17
	NBL	Signal	9.30	A	0.2	21	16.60	B	0.68	97
	NBTR	Signal	12.50	B	0.62		12.80	B	0.72	
	SBL	Signal	9.00	A	0.13	15	11.00	B	0.03	5
	SBT	Signal	13.00	B	0.67		14.30	B	0.67	
	SBR	Signal	9.30	A	0.09	10	11.50	B	0.31	28
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.00	A	0.05	25	8.00	A	0.012	-
	WB	Stop	13.10	B	0.095	25	13.60	B	0.256	25
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.6	A	0.014	-	7.7	A	0.045	25
	WBL	Stop	10.8	B	0.021	25	12	B	0.017	-
	WBR	Stop	9.3	A	0.048	25	9.2	A	0.034	25
Oak Ridge Avenue at Jersey Avenue	SBL	Yield	7.50	A	0.009	-	7.60	A	0.03	25
	WB	Stop	9.50	A	0.044	25	9.70	A	0.034	25
US 17 at Oak Ridge Avenue	NBL	Yield	8.90	A	0.095	25	9.90	A	0.163	25
	EB	Stop	13.60	B	0.274	50	14.10	B	0.3	50

Source: Attachment H

Table 19
Year 2035 (Analysis Phase 04) Development Conditions - HCM Delay and LOS Summary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Approach	Signal Control	AM Peak		PM Peak	
			Delay	LOS	Delay	LOS
SR 16 W at Oak Ridge Avenue	Intersection	Signal	77.30	E	46.50	D
	EB	Signal	123.50	F	49.20	D
	WB	Signal	24.20	C	49.50	D
	NB	Signal	37.30	D	41.70	D
	SB	Signal	25.60	C	24.60	C
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	43.30	D	114.80	F
	EB	Signal	47.70	D	49.30	D
	WB	Signal	47.30	D	51.70	D
	NB	Signal	34.30	C	91.00	F
	SB	Signal	51.30	D	173.90	F
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	40.50	D	45.40	D
	EB	Signal	52.90	D	72.00	E
	WB	Signal	30.10	C	71.90	E
	NB	Signal	48.20	D	40.20	D
	SB	Signal	35.10	D	34.70	C
US 17 at Pearce Boulevard/Hall Park Road	Intersection	Signal	22.20	C	28.50	C
	EB	Signal	26.50	C	43.90	D
	WB	Signal	35.50	D	49.90	D
	NB	Signal	20.00	C	22.00	C
	SB	Signal	21.30	C	29.50	C
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.20	A	8.10	A
	WB	Stop	14.90	B	17.90	C
Oak Ridge Avenue at Pearce Boulevard	SBL	Yield	7.7	A	7.9	A
	WBL	Stop	11.8	B	15.2	C
	WBR	Stop	9.8	A	9.5	A
Oak Ridge Avenue at Jersey Avenue	SBL	Yield	7.60	A	7.80	A
	WB	Stop	9.90	A	10.40	B
US 17 at Oak Ridge Avenue	NBL	Yield	9.00	A	10.30	B
	EB	Stop	14.30	B	15.20	C

Source: Attachment H

Table 20
Year 2035 (Analysis Phase 04) Development Conditions - HCM Delay and LOS Suary
Ayrshire PUD - Traffic Study, City of Green Cove Springs, FL

Intersection	Movement	Signal Control	AM Peak				PM Peak			
			Delay	LOS	V/C Ratio	95%ile Queue (Feet)	Delay	LOS	V/C Ratio	95%ile Queue (Feet)
SR 16 W at Oak Ridge Avenue	Intersection	Signal	77.30	E			46.50	D		
	EBL	Signal	15.00	B	0.19	47	19.00	B	0.09	16
	EBTR	Signal	134.70	F	1.2		50.30	D	0.96	
	WBL	Signal	23.10	C	0.22	4	27.30	C	0.47	42
	WBT	Signal	25.10	C	0.54		54.40	D	0.98	
	WBR	Signal	18.10	B	0.07	5	16.80	B	0.06	0
	NB	Signal	37.30	D	0.66	376	41.70	D	0.78	396
	SB	Signal	25.60	C	0.16	59	24.60	C	0.23	67
SR 16 W / Ferris Ave. at US 17	Intersection	Signal	43.30	D			114.80	F		
	EBLT	Signal	43.40	D	0.56	94	53.80	D	0.62	225
	EBR	Signal	51.20	D	0.85	40	44.70	D	0.67	62
	WB	Signal	47.30	D	0.33		51.70	D	0.43	
	NBL	Signal	43.00	D	0.81	265	238.80	F	1.41	640
	NBTR	Signal	32.40	C	0.78	434	49.80	D	0.95	830
	SBL	Signal	16.80	B	0.02	6	29.70	C	0.11	15
	SBTR	Signal	51.80	D	0.93		182.90	F	1.3	
SR 16 E / Cooks Ln. at US 17	Intersection	Signal	40.50	D			45.40	D		
	EB	Signal	52.90	D	0.52	184	72.00	E	0.62	151
	WBL	Signal	44.40	D	0.47	151	77.50	E	0.88	384
	WBT	Signal	31.20	C	0.03		36.60	D	0.16	
	WBR	Signal	23.10	C	0.4	184	74.10	E	0.99	578
	NBL	Signal	54.80	D	0.1	34	60.00	E	0.4	104
	NBT	Signal	52.00	D	0.92		42.80	D	0.92	
	NBR	Signal	27.60	C	0.38	42	15.70	B	0.29	30
	SBL	Signal	51.60	D	0.73	232	57.80	E	0.88	224
SBTR	Signal	27.80	C	0.63		28.90	C	0.81		
US 17 at Pearce Blvd/Hall Park Road	Intersection	Signal	22.20	C			28.80	C		
	EBL	Signal	28.00	C	0.65	462	46.00	D	0.75	355
	EBTR	Signal	25.00	C	0.71		44.10	D	0.75	
	WB	Signal	35.50	D	0.04	0	50.10	D	0.51	0
	NBL	Signal	17.60	B	0.48	69	44.80	D	0.93	448
	NBTR	Signal	20.40	C	0.69		13.80	B	0.63	
	SBL	Signal	15.50	B	0.18	30	18.80	B	0.04	6
	SBT	Signal	22.20	C	0.76		29.90	C	0.79	
	SBR	Signal	16.30	B	0.2	33	29.80	C	0.74	61
Oak Ridge Avenue at Green Cove Avenue	SBL	Yield	8.20	A	0.056	25	8.10	A	0.013	-
	WB	Stop	14.90	B	0.132	25	17.90	C	0.388	50
Oak Ridge Avenue at Pearce Blvd	SBL	Yield	7.7	A	0.027	25	7.9	A	0.094	25
	WBL	Stop	11.8	B	0.047	25	15.2	C	0.05	25
	WBR	Stop	9.8	A	0.098	25	9.5	A	0.07	25
Oak Ridge Avenue at Jersey Avenue	SBL	Yield	7.60	A	0.017	25	7.80	A	0.062	25
	WB	Stop	9.90	A	0.09	25	10.40	B	0.074	25
US 17 at Oak Ridge Avenue	NBL	Yield	9.00	A	0.109	25	10.30	B	0.205	25
	EB	Stop	14.30	B	0.325	50	15.20	C	0.352	50

Source: Attachment H

Attachment A

Conceptual Site Plan
(Source: Dunn and Associates, Inc.)

Attachment B

Traffic Counts Data and Season Factors



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 1 SOUTH OAKRIDGE AVENUE & SR 16 WEST AM

Date: Thursday, April 22, 2021

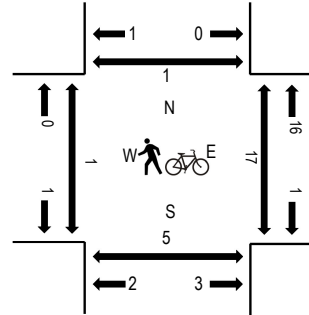
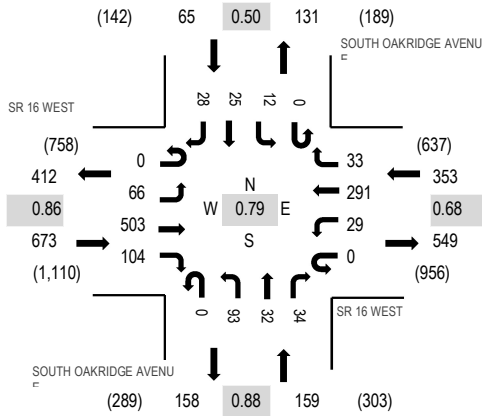
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 16 WEST Eastbound				SR 16 WEST Westbound				SOUTH OAKRIDGE AVENUE Northbound				SOUTH OAKRIDGE AVENUE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	12	150	34	0	7	115	7	0	34	2	9	0	6	6	12	394	1,250	0	0	0	0
7:15 AM	0	23	131	28	0	10	64	3	0	30	0	9	0	1	0	6	305	1,138	0	1	0	1
7:30 AM	0	10	111	25	0	7	47	11	0	20	8	9	0	3	4	2	257	1,076	0	3	0	0
7:45 AM	0	21	111	17	0	5	65	12	0	9	22	7	0	2	15	8	294	1,036	1	9	0	0
8:00 AM	0	12	86	17	0	4	69	9	0	16	9	15	0	12	23	10	282	942	0	5	0	0
8:15 AM	0	4	86	25	0	6	67	4	0	25	3	12	0	2	2	7	243		0	0	0	0
8:30 AM	0	3	86	17	0	2	61	2	0	14	8	15	0	2	5	2	217		0	0	0	0
8:45 AM	0	4	76	21	0	5	55	0	0	14	0	13	0	2	4	6	200		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	15	5	0	4	12	0	0	10	0	0	0	0	0	0	46
Lights	0	63	471	85	0	24	272	32	0	58	29	27	0	12	23	25	1,121
Mediums	0	3	17	14	0	1	7	1	0	25	3	7	0	0	2	3	83
Total	0	66	503	104	0	29	291	33	0	93	32	34	0	12	25	28	1,250



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 2 US 17 & FERRIS STREET AM

Date: Thursday, April 22, 2021

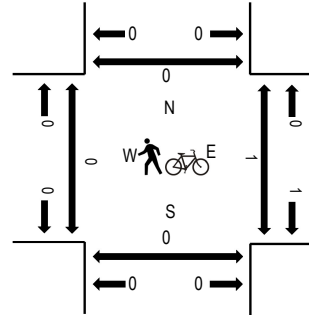
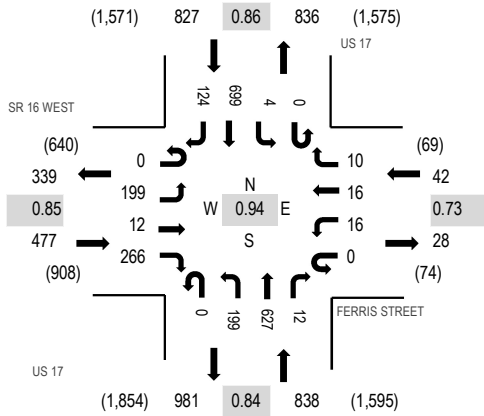
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 16 WEST Eastbound				FERRIS STREET Westbound				US 17 Northbound				US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	47	5	82	0	2	4	3	0	51	120	3	0	4	146	43	510	2,168	0	0	0	0
7:15 AM	0	72	3	72	0	3	3	2	0	38	145	4	0	2	214	24	582	2,184	0	0	0	0
7:30 AM	0	38	0	65	0	4	2	1	0	61	193	3	0	1	153	30	551	2,153	0	0	0	0
7:45 AM	0	42	3	69	0	5	6	4	0	44	135	4	0	1	174	38	525	2,081	0	0	0	0
8:00 AM	0	47	6	60	0	4	5	3	0	56	154	1	0	0	158	32	526	1,975	0	1	0	0
8:15 AM	0	51	5	71	0	3	4	3	0	51	159	2	0	1	178	23	551		0	0	0	0
8:30 AM	0	30	3	54	0	0	1	3	0	39	166	1	0	3	163	16	479		0	0	0	0
8:45 AM	0	31	4	48	0	1	2	1	0	36	125	4	0	11	125	31	419		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	2	0	18	0	0	0	0	0	9	27	0	0	0	22	2	80
Lights	0	192	12	232	0	16	16	10	0	186	580	12	0	4	666	121	2,047
Mediums	0	5	0	16	0	0	0	0	0	4	20	0	0	0	11	1	57
Total	0	199	12	266	0	16	16	10	0	199	627	12	0	4	699	124	2,184



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

Location: 3 SOUTH OAKRIDGE AVENUE & GREEN COVE AVENUE AM

Date: Thursday, April 22, 2021

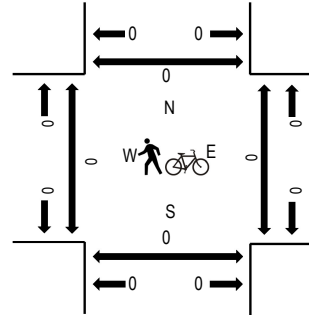
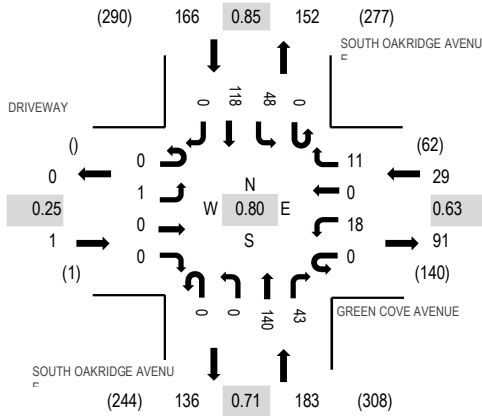
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

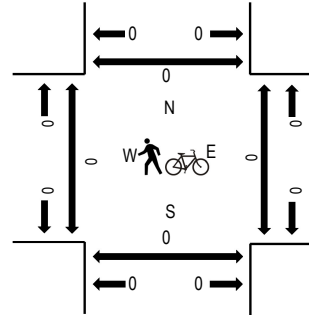
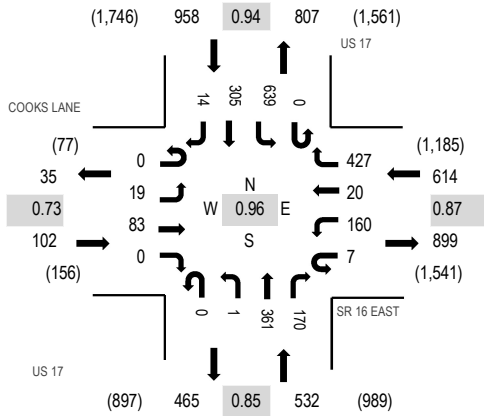
Interval Start Time	DRIVEWAY Eastbound				GREEN COVE AVENUE Westbound				SOUTH OAKRIDGE AVENUE Northbound				SOUTH OAKRIDGE AVENUE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	5	0	3	0	0	49	15	0	16	31	0	119	379	0	0	0	0
7:15 AM	0	0	0	0	0	3	0	2	0	0	31	6	0	12	23	0	77	342	0	0	0	0
7:30 AM	0	1	0	0	0	3	0	6	0	0	26	13	0	14	35	0	98	341	0	0	0	0
7:45 AM	0	0	0	0	0	7	0	0	0	0	34	9	0	6	29	0	85	313	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	4	0	0	35	7	0	6	29	0	82	282	0	1	0	0
8:15 AM	0	0	0	0	0	3	0	5	0	0	30	2	0	12	24	0	76		0	0	0	0
8:30 AM	0	0	0	0	0	8	0	5	0	0	24	5	0	9	19	0	70		0	0	0	0
8:45 AM	0	0	0	0	0	5	0	2	0	0	20	2	0	6	19	0	54		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	11	2	0	0	6	0	19
Lights	0	1	0	0	0	15	0	10	0	0	93	30	0	48	93	0	290
Mediums	0	0	0	0	0	3	0	1	0	0	36	11	0	0	19	0	70
Total	0	1	0	0	0	18	0	11	0	0	140	43	0	48	118	0	379

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	COOKS LANE Eastbound				SR 16 EAST Westbound				US 17 Northbound				US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	33	0	1	34	9	99	0	0	78	54	0	163	75	1	549	2,206	0	0	0	0
7:15 AM	0	5	20	0	1	40	4	93	0	0	101	44	0	179	73	3	563	2,147	0	0	0	0
7:30 AM	0	6	17	0	3	35	3	115	0	1	111	46	0	159	73	3	572	2,099	0	0	0	0
7:45 AM	0	6	13	0	2	51	4	120	0	0	71	26	0	138	84	7	522	1,971	0	0	0	0
8:00 AM	0	6	6	1	1	34	2	103	0	1	96	40	0	121	74	5	490	1,870	0	0	0	0
8:15 AM	0	2	13	1	0	34	3	108	0	0	91	36	0	141	81	5	515		0	0	0	0
8:30 AM	0	5	10	0	0	31	5	111	0	0	59	25	0	110	81	7	444		0	0	0	0
8:45 AM	0	4	5	1	1	34	10	94	0	1	75	33	0	100	60	3	421		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	27	0	15	0	0	22	16	0	13	15	0	108
Lights	0	18	82	0	7	123	20	401	0	1	325	129	0	610	282	13	2,011
Mediums	0	1	1	0	0	10	0	11	0	0	14	25	0	16	8	1	87
Total	0	19	83	0	7	160	20	427	0	1	361	170	0	639	305	14	2,206

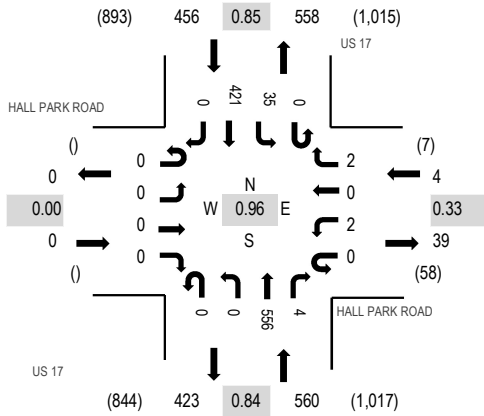


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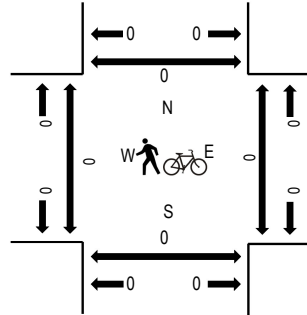
Location: 5 US 17 & HALL PARK ROAD AM
Date: Thursday, April 22, 2021
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Item #7.

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

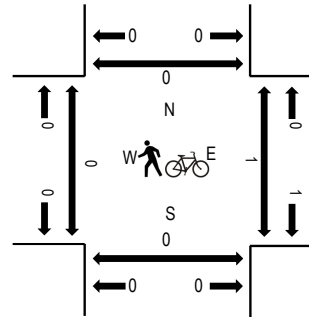
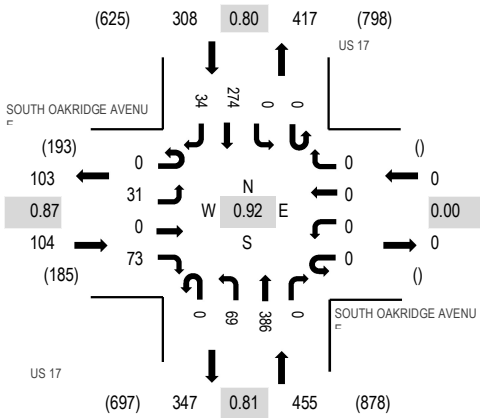
Interval Start Time	HALL PARK ROAD Eastbound				HALL PARK ROAD Westbound				US 17 Northbound				US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	0	0	0	0	2	0	1	0	0	153	2	0	7	99	0	264	1,020	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	129	1	0	7	105	0	243	998	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	166	1	0	4	94	0	265	998	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	108	0	0	17	123	0	248	939	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	138	1	0	6	95	0	242	897	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	126	0	0	4	112	0	243		0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	86	0	0	2	117	0	206		0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	105	0	0	6	95	0	206		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	35	0	0	0	42	0	77
Lights	0	0	0	0	0	2	0	2	0	0	482	4	0	35	361	0	886
Mediums	0	0	0	0	0	0	0	0	0	0	39	0	0	0	18	0	57
Total	0	0	0	0	0	2	0	2	0	0	556	4	0	35	421	0	1,020

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

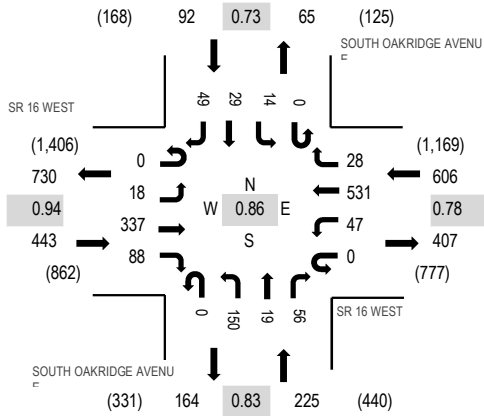
Traffic Counts - Motorized Vehicles

Interval Start Time	SOUTH OAKRIDGE AVENUE Eastbound				SOUTH OAKRIDGE AVENUE Westbound				US 17 Northbound			US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	7	0	15	0	0	0	0	0	27	118	0	0	0	62	4	233	858	0	0	0	0
7:15 AM	0	8	0	15	0	0	0	0	0	14	89	0	0	0	74	2	202	860	0	0	0	0
7:30 AM	0	6	0	15	0	0	0	0	0	22	103	0	0	0	76	5	227	867	0	0	0	0
7:45 AM	0	6	0	20	0	0	0	0	0	17	81	0	0	0	62	10	196	852	0	0	0	0
8:00 AM	0	7	0	20	0	0	0	0	0	21	113	0	0	0	66	8	235	830	0	1	0	0
8:15 AM	0	12	0	18	0	0	0	0	0	9	89	0	0	0	70	11	209		0	0	0	0
8:30 AM	0	4	0	10	0	0	0	0	0	21	74	0	0	0	95	8	212		0	0	0	0
8:45 AM	0	8	0	14	0	0	0	0	0	7	73	0	0	0	65	7	174		0	0	1	0

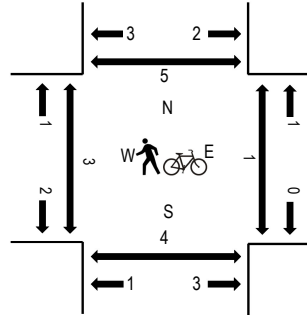
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	3	0	10	0	0	0	0	0	8	28	0	0	0	27	7	83
Lights	0	16	0	58	0	0	0	0	0	54	345	0	0	0	234	8	715
Mediums	0	12	0	5	0	0	0	0	0	7	13	0	0	0	13	19	69
Total	0	31	0	73	0	0	0	0	0	69	386	0	0	0	274	34	867

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 16 WEST Eastbound				SR 16 WEST Westbound				SOUTH OAKRIDGE AVENUE Northbound			SOUTH OAKRIDGE AVENUE Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	4	70	25	0	10	136	5	0	20	1	6	0	3	8	15	303	1,274	0	0	0	0
4:15 PM	0	5	85	27	0	4	140	9	0	38	6	15	0	3	5	8	345	1,366	0	1	2	0
4:30 PM	0	3	89	14	0	7	120	2	0	33	4	11	0	4	9	20	316	1,342	0	0	0	1
4:45 PM	0	4	76	22	0	11	113	7	0	43	3	14	0	3	2	12	310	1,338	2	0	0	2
5:00 PM	0	6	87	25	0	25	158	10	0	36	6	16	0	4	13	9	395	1,365	0	0	1	0
5:15 PM	0	4	73	22	0	8	113	6	0	51	6	17	0	3	6	12	321		0	0	0	0
5:30 PM	0	2	74	27	0	13	122	7	0	35	8	11	0	2	5	6	312		0	0	0	0
5:45 PM	0	7	89	22	0	16	122	5	0	34	5	21	0	1	5	10	337		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	7	4	0	0	7	0	0	1	0	3	0	0	0	0	22
Lights	0	18	319	73	0	40	516	28	0	145	19	50	0	14	27	48	1,297
Mediums	0	0	11	11	0	7	8	0	0	4	0	3	0	0	2	1	47
Total	0	18	337	88	0	47	531	28	0	150	19	56	0	14	29	49	1,366



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Location: 2 US 17 & FERRIS STREET PM

Date: Thursday, April 22, 2021

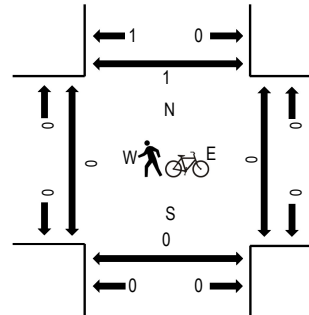
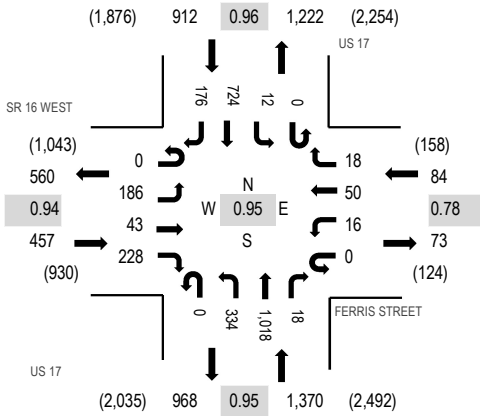
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SR 16 WEST Eastbound				FERRIS STREET Westbound				US 17 Northbound			US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
4:00 PM	0	47	8	54	0	4	5	9	0	81	221	3	0	2	197	37	668	2,633	0	0	0	1
4:15 PM	0	50	12	65	0	8	6	3	0	79	161	4	0	3	213	36	640	2,708	0	1	0	1
4:30 PM	0	51	4	56	0	8	12	3	0	60	215	0	0	5	193	42	649	2,761	0	0	0	0
4:45 PM	0	57	4	65	0	5	9	2	0	81	213	4	0	2	199	35	676	2,818	0	1	0	0
5:00 PM	0	58	10	64	0	4	15	4	0	83	258	6	0	2	191	48	743	2,823	0	0	0	0
5:15 PM	0	46	9	56	0	6	16	7	0	79	233	4	0	0	198	39	693		0	0	0	0
5:30 PM	0	34	9	54	0	6	10	4	0	69	287	5	0	6	178	44	706		0	0	0	1
5:45 PM	0	48	15	54	0	0	9	3	0	103	240	3	0	4	157	45	681		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	1	0	0	0	0	0	4	26	0	0	0	13	3	48
Lights	0	182	43	219	0	16	50	18	0	316	969	18	0	12	697	166	2,706
Mediums	0	3	0	8	0	0	0	0	0	14	23	0	0	0	14	7	69
Total	0	186	43	228	0	16	50	18	0	334	1,018	18	0	12	724	176	2,823



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Location: 3 SOUTH OAKRIDGE AVENUE & GREEN COVE AVENUE PM

Date: Thursday, April 22, 2021

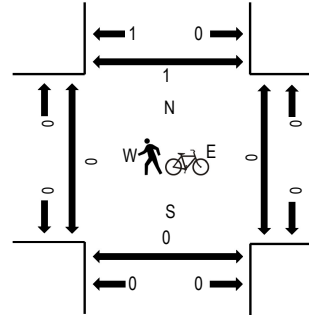
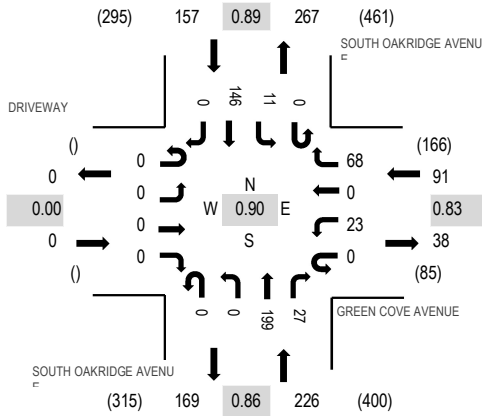
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DRIVEWAY				GREEN COVE AVENUE				SOUTH OAKRIDGE AVENUE				Total	Rolling Hour	Pedestrian Crossings									
	Eastbound				Westbound				Northbound						Southbound				West	East	South	North		
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right								
4:00 PM	0	0	0	0	0	0	5	0	6	0	0	22	8	0	0	8	32	0	81	387	0	0	0	1
4:15 PM	0	0	0	0	0	0	7	0	12	0	0	46	4	0	0	9	29	0	107	437	0	1	0	1
4:30 PM	0	0	0	0	0	0	8	0	15	0	0	40	3	0	0	4	22	0	92	442	0	0	0	0
4:45 PM	0	0	0	0	0	0	10	0	12	0	0	41	10	0	0	1	33	0	107	455	0	1	0	0
5:00 PM	0	0	0	0	0	0	5	0	16	0	0	56	10	0	0	6	38	0	131	474	0	0	0	0
5:15 PM	0	0	0	0	0	0	7	0	15	0	0	52	5	0	0	2	31	0	112		0	0	0	0
5:30 PM	0	0	0	0	0	0	5	0	23	0	0	34	4	0	0	2	37	0	105		0	0	0	1
5:45 PM	0	0	0	0	0	0	6	0	14	0	0	57	8	0	0	1	40	0	126		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	1	0	0	0	6	0	8
Lights	0	0	0	0	0	18	0	67	0	0	190	27	0	11	108	0	421
Mediums	0	0	0	0	0	4	0	1	0	0	8	0	0	0	32	0	45
Total	0	0	0	0	0	23	0	68	0	0	199	27	0	11	146	0	474



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Location: 4 US 17 & SR 16 EAST PM

Date: Thursday, April 22, 2021

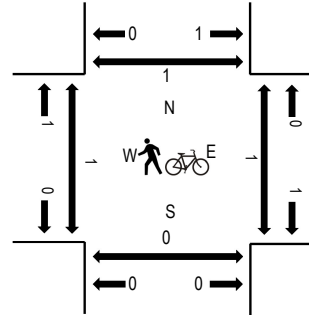
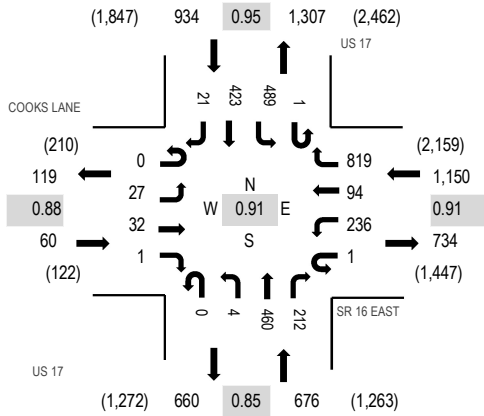
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	COOKS LANE Eastbound				SR 16 EAST Westbound				US 17 Northbound				US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	9	12	0	0	54	12	180	0	1	114	47	0	116	95	1	641	2,654	0	0	0	0
4:15 PM	0	2	12	0	1	55	19	176	0	1	80	36	0	148	109	3	642	2,784	0	0	0	0
4:30 PM	0	6	5	0	0	62	18	166	0	0	105	48	0	128	100	11	649	2,812	0	0	0	0
4:45 PM	0	2	6	1	0	56	13	218	0	2	107	52	0	148	113	4	722	2,820	0	0	0	0
5:00 PM	0	10	9	0	1	57	33	224	0	1	136	62	0	132	100	6	771	2,737	0	1	0	1
5:15 PM	0	6	9	0	0	55	24	179	0	0	109	44	1	126	110	7	670		0	0	0	0
5:30 PM	0	9	8	0	0	68	24	198	0	1	108	54	0	83	100	4	657		0	0	0	0
5:45 PM	0	10	6	0	1	46	18	201	1	0	106	48	0	105	90	7	639		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	8	1	9	0	0	17	9	0	9	7	0	60
Lights	0	27	32	1	1	217	89	803	0	4	423	201	1	471	411	20	2,701
Mediums	0	0	0	0	0	11	4	7	0	0	20	2	0	9	5	1	59
Total	0	27	32	1	1	236	94	819	0	4	460	212	1	489	423	21	2,820



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Location: 5 US 17 & HALL PARK ROAD PM

Date: Thursday, April 22, 2021

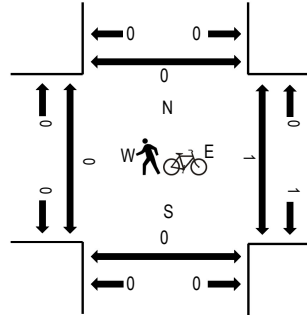
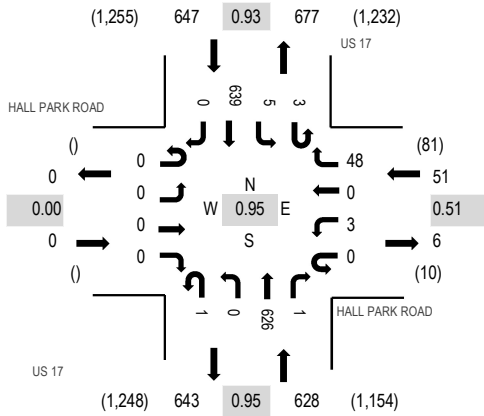
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

Item #7.

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

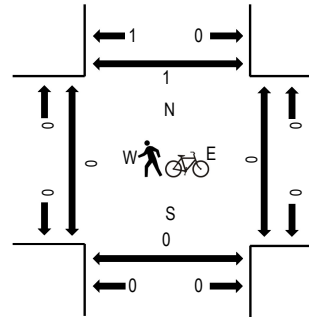
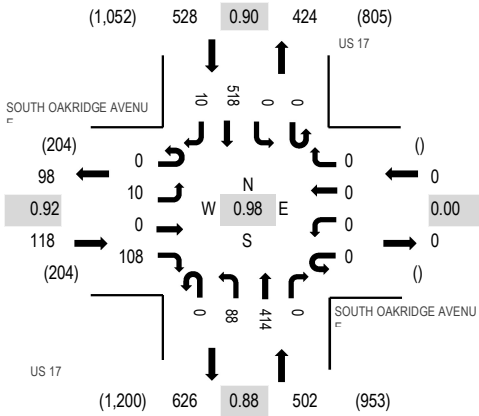
Interval Start Time	HALL PARK ROAD Eastbound				HALL PARK ROAD Westbound				US 17 Northbound				US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	1	0	12	0	0	123	0	0	0	155	0	291	1,197	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	3	0	0	107	0	0	0	147	0	257	1,247	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	9	0	0	148	0	0	3	173	0	333	1,310	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	6	0	0	159	0	0	1	150	0	316	1,326	0	1	0	0
5:00 PM	0	0	0	0	0	1	0	24	0	0	154	0	2	1	159	0	341	1,293	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	6	1	0	148	1	0	1	162	0	320		0	0	0	0
5:30 PM	0	0	0	0	0	1	0	12	0	0	165	0	1	2	168	0	349		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	5	0	0	148	0	0	1	129	0	283		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	25	1	0	0	17	0	44
Lights	0	0	0	0	0	3	0	45	1	0	579	0	3	4	607	0	1,242
Mediums	0	0	0	0	0	0	0	2	0	0	22	0	0	1	15	0	40
Total	0	0	0	0	0	3	0	48	1	0	626	1	3	5	639	0	1,326

Peak Hour - Motorized Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SOUTH OAKRIDGE AVENUE Eastbound				SOUTH OAKRIDGE AVENUE Westbound				US 17 Northbound			US 17 Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	3	0	20	0	0	0	0	0	19	104	0	0	0	108	8	262	1,061	0	0	0	1
4:15 PM	0	4	0	21	0	0	0	0	0	21	72	0	0	0	145	4	267	1,081	0	1	0	1
4:30 PM	0	1	0	12	0	0	0	0	0	20	86	0	0	0	127	9	255	1,101	0	0	0	0
4:45 PM	0	1	0	24	0	0	0	0	0	19	110	0	0	0	117	6	277	1,133	0	1	0	0
5:00 PM	0	5	0	27	0	0	0	0	0	25	96	0	0	0	124	5	282	1,148	0	0	0	0
5:15 PM	0	0	0	28	0	0	0	0	0	21	101	0	0	0	134	3	287		0	0	0	0
5:30 PM	0	4	0	27	0	0	0	0	0	15	101	0	0	0	139	1	287		0	0	0	1
5:45 PM	0	1	0	26	0	0	0	0	0	27	116	0	0	0	121	1	292		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	6	0	0	0	0	0	1	19	0	0	0	5	0	32
Lights	0	8	0	96	0	0	0	0	0	83	384	0	0	0	502	7	1,080
Mediums	0	1	0	6	0	0	0	0	0	4	11	0	0	0	11	3	36
Total	0	10	0	108	0	0	0	0	0	88	414	0	0	0	518	10	1,148

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7100 CLAY COUNTYWIDE

Item #7.

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2019 - 01/05/2019	1.04	1.09
2	01/06/2019 - 01/12/2019	1.05	1.11
3	01/13/2019 - 01/19/2019	1.06	1.12
4	01/20/2019 - 01/26/2019	1.05	1.11
5	01/27/2019 - 02/02/2019	1.04	1.09
6	02/03/2019 - 02/09/2019	1.02	1.07
7	02/10/2019 - 02/16/2019	1.01	1.06
8	02/17/2019 - 02/23/2019	1.00	1.05
9	02/24/2019 - 03/02/2019	0.99	1.04
10	03/03/2019 - 03/09/2019	0.98	1.03
*11	03/10/2019 - 03/16/2019	0.97	1.02
*12	03/17/2019 - 03/23/2019	0.97	1.02
*13	03/24/2019 - 03/30/2019	0.96	1.01
*14	03/31/2019 - 04/06/2019	0.95	1.00
*15	04/07/2019 - 04/13/2019	0.95	1.00
*16	04/14/2019 - 04/20/2019	0.94	0.99
*17	04/21/2019 - 04/27/2019	0.94	0.99
*18	04/28/2019 - 05/04/2019	0.94	0.99
*19	05/05/2019 - 05/11/2019	0.94	0.99
*20	05/12/2019 - 05/18/2019	0.95	1.00
*21	05/19/2019 - 05/25/2019	0.95	1.00
*22	05/26/2019 - 06/01/2019	0.96	1.01
*23	06/02/2019 - 06/08/2019	0.97	1.02
24	06/09/2019 - 06/15/2019	0.98	1.03
25	06/16/2019 - 06/22/2019	0.98	1.03
26	06/23/2019 - 06/29/2019	0.99	1.04
27	06/30/2019 - 07/06/2019	0.99	1.04
28	07/07/2019 - 07/13/2019	1.00	1.05
29	07/14/2019 - 07/20/2019	1.01	1.06
30	07/21/2019 - 07/27/2019	1.01	1.06
31	07/28/2019 - 08/03/2019	1.00	1.05
32	08/04/2019 - 08/10/2019	1.00	1.05
33	08/11/2019 - 08/17/2019	1.00	1.05
34	08/18/2019 - 08/24/2019	1.01	1.06
35	08/25/2019 - 08/31/2019	1.02	1.07
36	09/01/2019 - 09/07/2019	1.03	1.08
37	09/08/2019 - 09/14/2019	1.04	1.09
38	09/15/2019 - 09/21/2019	1.05	1.11
39	09/22/2019 - 09/28/2019	1.04	1.09
40	09/29/2019 - 10/05/2019	1.03	1.08
41	10/06/2019 - 10/12/2019	1.01	1.06
42	10/13/2019 - 10/19/2019	1.00	1.05
43	10/20/2019 - 10/26/2019	1.01	1.06
44	10/27/2019 - 11/02/2019	1.02	1.07
45	11/03/2019 - 11/09/2019	1.03	1.08
46	11/10/2019 - 11/16/2019	1.04	1.09
47	11/17/2019 - 11/23/2019	1.04	1.09
48	11/24/2019 - 11/30/2019	1.04	1.09
49	12/01/2019 - 12/07/2019	1.04	1.09
50	12/08/2019 - 12/14/2019	1.04	1.09
51	12/15/2019 - 12/21/2019	1.04	1.09
52	12/22/2019 - 12/28/2019	1.05	1.11
53	12/29/2019 - 12/31/2019	1.06	1.12

* PEAK SEASON

14-FEB-2020 15:39:22

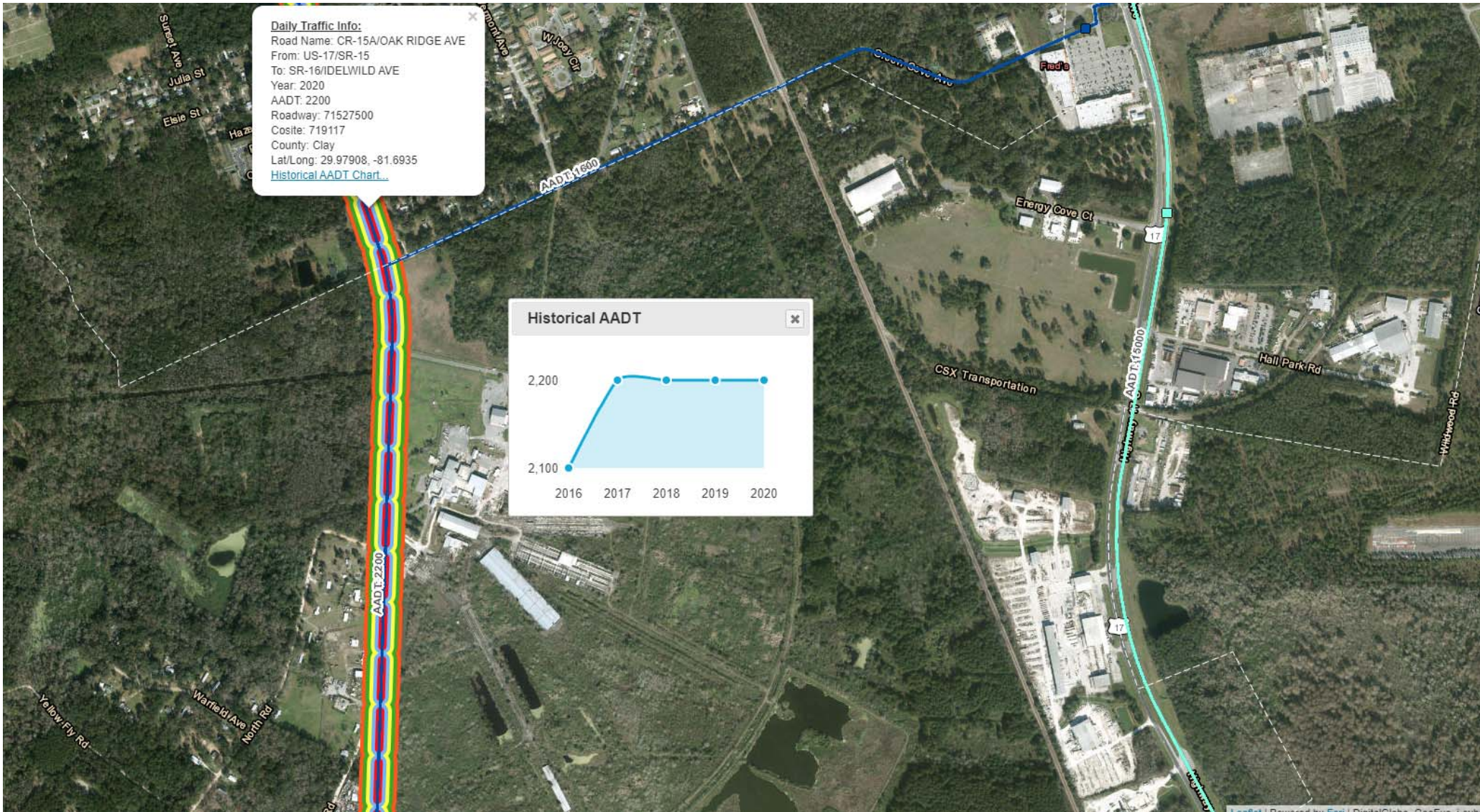
830UPD

2_7100_PKSEASON.TXT

Attachment C

Historical AADT and Trends Analysis

Daily Traffic Info:
Road Name: CR-15A/OAK RIDGE AVE
From: US-17/SR-15
To: SR-16/IDELWILD AVE
Year: 2020
AADT: 2200
Roadway: 71527500
Cosite: 719117
County: Clay
Lat/Long: 29.97908, -81.6935
[Historical AADT Chart](#)



FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0113 - SR 16 .75 MI. E. OF SR 15

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2020	17900	C	E	8800	W	9100	9.00	54.50	9.30
2019	17800	C	E	8600	W	9200	9.00	54.10	7.00
2018	18300	C	E	9100	W	9200	9.00	54.20	8.10
2017	18300	C	E	9000	W	9300	9.00	54.50	6.50
2016	16200	C	E	7900	W	8300	9.00	54.30	5.80
2015	14400	C	E	7100	W	7300	9.00	54.50	5.70
2014	14300	C	E	7200	W	7100	9.00	54.50	5.50
2013	13700	C	E	6800	W	6900	9.00	55.10	6.20
2012	12400	C	E	6200	W	6200	9.00	54.60	5.50
2011	12300	C	E	6100	W	6200	9.00	54.70	5.40
2010	13300	C	E	6600	W	6700	9.86	54.07	5.40
2009	14300	C	E	7100	W	7200	9.76	54.11	6.50
2008	15400	C	E	7600	W	7800	9.71	55.26	7.60
2007	15500	C	E	7800	W	7700	9.36	55.25	8.80
2006	16600	C	E	8300	W	8300	9.36	55.56	9.20
2005	16500	C	E	8000	W	8500	9.00	54.20	10.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 5001 - SR 16 W. OF CR 15A

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2020	14100	C	E	7000	W	7100	9.00	54.50	11.60
2019	13300	C	E	6900	W	6400	9.00	54.10	10.20
2018	11800	C	E	6000	W	5800	9.00	54.20	9.40
2017	12400	C	E	6200	W	6200	9.00	54.50	7.70
2016	11100	C	E	5500	W	5600	9.00	54.30	10.00
2015	11100	C	E	5500	W	5600	9.00	54.50	7.70
2014	9600	C	E	4800	W	4800	9.00	54.50	8.40
2013	10700	C	E	5400	W	5300	9.00	55.10	8.90
2012	10800	C	E	5500	W	5300	9.00	54.60	7.90
2011	10500	C	E	5300	W	5200	9.00	54.70	8.20
2010	9900	C	E	5000	W	4900	9.86	54.07	7.70
2009	10900	C	E	5400	W	5500	9.76	54.11	8.20
2008	10100	C	E	5300	W	4800	9.71	55.26	10.80
2007	11600	C	E	5700	W	5900	9.36	55.25	12.60
2006	12600	C	E	6300	W	6300	9.36	55.56	14.70
2005	12100	C	E	5800	W	6300	9.00	54.20	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
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V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0151 - SR 16 W. OF SR 15

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2020	12300	C	E	6300	W	6000	9.00	54.50	11.60
2019	11500	C	E	5800	W	5700	9.00	54.10	10.20
2018	12100	C	E	6200	W	5900	9.00	54.20	9.40
2017	11500	C	E	5900	W	5600	9.00	54.50	7.70
2016	10600	C	E	5400	W	5200	9.00	54.30	10.00
2015	10100	C	E	5100	W	5000	9.00	54.50	7.70
2014	11000	C	E	5700	W	5300	9.00	54.50	8.40
2013	10400	C	E	5300	W	5100	9.00	55.10	8.90
2012	10500	C	E	5400	W	5100	9.00	54.60	7.90
2011	10300	C	E	5200	W	5100	9.00	54.70	8.20
2010	10200	C	E	5100	W	5100	9.86	54.07	7.70
2009	11400	C	E	5700	W	5700	9.76	54.11	8.20
2008	11200	C	E	5700	W	5500	9.71	55.26	10.80
2007	11500	C	E	5800	W	5700	9.36	55.25	12.60
2006	12200	C	E	6200	W	6000	9.36	55.56	14.70
2005	12000	C	E	6200	W	5800	9.00	54.20	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0142 - SR 15 .1 MI. N. OF SR 16 TO E.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	19200 C	N 9700	S 9500	9.00	54.50	21.90
2019	21500 C	N 11000	S 10500	9.00	54.10	18.10
2018	23000 C	N 11500	S 11500	9.00	54.20	11.80
2017	22500 C	N 11000	S 11500	9.00	54.50	9.70
2016	20000 C	N 10000	S 10000	9.00	54.30	10.50
2015	19100 C	N 9700	S 9400	9.00	54.50	11.20
2014	17900 C	N 9000	S 8900	9.00	54.50	10.90
2013	17500 C	N 8800	S 8700	9.00	55.10	12.30
2012	16600 C	N 8400	S 8200	9.00	54.60	11.10
2011	17900 C	N 9200	S 8700	9.00	54.70	11.80
2010	18100 C	N 9200	S 8900	9.86	54.07	11.10
2009	18500 C	N 9300	S 9200	9.76	54.11	10.90
2008	19600 C	N 9900	S 9700	9.71	55.26	13.00
2007	21000 C	N 10500	S 10500	9.36	55.25	12.50
2006	23000 C	N 11500	S 11500	9.36	55.56	14.80
2005	24500 C	N 12500	S 12000	9.00	54.20	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 5019 - SR 15 200' N. OF NORTH ST.

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2020	22500	C	N	11500	S	11000	9.00	54.50	6.60
2019	24000	C	N	12500	S	11500	9.00	54.10	5.90
2018	24500	C	N	12500	S	12000	9.00	54.20	5.80
2017	23000	C	N	11500	S	11500	9.00	54.50	5.70
2016	23000	C	N	12000	S	11000	9.00	54.30	5.40
2015	20400	C	N	10500	S	9900	9.00	54.50	5.20
2014	20500	C	N	10500	S	10000	9.00	54.50	5.00
2013	20500	C	N	10500	S	10000	9.00	55.10	5.20
2012	19800	C	N	10000	S	9800	9.00	54.60	5.00
2011	21000	C	N	10500	S	10500	9.00	54.70	5.10
2010	21500	C	N	11000	S	10500	9.86	54.07	5.10
2009	22500	C	N	11500	S	11000	9.76	54.11	5.10
2008	22500	C	N	11500	S	11000	9.71	55.26	6.20
2007	24000	C	N	12000	S	12000	9.36	55.25	6.80
2006	24500	C	N	12500	S	12000	9.36	55.56	7.40
2005	29000	C	N	15000	S	14000	9.00	54.20	7.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 0196 - SR 15/US 17 .3 MI. S. OF SR 16 TO E.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	15000 C	N 7500	S 7500	9.00	54.50	14.00
2019	14100 C	N 7100	S 7000	9.00	54.10	10.70
2018	14500 C	N 7200	S 7300	9.00	54.20	11.80
2017	13800 C	N 6900	S 6900	9.00	54.50	9.70
2016	12900 C	N 6500	S 6400	9.00	54.30	10.50
2015	11600 C	N 5800	S 5800	9.00	54.50	11.20
2014	11100 C	N 5600	S 5500	9.00	54.50	10.90
2013	11200 C	N 5700	S 5500	9.00	55.10	12.30
2012	11400 C	N 5800	S 5600	9.00	54.60	11.10
2011	11400 C	N 5700	S 5700	9.00	54.70	11.80
2010	11600 C	N 5800	S 5800	9.86	54.07	11.10
2009	11800 C	N 5900	S 5900	9.76	54.11	10.90
2008	12400 C	N 6700	S 5700	9.71	55.26	13.00
2007	13500 C	N 6800	S 6700	9.36	55.25	12.50
2006	14400 C	N 7200	S 7200	9.36	55.56	14.80
2005	15700 C	N 7600	S 8100	9.00	54.20	14.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2020 HISTORICAL AADT REPORT

COUNTY: 71 - CLAY

SITE: 5016 - SR 15 100' SE. OF SR 16

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2020	19400	C	N	9900	S	9500	9.00	54.50	21.90
2019	20000	C	N	10500	S	9500	9.00	54.10	18.10
2018	20500	C	N	10500	S	10000	9.00	54.20	11.80
2017	21500	C	N	10500	S	11000	9.00	54.50	9.70
2016	21000	C	N	10500	S	10500	9.00	54.30	10.50
2015	18400	C	N	9000	S	9400	9.00	54.50	11.20
2014	18800	C	N	9300	S	9500	9.00	54.50	10.90
2013	17900	C	N	9100	S	8800	9.00	55.10	12.30
2012	17300	C	N	8800	S	8500	9.00	54.60	11.10
2011	17300	C	N	8800	S	8500	9.00	54.70	11.80
2010	18000	C	N	9100	S	8900	9.86	54.07	11.10
2009	18500	C	N	9400	S	9100	9.76	54.11	10.90
2008	20500	C	N	10500	S	10000	9.71	55.26	13.00
2007	21000	C	N	10500	S	10500	9.36	55.25	12.50
2006	23000	C	N	11500	S	11500	9.36	55.56	14.80
2005	25000	C	N	12500	S	12500	9.00	54.20	5.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

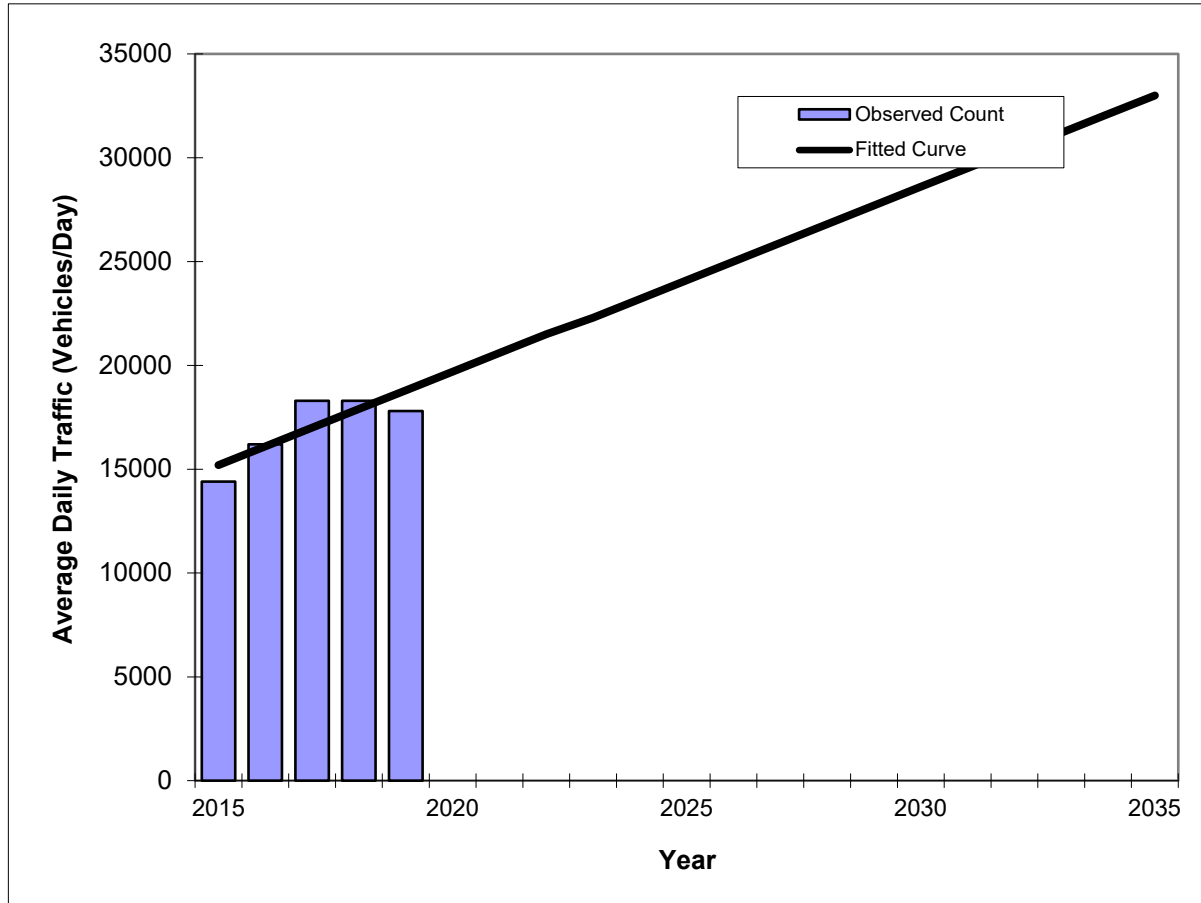
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V03.a

SR 16 E -- East of US 17

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	SR 16 E



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	14400	15200
2016	16200	16100
2017	18300	17000
2018	18300	17900
2019	17800	18800
2025 Opening Year Trend		
2025	N/A	24100
2030 Mid-Year Trend		
2030	N/A	28600
2035 Design Year Trend		
2035	N/A	33000
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	890
Trend R-squared:	69.36%
Trend Annual Historic Growth Rate:	5.92%
Trend Growth Rate (2019 to Design Year):	4.72%
Printed:	10-Dec-21
Straight Line Growth Option	

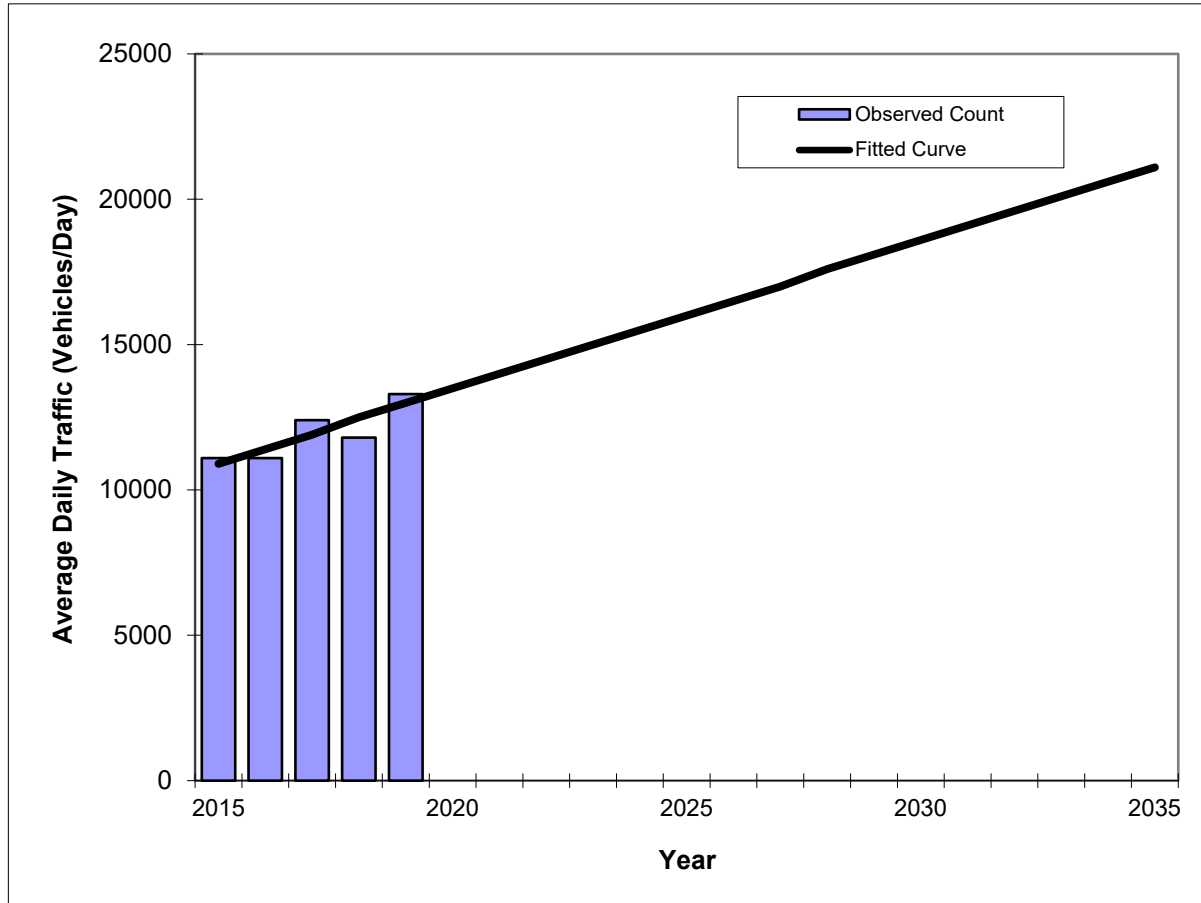
*Axle-Adjusted

Traffic Trends - V03.a

SR 16 West -- West of Oak Ridge Avenue

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	SR 16 West



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	11100	10900
2016	11100	11400
2017	12400	11900
2018	11800	12500
2019	13300	13000
2025 Opening Year Trend		
2025	N/A	16000
2030 Mid-Year Trend		
2030	N/A	18600
2035 Design Year Trend		
2035	N/A	21100
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	510
Trend R-squared:	74.48%
Trend Annual Historic Growth Rate:	4.82%
Trend Growth Rate (2019 to Design Year):	3.89%
Printed:	10-Dec-21
Straight Line Growth Option	

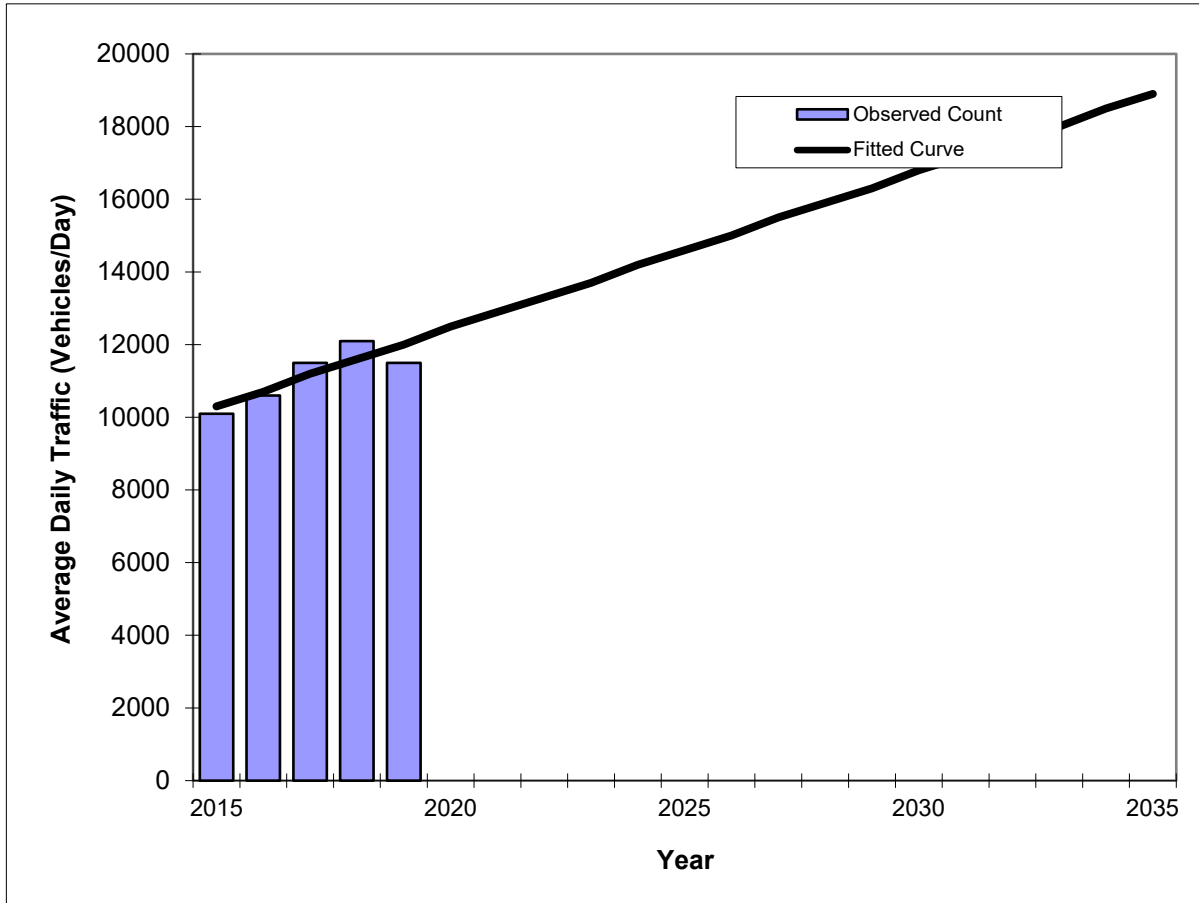
*Axle-Adjusted

Traffic Trends - V03.a

SR 16 West -- West of US 17

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	SR 16 West



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	10100	10300
2016	10600	10700
2017	11500	11200
2018	12100	11600
2019	11500	12000
2025 Opening Year Trend		
2025	N/A	14600
2030 Mid-Year Trend		
2030	N/A	16800
2035 Design Year Trend		
2035	N/A	18900
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	430
Trend R-squared:	72.45%
Trend Annual Historic Growth Rate:	4.13%
Trend Growth Rate (2019 to Design Year):	3.59%
Printed:	10-Dec-21
Straight Line Growth Option	

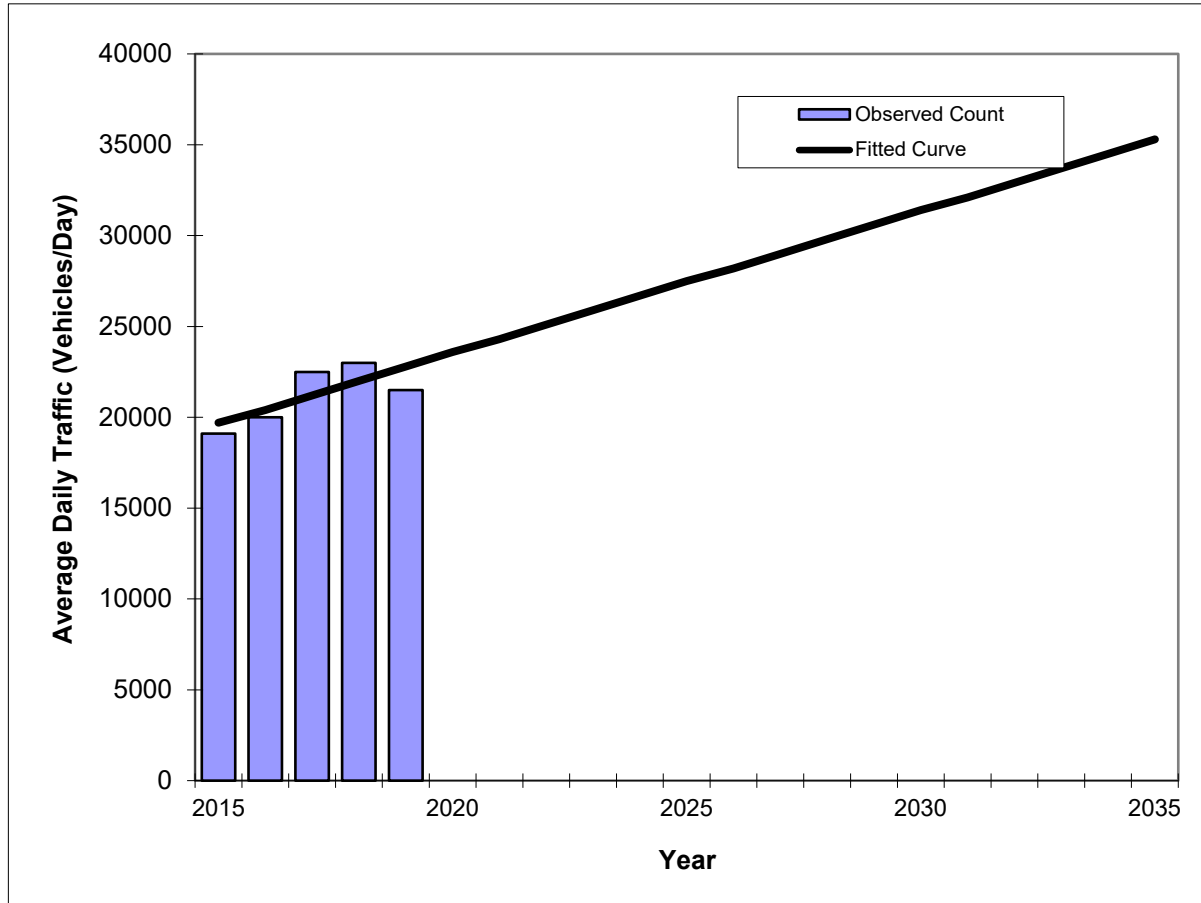
*Axle-Adjusted

Traffic Trends - V03.a

US 17 -- North of SR 16E

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	US 17



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	19100	19700
2016	20000	20400
2017	22500	21200
2018	23000	22000
2019	21500	22800
2025 Opening Year Trend		
2025	N/A	27500
2030 Mid-Year Trend		
2030	N/A	31400
2035 Design Year Trend		
2035	N/A	35300
TRANPLAN Forecasts/Trends		

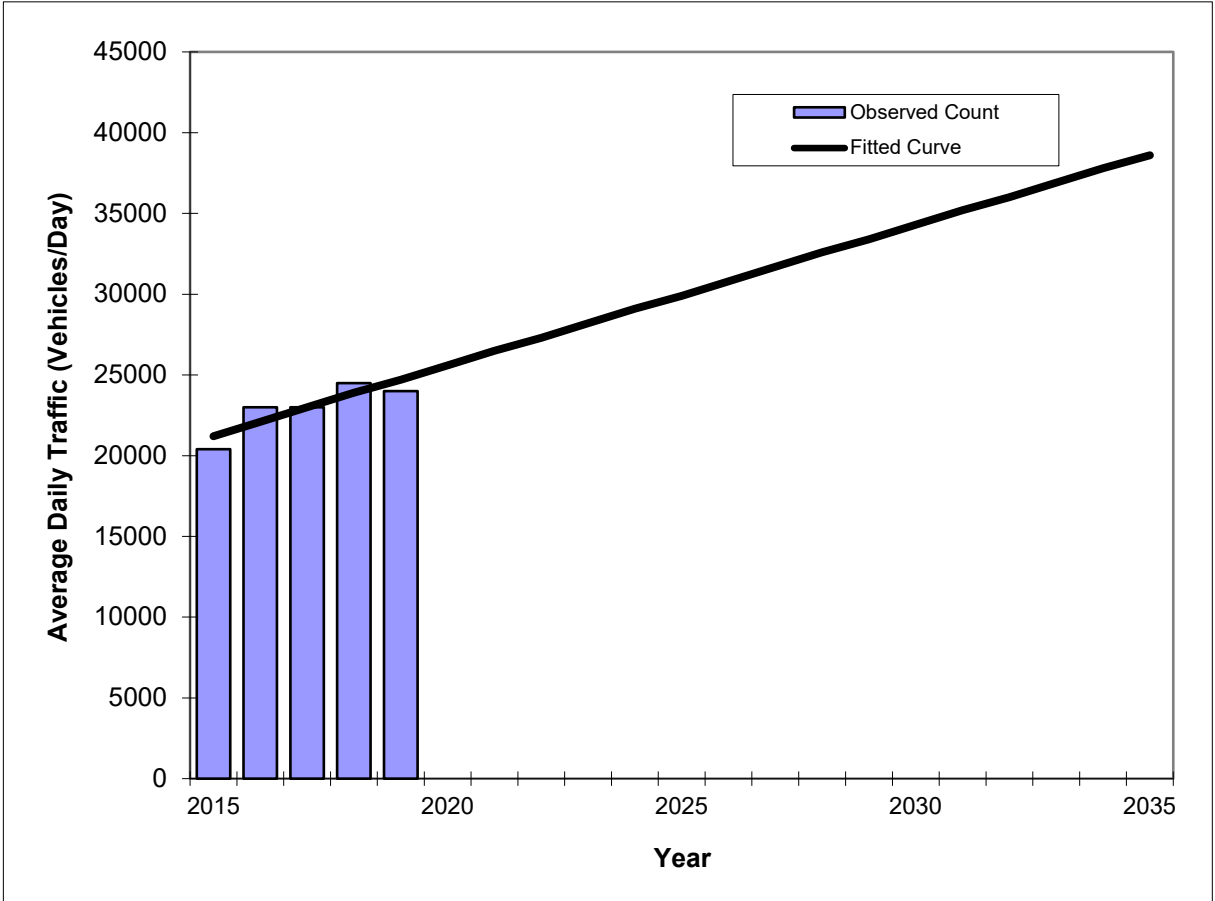
** Annual Trend Increase:	780
Trend R-squared:	55.98%
Trend Annual Historic Growth Rate:	3.93%
Trend Growth Rate (2019 to Design Year):	3.43%
Printed:	10-Dec-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a US 17 -- North of SR 16W

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	US 17



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	20400	21200
2016	23000	22100
2017	23000	23000
2018	24500	23900
2019	24000	24700
2025 Opening Year Trend		
2025	N/A	29900
2030 Mid-Year Trend		
2030	N/A	34300
2035 Design Year Trend		
2035	N/A	38600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	870
Trend R-squared:	75.63%
Trend Annual Historic Growth Rate:	4.13%
Trend Growth Rate (2019 to Design Year):	3.52%
Printed:	10-Dec-21
Straight Line Growth Option	

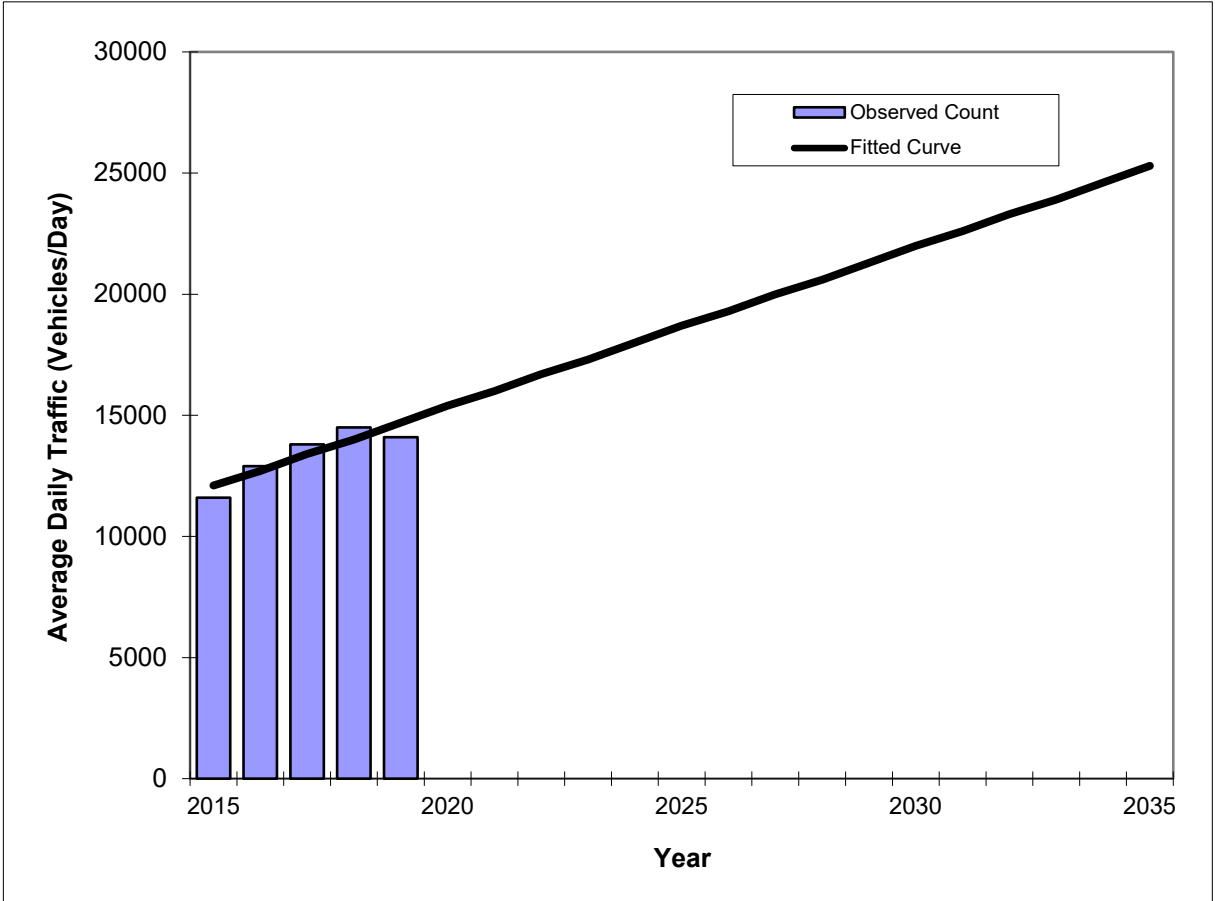
*Axle-Adjusted

Traffic Trends - V03.a

US 17 -- South of SR 16E

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	US 17



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	11600	12100
2016	12900	12700
2017	13800	13400
2018	14500	14000
2019	14100	14700
2025 Opening Year Trend		
2025	N/A	18700
2030 Mid-Year Trend		
2030	N/A	22000
2035 Design Year Trend		
2035	N/A	25300
TRANPLAN Forecasts/Trends		

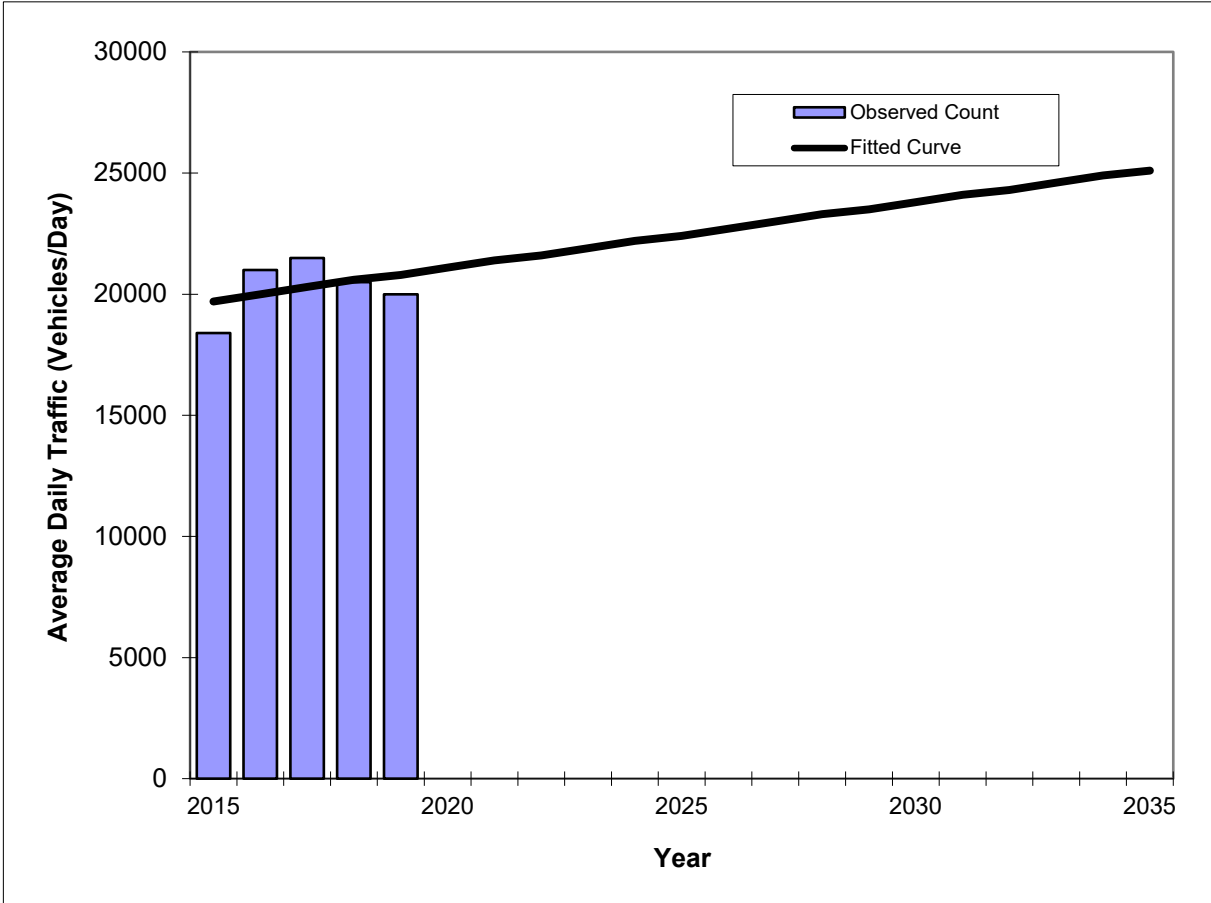
** Annual Trend Increase:	660
Trend R-squared:	81.45%
Trend Annual Historic Growth Rate:	5.37%
Trend Growth Rate (2019 to Design Year):	4.51%
Printed:	10-Dec-21
Straight Line Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a US 17 -- South of SR 16W

FIN#	1234
Location	1

County:	Clay (71)
Station #:	0
Highway:	US 17



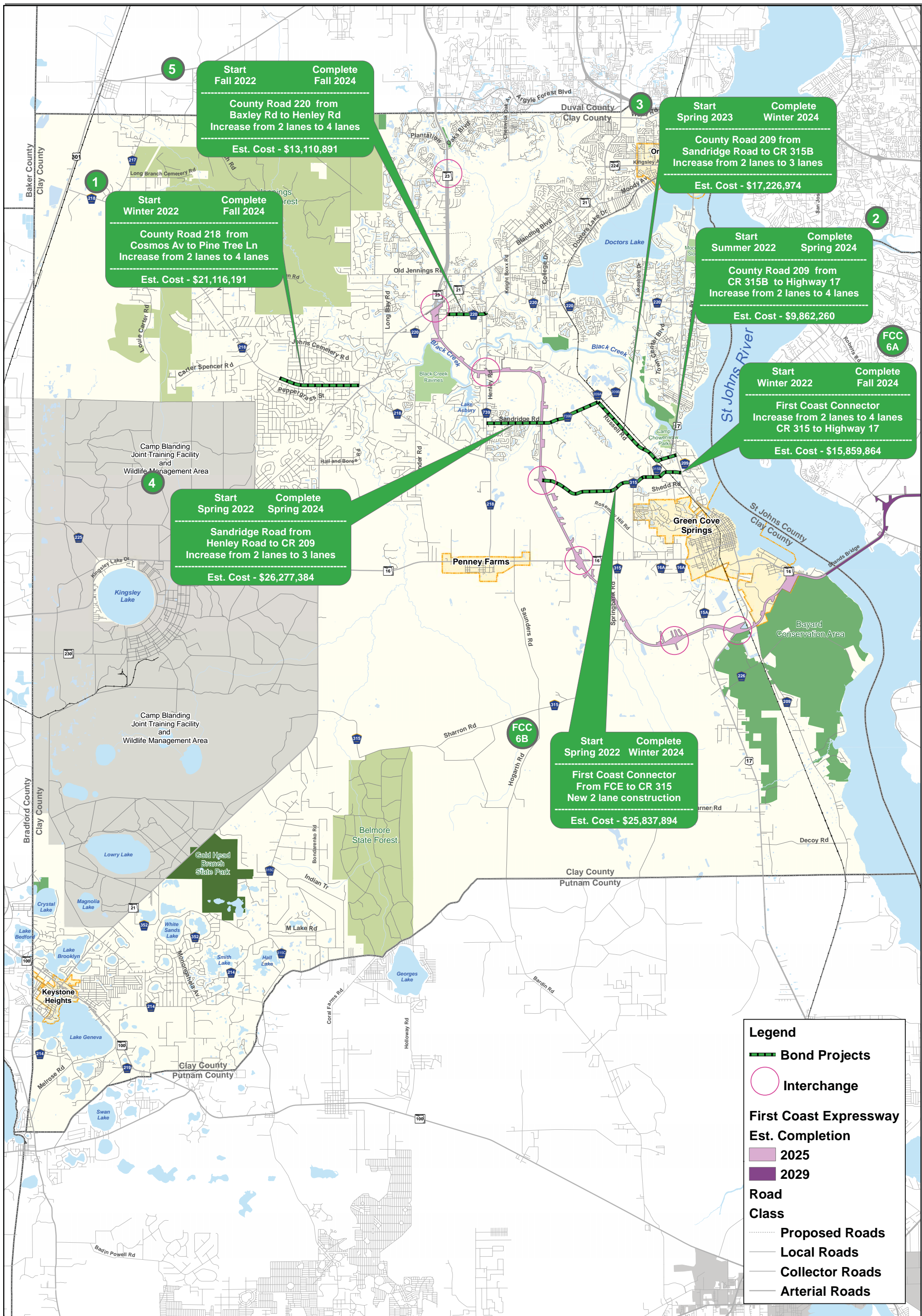
Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	18400	19700
2016	21000	20000
2017	21500	20300
2018	20500	20600
2019	20000	20800
2025 Opening Year Trend		
2025	N/A	22400
2030 Mid-Year Trend		
2030	N/A	23800
2035 Design Year Trend		
2035	N/A	25100
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	270
Trend R-squared:	12.86%
Trend Annual Historic Growth Rate:	1.40%
Trend Growth Rate (2019 to Design Year):	1.29%
Printed:	10-Dec-21
Straight Line Growth Option	

*Axle-Adjusted

Attachment D

Planned and Programmed Improvements



Legend

- Bond Projects
- Interchange

First Coast Expressway

Est. Completion

- 2025
- 2029

Road Class

- Proposed Roads
- Local Roads
- Collector Roads
- Arterial Roads

0 0.5 1 2 3 4 5 Miles

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File Name: Bonded_County_Road_Projects_2020_11_Rev2_24x36

Bonded County Road Projects

CLAY COUNTY FLORIDA
IN GOD WE TRUST

Created By: GIS Department
Map Prepared: 12/15/2020

Commissioner/District	Project Description	Project Limits	Length	# Lanes	Typical Section /Description	Clay County	Construction Start Date	Construction End Date
						Budget		
Betsy Condon / D4	No. 1 Middleburg CR 218	Cosmos Ave to Pine Tree Lane	2.7	4.0	Widen (2) lane urban section roadway to (4) lanes with median/turn lanes, bike lanes, curb and gutter, and sidewalks.	\$ 21,116,190.61	Fall 2022	Summer 2024
Mike Cella / D1	No. 2 Lake Asbury CR 209 (Russell Rd)	CR 315B to US 17	0.8	4.0	Reconstruct (2) lane urban roadway section to (4) lanes with median/turn lanes, bike lanes, curb and gutter, and sidewalks.	\$ 9,862,260.35	Summer 2022	Spring 2024
Kristen Burke / D5	No. 3 Lake Asbury CR 209 (Russell Rd)	Sandridge Rd to CR 315B	2.6	3.0	Reconstruct (2) lane urban roadway section to (3) lanes with turn lanes, bike lanes and sidewalks.	\$ 17,226,973.97	Summer 2023	Winter 2024
Kristen Burke / D5	No. 4 Lake Asbury (Sandridge Rd)	Henley Rd to CR 209 (Russell Rd)	3.75	3.0	Reconstruct (2) lane urban roadway to (3) lanes with turn lanes, bike lanes, curb and gutter and sidewalks.	\$ 26,277,383.91	Summer 2022	Summer 2024
Kristen Burke / D5	No. 5 Middleburg CR 220	Baxley Rd to Henley Rd	1.6	4.0	Reconstruct (2) lane urban roadway to (4) lanes with median/turn lanes, bike lanes, curb and gutter and sidewalks.	\$ 13,110,891.05	Spring 2023	Fall 2024
Mike Cella / D1	No. 6A Green Cove Springs / Lake Asbury (First Coast Connector)	US 17 to CR 315	1.6	4.0	Reconstruct (2) lane urban roadway to (4) lanes with median/turn lanes, bike lanes, curb and gutter and sidewalks.	\$ 15,859,863.61	Winter 2022	Summer 2024
Kristen Burke / D5	No. 6B Green Cove Springs (First Coast Connector)	SR 23 to CR 315	2.9	2.0	New (2) lane roadway with grass median, bike lanes and sidewalks.	\$ 25,837,893.88	Spring 2022	Spring 2024
			16.0		TOTAL BUDGET	\$ 129,291,457.38		
					GRAND TOTAL	\$129,291,457.38		



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County Road 220 PD&E Study

- About this Project
- Photos
- Documents
- Public Events

Overview

The FDOT is conducting a Project Development and Environment (PD&E) Study to evaluate alternatives to enhance safety and provide additional capacity to meet existing and future traffic needs on CR 220. FDOT encourages you to get involved throughout the study by providing comments, concerns, questions and/or suggestions to the Study Team.

Video (<https://vimeo.com/343447112/c87592abaa>)

Project Details

Project Start:	TBD
Expected Completion:	TBD
Cost:	TBD
Project #:	430719-2
Roads	County Road 220
Counties	Clay
Cities	Orange Park

Contact



David Tyler, P.E. (<mailto:david.tyler@dot.state.fl.us>)
(386) 961-7842

County Road 220 PD&E Study

Overview



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The First Coast Expressway (FCE, SR 23) is a multi-lane, limited access toll road that, once completed, will cross parts of Duval, Clay and St. Johns counties. Expressway traffic will pass through electronic toll gantries without stopping. The gantries will contain an electronic system that will either detect the vehicle's SunPass transponder device or scan the vehicle's license plate for a toll-by-plate invoice in the mail. The total length of the proposed roadway is approximately 46 miles. The FCE will reduce congestion on other major roadways in the region, important not only for daily commuters but also critically important during times of storm-related evacuation.

Toll collection on the First Coast Expressway began in July 2019.

For questions or information regarding SunPass transponder registration, SunPass accounts or toll invoices, please contact SunPass at SunPass.com (<http://www.sunpass.com>) or 1-888-865-5352.

- List of Projects
- About
- Schedule
- Documents
- FAQ

Below are the list of individual projects. Click to learn more.

First Coast Expressway from I-10 to N. of Argyle Forest Blvd (<http://nflroads.com/ProjectDetails?p=5003>)

First Coast Expressway from N. of Argyle Forest Blvd to Blanding Blvd (<http://nflroads.com/ProjectDetails?p=5010>)

First Coast Expressway from State Road 21 to North of State Road 16 (<http://nflroads.com/ProjectDetails?p=5152>)

First Coast Expressway from North of State Road 16 to East of County Road 209 (<http://nflroads.com/ProjectDetails?p=5248>)

First Coast Expressway – New St. Johns River Bridge (<http://nflroads.com/ProjectDetails?p=5136>)

First Coast Expressway — East of County Road 16A Spur to I-95 (<http://nflroads.com/ProjectDetails?p=5337>)

List of Projects

Below are the list of individual projects. Click to learn more.

First Coast Expressway from I-10 to N. of Argyle Forest Blvd (<http://nflroads.com/ProjectDetails?p=5003>)

First Coast Expressway from N. of Argyle Forest Blvd to Blanding Blvd (<http://nflroads.com/ProjectDetails?p=5010>)

First Coast Expressway from State Road 21 to North of State Road 16 (<http://nflroads.com/ProjectDetails?p=5152>)

First Coast Expressway from North of State Road 16 to East of County Road 209 (<http://nflroads.com/ProjectDetails?p=5248>)

First Coast Expressway – New St. Johns River Bridge (<http://nflroads.com/ProjectDetails?p=5136>)

First Coast Expressway — East of County Road 16A Spur to I-95 (<http://nflroads.com/ProjectDetails?p=5337>)

About

Construction on the northwestern, first segment of the FCE (Blanding Boulevard/SR 21 in Clay County north to I-10/US 90 in Duval County) began in 2013 and was completed in summer 2019, with toll collection beginning July 13, 2019.

The central, second segment of the FCE project involves new roadway from Blanding Boulevard/SR 21 in Middleburg running south and then east through Green Cove Springs and includes a new bridge over Black Creek near the Byron Road/Lake Asbury community.

The second segment is being divided into two separate projects:

The north project (FIN 422938-6), which runs from north of SR 16 to north of SR 21, will be built by Sacyr Construction at a cost of \$230 million.

Construction began in March 2019 and is expected to be completed in 2025, weather and schedule permitting.

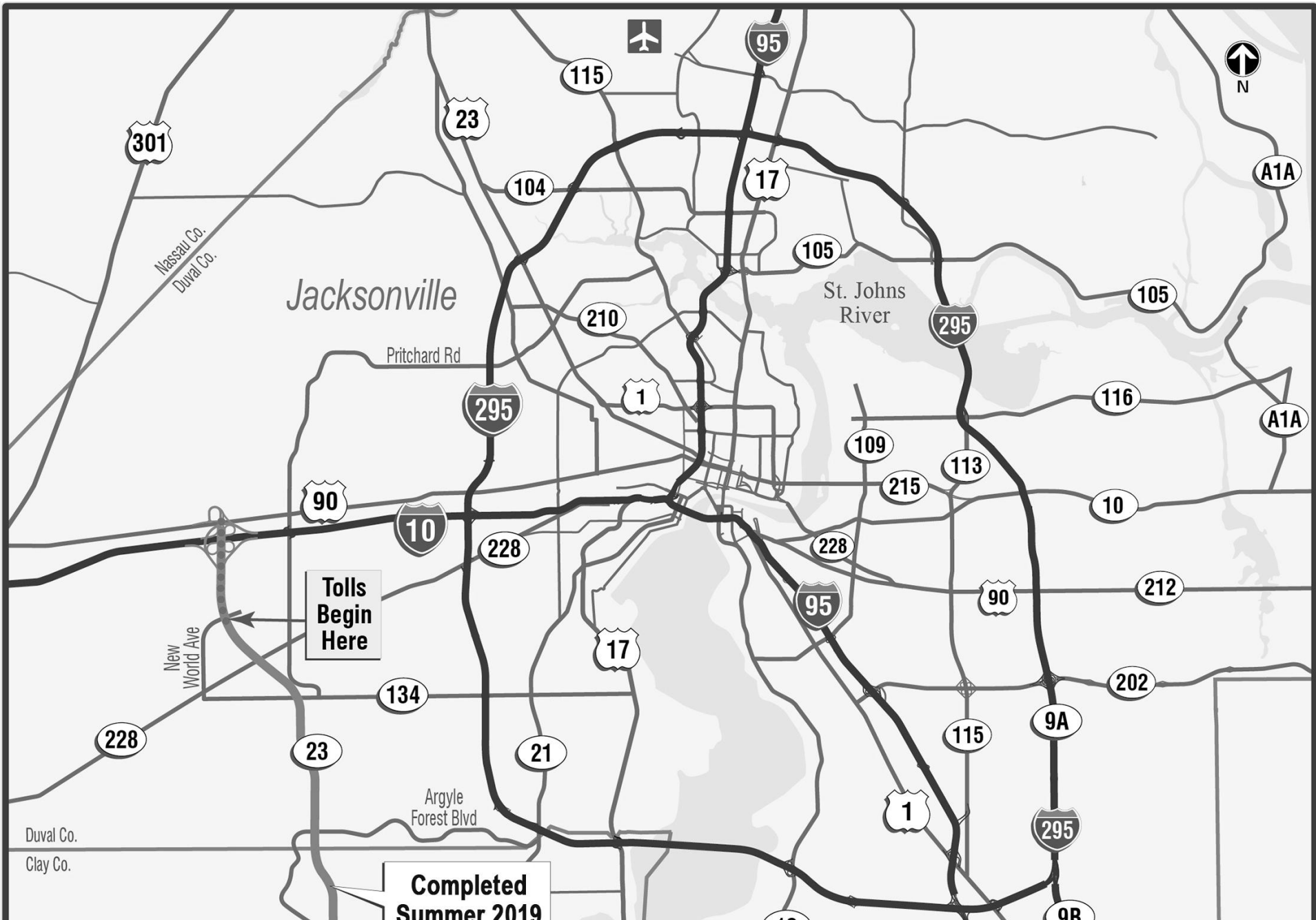
The south project (FIN 422938-5), which runs from east of CR 209 to north of SR 16, will be built by Superior Construction at a cost of \$180 million.

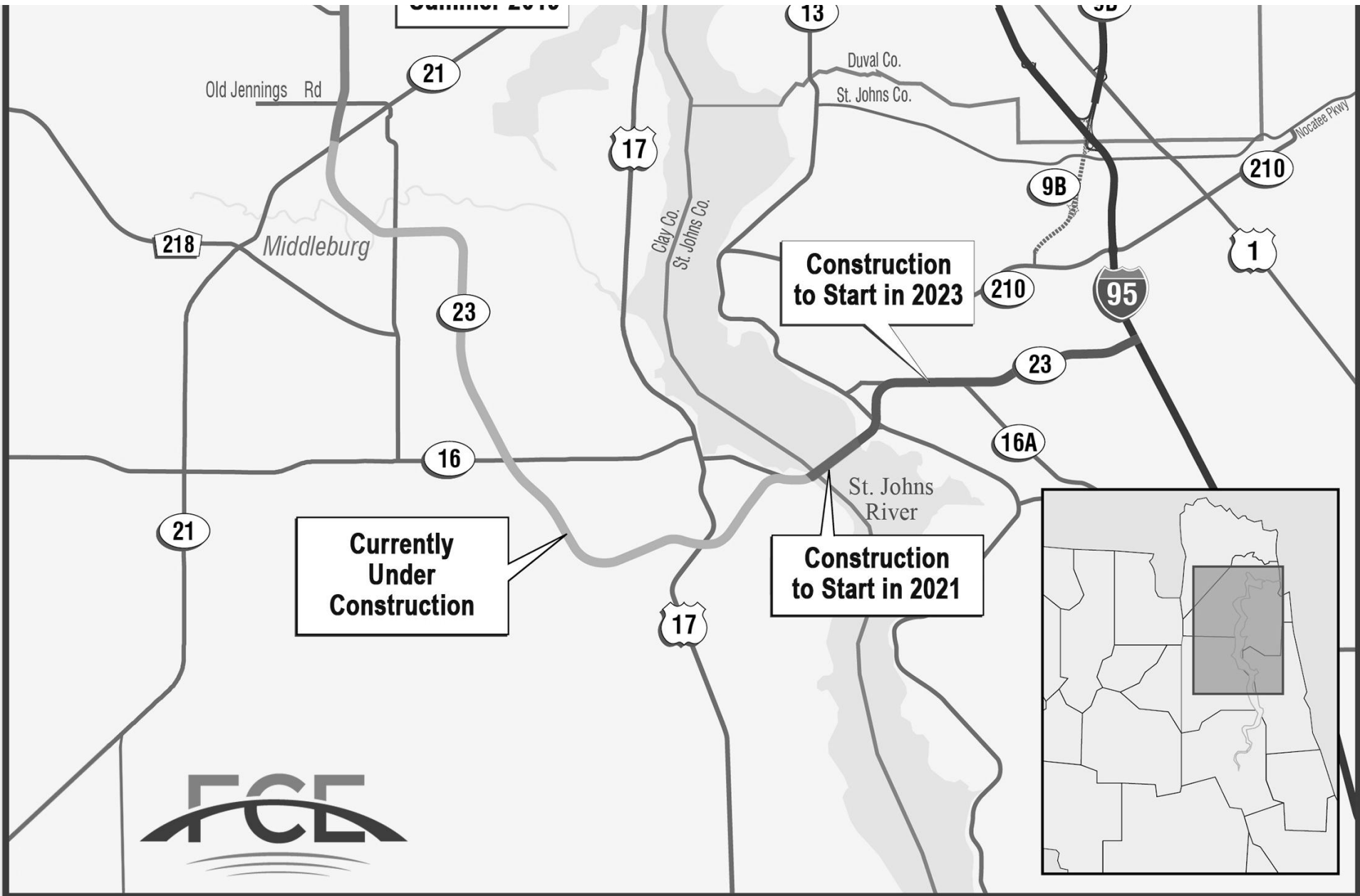
Construction began in April 2019 and is expected to be completed in 2026, weather and schedule permitting.

The third segment of the FCE is also being divided into two projects:

A new bridge over the St. Johns River just south of the existing Shands Bridge (FIN 422938-7), expected to begin construction in late 2021 and be completed in 2029 at a cost of approximately \$334 million.

New roadway from east of the County Road 16A Spur to I-95 in St. Johns County (FIN 422938-8), expected to begin construction in early 2023 and be completed in early 2030 at a cost of approximately \$303 million.





Contact



Sara Pleasants (<mailto:Sara.pleasants@dot.state.fl.us>)

386-269-3490

View FCE Map with Tolls ([FirstCoastExpressway/documents/2017-01-19-updated-fce-map-with-tolls.pdf](https://www.firstcoastexpressway.com/documents/2017-01-19-updated-fce-map-with-tolls.pdf))



View more information on being a SunPass user (<https://www.sunpass.com/en/home/index.shtml>)

Schedule

FCE Segment 1

Completion Date

FCE South Project (Blanding Blvd to North of Argyle Blvd.)	Summer 2019
FCE North Project (North of Argyle Blvd. to I-10)	Summer 2019
FCE Extension Project (I-10 to Beaver Street/US 90)	Summer 2018

FCE Segment 2

Start Date

Est. Completion Date

FCE North (Blanding Blvd. in Middleburg to North of SR 16 in Green Cove Springs)	March 2019	2025
FCE South (North of SR 16 to South of U.S. 17 by river in Green Cove Springs)	April 2019	2026

FCE Segment 3

Est. Start Date

Est. Completion Date

New bridge over St. Johns River	2022	2029
New roadway from east of the County Road 16A Spur to I-95 in St. Johns County	2023	2030

Documents

Documents

Document Name:	Date:
FCE Whole US 90 to SR 21 Map (FirstCoastExpressway/documents/2018-03-22-whole-fce-us-90-to-sr-21-map-2.pdf)	03/22/18
FCE Full Project Route Map (PIM) (FirstCoastExpressway/documents/FCE PIM 2019-08-23.pdf)	08/23/19
Aerial of Entire FCE Project (FirstCoastExpressway/documents/2017-02-14-sr-23-w-aerial.pdf)	02/14/17
Project Map from I-10 to Blanding Boulevard (FirstCoastExpressway/documents/2017-01-23-first-coast-i-10-to-sr-21.pdf)	01/23/17
FCE Map with Tolls (FirstCoastExpressway/documents/2017-01-19-updated-fce-map-with-tolls.pdf)	01/19/17
Public Meeting Handout (FirstCoastExpressway/documents/2015-12-10-public-meeting-handout.pdf)	12/10/15
Board 1 - Project Location Map (FirstCoastExpressway/documents/2016-03-24-fcx-board-project-location-map.pdf)	12/10/15
Board 2 - Project Details (FirstCoastExpressway/documents/2015-12-10-fcx-board-project-details.pdf)	12/10/15
Governor Invests \$9.9 Billion for Transportation Improvements (English) (FirstCoastExpressway/documents/2015-01-fdot-gov-scott-budget.pdf)	01/28/15
Governor Invests \$9.9 Billion for Transportation Improvements (Spanish) (FirstCoastExpressway/documents/2015-01-fdot-gov-scott-budget-spanish.pdf)	01/28/15
St. Johns River Crossing Record of Decision (FirstCoastExpressway/documents/2014-04-07-st-johns-river-crossing-record-of-decision.pdf)	04/07/14
St. Johns River Crossing Final Environmental Impact Statement (FirstCoastExpressway/documents/2013-10-11-st-johns-river-crossing-final-environmental-impact-statement.pdf)	10/11/13
Pile Driving Video (https://vimeo.com/275861894/8efd7e71d0)	5/17/19
FCE Full Project Map with Construction Timeline (FirstCoastExpressway/images/SR 23 FCE_Entire Projct_LocationMap 11-24-20.jpg)	11/24/20

Project Maps



FCE Project Maps - Click to download (FirstCoastExpressway/documents/FCE PIM 2019-08-23.pdf)



View more information on being a SunPass user (http://www.sunpass.com)

FAQ

What is a limited access highway?

What portion of the roadway will be tolled?

When will tolls start being collected?

Won't tolls cause Congestion? Will I have to stop to pay a toll?

What will the toll be?

Under what circumstances could these toll rates be raised?

Can I get a discount on the toll if I am a frequent traveler?

What are the free routes which motorists can use to avoid paying tolls?

Where is the money coming from to build this road?

How does the toll bonding/construction cost funding system work?

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I-295 at U.S. 17 Interchange Improvements

[About this Project](#)[Photos](#)[Documents](#)[Public Events](#)

Overview

The Florida Department of Transportation is conducting a Project Development & Environment (PD&E) Study for proposed widening and reconstruction of U.S. 17 (S.R. 15) from south of the Wells Road Intersection to Birmingham Avenue, a distance of 3 miles, in Clay and Duval Counties. Additional improvements include ramp and intersection improvements at U.S. 17 and the I-295 off ramps, Eldridge Avenue, Old Orange Park Road, and Wells Road. Traffic operations within the project study area show excessive delay and heavy queuing at the intersections along U.S. 17 during peak hours as well as at the on and off-ramps to I-295. With expectations of continued traffic operation issues, this PD&E study is investigating alternatives to meet capacity needs, intersection operations, and safety within the study area.

Project Details

Project Start: 2022

Expected Completion: TBD

Cost: \$13.7 million

Project #: 4355751

Roads Interstate 295, U.S. 17

Counties Clay, Duval

Cities

Contact



Sara Pleasants (<mailto:Sara.pleasants@dot.state.fl.us>)

386-269-3490

I-295 at U.S. 17 Interchange Improvements



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First Coast Expressway from North of State Road 16 to East of County Road 209

[About this Project](#)[Traffic Alerts](#)[Photos](#)[Documents](#)[Public Events](#)

Overview

Superior Construction is the contractor for the First Coast Expressway/State Road 23 from east of County Road 209 to north of State Road 16 in Clay County (9.7 miles).

Construction activities:

Constructing 9.7 miles of new multi-lane, limited access toll road

Constructing a drainage system for the new roadway, including a series of storm water ponds

Installing traffic signals, lighting, highway signing and guardrails

Building 15 new bridges

Constructing two new toll facilities featuring overhead gantries with electronic tolling just west of County Road 15A and east of County Road 209.

Project Details

Project Start: Spring 2019

Expected Completion: 2026

Cost: \$180 million

Project #: 422938-5

Roads State Road 13, State Road 16, State Road 23

Counties Clay

Cities

Contact



Sara Pleasants (mailto:Sara.pleasants@dot.state.fl.us)

386-269-3490



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First Coast Expressway from State Road 21 to North of State Road 16

[About this Project](#)
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Overview

Sacyr Construction began construction March 4, 2019 on the second phase of the First Coast Expressway (State Road 23) from north of State Road 16 to just north of Blanding Boulevard (State Road 21) through Clay County (10.5 miles)

Construction activities include:

Adding 10.5 miles of new multi-lane, limited access toll roadway to State Road 23

Constructing a drainage system for the new roadway with a series of storm water ponds

Installing new lighting, highway signing and guardrails

Building three new tolling facilities with overhead gantries and electronic tolling east of Baxley Road, west of the County Road 218 exit and just west of the State Road 16 exit

Building 26 bridges along the roadway, including two new bridges over Black Creek in the Lake Asbury community

Building noise walls south of Sandridge Road in the Rolling Hills Community

Constructing retaining walls along State Road 23

Traffic impacts:

Due to active sidewalks in the area, the contractor will be required to make necessary accommodations for pedestrians and physically handicapped during construction

Sacyr Construction will construct temporary access points at State Road 16 and State Road 21

Project Details

Project Start: March 2019

Expected Completion: 2025

Cost: \$229 million

Project #: 422938-6

Roads State Road 16, State Road 23

Counties Clay

Cities



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First Coast Expressway – New St. Johns River Bridge

About this Project

Photos

Documents

Public Events

Overview

The third and final segment of the FCE includes a new four-lane bridge over the St. Johns River just south of where the Shands Bridge currently stands. Construction on the new bridge is expected to begin in 2022 and be completed in 2029 at a cost of approximately \$334 million. The vertical clearance height of the new bridge will be 65 feet from the water line, compared to the existing 45 feet of clearance. The additional 20 feet will match the Buckman Bridge’s clearance and is an improvement for marine commerce in the region.

Project Details

Project Start: 2022

Expected Completion: 2029

Cost: \$334 million

Project #: 422938-7

Roads State Road 23

Counties Clay, St. Johns

Cities

Contact



Sara Pleasants (mailto:Sara.pleasants@dot.state.fl.us)

386-269-3490

First Coast Expressway – New St. Johns River Bridge

Overview

RESOLUTION #2019/2020-67

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF CLAY COUNTY, FLORIDA, AMENDING SECTION II OF TABLE 1, THE NON-CAPITAL IMPROVEMENT ELEMENT IMPROVEMENTS, AND AMENDING TABLE 2, THE REVENUE SOURCES RELATING THERETO, BOTH OF WHICH ARE PART OF THE CLAY COUNTY CAPITAL IMPROVEMENTS PROGRAM; PROVIDING AN EFFECTIVE DATE.

Recitals

WHEREAS, on June 26, 2018, the Board of County Commissioners of Clay County, Florida (the Board), adopted Ordinance No. 2018-31, which adopted the Clay County 2040 Comprehensive Plan, as amended (the Plan); and

WHEREAS, Policy 1.1.2 of the Capital Improvements Element (CIE) of the Plan directs the County to monitor capital facilities to identify deficiencies, to evaluate whether improvements have met demands, and to identify needed maintenance; and

WHEREAS, certain tables are included in the CIE and contain both CIE improvements and Non-CIE improvements, as well as revenue sources for each, and together they make up the County's Capital Improvements Program; and

WHEREAS, the table attached and incorporated herein as Exhibit A entitled "Clay County Capital Improvements" (Table 1), contains CIE improvements in Section I and Non-CIE improvements in Section II thereof; and

WHEREAS, the table attached and incorporated herein as Exhibit B entitled "Clay County Capital Program Revenue Sources" (Table 2), specifies revenue sources for both CIE improvements and Non-CIE improvements; and

WHEREAS, amendments to the list of Non-CIE improvements in Section II of Table 1 and related changes to the revenue sources in Table 2 may be accomplished by resolution.

Be It Resolved by the Board of County Commissioners of Clay County:

Section 1.

Section II of Table 1 is amended as set forth in Exhibit A in order to make necessary changes as directed by the Board.

Section 2.

Table 2 is amended as set forth in Exhibit B in order to make it consistent with Section II of Table 1.

Section 3.

With respect to the Tables referenced in Section 1 and Section 2 above, the legal effect of this Resolution is that upon its effective date:

- (A) Funds for capital projects identified in the Tables shall only be expended consistent therewith; and
- (B) To the extent that corrections, updates, and modifications concerning costs, revenue sources, and acceptance of facilities pursuant to dedications which are inconsistent with the Tables, or a change in the date of construction of the capital projects identified in the Tables are proposed, such may only be implemented by amendment hereto; and
- (C) Nothing in this Resolution shall have any effect on the improvements listed in Section I of Table 1. This Resolution shall be construed only to amend Section II of Table 1 and the related revenue sources in Table 2.

Section 4.

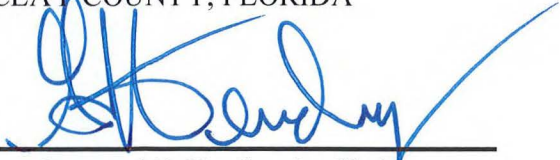
The revisions to the reserves, revenues, and appropriations for the Capital Improvement Project Fund set forth above are more particularly identified in the budget transfer form attached as Exhibit C.

Section 5.

This resolution shall take effect immediately upon its adoption.

DULY ADOPTED, by the Board of County Commissioners, Clay County, Florida,
this 12th day of May, 2020.

BOARD OF COUNTY COMMISSIONERS
OF CLAY COUNTY, FLORIDA

By: 
Gayward F. Hendry, Its Chairman


ATTEST: 
Howard Wanamaker, County Manager and
Clerk of the Board of County Commissioners

Exhibit A
Table 1. Clay County Capital Improvements
CLAY COUNTY, FLORIDA
FY 2019-20
CIP
BCC - True Up 5/12/20

		2019-20	2020-21	2021-22	2022-23	2023-24
		Budget	Budget	Budget	Budget	Budget
Section I COMPREHENSIVE PLAN CAPITAL IMPROVEMENTS						
<u>Traffic Circulation Element</u>						
6076A	Atlantis Drive (State Funded)	2,843,760	-	-	-	-
6083	CR 218 Extension	-	9,000,000	-	-	-
6065	CR 220 (CR209 to Knight Boxx)	2,713,690	-	-	-	-
6064B	Tynes Blvd Ext.	152,759	-	-	-	-
6094	CR 315C - CR 214 (State Funded)	3,083,887	-	-	-	-
6095	CR224 (College) RR-CR-220 to SR-21 Blanding (RW widening)	4,010,382	-	-	-	-
7084	Intersection Improvement/Minor Capacity	500,000	500,000	500,000	500,000	500,000
6096	State Road 23 Access/Frontage Roads	680,727	-	-	-	-
6096A	State Road 23/Frontage Trail Ridge	3,000,000	-	-	-	-
6098	County Road 220 RRR - Swimming Pen Creek to US 17	3,580,699	-	-	-	-
Total Capital Improvement Plan Improvements		20,565,904	9,500,000	500,000	500,000	500,000
Section II NON-PLAN CAPITAL IMPROVEMENTS						
<u>Transportation</u>						
6059	Equipment - Transportaton	2,123,515	1,452,000	387,714	1,082,250	500,000
6093	Bridge Improvements	500,000	500,000	-	-	-
	Oakleaf Plantation/Eagle Landing Signal	-	500,000	-	-	-
<u>Parks and Recreation</u>						
	Fairgrounds Master Plan Improvements	-	2,510,000	-	-	-
6058	Parks and Recreation Equipment	65,000	-	-	-	-
6062	Multipurpose Field @ Fleming Island (FIAA)	300,000	-	-	-	-
6063	Fleming Island Baseball Park	814,593	-	-	-	-
6068	Omega Park	103,783	-	-	-	-
6088	Keystone Heights Trailhead*	46,000	-	-	-	-
<u>Environmental</u>						
	Animal Services - Building	-	714,000	4,789,500	2,236,000	-
6051	Equipment - Animal Services	-	-	-	-	-
<u>Public Safety</u>						
6049	Public Safety Training Facility	153,000	408,000	4,532,000	-	-
6107	Burn Building	-	-	-	135,200	-
6106	Gun Range	150,000	1,816,000	2,532,000	2,201,600	-
6054	800 MHz	4,225,867	-	-	-	-
6055	Station 11 Replacment	47,120	-	-	-	-
6089	Fire Station 20 - GCS	3,330,000	-	-	-	-
	Fire Station 15	-	-	309,000	3,120,000	-
	Fire Station 17	-	-	-	312,000	4,500,000
6057	Equipment - Public Safety	3,544,563	1,077,148	1,494,976	2,864,527	1,703,027
6078	Sheriff Capital Equipment & Vehicles	1,924,930	1,326,000	1,545,000	1,560,000	1,640,000
<u>Public Works</u>						
27	Road Resurfacing	6,568,344	4,000,000	4,000,000	4,000,000	4,000,000
6005	Road Paving	1,084,787	500,000	500,000	500,000	500,000
6040	Drainage Storm Water	1,969,599	1,000,000	400,000	400,000	400,000
6080	Public Works Building	1,131,620	-	-	-	-
6090	Infrastructure Studies	205,400	211,200	-	-	-
7086	Indigo Branch Drainage	-	3,000,000	-	-	-
	Moody Ave - Drainage Improvement	-	216,240	-	-	-
6092A	Ridaught Landing Drainage Improvements	31,364	-	-	-	-
6092F	Greenwood Drainage Improvments	136,280	-	-	-	-
6092C	Knight Box and CR220 Drainage Improvements	126,262	-	-	-	-
6092D	Tumbleweed Dr - Tanglewood Village Drainage Improv	42,138	-	-	-	-

Exhibit A
Table 1. Clay County Capital Improvements
CLAY COUNTY, FLORIDA
FY 2019-20
CIP
BCC - True Up 5/12/20

		2019-20	2020-21	2021-22	2022-23	2023-24
		Budget	Budget	Budget	Budget	Budget
<u>Other Projects</u>						
6056	Equipment-General Government	553,396	500,000	500,000	500,000	500,000
6067	Fairgrounds Improvements	938,050	-	-	-	-
6067A	Fairgrounds Improvements - FDACS FG Exhibit Hall Remodeling	500,000	-	-	-	-
6079	Equipment-Libraries	-	-	-	-	-
7083	Equipment-Extension Services	31,500	-	-	-	-
6042	School Board Aid	1,600,000	-	-	-	-
7087	Municipal Grants *	330,000	-	-	-	-
<u>Debt Service</u>						
4205	Debt Financing - transfer to Debt Service Fund	-	-	-	-	-
Total Non-Plan Improvements		32,577,111	19,730,588	20,990,190	18,911,577	13,743,027
Grand Total - Improvements		53,143,015	29,230,588	21,490,190	19,411,577	14,243,027

Includes \$7,000,000 in Developer Funding and \$2,000,000 in County Funding.

True Up Changes

New from 10 yr

Exhibit B
Table 2. Clay County Capital Program Revenue Sources
CLAY COUNTY, FLORIDA
Revenue Analysis for Capital Improvement Element
CIP
FY 2019-20
BCC - True Up 5/12/20

Revenues	2019-20 Budget	2020-21 Budget	2021-22 Budget	2022-23 Budget	2023-24 Budget
Prior Year Carry Forward	43,646,472	21,330,627	12,966,465	6,164,337	1,830,597
Local Option Sales Tax Receipts	8,015,256	-	-	-	-
Transfer In from Fund 120 - ISS Revenue Fund	9,619,052	11,802,815	12,206,137	12,621,035	13,037,920
2nd Local Option Gas Tax Receipts	3,110,500	3,151,253	3,244,390	3,239,781	3,304,577
Interest Earnings	115,000	10,000	10,000	10,000	10,000
Subtotal	64,506,280	36,294,695	28,426,992	22,035,153	18,183,094
Other Revenues					
Interfund Transfer	591	591	591	591	591
State Grant - Atlantis Dr	2,065,000	-	-	-	-
State Grant - FDACS Fairgrounds Project	500,000				
State Grant - 315C	2,614,325	-	-	-	-
State Grant - SR23/Frontage Trail Ridge	3,000,000	-	-	-	-
Federal Grant - Ridaught Landing Drainage	23,523	-	-	-	-
Federal Grant - Knight Box CR222 Drainage Improvements	94,696	-	-	-	-
Federal Grant - Tumblewood Dr Tanglewood Drainage Improvements	31,603	-	-	-	-
Federal Grant - Greenwood Drainage Improvements	102,210	-	-	-	-
Developer Funding	-	7,000,000	-	-	-
Subtotal	8,431,948	7,000,591	591	591	591
Total Funds	72,938,228	43,295,286	28,427,583	22,035,744	18,183,685
Less 5% of Revenues	(1,464,588)	(1,098,233)	(773,056)	(793,570)	(817,654)
Total Revenues Available to County	71,473,640	42,197,053	27,654,527	21,242,174	17,366,031
Expenditures					
Plan Improvements	20,565,904	9,500,000	500,000	500,000	500,000
Non-Plan Improvements	32,577,111	19,730,588	20,990,190	18,911,577	13,743,027
Total	53,143,015	29,230,588	21,490,190	19,411,577	14,243,027
Excess of Revenues Over Expenditures					
Annually (total funds less expenditures)	19,795,213	14,064,698	6,937,393	2,624,167	3,940,658
Over (Under) 95 Percent	18,330,625	12,966,465	6,164,337	1,830,597	3,123,004

Includes \$7,000,000 in Developer Funding and \$2,000,000 in County Funding.

True Up Changes

New from 10 yr

CLAY COUNTY BOARD OF COUNTY COMMISSIONERS
 BUDGET TRANSFER AUTHORIZATION (TRANSFER OF APPROPRIATIONS)

FY 19/20

TYPE OF REQUEST:

Budget Transfer # _____

- Transfer within same Cost Center
- Transfer between Cost Centers within same Fund (Contact Budget Director)
- Transfer In/Out of Contingency within same Fund (Contact Budget Director)
- Receipt of unanticipated funds (Submit information for Resolution below)
- Transfer between Funds (Contact Budget Director)
- Transfer within CIP Fund (Contact Budget Director)
- Carryforward of Grant Funds (For use by Budget Office Only - Requires Resolution)

				AMOUNTS to TRANSFER	
ACCOUNT NUMBER			ACCOUNT DESCRIPTION	INCREASE	DECREASE
Fund	Division	Account (Object Code)			
REVENUE					
305	305	312600	Discr Sales Surtaxes		(12,821,757.00)
305	305	381120	Transfer 2020 Bond Revenue Fund	9,619,052.00	
305	305	399001	5% Of Budgeted Revenues		(16,807.00)
Total Revenue Adjustment					(3,219,512.00)
APPROPRIATIONS					
305	6031	563000	Infrastructure		(4,500,000.00)
305	6040	563000	Infrastructure	1,000,000.00	
305	6076	563000	Infrastructure		(778,760.00)
305	6076A	563000	Infrastructure	2,843,760.00	
305	6080	563000	Infrastructure	157,000.00	
305	6092	563000	Infrastructure		(1,616,000.00)
305	6095	563000	Infrastructure	451,942.00	
305	6097	563000	Infrastructure		(1,823,042.00)
305	6098	563000	Infrastructure	403,520.00	
305	6100	563000	Infrastructure		(2,065,000.00)
305	7085	563000	Infrastructure		(384,938.00)
305	7086	563000	Infrastructure		(737,300.00)
305	7088	563000	Infrastructure		(60,600.00)
305	7089	563000	Infrastructure		(42,420.00)
305	6049	562000	Buildings		(150,000.00)
305	6106	562000	Buildings	150,000.00	
305	9912	599100	Reserve - Contingency	2,434,038.00	
305	9912	599200	Reserve - Cash Balance		(889,432.00)
305	9912	599800	Reserve For Capital Improvements	2,387,720.00	
Total Appropriation Increase/Decrease				9,827,980.00	(13,047,492.00)
Total Appropriation Adjustment					(3,219,512.00)

JUSTIFICATION:

This budget amendment is needed to true up CIP funding after the issuance of the 2020 Series Revenue Bond for road construction projects.

REQUESTED BY: _____

DATE REQUESTED: _____

ADMINISTRATIVE USE ONLY

BUDGET OFFICE APPROVAL

COUNTY MANAGER APPROVAL

BY: _____

BY: _____

DATE: _____

DATE: _____



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State Road 21 from CR-218 to Black Creek Improvements

[About this Project](#)[Traffic Alerts](#)[Photos](#)[Documents](#)[Public Events](#)

Overview

The Florida Department of Transportation began a widening and resurfacing project on State Road 21 (Blanding Boulevard) from County Road 218 to Black Creek in February 2020.

Once completed, this project will add two lanes of capacity to the four-lane section of Blanding Boulevard between County Road 218 and Black Creek and provide more efficient east-west movements at the intersection of Blanding Boulevard and County Road 218. The County Road 218 bridge over Black Creek will be replaced to provide a wider bridge in order to accommodate the improvements within the project corridor. The County Road 218 bridge will remain to traffic open during construction.

Sacyr Construction was selected to complete the \$16.4 million project. Construction is estimated to begin this month and be completed in fall 2021, weather and unforeseen circumstances permitting.

Project Details

Project Start: February 2020

Expected Completion: Winter 2021

Cost: \$16.4 million

Project #: 208211-5-52-01

Roads County Road 218, State Road 21

Counties Clay

Cities Middleburg

Contact



Samantha Rambeau (mailto:Samantha.Rambeau@atkinsglobal.com)

386-269-3602



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Blanding Boulevard (SR 21) Widening and Reconstruction From Allie Murray Road to Long Bay Road (CR 220A)

- About this Project
- Traffic Alerts
- Photos
- Documents
- Public Events

Overview

Construction on this segment of State Road 21/Blanding Boulevard in Clay County from Allie Murray Road to Long Bay Road (CR 220A) involves full reconstruction and widening to six lanes of the roadway in this area. Construction on this \$18 million project also includes adding four-foot bike lanes and six-foot sidewalk in both directions, replacing traffic signals, adding street lights, and constructing a new drainage system including new pipes, inlets and small ponds. Medians are being narrowed to allow for the roadway widening and curb construction and some intersection realignment work will be done to better facilitate traffic signals and new travel lane alignment. The project contractor is R.B. Baker Construction Company.

This project is a continuation of other recently-completed Blanding Widening projects that increased to six lanes the segment of Blanding Boulevard/State Road 21 from Old Jennings Road to Branan Field Road and from there south to Allie Murray Road. Motorists should anticipate similar, occasional lane closures necessary during construction once it begins. Standard overnight lane closure times may be adjusted as-needed based on work schedules, weather and traffic flow levels.

A construction open house for this project was held December 10 at the Middleburg Civic Center to answer questions and discuss project details.



Project Details

Project Start: Early 2019
Expected Completion: Fall 2021
Cost: \$19.1 million
Project #: 208211-8
Roads: County Road 220A, State Road 21
Counties: Clay
Cities: Middleburg

Contact



Sara Pleasants (mailto:Sara.pleasants@dot.state.fl.us)
 386-269-3490



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State Road 21 (South Lawrence Blvd.) Improvements

[About this Project](#)[Photos](#)[Documents](#)[Public Events](#)

Overview

This is a resurfacing improvement project. It is scheduled to start in June 2020 and Anderson Columbia is the contractor. The location is State Road 21 from the Putnam C/L to Commercial Circle in Keystone Heights. Cost is \$6.9 million. Completion summer 2021.

The FDOT is proposing to mill and resurface SR 21 from the Putnam county line to north of Commercial Circle in Keystone Heights. Portions of this project are in Bradford, Clay and Putnam Counties. In addition to the milling and resurfacing, the Department will be improving the safety of the roadway by widening the paved shoulders, improving the lighting within the Town of Keystone Heights, and adding mid-block crossings and bulb-outs as part of the Town's Streetscape project. Additionally, signal and pedestrian improvements at the intersection with SR-100 are also being proposed.

Project Details

Project Start: June 2020

Expected Completion: Summer 2021

Cost: \$6.9 million

Project #: 439399-1

Roads State Road 21

Counties Bradford, Clay, Putnam

Cities Keystone Heights

Contact



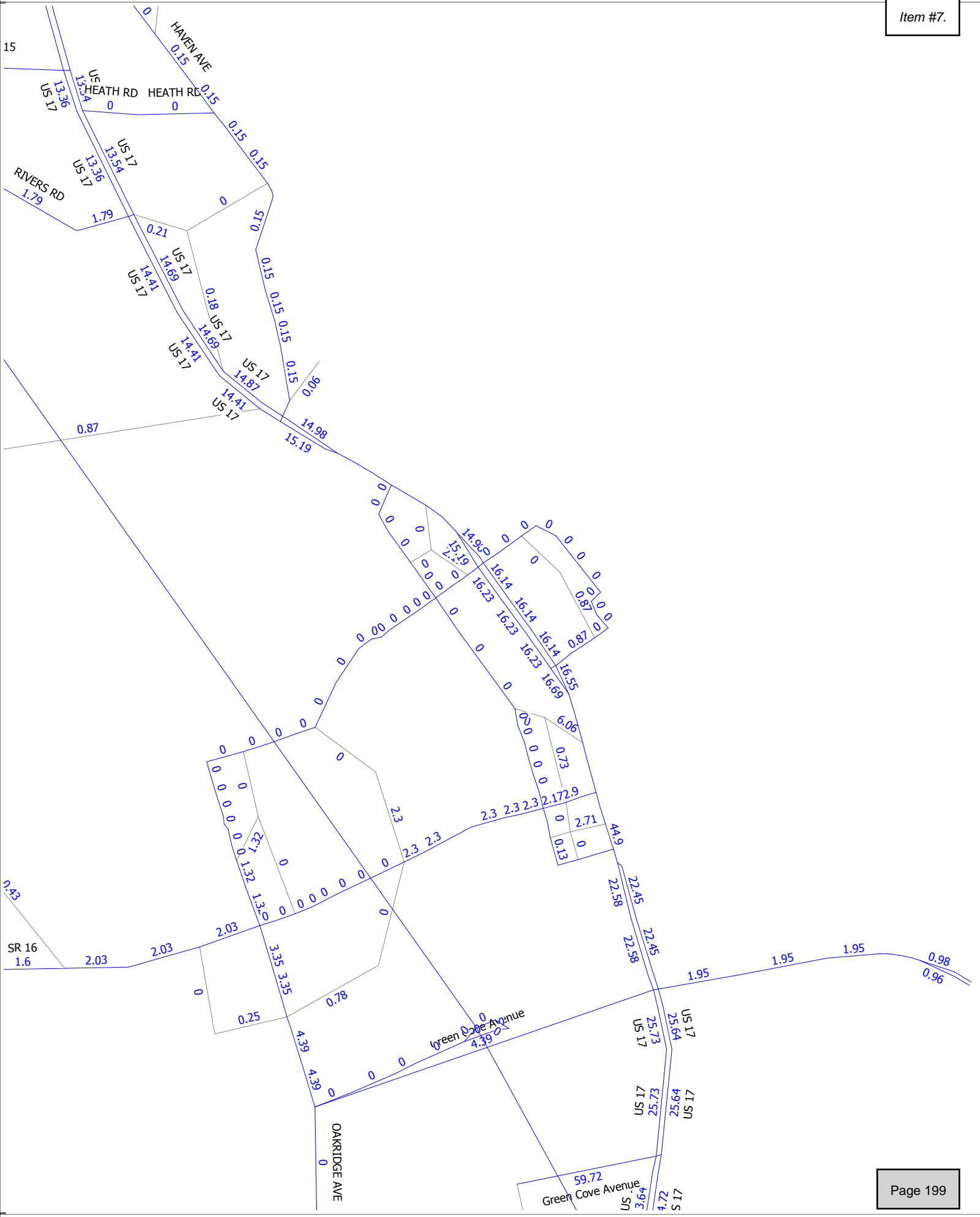
Troy Roberts (<mailto:Troy.Roberts@dot.state.fl.us>)

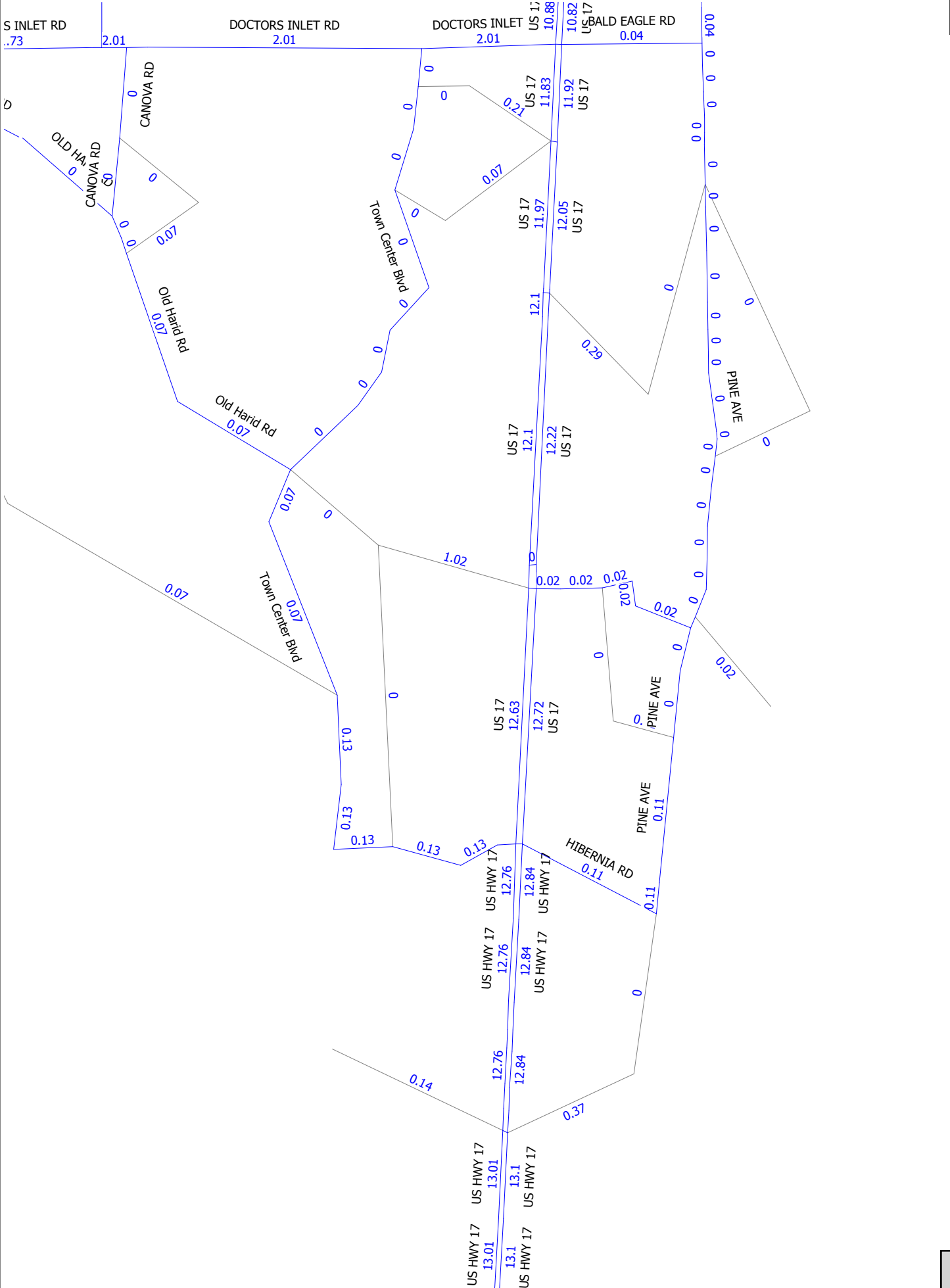
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State Road 21 (South Lawrence Blvd.) Improvements

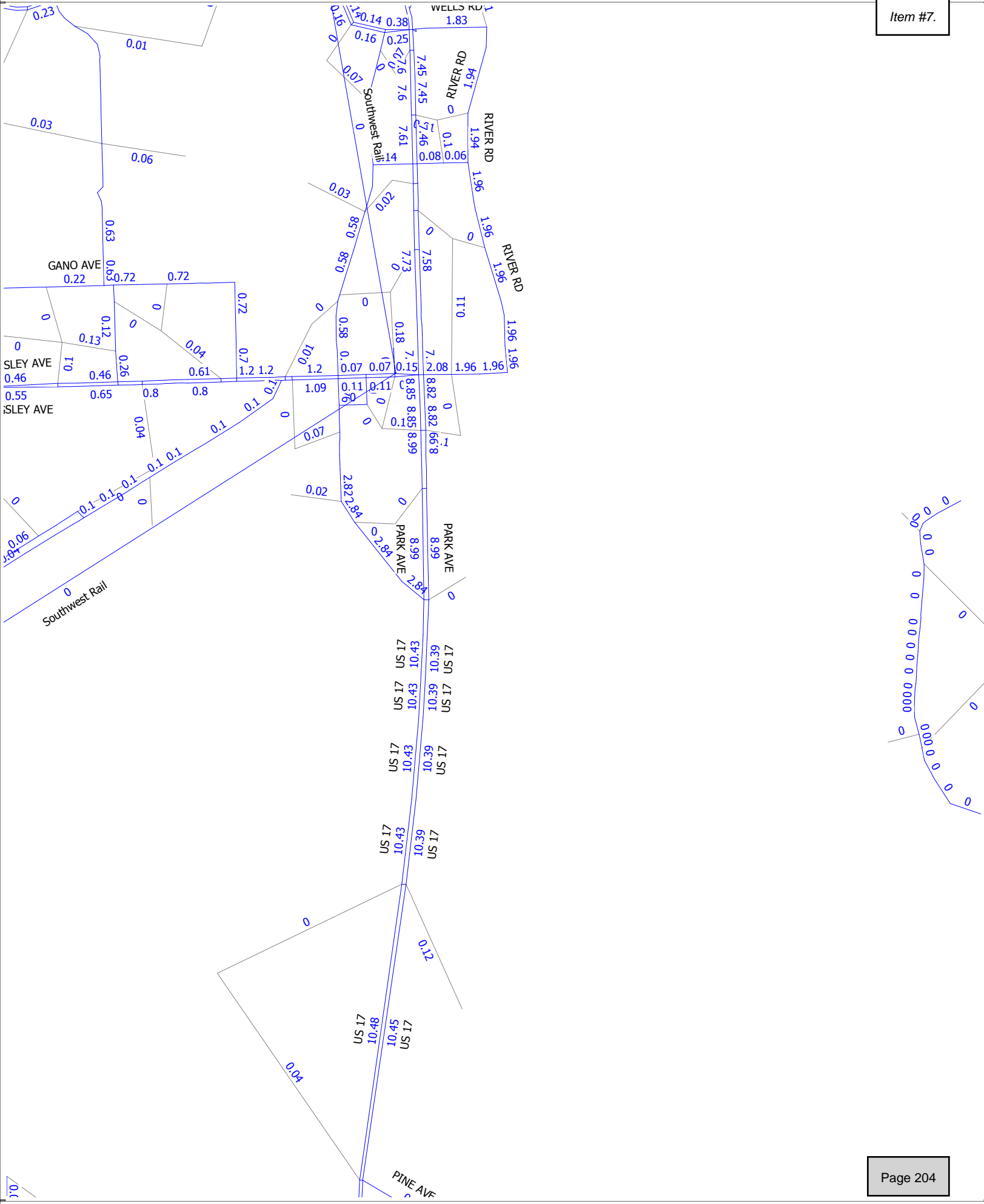
Attachment E

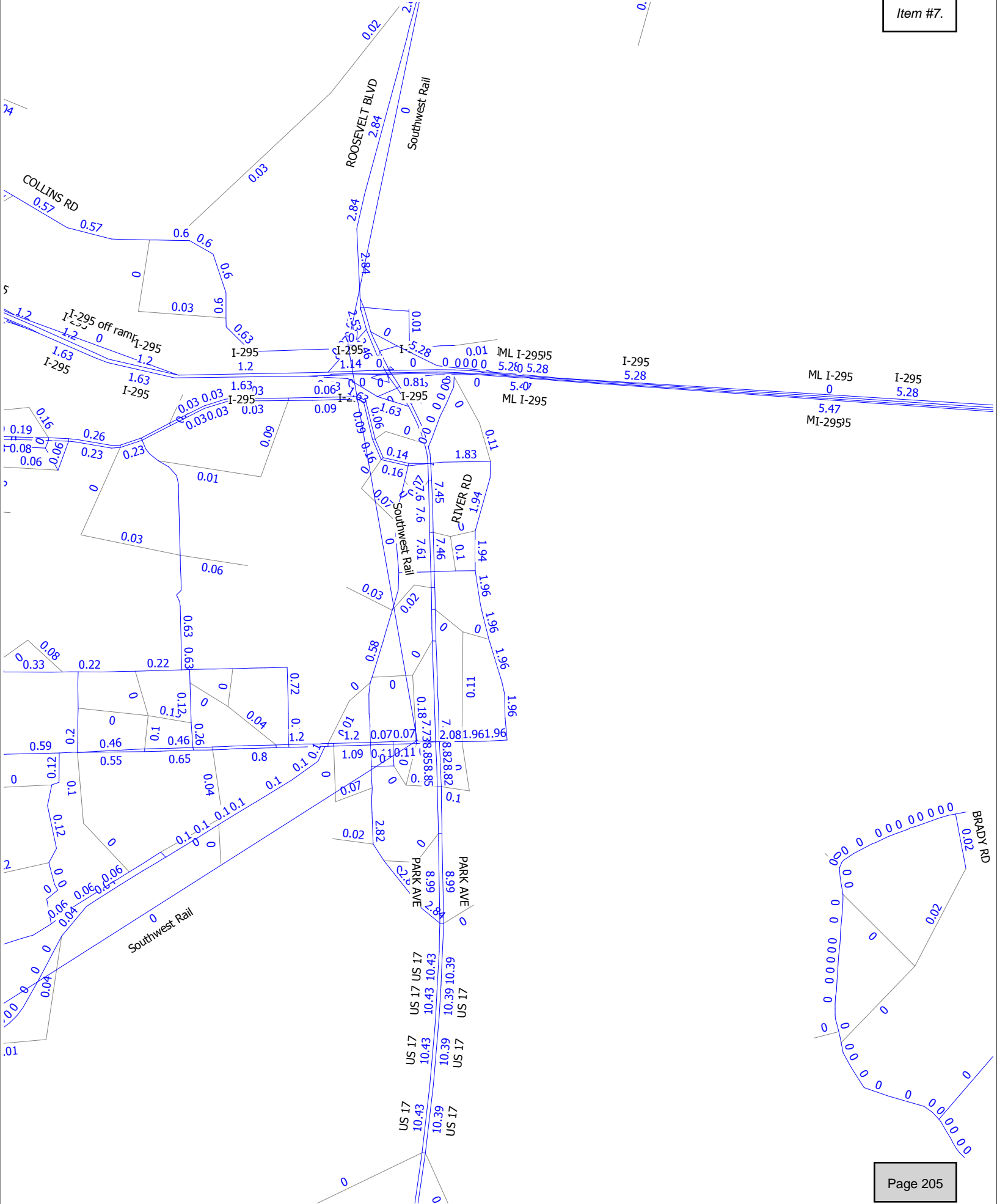
Travel Demand Model Plots



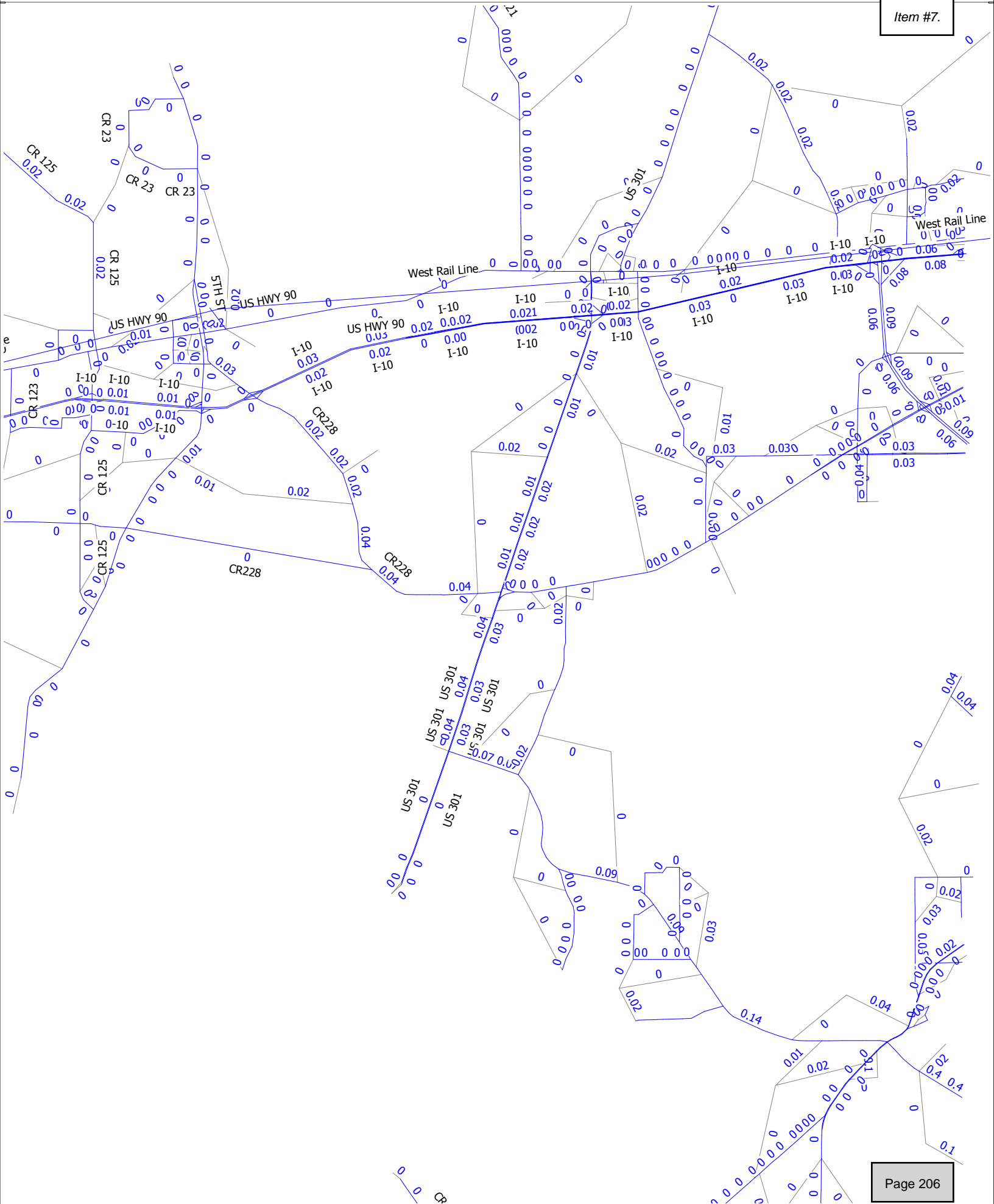


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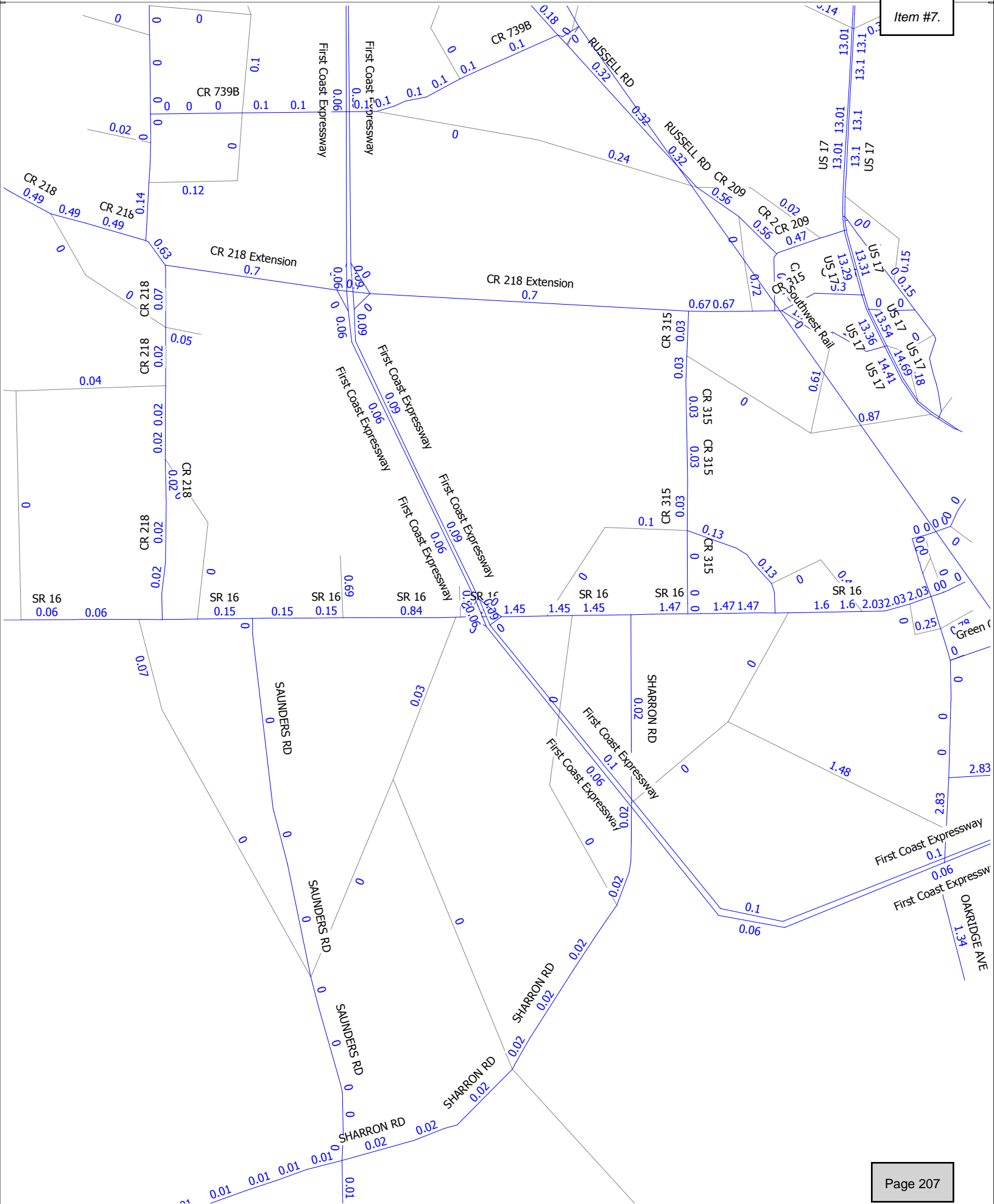




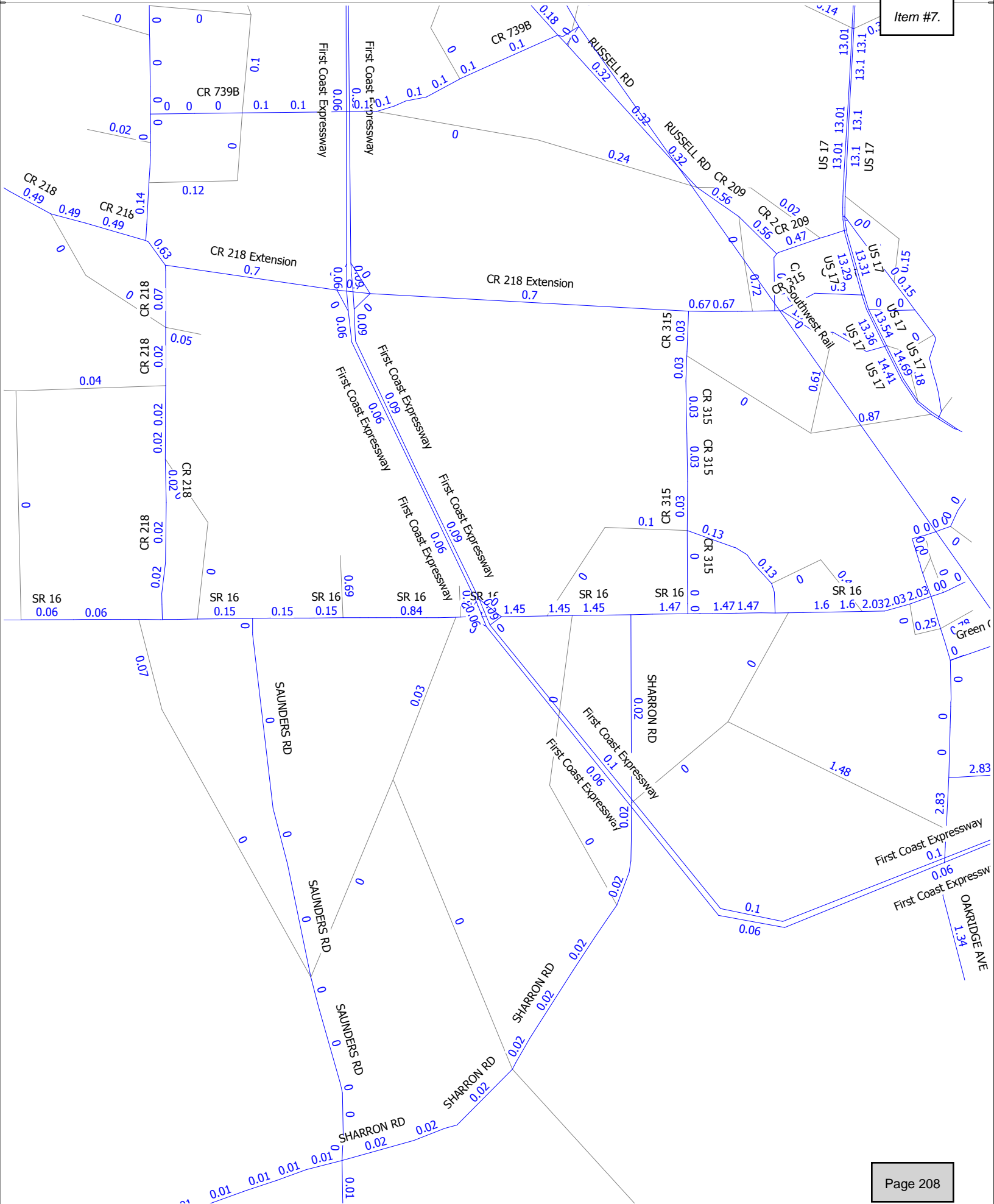
Item #7.

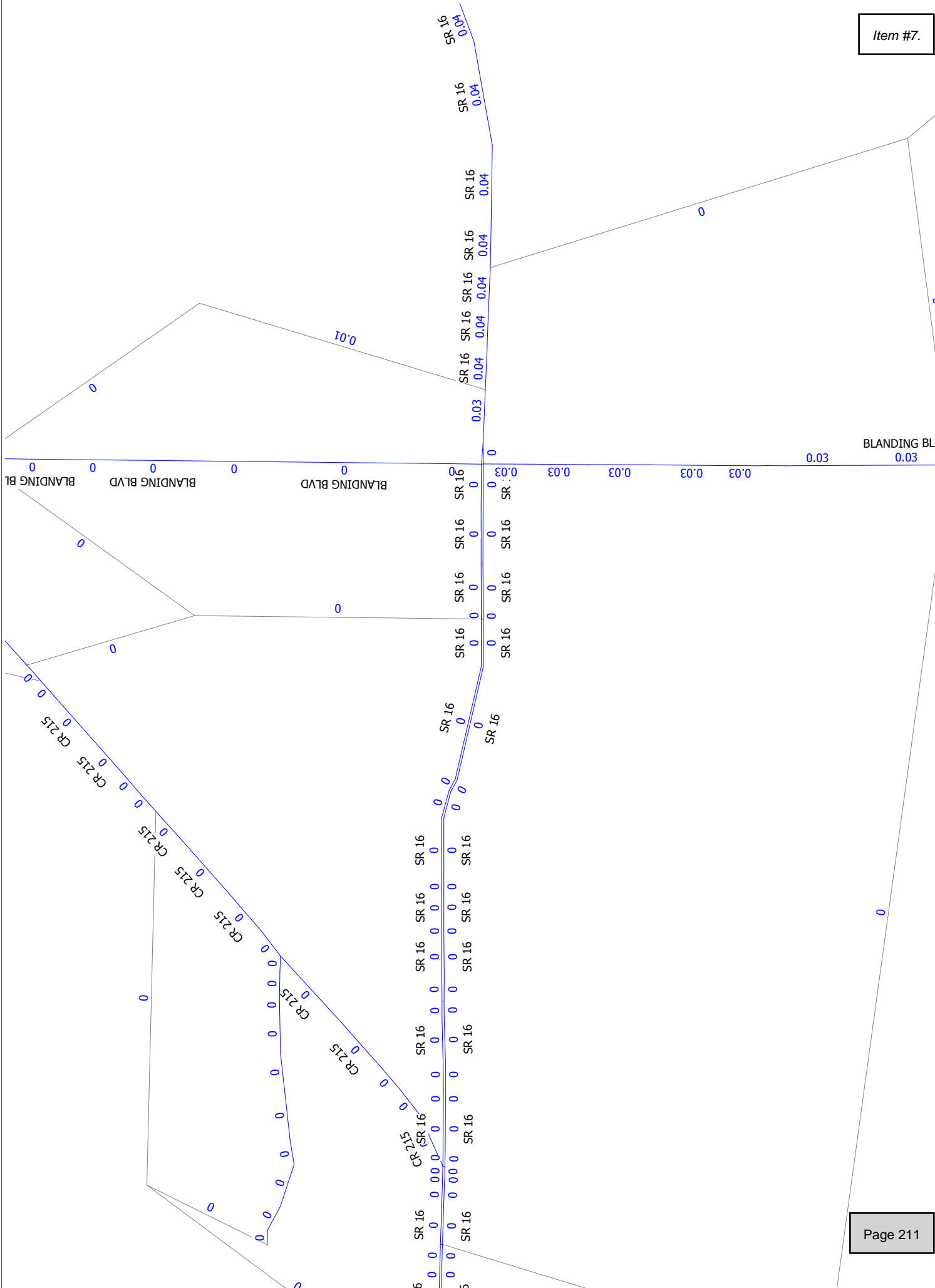


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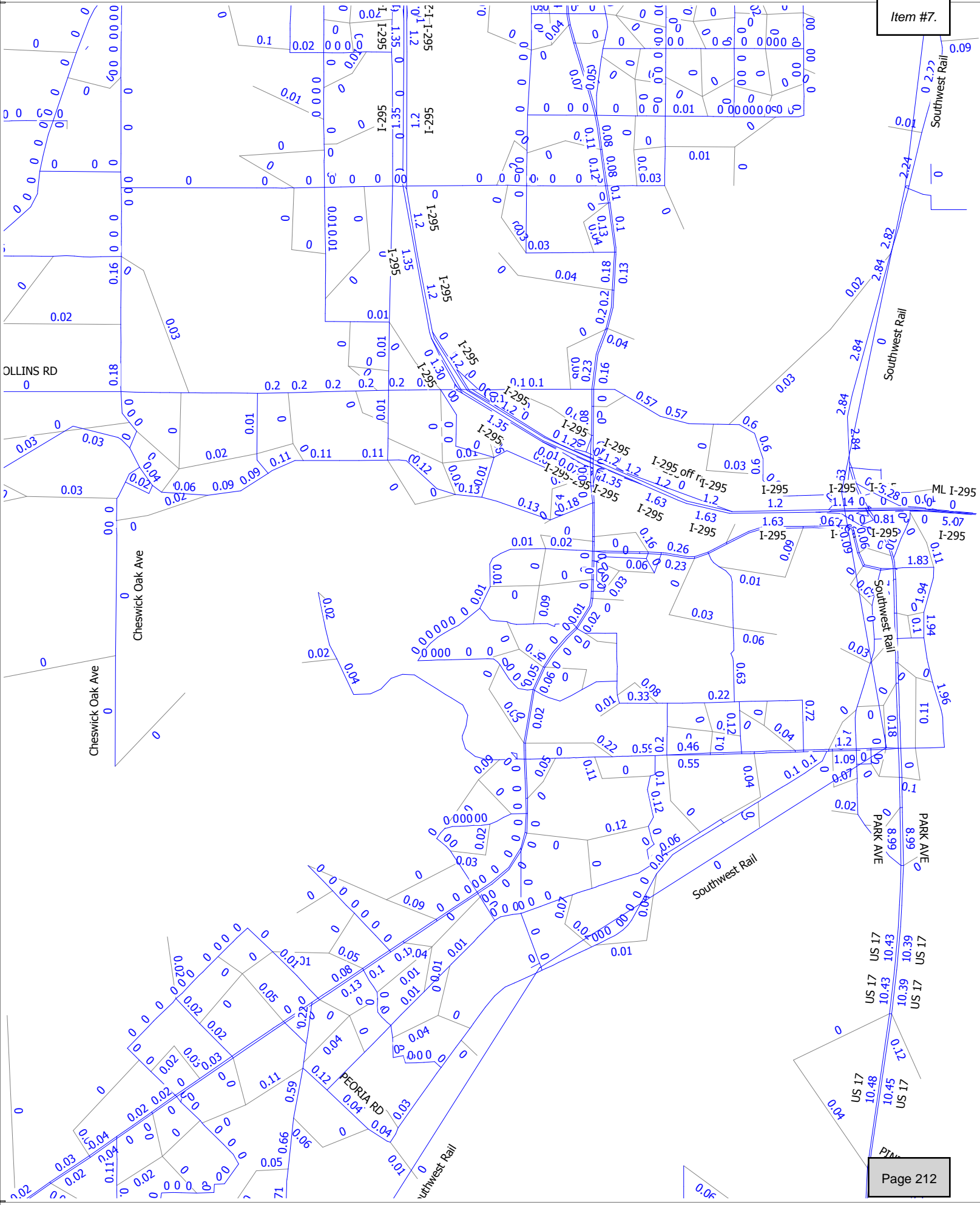


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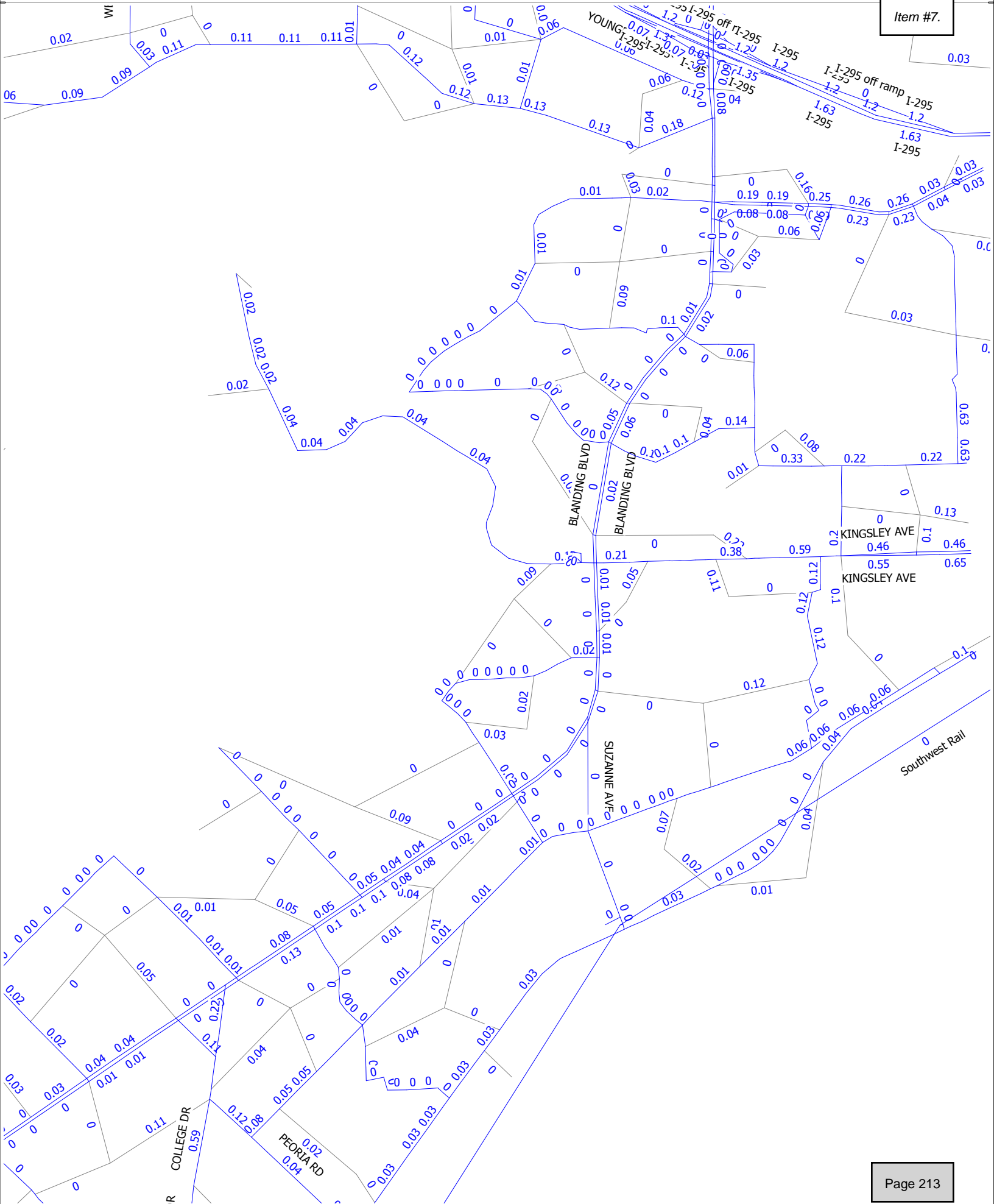




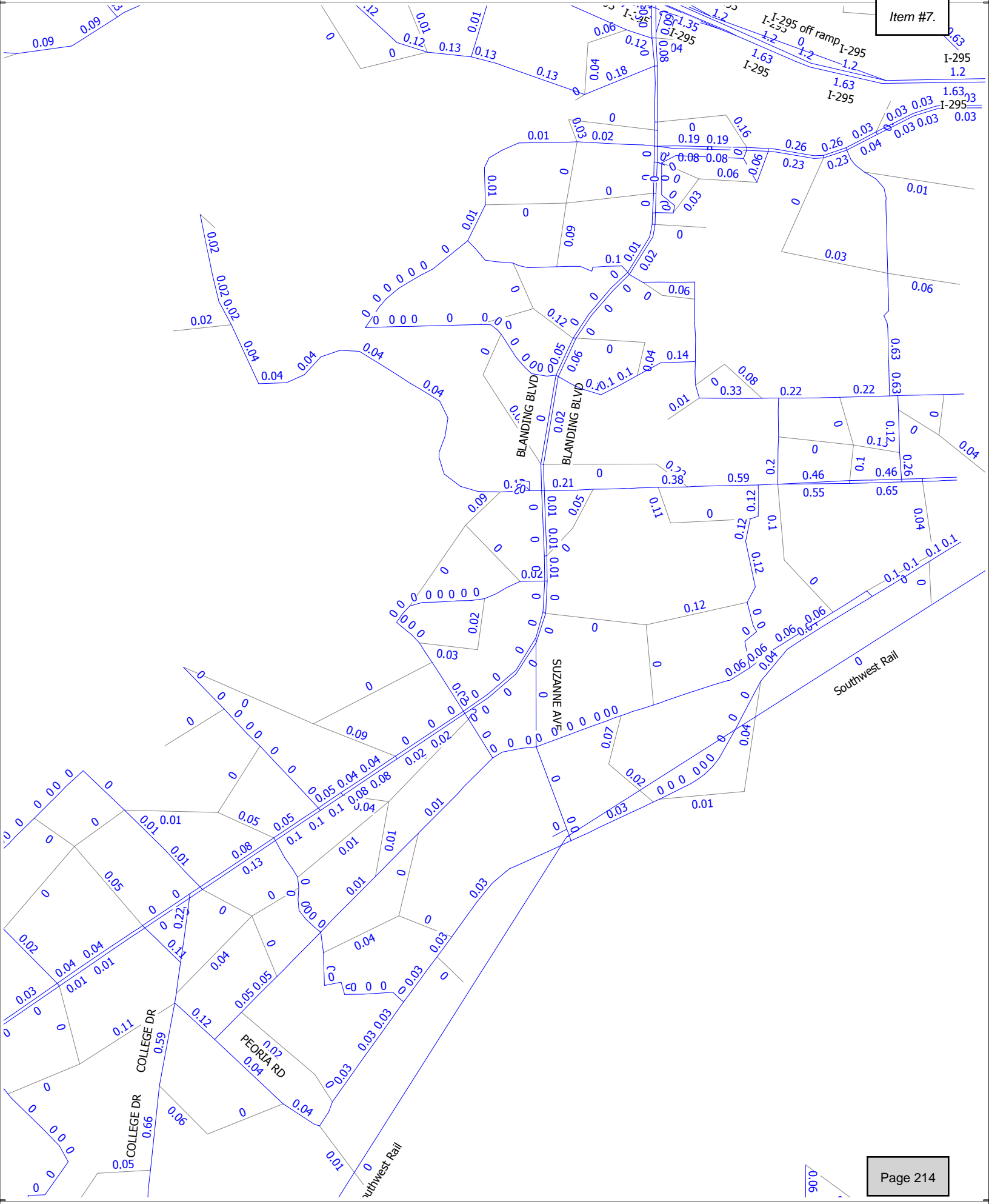
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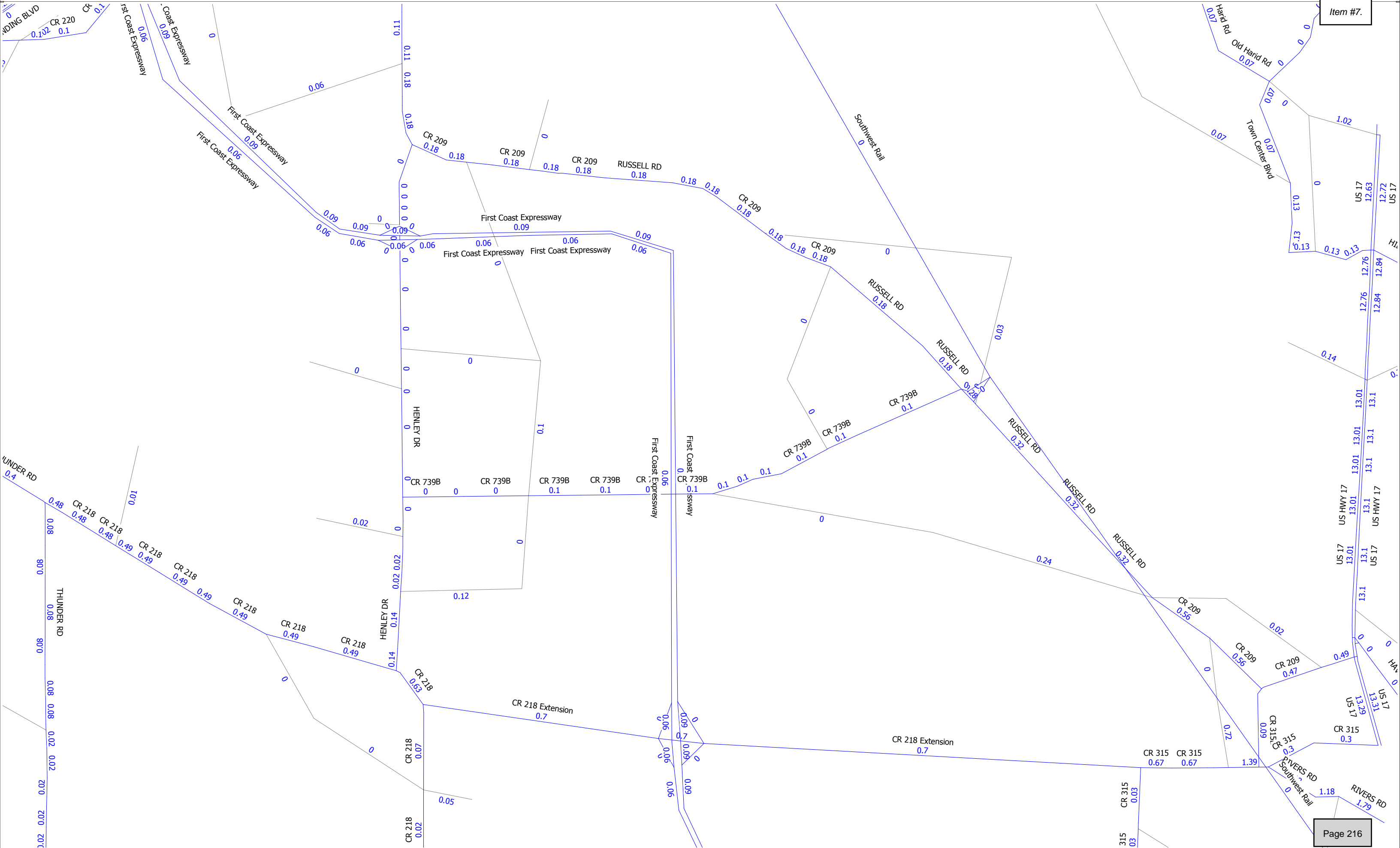


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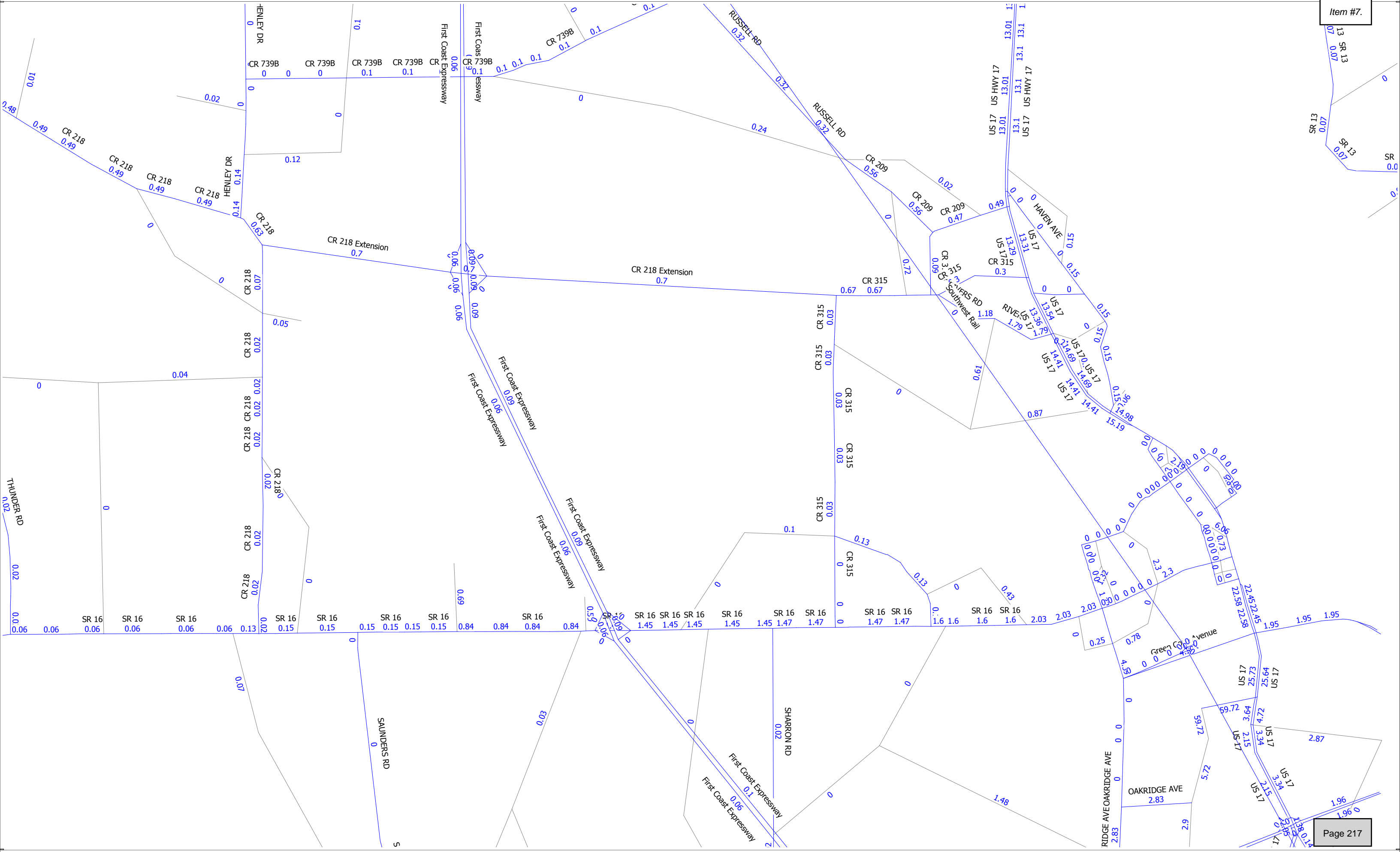


Item #7.





Item #7.

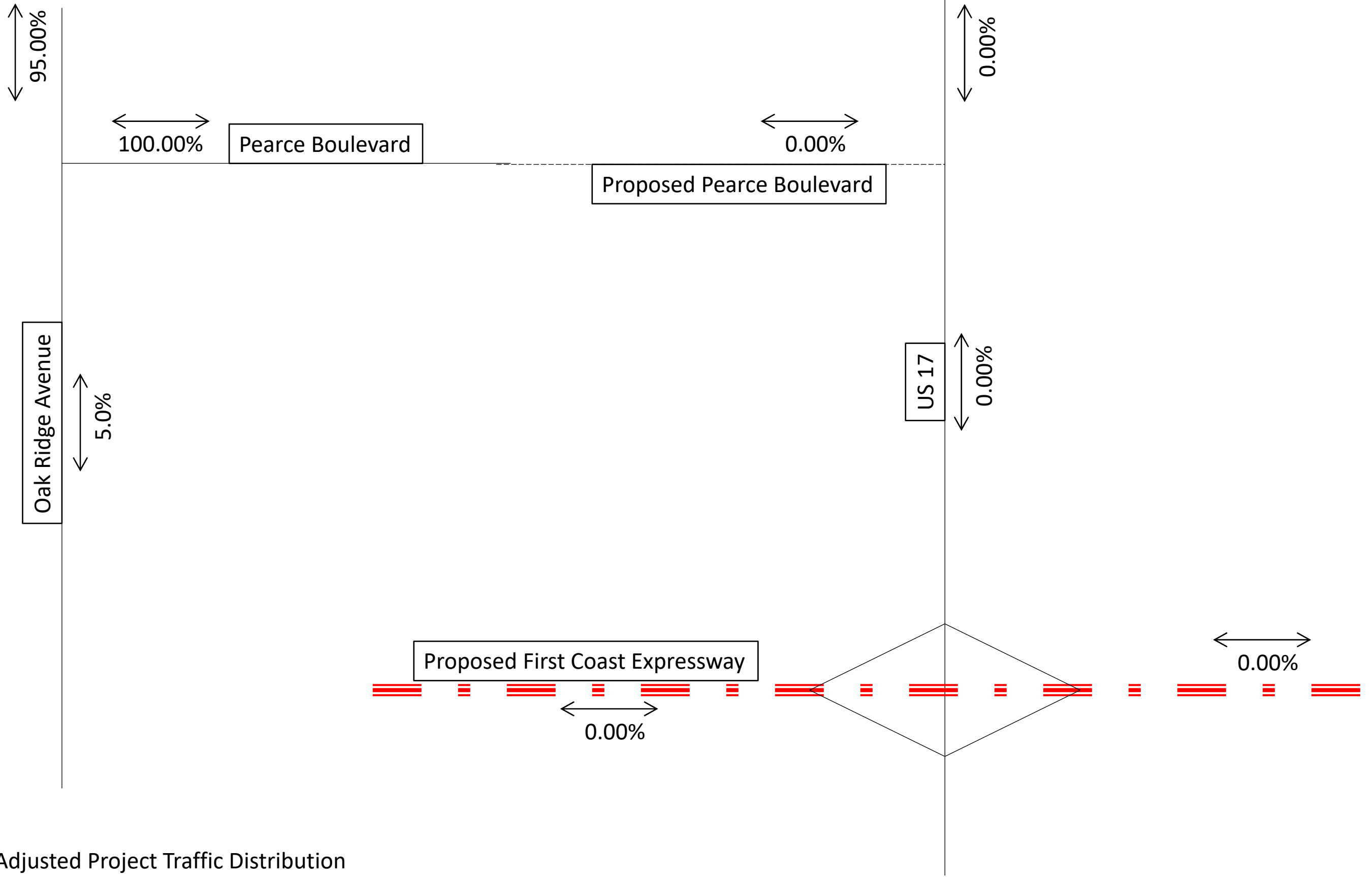


Item #7.

Attachment F

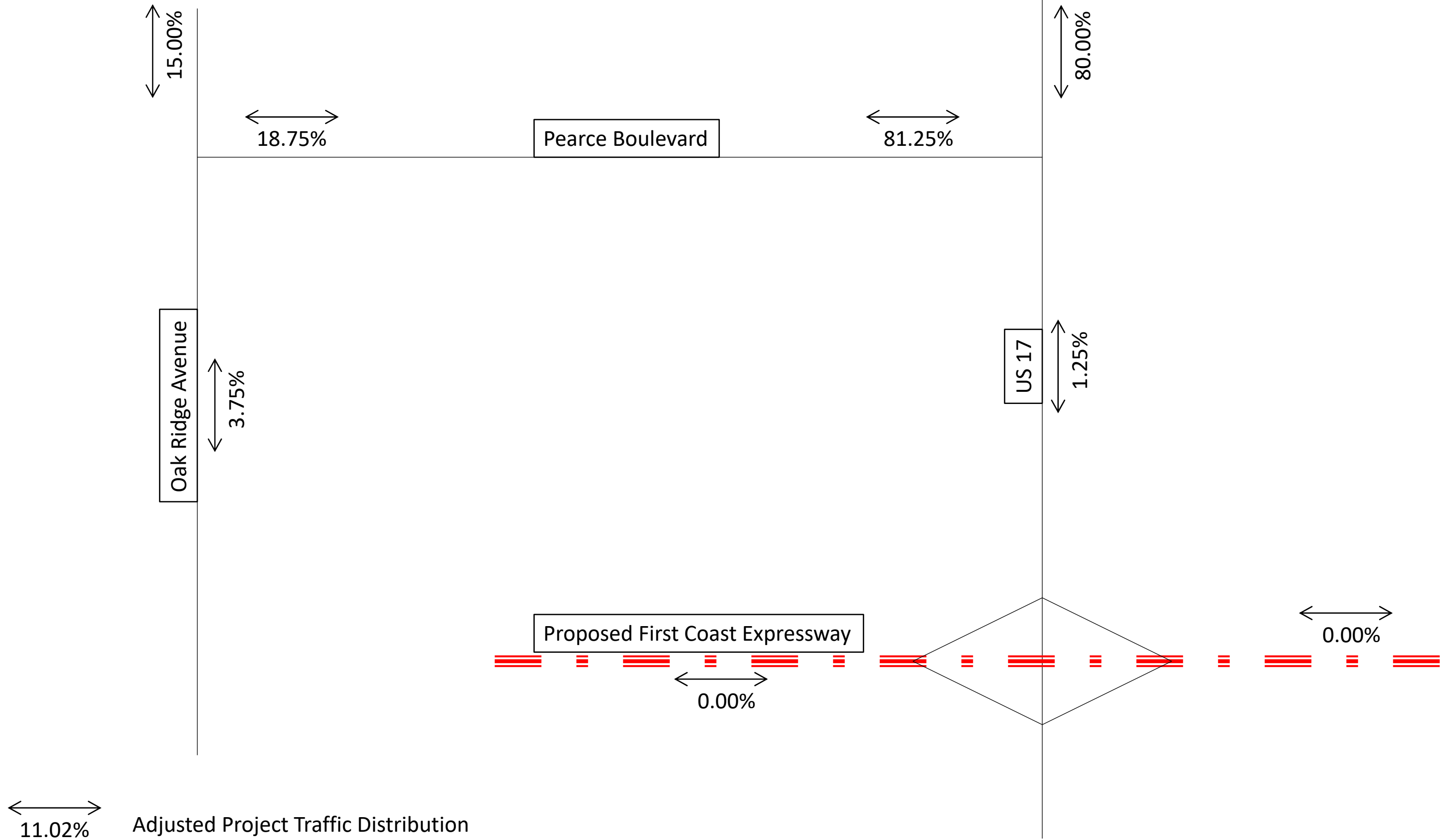
Phase 03 and Phase 04 Adjusted Project Traffic Distribution

Attachment F – Adjusted Project Traffic Distribution (Phase 01)

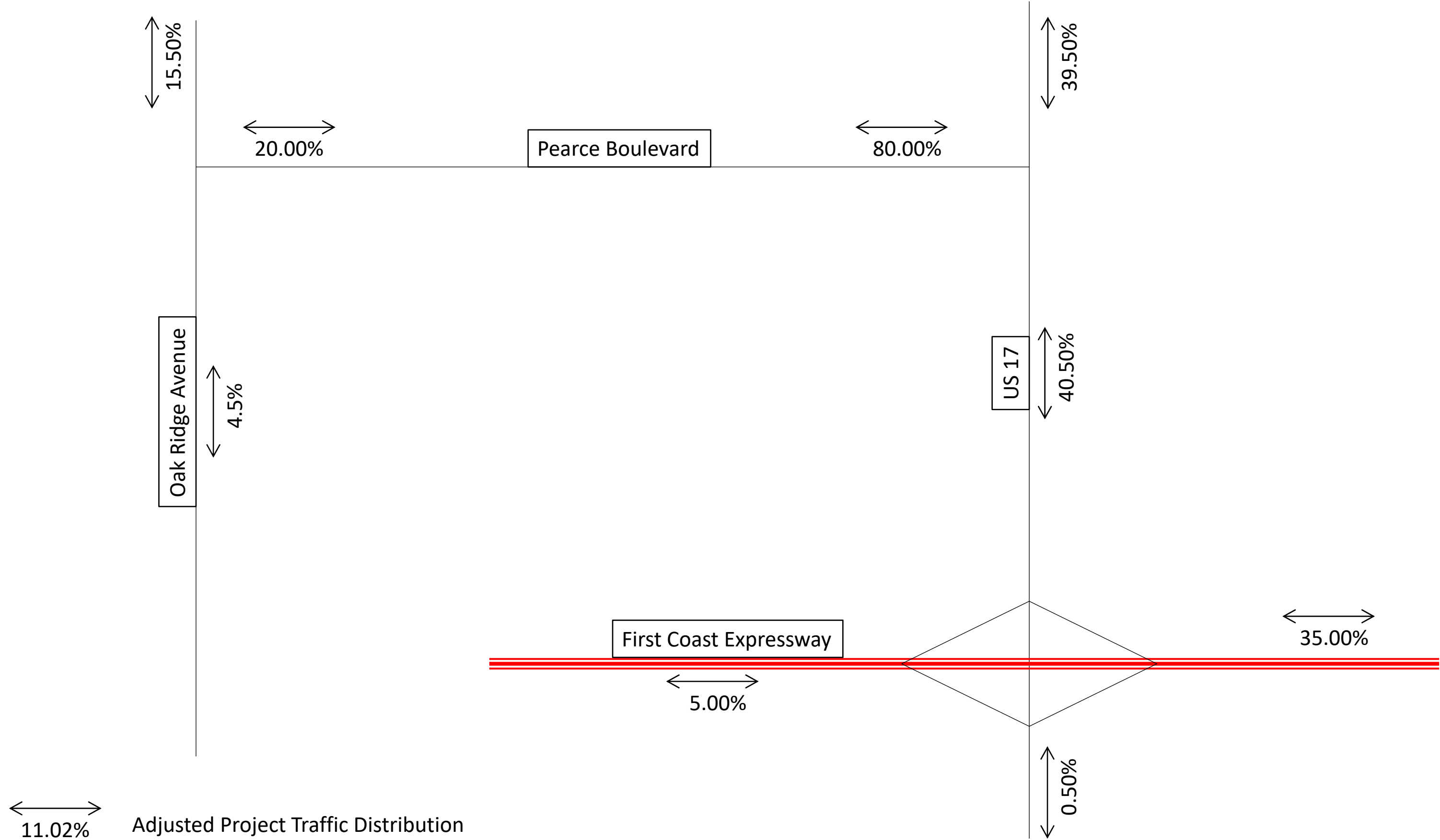


XX.XX% Adjusted Project Traffic Distribution

Attachment F – Adjusted Project Traffic Distribution (Phase 02)



Attachment F– Adjusted Project Traffic Distribution (Phase 03 and Phase 04)



Attachment G

Signal Timing and Phasing Data (Source: FDOT)

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION - DISTRICT TWO
 US 17(SR 15)/SR 16 Signal Retiming - Green Cove Springs, Clay County
 FIN 211083-2-32

Designed By:	A.C
Date:	11/11/2013
Checked By:	R. A. A
Date:	11/11/2013

Section	71050	Mile Post	22.490	Node	10
Sig ID	80	Controller	Naztec TS 2 Type 2	System ID	
Maj. Street	SR 16 West/ Ferris St	Orientation	E-W	SOP	7
Min. Street	Oakridge Ave.	Orientation	N-S		

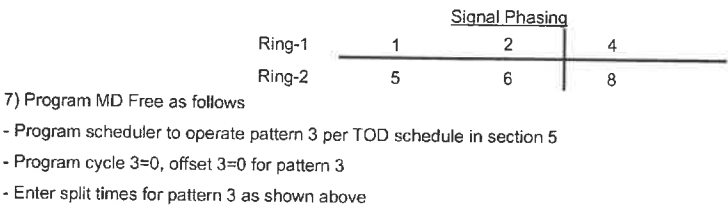
Pedestrians									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB		NB	WBL	EB		SB	
Speed Limit (mph)	35	35		30	35	35		25	
Vehicle Traversed Width	79	62		81	62	58		76	
Ped-X (curb to curb)	/	53		72	/	66		59	
Crossing Time	/	18		24	/	22		20	
Ped-X (ped det to far curb)		79		86		88		85	
Crossing Time	/	27	/	29	/	30	/	29	

Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	EBL	WB		NB	WBL	EB		SB	
Turn Type	Prot./Perm.			Perm	Prot./Perm.			Perm	
Min Green	4	22		6	4	22		6	
Ext	3.0	4.5		3.0	3.0	4.5		3.0	
Yellow	4.0	4.0		3.7	4.0	4.0		3.7	
All Red	2.0	2.0		2.0	2.0	2.0		2.0	
Max I	18	50		35	18	50		20	
Max II	15	47		15	15	47		15	
Walk		7		7		7		7	
Flashing Don't Walk		18		24		22		20	Use 3.0 FT/S - Walk speed
Min Splits	10.0	31.0		37.0	10.0	35.0		33.0	
Detector Memory	OFF	ON		OFF	OFF	ON		OFF	
Det. Cross Switch.	ON				ON				
Recall		Min				Min			
CNA									
Coord Phase		YES							

Coordination Timings (seconds)												
Plan	Pattern	Status	Splits								Cycle Length	Offset A
AM	1	Coord.	16	47	-	37	16	47	-	37	100	16
MIDDAY	3	MD Free	20	60	-	47	20	60	-	47	0	0
PM	4	Coord.	16	40	-	34	16	40	-	34	90	20

Notes:

- 1) Use Fixed Force Offs
- 2) Use Max II during Coordination
- 3) Operates FREE except the AM and PM Plans.
- 4) Short/Long = 5% / 15% for all patterns.
- 5) Omit phase 5 when phase 6 is on. Omit phase 1 when phase 2 is on.
- 6) Offset referenced to end of main street green
- 8) Rest in walk for phases 2&6.



Time of Day Plan

Designed By: AC	Section: 71050
Date: 11/8/2013	Corridor: SR 16 W
Checked By: R. A. A	From: Oak Ridge Ave.
Date: 11/8/2013	To: West Street

ALL SEASON PLAN

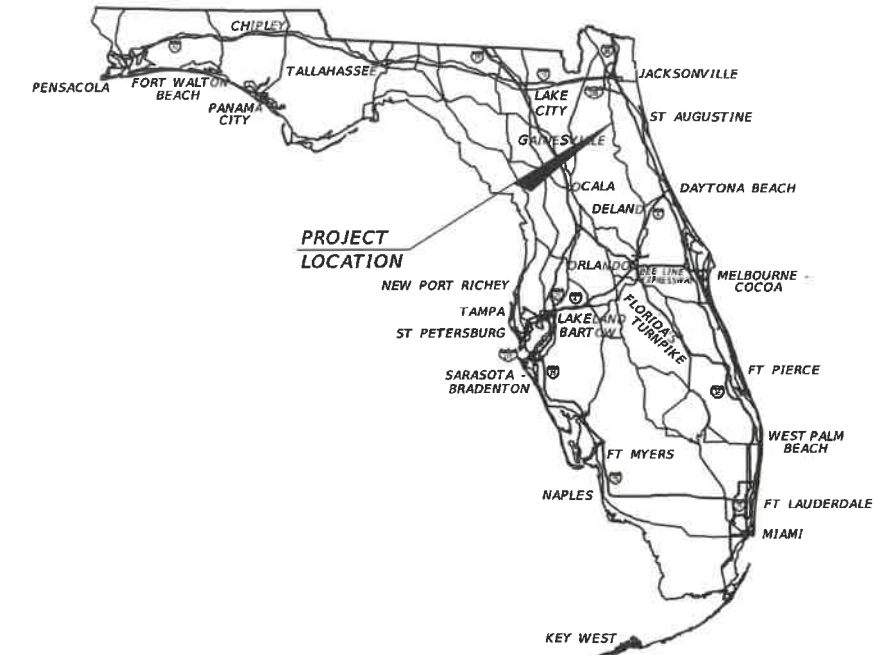
Day	Plan	Time		Pattern (C/S/O)	Cycle Length
Monday Thru Friday	FREE	0:00	5:45	-	FREE
	AM	5:45	9:00	1	100
	FREE	9:00	14:00	-	FREE
	MD FREE	14:00	16:00	3	FREE
	PM	16:00	18:30	4	90
	FREE	18:30	0:00	-	FREE
Saturday	FREE	0:00	0:00	-	FREE
Sunday	FREE	0:00	0:00	-	FREE

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

Final As-Built Plans
~~CONTRACT PLANS~~

FINANCIAL PROJECT ID 436118-1-52-01
(FEDERAL FUNDS)
CLAY COUNTY (71010/71100)
STATE ROAD NO. SR 15

SIGNALIZATION PLANS



INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2 ¹	SIGNATURE SHEET
T-2A - T-2B ³	SIGNATURE SHEET
⁵ T-2C	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	SIGNALIZATION GENERAL NOTES
T-5 - T-8	SIGNALIZATION PLAN
T-9	SPAN MOUNTED EQUIPMENT DETAIL
T-10	STRAIN POLE SCHEDULE
T-11	GUIDE SIGN WORKSHEET
T-12 - T-13	REPORT OF SPT BORINGS STRAIN POLES

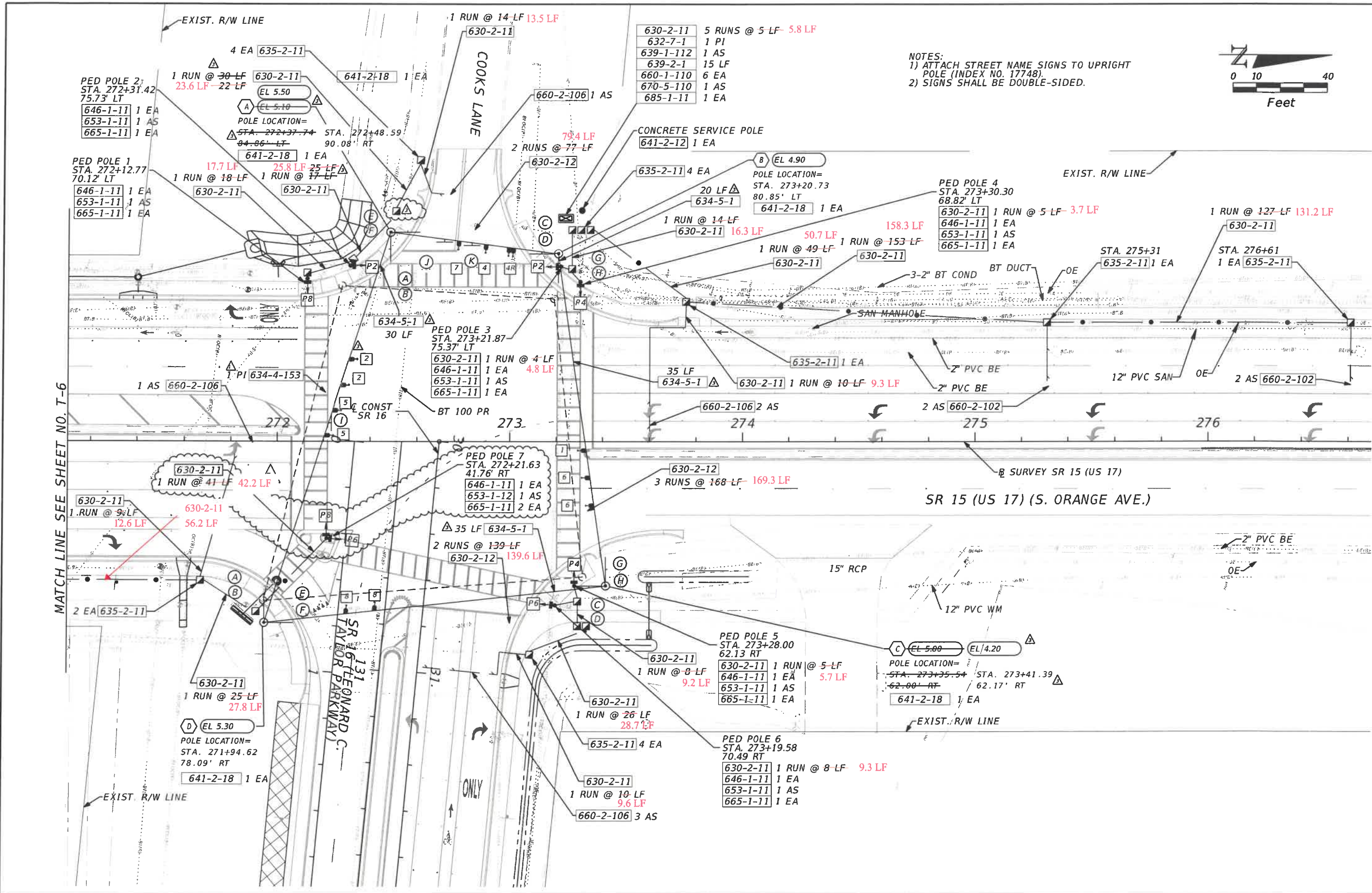
SIGNALIZATION PLANS
ENGINEER OF RECORD:
RALPH BYRD, P.E.
P.E. NO.: 50706
RS&H, INC.
3125 WEST COMMERCIAL BLVD., SUITE 130
FORT LAUDERDALE, FLORIDA 33309
CONTRACT NO.: C-9M68
VENDOR NO.: F59-2986466
CERTIFICATE OF AUTHORIZATION NO.: EB0005620

FDOT PROJECT MANAGER:
AMY WILLIAMS, P.E.

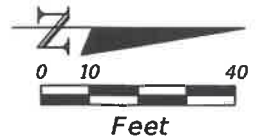
KEY SHEET REVISIONS	
DATE	DESCRIPTION
01-09-18	¹ Added Sheet Number T-2A to index
12-11-18	³ Added Sheet Number T-2B to index
02-21-19	⁵ Added Sheet Number T-2C to index

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T2686	18	T-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
 1) ATTACH STREET NAME SIGNS TO UPRIGHT POLE (INDEX NO. 17748).
 2) SIGNS SHALL BE DOUBLE-SIDED.



MATCH LINE SEE SHEET NO. T-6

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS	
DATE	DESCRIPTION
12-11-18	RELOCATED POLE A AND POLE C. RELOCATED SIGNAL HEADS, SPAN WIRES, AND SIGNS. REVISED POLE A AND POLE C ELEVATIONS. RELOCATED PULL BOX AND CONDUIT. REVISED CONDUIT LENGTHS. ADDED PAY ITEM LABEL AND QUANTITY.
02-21-19	REVISED LOCATION OF PEDESTRIAN POLE

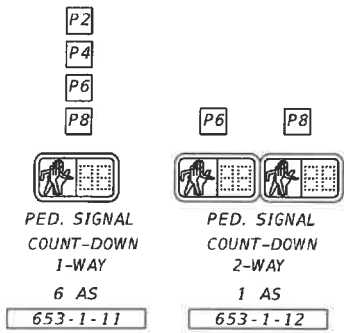
RALPH A. BYRD, P.E.
 P.E. LICENSE NUMBER 50706
 RS&H, INC.
 3125 WEST COMMERCIAL BLVD, SUITE 130
 FORT LAUDERDALE, FLORIDA 33309
 CERTIFICATE OF AUTHORIZATION 5620

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 15	CLAY	436118-1-52-01

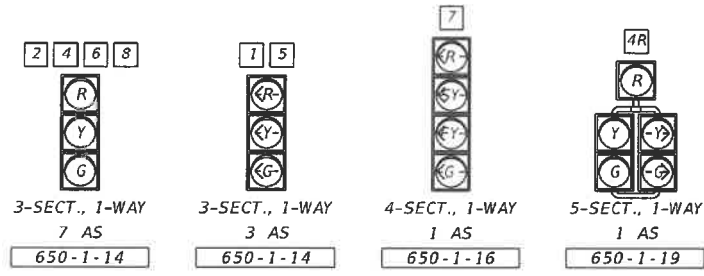
SIGNALIZATION PLAN

SHEET NO.
 T-5
 Page 227

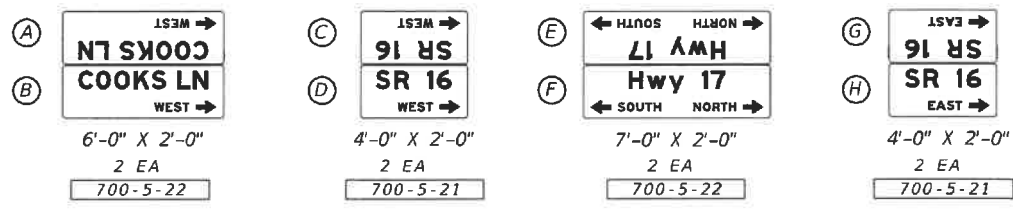
PEDESTRIAN HEAD DETAILS



SIGNAL HEAD DETAILS

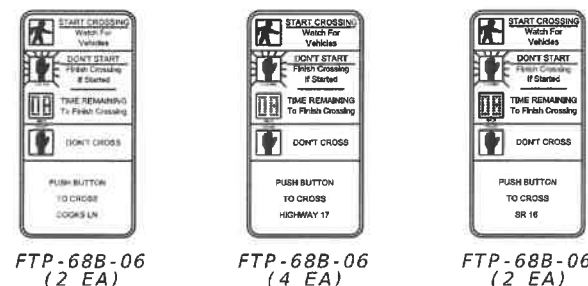


INTERNALLY ILLUMINATED SIGN DETAILS



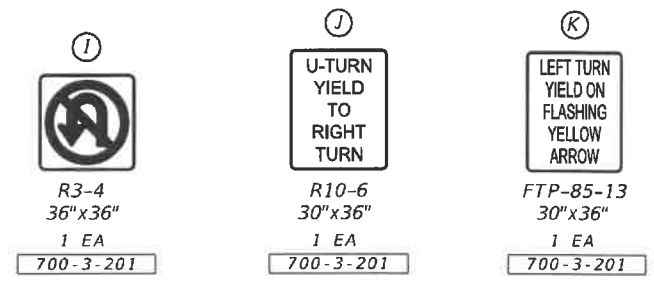
NOTES:
 1) ATTACH STREET NAME SIGNS TO UPRIGHT POLE (INDEX NO. 17748).
 2) SIGNS SHALL BE DOUBLE-SIDED

SIGN DETAILS

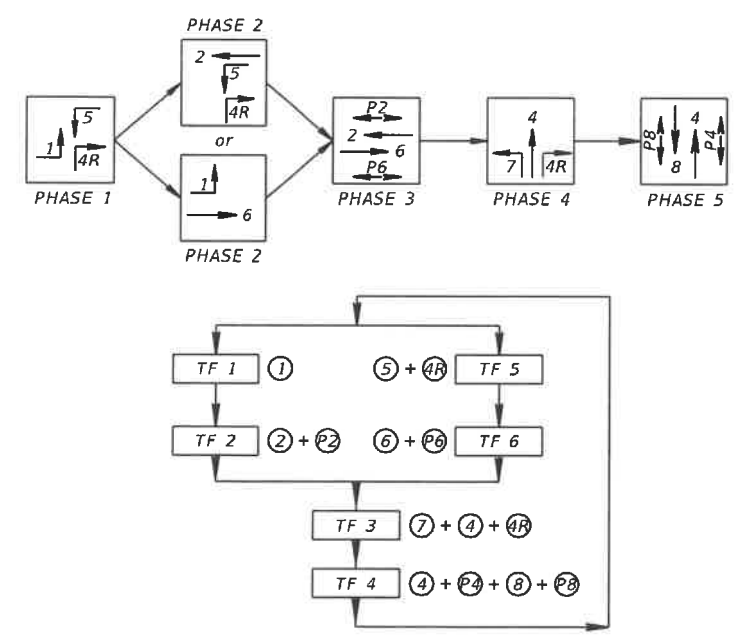


NOTE:
 1) COST OF SIGNS TO BE INCLUDED IN PAY ITEM NO. 665-1-11

SIGN DETAILS



S.O.P. 10 (MODIFIED)



DETECTORS FOR LOOPS

MOVEMENT	LOOP I.D.	LOOP SIZE	DET. I.D.	DET. CHANNEL	DELAY TIME (SEC)
1	L-1	30' X 6"	1	1	0
2	L-2A&B	6' X 6"	1	2	0
2	L-2C&D	6' X 6"	2	1	0
-	-	-	2	2	0
4	L-4	30' X 6"	3	1	0
4	L-4R	30' X 6"	3	2	5
5	L-5I&O	30' X 6"	4	1	0
6	L-6A&B	6' X 6"	4	2	0
6	L-6C&D	6' X 6"	5	1	0
7	L-7	30' X 6"	5	2	0
8	L-8	30' X 6"	6	1	5
-	-	-	6	2	0

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER.

CONTROLLER TIMINGS

TIMING FUNCTION	5	6	8	1	2	3	4	
MINIMUM GREEN	4	18	0	6	4	18	4	6
EXTENSION	3	4	0	6	4	4	4	3
MAXIMUM GREEN 1	15	45	0	30	45	35	15	30
MAXIMUM GREEN 2	15	45	0	30	45	35	15	30
YELLOW CLEARANCE	4.8	4.8	0	4.8	4.8	4.8	4.8	4.8
ALL RED	2.3	2.0	0	3.0	2.2	2.0	2.3	3.0
PEDESTRIAN WALK	0	7	0	7	0	7	0	7
PED. CLEARANCE	0	21	0	29	0	25	0	29
RECALL		MIN			MIN			

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

RALPH A. BYRD, P.E.
 P.E. LICENSE NUMBER 50706
 RS&H, INC.
 3125 WEST COMMERCIAL BLVD, SUITE 130
 FORT LAUDERDALE, FLORIDA 33309
 CERTIFICATE OF AUTHORIZATION 5620

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 15	CLAY	436118-1-52-01

SIGNALIZATION PLAN

SHEET NO.	T-8
Page 228	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION - DISTRICT TWO
US 17(SR 15)/SR 16 Signal Retiming - Green Cove Springs, Clay County
FIN 211083-2-32

Designed By:	A.C
Date:	11/11/2013
Checked By:	R. A. A
Date:	11/11/2013

Section	71020	Mile Post	0.000	Node	2
Sig ID	46	Controller	Naztec TS 2 Type 2	System ID	
Maj. Street	SR 15/US 17	Orientation	N-S	SOP	9
Min. Street	Ferris St.	Orientation	E-W		

Pedestrians									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	NBL	SB		WB	SBL	NB		EB	
Speed Limit (mph)	30	30		25	30	30		30	
Vehicle Traversed Width	79	97		85	79	83		85	
Ped-X (curb to curb)	/	90		72	/	50		72	
Crossing Time	/	26		21	/	15		21	
Ped-X (ped det to far curb)		101		81		72		83	
Crossing Time	/	34	/	27	/	24	/	28	

Controller Timings (seconds)									
Movement # (Controller Phase Ø)	1	2	3	4	5	6	7	8	Notes
Direction	NBL	SB		WB	SBL	NB		EB	
Turn Type	Prot./Perm.			Split	Prot./Perm.			Split	
Min Green	4	10		6	4	10		6	
Ext	3.0	3.0		3.0	3.0	3.0		3.0	
Yellow	3.7	3.7		3.4	3.7	3.7		3.7	
All Red	2.0	2.0		2.0	2.0	2.0		2.0	
Max I	15	45		15	15	45		20	
Max II	24	45		15	13	49		24	
Walk		7		7		7		7	
Flashing Don't Walk		26		21		15		21	
Min Splits	10.0	39.0		34.0	10.0	28.0		34.0	
Detector Memory	OFF	ON		OFF	OFF	ON		OFF	
Det. Cross Switch.	ON				ON				
Recall		Min				Min			
CNA									
Coord Phase		YES							

Coordination Timings (seconds)												
Plan	Pattern	Status	Splits								Cycle Length	Offset A
AM	1	Coord.	20	44	-	15	15	49	-	21	100	47
OFFPK	2	Coord.	19	42	-	18	16	45	-	21	100	2
PM	4	Coord.	14	42	-	32	15	41	-	32	120	117
NT	5	Coord.	14	39	-	13	14	39	-	14	80	0
SATPK	6	Coord.	15	42	-	16	15	42	-	27	100	83
MIDDAY	7	Coord.	14	42	-	32	15	41	-	32	120	117

Notes:

- 1) Use Fixed Force Offs
- 2) Use Max II during Coordination
- 3) Short/Long = 5% / 10% for all patterns except for pattern 5: 0% / 10%
- 4) Omit phase 1 when phase 2 is on. Omit phase 5 when phase 6 is on.
- 5) Offset referenced to end of main street green
- 6) Rest in walk for phases 2&6.

	Signal Phasing			
Ring-1	1	2	4	8
Ring-2	5	6		

Time of Day Plan

Designed By:	A.C
Date:	11/8/2013
Checked By:	R. A. A
Date:	11/8/2013

Section:	71020 & 71010
Corridor:	US 17
From:	Cooks Lane*
To:	Gum Street

TIME OF DAY

Day	Plan	Time		Pattern (C/S/O)	Cycle Length
Monday Thru Friday	FREE	0:00	5:45	-	FREE
	AM	5:45	9:00	1	100
	OFFPK	9:00	11:00	2	100
	MIDDAY	11:00	16:00	7	120/60**
	PM	16:00	18:30	4	120
	NIGHT	18:30	21:30	5	80
	FREE	21:30	0:00	-	FREE
Saturday	FREE	0:00	7:00	-	FREE
	NIGHT	7:00	9:00	5	80
	SATPK	9:00	17:00	6	100
	NIGHT	17:00	21:30	5	80
	FREE	21:30	0:00	-	FREE
Sunday	FREE	0:00	8:00	-	FREE
	NIGHT	8:00	20:00	5	80
	FREE	20:00	0:00	-	FREE

* US17/SR 15 @ Cooks lane, US 17/SR 15 @ Houston Street, and US 17/SR 16 @ Harbor Road operate in FREE mode at all times.
 **US 17 @ Ferris street operates 120 sec cycle length while others operate 60 sec

Attachment H

HCM Worksheets

Attachment H1

Existing Conditions - HCM Worksheets

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	10	130	40	45	110
Future Vol, veh/h	17	10	130	40	45	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	80	71	72	75	84
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	29	13	183	56	60	131

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	462	211	0	0	239
Stage 1	211	-	-	-	-
Stage 2	251	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	531	812	-	-	1340
Stage 1	790	-	-	-	-
Stage 2	757	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	506	812	-	-	1340
Mov Cap-2 Maneuver	506	-	-	-	-
Stage 1	790	-	-	-	-
Stage 2	721	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	571	1340
HCM Lane V/C Ratio	-	-	0.072	0.045
HCM Control Delay (s)	-	-	11.8	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	2	0	3	0	517	4	33	392	0
Future Vol, veh/h	0	0	0	2	0	3	0	517	4	33	392	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	25	92	50	92	84	50	51	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	8	0	6	0	615	8	65	484	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	922	1237	242	991	1233	312	484	0	0	623	0	0
Stage 1	614	614	-	619	619	-	-	-	-	-	-	-
Stage 2	308	623	-	372	614	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	228	177	765	203	178	690	1089	-	-	968	-	-
Stage 1	451	486	-	448	483	-	-	-	-	-	-	-
Stage 2	683	481	-	626	486	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	214	165	765	193	166	690	1089	-	-	968	-	-
Mov Cap-2 Maneuver	214	165	-	193	166	-	-	-	-	-	-	-
Stage 1	451	453	-	448	483	-	-	-	-	-	-	-
Stage 2	677	481	-	584	453	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	18.6	0	1.1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	-	279	968	-
HCM Lane V/C Ratio	-	-	-	-	0.05	0.067	-
HCM Control Delay (s)	0	-	-	0	18.6	9	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.2	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	68	64	359	255	32
Future Vol, veh/h	29	68	64	359	255	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	91	74	83	78	84
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	45	75	86	433	327	38

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	716	164	365	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	280	798	1059	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	257	798	1059	-	-	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	536	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1059	-	550	-	-
HCM Lane V/C Ratio	0.082	-	0.217	-	-
HCM Control Delay (s)	8.7	-	13.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.8	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Existing Conditions Year 20 Item #7.

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	468	97	27	271	31	86	30	32	11	23	26
Future Volume (veh/h)	61	468	97	27	271	31	86	30	32	11	23	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	85	557	128	37	430	41	126	62	35	28	47	45
Peak Hour Factor	0.72	0.84	0.76	0.73	0.63	0.75	0.68	0.48	0.92	0.40	0.49	0.58
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	448	579	133	246	736	639	297	141	71	135	219	185
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1425	327	1570	1811	1572	768	449	227	288	699	593
Grp Volume(v), veh/h	85	0	685	37	430	41	223	0	0	120	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1444	0	0	1580	0	0
Q Serve(g_s), s	2.5	0.0	38.1	1.2	18.5	1.6	6.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	38.1	1.2	18.5	1.6	11.6	0.0	0.0	5.3	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.57		0.16	0.23		0.37
Lane Grp Cap(c), veh/h	448	0	712	246	736	639	508	0	0	539	0	0
V/C Ratio(X)	0.19	0.00	0.96	0.15	0.58	0.06	0.44	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	448	0	718	246	743	645	508	0	0	539	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.7	0.0	28.9	20.2	23.1	18.1	27.3	0.0	0.0	25.4	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	24.7	1.3	3.4	0.2	2.7	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	19.4	0.5	8.0	0.6	4.6	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	0.0	53.6	21.5	26.5	18.3	30.1	0.0	0.0	26.4	0.0	0.0
LnGrp LOS	B	A	D	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		770			508			223				120
Approach Delay, s/veh		49.4			25.5			30.1				26.4
Approach LOS		D			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	46.6		37.0	16.0	46.6		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.2	40.1		7.3	4.5	20.5		13.6				
Green Ext Time (p_c), s	0.0	0.5		0.6	0.1	4.2		1.2				

Intersection Summary

HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

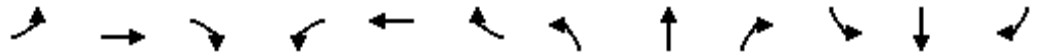
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Existing Conditions Year 20

Item #7.

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↸		↹		↶	↷		↶	↷	
Traffic Volume (veh/h)	185	11	247	15	15	9	185	583	11	4	650	115
Future Volume (veh/h)	185	11	247	15	15	9	185	583	11	4	650	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	279	0	281	19	21	11	213	702	12	12	793	147
Peak Hour Factor	0.69	0.75	0.88	0.80	0.71	0.81	0.87	0.83	0.88	0.34	0.82	0.78
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	64	71	37	407	1474	25	454	1119	207
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	669	740	388	1725	3405	58	1810	2921	542
Grp Volume(v), veh/h	279	0	281	51	0	0	213	349	365	12	471	469
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1797	0	0	1725	1692	1771	1810	1735	1728
Q Serve(g_s), s	7.3	0.0	15.3	2.6	0.0	0.0	6.5	14.7	14.7	0.3	23.0	23.0
Cycle Q Clear(g_c), s	7.3	0.0	15.3	2.6	0.0	0.0	6.5	14.7	14.7	0.3	23.0	23.0
Prop In Lane	1.00		1.00	0.37		0.22	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	407	733	767	454	664	662
V/C Ratio(X)	0.52	0.00	0.66	0.30	0.00	0.00	0.52	0.48	0.48	0.03	0.71	0.71
Avail Cap(c_a), veh/h	536	0	428	172	0	0	407	733	767	454	664	662
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	30.8	42.1	0.0	0.0	16.8	20.2	20.3	14.3	26.1	26.1
Incr Delay (d2), s/veh	3.6	0.0	7.6	4.3	0.0	0.0	4.7	2.2	2.1	0.1	6.3	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	6.8	1.4	0.0	0.0	2.9	6.1	6.4	0.2	10.4	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	0.0	38.4	46.4	0.0	0.0	21.5	22.5	22.4	14.4	32.4	32.4
LnGrp LOS	D	A	D	D	A	A	C	C	C	B	C	C
Approach Vol, veh/h		560			51			927			952	
Approach Delay, s/veh		40.5			46.4			22.2			32.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.3	16.7		17.3	8.5	25.0		4.6				
Green Ext Time (p_c), s	0.0	4.8		0.0	0.3	5.2		0.1				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Existing Conditions Year 20

Item #7.

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕	↗	↖↗	↖↗	↕
Traffic Volume (veh/h)	18	77	0	156	19	397	1	336	158	594	284	13
Future Volume (veh/h)	18	77	0	156	19	397	1	336	158	594	284	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	19	80	0	200	38	427	2	395	200	667	299	15
Peak Hour Factor	0.96	0.96	0.75	0.78	0.50	0.93	0.50	0.85	0.79	0.89	0.95	0.86
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	70	264	0	339	565	922	116	751	371	1031	1527	76
Arrive On Green	0.18	0.18	0.00	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	199	1485	0	1485	1900	1535	1810	3328	1309	3401	3280	164
Grp Volume(v), veh/h	99	0	0	200	38	427	2	395	200	667	154	160
Grp Sat Flow(s),veh/h/ln	1683	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	0.0	0.0	0.0	7.2	1.8	19.2	0.1	13.0	16.2	21.2	6.7	6.7
Cycle Q Clear(g_c), s	5.7	0.0	0.0	7.2	1.8	19.2	0.1	13.0	16.2	21.2	6.7	6.7
Prop In Lane	0.19		0.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	333	0	0	339	565	922	116	751	371	1031	788	816
V/C Ratio(X)	0.30	0.00	0.00	0.59	0.07	0.46	0.02	0.53	0.54	0.65	0.20	0.20
Avail Cap(c_a), veh/h	333	0	0	339	565	922	116	751	371	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	44.6	0.0	0.0	41.8	31.5	13.8	54.8	42.5	37.9	37.7	19.6	19.6
Incr Delay (d2), s/veh	2.3	0.0	0.0	7.4	0.2	1.7	0.3	2.6	5.5	2.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	3.2	0.8	6.5	0.1	5.5	5.6	8.9	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	0.0	49.2	31.7	15.5	55.1	45.2	43.4	40.0	20.0	20.0
LnGrp LOS	D	A	A	D	C	B	E	D	D	D	C	C
Approach Vol, veh/h		99			665			597			981	
Approach Delay, s/veh		46.9			26.5			44.6			33.6	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	23.2	18.2	9.2	7.7	2.1	8.7		21.2				
Green Ext Time (p_c), s	2.2	2.2	0.0	0.4	0.0	1.7		1.5				

Intersection Summary

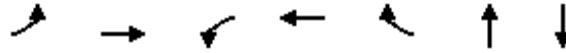
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	85	685	37	430	41	224	120
v/c Ratio	0.19	0.97	0.17	0.59	0.06	0.63	0.24
Control Delay	11.1	56.8	5.8	19.1	1.7	37.0	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	56.8	5.8	19.1	1.7	37.0	20.3
Queue Length 50th (ft)	23	412	4	198	0	116	41
Queue Length 95th (ft)	35	#581	m7	175	m3	87	37
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	440	707	224	734	698	358	493
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.97	0.17	0.59	0.06	0.63	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

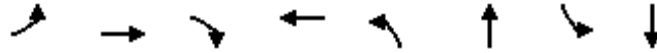
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Conditions Year 20

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	142	141	281	51	213	715	12	940
v/c Ratio	0.56	0.55	0.48	0.33	0.60	0.49	0.03	0.72
Control Delay	63.1	62.8	8.8	41.2	19.7	21.9	9.5	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	62.8	8.8	41.2	19.7	21.9	9.5	29.3
Queue Length 50th (ft)	103	103	32	24	60	168	3	257
Queue Length 95th (ft)	m109	m110	m34	46	115	198	4	288
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	581	154	356	1446	412	1307
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.55	0.48	0.33	0.60	0.49	0.03	0.72

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Existing Conditions Year 20

Item #7.

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	99	200	38	427	2	395	200	667	314
v/c Ratio	0.32	0.53	0.06	0.38	0.02	0.72	0.35	0.65	0.23
Control Delay	48.1	37.4	28.2	6.1	55.0	57.2	5.7	41.5	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	37.4	28.2	6.1	55.0	57.2	5.7	41.5	24.0
Queue Length 50th (ft)	71	119	20	81	2	162	0	241	85
Queue Length 95th (ft)	125	168	26	152	5	194	32	303	111
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	310	376	677	1130	115	740	572	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.53	0.06	0.38	0.02	0.53	0.35	0.65	0.20

Intersection Summary

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	63	185	25	10	136
Future Vol, veh/h	21	63	185	25	10	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	74	87	73	61	91
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	28	85	213	34	16	149

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	411	230	0	0	247
Stage 1	230	-	-	-	-
Stage 2	181	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	560	809	-	-	1331
Stage 1	763	-	-	-	-
Stage 2	804	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	553	809	-	-	1331
Mov Cap-2 Maneuver	553	-	-	-	-
Stage 1	763	-	-	-	-
Stage 2	794	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	726	1331
HCM Lane V/C Ratio	-	-	0.156	0.012
HCM Control Delay (s)	-	-	10.9	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	45	0	582	1	8	594	0
Future Vol, veh/h	0	0	0	3	0	45	0	582	1	8	594	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	25	50	92	95	25	50	93	25
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	4	0	90	0	613	4	16	639	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	978	1288	320	967	1286	309	639	0	0	617	0	0
Stage 1	671	671	-	615	615	-	-	-	-	-	-	-
Stage 2	307	617	-	352	671	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	208	165	682	212	166	675	955	-	-	846	-	-
Stage 1	417	458	-	450	485	-	-	-	-	-	-	-
Stage 2	683	484	-	643	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	178	162	682	209	163	675	955	-	-	846	-	-
Mov Cap-2 Maneuver	178	162	-	209	163	-	-	-	-	-	-	-
Stage 1	417	449	-	450	485	-	-	-	-	-	-	-
Stage 2	592	484	-	631	449	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	11.9	0	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	955	-	-	-	617	846	-
HCM Lane V/C Ratio	-	-	-	-	0.152	0.019	-
HCM Control Delay (s)	0	-	-	0	11.9	9.3	-
HCM Lane LOS	A	-	-	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.1	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	9	100	82	385	482	9
Future Vol, veh/h	9	100	82	385	482	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	96	81	89	93	75
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	16	104	101	433	518	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	937	259	530	0	-	0
Stage 1	518	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	233	713	1006	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	210	713	1006	-	-	-
Mov Cap-2 Maneuver	329	-	-	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	582	-	-	-	-	-

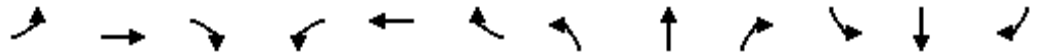
Approach	EB	NB	SB
HCM Control Delay, s	12.3	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1006	-	615	-	-
HCM Lane V/C Ratio	0.101	-	0.196	-	-
HCM Control Delay (s)	9	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Existing Conditions Year 20 Item #7.

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	313	82	44	494	26	140	18	52	13	27	46
Future Volume (veh/h)	17	313	82	44	494	26	140	18	52	13	27	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	25	329	92	71	588	35	173	23	68	15	47	67
Peak Hour Factor	0.68	0.95	0.89	0.62	0.84	0.75	0.81	0.78	0.77	0.88	0.58	0.69
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	319	479	134	382	648	562	355	54	119	77	210	262
Arrive On Green	0.11	0.35	0.35	0.11	0.35	0.35	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1373	384	1598	1856	1610	919	172	379	102	669	833
Grp Volume(v), veh/h	25	0	421	71	588	35	264	0	0	129	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1598	1856	1610	1470	0	0	1604	0	0
Q Serve(g_s), s	0.7	0.0	18.5	2.3	27.2	1.3	7.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	18.5	2.3	27.2	1.3	12.7	0.0	0.0	5.3	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.66		0.26	0.12		0.52
Lane Grp Cap(c), veh/h	319	0	613	382	648	562	528	0	0	549	0	0
V/C Ratio(X)	0.08	0.00	0.69	0.19	0.91	0.06	0.50	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	319	0	664	382	701	608	528	0	0	549	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.5	0.0	25.1	15.8	27.9	19.5	25.2	0.0	0.0	23.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	3.4	1.1	18.8	0.2	3.4	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	7.6	0.8	14.3	0.5	5.0	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	28.5	16.9	46.7	19.7	28.6	0.0	0.0	24.0	0.0	0.0
LnGrp LOS	B	A	C	B	D	B	C	A	A	C	A	A
Approach Vol, veh/h		446			694			264				129
Approach Delay, s/veh		27.9			42.3			28.6				24.0
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	37.4		34.0	16.0	37.4		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.3	20.5		7.3	2.7	29.2		14.7				
Green Ext Time (p_c), s	0.1	3.2		0.7	0.0	2.2		1.3				

Intersection Summary

HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Existing Conditions Year 20

Item #7.

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	40	212	15	47	17	311	947	17	11	673	164
Future Volume (veh/h)	173	40	212	15	47	17	311	947	17	11	673	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	121	147	221	19	58	27	384	1064	22	22	716	178
Peak Hour Factor	0.93	0.72	0.96	0.78	0.81	0.64	0.81	0.89	0.79	0.50	0.94	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	390	416	450	73	222	104	217	1022	21	200	840	209
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	1900	1560	329	1004	467	1739	3476	72	1810	2775	690
Grp Volume(v), veh/h	121	147	221	104	0	0	384	531	555	22	451	443
Grp Sat Flow(s),veh/h/ln	1781	1900	1560	1799	0	0	1739	1735	1813	1810	1749	1717
Q Serve(g_s), s	6.8	7.9	14.1	5.7	0.0	0.0	8.3	35.3	35.3	0.9	29.1	29.1
Cycle Q Clear(g_c), s	6.8	7.9	14.1	5.7	0.0	0.0	8.3	35.3	35.3	0.9	29.1	29.1
Prop In Lane	1.00		1.00	0.18		0.26	1.00		0.04	1.00		0.40
Lane Grp Cap(c), veh/h	390	416	450	399	0	0	217	510	533	200	529	519
V/C Ratio(X)	0.31	0.35	0.49	0.26	0.00	0.00	1.77	1.04	1.04	0.11	0.85	0.85
Avail Cap(c_a), veh/h	390	416	450	399	0	0	217	510	533	200	529	519
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	39.6	35.4	38.6	0.0	0.0	37.5	42.3	42.4	29.2	39.3	39.3
Incr Delay (d2), s/veh	2.1	2.3	3.8	1.6	0.0	0.0	365.6	50.8	50.0	1.1	15.9	16.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	4.0	5.9	2.7	0.0	0.0	24.6	22.1	23.0	0.5	14.7	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	42.0	39.2	40.2	0.0	0.0	403.1	93.1	92.3	30.3	55.2	55.5
LnGrp LOS	D	D	D	D	A	A	F	F	F	C	E	E
Approach Vol, veh/h		489			104			1470			916	
Approach Delay, s/veh		40.6			40.2			173.8			54.8	
Approach LOS		D			D			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	41.0		32.0	14.0	42.0		32.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 35		* 26	* 8.3	* 36		26.6				
Max Q Clear Time (g_c+I1), s	2.9	37.3		16.1	10.3	31.1		7.7				
Green Ext Time (p_c), s	0.0	0.0		1.5	0.0	2.6		0.5				

Intersection Summary

HCM 6th Ctrl Delay	110.7
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Existing Conditions Year 20

Item #7.

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	30	1	219	87	762	4	428	197	455	393	20
Future Volume (veh/h)	25	30	1	219	87	762	4	428	197	455	393	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	28	41	4	252	116	837	8	504	232	484	418	21
Peak Hour Factor	0.88	0.73	0.25	0.87	0.75	0.91	0.50	0.85	0.85	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	99	132	11	354	565	922	116	751	371	1031	1527	77
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	335	746	63	1485	1900	1535	1810	3328	1309	3401	3280	164
Grp Volume(v), veh/h	73	0	0	252	116	837	8	504	232	484	215	224
Grp Sat Flow(s),veh/h/ln	1144	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	1.9	0.0	0.0	7.2	5.7	37.2	0.5	17.3	19.3	14.5	9.7	9.8
Cycle Q Clear(g_c), s	5.1	0.0	0.0	7.2	5.7	37.2	0.5	17.3	19.3	14.5	9.7	9.8
Prop In Lane	0.38		0.05	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	243	0	0	354	565	922	116	751	371	1031	788	816
V/C Ratio(X)	0.30	0.00	0.00	0.71	0.21	0.91	0.07	0.67	0.63	0.47	0.27	0.27
Avail Cap(c_a), veh/h	243	0	0	354	565	922	116	751	371	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	44.1	0.0	0.0	43.8	32.8	21.9	55.0	44.2	39.0	35.4	20.4	20.5
Incr Delay (d2), s/veh	3.2	0.0	0.0	11.6	0.8	14.3	1.2	4.7	7.8	0.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	5.3	2.7	22.6	0.3	7.4	6.8	5.9	3.8	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	0.0	0.0	55.4	33.7	36.2	56.1	48.9	46.8	36.2	20.9	20.9
LnGrp LOS	D	A	A	E	C	D	E	D	D	D	C	C
Approach Vol, veh/h		73			1205			744			923	
Approach Delay, s/veh		47.2			40.0			48.3			28.9	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	16.5	21.3	9.2	7.1	2.5	11.8		39.2				
Green Ext Time (p_c), s	1.6	2.2	0.0	0.4	0.0	2.5		0.0				

Intersection Summary

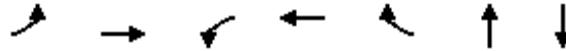
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	25	421	71	588	35	264	129
v/c Ratio	0.08	0.68	0.19	0.89	0.05	0.59	0.22
Control Delay	9.9	29.2	11.0	44.4	0.2	30.2	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	29.2	11.0	44.4	0.2	30.2	13.4
Queue Length 50th (ft)	6	185	18	300	0	118	27
Queue Length 95th (ft)	13	287	25	#406	0	165	33
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	296	656	369	697	675	446	584
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.64	0.19	0.84	0.05	0.59	0.22

Intersection Summary

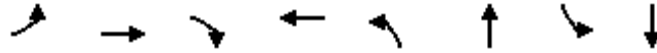
95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Existing Conditions Year 20

Item #7.

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	119	123	221	104	384	1086	22	894
v/c Ratio	0.32	0.32	0.37	0.27	2.16	1.08	0.11	0.87
Control Delay	42.3	42.2	3.9	35.5	559.3	91.4	21.9	48.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	42.2	3.9	35.5	559.3	91.4	21.9	48.5
Queue Length 50th (ft)	82	85	0	58	~430	~493	10	335
Queue Length 95th (ft)	141	113	31	96	#545	#617	14	#430
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	368	380	605	390	178	1010	203	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.32	0.37	0.27	2.16	1.08	0.11	0.87

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Existing Conditions Year 20

Item #7.

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	252	116	837	8	504	232	484	439
v/c Ratio	0.27	0.68	0.19	0.78	0.07	0.80	0.39	0.47	0.31
Control Delay	46.1	47.1	32.0	18.9	56.5	57.9	5.7	37.3	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	47.1	32.0	18.9	56.5	57.9	5.7	37.3	23.1
Queue Length 50th (ft)	50	165	67	383	6	205	0	163	118
Queue Length 95th (ft)	77	#273	98	650	13	242	45	216	148
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	275	369	627	1077	115	740	593	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.68	0.19	0.78	0.07	0.68	0.39	0.47	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Attachment H2

Year 2025 Background Conditions
- HCM Worksheets

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	12	151	46	52	128
Future Vol, veh/h	20	12	151	46	52	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	80	71	72	75	84
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	34	15	213	64	69	152

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	535	245	0	0	277
Stage 1	245	-	-	-	-
Stage 2	290	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	481	777	-	-	1298
Stage 1	762	-	-	-	-
Stage 2	726	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	453	777	-	-	1298
Mov Cap-2 Maneuver	453	-	-	-	-
Stage 1	762	-	-	-	-
Stage 2	684	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	519	1298
HCM Lane V/C Ratio	-	-	0.094	0.053
HCM Control Delay (s)	-	-	12.7	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	2	0	3	0	600	5	38	455	0
Future Vol, veh/h	0	0	0	2	0	3	0	600	5	38	455	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	25	92	50	92	84	50	51	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	8	0	6	0	714	10	75	562	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1069	1436	281	1150	1431	362	562	0	0	724	0	0
Stage 1	712	712	-	719	719	-	-	-	-	-	-	-
Stage 2	357	724	-	431	712	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	178	135	722	156	136	641	1019	-	-	888	-	-
Stage 1	394	439	-	390	436	-	-	-	-	-	-	-
Stage 2	639	433	-	578	439	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	165	124	722	146	125	641	1019	-	-	888	-	-
Mov Cap-2 Maneuver	165	124	-	146	125	-	-	-	-	-	-	-
Stage 1	394	402	-	390	436	-	-	-	-	-	-	-
Stage 2	633	433	-	529	402	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	22.6	0	1.1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1019	-	-	-	218	888	-	-
HCM Lane V/C Ratio	-	-	-	-	0.064	0.084	-	-
HCM Control Delay (s)	0	-	-	0	22.6	9.4	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.3	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	34	79	74	416	296	37
Future Vol, veh/h	34	79	74	416	296	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	91	74	83	78	84
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	52	87	100	501	379	44

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	830	190	423	0	-	0
Stage 1	379	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	231	766	1003	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	208	766	1003	-	-	-
Mov Cap-2 Maneuver	319	-	-	-	-	-
Stage 1	489	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1003	-	502	-	-
HCM Lane V/C Ratio	0.1	-	0.277	-	-
HCM Control Delay (s)	9	-	14.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2025 Background Condition
 Timing Plan: AM Peak

Item #7.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	543	113	31	341	36	100	35	37	13	27	30
Future Volume (veh/h)	71	543	113	31	341	36	100	35	37	13	27	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	99	646	149	42	541	48	147	73	40	32	55	52
Peak Hour Factor	0.72	0.84	0.76	0.73	0.63	0.75	0.68	0.48	0.92	0.40	0.49	0.58
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	376	584	135	229	743	645	292	140	68	132	220	184
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1424	328	1570	1811	1572	754	446	218	281	702	587
Grp Volume(v), veh/h	99	0	795	42	541	48	260	0	0	139	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1418	0	0	1570	0	0
Q Serve(g_s), s	2.9	0.0	41.0	1.3	25.1	1.9	8.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	41.0	1.3	25.1	1.9	14.8	0.0	0.0	6.2	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.57		0.15	0.23		0.37
Lane Grp Cap(c), veh/h	376	0	718	229	743	645	500	0	0	536	0	0
V/C Ratio(X)	0.26	0.00	1.11	0.18	0.73	0.07	0.52	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	376	0	718	229	743	645	500	0	0	536	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.3	0.0	29.5	20.7	24.8	18.0	28.5	0.0	0.0	25.7	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	66.7	1.8	6.2	0.2	3.8	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	28.9	0.5	11.2	0.7	5.6	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.0	0.0	96.2	22.5	31.0	18.2	32.3	0.0	0.0	26.9	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		894			631			260			139	
Approach Delay, s/veh		87.6			29.5			32.3			26.9	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.3	43.0		8.2	4.9	27.1		16.8				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.1	4.5		1.3				

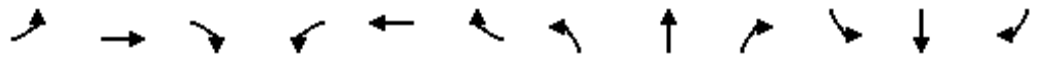
Intersection Summary												
HCM 6th Ctrl Delay				56.7								
HCM 6th LOS				E								

Notes
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2025 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	215	13	287	17	17	10	215	676	13	5	754	133
Future Volume (veh/h)	215	13	287	17	17	10	215	676	13	5	754	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	324	0	326	21	24	12	247	814	15	15	920	171
Peak Hour Factor	0.69	0.75	0.88	0.80	0.71	0.81	0.87	0.83	0.88	0.34	0.82	0.78
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	64	73	36	368	1472	27	411	1118	208
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	663	757	379	1725	3400	63	1810	2920	543
Grp Volume(v), veh/h	324	0	326	57	0	0	247	405	424	15	546	545
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1799	0	0	1725	1692	1770	1810	1735	1728
Q Serve(g_s), s	8.6	0.0	15.3	3.0	0.0	0.0	7.7	17.8	17.8	0.4	28.4	28.4
Cycle Q Clear(g_c), s	8.6	0.0	15.3	3.0	0.0	0.0	7.7	17.8	17.8	0.4	28.4	28.4
Prop In Lane	1.00		1.00	0.37		0.21	1.00		0.04	1.00		0.31
Lane Grp Cap(c), veh/h	536	0	428	173	0	0	368	733	766	411	664	662
V/C Ratio(X)	0.60	0.00	0.76	0.33	0.00	0.00	0.67	0.55	0.55	0.04	0.82	0.82
Avail Cap(c_a), veh/h	536	0	428	173	0	0	368	733	766	411	664	662
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	32.0	42.2	0.0	0.0	19.2	21.1	21.1	14.7	27.8	27.8
Incr Delay (d2), s/veh	5.0	0.0	12.0	5.1	0.0	0.0	9.4	3.0	2.9	0.2	11.0	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	8.5	1.6	0.0	0.0	3.8	7.5	7.8	0.2	13.4	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	0.0	44.0	47.3	0.0	0.0	28.6	24.1	24.0	14.9	38.8	38.9
LnGrp LOS	D	A	D	D	A	A	C	C	C	B	D	D
Approach Vol, veh/h		650			57			1076			1106	
Approach Delay, s/veh		44.3			47.3			25.1			38.5	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.4	19.8		17.3	9.7	30.4		5.0				
Green Ext Time (p_c), s	0.0	5.6		0.0	0.3	4.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2025 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↕	↖	↖↗	↖↗	↖↗
Traffic Volume (veh/h)	21	89	0	173	22	461	1	390	183	689	329	15
Future Volume (veh/h)	21	89	0	173	22	461	1	390	183	689	329	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	22	93	0	222	44	496	2	459	232	774	346	17
Peak Hour Factor	0.96	0.96	0.75	0.78	0.50	0.93	0.50	0.85	0.79	0.89	0.95	0.86
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	69	261	0	330	565	922	116	751	371	1031	1529	75
Arrive On Green	0.18	0.18	0.00	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	193	1467	0	1485	1900	1535	1810	3328	1309	3401	3284	161
Grp Volume(v), veh/h	115	0	0	222	44	496	2	459	232	774	178	185
Grp Sat Flow(s),veh/h/ln	1661	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	0.0	0.0	0.0	7.2	2.1	23.8	0.1	15.5	19.3	25.7	7.8	7.9
Cycle Q Clear(g_c), s	6.7	0.0	0.0	7.2	2.1	23.8	0.1	15.5	19.3	25.7	7.8	7.9
Prop In Lane	0.19		0.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	329	0	0	330	565	922	116	751	371	1031	788	816
V/C Ratio(X)	0.35	0.00	0.00	0.67	0.08	0.54	0.02	0.61	0.63	0.75	0.23	0.23
Avail Cap(c_a), veh/h	329	0	0	330	565	922	116	751	371	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	45.0	0.0	0.0	43.3	31.6	14.7	54.8	43.5	39.0	39.3	19.9	20.0
Incr Delay (d2), s/veh	2.9	0.0	0.0	10.5	0.3	2.2	0.3	3.7	7.8	2.8	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	4.3	1.0	8.1	0.1	6.6	6.8	10.7	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	0.0	53.8	31.8	17.0	55.1	47.2	46.8	42.1	20.3	20.3
LnGrp LOS	D	A	A	D	C	B	E	D	D	D	C	C
Approach Vol, veh/h		115			762			693			1137	
Approach Delay, s/veh		47.9			28.5			47.1			35.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	27.7	21.3	9.2	8.7	2.1	9.9		25.8				
Green Ext Time (p_c), s	2.2	2.1	0.0	0.5	0.0	2.0		1.6				

Intersection Summary

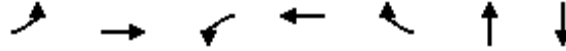
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	99	795	42	541	48	260	140
v/c Ratio	0.28	1.12	0.19	0.74	0.07	0.75	0.29
Control Delay	12.2	102.7	6.3	25.2	2.4	44.7	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	102.7	6.3	25.2	2.4	44.7	21.9
Queue Length 50th (ft)	27	~585	6	298	1	143	51
Queue Length 95th (ft)	40	#730	m8	244	m4	102	44
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	356	707	219	734	698	348	490
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	1.12	0.19	0.74	0.07	0.75	0.29

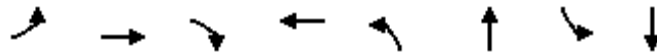
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2025 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	165	164	326	57	247	829	15	1091
v/c Ratio	0.65	0.64	0.58	0.38	0.79	0.57	0.04	0.84
Control Delay	60.7	60.7	12.1	43.4	41.0	23.3	9.6	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	60.7	12.1	43.4	41.0	23.3	9.6	34.3
Queue Length 50th (ft)	121	120	44	28	102	203	4	320
Queue Length 95th (ft)	m111	m111	m38	52	#208	236	5	352
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	563	152	314	1446	367	1306
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.64	0.58	0.38	0.79	0.57	0.04	0.84

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2025 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	222	44	496	2	459	232	774	363
v/c Ratio	0.37	0.65	0.07	0.45	0.02	0.77	0.39	0.76	0.26
Control Delay	49.3	44.8	30.1	8.6	55.0	57.2	5.7	45.1	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	44.8	30.1	8.6	55.0	57.2	5.7	45.1	23.1
Queue Length 50th (ft)	83	139	24	129	2	187	0	291	97
Queue Length 95th (ft)	143	193	30	230	5	220	32	360	122
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	309	341	647	1097	115	740	593	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.65	0.07	0.45	0.02	0.62	0.39	0.76	0.23

Intersection Summary

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	73	215	29	12	158
Future Vol, veh/h	24	73	215	29	12	158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	74	87	73	61	91
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	32	99	247	40	20	174

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	481	267	0	0	287
Stage 1	267	-	-	-	-
Stage 2	214	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	509	772	-	-	1287
Stage 1	734	-	-	-	-
Stage 2	776	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	500	772	-	-	1287
Mov Cap-2 Maneuver	500	-	-	-	-
Stage 1	734	-	-	-	-
Stage 2	763	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	681	1287
HCM Lane V/C Ratio	-	-	0.192	0.015
HCM Control Delay (s)	-	-	11.5	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	52	0	675	1	9	689	0
Future Vol, veh/h	0	0	0	3	0	52	0	675	1	9	689	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	25	50	92	95	25	50	93	25
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	4	0	104	0	711	4	18	741	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1133	1492	371	1120	1490	358	741	0	0	715	0	0
Stage 1	777	777	-	713	713	-	-	-	-	-	-	-
Stage 2	356	715	-	407	777	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	160	125	632	164	125	627	875	-	-	772	-	-
Stage 1	360	410	-	394	438	-	-	-	-	-	-	-
Stage 2	640	438	-	597	410	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	131	122	632	161	122	627	875	-	-	772	-	-
Mov Cap-2 Maneuver	131	122	-	161	122	-	-	-	-	-	-	-
Stage 1	360	401	-	394	438	-	-	-	-	-	-	-
Stage 2	534	438	-	583	401	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.9	0	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	875	-	-	-	566	772	-	-
HCM Lane V/C Ratio	-	-	-	-	0.191	0.023	-	-
HCM Control Delay (s)	0	-	-	0	12.9	9.8	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0.1	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	10	116	95	447	559	10
Future Vol, veh/h	10	116	95	447	559	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	96	81	89	93	75
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	18	121	117	502	601	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1086	301	614	0	-	0
Stage 1	601	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	184	669	935	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	161	669	935	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	935	-	567	-	-
HCM Lane V/C Ratio	0.125	-	0.245	-	-
HCM Control Delay (s)	9.4	-	13.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2025 Background Condition Item #7.

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	363	95	51	573	30	162	21	60	15	31	53
Future Volume (veh/h)	20	363	95	51	573	30	162	21	60	15	31	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	29	382	107	82	682	40	200	27	78	17	53	77
Peak Hour Factor	0.68	0.95	0.89	0.62	0.84	0.75	0.81	0.78	0.77	0.88	0.58	0.69
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	293	518	145	370	701	608	350	48	114	77	212	269
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1372	384	1598	1856	1610	901	153	362	104	673	854
Grp Volume(v), veh/h	29	0	489	82	682	40	305	0	0	147	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1598	1856	1610	1416	0	0	1631	0	0
Q Serve(g_s), s	0.7	0.0	21.6	2.5	32.5	1.4	10.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	0.0	21.6	2.5	32.5	1.4	16.7	0.0	0.0	6.1	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.66		0.26	0.12		0.52
Lane Grp Cap(c), veh/h	293	0	664	370	701	608	511	0	0	558	0	0
V/C Ratio(X)	0.10	0.00	0.74	0.22	0.97	0.07	0.60	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	293	0	664	370	701	608	511	0	0	558	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	24.1	15.3	27.5	17.9	26.7	0.0	0.0	23.2	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	4.9	1.4	28.0	0.2	5.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	9.0	0.9	18.4	0.5	6.2	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	29.0	16.7	55.5	18.1	31.8	0.0	0.0	24.4	0.0	0.0
LnGrp LOS	B	A	C	B	E	B	C	A	A	C	A	A
Approach Vol, veh/h		518			804			305				147
Approach Delay, s/veh		28.4			49.7			31.8				24.4
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.0	40.0		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.5	23.6		8.1	2.7	34.5		18.7				
Green Ext Time (p_c), s	0.1	3.2		0.8	0.0	0.0		1.3				

Intersection Summary

HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

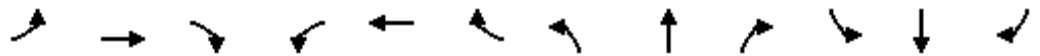
Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2025 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	46	246	17	55	20	361	1099	20	13	781	190
Future Volume (veh/h)	201	46	246	17	55	20	361	1099	20	13	781	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	140	170	256	22	68	31	446	1235	25	26	831	207
Peak Hour Factor	0.93	0.72	0.96	0.78	0.81	0.64	0.81	0.89	0.79	0.50	0.94	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	390	416	450	73	224	102	182	1023	21	200	839	209
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	1900	1560	327	1012	461	1739	3477	70	1810	2774	691
Grp Volume(v), veh/h	140	170	256	121	0	0	446	616	644	26	524	514
Grp Sat Flow(s),veh/h/ln	1781	1900	1560	1801	0	0	1739	1735	1813	1810	1749	1716
Q Serve(g_s), s	8.0	9.2	16.8	6.7	0.0	0.0	8.3	35.3	35.3	1.1	35.8	35.8
Cycle Q Clear(g_c), s	8.0	9.2	16.8	6.7	0.0	0.0	8.3	35.3	35.3	1.1	35.8	35.8
Prop In Lane	1.00		1.00	0.18		0.26	1.00		0.04	1.00		0.40
Lane Grp Cap(c), veh/h	390	416	450	399	0	0	182	510	533	200	529	519
V/C Ratio(X)	0.36	0.41	0.57	0.30	0.00	0.00	2.44	1.21	1.21	0.13	0.99	0.99
Avail Cap(c_a), veh/h	390	416	450	399	0	0	182	510	533	200	529	519
HCM 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
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	40.2	36.4	39.0	0.0	0.0	34.0	42.3	42.4	29.2	41.7	41.7
Incr Delay (d2), s/veh	2.6	2.9	5.2	1.9	0.0	0.0	666.2	110.5	110.1	1.3	36.8	37.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	4.7	7.1	3.2	0.0	0.0	37.5	30.6	31.9	0.5	20.6	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	43.1	41.5	40.9	0.0	0.0	700.2	152.8	152.4	30.6	78.5	78.9
LnGrp LOS	D	D	D	D	A	A	F	F	F	C	E	E
Approach Vol, veh/h		566			121			1706			1064	
Approach Delay, s/veh		42.2			40.9			295.8			77.5	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	41.0		32.0	14.0	42.0		32.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 35		* 26	* 8.3	* 36		26.6				
Max Q Clear Time (g_c+I1), s	3.1	37.3		18.8	10.3	37.8		8.7				
Green Ext Time (p_c), s	0.0	0.0		1.5	0.0	0.0		0.6				

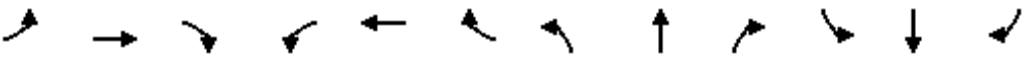
Intersection Summary

HCM 6th Ctrl Delay	178.2
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Year 2025 Background Condition
 10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	29	35	1	254	101	884	5	496	229	529	456	23
Future Volume (veh/h)	29	35	1	254	101	884	5	496	229	529	456	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	33	48	4	292	135	971	10	584	269	563	485	24
Peak Hour Factor	0.88	0.73	0.25	0.87	0.75	0.91	0.50	0.85	0.85	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	95	124	9	342	565	922	116	751	371	1031	1528	75
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	307	699	50	1485	1900	1535	1810	3328	1309	3401	3283	162
Grp Volume(v), veh/h	85	0	0	292	135	971	10	584	269	563	250	259
Grp Sat Flow(s),veh/h/ln	1056	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	3.8	0.0	0.0	7.2	6.7	37.2	0.7	20.6	23.2	17.3	11.6	11.6
Cycle Q Clear(g_c), s	6.9	0.0	0.0	7.2	6.7	37.2	0.7	20.6	23.2	17.3	11.6	11.6
Prop In Lane	0.39		0.05	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	227	0	0	342	565	922	116	751	371	1031	788	816
V/C Ratio(X)	0.37	0.00	0.00	0.85	0.24	1.05	0.09	0.78	0.73	0.55	0.32	0.32
Avail Cap(c_a), veh/h	227	0	0	342	565	922	116	751	371	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.34	0.34	0.34
Uniform Delay (d), s/veh	44.6	0.0	0.0	46.6	33.2	25.0	55.1	45.5	40.4	36.4	20.9	21.0
Incr Delay (d2), s/veh	4.6	0.0	0.0	22.7	1.0	44.6	1.5	7.8	11.7	0.7	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	8.0	3.2	35.2	0.3	9.1	8.4	7.1	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	0.0	69.3	34.2	69.5	56.5	53.2	52.2	37.1	21.3	21.3
LnGrp LOS	D	A	A	E	C	F	E	D	D	D	C	C
Approach Vol, veh/h		85			1398			863			1072	
Approach Delay, s/veh		49.2			66.1			52.9			29.6	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	19.3	25.2	9.2	8.9	2.7	13.6		39.2				
Green Ext Time (p_c), s	1.9	1.4	0.0	0.5	0.0	2.9		0.0				

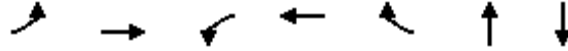
Intersection Summary												
HCM 6th Ctrl Delay				50.9								
HCM 6th LOS				D								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	29	489	82	682	40	305	147
v/c Ratio	0.10	0.75	0.24	0.98	0.06	0.75	0.27
Control Delay	10.2	31.7	11.5	58.6	0.2	39.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	31.7	11.5	58.6	0.2	39.0	14.7
Queue Length 50th (ft)	7	228	20	376	0	145	34
Queue Length 95th (ft)	14	351	28	#541	0	199	39
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	656	344	697	675	408	549
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.75	0.24	0.98	0.06	0.75	0.27

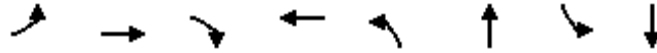
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Year 2025 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	138	142	256	121	446	1260	26	1038
v/c Ratio	0.38	0.37	0.41	0.31	2.51	1.25	0.13	1.01
Control Delay	43.4	43.3	4.0	37.3	712.3	156.4	22.2	70.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	43.3	4.0	37.3	712.3	156.4	22.2	70.3
Queue Length 50th (ft)	96	98	0	70	~532	~643	12	~418
Queue Length 95th (ft)	162	128	32	111	#645	#768	16	#570
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	368	380	629	387	178	1010	203	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.37	0.41	0.31	2.51	1.25	0.13	1.01

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	85	292	135	971	10	584	269	563	509
v/c Ratio	0.31	0.86	0.23	0.93	0.09	0.85	0.44	0.55	0.34
Control Delay	47.4	64.9	33.7	33.7	57.0	60.2	5.8	38.9	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	64.9	33.7	33.7	57.0	60.2	5.8	38.9	22.6
Queue Length 50th (ft)	59	207	82	643	8	235	0	196	132
Queue Length 95th (ft)	87	#383	112	#1019	15	283	47	254	173
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	270	338	596	1046	115	740	617	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.86	0.23	0.93	0.09	0.79	0.44	0.55	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Attachment H3

Year 2027 Background Conditions
- HCM Worksheets

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	13	163	50	56	138
Future Vol, veh/h	21	13	163	50	56	138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	80	71	72	75	84
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	36	16	230	69	75	164

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	579	265	0	0	299
Stage 1	265	-	-	-	-
Stage 2	314	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	453	757	-	-	1274
Stage 1	746	-	-	-	-
Stage 2	708	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	424	757	-	-	1274
Mov Cap-2 Maneuver	424	-	-	-	-
Stage 1	746	-	-	-	-
Stage 2	662	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	492	1274
HCM Lane V/C Ratio	-	-	0.105	0.059
HCM Control Delay (s)	-	-	13.2	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	3	0	646	5	41	490	0
Future Vol, veh/h	0	0	0	3	0	3	0	646	5	41	490	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	25	92	50	92	84	50	51	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	12	0	6	0	769	10	80	605	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1150	1544	303	1237	1539	390	605	0	0	779	0	0
Stage 1	765	765	-	774	774	-	-	-	-	-	-	-
Stage 2	385	779	-	463	765	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	156	116	699	134	117	614	983	-	-	847	-	-
Stage 1	366	415	-	362	411	-	-	-	-	-	-	-
Stage 2	615	409	-	554	415	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	143	105	699	124	106	614	983	-	-	847	-	-
Mov Cap-2 Maneuver	143	105	-	124	106	-	-	-	-	-	-	-
Stage 1	366	376	-	362	411	-	-	-	-	-	-	-
Stage 2	609	409	-	502	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	28.8	0	1.1
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	-	169	847	-
HCM Lane V/C Ratio	-	-	-	-	0.107	0.095	-
HCM Control Delay (s)	0	-	-	0	28.8	9.7	-
HCM Lane LOS	A	-	-	A	D	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.3	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	36	85	80	449	319	40
Future Vol, veh/h	36	85	80	449	319	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	91	74	83	78	84
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	55	93	108	541	409	48

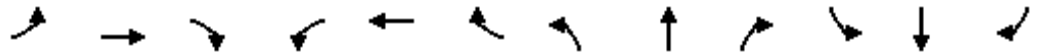
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	896	205	457	0	-	0
Stage 1	409	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	207	749	971	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	184	749	971	-	-	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	469	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.9	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	971	-	478	-	-
HCM Lane V/C Ratio	0.111	-	0.311	-	-
HCM Control Delay (s)	9.2	-	15.9	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.3	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	585	121	34	339	39	108	38	40	14	29	33
Future Volume (veh/h)	76	585	121	34	339	39	108	38	40	14	29	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	106	696	159	47	538	52	159	79	43	35	59	57
Peak Hour Factor	0.72	0.84	0.76	0.73	0.63	0.75	0.68	0.48	0.92	0.40	0.49	0.58
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	378	585	134	229	743	645	289	138	67	132	216	184
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1427	326	1570	1811	1572	744	440	214	281	691	589
Grp Volume(v), veh/h	106	0	855	47	538	52	281	0	0	151	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1398	0	0	1561	0	0
Q Serve(g_s), s	3.2	0.0	41.0	1.5	24.9	2.0	10.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	41.0	1.5	24.9	2.0	16.9	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.57		0.15	0.23		0.38
Lane Grp Cap(c), veh/h	378	0	718	229	743	645	494	0	0	533	0	0
V/C Ratio(X)	0.28	0.00	1.19	0.21	0.72	0.08	0.57	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	378	0	718	229	743	645	494	0	0	533	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.4	0.0	29.5	20.8	24.8	18.0	29.2	0.0	0.0	25.9	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	99.0	2.0	6.1	0.2	4.7	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	35.4	0.6	11.1	0.7	6.3	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	128.5	22.8	30.8	18.2	33.9	0.0	0.0	27.3	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		961			637			281			151	
Approach Delay, s/veh		116.4			29.2			33.9			27.3	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.5	43.0		8.9	5.2	26.9		18.9				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.1	4.5		1.4				

Intersection Summary

HCM 6th Ctrl Delay	71.0
HCM 6th LOS	E

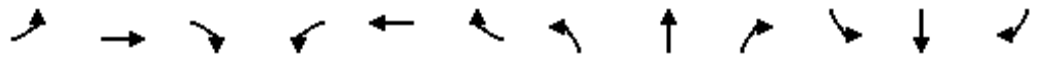
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2027 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	14	309	19	19	11	231	729	14	5	813	144
Future Volume (veh/h)	231	14	309	19	19	11	231	729	14	5	813	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	349	0	351	24	27	14	266	878	16	15	991	185
Peak Hour Factor	0.69	0.75	0.88	0.80	0.71	0.81	0.87	0.83	0.88	0.34	0.82	0.78
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	64	72	37	349	1472	27	389	1118	208
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	664	747	387	1725	3401	62	1810	2919	544
Grp Volume(v), veh/h	349	0	351	65	0	0	266	437	457	15	588	588
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1797	0	0	1725	1692	1770	1810	1735	1728
Q Serve(g_s), s	9.4	0.0	15.3	3.4	0.0	0.0	8.6	19.7	19.7	0.4	31.7	31.8
Cycle Q Clear(g_c), s	9.4	0.0	15.3	3.4	0.0	0.0	8.6	19.7	19.7	0.4	31.7	31.8
Prop In Lane	1.00		1.00	0.37		0.22	1.00		0.04	1.00		0.31
Lane Grp Cap(c), veh/h	536	0	428	173	0	0	349	733	767	389	664	662
V/C Ratio(X)	0.65	0.00	0.82	0.38	0.00	0.00	0.76	0.60	0.60	0.04	0.89	0.89
Avail Cap(c_a), veh/h	536	0	428	173	0	0	349	733	767	389	664	662
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	32.7	42.4	0.0	0.0	20.7	21.7	21.7	15.0	28.8	28.8
Incr Delay (d2), s/veh	6.0	0.0	16.0	6.2	0.0	0.0	14.6	3.6	3.4	0.2	16.0	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	9.7	1.8	0.0	0.0	4.6	8.3	8.6	0.2	15.6	15.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	0.0	48.7	48.6	0.0	0.0	35.3	25.2	25.1	15.1	44.8	45.1
LnGrp LOS	D	A	D	D	A	A	D	C	C	B	D	D
Approach Vol, veh/h		700			65			1160			1191	
Approach Delay, s/veh		47.3			48.6			27.5			44.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.4	21.7		17.3	10.6	33.8		5.4				
Green Ext Time (p_c), s	0.0	6.0		0.0	0.3	2.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

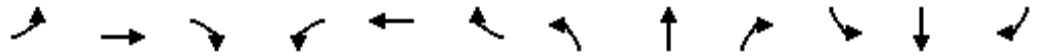
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2027 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	23	96	0	186	24	496	1	420	198	743	355	16
Future Volume (veh/h)	23	96	0	186	24	496	1	420	198	743	355	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	24	100	0	238	48	533	2	494	251	835	374	19
Peak Hour Factor	0.96	0.96	0.75	0.78	0.50	0.93	0.50	0.85	0.79	0.89	0.95	0.86
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	69	258	0	325	565	922	116	751	371	1031	1526	77
Arrive On Green	0.18	0.18	0.00	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	194	1450	0	1485	1900	1535	1810	3328	1309	3401	3278	166
Grp Volume(v), veh/h	124	0	0	238	48	533	2	494	251	835	193	200
Grp Sat Flow(s),veh/h/ln	1644	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	0.0	0.0	0.0	7.2	2.3	26.5	0.1	16.9	21.3	28.3	8.6	8.6
Cycle Q Clear(g_c), s	7.2	0.0	0.0	7.2	2.3	26.5	0.1	16.9	21.3	28.3	8.6	8.6
Prop In Lane	0.19		0.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	326	0	0	325	565	922	116	751	371	1031	788	816
V/C Ratio(X)	0.38	0.00	0.00	0.73	0.08	0.58	0.02	0.66	0.68	0.81	0.24	0.25
Avail Cap(c_a), veh/h	326	0	0	325	565	922	116	751	371	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.43	0.43	0.43
Uniform Delay (d), s/veh	45.2	0.0	0.0	44.4	31.6	15.3	54.8	44.0	39.7	40.2	20.1	20.2
Incr Delay (d2), s/veh	3.3	0.0	0.0	13.6	0.3	2.6	0.3	4.5	9.6	3.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	5.1	1.1	9.1	0.1	7.2	7.6	11.9	3.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	0.0	0.0	58.0	31.9	17.9	55.1	48.5	49.3	43.3	20.5	20.5
LnGrp LOS	D	A	A	E	C	B	E	D	D	D	C	C
Approach Vol, veh/h		124			819			747			1228	
Approach Delay, s/veh		48.6			30.4			48.8			36.0	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	30.3	23.3	9.2	9.2	2.1	10.6		28.5				
Green Ext Time (p_c), s	2.1	1.8	0.0	0.5	0.0	2.2		1.5				

Intersection Summary

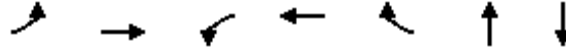
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	106	855	47	538	52	281	151
v/c Ratio	0.30	1.21	0.21	0.73	0.07	0.82	0.31
Control Delay	12.4	135.7	6.0	24.1	2.7	51.9	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	135.7	6.0	24.1	2.7	51.9	22.5
Queue Length 50th (ft)	29	~667	6	289	2	160	56
Queue Length 95th (ft)	42	#811	m8	242	m5	111	47
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	358	707	219	734	698	342	488
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	1.21	0.21	0.73	0.07	0.82	0.31

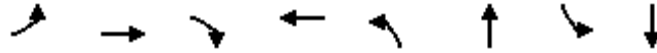
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2027 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	178	176	351	65	266	894	15	1176
v/c Ratio	0.71	0.69	0.63	0.43	0.85	0.62	0.04	0.90
Control Delay	61.1	60.9	14.8	45.8	48.3	24.2	9.6	39.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	60.9	14.8	45.8	48.3	24.2	9.6	39.3
Queue Length 50th (ft)	129	128	54	33	116	225	4	358
Queue Length 95th (ft)	m112	m111	m40	58	#237	258	5	391
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	553	151	314	1446	343	1306
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.69	0.63	0.43	0.85	0.62	0.04	0.90

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	124	238	48	533	2	494	251	835	393
v/c Ratio	0.40	0.73	0.08	0.49	0.02	0.79	0.42	0.82	0.27
Control Delay	50.1	51.2	30.9	9.9	55.0	57.7	7.0	48.1	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	51.2	30.9	9.9	55.0	57.7	7.0	48.1	22.8
Queue Length 50th (ft)	90	153	27	158	2	202	8	322	104
Queue Length 95th (ft)	152	#226	32	264	5	237	41	395	132
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	307	324	632	1081	115	740	595	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.73	0.08	0.49	0.02	0.67	0.42	0.82	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	79	231	32	13	170
Future Vol, veh/h	26	79	231	32	13	170
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	74	87	73	61	91
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	35	107	266	44	21	187

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	517	288	0	0	310
Stage 1	288	-	-	-	-
Stage 2	229	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	485	751	-	-	1262
Stage 1	717	-	-	-	-
Stage 2	764	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	476	751	-	-	1262
Mov Cap-2 Maneuver	476	-	-	-	-
Stage 1	717	-	-	-	-
Stage 2	749	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	658	1262
HCM Lane V/C Ratio	-	-	0.215	0.017
HCM Control Delay (s)	-	-	12	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	54	0	728	1	10	743	0
Future Vol, veh/h	0	0	0	3	0	54	0	728	1	10	743	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	25	50	92	95	25	50	93	25
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	4	0	108	0	766	4	20	799	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1222	1609	400	1208	1607	385	799	0	0	770	0	0
Stage 1	839	839	-	768	768	-	-	-	-	-	-	-
Stage 2	383	770	-	440	839	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	138	106	605	141	106	602	833	-	-	732	-	-
Stage 1	331	384	-	365	414	-	-	-	-	-	-	-
Stage 2	617	413	-	571	384	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	111	103	605	138	103	602	833	-	-	732	-	-
Mov Cap-2 Maneuver	111	103	-	138	103	-	-	-	-	-	-	-
Stage 1	331	374	-	365	414	-	-	-	-	-	-	-
Stage 2	506	413	-	555	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13.5	0	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	833	-	-	-	537	732	-	-
HCM Lane V/C Ratio	-	-	-	-	0.209	0.027	-	-
HCM Control Delay (s)	0	-	-	0	13.5	10.1	-	-
HCM Lane LOS	A	-	-	A	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.8	0.1	-	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	11	125	103	481	603	11
Future Vol, veh/h	11	125	103	481	603	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	96	81	89	93	75
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	20	130	127	540	648	15

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1172	324	663	0	-	0
Stage 1	648	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	161	646	895	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	138	646	895	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	510	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	895	-	538	-	-
HCM Lane V/C Ratio	0.142	-	0.279	-	-
HCM Control Delay (s)	9.7	-	14.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.1	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	391	103	55	618	33	175	23	65	16	34	58
Future Volume (veh/h)	21	391	103	55	618	33	175	23	65	16	34	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	31	412	116	89	736	44	216	29	84	18	59	84
Peak Hour Factor	0.68	0.95	0.89	0.62	0.84	0.75	0.81	0.78	0.77	0.88	0.58	0.69
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	281	518	146	344	701	608	344	43	110	76	215	269
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1371	386	1598	1856	1610	885	136	350	100	685	856
Grp Volume(v), veh/h	31	0	528	89	736	44	329	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1756	1598	1856	1610	1371	0	0	1641	0	0
Q Serve(g_s), s	0.8	0.0	24.1	2.7	34.0	1.6	12.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	24.1	2.7	34.0	1.6	19.6	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.66		0.26	0.11		0.52
Lane Grp Cap(c), veh/h	281	0	664	344	701	608	497	0	0	561	0	0
V/C Ratio(X)	0.11	0.00	0.80	0.26	1.05	0.07	0.66	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	281	0	664	344	701	608	497	0	0	561	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	24.9	16.1	28.0	17.9	27.9	0.0	0.0	23.4	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	7.3	1.8	47.8	0.2	6.8	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	10.4	1.0	22.8	0.6	7.1	0.0	0.0	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	32.2	17.9	75.8	18.1	34.7	0.0	0.0	24.7	0.0	0.0
LnGrp LOS	B	A	C	B	F	B	C	A	A	C	A	A
Approach Vol, veh/h		559			869			329				161
Approach Delay, s/veh		31.5			67.0			34.7				24.7
Approach LOS		C			E			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.0	40.0		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.7	26.1		8.7	2.8	36.0		21.6				
Green Ext Time (p_c), s	0.1	2.9		0.8	0.0	0.0		1.1				

Intersection Summary

HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

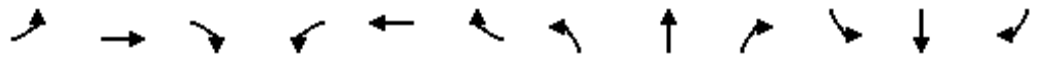
Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2027 Background Conditions

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	50	265	19	59	21	389	1184	21	14	841	205
Future Volume (veh/h)	216	50	265	19	59	21	389	1184	21	14	841	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	150	183	276	24	73	33	480	1330	27	28	895	223
Peak Hour Factor	0.93	0.72	0.96	0.78	0.81	0.64	0.81	0.89	0.79	0.50	0.94	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	390	416	450	74	224	101	180	1023	21	200	839	209
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	1900	1560	333	1011	457	1739	3477	71	1810	2774	691
Grp Volume(v), veh/h	150	183	276	130	0	0	480	663	694	28	564	554
Grp Sat Flow(s),veh/h/ln	1781	1900	1560	1801	0	0	1739	1735	1813	1810	1749	1716
Q Serve(g_s), s	8.6	10.0	18.4	7.3	0.0	0.0	8.3	35.3	35.3	1.2	36.3	36.3
Cycle Q Clear(g_c), s	8.6	10.0	18.4	7.3	0.0	0.0	8.3	35.3	35.3	1.2	36.3	36.3
Prop In Lane	1.00		1.00	0.18		0.25	1.00		0.04	1.00		0.40
Lane Grp Cap(c), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
V/C Ratio(X)	0.38	0.44	0.61	0.33	0.00	0.00	2.66	1.30	1.30	0.14	1.07	1.07
Avail Cap(c_a), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
HCM 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
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	40.5	36.9	39.2	0.0	0.0	33.7	42.3	42.4	29.3	41.8	41.9
Incr Delay (d2), s/veh	2.8	3.3	6.1	2.2	0.0	0.0	763.8	148.7	148.7	1.5	57.8	58.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	5.1	7.8	3.5	0.0	0.0	41.9	36.0	37.6	0.6	23.9	23.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	43.8	43.1	41.3	0.0	0.0	797.5	191.0	191.1	30.7	99.7	100.6
LnGrp LOS	D	D	D	D	A	A	F	F	F	C	F	F
Approach Vol, veh/h		609			130			1837			1146	
Approach Delay, s/veh		43.2			41.3			349.5			98.4	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	41.0		32.0	14.0	42.0		32.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 35		* 26	* 8.3	* 36		26.6				
Max Q Clear Time (g_c+I1), s	3.2	37.3		20.4	10.3	38.3		9.3				
Green Ext Time (p_c), s	0.0	0.0		1.4	0.0	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	211.3
HCM 6th LOS	F

Notes

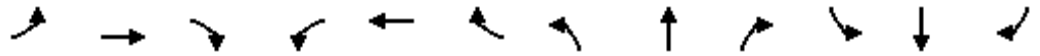
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2027 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	29	35	1	254	101	884	5	496	229	529	456	23
Future Volume (veh/h)	29	35	1	254	101	884	5	496	229	529	456	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	33	48	4	292	135	971	10	584	269	563	485	24
Peak Hour Factor	0.88	0.73	0.25	0.87	0.75	0.91	0.50	0.85	0.85	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	89	116	8	347	565	922	116	751	392	1031	1528	75
Arrive On Green	0.16	0.16	0.16	0.07	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	302	716	50	1485	1900	1535	1810	3328	1309	3401	3283	162
Grp Volume(v), veh/h	85	0	0	292	135	971	10	584	269	563	250	259
Grp Sat Flow(s),veh/h/ln	1069	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1752
Q Serve(g_s), s	4.0	0.0	0.0	9.2	6.7	37.2	0.7	20.6	22.7	17.3	11.6	11.6
Cycle Q Clear(g_c), s	7.1	0.0	0.0	9.2	6.7	37.2	0.7	20.6	22.7	17.3	11.6	11.6
Prop In Lane	0.39		0.05	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	213	0	0	347	565	922	116	751	392	1031	788	816
V/C Ratio(X)	0.40	0.00	0.00	0.84	0.24	1.05	0.09	0.78	0.69	0.55	0.32	0.32
Avail Cap(c_a), veh/h	213	0	0	347	565	922	116	751	392	1031	788	816
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.20	0.20	0.20
Uniform Delay (d), s/veh	46.4	0.0	0.0	46.1	33.2	25.0	55.1	45.5	38.6	36.4	20.9	21.0
Incr Delay (d2), s/veh	5.5	0.0	0.0	21.2	1.0	44.6	1.5	7.8	9.5	0.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	7.0	3.2	35.2	0.3	9.1	8.1	7.0	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	0.0	0.0	67.3	34.2	69.5	56.5	53.2	48.1	36.8	21.1	21.2
LnGrp LOS	D	A	A	E	C	F	E	D	D	D	C	C
Approach Vol, veh/h		85			1398			863			1072	
Approach Delay, s/veh		51.9			65.7			51.7			29.4	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	17.0	28.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	9.2	20.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	19.3	24.7	11.2	9.1	2.7	13.6		39.2				
Green Ext Time (p_c), s	1.9	1.6	0.0	0.4	0.0	2.9		0.0				

Intersection Summary

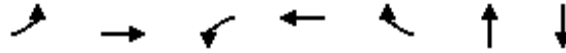
HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	31	528	89	736	44	329	161
v/c Ratio	0.11	0.80	0.28	1.06	0.07	0.83	0.29
Control Delay	10.2	35.5	12.1	79.1	0.2	46.1	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	35.5	12.1	79.1	0.2	46.1	15.6
Queue Length 50th (ft)	7	255	22	~463	0	162	40
Queue Length 95th (ft)	15	#427	30	#605	0	#226	44
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	656	318	697	675	398	549
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.80	0.28	1.06	0.07	0.83	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

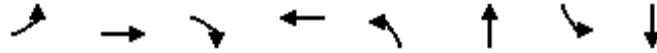
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Year 2027 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	148	153	276	130	480	1357	28	1118
v/c Ratio	0.40	0.40	0.43	0.34	2.70	1.34	0.14	1.08
Control Delay	44.0	43.9	4.1	38.1	796.7	196.1	22.3	92.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	43.9	4.1	38.1	796.7	196.1	22.3	92.5
Queue Length 50th (ft)	104	107	0	76	~588	~726	13	~503
Queue Length 95th (ft)	172	136	33	120	#699	#852	17	#641
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	368	380	644	386	178	1010	203	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.40	0.43	0.34	2.70	1.34	0.14	1.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	85	292	135	971	10	584	269	563	509
v/c Ratio	0.35	0.85	0.23	0.93	0.09	0.85	0.42	0.55	0.34
Control Delay	50.1	62.8	33.7	33.7	57.0	60.2	5.5	38.9	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	62.8	33.7	33.7	57.0	60.2	5.5	38.9	22.6
Queue Length 50th (ft)	60	207	82	643	8	235	0	196	132
Queue Length 95th (ft)	89	#370	112	#1019	15	283	46	254	173
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	244	343	596	1046	115	740	634	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.85	0.23	0.93	0.09	0.79	0.42	0.55	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Attachment H4

Year 2030 Background Conditions
- HCM Worksheets

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	13	167	52	58	142
Future Vol, veh/h	22	13	167	52	58	142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	80	71	72	75	84
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	37	16	235	72	77	169

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	594	271	0	0	307
Stage 1	271	-	-	-	-
Stage 2	323	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	444	751	-	-	1265
Stage 1	741	-	-	-	-
Stage 2	701	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	414	751	-	-	1265
Mov Cap-2 Maneuver	414	-	-	-	-
Stage 1	741	-	-	-	-
Stage 2	654	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	479	1265
HCM Lane V/C Ratio	-	-	0.112	0.061
HCM Control Delay (s)	-	-	13.5	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	3	0	832	5	42	841	0
Future Vol, veh/h	0	0	0	3	0	3	0	832	5	42	841	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	25	92	50	92	84	50	51	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	12	0	6	0	990	10	82	1038	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1697	2202	519	1678	2197	500	1038	0	0	1000	0	0
Stage 1	1202	1202	-	995	995	-	-	-	-	-	-	-
Stage 2	495	1000	-	683	1202	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	61	45	507	63	46	522	678	-	-	700	-	-
Stage 1	199	260	-	266	325	-	-	-	-	-	-	-
Stage 2	530	324	-	410	260	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	55	40	507	57	41	522	678	-	-	700	-	-
Mov Cap-2 Maneuver	55	40	-	57	41	-	-	-	-	-	-	-
Stage 1	199	230	-	266	325	-	-	-	-	-	-	-
Stage 2	524	324	-	362	230	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	61.7	0	0.8
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	678	-	-	-	81	700	-	-
HCM Lane V/C Ratio	-	-	-	-	0.222	0.118	-	-
HCM Control Delay (s)	0	-	-	0	61.7	10.8	-	-
HCM Lane LOS	A	-	-	A	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.8	0.4	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	37	88	82	462	328	41
Future Vol, veh/h	37	88	82	462	328	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	91	74	83	78	84
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	57	97	111	557	421	49

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	922	211	470	0	-	0
Stage 1	421	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	198	742	959	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	175	742	959	-	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	460	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	959	-	468	-	-
HCM Lane V/C Ratio	0.116	-	0.328	-	-
HCM Control Delay (s)	9.2	-	16.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2030 Background Condition Item #7.

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	603	125	35	349	40	111	39	41	14	30	33
Future Volume (veh/h)	79	603	125	35	349	40	111	39	41	14	30	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	110	718	164	48	554	53	163	81	45	35	61	57
Peak Hour Factor	0.72	0.84	0.76	0.73	0.63	0.75	0.68	0.48	0.92	0.40	0.49	0.58
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	367	585	134	229	743	645	288	135	68	131	220	182
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1427	326	1570	1811	1572	741	433	217	276	703	582
Grp Volume(v), veh/h	110	0	882	48	554	53	289	0	0	153	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1391	0	0	1562	0	0
Q Serve(g_s), s	3.3	0.0	41.0	1.5	26.0	2.1	10.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	41.0	1.5	26.0	2.1	17.7	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.56		0.16	0.23		0.37
Lane Grp Cap(c), veh/h	367	0	718	229	743	645	492	0	0	533	0	0
V/C Ratio(X)	0.30	0.00	1.23	0.21	0.75	0.08	0.59	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	367	0	718	229	743	645	492	0	0	533	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.7	0.0	29.5	20.8	25.1	18.0	29.5	0.0	0.0	26.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	114.5	2.1	6.7	0.2	5.1	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	38.5	0.6	11.6	0.7	6.6	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	144.0	22.9	31.8	18.3	34.6	0.0	0.0	27.3	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		992			655			289				153
Approach Delay, s/veh		130.1			30.1			34.6				27.3
Approach LOS		F			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.5	43.0		9.0	5.3	28.0		19.7				
Green Ext Time (p_c), s	0.0	0.0		0.8	0.1	4.5		1.4				

Intersection Summary

HCM 6th Ctrl Delay	78.0
HCM 6th LOS	E

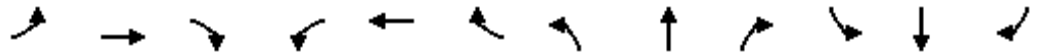
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2030 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	238	14	318	19	19	12	238	751	14	5	837	148
Future Volume (veh/h)	238	14	318	19	19	12	238	751	14	5	837	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	359	0	361	24	27	15	274	905	16	15	1021	190
Peak Hour Factor	0.69	0.75	0.88	0.80	0.71	0.81	0.87	0.83	0.88	0.34	0.82	0.78
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	63	70	39	341	1473	26	381	1119	208
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	652	734	408	1725	3403	60	1810	2920	542
Grp Volume(v), veh/h	359	0	361	66	0	0	274	450	471	15	606	605
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1794	0	0	1725	1692	1771	1810	1735	1728
Q Serve(g_s), s	9.7	0.0	15.3	3.5	0.0	0.0	9.7	20.5	20.5	0.4	33.1	33.3
Cycle Q Clear(g_c), s	9.7	0.0	15.3	3.5	0.0	0.0	9.7	20.5	20.5	0.4	33.1	33.3
Prop In Lane	1.00		1.00	0.36		0.23	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	341	733	767	381	664	662
V/C Ratio(X)	0.67	0.00	0.84	0.38	0.00	0.00	0.80	0.61	0.61	0.04	0.91	0.91
Avail Cap(c_a), veh/h	536	0	428	172	0	0	341	733	767	381	664	662
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	33.0	42.4	0.0	0.0	23.1	21.9	21.9	15.1	29.2	29.3
Incr Delay (d2), s/veh	6.5	0.0	18.0	6.3	0.0	0.0	17.9	3.8	3.7	0.2	18.9	19.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	10.3	1.8	0.0	0.0	5.4	8.7	9.0	0.2	16.8	16.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	0.0	51.0	48.8	0.0	0.0	41.0	25.7	25.6	15.3	48.2	48.7
LnGrp LOS	D	A	D	D	A	A	D	C	C	B	D	D
Approach Vol, veh/h		720			66			1195			1226	
Approach Delay, s/veh		48.7			48.8			29.2			48.0	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.4	22.5		17.3	11.7	35.3		5.5				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.2	2.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Notes

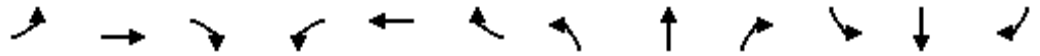
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2030 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↗	↖	↗	↗	↖
Traffic Volume (veh/h)	23	50	50	96	12	256	13	689	102	382	748	17
Future Volume (veh/h)	23	50	50	96	12	256	13	689	102	382	748	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	24	52	67	123	24	275	26	811	129	429	787	20
Peak Hour Factor	0.96	0.96	0.75	0.78	0.50	0.93	0.50	0.85	0.79	0.89	0.95	0.86
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	63	125	135	306	565	812	116	991	465	786	1570	40
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.30	0.30	0.23	0.47	0.47
Sat Flow, veh/h	164	701	763	1485	1900	1535	1810	3328	1309	3401	3373	86
Grp Volume(v), veh/h	143	0	0	123	24	275	26	811	129	429	395	412
Grp Sat Flow(s),veh/h/ln	1628	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1766
Q Serve(g_s), s	1.0	0.0	0.0	7.2	1.1	12.9	1.7	28.3	8.8	13.9	20.3	20.3
Cycle Q Clear(g_c), s	9.3	0.0	0.0	7.2	1.1	12.9	1.7	28.3	8.8	13.9	20.3	20.3
Prop In Lane	0.17		0.47	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	323	0	0	306	565	812	116	991	465	786	788	822
V/C Ratio(X)	0.44	0.00	0.00	0.40	0.04	0.34	0.22	0.82	0.28	0.55	0.50	0.50
Avail Cap(c_a), veh/h	323	0	0	306	565	812	116	991	465	786	788	822
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.38	0.38	0.38
Uniform Delay (d), s/veh	46.1	0.0	0.0	38.3	31.2	16.9	55.6	40.8	28.8	42.3	23.3	23.3
Incr Delay (d2), s/veh	4.4	0.0	0.0	3.9	0.1	1.1	4.4	7.5	1.5	1.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0	3.3	0.5	4.5	0.9	12.2	2.9	5.8	7.9	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	0.0	0.0	42.2	31.4	18.0	60.0	48.3	30.3	43.3	24.1	24.1
LnGrp LOS	D	A	A	D	C	B	E	D	C	D	C	C
Approach Vol, veh/h		143			422			966			1236	
Approach Delay, s/veh		50.4			25.8			46.2			30.8	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	44.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 29	37.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	15.9	30.3	9.2	11.3	3.7	22.3		14.9				
Green Ext Time (p_c), s	1.2	3.1	0.0	0.5	0.0	5.1		1.0				

Intersection Summary

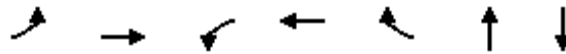
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	110	882	48	554	53	289	153
v/c Ratio	0.32	1.25	0.22	0.75	0.08	0.85	0.31
Control Delay	12.7	151.2	6.0	24.8	2.7	54.9	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	151.2	6.0	24.8	2.7	54.9	22.8
Queue Length 50th (ft)	30	~704	6	301	2	166	58
Queue Length 95th (ft)	43	#847	m7	250	m5	114	49
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	346	707	219	734	698	341	488
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	1.25	0.22	0.75	0.08	0.85	0.31

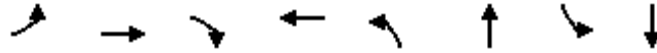
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2030 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	183	181	361	66	274	921	15	1211
v/c Ratio	0.73	0.71	0.66	0.43	0.87	0.64	0.05	0.93
Control Delay	61.3	61.0	15.7	45.3	52.1	24.6	9.8	42.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	61.0	15.7	45.3	52.1	24.6	9.8	42.3
Queue Length 50th (ft)	133	131	58	33	122	235	4	376
Queue Length 95th (ft)	m112	m111	m40	58	#249	268	5	407
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	551	152	314	1446	332	1306
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.71	0.66	0.43	0.87	0.64	0.05	0.93

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2030 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	143	123	24	275	26	811	129	429	807
v/c Ratio	0.45	0.43	0.04	0.29	0.23	0.88	0.20	0.55	0.54
Control Delay	40.9	38.9	31.5	11.5	60.6	54.8	2.2	45.5	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	38.9	31.5	11.5	60.6	54.8	2.2	45.5	26.3
Queue Length 50th (ft)	81	76	14	91	20	322	0	158	235
Queue Length 95th (ft)	149	111	20	142	28	372	8	209	295
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	317	283	597	939	115	976	630	778	1552
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.43	0.04	0.29	0.23	0.83	0.20	0.55	0.52

Intersection Summary

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	81	238	32	13	175
Future Vol, veh/h	27	81	238	32	13	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	74	87	73	61	91
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	36	109	274	44	21	192

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	530	296	0	0	318
Stage 1	296	-	-	-	-
Stage 2	234	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	476	743	-	-	1253
Stage 1	711	-	-	-	-
Stage 2	760	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	467	743	-	-	1253
Mov Cap-2 Maneuver	467	-	-	-	-
Stage 1	711	-	-	-	-
Stage 2	746	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	648	1253
HCM Lane V/C Ratio	-	-	0.224	0.017
HCM Control Delay (s)	-	-	12.2	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	4	0	58	0	1169	1	10	936	0
Future Vol, veh/h	0	0	0	4	0	58	0	1169	1	10	936	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	25	50	92	95	25	50	93	25
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	5	0	116	0	1231	4	20	1006	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1662	2281	503	1776	2279	618	1006	0	0	1235	0	0
Stage 1	1046	1046	-	1233	1233	-	-	-	-	-	-	-
Stage 2	616	1235	-	543	1046	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	65	40	519	53	40	423	697	-	-	470	-	-
Stage 1	248	308	-	191	251	-	-	-	-	-	-	-
Stage 2	450	251	-	497	308	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	46	38	519	51	38	423	697	-	-	470	-	-
Mov Cap-2 Maneuver	46	38	-	51	38	-	-	-	-	-	-	-
Stage 1	248	295	-	191	251	-	-	-	-	-	-	-
Stage 2	327	251	-	476	295	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	0		23		0		0.3			
HCM LOS	A		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	697	-	-	-	320	470	-	-
HCM Lane V/C Ratio	-	-	-	-	0.379	0.043	-	-
HCM Control Delay (s)	0	-	-	0	23	13	-	-
HCM Lane LOS	A	-	-	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	1.7	0.1	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	12	129	106	496	621	12
Future Vol, veh/h	12	129	106	496	621	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	96	81	89	93	75
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	22	134	131	557	668	16

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1209	334	684	0	-	0
Stage 1	668	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	151	636	879	-	-	-
Stage 1	426	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	636	879	-	-	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	363	-	-	-	-	-
Stage 2	500	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	879	-	523	-	-
HCM Lane V/C Ratio	0.149	-	0.299	-	-
HCM Control Delay (s)	9.8	-	14.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1.2	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2030 Background Condition Item #7.

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	403	106	57	636	33	180	23	67	17	35	59
Future Volume (veh/h)	22	403	106	57	636	33	180	23	67	17	35	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	32	424	119	92	757	44	222	29	87	19	60	86
Peak Hour Factor	0.68	0.95	0.89	0.62	0.84	0.75	0.81	0.78	0.77	0.88	0.58	0.69
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	281	518	145	334	701	608	343	40	110	78	215	269
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1372	385	1598	1856	1610	880	127	349	105	682	857
Grp Volume(v), veh/h	32	0	543	92	757	44	338	0	0	165	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1598	1856	1610	1357	0	0	1644	0	0
Q Serve(g_s), s	0.8	0.0	25.1	2.8	34.0	1.6	13.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	25.1	2.8	34.0	1.6	20.6	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.66		0.26	0.12		0.52
Lane Grp Cap(c), veh/h	281	0	664	334	701	608	493	0	0	561	0	0
V/C Ratio(X)	0.11	0.00	0.82	0.28	1.08	0.07	0.69	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	281	0	664	334	701	608	493	0	0	561	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	25.2	16.4	28.0	17.9	28.3	0.0	0.0	23.5	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	8.5	2.0	57.6	0.2	7.6	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	11.0	1.1	24.7	0.6	7.5	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	33.7	18.5	85.6	18.1	35.9	0.0	0.0	24.8	0.0	0.0
LnGrp LOS	B	A	C	B	F	B	D	A	A	C	A	A
Approach Vol, veh/h		575			893			338				165
Approach Delay, s/veh		32.9			75.4			35.9				24.8
Approach LOS		C			E			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.0	40.0		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.8	27.1		8.9	2.8	36.0		22.6				
Green Ext Time (p_c), s	0.1	2.7		0.9	0.0	0.0		1.0				

Intersection Summary

HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

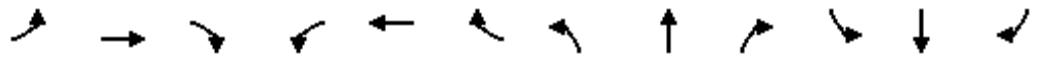
Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2030 Background Conditions

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔		↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	223	52	273	19	61	22	400	1219	22	14	866	211
Future Volume (veh/h)	223	52	273	19	61	22	400	1219	22	14	866	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	156	190	284	24	75	34	494	1370	28	28	921	229
Peak Hour Factor	0.93	0.72	0.96	0.78	0.81	0.64	0.81	0.89	0.79	0.50	0.94	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	390	416	450	72	225	102	180	1023	21	200	840	209
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	1900	1560	325	1016	460	1739	3477	71	1810	2776	689
Grp Volume(v), veh/h	156	190	284	133	0	0	494	683	715	28	580	570
Grp Sat Flow(s),veh/h/ln	1781	1900	1560	1801	0	0	1739	1735	1813	1810	1749	1717
Q Serve(g_s), s	9.0	10.4	19.0	7.4	0.0	0.0	8.3	35.3	35.3	1.2	36.3	36.3
Cycle Q Clear(g_c), s	9.0	10.4	19.0	7.4	0.0	0.0	8.3	35.3	35.3	1.2	36.3	36.3
Prop In Lane	1.00		1.00	0.18		0.26	1.00		0.04	1.00		0.40
Lane Grp Cap(c), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
V/C Ratio(X)	0.40	0.46	0.63	0.33	0.00	0.00	2.74	1.34	1.34	0.14	1.10	1.10
Avail Cap(c_a), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	40.6	37.2	39.2	0.0	0.0	33.7	42.3	42.4	29.3	41.8	41.9
Incr Delay (d2), s/veh	3.0	3.6	6.6	2.2	0.0	0.0	798.5	165.3	165.5	1.5	67.9	69.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	5.3	8.1	3.6	0.0	0.0	43.7	38.3	40.1	0.6	25.4	25.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	44.2	43.7	41.5	0.0	0.0	832.2	207.6	207.8	30.7	109.7	110.9
LnGrp LOS	D	D	D	D	A	A	F	F	F	C	F	F
Approach Vol, veh/h		630			133			1892			1178	
Approach Delay, s/veh		43.7			41.5			370.8			108.4	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	41.0		32.0	14.0	42.0		32.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 35		* 26	* 8.3	* 36		26.6				
Max Q Clear Time (g_c+I1), s	3.2	37.3		21.0	10.3	38.3		9.4				
Green Ext Time (p_c), s	0.0	0.0		1.3	0.0	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	225.0
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2030 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	19	20	141	56	491	61	1042	127	293	799	26
Future Volume (veh/h)	32	19	20	141	56	491	61	1042	127	293	799	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	36	26	80	162	75	540	122	1226	149	312	850	28
Peak Hour Factor	0.88	0.73	0.25	0.87	0.75	0.91	0.50	0.85	0.85	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	80	66	142	305	565	457	116	751	371	1031	1557	51
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	248	370	797	1485	1900	1535	1810	3328	1309	3401	3344	110
Grp Volume(v), veh/h	142	0	0	162	75	540	122	1226	149	312	430	448
Grp Sat Flow(s),veh/h/ln	1415	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1762
Q Serve(g_s), s	4.9	0.0	0.0	7.2	3.6	37.2	8.0	28.2	11.5	8.8	22.8	22.8
Cycle Q Clear(g_c), s	10.5	0.0	0.0	7.2	3.6	37.2	8.0	28.2	11.5	8.8	22.8	22.8
Prop In Lane	0.25		0.56	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	287	0	0	305	565	457	116	751	371	1031	788	820
V/C Ratio(X)	0.49	0.00	0.00	0.53	0.13	1.18	1.05	1.63	0.40	0.30	0.55	0.55
Avail Cap(c_a), veh/h	287	0	0	305	565	457	116	751	371	1031	788	820
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.14	0.14	0.14
Uniform Delay (d), s/veh	46.3	0.0	0.0	40.5	32.1	43.9	58.5	48.4	36.2	33.4	23.9	23.9
Incr Delay (d2), s/veh	6.0	0.0	0.0	6.5	0.5	102.5	98.7	290.8	3.2	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0	1.9	1.7	26.5	6.8	41.6	3.9	3.6	8.7	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	0.0	0.0	46.9	32.6	146.4	157.2	339.2	39.5	33.5	24.3	24.3
LnGrp LOS	D	A	A	D	C	F	F	F	D	C	C	C
Approach Vol, veh/h		142			777			1497			1190	
Approach Delay, s/veh		52.3			114.7			294.5			26.7	
Approach LOS		D			F			F			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	10.8	30.2	9.2	12.5	10.0	24.8		39.2				
Green Ext Time (p_c), s	1.0	0.0	0.0	0.5	0.0	5.7		0.0				

Intersection Summary

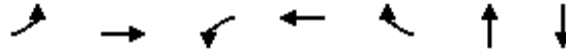
HCM 6th Ctrl Delay	157.8
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	32	543	92	757	44	338	165
v/c Ratio	0.11	0.83	0.30	1.09	0.07	0.86	0.30
Control Delay	10.2	37.2	12.4	88.9	0.2	49.6	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	37.2	12.4	88.9	0.2	49.6	15.8
Queue Length 50th (ft)	8	267	23	~488	0	169	42
Queue Length 95th (ft)	15	#447	30	#630	0	#249	45
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	656	308	697	675	395	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.83	0.30	1.09	0.07	0.86	0.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

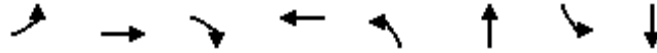
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Year 2030 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	158	284	133	494	1398	28	1150
v/c Ratio	0.42	0.41	0.44	0.35	2.78	1.38	0.14	1.11
Control Delay	44.4	44.2	4.1	38.4	831.5	213.1	22.3	103.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	44.2	4.1	38.4	831.5	213.1	22.3	103.3
Queue Length 50th (ft)	108	111	0	78	~611	~762	13	~531
Queue Length 95th (ft)	178	141	34	122	#722	#888	17	#669
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	368	381	649	385	178	1010	203	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.41	0.44	0.35	2.78	1.38	0.14	1.11

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Year 2030 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	142	162	75	540	122	1226	149	312	878
v/c Ratio	0.46	0.60	0.13	0.65	1.06	1.66	0.27	0.31	0.57
Control Delay	36.6	46.3	33.0	6.9	156.3	333.5	4.6	34.5	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	46.3	33.0	6.9	156.3	333.5	4.6	34.5	25.9
Queue Length 50th (ft)	70	103	44	0	~108	~757	0	100	264
Queue Length 95th (ft)	101	161	68	93	90	#827	30	139	328
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	308	269	565	832	115	740	548	1020	1550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.60	0.13	0.65	1.06	1.66	0.27	0.31	0.57

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment H5

Year 2035 Background Conditions
- HCM Worksheets

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	14	176	54	61	149
Future Vol, veh/h	23	14	176	54	61	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	80	71	72	75	84
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	39	18	248	75	81	177

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	625	286	0	0	323
Stage 1	286	-	-	-	-
Stage 2	339	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	425	737	-	-	1248
Stage 1	729	-	-	-	-
Stage 2	689	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	394	737	-	-	1248
Mov Cap-2 Maneuver	394	-	-	-	-
Stage 1	729	-	-	-	-
Stage 2	639	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	460	1248
HCM Lane V/C Ratio	-	-	0.123	0.065
HCM Control Delay (s)	-	-	13.9	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	3	0	872	5	42	881	0
Future Vol, veh/h	0	0	0	3	0	3	0	872	5	42	881	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	25	92	50	92	84	50	51	81	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	12	0	6	0	1038	10	82	1088	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1771	2300	544	1751	2295	524	1088	0	0	1048	0	0
Stage 1	1252	1252	-	1043	1043	-	-	-	-	-	-	-
Stage 2	519	1048	-	708	1252	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	54	39	488	56	39	503	649	-	-	672	-	-
Stage 1	185	246	-	249	309	-	-	-	-	-	-	-
Stage 2	513	307	-	396	246	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	48	34	488	51	34	503	649	-	-	672	-	-
Mov Cap-2 Maneuver	48	34	-	51	34	-	-	-	-	-	-	-
Stage 1	185	216	-	249	309	-	-	-	-	-	-	-
Stage 2	507	307	-	348	216	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	69.8	0	0.8
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	649	-	-	-	73	672	-	-
HCM Lane V/C Ratio	-	-	-	-	0.247	0.123	-	-
HCM Control Delay (s)	0	-	-	0	69.8	11.1	-	-
HCM Lane LOS	A	-	-	A	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.9	0.4	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	39	92	86	485	344	43
Future Vol, veh/h	39	92	86	485	344	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	65	91	74	83	78	84
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	60	101	116	584	441	51

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	965	221	492	0	0
Stage 1	441	-	-	-	-
Stage 2	524	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-
Pot Cap-1 Maneuver	184	730	939	-	-
Stage 1	499	-	-	-	-
Stage 2	445	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	161	730	939	-	-
Mov Cap-2 Maneuver	275	-	-	-	-
Stage 1	437	-	-	-	-
Stage 2	445	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	1.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	939	-	452	-	-
HCM Lane V/C Ratio	0.124	-	0.356	-	-
HCM Control Delay (s)	9.4	-	17.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.6	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2035 Background Condition Item #7.

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	632	131	36	366	42	116	41	43	15	31	35
Future Volume (veh/h)	82	632	131	36	366	42	116	41	43	15	31	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	114	752	172	49	581	56	171	85	47	38	63	60
Peak Hour Factor	0.72	0.84	0.76	0.73	0.63	0.75	0.68	0.48	0.92	0.40	0.49	0.58
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	350	585	134	229	743	645	287	132	66	134	215	181
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1426	326	1570	1811	1572	737	420	212	286	687	578
Grp Volume(v), veh/h	114	0	924	49	581	56	303	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1370	0	0	1551	0	0
Q Serve(g_s), s	3.4	0.0	41.0	1.6	27.9	2.2	12.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	41.0	1.6	27.9	2.2	19.4	0.0	0.0	7.4	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.56		0.16	0.24		0.37
Lane Grp Cap(c), veh/h	350	0	718	229	743	645	485	0	0	530	0	0
V/C Ratio(X)	0.33	0.00	1.29	0.21	0.78	0.09	0.62	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	350	0	718	229	743	645	485	0	0	530	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.4	0.0	29.5	20.8	25.6	18.0	30.2	0.0	0.0	26.1	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.0	139.2	2.1	8.1	0.3	6.0	0.0	0.0	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	43.4	0.6	12.6	0.8	7.1	0.0	0.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	0.0	168.7	22.9	33.7	18.3	36.2	0.0	0.0	27.6	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	D	A	A	C	A	A
Approach Vol, veh/h		1038			686			303			161	
Approach Delay, s/veh		152.3			31.7			36.2			27.6	
Approach LOS		F			C			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.6	43.0		9.4	5.4	29.9		21.4				
Green Ext Time (p_c), s	0.0	0.0		0.9	0.1	4.3		1.3				

Intersection Summary

HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

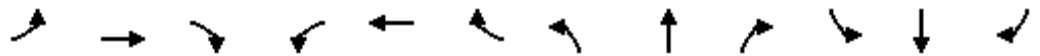
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2035 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	15	333	20	20	12	250	787	15	5	878	155
Future Volume (veh/h)	250	15	333	20	20	12	250	787	15	5	878	155
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	376	0	378	25	28	15	287	948	17	15	1071	199
Peak Hour Factor	0.69	0.75	0.88	0.80	0.71	0.81	0.87	0.83	0.88	0.34	0.82	0.78
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	63	71	38	329	1473	26	367	1119	207
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	660	739	396	1725	3402	61	1810	2922	541
Grp Volume(v), veh/h	376	0	378	68	0	0	287	472	493	15	635	635
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1796	0	0	1725	1692	1770	1810	1735	1728
Q Serve(g_s), s	10.2	0.0	15.3	3.6	0.0	0.0	11.4	21.9	21.9	0.4	35.6	35.9
Cycle Q Clear(g_c), s	10.2	0.0	15.3	3.6	0.0	0.0	11.4	21.9	21.9	0.4	35.6	35.9
Prop In Lane	1.00		1.00	0.37		0.22	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	329	733	767	367	664	662
V/C Ratio(X)	0.70	0.00	0.88	0.39	0.00	0.00	0.87	0.64	0.64	0.04	0.96	0.96
Avail Cap(c_a), veh/h	536	0	428	172	0	0	329	733	767	367	664	662
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	33.5	42.5	0.0	0.0	26.7	22.3	22.3	15.3	30.0	30.1
Incr Delay (d2), s/veh	7.5	0.0	22.2	6.6	0.0	0.0	25.8	4.3	4.1	0.2	25.5	26.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	11.3	1.9	0.0	0.0	9.1	9.3	9.7	0.2	18.9	19.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	0.0	55.8	49.1	0.0	0.0	52.5	26.6	26.4	15.5	55.5	56.5
LnGrp LOS	D	A	E	D	A	A	D	C	C	B	E	E
Approach Vol, veh/h		754			68			1252			1285	
Approach Delay, s/veh		51.7			49.1			32.5			55.5	
Approach LOS		D			D			C			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.4	23.9		17.3	13.4	37.9		5.6				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.1	0.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Notes

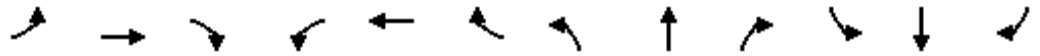
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2035 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↗	↖	↖↗	↖↗	↖↗
Traffic Volume (veh/h)	24	52	52	101	12	268	14	722	107	401	784	18
Future Volume (veh/h)	24	52	52	101	12	268	14	722	107	401	784	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	25	54	69	129	24	288	28	849	135	451	825	21
Peak Hour Factor	0.96	0.96	0.75	0.78	0.50	0.93	0.50	0.85	0.79	0.89	0.95	0.86
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	63	124	134	303	565	812	116	991	465	786	1570	40
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.30	0.30	0.23	0.47	0.47
Sat Flow, veh/h	167	700	757	1485	1900	1535	1810	3328	1309	3401	3373	86
Grp Volume(v), veh/h	148	0	0	129	24	288	28	849	135	451	414	432
Grp Sat Flow(s),veh/h/ln	1623	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1766
Q Serve(g_s), s	1.6	0.0	0.0	7.2	1.1	13.6	1.8	30.1	9.3	14.7	21.6	21.6
Cycle Q Clear(g_c), s	9.7	0.0	0.0	7.2	1.1	13.6	1.8	30.1	9.3	14.7	21.6	21.6
Prop In Lane	0.17		0.47	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	322	0	0	303	565	812	116	991	465	786	788	822
V/C Ratio(X)	0.46	0.00	0.00	0.43	0.04	0.35	0.24	0.86	0.29	0.57	0.53	0.53
Avail Cap(c_a), veh/h	322	0	0	303	565	812	116	991	465	786	788	822
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.30	0.30	0.30
Uniform Delay (d), s/veh	46.2	0.0	0.0	38.6	31.2	17.1	55.6	41.4	29.0	42.6	23.6	23.6
Incr Delay (d2), s/veh	4.7	0.0	0.0	4.3	0.1	1.2	4.9	9.5	1.6	0.9	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	3.6	0.5	4.8	1.0	13.2	3.0	6.1	8.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	0.0	43.0	31.4	18.3	60.5	50.9	30.6	43.5	24.4	24.4
LnGrp LOS	D	A	A	D	C	B	E	D	C	D	C	C
Approach Vol, veh/h		148			441			1012			1297	
Approach Delay, s/veh		50.9			26.2			48.4			31.0	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	44.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 29	37.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	16.7	32.1	9.2	11.7	3.8	23.6		15.6				
Green Ext Time (p_c), s	1.3	2.6	0.0	0.5	0.0	5.4		1.0				

Intersection Summary

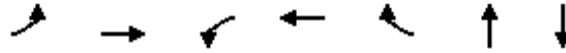
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	114	924	49	581	56	303	161
v/c Ratio	0.35	1.31	0.22	0.79	0.08	0.90	0.33
Control Delay	13.3	175.9	6.0	26.5	2.9	62.7	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	175.9	6.0	26.5	2.9	62.7	23.4
Queue Length 50th (ft)	31	~761	6	322	3	178	62
Queue Length 95th (ft)	45	#902	m7	266	m5	121	51
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	327	707	219	734	698	337	483
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	1.31	0.22	0.79	0.08	0.90	0.33

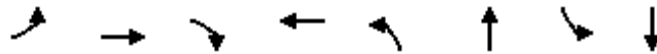
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2035 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	192	190	378	68	287	965	15	1270
v/c Ratio	0.76	0.75	0.69	0.45	0.91	0.67	0.05	0.97
Control Delay	61.7	61.4	17.4	46.8	59.3	25.4	9.8	49.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	61.4	17.4	46.8	59.3	25.4	9.8	49.7
Queue Length 50th (ft)	140	138	67	35	131	251	4	405
Queue Length 95th (ft)	m112	m112	m42	60	#269	285	5	#452
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	546	150	314	1446	318	1306
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.75	0.69	0.45	0.91	0.67	0.05	0.97

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Year 2035 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	148	129	24	288	28	849	135	451	846
v/c Ratio	0.47	0.48	0.04	0.31	0.24	0.90	0.21	0.58	0.56
Control Delay	41.6	40.7	31.6	12.0	61.1	56.5	2.6	46.1	26.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	40.7	31.6	12.0	61.1	56.5	2.6	46.1	26.3
Queue Length 50th (ft)	85	80	14	97	22	342	0	168	251
Queue Length 95th (ft)	154	116	20	151	30	393	11	220	313
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	317	271	585	930	115	976	630	778	1552
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.48	0.04	0.31	0.24	0.87	0.21	0.58	0.55

Intersection Summary

HCM 6th TWSC
4: Oak Ridge Avenue & Green Cove Ave

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	85	250	34	14	184
Future Vol, veh/h	28	85	250	34	14	184
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	74	87	73	61	91
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	37	115	287	47	23	202

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	559	311	0	0	334	0
Stage 1	311	-	-	-	-	-
Stage 2	248	-	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	458	729	-	-	1237	-
Stage 1	700	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	448	729	-	-	1237	-
Mov Cap-2 Maneuver	448	-	-	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	733	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	632	1237
HCM Lane V/C Ratio	-	-	0.241	0.019
HCM Control Delay (s)	-	-	12.5	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	4	0	61	0	1226	1	11	981	0
Future Vol, veh/h	0	0	0	4	0	61	0	1226	1	11	981	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	25	50	92	95	25	50	93	25
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	5	0	122	0	1291	4	22	1055	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1745	2394	528	1865	2392	648	1055	0	0	1295	0	0
Stage 1	1099	1099	-	1293	1293	-	-	-	-	-	-	-
Stage 2	646	1295	-	572	1099	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	56	34	500	46	34	404	668	-	-	444	-	-
Stage 1	230	291	-	175	235	-	-	-	-	-	-	-
Stage 2	431	235	-	477	291	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	32	500	44	32	404	668	-	-	444	-	-
Mov Cap-2 Maneuver	38	32	-	44	32	-	-	-	-	-	-	-
Stage 1	230	276	-	175	235	-	-	-	-	-	-	-
Stage 2	301	235	-	453	276	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	25.5	0	0.3
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	668	-	-	-	301	444	-	-
HCM Lane V/C Ratio	-	-	-	-	0.423	0.05	-	-
HCM Control Delay (s)	0	-	-	0	25.5	13.5	-	-
HCM Lane LOS	A	-	-	A	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	2	0.2	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	12	135	111	520	651	12
Future Vol, veh/h	12	135	111	520	651	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	96	81	89	93	75
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	22	141	137	584	700	16

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1266	350	716	0	-	0
Stage 1	700	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	138	621	854	-	-	-
Stage 1	409	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	116	621	854	-	-	-
Mov Cap-2 Maneuver	234	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	484	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	1.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	854	-	508	-	-
HCM Lane V/C Ratio	0.16	-	0.32	-	-
HCM Control Delay (s)	10	-	15.4	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	1.4	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Year 2035 Background Condition Item #7.

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	423	111	59	667	35	189	24	70	18	36	62
Future Volume (veh/h)	23	423	111	59	667	35	189	24	70	18	36	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	34	445	125	95	794	47	233	31	91	20	62	90
Peak Hour Factor	0.68	0.95	0.89	0.62	0.84	0.75	0.81	0.78	0.77	0.88	0.58	0.69
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	281	518	146	317	701	608	340	38	107	78	214	271
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1371	385	1598	1856	1610	872	120	342	107	679	863
Grp Volume(v), veh/h	34	0	570	95	794	47	355	0	0	172	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1757	1598	1856	1610	1334	0	0	1649	0	0
Q Serve(g_s), s	0.9	0.0	26.9	2.9	34.0	1.7	15.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	26.9	2.9	34.0	1.7	22.6	0.0	0.0	7.2	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.66		0.26	0.12		0.52
Lane Grp Cap(c), veh/h	281	0	664	317	701	608	486	0	0	563	0	0
V/C Ratio(X)	0.12	0.00	0.86	0.30	1.13	0.08	0.73	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	281	0	664	317	701	608	486	0	0	563	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	25.8	17.1	28.0	17.9	29.2	0.0	0.0	23.6	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	11.5	2.4	76.8	0.2	9.4	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	12.2	1.1	28.5	0.6	8.2	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	37.3	19.5	104.8	18.2	38.5	0.0	0.0	25.0	0.0	0.0
LnGrp LOS	B	A	D	B	F	B	D	A	A	C	A	A
Approach Vol, veh/h		604			936			355				172
Approach Delay, s/veh		36.3			91.8			38.5				25.0
Approach LOS		D			F			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.0	40.0		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.9	28.9		9.2	2.9	36.0		24.6				
Green Ext Time (p_c), s	0.1	2.2		0.9	0.0	0.0		0.8				

Intersection Summary

HCM 6th Ctrl Delay	60.9
HCM 6th LOS	E

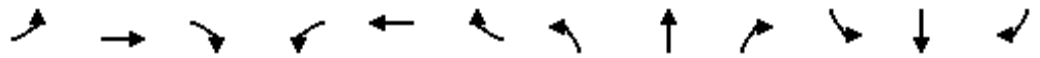
Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2035 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	54	286	20	63	23	420	1278	23	15	909	221
Future Volume (veh/h)	234	54	286	20	63	23	420	1278	23	15	909	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	164	199	298	26	78	36	519	1436	29	30	967	240
Peak Hour Factor	0.93	0.72	0.96	0.78	0.81	0.64	0.81	0.89	0.79	0.50	0.94	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	390	416	450	74	222	103	180	1023	21	200	840	208
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.29	0.29	0.08	0.30	0.30
Sat Flow, veh/h	1781	1900	1560	334	1003	463	1739	3478	70	1810	2778	688
Grp Volume(v), veh/h	164	199	298	140	0	0	519	716	749	30	608	599
Grp Sat Flow(s),veh/h/ln	1781	1900	1560	1800	0	0	1739	1735	1813	1810	1749	1717
Q Serve(g_s), s	9.5	11.0	20.2	7.9	0.0	0.0	8.3	35.3	35.3	1.3	36.3	36.3
Cycle Q Clear(g_c), s	9.5	11.0	20.2	7.9	0.0	0.0	8.3	35.3	35.3	1.3	36.3	36.3
Prop In Lane	1.00		1.00	0.19		0.26	1.00		0.04	1.00		0.40
Lane Grp Cap(c), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
V/C Ratio(X)	0.42	0.48	0.66	0.35	0.00	0.00	2.88	1.40	1.40	0.15	1.15	1.15
Avail Cap(c_a), veh/h	390	416	450	399	0	0	180	510	533	200	529	519
HCM 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
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	40.9	37.6	39.4	0.0	0.0	33.7	42.3	42.4	29.3	41.8	41.9
Incr Delay (d2), s/veh	3.3	3.9	7.5	2.4	0.0	0.0	860.5	192.7	193.3	1.6	87.3	89.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	5.6	8.7	3.8	0.0	0.0	46.8	42.2	44.2	0.6	28.3	28.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	44.8	45.1	41.8	0.0	0.0	894.2	235.0	235.6	30.9	129.1	131.1
LnGrp LOS	D	D	D	D	A	A	F	F	F	C	F	F
Approach Vol, veh/h		661			140			1984			1237	
Approach Delay, s/veh		44.6			41.8			407.7			127.7	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	41.0		32.0	14.0	42.0		32.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 35		* 26	* 8.3	* 36		26.6				
Max Q Clear Time (g_c+I1), s	3.3	37.3		22.2	10.3	38.3		9.9				
Green Ext Time (p_c), s	0.0	0.0		1.2	0.0	0.0		0.7				

Intersection Summary

HCM 6th Ctrl Delay	249.2
HCM 6th LOS	F

Notes

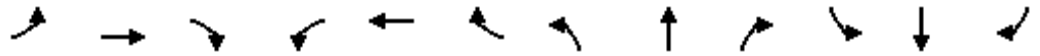
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Year 2035 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↗	↖	↗	↗	↗
Traffic Volume (veh/h)	34	20	21	148	59	514	64	1092	133	307	838	27
Future Volume (veh/h)	34	20	21	148	59	514	64	1092	133	307	838	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	39	27	84	170	79	565	128	1285	156	327	891	29
Peak Hour Factor	0.88	0.73	0.25	0.87	0.75	0.91	0.50	0.85	0.85	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	81	64	139	299	565	457	116	751	371	1031	1558	51
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	253	361	782	1485	1900	1535	1810	3328	1309	3401	3345	109
Grp Volume(v), veh/h	150	0	0	170	79	565	128	1285	156	327	451	469
Grp Sat Flow(s),veh/h/ln	1396	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1762
Q Serve(g_s), s	6.0	0.0	0.0	7.2	3.8	37.2	8.0	28.2	12.1	9.3	24.3	24.3
Cycle Q Clear(g_c), s	11.5	0.0	0.0	7.2	3.8	37.2	8.0	28.2	12.1	9.3	24.3	24.3
Prop In Lane	0.26		0.56	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	284	0	0	299	565	457	116	751	371	1031	788	820
V/C Ratio(X)	0.53	0.00	0.00	0.57	0.14	1.24	1.11	1.71	0.42	0.32	0.57	0.57
Avail Cap(c_a), veh/h	284	0	0	299	565	457	116	751	371	1031	788	820
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	46.6	0.0	0.0	41.1	32.2	43.9	58.5	48.4	36.5	33.6	24.3	24.3
Incr Delay (d2), s/veh	6.9	0.0	0.0	7.6	0.5	124.3	114.7	325.8	3.5	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.0	2.3	1.8	29.3	7.3	45.3	4.1	3.7	9.3	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	0.0	0.0	48.7	32.7	168.2	173.2	374.2	39.9	33.6	24.6	24.6
LnGrp LOS	D	A	A	D	C	F	F	F	D	C	C	C
Approach Vol, veh/h		150			814			1569			1247	
Approach Delay, s/veh		53.5			130.1			324.5			27.0	
Approach LOS		D			F			F			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	11.3	30.2	9.2	13.5	10.0	26.3		39.2				
Green Ext Time (p_c), s	1.1	0.0	0.0	0.5	0.0	6.0		0.0				

Intersection Summary

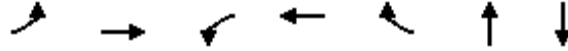
HCM 6th Ctrl Delay	173.7
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	34	570	95	794	47	355	172
v/c Ratio	0.12	0.87	0.33	1.14	0.07	0.91	0.31
Control Delay	10.3	41.1	13.0	107.9	0.2	57.9	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	41.1	13.0	107.9	0.2	57.9	16.3
Queue Length 50th (ft)	8	287	24	~532	0	183	45
Queue Length 95th (ft)	16	#483	31	#675	0	#273	48
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	656	290	697	675	390	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.87	0.33	1.14	0.07	0.91	0.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

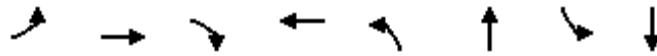
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Year 2035 Background Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	161	166	298	140	519	1465	30	1207
v/c Ratio	0.44	0.44	0.45	0.37	2.92	1.45	0.15	1.17
Control Delay	44.9	44.7	4.2	39.0	893.7	241.2	22.5	124.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	44.7	4.2	39.0	893.7	241.2	22.5	124.1
Queue Length 50th (ft)	114	117	0	84	~652	~820	14	~580
Queue Length 95th (ft)	186	147	35	128	#762	#945	18	#719
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	368	380	659	383	178	1010	203	1032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.44	0.45	0.37	2.92	1.45	0.15	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Year 2035 Background Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	150	170	79	565	128	1285	156	327	920
v/c Ratio	0.49	0.64	0.14	0.66	1.11	1.74	0.28	0.32	0.59
Control Delay	38.2	48.6	33.1	7.0	170.2	367.8	5.1	34.7	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	48.6	33.1	7.0	170.2	367.8	5.1	34.7	26.6
Queue Length 50th (ft)	76	109	47	0	~118	~809	0	105	281
Queue Length 95th (ft)	108	170	72	96	94	#876	34	146	348
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	306	265	565	850	115	740	548	1020	1550
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.64	0.14	0.66	1.11	1.74	0.28	0.32	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Attachment H6

Year 2025 (Analysis Phase 01)
Build-Out Conditions - HCM
Worksheets

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	12	227	84	52	154
Future Vol, veh/h	33	12	227	84	52	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	10	9	10	10	0	10
Mvmt Flow	36	13	247	91	57	167

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	574	293	0	0	338
Stage 1	293	-	-	-	-
Stage 2	281	-	-	-	-
Critical Hdwy	6.5	6.29	-	-	4.1
Critical Hdwy Stg 1	5.5	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-
Follow-up Hdwy	3.59	3.381	-	-	2.2
Pot Cap-1 Maneuver	467	730	-	-	1232
Stage 1	739	-	-	-	-
Stage 2	749	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	443	730	-	-	1232
Mov Cap-2 Maneuver	443	-	-	-	-
Stage 1	739	-	-	-	-
Stage 2	711	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	495	1232
HCM Lane V/C Ratio	-	-	0.099	0.046
HCM Control Delay (s)	-	-	13.1	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	2	0	2	0	600	5	38	455	0
Future Vol, veh/h	0	0	0	2	0	2	0	600	5	38	455	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	14	0
Mvmt Flow	0	0	0	2	0	2	0	652	5	41	495	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	903	1234	248	985	1232	329	495	0	0	657	0	0
Stage 1	577	577	-	655	655	-	-	-	-	-	-	-
Stage 2	326	657	-	330	577	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	236	178	758	205	179	673	1079	-	-	940	-	-
Stage 1	474	505	-	426	466	-	-	-	-	-	-	-
Stage 2	666	465	-	663	505	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	228	170	758	198	171	673	1079	-	-	940	-	-
Mov Cap-2 Maneuver	228	170	-	198	171	-	-	-	-	-	-	-
Stage 1	474	483	-	426	466	-	-	-	-	-	-	-
Stage 2	664	465	-	634	483	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	16.9	0	0.7
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1079	-	-	-	306	940	-
HCM Lane V/C Ratio	-	-	-	-	0.014	0.044	-
HCM Control Delay (s)	0	-	-	0	16.9	9	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1	-

Intersection

Int Delay, s/veh 3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	114	111	2	39	113
Future Vol, veh/h	6	114	111	2	39	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	124	121	2	42	123

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	329	122	0
Stage 1	122	-	-
Stage 2	207	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	665	929	-
Stage 1	903	-	-
Stage 2	828	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	646	929	-
Mov Cap-2 Maneuver	646	-	-
Stage 1	903	-	-
Stage 2	804	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.9
HCM LOS	A		

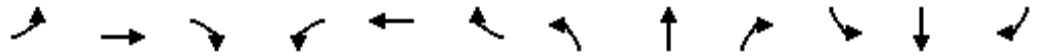
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	646	929	1464
HCM Lane V/C Ratio	-	-	0.01	0.133	0.029
HCM Control Delay (s)	-	-	10.6	9.5	7.5
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0.5	0.1

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	34	85	76	416	296	37
Future Vol, veh/h	34	85	76	416	296	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	37	92	83	452	322	40

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	714	161	362	0	-	0
Stage 1	322	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	281	802	1062	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	259	802	1062	-	-	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	534	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	596	-	-
HCM Lane V/C Ratio	0.078	-	0.217	-	-
HCM Control Delay (s)	8.7	-	12.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.8	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	543	119	51	314	36	118	35	96	13	27	30
Future Volume (veh/h)	71	543	119	51	314	36	118	35	96	13	27	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	77	590	129	55	341	39	128	38	104	14	29	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	517	590	129	229	743	645	249	81	173	108	215	215
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1440	315	1570	1811	1572	624	257	552	209	686	687
Grp Volume(v), veh/h	77	0	719	55	341	39	270	0	0	76	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1754	1570	1811	1572	1434	0	0	1581	0	0
Q Serve(g_s), s	2.3	0.0	41.0	1.8	13.7	1.5	12.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	41.0	1.8	13.7	1.5	15.5	0.0	0.0	3.3	0.0	0.0
Prop In Lane	1.00		0.18	1.00		1.00	0.47		0.39	0.18		0.43
Lane Grp Cap(c), veh/h	517	0	719	229	743	645	502	0	0	538	0	0
V/C Ratio(X)	0.15	0.00	1.00	0.24	0.46	0.06	0.54	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	517	0	719	229	743	645	502	0	0	538	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	29.5	20.8	21.4	17.8	28.7	0.0	0.0	24.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	33.4	2.5	2.0	0.2	4.1	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	22.3	0.7	5.8	0.5	5.9	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	62.9	23.3	23.5	18.0	32.8	0.0	0.0	25.3	0.0	0.0
LnGrp LOS	B	A	E	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		796			435			270				76
Approach Delay, s/veh		58.2			23.0			32.8				25.3
Approach LOS		E			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.8	43.0		5.3	4.3	15.7		17.5				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	3.4		1.4				

Intersection Summary

HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

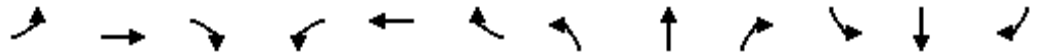
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 01 Year 2025 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	13	314	17	17	10	224	687	13	5	758	144
Future Volume (veh/h)	247	13	314	17	17	10	224	687	13	5	758	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	278	0	341	18	18	11	243	747	14	5	824	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	66	66	40	396	1472	28	436	1113	212
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	686	686	419	1725	3399	64	1810	2907	554
Grp Volume(v), veh/h	278	0	341	47	0	0	243	372	389	5	492	489
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1790	0	0	1725	1692	1770	1810	1735	1726
Q Serve(g_s), s	7.3	0.0	15.3	2.4	0.0	0.0	7.6	16.0	16.0	0.1	24.4	24.4
Cycle Q Clear(g_c), s	7.3	0.0	15.3	2.4	0.0	0.0	7.6	16.0	16.0	0.1	24.4	24.4
Prop In Lane	1.00		1.00	0.38		0.23	1.00		0.04	1.00		0.32
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	396	733	766	436	664	661
V/C Ratio(X)	0.52	0.00	0.80	0.27	0.00	0.00	0.61	0.51	0.51	0.01	0.74	0.74
Avail Cap(c_a), veh/h	536	0	428	172	0	0	396	733	766	436	664	661
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	32.4	42.0	0.0	0.0	18.0	20.6	20.6	14.4	26.6	26.6
Incr Delay (d2), s/veh	3.6	0.0	14.2	3.9	0.0	0.0	7.0	2.5	2.4	0.0	7.3	7.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	9.2	1.3	0.0	0.0	3.6	6.6	6.9	0.1	11.1	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	0.0	46.6	45.9	0.0	0.0	25.0	23.1	23.0	14.4	33.8	33.9
LnGrp LOS	D	A	D	D	A	A	C	C	C	B	C	C
Approach Vol, veh/h		619			47			1004			986	
Approach Delay, s/veh		44.8			45.9			23.5			33.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.1	18.0		17.3	9.6	26.4		4.4				
Green Ext Time (p_c), s	0.0	5.2		0.0	0.3	5.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

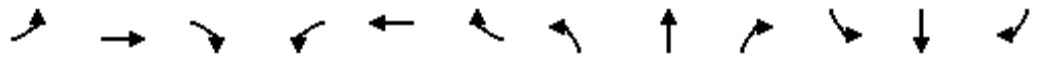
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 01 Year 2025 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↑	↗	↖	↑↑	↗	↖↖	↑↗	
Traffic Volume (veh/h)	32	116	0	173	31	470	1	390	183	716	329	19
Future Volume (veh/h)	32	116	0	173	31	470	1	390	183	716	329	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	35	126	0	188	34	511	1	424	199	778	358	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	76	245	0	301	565	922	116	751	371	1031	1513	88
Arrive On Green	0.18	0.18	0.00	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	233	1380	0	1485	1900	1535	1810	3328	1309	3401	3250	190
Grp Volume(v), veh/h	161	0	0	188	34	511	1	424	199	778	186	193
Grp Sat Flow(s),veh/h/ln	1613	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1747
Q Serve(g_s), s	4.1	0.0	0.0	7.2	1.6	24.9	0.1	14.1	16.1	25.8	8.2	8.3
Cycle Q Clear(g_c), s	10.5	0.0	0.0	7.2	1.6	24.9	0.1	14.1	16.1	25.8	8.2	8.3
Prop In Lane	0.22		0.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	322	0	0	301	565	922	116	751	371	1031	788	814
V/C Ratio(X)	0.50	0.00	0.00	0.62	0.06	0.55	0.01	0.56	0.54	0.75	0.24	0.24
Avail Cap(c_a), veh/h	322	0	0	301	565	922	116	751	371	1031	788	814
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	46.3	0.0	0.0	42.3	31.4	14.9	54.8	43.0	37.9	39.3	20.1	20.1
Incr Delay (d2), s/veh	5.5	0.0	0.0	9.4	0.2	2.4	0.1	3.1	5.5	3.3	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0	3.1	0.8	8.5	0.0	6.0	5.6	10.9	3.2	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	0.0	51.8	31.6	17.3	54.9	46.0	43.4	42.7	20.5	20.5
LnGrp LOS	D	A	A	D	C	B	D	D	D	D	C	C
Approach Vol, veh/h		161			733			624			1157	
Approach Delay, s/veh		51.8			26.8			45.2			35.4	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	27.8	18.1	9.2	12.5	2.1	10.3		26.9				
Green Ext Time (p_c), s	2.2	2.4	0.0	0.6	0.0	2.1		1.6				

Intersection Summary

HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

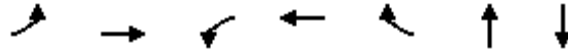
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

Phase 01 Year 2025 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	77	719	55	341	39	270	76
v/c Ratio	0.15	1.02	0.25	0.46	0.06	0.70	0.15
Control Delay	10.7	68.0	5.4	14.0	2.6	38.0	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	68.0	5.4	14.0	2.6	38.0	16.3
Queue Length 50th (ft)	21	~461	4	132	1	133	19
Queue Length 95th (ft)	42	#709	m5	m223	m4	#237	53
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	510	708	219	734	698	383	503
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	1.02	0.25	0.46	0.06	0.70	0.15

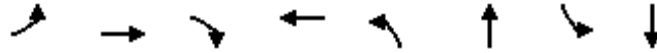
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 01 Year 2025 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	139	143	341	47	243	761	5	981
v/c Ratio	0.55	0.56	0.59	0.31	0.71	0.53	0.01	0.75
Control Delay	59.5	59.6	11.6	40.0	28.2	22.4	9.4	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	59.6	11.6	40.0	28.2	22.4	9.4	30.4
Queue Length 50th (ft)	101	104	39	22	76	182	1	273
Queue Length 95th (ft)	m108	m110	m43	58	#178	238	6	351
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	578	153	343	1446	394	1307
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.56	0.59	0.31	0.71	0.53	0.01	0.75

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 01 Year 2025 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	161	188	34	511	1	424	199	778	379
v/c Ratio	0.53	0.57	0.05	0.46	0.01	0.74	0.35	0.76	0.27
Control Delay	53.9	40.7	29.2	8.0	55.0	56.7	5.7	45.3	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	40.7	29.2	8.0	55.0	56.7	5.7	45.3	23.9
Queue Length 50th (ft)	119	112	18	123	1	173	0	293	103
Queue Length 95th (ft)	193	#207	45	226	7	218	53	368	129
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	303	327	661	1113	115	740	571	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.57	0.05	0.46	0.01	0.57	0.35	0.76	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	73	268	54	12	248
Future Vol, veh/h	68	73	268	54	12	248
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	74	79	291	59	13	270

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	617	321	0	0	350
Stage 1	321	-	-	-	-
Stage 2	296	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	423	720	-	-	1220
Stage 1	692	-	-	-	-
Stage 2	711	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	418	720	-	-	1220
Mov Cap-2 Maneuver	418	-	-	-	-
Stage 1	692	-	-	-	-
Stage 2	702	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	534	1220
HCM Lane V/C Ratio	-	-	0.287	0.011
HCM Control Delay (s)	-	-	14.4	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	3	0	52	0	675	1	9	689	0
Future Vol, veh/h	0	0	0	3	0	52	0	675	1	9	689	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	6	0	8	100	20	5	0
Mvmt Flow	0	0	0	3	0	57	0	734	1	10	749	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1136	1504	375	1130	1504	368	749	0	0	735	0	0
Stage 1	769	769	-	735	735	-	-	-	-	-	-	-
Stage 2	367	735	-	395	769	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.02	4.1	-	-	4.5	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.36	2.2	-	-	2.4	-	-
Pot Cap-1 Maneuver	159	123	628	161	123	618	869	-	-	757	-	-
Stage 1	364	413	-	382	428	-	-	-	-	-	-	-
Stage 2	630	428	-	607	413	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	143	121	628	159	121	618	869	-	-	757	-	-
Mov Cap-2 Maneuver	143	121	-	159	121	-	-	-	-	-	-	-
Stage 1	364	408	-	382	428	-	-	-	-	-	-	-
Stage 2	572	428	-	599	408	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.6	0	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	869	-	-	-	534	757	-
HCM Lane V/C Ratio	-	-	-	-	0.112	0.013	-
HCM Control Delay (s)	0	-	-	0	12.6	9.8	-
HCM Lane LOS	A	-	-	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-

Intersection

Int Delay, s/veh 4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↖		↙	↗
Traffic Vol, veh/h	4	78	105	7	134	126
Future Vol, veh/h	4	78	105	7	134	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	85	114	8	146	137

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	547	118	0
Stage 1	118	-	-
Stage 2	429	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	498	934	-
Stage 1	907	-	-
Stage 2	657	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	448	934	-
Mov Cap-2 Maneuver	448	-	-
Stage 1	907	-	-
Stage 2	591	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	448	934	1465
HCM Lane V/C Ratio	-	-	0.01	0.091	0.099
HCM Control Delay (s)	-	-	13.1	9.2	7.7
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0.3	0.3

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	10	120	102	447	559	10
Future Vol, veh/h	10	120	102	447	559	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	11	130	111	486	608	11

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1073	304	619	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	188	666	931	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	666	931	-	-	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	549	-	-	-	-	-

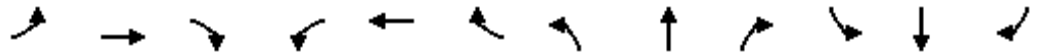
Approach	EB	NB	SB
HCM Control Delay, s	12.8	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	931	-	604	-	-
HCM Lane V/C Ratio	0.119	-	0.234	-	-
HCM Control Delay (s)	9.4	-	12.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

HCM 6th Signalized Intersection Summary
 3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Phase 01 Year 2025 Build-Out Condition

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗		↕			↕	
Traffic Volume (veh/h)	20	363	116	120	573	30	174	21	100	15	31	53
Future Volume (veh/h)	20	363	116	120	573	30	174	21	100	15	31	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	22	395	126	130	623	33	189	23	109	16	34	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	312	480	153	330	672	583	332	44	161	93	187	272
Arrive On Green	0.11	0.36	0.36	0.11	0.36	0.36	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1327	423	1598	1856	1610	852	141	510	150	596	865
Grp Volume(v), veh/h	22	0	521	130	623	33	321	0	0	108	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1750	1598	1856	1610	1503	0	0	1612	0	0
Q Serve(g_s), s	0.6	0.0	24.3	4.2	29.0	1.2	11.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	24.3	4.2	29.0	1.2	16.1	0.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		0.24	1.00		1.00	0.59		0.34	0.15		0.54
Lane Grp Cap(c), veh/h	312	0	633	330	672	583	536	0	0	553	0	0
V/C Ratio(X)	0.07	0.00	0.82	0.39	0.93	0.06	0.60	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	312	0	661	330	701	608	536	0	0	553	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.5	0.0	26.1	17.5	27.6	18.7	26.3	0.0	0.0	22.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	8.7	3.5	20.9	0.2	4.9	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	10.7	1.7	15.5	0.4	6.5	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	34.8	21.1	48.5	18.9	31.2	0.0	0.0	23.4	0.0	0.0
LnGrp LOS	B	A	C	C	D	B	C	A	A	C	A	A
Approach Vol, veh/h		543			786			321			108	
Approach Delay, s/veh		34.1			42.7			31.2			23.4	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	38.6		34.0	16.0	38.6		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	6.2	26.3		6.4	2.6	31.0		18.1				
Green Ext Time (p_c), s	0.1	2.8		0.5	0.0	1.5		1.4				

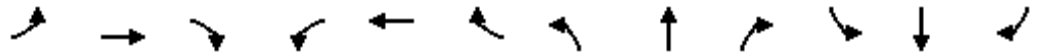
Intersection Summary

HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 01 Year 2025 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘		↔		↖	↗		↖	↗	
Traffic Volume (veh/h)	223	46	264	17	55	20	393	1106	20	13	793	227
Future Volume (veh/h)	223	46	264	17	55	20	393	1106	20	13	793	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	278	0	287	18	60	22	427	1202	22	14	862	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	514	0	463	48	159	58	360	1548	28	270	990	284
Arrive On Green	0.14	0.00	0.14	0.15	0.15	0.15	0.15	0.44	0.44	0.08	0.37	0.37
Sat Flow, veh/h	3563	0	1560	326	1087	399	1739	3485	64	1810	2683	768
Grp Volume(v), veh/h	278	0	287	100	0	0	427	598	626	14	562	547
Grp Sat Flow(s),veh/h/ln	1781	0	1560	1812	0	0	1739	1735	1814	1810	1749	1702
Q Serve(g_s), s	8.7	0.0	17.3	6.0	0.0	0.0	18.3	35.1	35.1	0.5	35.8	35.9
Cycle Q Clear(g_c), s	8.7	0.0	17.3	6.0	0.0	0.0	18.3	35.1	35.1	0.5	35.8	35.9
Prop In Lane	1.00		1.00	0.18		0.22	1.00		0.04	1.00		0.45
Lane Grp Cap(c), veh/h	514	0	463	266	0	0	360	770	806	270	646	628
V/C Ratio(X)	0.54	0.00	0.62	0.38	0.00	0.00	1.19	0.78	0.78	0.05	0.87	0.87
Avail Cap(c_a), veh/h	514	0	463	266	0	0	360	770	806	270	646	628
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	0.0	36.4	46.2	0.0	0.0	33.4	28.3	28.3	21.4	35.2	35.2
Incr Delay (d2), s/veh	4.1	0.0	6.1	4.0	0.0	0.0	108.4	7.5	7.2	0.4	14.9	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	8.1	3.0	0.0	0.0	21.5	15.9	16.6	0.2	17.7	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	42.5	50.3	0.0	0.0	141.8	35.8	35.5	21.8	50.0	50.5
LnGrp LOS	D	A	D	D	A	A	F	D	D	C	D	D
Approach Vol, veh/h		565			100			1651			1123	
Approach Delay, s/veh		47.0			50.3			63.1			49.9	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	59.0		23.0	24.0	50.0		23.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 53		* 17	* 18	* 44		17.6				
Max Q Clear Time (g_c+I1), s	2.5	37.1		19.3	20.3	37.9		8.0				
Green Ext Time (p_c), s	0.0	7.7		0.0	0.0	3.7		0.3				

Intersection Summary

HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 01 Year 2025 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	36	53	1	254	133	916	5	496	229	547	456	35
Future Volume (veh/h)	36	53	1	254	133	916	5	496	229	547	456	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	39	58	1	276	145	996	5	539	249	595	496	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	95	126	2	331	565	922	116	751	371	1031	1484	113
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	307	709	10	1485	1900	1535	1810	3328	1309	3401	3187	243
Grp Volume(v), veh/h	98	0	0	276	145	996	5	539	249	595	263	271
Grp Sat Flow(s),veh/h/ln	1026	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1738
Q Serve(g_s), s	5.9	0.0	0.0	7.2	7.3	37.2	0.3	18.7	21.1	18.5	12.3	12.4
Cycle Q Clear(g_c), s	8.9	0.0	0.0	7.2	7.3	37.2	0.3	18.7	21.1	18.5	12.3	12.4
Prop In Lane	0.40		0.01	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	223	0	0	331	565	922	116	751	371	1031	788	809
V/C Ratio(X)	0.44	0.00	0.00	0.83	0.26	1.08	0.04	0.72	0.67	0.58	0.33	0.34
Avail Cap(c_a), veh/h	223	0	0	331	565	922	116	751	371	1031	788	809
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.51	0.51	0.51
Uniform Delay (d), s/veh	45.2	0.0	0.0	46.3	33.4	25.0	54.9	44.7	39.7	36.8	21.1	21.1
Incr Delay (d2), s/veh	6.2	0.0	0.0	21.2	1.1	53.7	0.7	5.8	9.3	1.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	7.3	3.4	37.6	0.2	8.1	7.5	7.6	4.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	0.0	67.6	34.5	78.7	55.6	50.6	49.0	38.0	21.7	21.7
LnGrp LOS	D	A	A	E	C	F	E	D	D	D	C	C
Approach Vol, veh/h		98			1417			793			1129	
Approach Delay, s/veh		51.4			72.0			50.1			30.3	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	20.5	23.1	9.2	10.9	2.3	14.4		39.2				
Green Ext Time (p_c), s	2.0	1.9	0.0	0.5	0.0	3.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

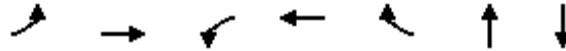
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Queues

Phase 01 Year 2025 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	22	521	130	623	33	321	108
v/c Ratio	0.08	0.82	0.42	0.92	0.05	0.71	0.20
Control Delay	9.9	36.4	14.4	47.4	0.1	34.7	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	36.4	14.4	47.4	0.1	34.7	12.7
Queue Length 50th (ft)	5	249	34	327	0	146	20
Queue Length 95th (ft)	16	#417	62	#534	0	#268	58
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	284	654	313	697	675	453	552
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.80	0.42	0.89	0.05	0.71	0.20

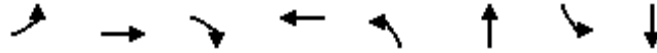
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 01 Year 2025 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	145	147	287	100	427	1224	14	1109
v/c Ratio	0.60	0.59	0.43	0.39	1.33	0.80	0.06	0.88
Control Delay	59.4	58.8	4.1	46.6	197.6	33.8	12.9	44.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	58.8	4.1	46.6	197.6	33.8	12.9	44.0
Queue Length 50th (ft)	112	113	0	64	~381	421	4	408
Queue Length 95th (ft)	186	187	40	119	#586	514	14	#514
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	242	248	662	258	322	1525	219	1255
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.59	0.43	0.39	1.33	0.80	0.06	0.88

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Phase 01 Year 2025 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	276	145	996	5	539	249	595	534
v/c Ratio	0.37	0.80	0.24	0.94	0.04	0.82	0.41	0.58	0.37
Control Delay	49.9	56.6	33.3	34.3	56.0	58.8	5.8	39.6	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	56.6	33.3	34.3	56.0	58.8	5.8	39.6	23.4
Queue Length 50th (ft)	71	187	86	635	4	220	0	209	145
Queue Length 95th (ft)	126	#381	146	#1059	18	279	59	270	182
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	265	346	614	1063	115	740	604	1020	1544
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.80	0.24	0.94	0.04	0.73	0.41	0.58	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Attachment H7

Year 2027 (Analysis Phase 02)
Build-Out Conditions - HCM
Worksheets

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	13	207	69	56	154
Future Vol, veh/h	28	13	207	69	56	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	30	14	225	75	61	167

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	552	263	0	0	300	0
Stage 1	263	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2	-
Pot Cap-1 Maneuver	470	759	-	-	1273	-
Stage 1	747	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	445	759	-	-	1273	-
Mov Cap-2 Maneuver	445	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	512	1273
HCM Lane V/C Ratio	-	-	0.087	0.048
HCM Control Delay (s)	-	-	12.7	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↖		↙	↗
Traffic Vol, veh/h	3	63	120	1	23	121
Future Vol, veh/h	3	63	120	1	23	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	68	130	1	25	132

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	313	131	0	0	131	0
Stage 1	131	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	680	919	-	-	1454	-
Stage 1	895	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	668	919	-	-	1454	-
Mov Cap-2 Maneuver	668	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	835	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	668	919	1454	-
HCM Lane V/C Ratio	-	-	0.005	0.075	0.017	-
HCM Control Delay (s)	-	-	10.4	9.2	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0.1	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	36	88	81	452	328	40
Future Vol, veh/h	36	88	81	452	328	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	39	96	88	491	357	43

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	779	179	400	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	252	780	1024	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	230	780	1024	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1024	-	566	-	-
HCM Lane V/C Ratio	0.086	-	0.238	-	-
HCM Control Delay (s)	8.8	-	13.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	585	134	37	339	39	144	38	48	14	29	33
Future Volume (veh/h)	76	585	134	37	339	39	144	38	48	14	29	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	83	636	146	40	368	42	157	41	52	15	32	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	497	584	134	229	743	645	323	85	92	107	219	217
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1425	327	1570	1811	1572	844	271	293	207	700	694
Grp Volume(v), veh/h	83	0	782	40	368	42	250	0	0	83	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1752	1570	1811	1572	1408	0	0	1601	0	0
Q Serve(g_s), s	2.4	0.0	41.0	1.3	15.0	1.6	10.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	41.0	1.3	15.0	1.6	14.2	0.0	0.0	3.6	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.63		0.21	0.18		0.43
Lane Grp Cap(c), veh/h	497	0	718	229	743	645	499	0	0	543	0	0
V/C Ratio(X)	0.17	0.00	1.09	0.17	0.50	0.07	0.50	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	497	0	718	229	743	645	499	0	0	543	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	0.0	29.5	20.7	21.8	17.9	28.2	0.0	0.0	24.8	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	60.2	1.7	2.4	0.2	3.6	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	27.6	0.5	6.4	0.6	5.4	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	89.7	22.4	24.2	18.1	31.8	0.0	0.0	25.4	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		865			450			250				83
Approach Delay, s/veh		82.5			23.5			31.8				25.4
Approach LOS		F			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.3	43.0		5.6	4.4	17.0		16.2				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	3.7		1.3				

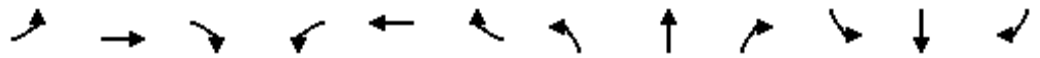
Intersection Summary

HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 02 Year 2027 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	239	14	309	19	19	11	231	796	14	5	839	147
Future Volume (veh/h)	239	14	309	19	19	11	231	796	14	5	839	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	271	0	336	21	21	12	251	865	15	5	912	160
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	67	67	38	373	1474	26	394	1130	198
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	697	697	399	1725	3404	59	1810	2950	517
Grp Volume(v), veh/h	271	0	336	54	0	0	251	430	450	5	536	536
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1793	0	0	1725	1692	1771	1810	1735	1733
Q Serve(g_s), s	7.1	0.0	15.3	2.8	0.0	0.0	7.9	19.3	19.3	0.1	27.6	27.6
Cycle Q Clear(g_c), s	7.1	0.0	15.3	2.8	0.0	0.0	7.9	19.3	19.3	0.1	27.6	27.6
Prop In Lane	1.00		1.00	0.39		0.22	1.00		0.03	1.00		0.30
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	373	733	767	394	664	664
V/C Ratio(X)	0.51	0.00	0.78	0.31	0.00	0.00	0.67	0.59	0.59	0.01	0.81	0.81
Avail Cap(c_a), veh/h	536	0	428	172	0	0	373	733	767	394	664	664
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	32.3	42.1	0.0	0.0	19.1	21.6	21.6	14.8	27.5	27.6
Incr Delay (d2), s/veh	3.4	0.0	13.4	4.7	0.0	0.0	9.3	3.4	3.3	0.1	10.1	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	9.0	1.5	0.0	0.0	3.9	8.1	8.4	0.1	12.9	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.0	45.7	46.8	0.0	0.0	28.4	25.0	24.8	14.9	37.7	37.7
LnGrp LOS	D	A	D	D	A	A	C	C	C	B	D	D
Approach Vol, veh/h		607			54			1131			1077	
Approach Delay, s/veh		44.2			46.8			25.7			37.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.1	21.3		17.3	9.9	29.6		4.8				
Green Ext Time (p_c), s	0.0	5.9		0.0	0.3	4.5		0.1				

Intersection Summary												
HCM 6th Ctrl Delay				34.5								
HCM 6th LOS				C								

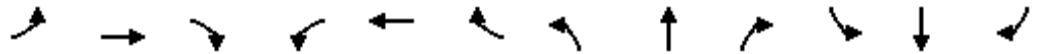
Notes
 User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 02 Year 2027 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕	↗	↖	↕	↖
Traffic Volume (veh/h)	31	107	0	220	28	496	1	487	294	743	378	19
Future Volume (veh/h)	31	107	0	220	28	496	1	487	294	743	378	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	34	116	0	239	30	539	1	529	320	808	411	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	78	241	0	308	565	922	116	751	371	1031	1526	78
Arrive On Green	0.18	0.18	0.00	0.06	0.30	0.30	0.06	0.23	0.23	0.30	0.47	0.47
Sat Flow, veh/h	238	1357	0	1485	1900	1535	1810	3328	1309	3401	3277	167
Grp Volume(v), veh/h	150	0	0	239	30	539	1	529	320	808	212	220
Grp Sat Flow(s),veh/h/ln	1595	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1751
Q Serve(g_s), s	3.2	0.0	0.0	7.2	1.4	27.0	0.1	18.3	28.2	27.1	9.6	9.6
Cycle Q Clear(g_c), s	9.6	0.0	0.0	7.2	1.4	27.0	0.1	18.3	28.2	27.1	9.6	9.6
Prop In Lane	0.23		0.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	319	0	0	308	565	922	116	751	371	1031	788	815
V/C Ratio(X)	0.47	0.00	0.00	0.78	0.05	0.58	0.01	0.70	0.86	0.78	0.27	0.27
Avail Cap(c_a), veh/h	319	0	0	308	565	922	116	751	371	1031	788	815
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	46.0	0.0	0.0	45.3	31.3	15.4	54.8	44.6	42.5	39.8	20.4	20.4
Incr Delay (d2), s/veh	4.9	0.0	0.0	17.2	0.2	2.7	0.1	5.5	22.5	3.4	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	5.6	0.7	9.2	0.0	7.9	11.3	11.4	3.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	0.0	62.5	31.5	18.1	54.9	50.1	65.0	43.2	20.9	20.9
LnGrp LOS	D	A	A	E	C	B	D	D	E	D	C	C
Approach Vol, veh/h		150			808			850			1240	
Approach Delay, s/veh		50.9			31.7			55.7			35.4	
Approach LOS		D			C			E			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 38	28.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	29.1	30.2	9.2	11.6	2.1	11.6		29.0				
Green Ext Time (p_c), s	2.2	0.0	0.0	0.6	0.0	2.4		1.5				

Intersection Summary

HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	0	9	3	0	3	3	646	5	41	490	57
Future Volume (veh/h)	163	0	9	3	0	3	3	646	5	41	490	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1707	1900	1900	1693	1900
Adj Flow Rate, veh/h	177	0	10	3	0	3	3	702	5	45	533	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	13	0	0	14	0
Cap, veh/h	489	0	424	132	0	15	380	1101	8	357	1276	607
Arrive On Green	0.12	0.00	0.26	0.02	0.00	0.02	0.00	0.33	0.33	0.05	0.38	0.38
Sat Flow, veh/h	1810	0	1610	757	0	757	1810	3302	24	1810	3385	1610
Grp Volume(v), veh/h	177	0	10	6	0	0	3	345	362	45	533	62
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1513	0	0	1810	1622	1703	1810	1693	1610
Q Serve(g_s), s	4.1	0.0	0.2	0.2	0.0	0.0	0.1	8.3	8.4	0.7	5.4	1.2
Cycle Q Clear(g_c), s	4.1	0.0	0.2	0.2	0.0	0.0	0.1	8.3	8.4	0.7	5.4	1.2
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	489	0	424	147	0	0	380	541	568	357	1276	607
V/C Ratio(X)	0.36	0.00	0.02	0.04	0.00	0.00	0.01	0.64	0.64	0.13	0.42	0.10
Avail Cap(c_a), veh/h	985	0	1475	720	0	0	665	1801	1891	641	3904	1857
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	12.7	22.4	0.0	0.0	10.3	13.1	13.1	9.9	10.7	9.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	0.0	1.3	1.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.1	0.1	0.0	0.0	0.0	2.7	2.8	0.2	1.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	12.7	22.5	0.0	0.0	10.3	14.3	14.3	10.1	10.9	9.4
LnGrp LOS	B	A	B	C	A	A	B	B	B	B	B	A
Approach Vol, veh/h		187			6			710			640	
Approach Delay, s/veh		17.2			22.5			14.3			10.7	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	21.0		17.7	5.7	23.0	11.3	6.4				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	51.5		42.5	7.5	53.5	18.5	18.5				
Max Q Clear Time (g_c+I1), s	2.7	10.4		2.2	2.1	7.4	6.1	2.2				
Green Ext Time (p_c), s	0.0	5.1		0.0	0.0	4.4	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

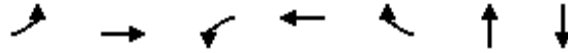
User approved volume balancing among the lanes for turning movement.

Queues

Phase 02 Year 2027 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	83	782	40	368	42	250	83
v/c Ratio	0.17	1.11	0.18	0.50	0.06	0.70	0.16
Control Delay	10.8	96.1	3.7	15.3	3.2	40.8	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	96.1	3.7	15.3	3.2	40.8	16.2
Queue Length 50th (ft)	22	~568	3	162	2	132	21
Queue Length 95th (ft)	44	#799	m3	m228	m5	#243	57
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	488	707	219	734	698	356	506
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	1.11	0.18	0.50	0.06	0.70	0.16

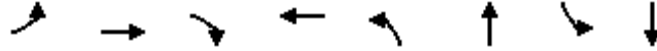
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 02 Year 2027 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	138	137	336	54	251	880	5	1072
v/c Ratio	0.55	0.54	0.60	0.35	0.79	0.61	0.01	0.82
Control Delay	59.8	59.7	12.7	42.3	39.9	24.0	9.4	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	59.7	12.7	42.3	39.9	24.0	9.4	33.5
Queue Length 50th (ft)	100	100	48	26	101	221	1	312
Queue Length 95th (ft)	m96	m95	m42	65	#223	285	6	398
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	564	153	319	1446	347	1307
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.54	0.60	0.35	0.79	0.61	0.01	0.82

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 02 Year 2027 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	150	239	30	539	1	529	320	808	432
v/c Ratio	0.50	0.79	0.05	0.51	0.01	0.81	0.55	0.79	0.30
Control Delay	52.7	57.8	31.0	10.7	55.0	58.4	14.8	46.7	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	57.8	31.0	10.7	55.0	58.4	14.8	46.7	22.6
Queue Length 50th (ft)	110	156	17	172	1	216	63	308	114
Queue Length 95th (ft)	181	#330	41	275	7	273	159	386	146
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	303	301	617	1066	115	740	581	1020	1548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.79	0.05	0.51	0.01	0.71	0.55	0.79	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 02 Year 2027 Build-Out Condition

14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	177	10	6	3	707	45	539	56
v/c Ratio	0.42	0.02	0.02	0.01	0.52	0.10	0.34	0.07
Control Delay	21.6	0.0	0.2	8.3	16.0	8.0	10.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	0.0	0.2	8.3	16.0	8.0	10.8	0.2
Queue Length 50th (ft)	47	0	0	0	92	5	40	0
Queue Length 95th (ft)	116	0	0	5	215	27	162	0
Internal Link Dist (ft)		824	1792		1197		1450	
Turn Bay Length (ft)				350		150		350
Base Capacity (vph)	674	1367	709	560	2879	525	2770	1354
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.01	0.01	0.25	0.09	0.19	0.04

Intersection Summary

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	79	262	45	13	223
Future Vol, veh/h	49	79	262	45	13	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	53	86	285	49	14	242

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	580	310	0	0	334
Stage 1	310	-	-	-	-
Stage 2	270	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	445	730	-	-	1237
Stage 1	701	-	-	-	-
Stage 2	731	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	439	730	-	-	1237
Mov Cap-2 Maneuver	439	-	-	-	-
Stage 1	701	-	-	-	-
Stage 2	721	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	582	1237
HCM Lane V/C Ratio	-	-	0.239	0.011
HCM Control Delay (s)	-	-	13.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↖		↘	↗
Traffic Vol, veh/h	2	45	114	4	76	136
Future Vol, veh/h	2	45	114	4	76	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	49	124	4	83	148

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	440	126	0	0	128
Stage 1	126	-	-	-	-
Stage 2	314	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	574	924	-	-	1458
Stage 1	900	-	-	-	-
Stage 2	741	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	541	924	-	-	1458
Mov Cap-2 Maneuver	541	-	-	-	-
Stage 1	900	-	-	-	-
Stage 2	699	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	541	924	1458	-
HCM Lane V/C Ratio	-	-	0.004	0.053	0.057	-
HCM Control Delay (s)	-	-	11.7	9.1	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0.2	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	11	127	107	492	609	11
Future Vol, veh/h	11	127	107	492	609	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	12	138	116	535	662	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1162	331	674	0	-	0
Stage 1	662	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	163	639	887	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	142	639	887	-	-	-
Mov Cap-2 Maneuver	261	-	-	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	526	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	887	-	573	-	-
HCM Lane V/C Ratio	0.131	-	0.262	-	-
HCM Control Delay (s)	9.7	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	391	146	65	618	33	200	23	71	16	34	58
Future Volume (veh/h)	21	391	146	65	618	33	200	23	71	16	34	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	23	425	159	71	672	36	217	25	77	17	37	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	299	478	179	304	700	607	374	41	111	92	189	274
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1267	474	1598	1856	1610	976	129	352	147	601	873
Grp Volume(v), veh/h	23	0	584	71	672	36	319	0	0	117	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1741	1598	1856	1610	1457	0	0	1621	0	0
Q Serve(g_s), s	0.6	0.0	28.3	2.1	31.8	1.3	12.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	28.3	2.1	31.8	1.3	16.8	0.0	0.0	4.7	0.0	0.0
Prop In Lane	1.00		0.27	1.00		1.00	0.68		0.24	0.15		0.54
Lane Grp Cap(c), veh/h	299	0	656	304	700	607	525	0	0	555	0	0
V/C Ratio(X)	0.08	0.00	0.89	0.23	0.96	0.06	0.61	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	299	0	658	304	701	608	525	0	0	555	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	0.0	26.3	17.3	27.4	17.9	26.6	0.0	0.0	22.8	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	14.7	1.8	25.6	0.2	5.1	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	13.2	0.8	17.6	0.5	6.5	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	41.0	19.1	53.0	18.0	31.8	0.0	0.0	23.6	0.0	0.0
LnGrp LOS	B	A	D	B	D	B	C	A	A	C	A	A
Approach Vol, veh/h		607			779			319			117	
Approach Delay, s/veh		40.1			48.3			31.8			23.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	39.9		34.0	16.0	39.9		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.1	30.3		6.7	2.6	33.8		18.8				
Green Ext Time (p_c), s	0.1	1.7		0.6	0.0	0.1		1.4				

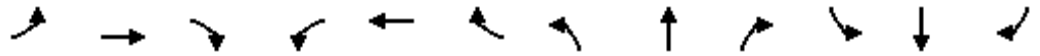
Intersection Summary

HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 02 Year 2027 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	222	50	265	19	59	21	389	1231	21	14	930	215
Future Volume (veh/h)	222	50	265	19	59	21	389	1231	21	14	930	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	280	0	288	21	64	23	423	1338	23	15	1011	234
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	514	0	463	52	158	57	332	1550	27	240	1042	240
Arrive On Green	0.14	0.00	0.14	0.15	0.15	0.15	0.15	0.44	0.44	0.08	0.37	0.37
Sat Flow, veh/h	3563	0	1560	353	1074	386	1739	3490	60	1810	2821	651
Grp Volume(v), veh/h	280	0	288	108	0	0	423	665	696	15	625	620
Grp Sat Flow(s),veh/h/ln	1781	0	1560	1813	0	0	1739	1735	1815	1810	1749	1724
Q Serve(g_s), s	8.8	0.0	17.3	6.5	0.0	0.0	18.3	41.4	41.5	0.6	42.2	42.5
Cycle Q Clear(g_c), s	8.8	0.0	17.3	6.5	0.0	0.0	18.3	41.4	41.5	0.6	42.2	42.5
Prop In Lane	1.00		1.00	0.19		0.21	1.00		0.03	1.00		0.38
Lane Grp Cap(c), veh/h	514	0	463	266	0	0	332	770	806	240	646	636
V/C Ratio(X)	0.55	0.00	0.62	0.41	0.00	0.00	1.27	0.86	0.86	0.06	0.97	0.97
Avail Cap(c_a), veh/h	514	0	463	266	0	0	332	770	806	240	646	636
HCM 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
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	0.0	36.4	46.5	0.0	0.0	37.9	30.1	30.1	23.1	37.2	37.3
Incr Delay (d2), s/veh	4.1	0.0	6.2	4.6	0.0	0.0	145.1	12.3	11.8	0.5	28.6	29.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	8.1	3.3	0.0	0.0	23.2	19.5	20.3	0.3	22.8	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	42.6	51.0	0.0	0.0	183.0	42.3	41.9	23.6	65.7	67.1
LnGrp LOS	D	A	D	D	A	A	F	D	D	C	E	E
Approach Vol, veh/h		568			108			1784			1260	
Approach Delay, s/veh		47.1			51.0			75.5			65.9	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	59.0		23.0	24.0	50.0		23.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 53		* 17	* 18	* 44		17.6				
Max Q Clear Time (g_c+I1), s	2.6	43.5		19.3	20.3	44.5		8.5				
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	67.2
HCM 6th LOS	E

Notes

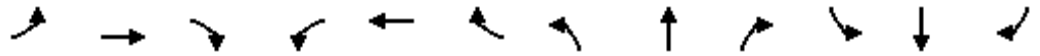
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 02 Year 2027 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	37	46	1	389	122	953	5	582	314	570	570	35
Future Volume (veh/h)	37	46	1	389	122	953	5	582	314	570	570	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	40	50	1	423	133	1036	5	633	341	620	620	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	93	102	2	446	702	934	87	724	475	814	1327	81
Arrive On Green	0.16	0.16	0.16	0.15	0.37	0.37	0.05	0.22	0.22	0.24	0.41	0.41
Sat Flow, veh/h	318	632	11	1485	1900	1535	1810	3328	1309	3401	3240	198
Grp Volume(v), veh/h	91	0	0	423	133	1036	5	633	341	620	324	334
Grp Sat Flow(s),veh/h/ln	961	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1746
Q Serve(g_s), s	6.8	0.0	0.0	18.2	5.9	46.2	0.3	23.0	27.2	21.2	17.4	17.5
Cycle Q Clear(g_c), s	9.3	0.0	0.0	18.2	5.9	46.2	0.3	23.0	27.2	21.2	17.4	17.5
Prop In Lane	0.44		0.01	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	197	0	0	446	702	934	87	724	475	814	693	715
V/C Ratio(X)	0.46	0.00	0.00	0.95	0.19	1.11	0.06	0.87	0.72	0.76	0.47	0.47
Avail Cap(c_a), veh/h	197	0	0	446	702	934	87	724	475	814	693	715
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.34	0.34	0.34
Uniform Delay (d), s/veh	47.0	0.0	0.0	42.3	26.7	24.5	56.8	47.2	34.3	44.2	26.9	26.9
Incr Delay (d2), s/veh	7.6	0.0	0.0	31.4	0.6	64.0	1.3	13.9	9.0	2.4	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	9.4	2.7	40.5	0.2	10.6	9.7	8.9	6.9	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	0.0	0.0	73.8	27.3	88.4	58.1	61.1	43.3	46.6	27.7	27.7
LnGrp LOS	D	A	A	E	C	F	E	E	D	D	C	C
Approach Vol, veh/h		91			1592			979			1278	
Approach Delay, s/veh		54.7			79.4			54.9			36.9	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	37.0	34.0	26.0	28.0	13.0	58.0		54.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 30	27.2	18.2	20.2	* 6	51.2		46.2				
Max Q Clear Time (g_c+I1), s	23.2	29.2	20.2	11.3	2.3	19.5		48.2				
Green Ext Time (p_c), s	1.4	0.0	0.0	0.4	0.0	3.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	58.9
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: PM Peak

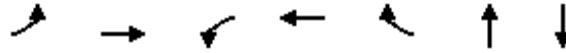
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	0	6	4	0	56	12	728	1	6	743	194
Future Volume (veh/h)	115	0	6	4	0	56	12	728	1	6	743	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1811	1900	1781	418	1604	1826	1900
Adj Flow Rate, veh/h	125	0	7	4	0	61	13	791	1	7	808	211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	6	0	8	100	20	5	0
Cap, veh/h	470	0	417	83	1	96	291	1375	2	289	1350	627
Arrive On Green	0.08	0.00	0.26	0.06	0.00	0.06	0.02	0.40	0.40	0.01	0.39	0.39
Sat Flow, veh/h	1810	0	1610	76	23	1506	1810	3469	4	1527	3469	1610
Grp Volume(v), veh/h	125	0	7	65	0	0	13	386	406	7	808	211
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1604	0	0	1810	1692	1781	1527	1735	1610
Q Serve(g_s), s	3.0	0.0	0.2	1.2	0.0	0.0	0.2	8.8	8.8	0.1	9.1	4.5
Cycle Q Clear(g_c), s	3.0	0.0	0.2	1.9	0.0	0.0	0.2	8.8	8.8	0.1	9.1	4.5
Prop In Lane	1.00		1.00	0.06		0.94	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	0	417	180	0	0	291	671	706	289	1350	627
V/C Ratio(X)	0.27	0.00	0.02	0.36	0.00	0.00	0.04	0.58	0.58	0.02	0.60	0.34
Avail Cap(c_a), veh/h	503	0	1113	842	0	0	445	2065	2173	570	4550	2112
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	13.6	22.5	0.0	0.0	9.6	11.6	11.6	9.7	12.0	10.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.2	0.0	0.0	0.1	0.8	0.7	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.1	0.7	0.0	0.0	0.1	2.8	3.0	0.0	3.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	13.6	23.7	0.0	0.0	9.7	12.4	12.3	9.7	12.4	10.9
LnGrp LOS	B	A	B	C	A	A	A	B	B	A	B	B
Approach Vol, veh/h		132			65			805			1026	
Approach Delay, s/veh		17.5			23.7			12.3			12.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	25.0		18.2	6.3	24.6	9.6	8.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	60.0		34.0	5.0	64.5	5.0	23.5				
Max Q Clear Time (g_c+I1), s	2.1	10.8		2.2	2.2	11.1	5.0	3.9				
Green Ext Time (p_c), s	0.0	6.0		0.0	0.0	8.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

Queues

Phase 02 Year 2027 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	23	584	71	672	36	319	117
v/c Ratio	0.08	0.90	0.25	0.96	0.05	0.75	0.22
Control Delay	9.9	44.5	12.0	55.5	0.2	38.9	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	44.5	12.0	55.5	0.2	38.9	12.7
Queue Length 50th (ft)	6	297	18	367	0	152	22
Queue Length 95th (ft)	16	#503	37	#597	0	#282	61
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	650	281	697	675	425	541
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.90	0.25	0.96	0.05	0.75	0.22

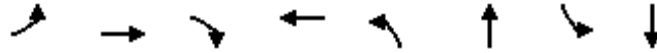
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 02 Year 2027 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	147	148	288	108	423	1361	15	1245
v/c Ratio	0.61	0.60	0.44	0.42	1.31	0.89	0.07	0.99
Control Delay	59.8	59.0	4.6	47.9	192.6	39.5	13.1	60.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	59.0	4.6	47.9	192.6	39.5	13.1	60.4
Queue Length 50th (ft)	113	114	4	70	~374	499	5	492
Queue Length 95th (ft)	188	189	45	129	#578	607	15	#655
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	242	248	655	255	322	1525	203	1257
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.60	0.44	0.42	1.31	0.89	0.07	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Phase 02 Year 2027 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	91	423	133	1036	5	633	341	620	658
v/c Ratio	0.38	0.97	0.19	1.00	0.06	0.91	0.46	0.77	0.49
Control Delay	52.3	73.9	27.4	47.1	58.4	66.3	4.5	51.8	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	73.9	27.4	47.1	58.4	66.3	4.5	51.8	28.8
Queue Length 50th (ft)	67	301	72	~767	4	263	0	242	201
Queue Length 95th (ft)	122	#557	121	#1123	18	#365	59	311	257
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	237	435	713	1041	86	714	742	805	1360
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.97	0.19	1.00	0.06	0.89	0.46	0.77	0.48

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Phase 02 Year 2027 Build-Out Condition

14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	125	7	65	13	792	7	808	211
v/c Ratio	0.39	0.01	0.22	0.03	0.40	0.02	0.40	0.20
Control Delay	20.8	0.0	3.2	6.6	9.9	6.5	9.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	0.0	3.2	6.6	9.9	6.5	9.7	2.4
Queue Length 50th (ft)	23	0	0	2	80	1	81	0
Queue Length 95th (ft)	86	0	9	8	172	5	169	32
Internal Link Dist (ft)		830	1792		1197		1450	
Turn Bay Length (ft)				350		150		350
Base Capacity (vph)	318	1250	855	462	3256	497	3398	1599
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.01	0.08	0.03	0.24	0.01	0.24	0.13

Intersection Summary

Attachment H8

Year 2030 (Analysis Phase 03)
Build-Out Conditions - HCM
Worksheets

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	13	220	64	58	164
Future Vol, veh/h	30	13	220	64	58	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	33	14	239	70	63	178

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	578	274	0	0	309	0
Stage 1	274	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2	-
Pot Cap-1 Maneuver	454	748	-	-	1263	-
Stage 1	739	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	429	748	-	-	1263	-
Mov Cap-2 Maneuver	429	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	492	1263
HCM Lane V/C Ratio	-	-	0.095	0.05
HCM Control Delay (s)	-	-	13.1	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↖		↙	↗
Traffic Vol, veh/h	12	39	149	4	18	137
Future Vol, veh/h	12	39	149	4	18	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	42	162	4	20	149

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	353	164	0	0	166	0
Stage 1	164	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	645	881	-	-	1412	-
Stage 1	865	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	636	881	-	-	1412	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	831	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	636	881	1412	-
HCM Lane V/C Ratio	-	-	0.021	0.048	0.014	-
HCM Control Delay (s)	-	-	10.8	9.3	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0	-

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	26	127	3	12	137
Future Vol, veh/h	8	26	127	3	12	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	28	138	3	13	149

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	315	140	0	0	141
Stage 1	140	-	-	-	-
Stage 2	175	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	678	908	-	-	1442
Stage 1	887	-	-	-	-
Stage 2	855	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	672	908	-	-	1442
Mov Cap-2 Maneuver	672	-	-	-	-
Stage 1	887	-	-	-	-
Stage 2	847	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	839	1442
HCM Lane V/C Ratio	-	-	0.044	0.009
HCM Control Delay (s)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	37	108	89	463	330	41
Future Vol, veh/h	37	108	89	463	330	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	40	117	97	503	359	45

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	805	180	404	0	0
Stage 1	359	-	-	-	-
Stage 2	446	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-
Pot Cap-1 Maneuver	241	778	1021	-	-
Stage 1	558	-	-	-	-
Stage 2	496	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	218	778	1021	-	-
Mov Cap-2 Maneuver	328	-	-	-	-
Stage 1	505	-	-	-	-
Stage 2	496	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1021	-	576	-	-
HCM Lane V/C Ratio	0.095	-	0.274	-	-
HCM Control Delay (s)	8.9	-	13.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	603	141	41	349	40	156	39	49	14	30	33
Future Volume (veh/h)	79	603	141	41	349	40	156	39	49	14	30	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	86	655	153	45	379	43	170	42	53	15	33	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	488	582	136	229	743	645	329	82	88	106	223	215
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1420	332	1570	1811	1572	862	262	281	204	713	687
Grp Volume(v), veh/h	86	0	808	45	379	43	265	0	0	84	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1751	1570	1811	1572	1404	0	0	1603	0	0
Q Serve(g_s), s	2.5	0.0	41.0	1.4	15.6	1.7	11.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	41.0	1.4	15.6	1.7	15.4	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.19	1.00		1.00	0.64		0.20	0.18		0.43
Lane Grp Cap(c), veh/h	488	0	718	229	743	645	499	0	0	544	0	0
V/C Ratio(X)	0.18	0.00	1.13	0.20	0.51	0.07	0.53	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	488	0	718	229	743	645	499	0	0	544	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.0	0.0	29.5	20.8	22.0	17.9	28.6	0.0	0.0	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	73.6	1.9	2.5	0.2	4.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	30.3	0.6	6.7	0.6	5.8	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	0.0	103.1	22.7	24.5	18.1	32.6	0.0	0.0	25.5	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	C	A	A	C	A	A
Approach Vol, veh/h		894			467			265			84	
Approach Delay, s/veh		94.6			23.7			32.6			25.5	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.4	43.0		5.7	4.5	17.6		17.4				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	3.8		1.3				

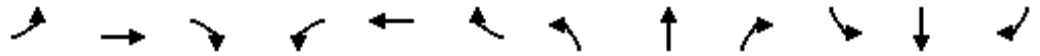
Intersection Summary

HCM 6th Ctrl Delay	62.3
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 03 Year 2030 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	246	14	318	19	19	12	238	892	14	5	887	154
Future Volume (veh/h)	246	14	318	19	19	12	238	892	14	5	887	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	278	0	346	21	21	13	259	970	15	5	964	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	66	66	41	359	1477	23	361	1132	196
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	683	683	423	1725	3412	53	1810	2957	512
Grp Volume(v), veh/h	278	0	346	55	0	0	259	481	504	5	565	566
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1790	0	0	1725	1692	1772	1810	1735	1734
Q Serve(g_s), s	7.3	0.0	15.3	2.9	0.0	0.0	8.1	22.5	22.5	0.1	29.8	29.9
Cycle Q Clear(g_c), s	7.3	0.0	15.3	2.9	0.0	0.0	8.1	22.5	22.5	0.1	29.8	29.9
Prop In Lane	1.00		1.00	0.38		0.24	1.00		0.03	1.00		0.30
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	359	733	767	361	664	664
V/C Ratio(X)	0.52	0.00	0.81	0.32	0.00	0.00	0.72	0.66	0.66	0.01	0.85	0.85
Avail Cap(c_a), veh/h	536	0	428	172	0	0	359	733	767	361	664	664
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	32.6	42.2	0.0	0.0	19.7	22.5	22.5	15.3	28.2	28.3
Incr Delay (d2), s/veh	3.6	0.0	15.1	4.9	0.0	0.0	11.8	4.6	4.4	0.1	13.0	13.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	9.5	1.5	0.0	0.0	4.2	9.6	10.0	0.1	14.3	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	0.0	47.6	47.0	0.0	0.0	31.5	27.0	26.8	15.4	41.2	41.3
LnGrp LOS	D	A	D	D	A	A	C	C	C	B	D	D
Approach Vol, veh/h		624			55			1244				1136
Approach Delay, s/veh		45.3			47.0			27.9				41.1
Approach LOS		D			D			C				D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.1	24.5		17.3	10.1	31.9		4.9				
Green Ext Time (p_c), s	0.0	6.4		0.0	0.3	3.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

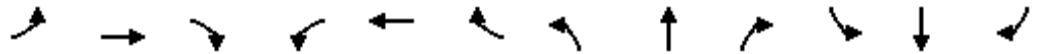
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 03 Year 2030 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↗	↖	↗	↗	↖
Traffic Volume (veh/h)	31	54	50	110	14	256	13	830	142	382	792	23
Future Volume (veh/h)	31	54	50	110	14	256	13	830	142	382	792	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	34	59	54	120	15	278	14	902	154	415	861	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	80	134	104	308	565	762	116	1097	507	677	1564	45
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.06	0.33	0.33	0.20	0.47	0.47
Sat Flow, veh/h	253	757	587	1485	1900	1535	1810	3328	1309	3401	3359	98
Grp Volume(v), veh/h	147	0	0	120	15	278	14	902	154	415	434	452
Grp Sat Flow(s),veh/h/ln	1597	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1764
Q Serve(g_s), s	3.6	0.0	0.0	7.2	0.7	13.9	0.9	31.2	10.2	13.9	23.0	23.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0	7.2	0.7	13.9	0.9	31.2	10.2	13.9	23.0	23.0
Prop In Lane	0.23		0.37	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	319	0	0	308	565	762	116	1097	507	677	788	821
V/C Ratio(X)	0.46	0.00	0.00	0.39	0.03	0.36	0.12	0.82	0.30	0.61	0.55	0.55
Avail Cap(c_a), veh/h	319	0	0	308	565	762	116	1097	507	677	788	821
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	46.2	0.0	0.0	38.2	31.1	19.3	55.2	38.5	26.6	45.7	24.0	24.0
Incr Delay (d2), s/veh	4.7	0.0	0.0	3.7	0.1	1.3	2.1	7.0	1.5	2.0	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0	3.2	0.3	5.0	0.5	13.2	3.3	5.9	9.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.0	0.0	41.9	31.2	20.7	57.3	45.5	28.1	47.7	25.4	25.3
LnGrp LOS	D	A	A	D	C	C	E	D	C	D	C	C
Approach Vol, veh/h		147			413			1070			1301	
Approach Delay, s/veh		50.9			27.2			43.2			32.5	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	32.0	48.0	15.0	30.0	15.0	65.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 25	41.2	7.2	22.2	* 8	58.2		37.2				
Max Q Clear Time (g_c+I1), s	15.9	33.2	9.2	11.8	2.9	25.0		15.9				
Green Ext Time (p_c), s	1.0	3.8	0.0	0.5	0.0	5.7		0.9				

Intersection Summary

HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

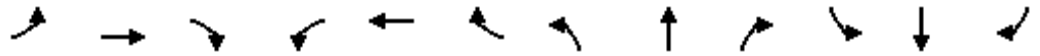
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 03 Year 2030 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗↔		↖	↗↗	↖
Traffic Volume (veh/h)	181	0	181	3	0	3	64	832	5	42	841	58
Future Volume (veh/h)	181	0	181	3	0	3	64	832	5	42	841	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1707	1900	1900	1693	1900
Adj Flow Rate, veh/h	197	0	197	3	0	3	70	904	5	46	914	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	13	0	0	14	0
Cap, veh/h	494	0	424	140	26	66	358	1459	8	360	1373	688
Arrive On Green	0.09	0.00	0.26	0.09	0.00	0.09	0.06	0.44	0.44	0.05	0.43	0.43
Sat Flow, veh/h	1810	0	1610	455	296	751	1810	3308	18	1810	3216	1610
Grp Volume(v), veh/h	197	0	197	6	0	0	70	443	466	46	914	63
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1502	0	0	1810	1622	1704	1810	1608	1610
Q Serve(g_s), s	5.0	0.0	5.6	0.0	0.0	0.0	1.1	11.4	11.4	0.7	12.3	1.3
Cycle Q Clear(g_c), s	5.0	0.0	5.6	0.2	0.0	0.0	1.1	11.4	11.4	0.7	12.3	1.3
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	494	0	424	232	0	0	358	715	752	360	1373	688
V/C Ratio(X)	0.40	0.00	0.46	0.03	0.00	0.00	0.20	0.62	0.62	0.13	0.67	0.09
Avail Cap(c_a), veh/h	494	0	833	582	0	0	417	2127	2235	528	4366	2186
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	16.7	22.6	0.0	0.0	9.0	11.6	11.6	8.8	12.4	9.2
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.0	0.0	0.0	0.3	0.9	0.8	0.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.9	0.1	0.0	0.0	0.4	3.5	3.7	0.3	3.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	0.0	17.5	22.6	0.0	0.0	9.3	12.5	12.5	9.0	13.0	9.3
LnGrp LOS	B	A	B	C	A	A	A	B	B	A	B	A
Approach Vol, veh/h		394			6			979			1023	
Approach Delay, s/veh		18.3			22.6			12.3			12.6	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	28.4		18.8	7.8	27.6	9.5	9.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	7.5	71.0		28.0	5.0	73.5	5.0	18.5				
Max Q Clear Time (g_c+I1), s	2.7	13.4		7.6	3.1	14.3	7.0	2.2				
Green Ext Time (p_c), s	0.0	7.4		1.1	0.0	8.8	0.0	0.0				

Intersection Summary

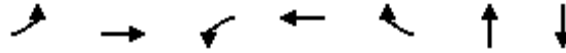
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Queues

Phase 03 Year 2030 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	86	808	45	379	43	265	84
v/c Ratio	0.18	1.14	0.21	0.52	0.06	0.75	0.17
Control Delay	10.9	109.6	3.8	15.6	3.3	44.4	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	109.6	3.8	15.6	3.3	44.4	16.3
Queue Length 50th (ft)	23	~603	3	170	2	144	22
Queue Length 95th (ft)	45	#837	m4	m224	m4	#270	57
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	479	707	219	734	698	353	506
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	1.14	0.21	0.52	0.06	0.75	0.17

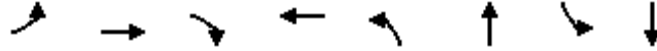
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 03 Year 2030 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	142	140	346	55	259	985	5	1131
v/c Ratio	0.56	0.55	0.62	0.36	0.82	0.68	0.02	0.87
Control Delay	59.9	59.7	13.9	41.9	45.4	25.7	9.4	36.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.9	59.7	13.9	41.9	45.4	25.7	9.4	36.3
Queue Length 50th (ft)	103	102	52	26	111	258	1	338
Queue Length 95th (ft)	m95	m94	m43	65	#244	331	6	#436
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	560	154	314	1447	311	1307
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.55	0.62	0.36	0.82	0.68	0.02	0.87

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 03 Year 2030 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	147	120	15	278	14	902	154	415	886
v/c Ratio	0.48	0.41	0.02	0.31	0.12	0.89	0.23	0.62	0.60
Control Delay	45.8	38.1	31.2	13.4	57.8	52.1	3.4	50.4	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	38.1	31.2	13.4	57.8	52.1	3.4	50.4	27.6
Queue Length 50th (ft)	93	74	9	100	11	355	0	159	268
Queue Length 95th (ft)	163	128	26	158	33	439	34	214	332
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	304	291	601	894	115	1081	667	670	1552
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.02	0.31	0.12	0.83	0.23	0.62	0.57

Intersection Summary

Queues

Phase 03 Year 2030 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	197	197	6	70	909	46	914	63
v/c Ratio	0.67	0.44	0.02	0.17	0.54	0.10	0.58	0.07
Control Delay	33.6	6.7	0.2	4.6	9.5	4.0	10.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	6.7	0.2	4.6	9.5	4.0	10.5	1.4
Queue Length 50th (ft)	50	0	0	4	39	3	84	0
Queue Length 95th (ft)	130	40	0	21	190	15	181	9
Internal Link Dist (ft)		1363	1792		1197		1450	
Turn Bay Length (ft)				350		150		250
Base Capacity (vph)	293	1227	865	418	3194	526	3167	1615
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.16	0.01	0.17	0.28	0.09	0.29	0.04

Intersection Summary

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	81	276	41	13	249
Future Vol, veh/h	51	81	276	41	13	249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	55	88	300	45	14	271

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	622	323	0	0	345
Stage 1	323	-	-	-	-
Stage 2	299	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	420	718	-	-	1225
Stage 1	691	-	-	-	-
Stage 2	709	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	415	718	-	-	1225
Mov Cap-2 Maneuver	415	-	-	-	-
Stage 1	691	-	-	-	-
Stage 2	700	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	560	1225
HCM Lane V/C Ratio	-	-	0.256	0.012
HCM Control Delay (s)	-	-	13.6	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↖		↘	↗
Traffic Vol, veh/h	8	28	137	15	59	180
Future Vol, veh/h	8	28	137	15	59	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	30	149	16	64	196

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	481	157	0	0	165
Stage 1	157	-	-	-	-
Stage 2	324	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	544	889	-	-	1413
Stage 1	871	-	-	-	-
Stage 2	733	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	520	889	-	-	1413
Mov Cap-2 Maneuver	520	-	-	-	-
Stage 1	871	-	-	-	-
Stage 2	700	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	520	889	1413	-
HCM Lane V/C Ratio	-	-	0.017	0.034	0.045	-
HCM Control Delay (s)	-	-	12	9.2	7.7	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	19	133	10	39	149
Future Vol, veh/h	6	19	133	10	39	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	21	145	11	42	162

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	397	151	0	0	156
Stage 1	151	-	-	-	-
Stage 2	246	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	608	895	-	-	1424
Stage 1	877	-	-	-	-
Stage 2	795	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	590	895	-	-	1424
Mov Cap-2 Maneuver	590	-	-	-	-
Stage 1	877	-	-	-	-
Stage 2	772	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.6
HCM LOS	A		

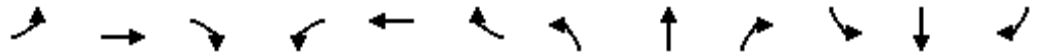
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1424
HCM Lane V/C Ratio	-	-	0.034	0.03
HCM Control Delay (s)	-	-	9.7	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	12	143	131	499	623	12
Future Vol, veh/h	12	143	131	499	623	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	13	155	142	542	677	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1232	339	690	0	-	0
Stage 1	677	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	146	631	874	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	631	874	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	353	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	874	-	561	-	-
HCM Lane V/C Ratio	0.163	-	0.3	-	-
HCM Control Delay (s)	9.9	-	14.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.6	-	1.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	403	161	76	636	33	212	23	73	17	35	59
Future Volume (veh/h)	22	403	161	76	636	33	212	23	73	17	35	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	24	438	175	83	691	36	230	25	79	18	38	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	287	469	187	285	701	608	377	36	107	95	190	273
Arrive On Green	0.11	0.38	0.38	0.11	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	1241	496	1598	1856	1610	985	114	340	155	603	867
Grp Volume(v), veh/h	24	0	613	83	691	36	334	0	0	120	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1737	1598	1856	1610	1439	0	0	1625	0	0
Q Serve(g_s), s	0.6	0.0	30.6	2.5	33.2	1.3	13.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	30.6	2.5	33.2	1.3	18.3	0.0	0.0	4.9	0.0	0.0
Prop In Lane	1.00		0.29	1.00		1.00	0.69		0.24	0.15		0.53
Lane Grp Cap(c), veh/h	287	0	656	285	701	608	520	0	0	557	0	0
V/C Ratio(X)	0.08	0.00	0.93	0.29	0.99	0.06	0.64	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	287	0	656	285	701	608	520	0	0	557	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	26.9	18.2	27.8	17.8	27.2	0.0	0.0	22.8	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	21.0	2.6	30.7	0.2	6.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	15.2	1.0	19.2	0.5	7.0	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	47.9	20.8	58.5	18.0	33.2	0.0	0.0	23.7	0.0	0.0
LnGrp LOS	B	A	D	C	E	B	C	A	A	C	A	A
Approach Vol, veh/h		637			810			334			120	
Approach Delay, s/veh		46.8			52.8			33.2			23.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.0	40.0		34.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	34.0		* 28	10.0	34.0		* 28				
Max Q Clear Time (g_c+I1), s	4.5	32.6		6.9	2.6	35.2		20.3				
Green Ext Time (p_c), s	0.1	0.8		0.6	0.0	0.0		1.3				

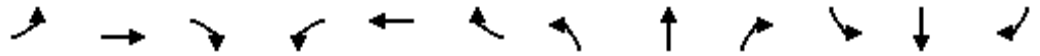
Intersection Summary

HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 03 Year 2030 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	52	273	19	61	22	400	1320	22	14	1038	230
Future Volume (veh/h)	229	52	273	19	61	22	400	1320	22	14	1038	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	290	0	297	21	66	24	435	1435	24	15	1128	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	514	0	463	50	158	57	325	1696	28	172	1052	232
Arrive On Green	0.14	0.00	0.14	0.15	0.15	0.15	0.15	0.49	0.49	0.04	0.37	0.37
Sat Flow, veh/h	3563	0	1560	343	1078	392	1739	3492	58	1810	2849	627
Grp Volume(v), veh/h	290	0	297	111	0	0	435	712	747	15	689	689
Grp Sat Flow(s),veh/h/ln	1781	0	1560	1812	0	0	1739	1735	1815	1810	1749	1728
Q Serve(g_s), s	9.1	0.0	17.3	6.7	0.0	0.0	18.3	43.0	43.1	0.6	44.3	44.3
Cycle Q Clear(g_c), s	9.1	0.0	17.3	6.7	0.0	0.0	18.3	43.0	43.1	0.6	44.3	44.3
Prop In Lane	1.00		1.00	0.19		0.22	1.00		0.03	1.00		0.36
Lane Grp Cap(c), veh/h	514	0	463	266	0	0	325	843	882	172	646	638
V/C Ratio(X)	0.56	0.00	0.64	0.42	0.00	0.00	1.34	0.85	0.85	0.09	1.07	1.08
Avail Cap(c_a), veh/h	514	0	463	266	0	0	325	843	882	172	646	638
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	0.0	36.7	46.5	0.0	0.0	38.9	26.9	26.9	25.1	37.8	37.9
Incr Delay (d2), s/veh	4.4	0.0	6.7	4.8	0.0	0.0	171.4	10.2	9.9	1.0	55.0	59.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	8.5	3.4	0.0	0.0	25.2	19.6	20.5	0.3	28.4	28.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	0.0	43.4	51.3	0.0	0.0	210.3	37.1	36.8	26.1	92.8	96.9
LnGrp LOS	D	A	D	D	A	A	F	D	D	C	F	F
Approach Vol, veh/h		587			111			1894			1393	
Approach Delay, s/veh		47.8			51.3			76.8			94.1	
Approach LOS		D			D			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	64.0		23.0	24.0	50.0		23.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 4.3	* 58		* 17	* 18	* 44		17.6				
Max Q Clear Time (g_c+I1), s	2.6	45.1		19.3	20.3	46.3		8.7				
Green Ext Time (p_c), s	0.0	8.2		0.0	0.0	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	77.8
HCM 6th LOS	E

Notes

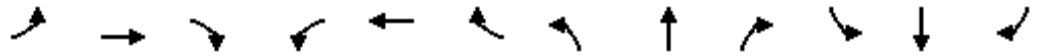
- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 03 Year 2030 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕	↖	↗	↕	↕
Traffic Volume (veh/h)	38	22	20	190	61	491	61	1143	156	294	952	45
Future Volume (veh/h)	38	22	20	190	61	491	61	1143	156	294	952	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	41	24	22	207	66	534	66	1242	170	320	1035	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	128	74	54	347	565	652	275	1337	601	433	1242	59
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.15	0.40	0.40	0.13	0.38	0.38
Sat Flow, veh/h	484	419	306	1485	1900	1535	1810	3328	1309	3401	3290	156
Grp Volume(v), veh/h	87	0	0	207	66	534	66	1242	170	320	532	552
Grp Sat Flow(s),veh/h/ln	1209	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1753
Q Serve(g_s), s	4.8	0.0	0.0	7.2	3.2	37.2	4.0	44.5	10.1	11.3	35.7	35.7
Cycle Q Clear(g_c), s	7.1	0.0	0.0	7.2	3.2	37.2	4.0	44.5	10.1	11.3	35.7	35.7
Prop In Lane	0.47		0.25	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	257	0	0	347	565	652	275	1337	601	433	639	662
V/C Ratio(X)	0.34	0.00	0.00	0.60	0.12	0.82	0.24	0.93	0.28	0.74	0.83	0.83
Avail Cap(c_a), veh/h	257	0	0	347	565	652	275	1337	601	433	639	662
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.13	0.13	0.13
Uniform Delay (d), s/veh	44.9	0.0	0.0	41.9	31.9	31.7	46.6	35.7	21.0	52.6	35.3	35.3
Incr Delay (d2), s/veh	3.5	0.0	0.0	7.4	0.4	11.0	2.1	12.6	1.2	1.5	1.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	3.4	1.5	15.4	1.9	19.4	3.2	4.8	14.3	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	0.0	0.0	49.2	32.4	42.7	48.7	48.3	22.2	54.1	37.1	37.1
LnGrp LOS	D	A	A	D	C	D	D	D	C	D	D	D
Approach Vol, veh/h		87			807			1478			1404	
Approach Delay, s/veh		48.4			43.5			45.4			41.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	57.0	15.0	30.0	26.0	54.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 16	50.2	7.2	22.2	* 19	47.2		37.2				
Max Q Clear Time (g_c+I1), s	13.3	46.5	9.2	9.1	6.0	37.7		39.2				
Green Ext Time (p_c), s	0.3	2.6	0.0	0.4	0.1	4.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Notes

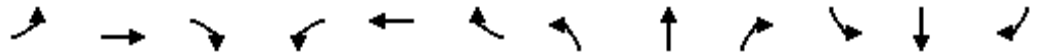
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 03 Year 2030 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	130	0	130	4	0	58	222	1169	1	6	936	202
Future Volume (veh/h)	130	0	130	4	0	58	222	1169	1	6	936	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1811	1900	1781	418	1604	1826	1900
Adj Flow Rate, veh/h	141	0	141	4	0	63	241	1271	1	7	1017	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	6	0	8	100	20	5	0
Cap, veh/h	423	0	371	65	3	118	356	1776	1	215	1529	710
Arrive On Green	0.08	0.00	0.23	0.08	0.00	0.08	0.08	0.51	0.51	0.01	0.44	0.44
Sat Flow, veh/h	1810	0	1610	53	43	1507	1810	3471	3	1527	3469	1610
Grp Volume(v), veh/h	141	0	141	67	0	0	241	620	652	7	1017	220
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1602	0	0	1810	1692	1781	1527	1735	1610
Q Serve(g_s), s	4.3	0.0	4.6	0.3	0.0	0.0	4.3	17.6	17.6	0.2	14.5	5.5
Cycle Q Clear(g_c), s	4.3	0.0	4.6	2.5	0.0	0.0	4.3	17.6	17.6	0.2	14.5	5.5
Prop In Lane	1.00		1.00	0.06		0.94	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	423	0	371	186	0	0	356	866	911	215	1529	710
V/C Ratio(X)	0.33	0.00	0.38	0.36	0.00	0.00	0.68	0.72	0.72	0.03	0.67	0.31
Avail Cap(c_a), veh/h	423	0	465	520	0	0	356	1874	1972	324	3841	1783
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	20.2	27.6	0.0	0.0	11.6	11.7	11.7	10.9	13.8	11.3
Incr Delay (d2), s/veh	0.5	0.0	0.6	1.2	0.0	0.0	5.0	1.1	1.1	0.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.7	1.0	0.0	0.0	1.8	5.7	6.0	0.1	5.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	0.0	20.9	28.8	0.0	0.0	16.6	12.8	12.8	11.0	14.3	11.5
LnGrp LOS	C	A	C	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		282			67			1513			1244	
Approach Delay, s/veh		21.7			28.8			13.4			13.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	37.4		19.9	9.5	33.0	9.5	10.4				
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	5.0	69.0		18.0	5.0	69.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s	2.2	19.6		6.6	6.3	16.5	6.3	4.5				
Green Ext Time (p_c), s	0.0	12.3		0.5	0.0	11.0	0.0	0.2				

Intersection Summary

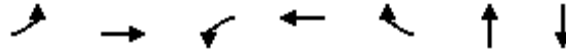
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Queues

Phase 03 Year 2030 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	24	613	83	691	36	334	120
v/c Ratio	0.08	0.94	0.32	0.99	0.05	0.79	0.22
Control Delay	10.0	51.7	13.2	61.7	0.2	42.4	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	51.7	13.2	61.7	0.2	42.4	12.8
Queue Length 50th (ft)	6	320	21	384	0	164	23
Queue Length 95th (ft)	17	#542	42	#621	0	#306	63
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	285	649	262	697	675	421	539
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.94	0.32	0.99	0.05	0.79	0.22

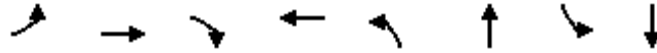
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 03 Year 2030 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	152	154	297	111	435	1459	15	1378
v/c Ratio	0.63	0.62	0.46	0.44	1.35	0.87	0.12	1.10
Control Delay	60.8	60.2	5.3	48.3	207.7	34.8	15.2	91.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	60.2	5.3	48.3	207.7	34.8	15.2	91.3
Queue Length 50th (ft)	117	120	9	72	~394	515	5	~630
Queue Length 95th (ft)	194	195	52	131	#600	625	15	#770
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	242	248	651	255	322	1669	127	1258
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.46	0.44	1.35	0.87	0.12	1.10

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Phase 03 Year 2030 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	87	207	66	534	66	1242	170	320	1084
v/c Ratio	0.32	0.63	0.12	0.70	0.24	0.95	0.23	0.75	0.87
Control Delay	42.4	46.9	32.7	29.1	49.3	52.5	3.1	64.3	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	46.9	32.7	29.1	49.3	52.5	3.1	64.3	45.2
Queue Length 50th (ft)	53	137	39	309	48	502	0	130	420
Queue Length 95th (ft)	105	215	75	449	93	#653	36	#182	516
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	268	326	573	765	274	1318	751	428	1256
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.63	0.12	0.70	0.24	0.94	0.23	0.75	0.86

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 03 Year 2030 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	141	141	67	241	1272	7	1017	220
v/c Ratio	0.47	0.30	0.29	0.72	0.64	0.03	0.63	0.25
Control Delay	30.6	4.7	6.1	21.4	10.9	4.7	14.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	4.7	6.1	21.4	10.9	4.7	14.7	2.2
Queue Length 50th (ft)	45	0	0	37	150	1	155	0
Queue Length 95th (ft)	124	29	17	#97	298	5	211	27
Internal Link Dist (ft)		776	1792		1197		1450	
Turn Bay Length (ft)				350		150		250
Base Capacity (vph)	299	815	516	333	3195	249	3288	1554
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.17	0.13	0.72	0.40	0.03	0.31	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Attachment H9

Year 2035 (Analysis Phase 04)
Build-Out Conditions - HCM
Worksheets

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	37	14	279	78	61	191
Future Vol, veh/h	37	14	279	78	61	191
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	9	34	30	0	21
Mvmt Flow	40	15	303	85	66	208

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	686	346	0	0	388
Stage 1	346	-	-	-	-
Stage 2	340	-	-	-	-
Critical Hdwy	6.57	6.29	-	-	4.1
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.381	-	-	2.2
Pot Cap-1 Maneuver	391	681	-	-	1182
Stage 1	684	-	-	-	-
Stage 2	689	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	366	681	-	-	1182
Mov Cap-2 Maneuver	366	-	-	-	-
Stage 1	684	-	-	-	-
Stage 2	646	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	419	1182
HCM Lane V/C Ratio	-	-	0.132	0.056
HCM Control Delay (s)	-	-	14.9	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↖		↖	↗
Traffic Vol, veh/h	24	76	180	8	34	153
Future Vol, veh/h	24	76	180	8	34	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	83	196	9	37	166

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	441	201	0	0	205
Stage 1	201	-	-	-	-
Stage 2	240	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	574	840	-	-	1366
Stage 1	833	-	-	-	-
Stage 2	800	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	559	840	-	-	1366
Mov Cap-2 Maneuver	559	-	-	-	-
Stage 1	833	-	-	-	-
Stage 2	778	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	559	840	1366	-
HCM Lane V/C Ratio	-	-	0.047	0.098	0.027	-
HCM Control Delay (s)	-	-	11.8	9.8	7.7	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.1	-

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	51	137	6	22	155
Future Vol, veh/h	16	51	137	6	22	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	55	149	7	24	168

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	369	153	0	0	156
Stage 1	153	-	-	-	-
Stage 2	216	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	631	893	-	-	1424
Stage 1	875	-	-	-	-
Stage 2	820	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	620	893	-	-	1424
Mov Cap-2 Maneuver	620	-	-	-	-
Stage 1	875	-	-	-	-
Stage 2	806	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	808	1424
HCM Lane V/C Ratio	-	-	0.09	0.017
HCM Control Delay (s)	-	-	9.9	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	39	132	100	487	348	43
Future Vol, veh/h	39	132	100	487	348	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	48	20	22	11	15	76
Mvmt Flow	42	143	109	529	378	47

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	861	189	425	0	-	0
Stage 1	378	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Critical Hdwy	7.76	7.3	4.54	-	-	-
Critical Hdwy Stg 1	6.76	-	-	-	-	-
Critical Hdwy Stg 2	6.76	-	-	-	-	-
Follow-up Hdwy	3.98	3.5	2.42	-	-	-
Pot Cap-1 Maneuver	219	768	1001	-	-	-
Stage 1	544	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	195	768	1001	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1001	-	572	-	-
HCM Lane V/C Ratio	0.109	-	0.325	-	-
HCM Control Delay (s)	9	-	14.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	632	162	47	366	42	204	41	58	15	31	35
Future Volume (veh/h)	82	632	162	47	366	42	204	41	58	15	31	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1811	1633	1648	1811	1856	1337	1767	1589	1900	1781	1737
Adj Flow Rate, veh/h	89	687	176	51	398	46	222	45	63	16	34	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	6	18	17	6	3	38	9	21	0	8	11
Cap, veh/h	474	570	146	229	743	645	353	61	83	108	221	218
Arrive On Green	0.10	0.41	0.41	0.10	0.41	0.41	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	1391	356	1570	1811	1572	934	194	266	210	705	696
Grp Volume(v), veh/h	89	0	863	51	398	46	330	0	0	88	0	0
Grp Sat Flow(s),veh/h/ln	1753	0	1747	1570	1811	1572	1394	0	0	1611	0	0
Q Serve(g_s), s	2.6	0.0	41.0	1.6	16.6	1.8	17.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	41.0	1.6	16.6	1.8	20.9	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		0.20	1.00		1.00	0.67		0.19	0.18		0.43
Lane Grp Cap(c), veh/h	474	0	716	229	743	645	497	0	0	547	0	0
V/C Ratio(X)	0.19	0.00	1.20	0.22	0.54	0.07	0.66	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	474	0	716	229	743	645	497	0	0	547	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.2	0.0	29.5	20.8	22.3	17.9	30.4	0.0	0.0	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	105.2	2.2	2.8	0.2	6.9	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	36.5	0.7	7.1	0.6	7.9	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	134.7	23.1	25.1	18.1	37.3	0.0	0.0	25.6	0.0	0.0
LnGrp LOS	B	A	F	C	C	B	D	A	A	C	A	A
Approach Vol, veh/h		952			495			330				88
Approach Delay, s/veh		123.5			24.2			37.3				25.6
Approach LOS		F			C			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	47.0		37.0	16.0	47.0		37.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	10.0	41.0		* 31	10.0	41.0		* 31				
Max Q Clear Time (g_c+I1), s	3.6	43.0		5.9	4.6	18.6		22.9				
Green Ext Time (p_c), s	0.0	0.0		0.4	0.1	4.0		1.3				

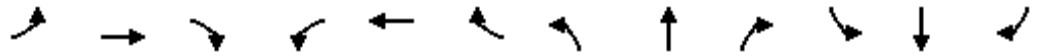
Intersection Summary

HCM 6th Ctrl Delay	77.3
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 04 Year 2035 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	265	15	333	20	20	12	250	1064	15	5	975	166
Future Volume (veh/h)	265	15	333	20	20	12	250	1064	15	5	975	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1707	1900	1900	1900	1811	1781	1900	1900	1826	1870
Adj Flow Rate, veh/h	299	0	362	22	22	13	272	1157	16	5	1060	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	0	13	0	0	0	6	8	0	0	5	2
Cap, veh/h	536	0	428	66	66	39	336	1480	20	310	1136	193
Arrive On Green	0.15	0.00	0.15	0.10	0.10	0.10	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	3506	0	1447	692	692	409	1725	3418	47	1810	2967	503
Grp Volume(v), veh/h	299	0	362	57	0	0	272	573	600	5	619	621
Grp Sat Flow(s),veh/h/ln	1753	0	1447	1792	0	0	1725	1692	1773	1810	1735	1735
Q Serve(g_s), s	7.9	0.0	15.3	3.0	0.0	0.0	9.9	29.0	29.0	0.1	34.2	34.4
Cycle Q Clear(g_c), s	7.9	0.0	15.3	3.0	0.0	0.0	9.9	29.0	29.0	0.1	34.2	34.4
Prop In Lane	1.00		1.00	0.39		0.23	1.00		0.03	1.00		0.29
Lane Grp Cap(c), veh/h	536	0	428	172	0	0	336	733	768	310	664	665
V/C Ratio(X)	0.56	0.00	0.85	0.33	0.00	0.00	0.81	0.78	0.78	0.02	0.93	0.93
Avail Cap(c_a), veh/h	536	0	428	172	0	0	336	733	768	310	664	665
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	33.0	42.2	0.0	0.0	24.2	24.3	24.3	16.7	29.6	29.6
Incr Delay (d2), s/veh	4.1	0.0	18.2	5.1	0.0	0.0	18.8	8.1	7.8	0.1	21.6	22.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	10.3	1.6	0.0	0.0	5.6	12.8	13.3	0.1	17.7	17.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	0.0	51.2	47.3	0.0	0.0	43.0	32.4	32.1	16.8	51.2	51.8
LnGrp LOS	D	A	D	D	A	A	D	C	C	B	D	D
Approach Vol, veh/h		661			57			1445			1245	
Approach Delay, s/veh		47.7			47.3			34.3			51.3	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	49.0		21.0	20.0	44.0		15.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 9.3	* 43		* 15	* 14	* 38		9.6				
Max Q Clear Time (g_c+I1), s	2.1	31.0		17.3	11.9	36.4		5.0				
Green Ext Time (p_c), s	0.0	6.2		0.0	0.2	1.4		0.1				

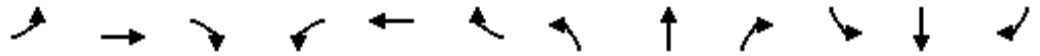
Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 04 Year 2035 Build-Out Condition
 10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↗	↖	↕	↗	↖	↕	↖
Traffic Volume (veh/h)	39	61	52	129	16	268	14	999	186	401	870	29
Future Volume (veh/h)	39	61	52	129	16	268	14	999	186	401	870	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	42	66	57	140	17	291	15	1086	202	436	946	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	87	131	96	297	565	726	145	1177	538	596	1502	51
Arrive On Green	0.18	0.18	0.18	0.06	0.30	0.30	0.08	0.35	0.35	0.18	0.45	0.45
Sat Flow, veh/h	289	740	543	1485	1900	1535	1810	3328	1309	3401	3340	113
Grp Volume(v), veh/h	165	0	0	140	17	291	15	1086	202	436	479	499
Grp Sat Flow(s),veh/h/ln	1572	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1761
Q Serve(g_s), s	6.1	0.0	0.0	7.2	0.8	15.4	1.0	39.1	13.4	15.2	27.2	27.2
Cycle Q Clear(g_c), s	11.6	0.0	0.0	7.2	0.8	15.4	1.0	39.1	13.4	15.2	27.2	27.2
Prop In Lane	0.25		0.35	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	315	0	0	297	565	726	145	1177	538	596	761	792
V/C Ratio(X)	0.52	0.00	0.00	0.47	0.03	0.40	0.10	0.92	0.38	0.73	0.63	0.63
Avail Cap(c_a), veh/h	315	0	0	297	565	726	145	1177	538	596	761	792
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.35	0.35	0.35
Uniform Delay (d), s/veh	46.8	0.0	0.0	39.2	31.1	21.4	53.3	38.8	25.6	48.8	26.4	26.4
Incr Delay (d2), s/veh	6.1	0.0	0.0	5.3	0.1	1.7	1.4	13.2	2.0	2.8	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	0.0	4.0	0.4	5.6	0.5	17.4	4.3	6.5	10.7	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.0	0.0	44.4	31.2	23.1	54.8	52.0	27.6	51.6	27.8	27.8
LnGrp LOS	D	A	A	D	C	C	D	D	C	D	C	C
Approach Vol, veh/h		165			448			1303			1414	
Approach Delay, s/veh		52.9			30.1			48.2			35.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	29.0	51.0	15.0	30.0	17.0	63.0		45.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 22	44.2	7.2	22.2	* 10	56.2		37.2				
Max Q Clear Time (g_c+I1), s	17.2	41.1	9.2	13.6	3.0	29.2		17.4				
Green Ext Time (p_c), s	0.7	2.1	0.0	0.6	0.0	6.3		1.0				

Intersection Summary												
HCM 6th Ctrl Delay				40.5								
HCM 6th LOS				D								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 04 Year 2035 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘			↔		↗	↕		↗	↕	↗
Traffic Volume (veh/h)	356	0	356	3	0	3	125	872	5	45	881	114
Future Volume (veh/h)	356	0	356	3	0	3	125	872	5	45	881	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1707	1900	1900	1693	1900
Adj Flow Rate, veh/h	387	0	387	3	0	3	136	948	5	49	958	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	13	0	0	14	0
Cap, veh/h	598	0	542	93	18	44	281	1378	7	274	1257	629
Arrive On Green	0.21	0.00	0.34	0.06	0.00	0.06	0.07	0.42	0.42	0.04	0.39	0.39
Sat Flow, veh/h	1810	0	1610	417	287	704	1810	3309	17	1810	3216	1610
Grp Volume(v), veh/h	387	0	387	6	0	0	136	465	488	49	958	124
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1408	0	0	1810	1622	1704	1810	1608	1610
Q Serve(g_s), s	15.4	0.0	16.8	0.0	0.0	0.0	3.5	18.8	18.8	1.3	20.7	4.1
Cycle Q Clear(g_c), s	15.4	0.0	16.8	0.3	0.0	0.0	3.5	18.8	18.8	1.3	20.7	4.1
Prop In Lane	1.00		1.00	0.50		0.50	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	598	0	542	155	0	0	281	676	710	274	1257	629
V/C Ratio(X)	0.65	0.00	0.71	0.04	0.00	0.00	0.48	0.69	0.69	0.18	0.76	0.20
Avail Cap(c_a), veh/h	598	0	833	380	0	0	397	1150	1208	314	2064	1033
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	23.3	35.4	0.0	0.0	16.4	19.1	19.1	15.2	21.2	16.1
Incr Delay (d2), s/veh	2.4	0.0	1.8	0.1	0.0	0.0	1.3	1.3	1.2	0.3	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	6.3	0.1	0.0	0.0	1.4	6.8	7.2	0.5	7.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	25.0	35.5	0.0	0.0	17.6	20.4	20.3	15.5	22.2	16.3
LnGrp LOS	C	A	C	D	A	A	B	C	C	B	C	B
Approach Vol, veh/h		774			6			1089			1131	
Approach Delay, s/veh		26.5			35.5			20.0			21.3	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	38.9		32.5	10.9	36.9	22.0	10.5				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	5.1	56.9		41.5	10.5	51.5	16.5	19.5				
Max Q Clear Time (g_c+I1), s	3.3	20.8		18.8	5.5	22.7	17.4	2.3				
Green Ext Time (p_c), s	0.0	7.5		2.7	0.1	8.6	0.0	0.0				

Intersection Summary

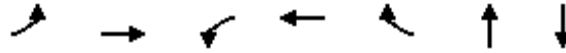
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Queues

Phase 04 Year 2035 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	89	863	51	398	46	330	88
v/c Ratio	0.19	1.22	0.23	0.54	0.07	0.95	0.18
Control Delay	11.0	141.6	3.8	15.6	3.4	71.7	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	141.6	3.8	15.6	3.4	71.7	16.3
Queue Length 50th (ft)	24	~678	3	179	3	198	23
Queue Length 95th (ft)	47	#917	m4	m219	m5	#376	59
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	465	705	219	734	698	347	501
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	1.22	0.23	0.54	0.07	0.95	0.18

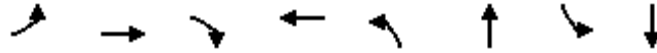
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 04 Year 2035 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: AM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	153	151	362	57	272	1173	5	1240
v/c Ratio	0.61	0.59	0.66	0.37	0.87	0.81	0.02	0.95
Control Delay	59.8	59.6	15.3	42.7	51.1	30.3	9.4	45.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	59.6	15.3	42.7	51.1	30.3	9.4	45.6
Queue Length 50th (ft)	111	109	58	27	120	334	1	391
Queue Length 95th (ft)	m94	m94	m40	68	#265	424	6	#541
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	252	255	552	153	314	1446	256	1306
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.59	0.66	0.37	0.87	0.81	0.02	0.95

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

Phase 04 Year 2035 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: AM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	165	140	17	291	15	1086	202	436	978
v/c Ratio	0.55	0.53	0.03	0.35	0.10	0.95	0.28	0.74	0.66
Control Delay	49.3	43.0	31.4	15.8	55.3	56.5	3.6	57.4	29.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	43.0	31.4	15.8	55.3	56.5	3.6	57.4	29.7
Queue Length 50th (ft)	109	88	10	114	12	444	0	174	316
Queue Length 95th (ft)	184	147	28	177	34	#583	42	232	391
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	300	263	573	837	144	1160	714	589	1497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.53	0.03	0.35	0.10	0.94	0.28	0.74	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 04 Year 2035 Build-Out Condition

14: S. Orange Ave/US 17 & Ayrshire Boulevard/Hall Park Rd

Timing Plan: AM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	387	387	6	136	953	49	958	124
v/c Ratio	0.85	0.73	0.02	0.39	0.57	0.15	0.74	0.17
Control Delay	49.0	26.6	0.2	11.3	16.3	9.6	24.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	26.6	0.2	11.3	16.3	9.6	24.7	3.9
Queue Length 50th (ft)	178	106	0	25	172	8	196	0
Queue Length 95th (ft)	#433	260	0	69	314	30	352	32
Internal Link Dist (ft)		1430	1792		1197		1450	
Turn Bay Length (ft)				350		150		250
Base Capacity (vph)	467	932	537	379	2342	318	2102	1113
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.42	0.01	0.36	0.41	0.15	0.46	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	85	325	51	14	332
Future Vol, veh/h	77	85	325	51	14	332
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	22	2	4	0	0	26
Mvmt Flow	84	92	353	55	15	361

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	772	381	0	0	408
Stage 1	381	-	-	-	-
Stage 2	391	-	-	-	-
Critical Hdwy	6.62	6.22	-	-	4.1
Critical Hdwy Stg 1	5.62	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-
Follow-up Hdwy	3.698	3.318	-	-	2.2
Pot Cap-1 Maneuver	341	666	-	-	1162
Stage 1	649	-	-	-	-
Stage 2	642	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	336	666	-	-	1162
Mov Cap-2 Maneuver	336	-	-	-	-
Stage 1	649	-	-	-	-
Stage 2	632	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	454	1162
HCM Lane V/C Ratio	-	-	0.388	0.013
HCM Control Delay (s)	-	-	17.9	8.1
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.8	0

Intersection

Int Delay, s/veh 2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	55	160	29	118	226
Future Vol, veh/h	17	55	160	29	118	226
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	60	174	32	128	246

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	692	190	0
Stage 1	190	-	-
Stage 2	502	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	410	852	-
Stage 1	842	-	-
Stage 2	608	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	371	852	-
Mov Cap-2 Maneuver	371	-	-
Stage 1	842	-	-
Stage 2	551	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	371	852	1365
HCM Lane V/C Ratio	-	-	0.05	0.07	0.094
HCM Control Delay (s)	-	-	15.2	9.5	7.9
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.3

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	12	37	152	20	79	164
Future Vol, veh/h	12	37	152	20	79	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	40	165	22	86	178

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	526	176	0	0	187
Stage 1	176	-	-	-	-
Stage 2	350	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	512	867	-	-	1387
Stage 1	855	-	-	-	-
Stage 2	713	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	480	867	-	-	1387
Mov Cap-2 Maneuver	480	-	-	-	-
Stage 1	855	-	-	-	-
Stage 2	669	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	724	1387
HCM Lane V/C Ratio	-	-	0.074	0.062
HCM Control Delay (s)	-	-	10.4	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	12	164	160	525	654	12
Future Vol, veh/h	12	164	160	525	654	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	330	-	-	400
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	20	11	6	7	3	30
Mvmt Flow	13	178	174	571	711	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1345	356	724	0	-	0
Stage 1	711	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Critical Hdwy	7.2	7.12	4.22	-	-	-
Critical Hdwy Stg 1	6.2	-	-	-	-	-
Critical Hdwy Stg 2	6.2	-	-	-	-	-
Follow-up Hdwy	3.7	3.41	2.26	-	-	-
Pot Cap-1 Maneuver	122	615	848	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	97	615	848	-	-	-
Mov Cap-2 Maneuver	212	-	-	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	444	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	2.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	848	-	544	-	-
HCM Lane V/C Ratio	0.205	-	0.352	-	-
HCM Control Delay (s)	10.3	-	15.2	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.8	-	1.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	423	221	97	667	35	253	24	81	18	36	62
Future Volume (veh/h)	23	423	221	97	667	35	253	24	81	18	36	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1826	1648	1678	1856	1900	1856	1900	1737	1900	1796	1870
Adj Flow Rate, veh/h	25	460	240	105	725	38	275	26	88	20	39	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	5	17	15	3	0	3	0	11	0	7	2
Cap, veh/h	272	477	249	221	742	644	371	29	97	98	183	266
Arrive On Green	0.10	0.42	0.42	0.08	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1810	1130	590	1598	1856	1610	999	94	320	171	603	878
Grp Volume(v), veh/h	25	0	700	105	725	38	389	0	0	126	0	0
Grp Sat Flow(s),veh/h/ln	1810	0	1720	1598	1856	1610	1413	0	0	1651	0	0
Q Serve(g_s), s	0.6	0.0	35.7	3.3	34.6	1.3	18.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	35.7	3.3	34.6	1.3	23.8	0.0	0.0	5.2	0.0	0.0
Prop In Lane	1.00		0.34	1.00		1.00	0.71		0.23	0.16		0.53
Lane Grp Cap(c), veh/h	272	0	726	221	742	644	497	0	0	547	0	0
V/C Ratio(X)	0.09	0.00	0.96	0.47	0.98	0.06	0.78	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	272	0	726	221	742	644	497	0	0	547	0	0
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.3	0.0	25.3	20.1	26.6	16.6	30.0	0.0	0.0	23.7	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	25.0	7.1	27.8	0.2	11.7	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	17.9	1.5	19.4	0.5	9.4	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	50.3	27.3	54.4	16.8	41.7	0.0	0.0	24.6	0.0	0.0
LnGrp LOS	B	A	D	C	D	B	D	A	A	C	A	A
Approach Vol, veh/h		725			868			389				126
Approach Delay, s/veh		49.2			49.5			41.7				24.6
Approach LOS		D			D			D				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	44.0		33.0	15.0	42.0		33.0				
Change Period (Y+Rc), s	6.0	6.0		* 5.7	6.0	6.0		* 5.7				
Max Green Setting (Gmax), s	7.0	38.0		* 27	9.0	36.0		* 27				
Max Q Clear Time (g_c+I1), s	5.3	37.7		7.2	2.6	36.6		25.8				
Green Ext Time (p_c), s	0.0	0.2		0.6	0.0	0.0		0.4				

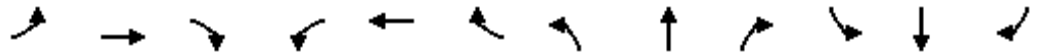
Intersection Summary

HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary Phase 04 Year 2035 Build-Out Condition
 7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↔		↖	↕		↖	↕	
Traffic Volume (veh/h)	254	54	286	20	63	23	420	1481	23	15	1254	259
Future Volume (veh/h)	254	54	286	20	63	23	420	1481	23	15	1254	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1841	1900	1900	1900	1826	1826	1900	1900	1841	1811
Adj Flow Rate, veh/h	318	0	311	22	68	25	457	1610	25	16	1363	282
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	4	0	0	0	5	5	0	0	4	6
Cap, veh/h	514	0	463	51	157	58	325	1699	26	139	1069	217
Arrive On Green	0.14	0.00	0.14	0.15	0.15	0.15	0.15	0.49	0.49	0.04	0.37	0.37
Sat Flow, veh/h	3563	0	1560	347	1071	394	1739	3497	54	1810	2894	589
Grp Volume(v), veh/h	318	0	311	115	0	0	457	798	837	16	814	831
Grp Sat Flow(s),veh/h/ln	1781	0	1560	1812	0	0	1739	1735	1816	1810	1749	1735
Q Serve(g_s), s	10.1	0.0	17.3	6.9	0.0	0.0	18.3	52.5	52.8	0.6	44.3	44.3
Cycle Q Clear(g_c), s	10.1	0.0	17.3	6.9	0.0	0.0	18.3	52.5	52.8	0.6	44.3	44.3
Prop In Lane	1.00		1.00	0.19		0.22	1.00		0.03	1.00		0.34
Lane Grp Cap(c), veh/h	514	0	463	266	0	0	325	843	882	139	646	640
V/C Ratio(X)	0.62	0.00	0.67	0.43	0.00	0.00	1.41	0.95	0.95	0.11	1.26	1.30
Avail Cap(c_a), veh/h	514	0	463	266	0	0	325	843	882	139	646	640
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	0.0	37.1	46.7	0.0	0.0	38.9	29.4	29.4	28.0	37.8	37.9
Incr Delay (d2), s/veh	5.5	0.0	7.6	5.1	0.0	0.0	199.9	20.5	20.2	1.7	129.8	145.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	9.0	3.5	0.0	0.0	27.7	25.8	27.1	0.3	41.8	44.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	44.7	51.7	0.0	0.0	238.8	49.8	49.6	29.7	167.7	182.9
LnGrp LOS	D	A	D	D	A	A	F	D	D	C	F	F
Approach Vol, veh/h		629			115			2092			1661	
Approach Delay, s/veh		49.3			51.7			91.0			173.9	
Approach LOS		D			D			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	64.0		23.0	24.0	50.0		23.0				
Change Period (Y+Rc), s	* 5.7	* 5.7		* 5.7	* 5.7	* 5.7		5.4				
Max Green Setting (Gmax), s	* 4.3	* 58		* 17	* 18	* 44		17.6				
Max Q Clear Time (g_c+I1), s	2.6	54.8		19.3	20.3	46.3		8.9				
Green Ext Time (p_c), s	0.0	2.9		0.0	0.0	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	114.8
HCM 6th LOS	F

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

Phase 04 Year 2035 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗	↖	↖	↗	↖	↖↗	↖↗	↖↗
Traffic Volume (veh/h)	45	26	21	247	70	514	64	1295	191	307	1145	65
Future Volume (veh/h)	45	26	21	247	70	514	64	1295	191	307	1145	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1870	1559	1900	1811	1900	1752	1544	1841	1781	1796
Adj Flow Rate, veh/h	49	28	23	268	76	559	70	1408	208	334	1245	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	1	2	23	0	6	0	10	24	4	8	7
Cap, veh/h	88	45	27	304	489	566	174	1523	727	378	1542	88
Arrive On Green	0.10	0.10	0.10	0.10	0.26	0.26	0.10	0.46	0.46	0.11	0.47	0.47
Sat Flow, veh/h	467	458	276	1485	1900	1535	1810	3328	1309	3401	3255	185
Grp Volume(v), veh/h	100	0	0	268	76	559	70	1408	208	334	647	669
Grp Sat Flow(s),veh/h/ln	1201	0	0	1485	1900	1535	1810	1664	1309	1700	1692	1748
Q Serve(g_s), s	8.4	0.0	0.0	12.2	3.9	32.2	4.5	49.7	10.5	12.1	40.7	40.8
Cycle Q Clear(g_c), s	10.1	0.0	0.0	12.2	3.9	32.2	4.5	49.7	10.5	12.1	40.7	40.8
Prop In Lane	0.49		0.23	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	160	0	0	304	489	566	174	1523	727	378	802	828
V/C Ratio(X)	0.62	0.00	0.00	0.88	0.16	0.99	0.40	0.92	0.29	0.88	0.81	0.81
Avail Cap(c_a), veh/h	160	0	0	304	489	566	174	1523	727	378	802	828
HCM 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
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	55.0	0.0	0.0	48.9	35.9	39.2	53.1	31.9	14.7	54.7	28.0	28.1
Incr Delay (d2), s/veh	17.0	0.0	0.0	28.6	0.7	34.9	6.8	10.9	1.0	3.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.0	5.7	1.9	21.6	2.4	21.0	3.1	5.2	15.6	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	0.0	0.0	77.5	36.6	74.1	60.0	42.8	15.7	57.8	28.9	28.9
LnGrp LOS	E	A	A	E	D	E	E	D	B	E	C	C
Approach Vol, veh/h		100			903			1686			1650	
Approach Delay, s/veh		72.0			71.9			40.2			34.7	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	21.0	64.0	20.0	20.0	19.0	66.0		40.0				
Change Period (Y+Rc), s	* 7.1	6.8	7.8	7.8	* 7	6.8		7.8				
Max Green Setting (Gmax), s	* 14	57.2	12.2	12.2	* 12	59.2		32.2				
Max Q Clear Time (g_c+I1), s	14.1	51.7	14.2	12.1	6.5	42.8		34.2				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.0	0.0	7.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	45.4
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	0	260	4	0	61	444	1226	1	7	981	406
Future Volume (veh/h)	261	0	260	4	0	61	444	1226	1	7	981	406
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1811	1900	1781	418	1604	1826	1900
Adj Flow Rate, veh/h	284	0	283	4	0	66	483	1333	1	8	1066	441
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	6	0	8	100	20	5	0
Cap, veh/h	397	0	377	40	3	94	522	2097	2	211	1342	623
Arrive On Green	0.13	0.00	0.23	0.06	0.00	0.06	0.23	0.60	0.60	0.01	0.39	0.39
Sat Flow, veh/h	1810	0	1610	46	45	1505	1810	3471	3	1527	3469	1610
Grp Volume(v), veh/h	284	0	283	70	0	0	483	650	684	8	1066	441
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1597	0	0	1810	1692	1781	1527	1735	1610
Q Serve(g_s), s	13.1	0.0	16.7	1.2	0.0	0.0	20.2	25.3	25.3	0.3	27.8	23.7
Cycle Q Clear(g_c), s	13.1	0.0	16.7	4.4	0.0	0.0	20.2	25.3	25.3	0.3	27.8	23.7
Prop In Lane	1.00		1.00	0.06		0.94	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	0	377	137	0	0	522	1022	1076	211	1342	623
V/C Ratio(X)	0.71	0.00	0.75	0.51	0.00	0.00	0.93	0.64	0.64	0.04	0.79	0.71
Avail Cap(c_a), veh/h	397	0	393	152	0	0	633	1232	1297	271	1695	787
HCM 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
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	0.0	36.4	47.0	0.0	0.0	26.9	13.0	13.0	18.8	27.8	26.5
Incr Delay (d2), s/veh	6.0	0.0	7.5	2.9	0.0	0.0	17.6	0.8	0.8	0.1	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	7.3	1.8	0.0	0.0	14.0	9.1	9.5	0.1	11.6	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	0.0	43.9	49.9	0.0	0.0	44.6	13.8	13.8	18.8	29.9	28.6
LnGrp LOS	D	A	D	D	A	A	D	B	B	B	C	C
Approach Vol, veh/h		567			70			1817			1515	
Approach Delay, s/veh		43.9			49.9			22.0			29.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	67.3		29.5	27.7	45.1	17.6	11.9				
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	5.0	74.5		25.0	29.5	50.0	13.1	7.4				
Max Q Clear Time (g_c+I1), s	2.3	27.3		18.7	22.2	29.8	15.1	6.4				
Green Ext Time (p_c), s	0.0	13.3		0.9	1.0	9.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

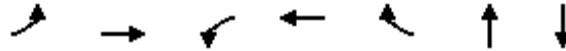
User approved pedestrian interval to be less than phase max green.

Queues

Phase 04 Year 2035 Build-Out Condition

3: Oak Ridge Avenue & SR 16 West/SR 16 W/Idlewild Ave

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	25	700	105	725	38	389	126
v/c Ratio	0.09	0.97	0.52	0.98	0.05	0.97	0.24
Control Delay	9.5	54.0	21.2	57.5	0.1	70.5	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	54.0	21.2	57.5	0.1	70.5	13.6
Queue Length 50th (ft)	6	365	26	399	0	209	25
Queue Length 95th (ft)	16	#612	58	#641	0	#396	67
Internal Link Dist (ft)		1613		576		3000	533
Turn Bay Length (ft)	200		415				
Base Capacity (vph)	264	718	202	738	709	400	523
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.97	0.52	0.98	0.05	0.97	0.24

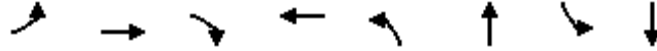
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 04 Year 2035 Build-Out Condition

7: S. Orange Ave./US 17/S. Orange Ave/US 17 & SR 16W/Ferris Street/Ferris Street Plan: PM Peak



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	166	169	311	115	457	1635	16	1645
v/c Ratio	0.69	0.68	0.48	0.45	1.42	0.98	0.13	1.31
Control Delay	64.3	63.6	6.4	49.0	235.7	48.3	15.4	176.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	63.6	6.4	49.0	235.7	48.3	15.4	176.8
Queue Length 50th (ft)	130	132	18	75	~430	635	5	~861
Queue Length 95th (ft)	#225	#225	62	136	#640	#819	15	#1002
Internal Link Dist (ft)		2111		464		3268		590
Turn Bay Length (ft)	150				100		100	
Base Capacity (vph)	242	248	644	254	322	1669	127	1258
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.68	0.48	0.45	1.42	0.98	0.13	1.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Phase 04 Year 2035 Build-Out Condition

10: S. Orange Ave./US 17 & Cooks Lane/SR 16E/Leonard C. Taylor Pkwy

Timing Plan: PM Peak



Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	100	268	76	559	70	1408	208	334	1316
v/c Ratio	0.67	0.91	0.15	0.82	0.40	0.95	0.24	0.89	0.84
Control Delay	71.2	78.2	36.9	40.8	60.7	46.9	2.0	81.1	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	78.2	36.9	40.8	60.7	46.9	2.0	81.1	35.2
Queue Length 50th (ft)	71	198	48	374	54	557	0	139	474
Queue Length 95th (ft)	#151	#384	90	#578	104	#720	30	#224	575
Internal Link Dist (ft)	179		1377			837			3268
Turn Bay Length (ft)		475			150		275	650	
Base Capacity (vph)	149	294	498	682	173	1501	874	374	1574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.91	0.15	0.82	0.40	0.94	0.24	0.89	0.84

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

Phase 04 Year 2035 Build-Out Condition

14: S. Orange Ave/US 17 & Hall Park Rd

Timing Plan: PM Peak



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	284	283	70	483	1334	8	1066	441
v/c Ratio	0.97	0.45	0.32	0.84	0.58	0.04	0.77	0.48
Control Delay	89.8	2.8	4.0	39.8	10.7	8.9	32.8	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.8	2.8	4.0	39.8	10.7	8.9	32.8	4.0
Queue Length 50th (ft)	204	0	0	257	228	2	351	0
Queue Length 95th (ft)	#333	3	0	#448	373	6	433	60
Internal Link Dist (ft)		1350	1792		1197		1450	
Turn Bay Length (ft)				350		150		250
Base Capacity (vph)	292	679	240	605	2480	205	1639	1000
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.42	0.29	0.80	0.54	0.04	0.65	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council **MEETING DATE:** May 17, 2022
FROM: Michael Daniels, Planning and Zoning Director
SUBJECT: First Reading of Ordinance O-11-2022, an Annexation Application for the Preserve Development for parcel number 016499-007-00, approximately 13.92 acres located on South US Highway 17 and CR 209. *Michael Daniels*

PROPERTY DESCRIPTION

APPLICANT: Ellen Avery-Smith, Esq. of Rogers Tower, PA **OWNER:** CHS LLC, Lyman Hall, and Virginia S Hall
PROPERTY LOCATION: Bounded on the western side by US Highway 17 S and CR 209 S; bounded on the eastern side by Reynolds Park
PARCEL NUMBER: 016499-007-00
FILE NUMBER: AX-22-001, CC-22-001, FLUS-22-003, PUD-22-003
CURRENT ZONING: Light Industrial (County)
FUTURE LAND USE DESIGNATION: Industrial (County)

SURROUNDING LAND USE

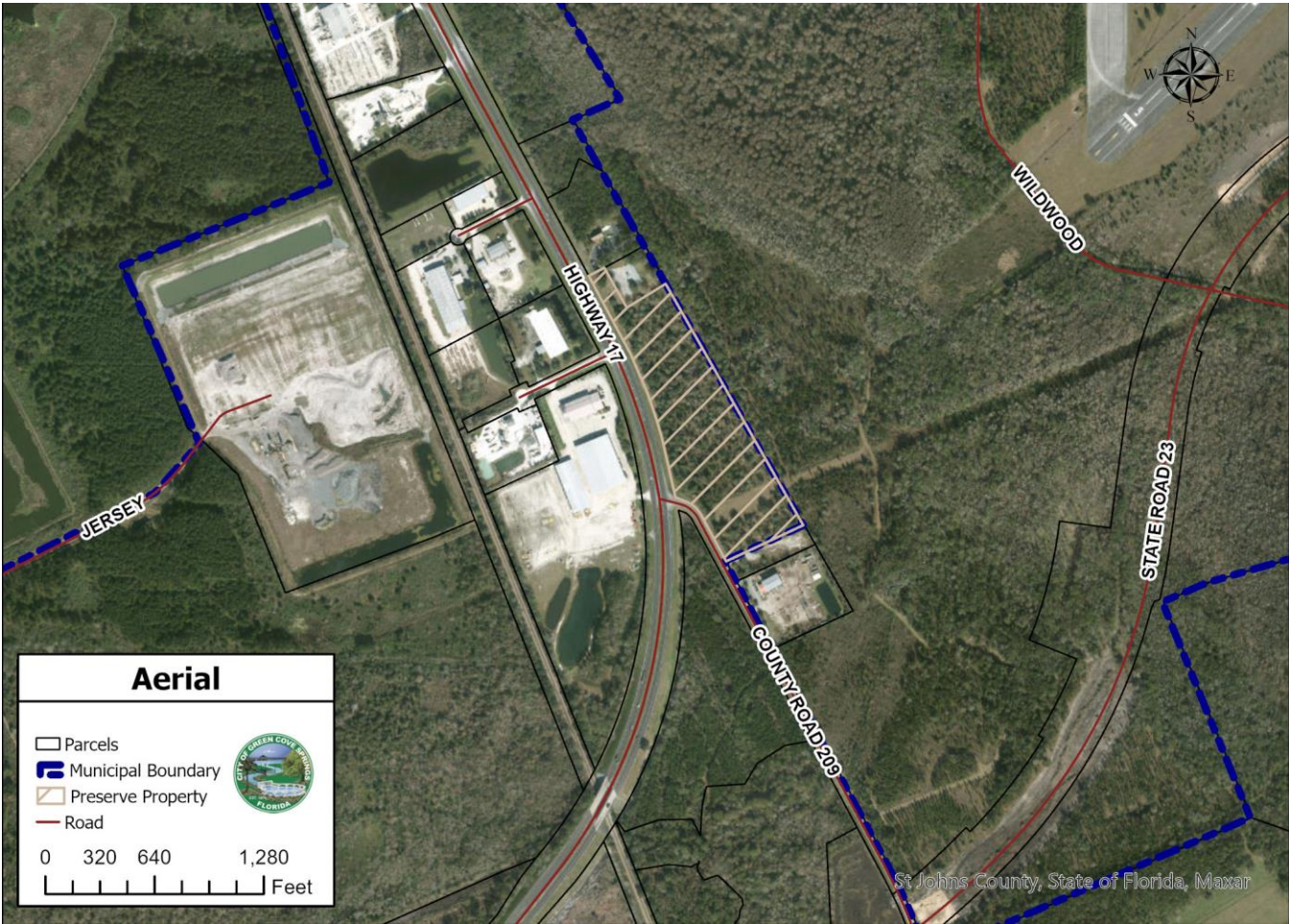
NORTH: FLU: Industrial (County) Z: Private Services / Public Ownership Use: Cabul Lodge / FL DMV	SOUTH: FLU: Industrial Z: Heavy Industrial Use: Undeveloped / Hammer & Steel
EAST: FLU: MURP Z: Heavy Industrial Use: Reynolds Park / Clay Port	WEST: FLU: Industrial (County) Z: Heavy Industrial (County) Use: Commercial / Industrial

BACKGROUND

DEVELOPMENT DESCRIPTION:

The applicant, Ellen Avery Smith Esq, of Rogers Tower PA, has submitted an annexation request for 13.92 acres to annex the subject property into City limits. The property is contiguous to the current municipal boundary, as shown the following aerial map. The property is bounded by US Highway 17 S and CR 209 S on its western edge, the city boundary to the south and east as well as Reynolds Park to the east, and County parcels (Cabul Lodge & Florida DMV) to the north. The site historically is undeveloped.

The Planning and Zoning Commission unanimously approved the annexation request on April 26, 2022.



The site is located within the City’s Water, Sewer, and Electric Service Boundaries. It will be served by the City’s utilities and sanitation services.

Additionally, the applicant has submitted the following future land use map amendments and rezoning requests:

Application #	Description
AX-22-001	Voluntary Annexation application
CC-22-001	Concurrency Application
FLUS-22-003	Small Scall FLU Map Amendment: Industrial (County) > Mixed Use (City)
PUD-22-003	PUD Rezoning: Light Industrial (County) to Planned Unit Development

Statutory Requirements for Voluntary Annexation as set forth in State Statute FS 171.044

(1) The owner or owners of real property in an unincorporated area of a county which is contiguous to a municipality and reasonably compact may petition the governing body of said municipality that said property be annexed to the municipality.

The property owner, Gustafson's Cattle, Inc. submitted an annexation petition on March 8, 2022 for the subject property.

(2) Upon determination by the governing body of the municipality that the petition bears the signatures of all owners of property in the area proposed to be annexed, the governing body may, at any regular meeting, adopt a nonemergency ordinance to annex said property and redefine the boundary lines of the municipality to include said property. Said ordinance shall be passed after notice of the annexation has been published at least once each week for 2 consecutive weeks in some newspaper in such city or town.

Notice to Clay Today has been provided on April 14th and on April 21st.

In addition (not a statutory or city requirement), notice has been provided to all property owners within 300' of the subject property.

(3) An ordinance adopted under this section shall be filed with the clerk of the circuit court and the chief administrative officer of the county in which the municipality is located and with the Department of State within 7 days after the adoption of such ordinance. The ordinance must include a map which clearly shows the annexed area and a complete legal description of that area by metes and bounds.

(4) The method of annexation provided by this section shall be supplemental to any other procedure provided by general or special law, except that this section shall not apply to municipalities in counties with charters which provide for an exclusive method of municipal annexation.

Pursuant to the requirements set forth in FS 171.044, voluntary annexations are required to be contiguous and reasonably compact as defined by statute which are provided below:

“Contiguous” means that a substantial part of a boundary of the territory sought to be annexed by a municipality is coterminous with a part of the boundary of the municipality. The separation of the territory sought to be annexed from the annexing municipality by a publicly owned county park; a right-of-way for a highway, road, railroad, canal, or utility; or a body of water, watercourse, or other minor geographical division of a similar nature, running parallel with and between the territory sought to be annexed and the annexing municipality, shall not prevent annexation under this act, provided the presence of such a division does not, as a practical matter, prevent the territory sought to be annexed

and the annexing municipality from becoming a unified whole with respect to municipal services or prevent their inhabitants from fully associating and trading with each other, socially and economically. However, nothing herein shall be construed to allow local rights-of-way, utility easements, railroad rights-of-way, or like entities to be annexed in a corridor fashion to gain contiguity; and when any provision or provisions of special law or laws prohibit the annexation of territory that is separated from the annexing municipality by a body of water or watercourse, then that law shall prevent annexation under this act.

100% of the eastern boundary of the property proposed to be annexed is adjacent to the City.

“Compactness” means concentration of a piece of property in a single area and precludes any action which would create enclaves, pockets, or finger areas in serpentine patterns. Any annexation proceeding in any county in the state shall be designed in such a manner as to ensure that the area will be reasonably compact.

Annexation of this property does not create an enclave, pockets, or finger areas in serpentine patterns.

(5) Land shall not be annexed through voluntary annexation when such annexation results in the creation of enclaves.

Pursuant to FS 171.031:

(13) “Enclave” means:

- (a) Any unincorporated improved or developed area that is enclosed within and bounded on all sides by a single municipality; or
- (b) Any unincorporated improved or developed area that is enclosed within and bounded by a single municipality and a natural or manmade obstacle that allows the passage of vehicular traffic

The property’s eastern boundary is adjacent to the City and does not surround adjacent unincorporated property within the City limits. The Cabul Lodge which is adjacent to the subject property has access through the state property to the north.

(6) Not fewer than 10 days prior to publishing or posting the ordinance notice required under subsection (2), the governing body of the municipality must provide a copy of the notice, via certified mail, to the board of the county commissioners of the county wherein the municipality is located. The notice provision provided in this subsection may be the basis for a cause of action invalidating the annexation.

A letter and the ordinance notice were provided to the Clay County Board of County Commissioners and were mailed to the same on April 14, 2022. The certified mail receipt is provided in the packet.

STAFF RECOMMENDATION

Staff recommends approval of the AX-22-001

RECOMMENDED MOTIONS:

Motion to approve 1st reading for form and legality of Ordinance O-11-2022, to approve the voluntary annexation of 13.92 acres located on US 17 and CR 209 (parcel #016499-007-00).

ORDINANCE NO. O-11-2022

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ANNEXING APPROXIMATELY 13.92 ACRES OF REAL PROPERTY INTO THE CORPORATE LIMITS OF THE CITY; SAID PROPERTY BEING GENERALLY LOCATED EAST OF US 17 AND CR 209; DESCRIBING SAID PROPERTY BY METES AND BOUNDS IN EXHIBIT "A"; FINDING THAT ALL THE OWNERS OF SAID PROPERTY HAVE PETITIONED THE CITY PURSUANT TO CHAPTER 171.044, FLORIDA STATUTES, TO VOLUNTARILY ANNEX SAME; FINDING THAT THE PROPERTY IS CONTIGUOUS TO THE EXISTING CITY LIMITS AND REASONABLY COMPACT; PROVIDING FOR REPEALER, SEVERABILITY, AND SETTING AN EFFECTIVE DATE.

WHEREAS, all owners (Virginia S. Hall, trustee of the Virginia S. Hall Revocable Trust, Virginia S. Hall, f/k/a Virginia Steinmetz, sole surviving trustee of the JP Hall, Jr. Second Amended and Restated Revocable Trust, CHS, LLC and Lyman G. Hall) of the property subject hereof have petitioned the City to have their property described in Exhibit "A" and as also depicted in the sketch to accompany description attached hereto as Exhibit "B", to be annexed into the City limits pursuant to Chapter 171.044, Florida Statutes; and

WHEREAS, the City has determined that the property conforms to the requirements of Chapter 171.044, Florida Statutes, for real property to be voluntarily annexed; and

WHEREAS, the City has determined that the property is contiguous to the existing City limits and is reasonably compact; and

WHEREAS, the Clay County Board of County Commissioners has been given due notice as required in Florida Statute 171.044(6); and

WHEREAS, all other notices required by law have been given.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS AS FOLLOWS:

Section 1. That pursuant to the provisions of Chapter 171.044, Florida Statutes, the City Council does hereby voluntarily annex the real property described in Exhibit "A" and depicted on Exhibit "B" into the corporate limits of the City of Green Cove Springs, Florida.

Section 2. REPEALER. Any ordinances or parts thereof in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

Section 3. SEVERABILITY. The various parts, sections, and clauses of this Ordinance are hereby declared to be severable. If any part, sentence, paragraph, section, or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected thereby.

Section 4. EFFECTIVE DATE. This Ordinance shall take effect immediately upon passage.

INTRODUCED AND PASSED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 17th DAY OF MAY 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

By: _____
Matthew Johnson, Mayor

ATTEST: _____
Erin West, City Clerk

PASSED ON SECOND AND FINAL READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 7th DAY OF JUNE, 2021.

CITY OF GREEN COVE SPRINGS, FLORIDA

By: _____
Matthew Johnson, Mayor

ATTEST: _____
Erin West, City Clerk

APPROVED AS TO FORM ONLY:

L. J. Arnold, III, City Attorney

11-17-2022
11-17-2022

EXHIBIT "A"

Legal Description

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF, SOUTH 68°04'14" WEST, A DISTANCE OF 304.53 FEET, TO THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE SOUTH 28°13'15" EAST, ALONG THE WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF CLAY COUNTY, FLORIDA. A DISTANCE OF 1,104.56 FEET, TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH 28°13'15" EAST, ALONG THE AFORESAID WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 1,337.15 FEET, TO A POINT ON THE NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, SOUTH 69°38'54" WEST, ALONG THE AFORESAID NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 478.21 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED); RUN THENCE, ALONG THE AFORESAID EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED), THE FOLLOWING THREE (3) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTH 23°43'25" WEST, A DISTANCE OF 2.21 FEET, TO A POINT OF INTERSECTION IN SAID RIGHT-OF-WAY LINE;

COURSE No. 2: RUN THENCE, NORTH 36°44'27" WEST, A DISTANCE OF 67.07 FEET, TO A POINT;

COURSE No. 3: RUN THENCE, NORTH 28°13'56" WEST, A DISTANCE OF 430.86 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "STATE ROAD No. 15~U.S. HIGHWAY No. 17", (A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; PRESENTLY); RUN THENCE, ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID "STATE ROAD No. 15~U.S. HIGHWAY No. 17", THE FOLLOWING TWO (2) COURSES AND DISTANCES:

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COURSE No. 2: RUN THENCE, NORTH 28°14'52" WEST, ALONG THE TANGENCY OF LAST SAID CURVE, A DISTANCE OF 340.34 FEET, TO A POINT, BEING THE MOST SOUTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, NORTH 61°42'00" EAST, ALONG THE SOUTHERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 80.07 FEET, TO A POINT, BEING THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, ALONG THE WESTERLY, AND THEN SOUTHERLY BOUNDARY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

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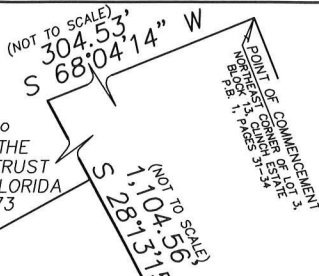
THE LANDS THUS DESCRIBED CONTAINED 606,663 SQUARE FEET, OR 13.92 ACRES, MORE OR LESS, IN AREA.

Sheet One (1) of Three (3) Sheets

LINE TABLE FOR THIS SKETCH

LINE	BEARING	DISTANCE
L1	S 28°13'15" E	1337.15'
L2	S 69°38'54" W	478.21'
L3	N 23°43'25" W	2.21'
L4	N 36°44'27" W	67.07'
L5	N 28°13'56" W	430.86'
L6	N 28°14'52" W	340.34'
L7	N 61°42'00" E	80.07'
L8	S 28°13'14" E	271.77'
L9	N 61°46'45" E	320.01'

WARRANTY DEED
J.P. HALL & SONS, INC to
BOARD OF TRUSTEES OF THE
INTERNAL IMPROVEMENT TRUST
FUND OF THE STATE OF FLORIDA
O.R. BOOK 1523, PAGE 773



POINT OF BEGINNING

CORRECTIVE SPECIAL WARRANTY DEED
J. LOUIS and GLENN P. REYNOLDS to
CLAY COUNTY PORT, INC.
O.R. BOOK 718, PAGE 126

WARRANTY DEED
J.P. HALL & SONS, INC to
CABUL LODGE # 116 F&AM
O.R. BOOK 1410, PAGE 756

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13,
CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC
RECORDS OF CLAY COUNTY FLORIDA

MAP SHOWING SKETCH OF

STATE ROAD No. 15
U.S. HIGHWAY No. 17
(A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY)

Subject Property
606,663 Sq. Ft. or 13.92 Acres.±

Jonathon B. Bowan
State of Florida
Registered Land Surveyor
Certificate No. 4600

Job No. 54355
Cad File: Sketch of Site.Dwg
Map Date: March 7, 2022

COUNTY ROAD No. 209
(AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY)

CURVE TABLE FOR THIS SKETCH

CURVE	RADIUS	DELTA ANGLE	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	2988.79'	13°36'55"	710.23'	N 21°26'31" W	708.56'

NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS,
(TEMPORARY EASEMENT), AS PER
O.R. BOOK 3167, PAGE 1557

NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS,
(PERMANENT EASEMENT), AS PER
O.R. BOOK 3167, PAGE 1557

Prepared by:
A&J Land Surveyors, Inc.

5847 Luella Street
Jacksonville, Florida 32207
T 904.346.1733
F 904.346.1736

LEGAL DESCRIPTION PREPARED BY FIRM

Sheet Two (2) of Three (3) Sheets

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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Prepared by:

A&J Land Surveyors, Inc.

5847 Luella Street
Jacksonville, Florida 32207
T 904.346.1733
F 904.346.1736

GENERAL NOTES:

1) BEARINGS SHOWN HEREON ARE BASED ON THE MONUMENTED EASTERLY LINE OF THE SUBJECT PROPERTY, AS S 28°17'41" E, AS MONUMENTED AND ARE BASED ON THE U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL GEODETIC SURVEY (NGS) DATUM, NORTH AMERICA DATUM OF 1983 (2011) OR NAD83 (2011), FOR THE STATE OF FLORIDA, STATE PLANE COORDINATE SYSTEM, FOR ZONE 901(FL EAST).

2) THIS SKETCH ARE PROTECTED BY COPYRIGHT AND IS CERTIFIED ONLY TO THE ENTITIES LISTED ON THIS SURVEY AND SKETCH AND ONLY FOR THIS PARTICULAR TRANSACTION AND SCOPE OF WORK. ANY USE OF THIS SKETCH WITHOUT THE EXPRESS WRITTEN PERMISSION OF THIS SURVEYOR AND/OR FIRM IS STRICTLY PROHIBITED. USE OF THIS SKETCH IN ANY SUBSEQUENT TRANSACTION(S) IS EXPRESSLY PROHIBITED AND IS NOT AUTHORIZED BY THIS SURVEYOR AND/OR FIRM. THIS SURVEYOR AND/OR FIRM EXPRESSLY DISCLAIMS ANY CERTIFICATION TO ANY PARTIES IN FUTURE TRANSACTIONS. NO ENTITY OTHER THAN THOSE LISTED ON THIS SKETCH AND SKETCH SHOULD RELY UPON THIS SKETCH FOR ANY PURPOSE.

3) NOTE: NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS AND/OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OF PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

4) NOTICE OF LIABILITY: THIS SURVEY IS CERTIFIED TO THOSE INDIVIDUALS, ENTITIES AND/OR FIRMS AS SHOWN ON THE FACE OF THIS SURVEY. ANY OTHER USE, BENEFIT OR RELIANCE BY ANY OTHER PARTY IS STRICTLY PROHIBITED AND RESTRICTED. THIS SURVEYING FIRM AND THE SIGNING SURVEYOR IS RESPONSIBLE ONLY TO THOSE THAT APPEAR IN THE CERTIFICATION AND HEREBY DISCLAIMS ANY OTHER LIABILITY AND HEREBY RESTRICTS THE RIGHTS OF OTHERS, (INDIVIDUAL OR ENTITIES) TO USE THIS SURVEY WITHOUT THE EXPRESS WRITTEN CONSENT OF THIS FIRM AND/OR SURVEYOR.

6) THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED FROM THE ORIGINAL DRAWING, THEREFORE THE GRAPHIC SCALE SHOULD BE UTILIZED TO DETERMINE IF THIS MAP IS TO THE ORIGINAL SIZE AND SCALE.

CLINCH ESTATES
GREEN COVE SPRINGS
(Property North of TECO Easement)

Closure Report
Mon Feb 28 14:55:26 2022

Northing Distance	Easting	Bearing
2047588.800	443782.882	S 28°13'15" E
1337.148		
2046410.596	444415.181	S 69°38'54" W
478.206		
2046244.286	443966.827	N 23°43'25" W
2.207		
2046246.307	443965.939	N 36°44'27" W
67.072		
2046300.055	443925.817	N 28°13'56" W
430.860		
2046679.659	443722.001	
Radius: 2988.790 Chord: 708.561 Degree: 1°55'01" Dir: Left		
Length: 710.231 Delta: 13°36'55" Tangent: 356.796		
Chord BRG: N 21°26'31" W Rad-In: S 75°21'56" W Rad-Out: S 61°45'01" W		
Radius Point: 2045924.543, 440830.174		
2047339.179	443462.980	N 28°14'52" W
340.341		
2047638.989	443301.902	N 61°42'00" E
80.067		
2047676.948	443372.400	S 28°13'14" E
271.775		
2047437.478	443500.913	N 61°46'45" E
320.008		
2047588.800	443782.882	

Closure Error Distance > 0.00000
Total Distance > 4037.915
Polyline Area: 606,663.3 sq ft, 13.92 acres

Prepared by:
A&J Land Surveyors, Inc.
5847 Luella Street
Jacksonville, Florida 32207
T 904.346.1733
F 904.346.1736

Aerial of Subject Property



APPLICATION FOR ANNEXATION

WE THE UNDERSIGNED, BEING THE LAND OWNERS OF THE FOLLOWING PROPERTY HEREINAFTER DESCRIBED DO HEREBY FILE THIS APPLICATION FOR ANNEXATION INTO THE CITY OF GREEN COVE SPRINGS, FLORIDA, CONSISTENT WITH THE LAWS OF THE STATE OF FLORIDA AND THE CITY OF GREEN COVE SPRINGS, FLORIDA.

Date of Application March 8, 2022

Name(s) of Property Owner(s): Virginia S. Hall, Trustee of the Virginia S. Hall Revocable Trust
Virginia S. Hall f/k/a Virginia Steinmetz, sole surviving trustee of the
J.P.Hall, Jr Second Amended and Restated Revocable Trust
CHS LLC, a Florida limited liability company
Lyman G. Hall

Physical Address of the property: US 17 & CR 209

Number of parcels to be annexed: One

Parcel Number: 38-06-26-016499-007-00 (Portion)

Map or Drawing Attached: (X) YES () NO

At the time of "Application for Annexation"

County Future Land-Use designation: Industrial County Zoning designation: Light Industrial (IA)

Proposed City Land-Use designation: Mixed-Use Proposed City Zoning designation: PUD

Current use of the property: unimproved land Property Size/Acreage: 13.92

If residential use, number of "Living Units": 0

Number of people currently living on property: 0

If commercial use, square footage of building area: 0

Intended "Use" of the property: Multifamily When: TBD

SIGNATURE PAGE

[Signature]
Signature of Property Owner(s) or Authorized

Ellen Avery-Smith
Printed Name of Property Owner

100 Whetstone Place, Suite 200, St. Augustine, FL 32086
Mailing Address

(904) 825-1615
Telephone Number(s)

eaverysmith@rtlaw.com
E-mail address

I hereby certify that I have read and understand the contents of this application, and that this application together with all supplemental data and information is a true representation of the facts concerning this request; that this application is made with my approval, as owner and applicant, as evidenced by my signature below. It is hereby acknowledged that the filing of this application does not constitute automatic approval of the request; and further that if the request is approved, I will obtain all necessary permits and comply with all applicable orders, codes, conditions, rules and regulations pertaining to the use or development of the subject property.

3/7/22
Date

[Signature]
Signature of owner or owner's authorized representative

State of Florida

County of St. Johns

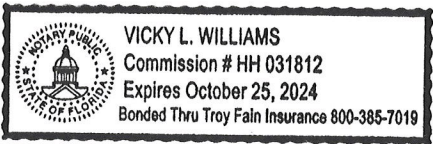
The foregoing instrument was acknowledged before me this 7th day of MARCH,

2022, by Ellen Avery-Smith

who is personally known to me, or who has/have produced _____ as identification.

(NOTARY SEAL)

[Signature]
Signature of Notary Public



Name of Notary

Property Address/Parcel No.: 38-06-26-016499-007-00

Signature Page: 1 of 1



City of Green Cove Springs Florida

Item #8.

Phone: (904) 297-7500 321 Walnut Street www.greencovesprings.com
Fax: (904) 284-2718 Green Cove Springs, FL 32043 Florida Relay - Dial 7-1-1

April 4, 2022

Clay County BCC
P.O. Box 1366
Green Cove Springs, FL
32043

Certified Mail: Return Receipt Requested

Re: Voluntary annexation of approximately 13.92 acres of property generally located east of US 17 and CR 209 into corporate limits of the City of Green Cove Springs

Dear Chairman Bolla and County Commissioners,

Pursuant to the requirements set forth in F.S. 171.044(6), this letter serves as official notification to the Clay County Board of County Commissioners that the City Council of the City of Green Cove Springs has authorized the voluntary annexation of a portion of real property known as Property Appraiser Parcel # 016499-007-00. The property is generally located east of US 17 and CR 209.

A copy of the ordinance legal notice, including a map identifying the parcel and the legal description, is attached herewith. As required by F.S. 171.044(2), legal notice of the proposed annexation will be published on April 14 2022 and April 21, 2022 in the Clay Today. The above referenced Ordinance is currently scheduled to be heard by the Green Cove Springs City Council on Tuesday, May 17, 2022 at 7:00 p.m for the first public hearing and Tuesday, June 7, 2022 at 7:00 pm. for the adoption hearing. All meetings will be held in the Green Cove Springs City Council Chambers, 321 Walnut Street, Green Cove Springs, Florida.

Please feel free to contact me at (904) 297-7500, ext. 3312, if you have any questions or need further information.

Sincerely,


Steve L. Kennedy
City Manager

LEGAL NOTICE

CITY OF GREEN COVE SPRINGS - 321 WALNUT STREET - GREEN COVE SPRINGS, FLORIDA 32043
TEL. (904) 297-7500 - FAX (904) 284-4849

For Immediate Release/Run Twice

Furnish Proof of Publication to the Development Services Representative

Bill to: City of Green Cove Springs
321 Walnut Street, Green Cove Springs, FL 32043
Attn: Heather Glisson

Date: April 11, 2022

Contact: Heather Glisson, Planning Technician

Phone: (904) 297-7500, ext. 3334 **Fax:** (904) 284-4849

Run Twice: NOT IN THE LEGAL OR CLASSIFIED SECTION, 18pt Title
2" X 10" COLUMN on April 14 and April 21, 2021 – Furnish Affidavit

**NOTICE OF PROPOSED ANNEXATION
PUBLIC HEARING NOTICE**

The City of Green Cove Springs proposes to adopt the following Ordinance:

ORDINANCE NO. O-XX-2022

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ANNEXING APPROXIMATELY 13.92 ACRES OF REAL PROPERTY INTO THE CORPORATE LIMITS OF THE CITY; SAID PROPERTY BEING GENERALLY LOCATED EAST OF US 17 AND CR 209; DESCRIBING SAID PROPERTY BY METES AND BOUNDS IN EXHIBIT "A"; FINDING THAT ALL THE OWNERS OF SAID PROPERTY HAVE PETITIONED THE CITY PURSUANT TO CHAPTER 171.044, FLORIDA STATUTES, TO VOLUNTARILY ANNEX SAME; FINDING THAT THE PROPERTY IS CONTIGUOUS TO THE EXISTING CITY LIMITS AND REASONABLY COMPACT; PROVIDING FOR REPEALER, SEVERABILITY, AND SETTING AN EFFECTIVE DATE.

The following public hearings have been scheduled and will be held in the City Council Chambers, 321 Walnut Street Green Cove Springs, Florida, to hear comments, if any, regarding said Ordinance:

Planning and Zoning Commission: Tuesday, April 26, 2022, 5:00 pm

City Council: Tuesday, May 17, 2022, 7:00 pm

City Council: Tuesday, June 7, 2022, 7:00 pm*

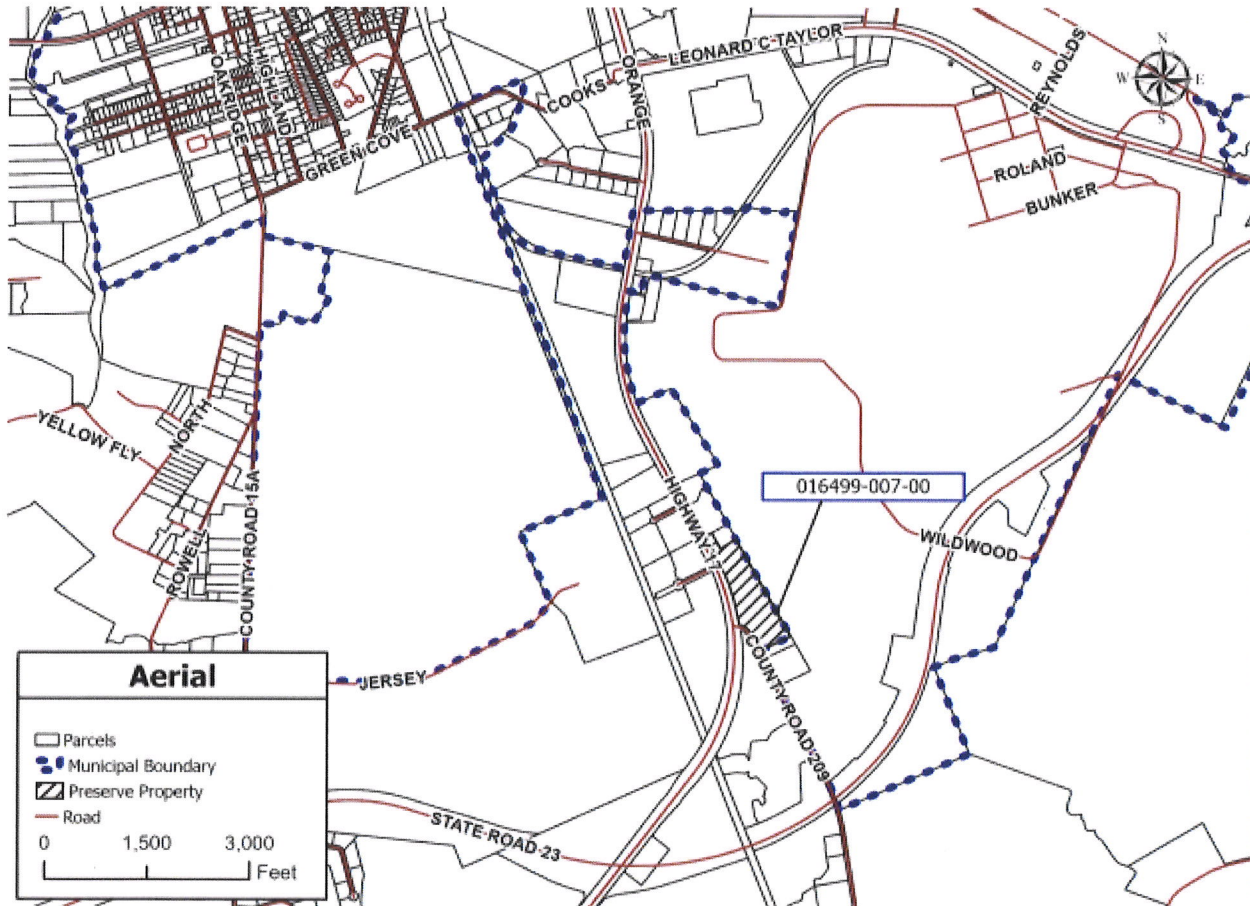
*Tentative

Please be advised that if a person decides to appeal any decision made by the Council with respect to any matter considered at these scheduled public hearings, they will need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

In accordance with the Americans with Disabilities Act, any person needing a special accommodation to participate in this matter should contact City Hall at (904) 297-7500 at least three (3) days prior to the meeting. Hearing impaired persons may access through Florida Relay – Dial 7-1-1.

A Map clearly showing the area proposed to be annexed is provided below. The complete legal description by metes and bounds and the ordinance can be obtained at the office of the City Clerk at City Hall for review during the hours of 7:30 AM to 5:00 PM, Monday through Thursday.

All interested individuals are invited to attend this public hearing.



City of Green Cove Springs
Heather Glisson, Planning Technician
City Hall, 321 Walnut Street
Green Cove Springs, Florida 32043

EXHIBIT "A"

Legal Description

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF, SOUTH 68°04'14" WEST, A DISTANCE OF 304.53 FEET, TO THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE SOUTH 28°13'15" EAST, ALONG THE WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF CLAY COUNTY, FLORIDA. A DISTANCE OF 1,104.56 FEET, TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH 28°13'15" EAST, ALONG THE AFORESAID WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 1,337.15 FEET, TO A POINT ON THE NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, SOUTH 69°38'54" WEST, ALONG THE AFORESAID NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 478.21 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED); RUN THENCE, ALONG THE AFORESAID EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED), THE FOLLOWING THREE (3) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTH 23°43'25" WEST, A DISTANCE OF 2.21 FEET, TO A POINT OF INTERSECTION IN SAID RIGHT-OF-WAY LINE;

COURSE No. 2: RUN THENCE, NORTH 36°44'27" WEST, A DISTANCE OF 67.07 FEET, TO A POINT;

COURSE No. 3: RUN THENCE, NORTH 28°13'56" WEST, A DISTANCE OF 430.86 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "STATE ROAD No. 15~U.S. HIGHWAY No. 17", (A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; PRESENTLY); RUN THENCE, ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID "STATE ROAD No. 15~U.S. HIGHWAY No. 17", THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTHWESTERLY, ALONG AND AROUND THE ARC OF A CURVE, BEING CONCAVE WESTERLY, AND HAVING A RADIUS OF 2,988.79 FEET, THROUGH A CENTRAL ANGLE OF 13°36'55" TO THE LEFT, AN ARC DISTANCE OF 710.23 FEET, TO THE POINT OF TANGENCY OF LAST SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD BEARING AND DISTANCE OF NORTH 21°26'31" WEST, 708.56 FEET;

COURSE No. 2: RUN THENCE, NORTH 28°14'52" WEST, ALONG THE TANGENCY OF LAST SAID CURVE, A DISTANCE OF 340.34 FEET, TO A POINT, BEING THE MOST SOUTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, NORTH 61°42'00" EAST, ALONG THE SOUTHERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 80.07 FEET, TO A POINT, BEING THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, ALONG THE WESTERLY, AND THEN SOUTHERLY BOUNDARY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, SOUTH 28°13'14" EAST, A DISTANCE OF 271.77 FEET, TO A POINT;

COURSE No. 2: RUN THENCE, NORTH 61°46'45" EAST, A DISTANCE OF 320.01 FEET, TO THE AFORESAID WESTERLY LINE OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE CURRENT PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, AND THE POINT OF BEGINNING.

THE LANDS THUS DESCRIBED CONTAINED 606,663 SQUARE FEET, OR 13.92 ACRES, MORE OR LESS, IN AREA.

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OFFICIAL USE

7017 3380 0000 7157 1488

Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$

Postmark
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Clay County Board of
County Commissioners
P.O. Box 1366
Green Cove Springs, FL 32043

Tracking #: 70173380000071571488

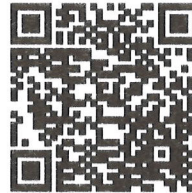
Grand Total: \$0.00

Every household in the U.S. is now
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Clerk: 05



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council **MEETING DATE:** May 17, 2022
FROM: Michael Daniels, Planning and Zoning Director
SUBJECT: Preserve at Green Cove Springs
 Future Land Use Amendment From: Industrial (County)
 To: Mixed Use
 Zoning Amendment From: Light Industrial (County)
 To: Planned Unit Development

for approximately 13.92 acres located on US 17 and CR 209.

PROPERTY DESCRIPTION

APPLICANT: Ellen Avery-Smith, Esq. of Rogers Tower, PA **OWNER:** CHS LLC, Lyman Hall, and Virginia S Hall

PROPERTY LOCATION: Bounded on the western side by US Highway 17 S and CR 209 S; bounded on the eastern side by Reynolds Park

PARCEL NUMBER: 016499-007-00

FILE NUMBER: FLUS-22-003, PUD-22-003

CURRENT ZONING: Light Industrial (County)

FUTURE LAND USE DESIGNATION: Industrial (County)

SURROUNDING LAND USE

<p>NORTH: FLU: Industrial (County) Z: Private Services / Public Ownership Use: Cabul Lodge / FL DMV</p>	<p>SOUTH: FLU: Industrial Z: Heavy Industrial Use: Undeveloped / Hammer & Steel</p>
<p>EAST: FLU: MURP Z: Heavy Industrial Use: Reynolds Park / Clay Port</p>	<p>WEST: FLU: Industrial (County) Z: Heavy Industrial (County) Use: Commercial / Industrial</p>

BACKGROUND

DEVELOPMENT DESCRIPTION:

The applicant, Ellen Avery Smith Esq, of Rogers Tower PA, has submitted an annexation request for 13.92 acres to annex the subject property into City limits. The property is contiguous to the current municipal boundary, as shown the following aerial map. The property is bounded by US Highway 17 S and CR 209 S on its western edge, the city boundary to the south and east as well as Reynolds Park to the east, and County parcels (Cabul Lodge & Florida DMV) to the north. The site historically is undeveloped. It is heavily wooded with a combination of Hardwood and Pine trees. The site slopes significantly from US 17 to the east of the subject property.

The Planning and Zoning Commission unanimously approved this item on April 26, 2022.



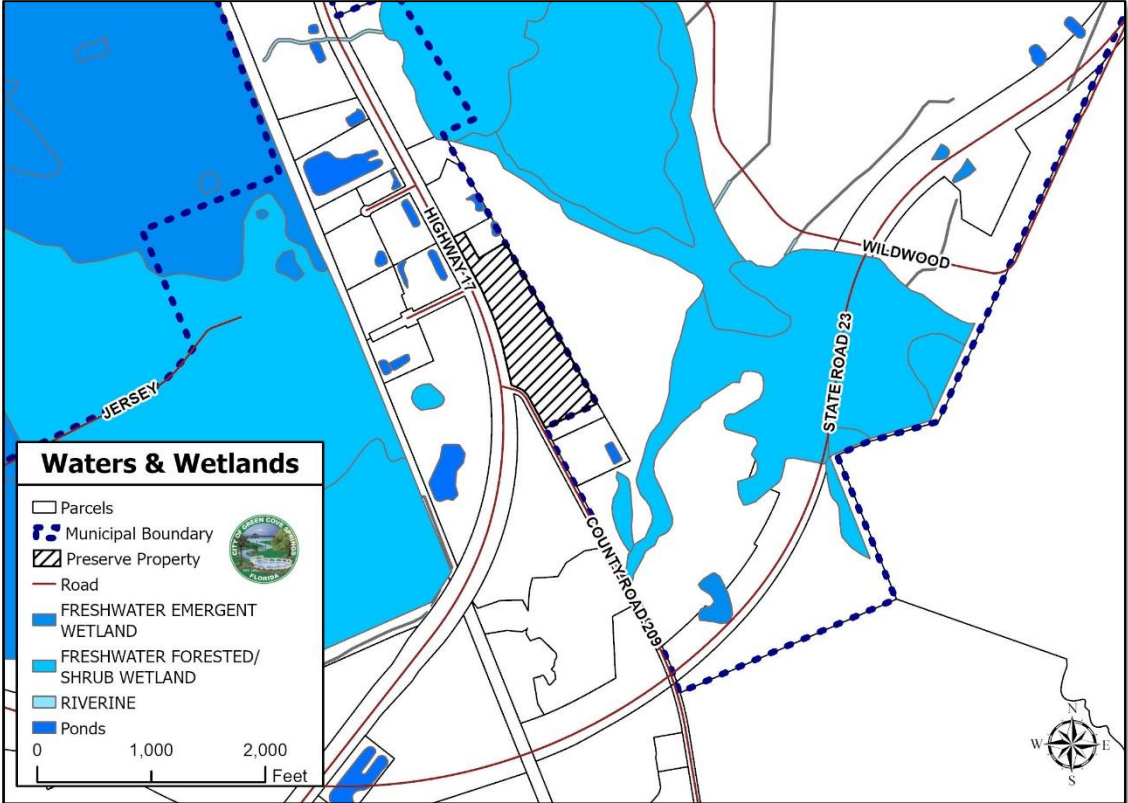
The site is located within the City’s Water, Sewer, and Electric Service Boundaries. It will be served by the City’s utilities and sanitation services.

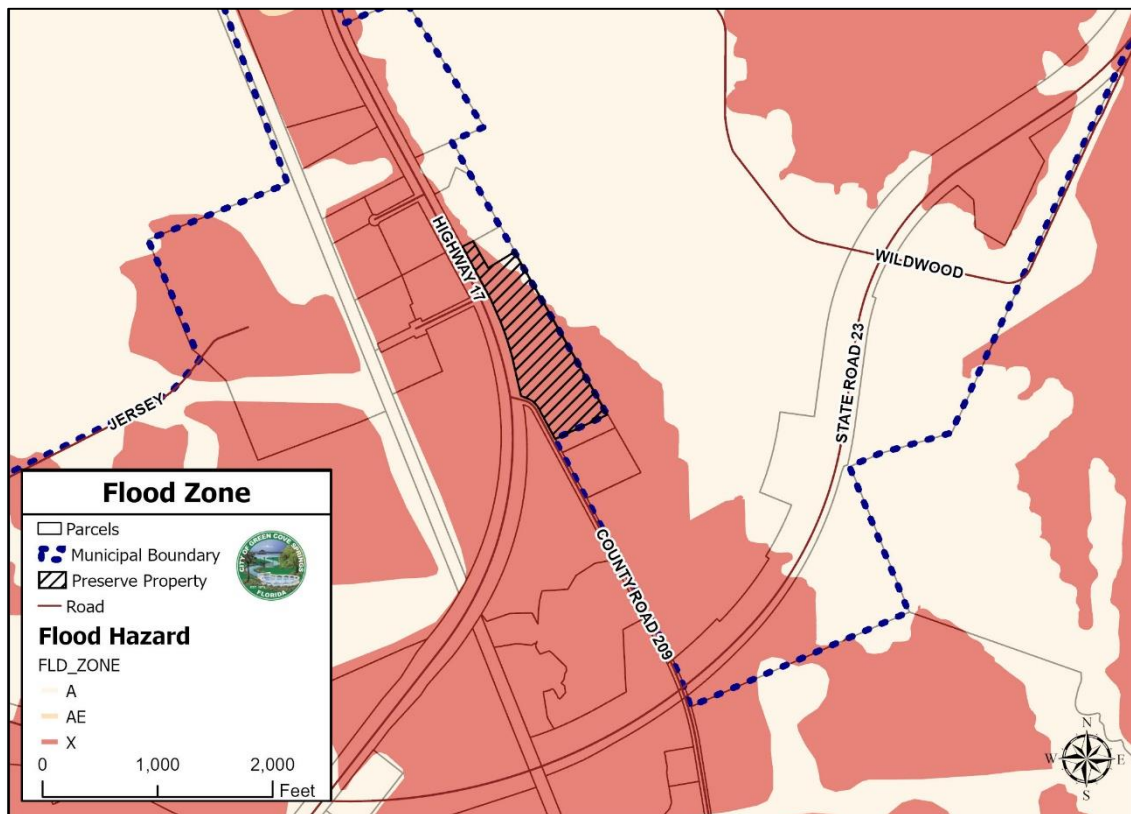
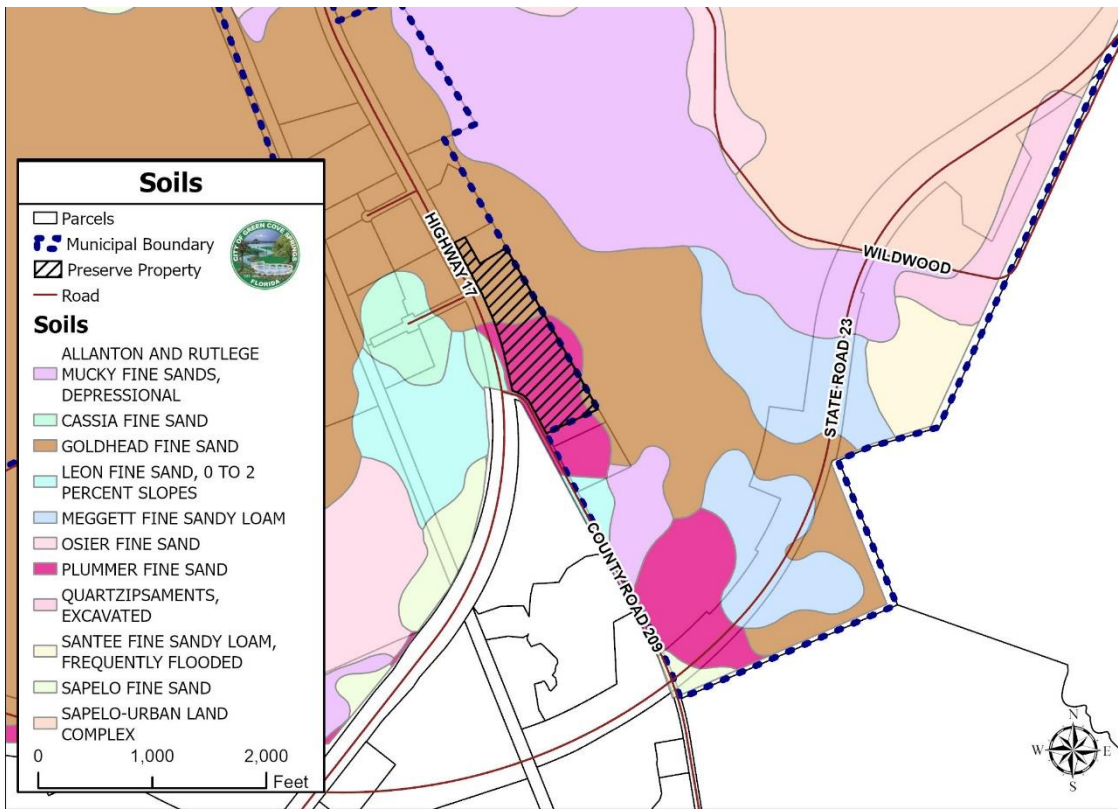
Additionally, the applicant has submitted the following future land use map amendments and rezoning requests:

Application #	Description
AX-22-001	Voluntary Annexation application
CC-22-001	Concurrency Application

Environmental Conditions Analysis

Maps of Environmental Features





Soils

There are currently 2 types of soils located onsite:

- Goldhead Fine Sand is a poorly drained soil;
- Plummer Fine Sand is a gently sloping, poorly drained soil;

All new development shall be required to meet the stormwater management requirements of the St John's Water Management District.

Wetlands

There are no wetlands on the property.

Flood Zones

According to the FEMA Flood Map Service Center, the project site is located within FEMA Flood Zone A and X.

Flood Zone A is considered a high risk zone.

Flood Zone X: is considered a minimal to moderate risk of flooding.

New construction should not occur within the high risk area of the site.

Wellfield Protection Zone

The project site is not located within or adjacent to a wellfield protection zone.

Historic Structures and Markers

There are no historic structures or markers found on the site.

URBAN SPRAWL ANALYSIS

Section 163.3177, Florida Statutes, requires that any amendment to the Future Land Use Element to discourage the proliferation of urban sprawl. Section 163.3177(6)(a)9.a., Florida Statutes, identifies 13 primary urban sprawl indicators and states that, "[t]he evaluation of the presence of these indicators shall consist of an analysis of the plan or plan amendment within the context of features and characteristics unique to each locality..."

An evaluation of each primary indicator is provided below.

(I) Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses.

Evaluation & Findings: The proposed amendment will revise the FLUM designation to Mixed Use.. By revising the Future Land Use designation to Mixed Use, this will allow for higher density of residential development and a greater intensity of Commercial development. . Currently, the City has over 20% of the City acreage guided for low density development but only .9% of land area for High Density Residential development. This request would allow for additional high density residential development that is compatible with surrounding uses.

(II) Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while not using undeveloped lands that are available and suitable for development.

Evaluation & Findings: The project site is located within the US 17 Corridor that is currently Land Used and Zoned for industrial development.

(III) Promotes, allows, or designates urban development in radial, strip, isolated, or ribbon patterns generally emanating from existing urban developments.

Evaluation & Findings: The proposed Mixed Use Designation allows for a mix of uses thereby breaking up the radial development pattern.

(IV) Fails to adequately protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

Evaluation & Findings: All development within floodzone A of the site shall comply with the requirements set forth with the Florida Division of Emergency Management. The site does not have environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

(V) Fails to adequately protect adjacent agricultural areas and activities, including silviculture, active agricultural and silvicultural activities, passive agricultural activities, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. There are no adjacent agricultural areas and activities.

(VI) Fails to maximize use of existing public facilities and services.

Evaluation & Findings: With the project site being located within an area with existing development, the proposed development will utilize public facilities and services.

(VII) Fails to maximize use of future public facilities and services.

Evaluation & Findings: Any future improvements to the City's public facilities and services will be utilized by the project site.

(VIII) Allows for land use patterns or timing which disproportionately increase the cost in time, money, and energy of providing and maintaining facilities and services, including roads, potable water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government.

Evaluation & Findings: The project site is located within an existing commercial area with existing public facilities and services. The proposed development will utilize existing public facilities and services and will not increase the time, money, and energy for providing and maintaining these facilities.

(IX) Fails to provide a clear separation between rural and urban uses.

Evaluation & Findings: The site is located within an urban area and is not adjacent to any rural zoned properties.

(X) Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.

Evaluation & Findings: The proposed application will not discourage infill development and is located within an existing developed area.

(XI) Fails to encourage a functional mix of uses.

Evaluation & Findings: The project site is located within an existing commercial area and will allow for the development of multifamily housing which is in short supply within the City.

(XII) Results in poor accessibility among linked or related land uses.

Evaluation & Findings: The project site has three existing ingress/egress points. Accessibility to linked or related land uses will not be diminished.

(XIII) Results in the loss of significant amounts of functional open space.

Evaluation & Findings: Additional proposed development will not reduce functional open space.

In addition to the preceding urban sprawl indicators, Florida Statutes Section 163.3177 also establishes eight (8) "Urban Form" criteria. An amendment to the Future Land Use Map is presumed to not be considered urban sprawl if it meets four (4) of the (8) urban form criteria. These urban form criteria, and an evaluation of each as each may relate to this application, are provided below. The applicant has provided an analysis of the application's consistency with Section 163.3177 within the application materials, and contends that the proposed amendment will not encourage urban sprawl by showing it meets four of the eight urban form criteria.

1. Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

Evaluation & Findings: The project site is located within existing commercial development where development will occur in developed areas as opposed to undeveloped areas. The proposed development directs the growth within the urban area.

2. Promotes the efficient and cost-effective provision or extension of public infrastructure and services.

Evaluation & Findings: This application, as well as the companion rezoning application, will result in a higher density commercial development utilizing existing public infrastructure and existing services.

3. Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

Evaluation & Findings: This application and the companion rezoning application will allow for higher density commercial development, allowing for a more urban type of development in the downtown area. Sidewalks will be provided as part of the development and will increase the walkability of US 17.

Promotes conservation of water and energy.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. Development in core urban areas reduces the pressure to develop in areas further outside of the urban areas.

5. Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding development. There are no adjacent agricultural areas and activities. Development in core urban areas reduces the pressure to develop in agricultural areas.

6. Preserves open space and natural lands and provides for public open space and recreation needs.

Evaluation & Findings: Recreational needs are being provided for the development through the development of a park area as part of the development.

7. Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

Evaluation & Findings: The proposed site is located within close proximity to a variety of nonresidential uses. The proposed development will bring new businesses into this mixed-use, urban area, providing a balance of land uses to the area.

8. Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. 163.3164.

Evaluation & Findings: N/A

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The following Goals, Objectives, and Policies (GOPs) support the proposed amendment to the Future Land Use Map of the City of Green Cove Springs Comprehensive Plan:

FUTURE LAND USE ELEMENT

Goal 1: To develop and maintain land use programs and activities to provide for the most appropriate use of the land and direct growth to suitable areas while protecting the public, health, safety and welfare of the public.

Objective 1.1. New development and Redevelopment shall be directed to appropriate areas of the City.

Policy 1.1.4: To promote redevelopment, the City shall allow higher densities and structures up to five (5) stories high in appropriate areas.

Policy 1.2.4. The City shall explore permitting new types of housing developments.

TRANSPORTATION ELEMENT

Policy 2.3.1. The City shall rely on level of service (LOS) standards adopted in the Capital Improvements Element to ensure that acceptable traffic conditions are maintained.

Policy 2.5.3. The City shall review development applications to ensure that adequate capacity is available to serve the proposed project. The latest version of Trip Generation Manual published by the Institute of Transportation Engineers (ITE) shall be used to determine the number of trips that the proposed development will produce or attract.

SANITARY SEWER, SOLID WASTE, DRAINAGE, POTABLE WATER, AND AQUIFER RECHARGE ELEMENT

Policy 4.2.1 All Future Development shall be required to connect to the City's Sanitary Sewer Collection

Objective 4.6. Future Development shall be required to connect with central water systems and provide stormwater facilities which maximize the use of existing

PLANNED UNIT DEVELOPMENT

The applicant is proposing the development of 260 multifamily units in 3 and 4 story buildings with a maximum of 278 dwelling units. The units shall consist of studio, 1, 2 and 3 Bedroom units with the breakdown set forth in the PUD written description. . The project will also include a pool and a community center and park area. The project will have two full vehicular access points on US 17 and an access point on CR 209. A sidewalk shall be provided along US 17 and CR 209. The project will be required to submit and receive approval for a Site Development Plan prior to approval.

The site is heavily wooded and as part of the site development, they will be required to evaluate and preserve trees in compliance with City Tree Preservation requirements set forth in Section 113-279. Due to the existing grade, which is showing a considerable amount of fall between the roadway and the eastern edge of the property there will be a considerable amount of grading that will take place on the property. In order to preserve trees, it is critical for the developer to hire an arborist and have them be included as part of the development to evaluate, preserve and protect the trees during the development process. A perimeter buffer shall be provided along the perimeter of the property.

In addition, any new development will comply with all stormwater requirements of the City and the Water Management District. The northeastern portion of the property is located within a high-risk flood zone and as a result, the applicant will be required to comply with floodplain management requirements set forth by the Florida Division of Emergency Management.

Construction is expected to commence in 2025 and is expected to be completed by 2028.

PUBLIC FACILITIES IMPACT

Traffic Impacts

Land Use ¹ (ITE)	Square Footage/Dwelling Units	Daily		AM Peak		PM Peak	
		Rate	Trips	Rate	Trips	Rate	Trips
Multifamily Residential	278	6.65	1,729	.92	131	.62	161

1. Source: Institute of Transportation Engineers: Trip Generation Manual 9th Edition

Conclusion: The proposed development of 278 multifamily dwelling units would require a traffic study to be reviewed at the time of submittal of the site development plan. Currently, there is an average of 161 peak hour trips along the roadway which is lower than the maximum allowable capacity for the roadway.

Potable Water Impacts

System Category	Gallons Per Day (GPD)
Current Permitted Capacity ¹	4,200,000
Less actual Potable Water Flows ¹	1,013,000
Residual Capacity ¹	3,187,000
Projected Potable Water Demand from Proposed Project ²	43,725
Residual Capacity after Proposed Project	3,143,275

1. Source: City of Green Cove Springs Public Works Department

2. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: 278 dwelling units x 2.65 persons per du x 150 gal per person

Sanitary Sewer Impacts – South Plant WWTP

System Category	Gallons Per Day (GPD)
Current Permitted Capacity ¹	350,000
Current Loading ¹	270,000
Committed Loading ¹	330,000
Projected Potable Water Demand from Proposed Project ²	82,680
Residual Capacity after Proposed Project	-332,680

1. Source: City of Green Cove Springs Public Works Department

2. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: 278 dwelling units x 2.65 persons per du x 120 gal per person

Conclusion: The project site is served by the South Plant Wastewater Treatment Plant (WWTP). As shown in the table above, when factoring in the current loading and the committed loading, this WWTP is over capacity to handle the estimated impacts resulting from the proposed application. The committed loading is related to the Rookery Development which will be completed in two years prior to the commencement of this project. At such time, the Rookery capacity will be served by a new wastewater treatment facility provided by the Clay County Utility Authority. Once the facility is built, the capacity temporarily reserved to the Rookery shall be available for this development. In addition, the remaining demand will be sent via force main to the Harbor Road plant, where the City has an excess capacity of approximately 700,000 gallons per day. As a result, there is adequate capacity.

Solid Waste Impacts

System Category	LBs Per Day / Tons per Year
Solid Waste Generated by Proposed Project ¹	5,512 lbs. / 1,005 tons
Solid Waste Facility Capacity ²	Minimum 3 Years Capacity

1. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: (278 dwelling units x 2.65 persons per dwelling unit x 8 lbs. per day) x 365

Solid Waste Impacts

The City of Green Cove Springs' solid waste is disposed of at the Rosemary Hill Solid Waste Management Facility operated by Clay County. Per the Clay County Comprehensive Plan, a minimum of three (3) years capacity shall be maintained at the County's solid waste management facility. For commercial developments, the City does not provide Curbside Service; commercial locations must instead contract with an approved franchisee for containerized collection.

Conclusion: The proposed future land use amendment and rezoning are not expected to negatively impact the City's adopted LOS or exceed the County solid waste management facility's capacity.

Public School Facilities Impact

Land Use	Units	Elem.		Middle		High	
		Rate ¹	Total	Rate ¹	Total	Rate ¹	Total
Proposed							
Multifamily Units	278	0.0314	9	0.0095	3	0.0197	6
Net Generation	-	-	4	-	1	-	2

1. Source: School District of Clay County, Educational Facilities Plan, FY 2018/19-2022/23, based on multifamily

Conclusion: The School District of Clay County will make a school capacity determination at the time of Final Site Development Plan. An initial application has been reviewed by the School Board and It is not anticipated that the estimated number of students generated by the proposed PUD rezoning will exceed the adopted LOS standards see attached.

STAFF RECOMMENDATION

Staff recommends approval of the Future Land Use and conditional approval of the Rezoning.

RECOMMENDED MOTIONS:

Future Land Use

Motion to approve 1st reading for form and legality of ordinance O-12-2022, to amend the Future Land Use of the property described therein from Industrial (County) to Mixed Use located on US 17 and CR 209 (parcel #016499-007-00).

Rezoning

Motion to approve 1st reading for form and legality of Ordinance O-13-2022, to amend the Zoning of the property described therein from Light Industrial to Planned Unit Development subject to the following conditions:

1. The applicant shall be required to comply with tree preservations requirements set forth in Sec. 113-279. Due to the proposed amount of onsite development and potential grade changes, an ISA certified arborist or equivalent horticulture professional shall be hired to evaluate trees, ensure adequate root area is provided and grade changes are not altered within critical root area, prescribe treatments to preserve the trees and oversee tree protection during the construction process and ensure compliance set forth in City Code Sec. 113-248.
2. Traffic Study pursuant to the requirements set forth in the City's Traffic Impact Analysis Guidelines shall be approved concurrent with the approval of the site development plan.
3. Dumpster shall be screened with landscaping and concrete enclosure as required during the site plan submittal.
4. A disclosure notification shall be provided within the lease agreements for the multifamily units located on the property informing the tenants that the proposed development is located in close proximity to the runway for the Reynolds Airpark.



WILDWOOD

HIGHWAY 17

STATE ROAD 23

COUNTY ROAD 209

COUNTY - INDUSTRIAL

RP




COUNTY - RE PR Page 453

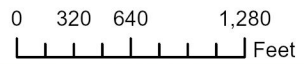
FLU - Existing

-  Parcels
-  Municipal Boundary
-  Preserve Property
-  Road



FLU CITY

-  Industrial
-  Mixed Use Reynolds Park
-  Neighborhood





WILDWOOD

STATE ROAD 23

COUNTY ROAD 209

HIGHWAY 17

COUNTY - INDUSTRIAL

ND

RP

COUNTY -
RE
PR
Page 454

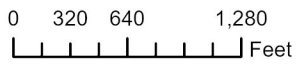
FLU - Proposed

- Parcels
- Municipal Boundary
- Preserve Property
- Road



FLU CITY

- Downtown
- Industrial
- Mixed Use
- Mixed Use Reynolds Park
- Neighborhood
- Public



ORDINANCE NO. O-12-2022

AN ORDINANCE OF THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA AMENDING THE FUTURE LAND USE MAP FOR ±13.92 ACRES OF PROPERTY LOCATED ON US 17 AND CR 209, IDENTIFIED AS TAX ID NUMBER 016499-007-00, MORE PARTICULARLY DESCRIBED BY EXHIBIT “A”, FROM INDUSTRIAL (COUNTY DESIGNATION), TO MIXED-USE; PROVIDING FOR REPEALER, SEVERABILITY AND SETTING AN EFFECTIVE DATE.

RECITALS

WHEREAS, an application for a small-scale comprehensive plan amendment, as described below, to the Comprehensive Plan Future Land Use Map has been filed with the City; and

WHEREAS, a duly advertised public hearing was conducted on the proposed amendment on April 26, 2022 by the Planning and Zoning Board, sitting as the Local Planning Agency (LPA) and the LPA reviewed and considered comments received during the public hearing concerning the application and made its recommendation for approval to the City Council; and,

WHEREAS, the City Council considered the recommendations of the LPA at a duly advertised public hearing on May 17, 2022 and June 7, 2022 and provided for and received public participation; and,

WHEREAS, the City Council has determined and found said application for the amendment, to be consistent with the City of Green Cove Springs Comprehensive Plan and Land Development Regulations; and,

WHEREAS, for reasons set forth in this Ordinance that is hereby adopted and incorporated as findings of fact, that the Green Cove Springs City Council finds and declares that the enactment of this amendment is in the furtherance of the public health, safety, morals, order, comfort, convenience, appearance, prosperity, or general welfare.

NOW, THEREFORE BE IT ENACTED BY THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA AS FOLLOWS:

Section 1. Findings of Fact and Conclusions of Law.

1. The above recitals are true and correct and incorporated herein by reference.
2. The proposed Future Land Use Map amendment is consistent with the Comprehensive Plan.

3. The amendment will not cause a reduction in the adopted level of service standards for transportation, potable water, sanitary sewer, solid waste, stormwater, recreation, or public schools.

Section 2. Comprehensive Plan Future Land Use Map Amended. The Comprehensive Plan Future Land Use Map is hereby amended from Industrial (County) to Mixed Use on Tax Parcel Number 38-06-26-016499-007-00 in accordance with the legal description found in Exhibit “A” and map found in Exhibit “B” attached hereto.

Section 3. Ordinance to be Construed Liberally. This ordinance shall be liberally construed in order to effectively carry out the purposes hereof which are deemed to be in the best interest of the public health, safety and welfare of the citizens and residents of Green Cove Springs, Florida.

Section 4. Repealing Clause. All ordinance or parts of ordinances in conflict herewith are, to the extent of the conflict, hereby repealed.

Section 5. Severability. It is the declared intent of the City Council of the City of Green Cove Springs that, if any section, sentence, clause, phrase, or provision of this ordinance is for any reason held or declared to be unconstitutional, void, or inoperative by any court or agency of competent jurisdiction, such holding of invalidity or unconstitutionality shall not affect the remaining provisions of this ordinance, and the remainder of the ordinance after the exclusions of such part or parts shall be deemed to be valid.

Section 6. Effective Date. The effective date of this plan amendment, if the amendment is not timely challenged, shall be 31 days after the state land planning agency notifies the City that the plan amendment package is complete in accordance with Chapter 163.3184 F.S. If timely challenged, this amendment shall become effective on the date the state land planning agency or the Administrative Council enters a final order determining this adopted amendment to be in compliance in accordance with Chapter 163.3184 F.S. No development orders, development permits, or land uses dependent on this amendment may be issued or commenced before this plan amendment has become effective.

INTRODUCED AND APPROVED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ON THIS 17th DAY OF MAY 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

Matthew Johnson, Mayor

ATTEST:

Erin West, City Clerk

PASSED ON SECOND AND FINAL READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 7th DAY OF JUNE 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

Matthew Johnson, Mayor

ATTEST:

Erin West, City Clerk

APPROVED AS TO FORM:

L. J. Arnold, III, City Attorney

EXHIBIT "A"

Legal Description

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF, SOUTH 68°04'14" WEST, A DISTANCE OF 304.53 FEET, TO THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE SOUTH 28°13'15" EAST, ALONG THE WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF CLAY COUNTY, FLORIDA. A DISTANCE OF 1,104.56 FEET, TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH 28°13'15" EAST, ALONG THE AFORESAID WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 1,337.15 FEET, TO A POINT ON THE NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, SOUTH 69°38'54" WEST, ALONG THE AFORESAID NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 478.21 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED); RUN THENCE, ALONG THE AFORESAID EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED), THE FOLLOWING THREE (3) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTH 23°43'25" WEST, A DISTANCE OF 2.21 FEET, TO A POINT OF INTERSECTION IN SAID RIGHT-OF-WAY LINE;

COURSE No. 2: RUN THENCE, NORTH 36°44'27" WEST, A DISTANCE OF 67.07 FEET, TO A POINT;

COURSE No. 3: RUN THENCE, NORTH 28°13'56" WEST, A DISTANCE OF 430.86 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "STATE ROAD No. 15~U.S. HIGHWAY No. 17", (A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; PRESENTLY); RUN THENCE, ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID "STATE ROAD No. 15~U.S. HIGHWAY No. 17", THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTHWESTERLY, ALONG AND AROUND THE ARC OF A CURVE, BEING CONCAVE WESTERLY, AND HAVING A RADIUS OF 2,988.79 FEET, THROUGH A CENTRAL ANGLE OF 13°36'55" TO THE LEFT, AN ARC DISTANCE OF 710.23 FEET, TO THE POINT OF TANGENCY OF LAST SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD BEARING AND DISTANCE OF NORTH 21°26'31" WEST, 708.56 FEET;

COURSE No. 2: RUN THENCE, NORTH 28°14'52" WEST, ALONG THE TANGENCY OF LAST SAID CURVE, A DISTANCE OF 340.34 FEET, TO A POINT, BEING THE MOST SOUTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, NORTH 61°42'00" EAST, ALONG THE SOUTHERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 80.07 FEET, TO A POINT, BEING THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, ALONG THE WESTERLY, AND THEN SOUTHERLY BOUNDARY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, SOUTH 28°13'14" EAST, A DISTANCE OF 271.77 FEET, TO A POINT;

COURSE No. 2: RUN THENCE, NORTH 61°46'45" EAST, A DISTANCE OF 320.01 FEET, TO THE AFORESAID WESTERLY LINE OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE CURRENT PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, AND THE POINT OF BEGINNING.

THE LANDS THUS DESCRIBED CONTAINED 606,663 SQUARE FEET, OR 13.92 ACRES, MORE OR LESS, IN AREA.




FLU - Proposed

- Parcels
- Municipal Boundary
- Preserve Property
- Road

FLU CITY

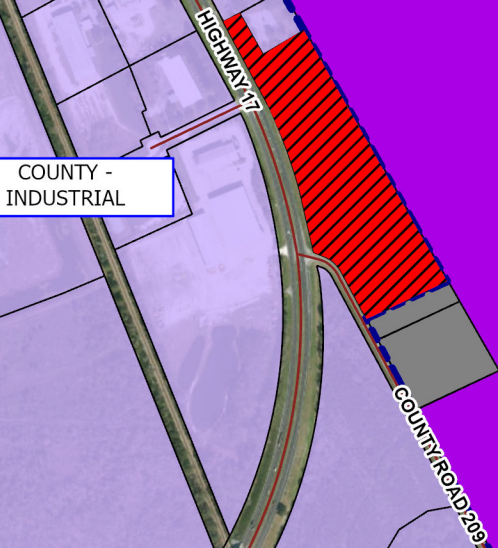
- Downtown
- Industrial
- Mixed Use
- Mixed Use Reynolds Park
- Neighborhood
- Public

0 320 640 1,280 Feet



COUNTY - INDUSTRIAL

COUNTY - RE PR Page 460



D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed Future Land Use Map change and Future Land Use Map designations on surrounding properties
2. A map showing the zoning designations on surrounding properties
3. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Fee.
 - a. \$750, plus
 - b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

[Signature]
Signature of Applicant

Signature of Co-applicant

Ellen Avery Smith
Typed or printed name and title of applicant

Typed or printed name of co-applicant

3/7/22
Date

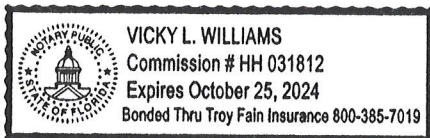
Date

State of Florida County of St. Johns

The foregoing application is acknowledged before me this 7th day of MARCH, 2022, by Ellen Avery Smith, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

[Signature]
Signature of Notary Public, State of _____





STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council **MEETING DATE:** May 17, 2022
FROM: Michael Daniels, Planning and Zoning Director
SUBJECT: Preserve at Green Cove Springs
 Future Land Use Amendment From: Industrial (County)
 To: Mixed Use
 Zoning Amendment From: Light Industrial (County)
 To: Planned Unit Development

for approximately 13.92 acres located on US 17 and CR 209.

PROPERTY DESCRIPTION

APPLICANT: Ellen Avery-Smith, Esq. of Rogers Tower, PA **OWNER:** CHS LLC, Lyman Hall, and Virginia S Hall

PROPERTY LOCATION: Bounded on the western side by US Highway 17 S and CR 209 S; bounded on the eastern side by Reynolds Park

PARCEL NUMBER: 016499-007-00

FILE NUMBER: FLUS-22-003, PUD-22-003

CURRENT ZONING: Light Industrial (County)

FUTURE LAND USE DESIGNATION: Industrial (County)

SURROUNDING LAND USE

<p>NORTH: FLU: Industrial (County) Z: Private Services / Public Ownership Use: Cabul Lodge / FL DMV</p>	<p>SOUTH: FLU: Industrial Z: Heavy Industrial Use: Undeveloped / Hammer & Steel</p>
<p>EAST: FLU: MURP Z: Heavy Industrial Use: Reynolds Park / Clay Port</p>	<p>WEST: FLU: Industrial (County) Z: Heavy Industrial (County) Use: Commercial / Industrial</p>

BACKGROUND

DEVELOPMENT DESCRIPTION:

The applicant, Ellen Avery Smith Esq, of Rogers Tower PA, has submitted an annexation request for 13.92 acres to annex the subject property into City limits. The property is contiguous to the current municipal boundary, as shown the following aerial map. The property is bounded by US Highway 17 S and CR 209 S on its western edge, the city boundary to the south and east as well as Reynolds Park to the east, and County parcels (Cabul Lodge & Florida DMV) to the north. The site historically is undeveloped. It is heavily wooded with a combination of Hardwood and Pine trees. The site slopes significantly from US 17 to the east of the subject property.

The Planning and Zoning Commission unanimously approved this item on April 26, 2022.



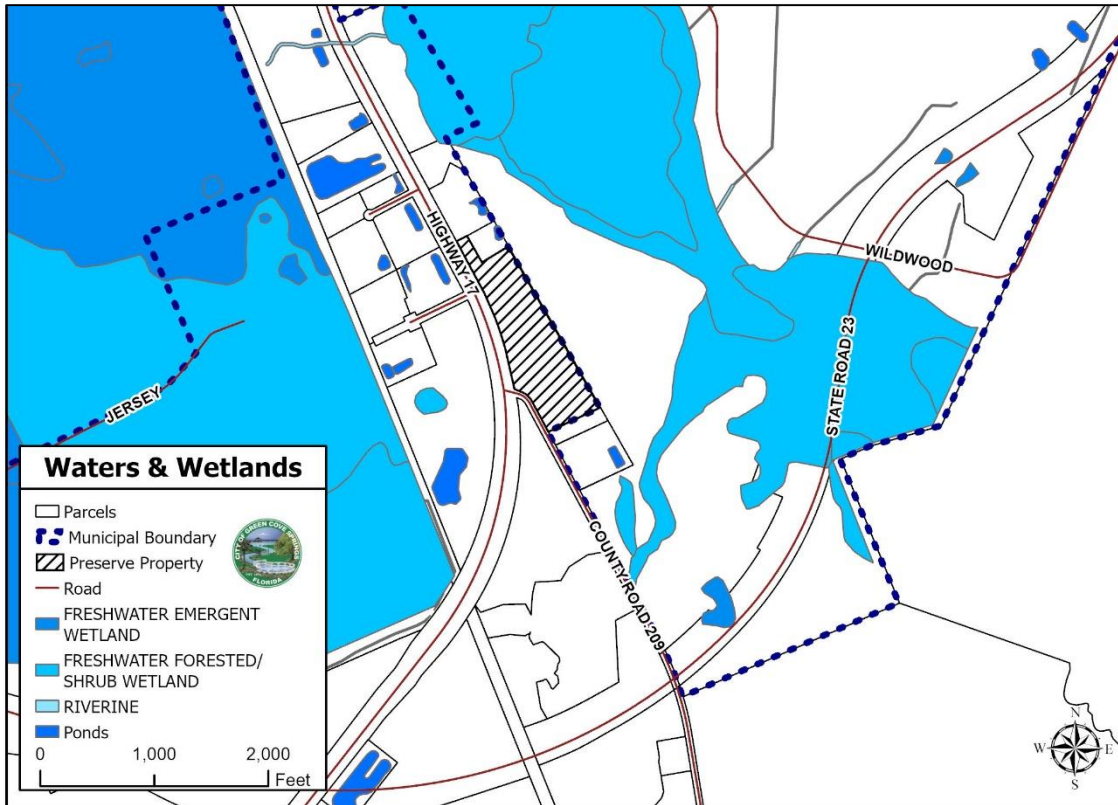
The site is located within the City’s Water, Sewer, and Electric Service Boundaries. It will be served by the City’s utilities and sanitation services.

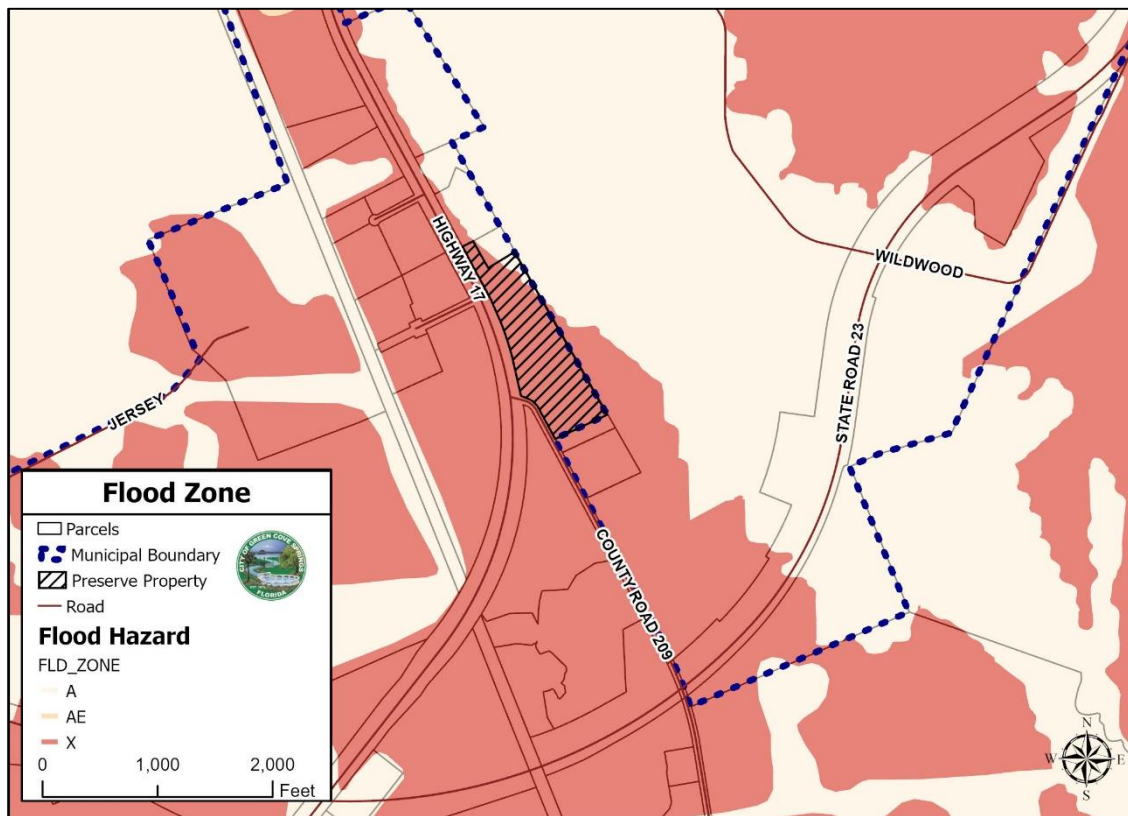
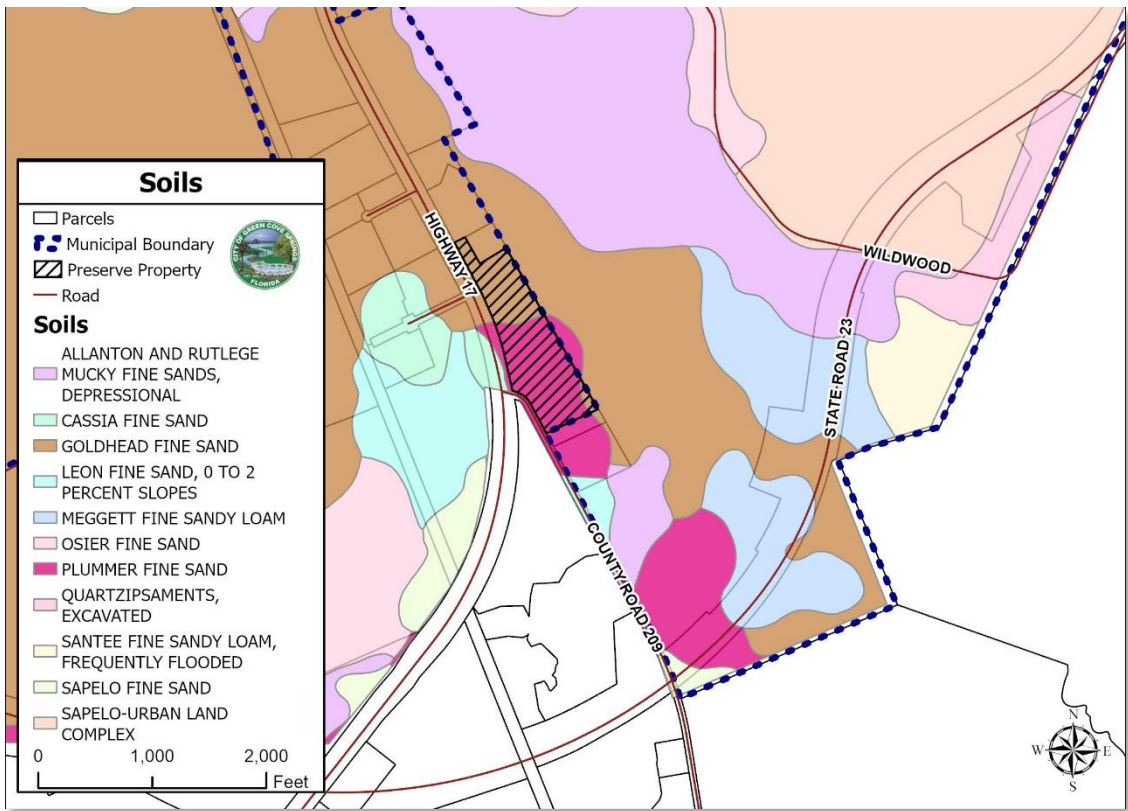
Additionally, the applicant has submitted the following future land use map amendments and rezoning requests:

Application #	Description
AX-22-001	Voluntary Annexation application
CC-22-001	Concurrency Application

Environmental Conditions Analysis

Maps of Environmental Features





Soils

There are currently 2 types of soils located onsite:

- Goldhead Fine Sand is a poorly drained soil;
- Plummer Fine Sand is a gently sloping, poorly drained soil;

All new development shall be required to meet the stormwater management requirements of the St John’s Water Management District.

Wetlands

There are no wetlands on the property.

Flood Zones

According to the FEMA Flood Map Service Center, the project site is located within FEMA Flood Zone A and X.

Flood Zone A is considered a high risk zone.

Flood Zone X: is considered a minimal to moderate risk of flooding.

New construction should not occur within the high risk area of the site.

Wellfield Protection Zone

The project site is not located within or adjacent to a wellfield protection zone.

Historic Structures and Markers

There are no historic structures or markers found on the site.

URBAN SPRAWL ANALYSIS

Section 163.3177, Florida Statutes, requires that any amendment to the Future Land Use Element to discourage the proliferation of urban sprawl. Section 163.3177(6)(a)9.a., Florida Statutes, identifies 13 primary urban sprawl indicators and states that, “[t]he evaluation of the presence of these indicators shall consist of an analysis of the plan or plan amendment within the context of features and characteristics unique to each locality...”

An evaluation of each primary indicator is provided below.

(I) Promotes, allows, or designates for development substantial areas of the jurisdiction to develop as low-intensity, low-density, or single-use development or uses.

Evaluation & Findings: The proposed amendment will revise the FLUM designation to Mixed Use.. By revising the Future Land Use designation to Mixed Use, this will allow for higher density of residential development and a greater intensity of Commercial development. . Currently, the City has over 20% of the City acreage guided for low density development but only .9% of land area for High Density Residential development. This request would allow for additional high density residential development that is compatible with surrounding uses.

(II) Promotes, allows, or designates significant amounts of urban development to occur in rural areas at substantial distances from existing urban areas while not using undeveloped lands that are available and suitable for development.

Evaluation & Findings: The project site is located within the US 17 Corridor that is currently Land Used and Zoned for industrial development.

(III) Promotes, allows, or designates urban development in radial, strip, isolated, or ribbon patterns generally emanating from existing urban developments.

Evaluation & Findings: The proposed Mixed Use Designation allows for a mix of uses thereby breaking up the radial development pattern.

(IV) Fails to adequately protect and conserve natural resources, such as wetlands, floodplains, native vegetation, environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, rivers, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

Evaluation & Findings: All development within floodzone A of the site shall comply with the requirements set forth with the Florida Division of Emergency Management. The site does not have environmentally sensitive areas, natural groundwater aquifer recharge areas, lakes, shorelines, beaches, bays, estuarine systems, and other significant natural systems.

(V) Fails to adequately protect adjacent agricultural areas and activities, including silviculture, active agricultural and silvicultural activities, passive agricultural activities, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. There are no adjacent agricultural areas and activities.

(VI) Fails to maximize use of existing public facilities and services.

Evaluation & Findings: With the project site being located within an area with existing development, the proposed development will utilize public facilities and services.

(VII) Fails to maximize use of future public facilities and services.

Evaluation & Findings: Any future improvements to the City's public facilities and services will be utilized by the project site.

(VIII) Allows for land use patterns or timing which disproportionately increase the cost in time, money, and energy of providing and maintaining facilities and services, including roads, potable water, sanitary sewer, stormwater management, law enforcement, education, health care, fire and emergency response, and general government.

Evaluation & Findings: The project site is located within an existing commercial area with existing public facilities and services. The proposed development will utilize existing public facilities and services and will not increase the time, money, and energy for providing and maintaining these facilities.

(IX) Fails to provide a clear separation between rural and urban uses.

Evaluation & Findings: The site is located within an urban area and is not adjacent to any rural zoned properties.

(X) Discourages or inhibits infill development or the redevelopment of existing neighborhoods and communities.

Evaluation & Findings: The proposed application will not discourage infill development and is located within an existing developed area.

(XI) Fails to encourage a functional mix of uses.

Evaluation & Findings: The project site is located within an existing commercial area and will allow for the development of multifamily housing which is in short supply within the City.

(XII) Results in poor accessibility among linked or related land uses.

Evaluation & Findings: The project site has three existing ingress/egress points. Accessibility to linked or related land uses will not be diminished.

(XIII) Results in the loss of significant amounts of functional open space.

Evaluation & Findings: Additional proposed development will not reduce functional open space.

In addition to the preceding urban sprawl indicators, Florida Statutes Section 163.3177 also establishes eight (8) "Urban Form" criteria. An amendment to the Future Land Use Map is presumed to not be considered urban sprawl if it meets four (4) of the (8) urban form criteria. These urban form criteria, and an evaluation of each as each may relate to this application, are provided below. The applicant has provided an analysis of the application's consistency with Section 163.3177 within the application materials, and contends that the proposed amendment will not encourage urban sprawl by showing it meets four of the eight urban form criteria.

1. Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

Evaluation & Findings: The project site is located within existing commercial development where development will occur in developed areas as opposed to undeveloped areas. The proposed development directs the growth within the urban area.

2. Promotes the efficient and cost-effective provision or extension of public infrastructure and services.

Evaluation & Findings: This application, as well as the companion rezoning application, will result in a higher density commercial development utilizing existing public infrastructure and existing services.

3. Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

Evaluation & Findings: This application and the companion rezoning application will allow for higher density commercial development, allowing for a more urban type of development in the downtown area. Sidewalks will be provided as part of the development and will increase the walkability of US 17.

Promotes conservation of water and energy.

Evaluation & Findings: The project site is located within an urban area with surrounding commercial development. Development in core urban areas reduces the pressure to develop in areas further outside of the urban areas.

5. Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

Evaluation & Findings: The project site is located within an urban area with surrounding development. There are no adjacent agricultural areas and activities. Development in core urban areas reduces the pressure to develop in agricultural areas.

6. Preserves open space and natural lands and provides for public open space and recreation needs.

Evaluation & Findings: Recreational needs are being provided for the development through the development of a park area as part of the development.

7. Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

Evaluation & Findings: The proposed site is located within close proximity to a variety of nonresidential uses. The proposed development will bring new businesses into this mixed-use, urban area, providing a balance of land uses to the area.

8. Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. 163.3164.

Evaluation & Findings: N/A

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The following Goals, Objectives, and Policies (GOPs) support the proposed amendment to the Future Land Use Map of the City of Green Cove Springs Comprehensive Plan:

FUTURE LAND USE ELEMENT

Goal 1: To develop and maintain land use programs and activities to provide for the most appropriate use of the land and direct growth to suitable areas while protecting the public, health, safety and welfare of the public.

Objective 1.1. New development and Redevelopment shall be directed to appropriate areas of the City.

Policy 1.1.4: To promote redevelopment, the City shall allow higher densities and structures up to five (5) stories high in appropriate areas.

Policy 1.2.4. The City shall explore permitting new types of housing developments.

TRANSPORTATION ELEMENT

Policy 2.3.1. The City shall rely on level of service (LOS) standards adopted in the Capital Improvements Element to ensure that acceptable traffic conditions are maintained.

Policy 2.5.3. The City shall review development applications to ensure that adequate capacity is available to serve the proposed project. The latest version of Trip Generation Manual published by the Institute of Transportation Engineers (ITE) shall be used to determine the number of trips that the proposed development will produce or attract.

SANITARY SEWER, SOLID WASTE, DRAINAGE, POTABLE WATER, AND AQUIFER RECHARGE ELEMENT

Policy 4.2.1 All Future Development shall be required to connect to the City's Sanitary Sewer Collection

Objective 4.6. Future Development shall be required to connect with central water systems and provide stormwater facilities which maximize the use of existing

PLANNED UNIT DEVELOPMENT

The applicant is proposing the development of 260 multifamily units in 3 and 4 story buildings with a maximum of 278 dwelling units. The units shall consist of studio, 1, 2 and 3 Bedroom units with the breakdown set forth in the PUD written description. . The project will also include a pool and a community center and park area. The project will have two full vehicular access points on US 17 and an access point on CR 209. A sidewalk shall be provided along US 17 and CR 209. The project will be required to submit and receive approval for a Site Development Plan prior to approval.

The site is heavily wooded and as part of the site development, they will be required to evaluate and preserve trees in compliance with City Tree Preservation requirements set forth in Section 113-279. Due to the existing grade, which is showing a considerable amount of fall between the roadway and the eastern edge of the property there will be a considerable amount of grading that will take place on the property. In order to preserve trees, it is critical for the developer to hire an arborist and have them be included as part of the development to evaluate, preserve and protect the trees during the development process. A perimeter buffer shall be provided along the perimeter of the property.

In addition, any new development will comply with all stormwater requirements of the City and the Water Management District. The northeastern portion of the property is located within a high-risk flood zone and as a result, the applicant will be required to comply with floodplain management requirements set forth by the Florida Division of Emergency Management.

Construction is expected to commence in 2025 and is expected to be completed by 2028.

PUBLIC FACILITIES IMPACT

Traffic Impacts

Land Use ¹ (ITE)	Square Footage/Dwelling Units	Daily		AM Peak		PM Peak	
		Rate	Trips	Rate	Trips	Rate	Trips
Multifamily Residential	278	6.65	1,729	.92	131	.62	161

1. Source: Institute of Transportation Engineers: Trip Generation Manual 9th Edition

Conclusion: The proposed development of 278 multifamily dwelling units would require a traffic study to be reviewed at the time of submittal of the site development plan. Currently, there is an average of 161 peak hour trips along the roadway which is lower than the maximum allowable capacity for the roadway.

Potable Water Impacts

System Category	Gallons Per Day (GPD)
Current Permitted Capacity ¹	4,200,000
Less actual Potable Water Flows ¹	1,013,000
Residual Capacity ¹	3,187,000
Projected Potable Water Demand from Proposed Project ²	43,725
Residual Capacity after Proposed Project	3,143,275

1. Source: City of Green Cove Springs Public Works Department

2. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: 278 dwelling units x 2.65 persons per du x 150 gal per person

Sanitary Sewer Impacts – South Plant WWTP

System Category	Gallons Per Day (GPD)
Current Permitted Capacity ¹	350,000
Current Loading ¹	270,000
Committed Loading ¹	330,000
Projected Potable Water Demand from Proposed Project ²	82,680
Residual Capacity after Proposed Project	-332,680

1. Source: City of Green Cove Springs Public Works Department

2. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: 278 dwelling units x 2.65 persons per du x 120 gal per person

Conclusion: The project site is served by the South Plant Wastewater Treatment Plant (WWTP). As shown in the table above, when factoring in the current loading and the committed loading, this WWTP is over capacity to handle the estimated impacts resulting from the proposed application. The committed loading is related to the Rookery Development which will be completed in two years prior to the commencement of this project. At such time, the Rookery capacity will be served by a new wastewater treatment facility provided by the Clay County Utility Authority. Once the facility is built, the capacity temporarily reserved to the Rookery shall be available for this development. In addition, the remaining demand will be sent via force main to the Harbor Road plant, where the City has an excess capacity of approximately 700,000 gallons per day. As a result, there is adequate capacity.

Solid Waste Impacts

System Category	LBs Per Day / Tons per Year
Solid Waste Generated by Proposed Project ¹	5,512 lbs. / 1,005 tons
Solid Waste Facility Capacity ²	Minimum 3 Years Capacity

1. Source: City of Green Cove Springs Comprehensive Plan. Formula Used: (278 dwelling units x 2.65 persons per dwelling unit x 8 lbs. per day) x 365

Solid Waste Impacts

The City of Green Cove Springs' solid waste is disposed of at the Rosemary Hill Solid Waste Management Facility operated by Clay County. Per the Clay County Comprehensive Plan, a minimum of three (3) years capacity shall be maintained at the County's solid waste management facility. For commercial developments, the City does not provide Curbside Service; commercial locations must instead contract with an approved franchisee for containerized collection.

Conclusion: The proposed future land use amendment and rezoning are not expected to negatively impact the City's adopted LOS or exceed the County solid waste management facility's capacity.

Public School Facilities Impact

Land Use	Units	Elem.		Middle		High	
		Rate ¹	Total	Rate ¹	Total	Rate ¹	Total
Proposed							
Multifamily Units	278	0.0314	9	0.0095	3	0.0197	6
Net Generation	-	-	4	-	1	-	2

1. Source: School District of Clay County, Educational Facilities Plan, FY 2018/19-2022/23, based on multifamily

Conclusion: The School District of Clay County will make a school capacity determination at the time of Final Site Development Plan. An initial application has been reviewed by the School Board and It is not anticipated that the estimated number of students generated by the proposed PUD rezoning will exceed the adopted LOS standards see attached.

STAFF RECOMMENDATION

Staff recommends approval of the Future Land Use and conditional approval of the Rezoning.

RECOMMENDED MOTIONS:

Future Land Use

Motion to approve 1st reading for form and legality of ordinance O-12-2022, to amend the Future Land Use of the property described therein from Industrial (County) to Mixed Use located on US 17 and CR 209 (parcel #016499-007-00).

Rezoning

Motion to approve 1st reading for form and legality of Ordinance O-13-2022, to amend the Zoning of the property described therein from Light Industrial to Planned Unit Development subject to the following conditions:

1. The applicant shall be required to comply with tree preservations requirements set forth in Sec. 113-279. Due to the proposed amount of onsite development and potential grade changes, an ISA certified arborist or equivalent horticulture professional shall be hired to evaluate trees, ensure adequate root area is provided and grade changes are not altered within critical root area, prescribe treatments to preserve the trees and oversee tree protection during the construction process and ensure compliance set forth in City Code Sec. 113-248.
2. Traffic Study pursuant to the requirements set forth in the City's Traffic Impact Analysis Guidelines shall be approved concurrent with the approval of the site development plan.
3. Dumpster shall be screened with landscaping and concrete enclosure as required during the site plan submittal.
4. A disclosure notification shall be provided within the lease agreements for the multifamily units located on the property informing the tenants that the proposed development is located in close proximity to the runway for the Reynolds Airpark.



Zoning - Existing

- Parcels
- Municipal Boundary
- Preserve Property
- Road

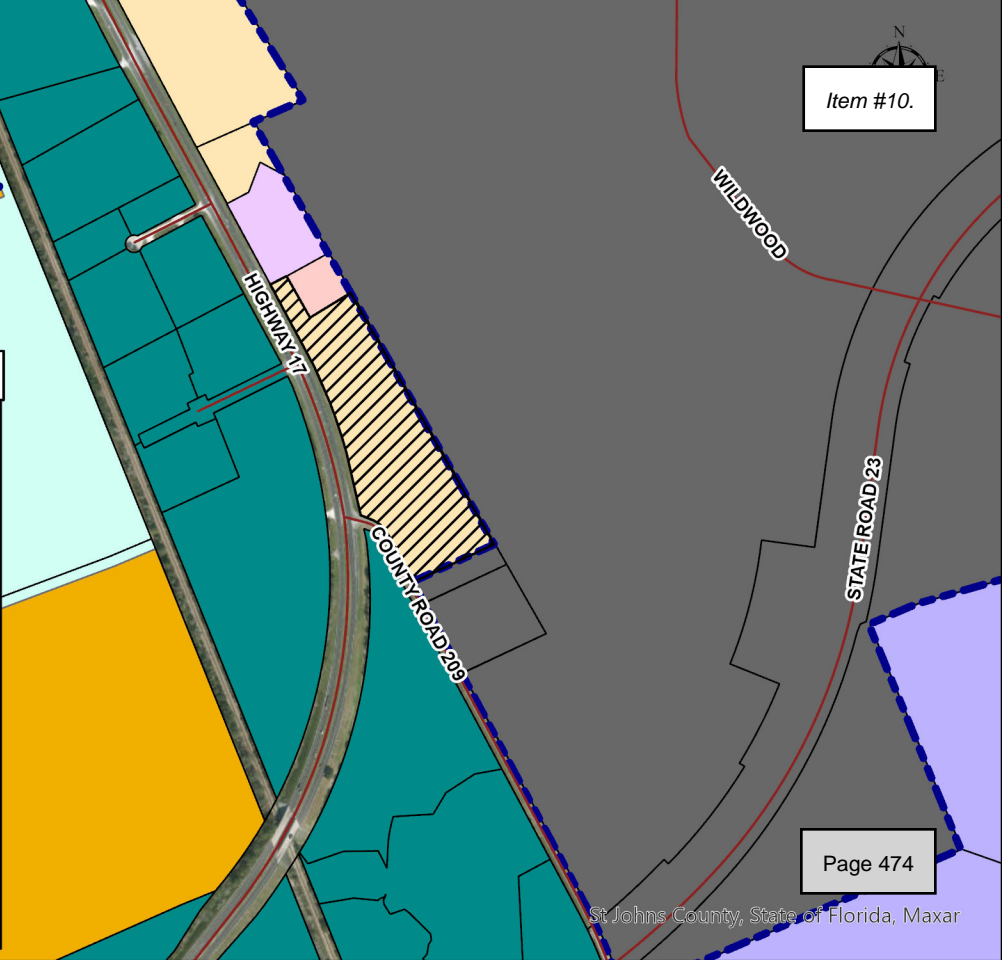
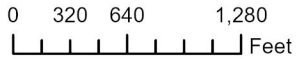


City Zoning

- PUD
- M-2

County Zoning

- Agriculture
- GCSMUNI
- Light Industrial
- Heavy Industrial
- Industrial Select
- Planned Industrial Development
- Public Ownership - 1
- Private Services - 2





Zoning - Proposed

-  Parcels
-  Municipal Boundary
-  Preserve Property
-  Road

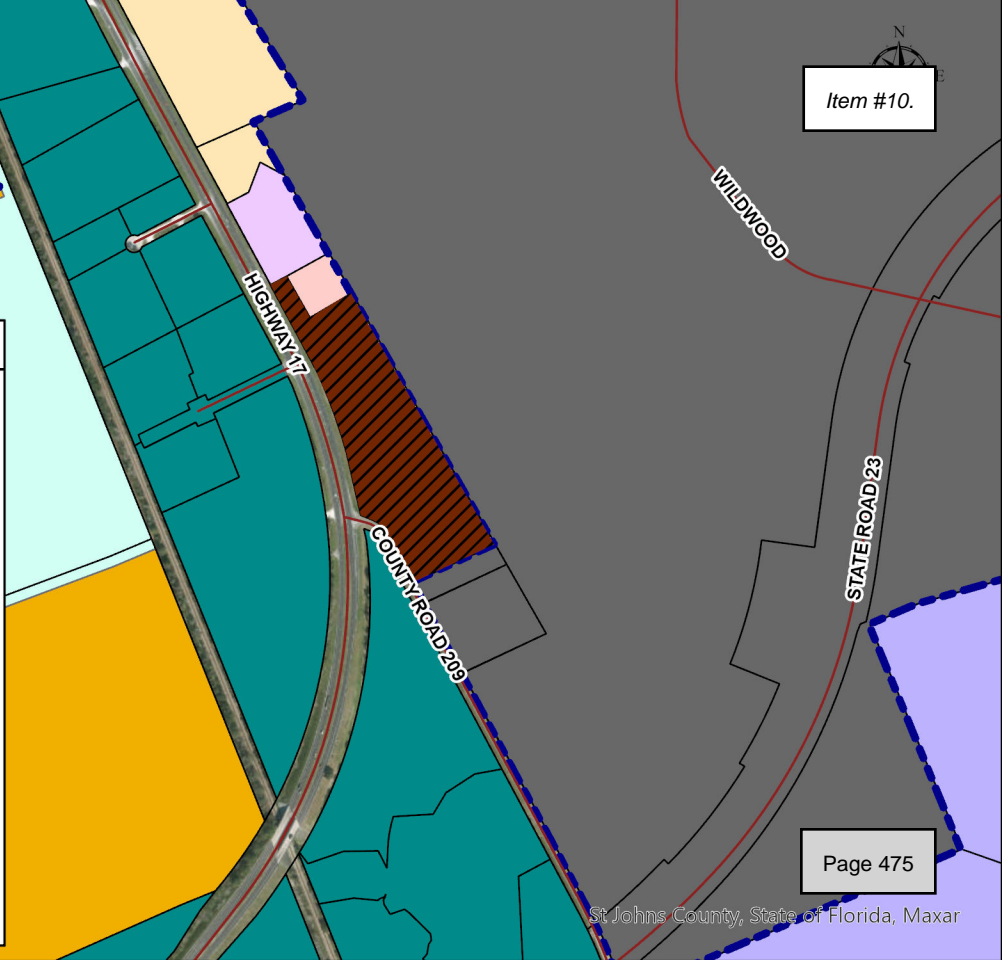
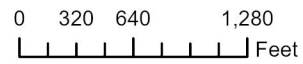


City Zoning

-  PUD
-  M-2

County Zoning

-  Agriculture
-  GCSMUNI
-  Light Industrial
-  Heavy Industrial
-  Industrial Select
-  Planned Industrial Development
-  Public Ownership - 1
-  Private Services - 2



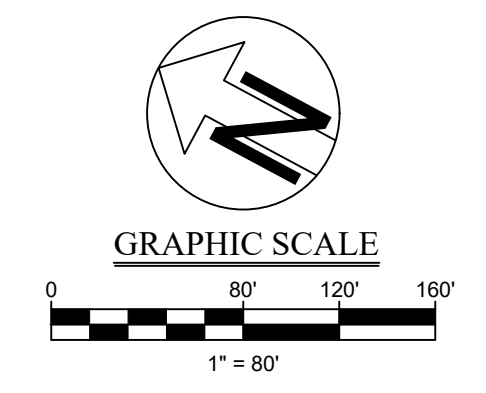
© 2024 MDT GROUP, INC. GREEN COVE MULTI-FAMILY DESIGN GROUP, INC. 11000 W. BAYVIEW BLVD., SUITE 200, GREEN COVE, FL 32084

SITE DATA TABLE		
TOTAL SITE AREA	13.93 AC	606,730 SF
PROPOSED BUILDING		100,285 SF
PROPOSED IMPERVIOUS AREA		210,773 SF
PROPOSED POND AREA (NWL)		47,786 SF
PROPOSED RECREATION AREA		125,720 SF
TOTAL IMPERVIOUS		358,847 SF
TOTAL PERVIOUS		247,882 SF
TOTAL IMPERVIOUS %		59%
TOTAL PERVIOUS %		41%
% BUILDING COVERAGE		17%
TOTAL FLOOR AREA		354,174 SF
FLOOR AREA RATIO (FAR)		58.4%
PARCEL NUMBER(S)	38-06-26-016489-007-00	
911 ADDRESS	US HIGHWAY 17 AND CR 209 SOUTH	
FEMA PANEL NUMBER	12019C0283E	
FLOOD ZONE	ZONE X & A	

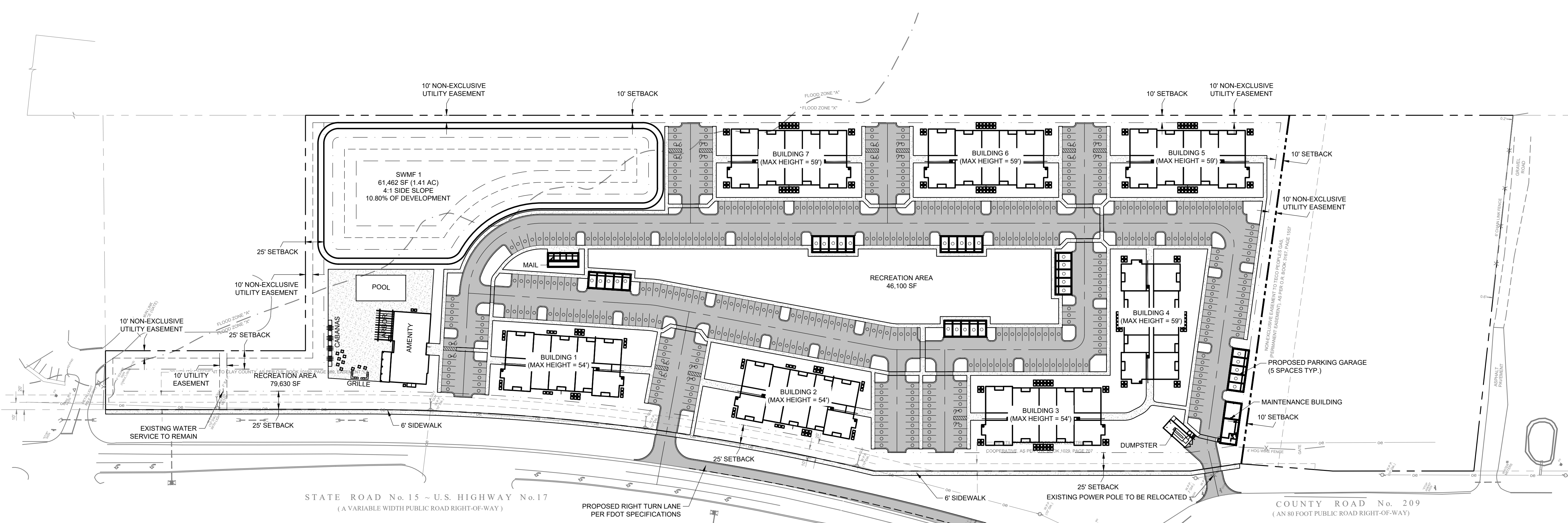
PARKING CALCULATIONS	
TOTAL MINIMUM REQUIRED	= 457 SPACES
TOTAL PROVIDED	= 487 SPACES

DENSITY	
MAXIMUM ALLOWED DENSITY	= 278 UNITS
	= 20 UNITS / ACRE
DENSITY AS DEPICTED	= 260 UNITS

HATCH LEGEND	
ASPHALT PAVEMENT	
CONCRETE SIDEWALK	



CONCEPT SITE PLAN IS SUBJECT TO REVISIONS BASED ON FINAL SITE PLAN APPROVAL AND CONSTRUCTION PLAN APPROVAL



NO.	DATE	REVISIONS DESCRIPTION

MATTHEWS DESIGN GROUP
 P.O. BOX 3126, 7 WALDO STREET
 ST. AUGUSTINE, FL 32084
 PHONE: 904.826.1334 • FAX: 904.826.4547
 INFO@MDGINC.COM

MASTER SITE PLAN
GREEN COVE MULTI FAMILY
 GREEN COVE SPRINGS, FLORIDA
 PREPARED FOR
 PIEDMONT PRIVATE EQUITY

Preserve at Green Cove Springs Planned Unit Development

City of Green Cove Springs, Florida

March 8, 2022
Revised April 11, 2022

Team Roster

Owners:

J.P. Hall Revocable Trust, Virginia Hall, as Trustee; Virginia Hall Revocable Trust; CHS, LLC; Lyman G. Hall
2321 Egremont Drive
Orange Park, Florida 32073

Applicant:

PC Acquisition, LLC
Walter M. Hall, III, Eric Conkright, John Cattano
3475 Piedmont Road NE, Suite 1125
Atlanta, Georgia 30305
(404) 496-4100

Transportation:

Chindalur Traffic Solutions, Inc.
Rajesh Chindalur
8833 Perimeter Park Boulevard, Suite 103
Jacksonville, Florida 32216
(904) 619-3368

Legal:

Rogers Towers, P.A.
Ellen Avery-Smith, Esq.
100 Whetstone Place, Suite 200
St. Augustine, Florida 32086
(904) 825-1615

Exhibit List:

Exhibit "A" – Legal Description of the Property
Exhibit "B" – Conceptual Development Plan

A. Development Summary

This application proposes to rezone approximately 14 acres that is a portion of Clay County Parcel No. 38-06-26-016499-007-00 (the “**Property**”) from Light Industrial (Clay County) to Planned Unit Development (“**PUD**”) in the City of Green Cove Springs. The Property is owned by John Bishop, as Trustee, et al. (the “**Owner**”), and is under contract for purchase by PC Acquisition, LLC (the “**Applicant**”). A legal description of the Property is attached as **Exhibit “A”**.

The requested PUD rezoning application is a companion to applications to annex the Property into the City of Green Cove Springs and to change the Future Land Use Map designation from Industrial (Clay County) to Mixed-Use in the City. The PUD is consistent with the proposed City Future Land Use Map (“**FLUM**”) designation set forth in the City of Green Cove Springs Comprehensive Plan.

The Property is located east of U.S. Highway 17, north of County Road 209 South, and west of the current corporate limits of Green Cove Springs. The Clay County Port is located to the east of the site.

The Applicant will provide access roads and drives, utilities, recreational facilities and other infrastructure to serve the PUD.

Unless specified otherwise in this PUD text and the PUD ordinance approving the same, the project will comply with applicable provisions of the City of Green Cove Springs Land Development Code (the “**Code**”).

B. The Property

The Property includes approximately 14 acres. Wetlands will be delineated pursuant to requirements of the St. Johns River Water Management District (“**District**”) and Florida Department of Environmental Protection (“**FDEP**”), and any proposed wetland impacts will be permitted by the District and Corps. A conceptual development plan for the Property is illustrated on the Conceptual Development Plan attached as **Exhibit “B”**. The Conceptual Development Plan is subject to modification based on comments from applicable governmental agencies and final site planning and engineering.

C. Residential Development

The Property will include a maximum of 278 multi-family (apartment) residential units (the “**Project**”). There are no wetlands within the Property, so the entire approximately 14 acres is developable.

The Property will include private recreational facilities and recreational areas to serve the proposed residential development. Temporary construction offices and trailers, and essential services including driveways/internal streets, water, sewer, gas, telephone, stormwater management facilities, and other improvements customary in a multi-family residential development will be permitted within of the project.

Minimum required living areas for the multi-family units are:

Studio/Efficiency Apartment: 700 square feet

One bedroom: 750 square feet

Two bedroom: 1,100 square feet

Three bedroom: 1,200 square feet

D. Non-residential Development

There will be no non-residential development within the Property except for uses ancillary to the residential development described in Section C hereof.

E. Site Development Criteria

1. Setbacks: The minimum building setbacks are as follows:
 - a. Property setbacks: A minimum of 25 feet from the right-of-way of U.S. Highway 17 and the northern property boundary and ten (10) feet from the southern and eastern property boundaries.
 - b. Distance between buildings: 30 feet (excluding ancillary structures (i.e., garage enclosures, maintenance buildings, etc.).
2. Maximum building height: Building height shall not exceed 50 feet for buildings located adjacent to U.S. Highway 17 and shall not exceed 59 feet for buildings not located adjacent to U.S. Highway 17, as such building locations are depicted on the Conceptual Development Plan.
3. Maximum impervious surface ratio: 70 percent for the Property (the entire PUD).
4. Maximum lot coverage by buildings: 70 percent for the Property (the entire PUD).
5. Density. Maximum 20 units per acre.

6. Parking: Minimum on-site parking spaces for the Project will be provided as follows:

Dwelling Units	Number of Units	Spaces per Unit	Total
Studio	20	1.0	20
1 Bedroom	84	1.0	84
2 Bedrooms	122	2.0	244
3 Bedrooms	34	2.0	68
Garage Enclosures			30
Employees & Guests			11
Total	260		457
Parking Ratio			1.75

Parking spaces will be nine (9) feet wide by 18 feet long, and drive aisles will be 24 feet wide. Parking can be provided in surface lots or enclosed garages.

7. Signage. On-site signs shall be permitted within the Property. Project signage shall be identified as part of site plan approval and shall meet the applicable requirements of Code Sections 125-13 and 125-14 except as follows:
- a. At each of the project entrances along U.S. Highway 17 and County Road 209 South, the Applicant shall be permitted one (1) ground sign, with a maximum of 45 square feet of advertising display area. These signs will not exceed 12 feet in height. The generation location of these signs will be depicted on construction plans. The Project signs may be lighted or illuminated. The Applicant may construct a fence, masonry wall or berm or install landscaping and/or vegetation (or provide a combination thereof) to compliment the entrance feature.
 - b. Construction and/or advertising signs shall be allowed as on-site temporary signs. Such signs must be removed within 30 days after the last unit is sold. The signs may be two (2) sided with each face limited to 16 square feet.
 - c. Various locational, directional, model home and traffic control signs shall be allowed on site to direct traffic and for identification of sales offices, recreation areas, etc. Such signs will be a maximum of six (6) square feet in size.

G. Infrastructure

1. Drainage: A master stormwater management system shall be owned, constructed and maintained by the Property Owner. The stormwater management system will be constructed in accordance with the requirements of the City of Green Cove Springs and the St. Johns River Water Management District, including the construction of pond sides that slope gently into the ponds for safety purposes. The conceptual master stormwater plan for the entire PUD shall be approved prior to the City's approval of the first final plat.
2. Site Access: Vehicular access within the Property connects off-site to U.S. Highway 17 and County Road 209 South in the locations depicted on the Conceptual Development Plan.
3. Pedestrian Circulation: A six (6)-foot-wide sidewalk will be constructed along U.S. Highway 17 and County Road 209 adjacent to the Property. Internal project pedestrian circulation will be provided via sidewalks, which will be a minimum of five (5) feet in width.
4. Parks, Open Space and Recreational Facilities: The Project will provide private parks and recreational facilities, as depicted on the Conceptual Site Plan. Recreational facilities may include an amenity center, swimming pool, playground, walking trails, multi-purpose trails and others to serve the Project residents.
5. Solid Waste Collection: Solid waste collection will be provided by a City-approved contractor.
6. Utilities: All utilities within the Project shall be underground, to the extent feasible. The City will provide water, sewer and electric service to the Project. The Applicant will submit an underground electric layout for the project to the City for approval prior to final Construction Improvement Plan approval. The Applicant shall provide a non-exclusive utility easement in favor of the City and other applicable utility providers around the perimeter of the Property, in the location depicted on the Conceptual Site Plan. The Applicant will work with the owner of the adjacent Masonic Lodge parcel regarding either the relocation of the existing water line and meter located within the Property that serve the Lodge parcel, or the provision of an easement over the existing water line and meter.
7. Transportation Systems: All transportation systems will comply with applicable provisions of City Code Chapter 113, Article II, Division 2.

H. Buffering and Landscaping

1. Perimeter Buffer: A natural or landscaped buffer a minimum of ten (10) feet wide shall be located along the perimeters of the Property.
2. Landscaping. Tree mitigation and landscaping will comply with applicable provisions of Code Chapter 113, Article VII. A conceptual landscape plan will be provided as part of site plan approval.
3. Upland Buffers: An averaged 25-foot natural vegetative upland buffer shall be required and maintained between developed area and contiguous wetlands. The 25 feet shall be measured from the State jurisdictional wetland line.

I. Temporary Uses

Development of the site and construction of the improvements will require temporary uses such as construction trailers, leasing offices, temporary signage and temporary access. Temporary construction and sales trailers will be removed no later than 45 days following the issuance of a certificate of occupancy for the last building constructed on the Property. The Applicant shall be permitted to erect temporary on-site construction and leasing signage on the Property.

J. Accessory Uses

Standard residential accessory uses will be allowed within the residential building areas of the site, including but not limited to decks, swimming pools, patios, air conditioning units, walkways and sidewalks.

Accessory uses such as private garages and storage buildings; home occupations in compliance with applicable provisions of City Code Section 117-789; model homes; guardhouses; air conditioning units and related heating/cooling units; swimming pools and pool equipment; pool pump house; trash compacter; mail kiosk; fences, walls or hedges; gazebos and other open-air structures; boardwalks, docks and other similar uses shall be permitted within the Property. Accessory uses shall comply with the applicable development criteria set forth in Section E of this PUD text.

K. Project Phasing

The project will be constructed in one (1), ten (10)-year phase. Construction will be commenced by 2025 and shall be completed within three (3) years. For purposes of this PUD, "commencement" shall mean securing approved construction drawings. "Completion" shall be defined as the installation of horizontal infrastructure and City approval of as-builts.

L. Ownership Agreement

The Applicant, on behalf of itself and its successors and assigns, hereby agrees and stipulates to proceed with the proposed development in accordance with the PUD ordinance for this application as adopted by the Green Cove Springs City Council. The Applicant also agrees to comply with all conditions and safeguards established by the City of Green Cove Springs with respect to this Planned Unit Development application.

Exhibit "A"**Legal Description of Property**

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF, SOUTH 68°04'14" WEST, A DISTANCE OF 304.53 FEET, TO THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE SOUTH 28°13'15" EAST, ALONG THE WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF CLAY COUNTY, FLORIDA. A DISTANCE OF 1,104.56 FEET, TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH 28°13'15" EAST, ALONG THE AFORESAID WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 1,337.15 FEET, TO A POINT ON THE NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, SOUTH 69°38'54" WEST, ALONG THE AFORESAID NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 478.21 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED); RUN THENCE, ALONG THE AFORESAID EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED), THE FOLLOWING THREE (3) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTH 23°43'25" WEST, A DISTANCE OF 2.21 FEET, TO A POINT OF INTERSECTION IN SAID RIGHT-OF-WAY LINE;

COURSE No. 2: RUN THENCE, NORTH 36°44'27" WEST, A DISTANCE OF 67.07 FEET, TO A POINT;

COURSE No. 3: RUN THENCE, NORTH 28°13'56" WEST, A DISTANCE OF 430.86 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "STATE ROAD No. 15~U.S. HIGHWAY No. 17", (A VARIABLE WIDTH PUBLIC

ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; PRESENTLY); RUN THENCE, ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID "STATE ROAD No. 15~U.S. HIGHWAY No. 17", THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTHWESTERLY, ALONG AND AROUND THE ARC OF A CURVE, BEING CONCAVE WESTERLY, AND HAVING A RADIUS OF 2,988.79 FEET, THROUGH A CENTRAL ANGLE OF 13°36'55" TO THE LEFT, AN ARC DISTANCE OF 710.23 FEET, TO THE POINT OF TANGENCY OF LAST SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD BEARING AND DISTANCE OF NORTH 21°26'31" WEST, 708.56 FEET;

COURSE No. 2: RUN THENCE, NORTH 28°14'52" WEST, ALONG THE TANGENCY OF LAST SAID CURVE, A DISTANCE OF 340.34 FEET, TO A POINT, BEING THE MOST SOUTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, NORTH 61°42'00" EAST, ALONG THE SOUTHERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 80.07 FEET, TO A POINT, BEING THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, ALONG THE WESTERLY, AND THEN SOUTHERLY BOUNDARY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, SOUTH 28°13'14" EAST, A DISTANCE OF 271.77 FEET, TO A POINT;

COURSE No. 2: RUN THENCE, NORTH 61°46'45" EAST, A DISTANCE OF 320.01 FEET, TO THE AFORESAID WESTERLY LINE OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE CURRENT PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, AND THE POINT OF BEGINNING.

THE LANDS THUS DESCRIBED CONTAINED 606,663 SQUARE FEET, OR 13.92 ACRES, MORE OR LESS, IN AREA.

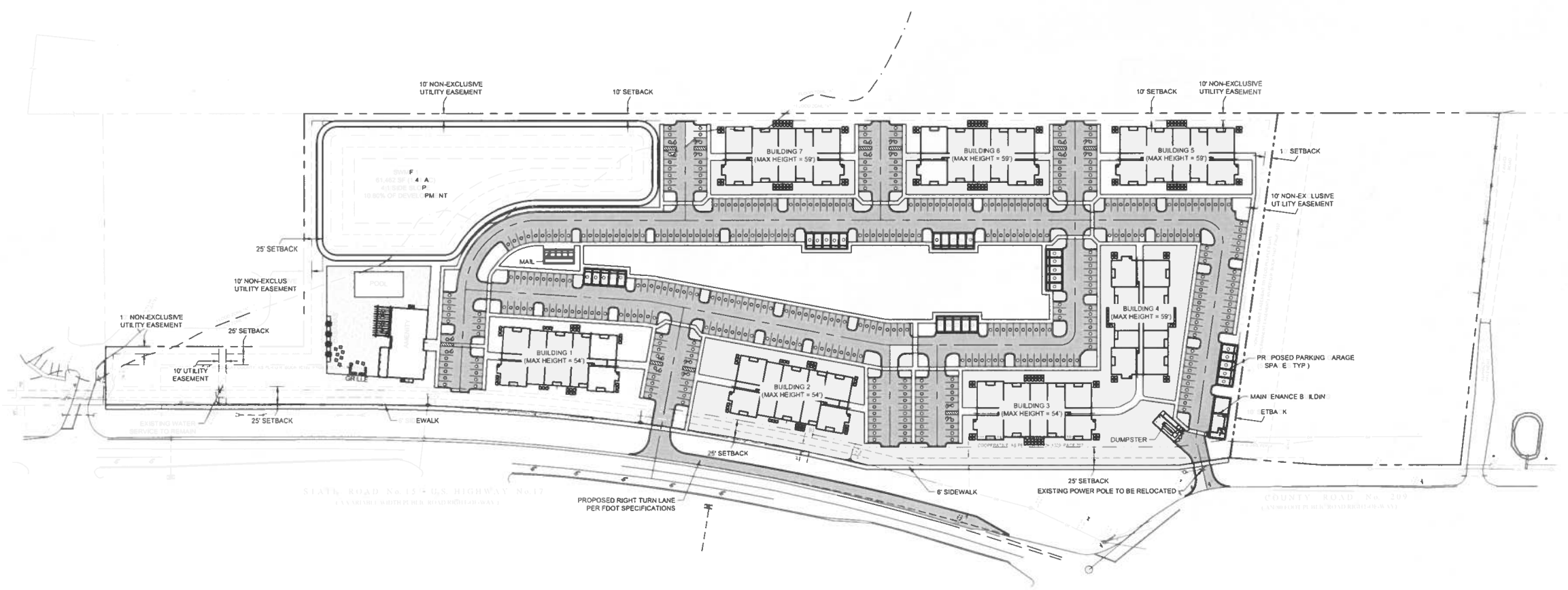
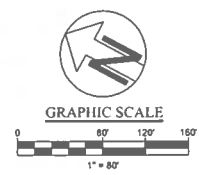
Exhibit "B"

Conceptual Development Plan

SITE DATA TABLE		
TOTAL SITE	13.92 AC	606,355 SF
DEVELOPMENT AREA	13.07 AC	569,315 SF
PROPOSED BUILDING		100,285 SF
PROPOSED IMPERVIOUS AREA		210,773 SF
PROPOSED POND AREA (NWL)		47,788 SF
TOTAL IMPERVIOUS		358,847 SF
TOTAL PERVIOUS		210,469 SF
TOTAL IMPERVIOUS %		53%
TOTAL PERVIOUS %		37%
% BUILDING COVERAGE		18%
TOTAL FLOOR AREA		354,174 SF
FLOOR AREA RATIO (FAR)		62.2%
PARCEL NUMBER(S)	38-06-26-016499-007-00	
911 ADDRESS	US HIGHWAY 17 AND CR 209 SOUTH	
FEMA PANEL NUMBER	12019C0283E	
FLOOD ZONE	ZONE X & A	

PARKING CALCULATIONS		
USE MULTI FAMILY	1.75 SPACE PER UNIT	1 UNIT
UNITS	290 UNITS	457 SPACES
TOTAL REQUIRED		457 SPACES
TOTAL PROVIDED		467 SPACES

HATCH LEGEND	
[Hatched Pattern]	ASPHALT PAVEMENT
[Hatched Pattern]	CONCRETE SIDEWALK

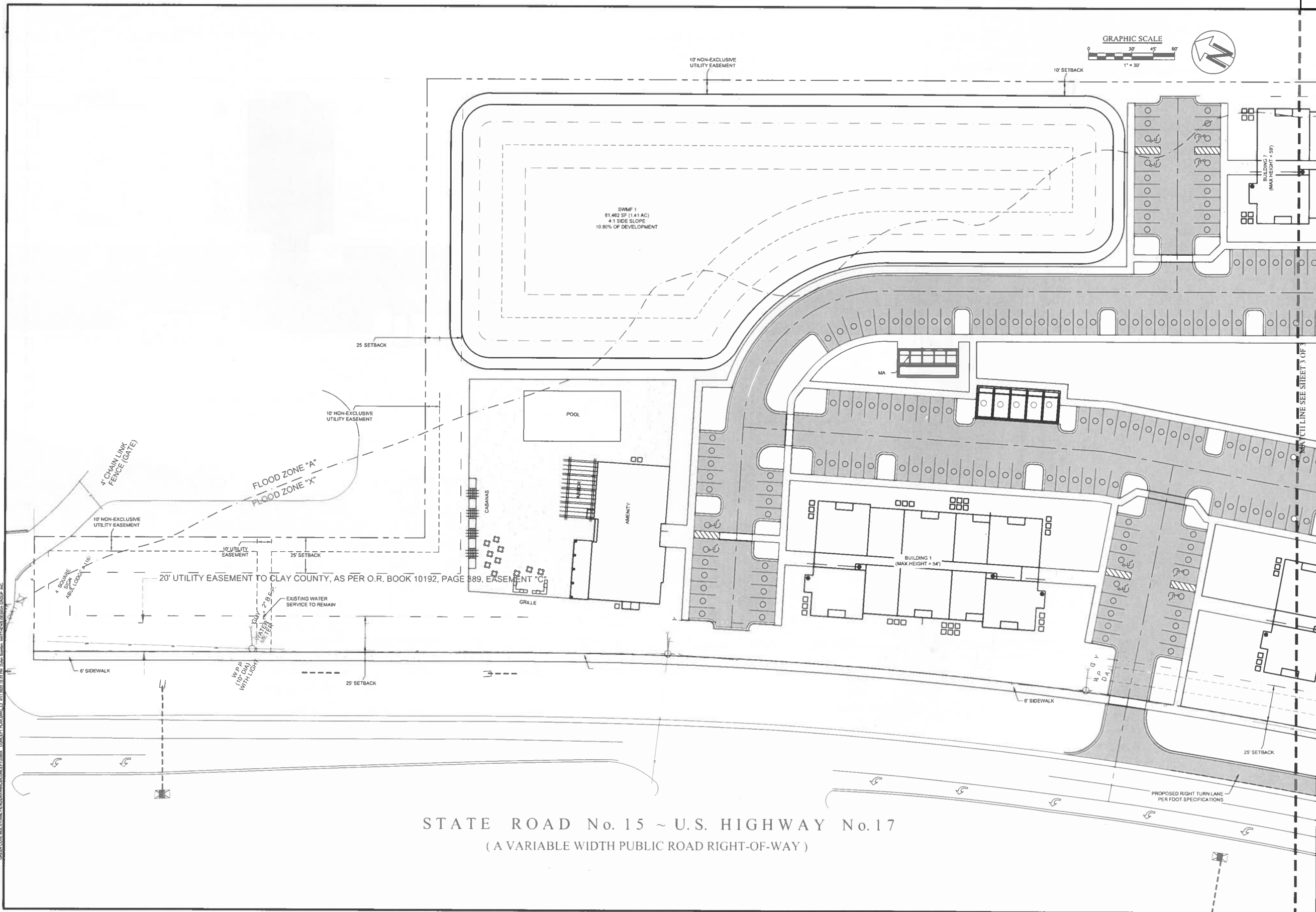
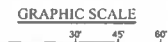


NO.	DATE	DESCRIPTION

MATTHEWS DESIGN GROUP
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 ST. AUGUSTINE, FL 32084
 PHONE: 904.826.1334 • FAX: 904.826.4547
 INFO@MDGINC.COM

MASTER SITE PLAN
GREEN COVE MULTI FAMILY
 GREEN COVE SPRINGS, FLORIDA
 PREPARED FOR
 PIEDMONT PRIVATE EQUITY

PROJECT: 230920234 - GREEN COVE MULTI FAMILY DESIGN/CONCEPT PLANNING, L1, 04/11/2023, 10:22 PM, Drawn by: [redacted], MATTHEWS DESIGN GROUP, INC.



STATE ROAD No. 15 ~ U.S. HIGHWAY No. 17
(A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY)

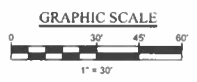
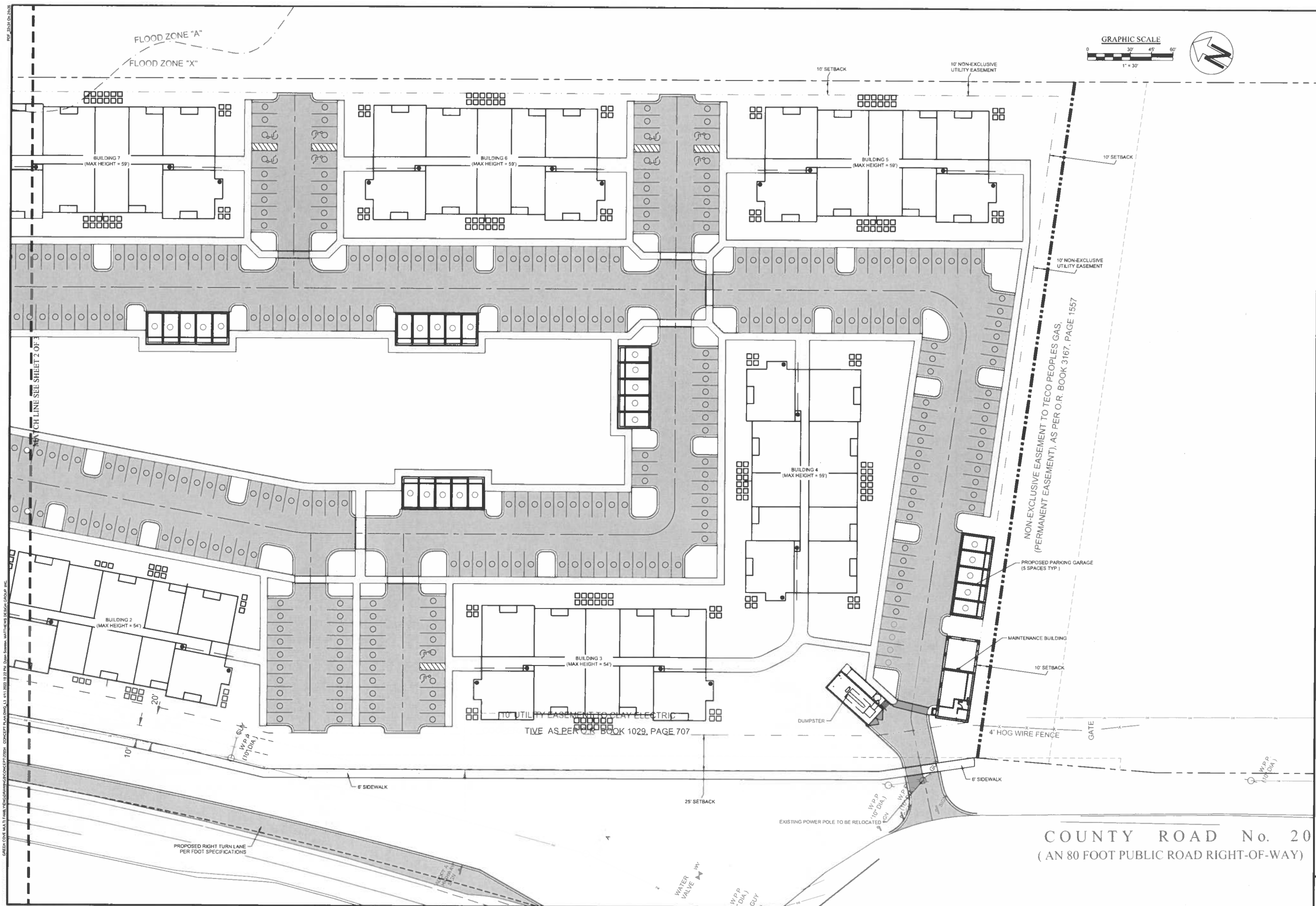
NO.	DATE	DESCRIPTION

DESIGNED BY	DTS	DATE

DRAWN BY	DATE	JOB NO.

MATTHEWS DESIGN GROUP
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 INFO@MDGNC.COM

SITE PLAN
GREEN COVE MULTI FAMILY
 GREEN COVE SPRINGS, FLORIDA
 PREPARED FOR
 PIEDMONT PRIVATE EQUITY



REVISIONS	DESCRIPTION	NO.	DATE

MATTHEWS DESIGN GROUP
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SITE PLAN
GREEN COVE MULTI FAMILY
 GREEN COVE SPRINGS, FLORIDA
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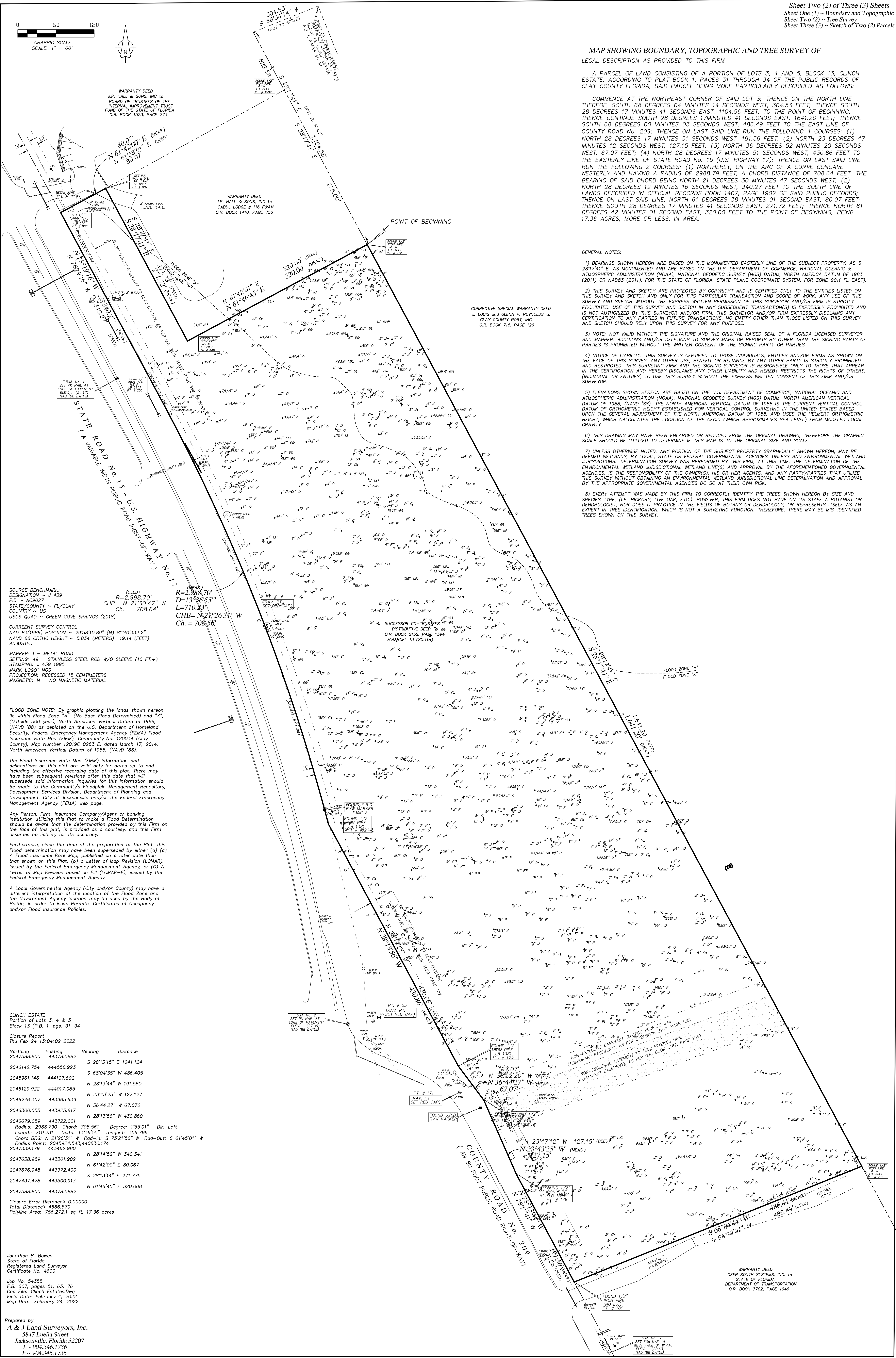
MAP SHOWING BOUNDARY, TOPOGRAPHIC AND TREE SURVEY OF
 LEGAL DESCRIPTION AS PROVIDED TO THIS FIRM

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF SOUTH 68 DEGREES 04 MINUTES 14 SECONDS WEST, 304.53 FEET; THENCE SOUTH 28 DEGREES 17 MINUTES 41 SECONDS EAST, 1104.56 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 28 DEGREES 17 MINUTES 41 SECONDS EAST, 1641.20 FEET; THENCE SOUTH 68 DEGREES 00 MINUTES 03 SECONDS WEST, 486.49 FEET TO THE EAST LINE OF COUNTY ROAD No. 209; THENCE ON LAST SAID LINE RUN THE FOLLOWING 4 COURSES: (1) NORTH 28 DEGREES 17 MINUTES 51 SECONDS WEST, 191.56 FEET; (2) NORTH 23 DEGREES 47 MINUTES 12 SECONDS WEST, 127.15 FEET; (3) NORTH 36 DEGREES 52 MINUTES 20 SECONDS WEST, 67.07 FEET; (4) NORTH 28 DEGREES 17 MINUTES 51 SECONDS WEST, 430.86 FEET TO THE EASTERLY LINE OF STATE ROAD No. 15 (U.S. HIGHWAY 17); THENCE ON LAST SAID LINE RUN THE FOLLOWING 2 COURSES: (1) NORTHERLY, ON THE ARC OF A CURVE CONCAVE WESTERLY AND HAVING A RADIUS OF 2988.79 FEET, A CHORD DISTANCE OF 708.64 FEET, THE BEARING OF SAID CHORD BEING NORTH 21 DEGREES 30 MINUTES 47 SECONDS WEST; (2) NORTH 28 DEGREES 19 MINUTES 16 SECONDS WEST, 340.27 FEET TO THE SOUTH LINE OF LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 1407, PAGE 1902 OF SAID PUBLIC RECORDS; THENCE ON LAST SAID LINE, NORTH 61 DEGREES 38 MINUTES 01 SECOND EAST, 80.07 FEET; THENCE SOUTH 28 DEGREES 17 MINUTES 41 SECONDS EAST, 271.72 FEET; THENCE NORTH 61 DEGREES 42 MINUTES 01 SECOND EAST, 320.00 FEET TO THE POINT OF BEGINNING; BEING 17.36 ACRES, MORE OR LESS, IN AREA.

GENERAL NOTES:

- 1) BEARINGS SHOWN HEREON ARE BASED ON THE MONUMENTED EASTERLY LINE OF THE SUBJECT PROPERTY, AS S 28°17'41" E, AS MONUMENTED AND ARE BASED ON THE U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL GEODETIC SURVEY (NGS) DATUM, NORTH AMERICAN DATUM OF 1983 (2011) OR NAD83 (2011), FOR THE STATE OF FLORIDA, STATE PLANE COORDINATE SYSTEM, FOR ZONE 901 (FL EAST).
- 2) THIS SURVEY AND SKETCH ARE PROTECTED BY COPYRIGHT AND IS CERTIFIED ONLY TO THE ENTITIES LISTED ON THIS SURVEY AND SKETCH AND ONLY FOR THIS PARTICULAR TRANSACTION AND SCOPE OF WORK. ANY USE OF THIS SURVEY AND SKETCH WITHOUT THE EXPRESS WRITTEN PERMISSION OF THIS SURVEYOR AND/OR FIRM IS STRICTLY PROHIBITED. USE OF THIS SURVEY AND SKETCH IN ANY SUBSEQUENT TRANSACTION(S) IS EXPRESSLY PROHIBITED AND IS NOT AUTHORIZED BY THIS SURVEYOR AND/OR FIRM. THIS SURVEYOR AND/OR FIRM EXPRESSLY DISCLAIMS ANY CERTIFICATION TO ANY PARTIES IN FUTURE TRANSACTIONS. NO ENTITY OTHER THAN THOSE LISTED ON THIS SURVEY AND SKETCH SHOULD RELY UPON THIS SURVEY FOR ANY PURPOSE.
- 3) NOTE: NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL PAID SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS AND/OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OF PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 4) NOTICE OF LIABILITY: THIS SURVEY IS CERTIFIED TO THOSE INDIVIDUALS, ENTITIES AND/OR FIRMS AS SHOWN ON THE FACE OF THIS SURVEY. ANY OTHER USE, BENEFIT OR RELIANCE BY ANY OTHER PARTY IS STRICTLY PROHIBITED AND RESTRICTED. THIS SURVEYING FIRM AND THE SIGNING SURVEYOR IS RESPONSIBLE ONLY TO THOSE THAT APPEAR IN THE CERTIFICATION AND HEREBY DISCLAIMS ANY OTHER LIABILITY AND HEREBY RESTRICTS THE RIGHTS OF OTHERS, (INDIVIDUAL OR ENTITIES) TO USE THIS SURVEY WITHOUT THE EXPRESS WRITTEN CONSENT OF THIS FIRM AND/OR SURVEYOR.
- 5) ELEVATIONS SHOWN HEREON ARE BASED ON THE U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL GEODETIC SURVEY (NGS) DATUM, NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD '88). THE NORTH AMERICAN VERTICAL DATUM OF 1988 IS THE CURRENT VERTICAL CONTROL DATUM OF ORTHOMETRIC HEIGHT ESTABLISHED FOR VERTICAL CONTROL SURVEYING IN THE UNITED STATES BASED UPON THE GENERAL ADJUSTMENT OF THE NORTH AMERICAN DATUM OF 1988, AND USES THE HELMERT ORTHOMETRIC HEIGHT, WHICH CALCULATES THE LOCATION OF THE GEOID (WHICH APPROXIMATES SEA LEVEL), FROM MODELED LOCAL GRAVITY.
- 6) THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED FROM THE ORIGINAL DRAWING, THEREFORE THE GRAPHIC SCALE SHOULD BE UTILIZED TO DETERMINE IF THIS MAP IS TO THE ORIGINAL SIZE AND SCALE.
- 7) UNLESS OTHERWISE NOTED, ANY PORTION OF THE SUBJECT PROPERTY GRAPHICALLY SHOWN HEREON, MAY BE DEEMED WETLANDS, BY LOCAL, STATE OR FEDERAL GOVERNMENTAL AGENCIES, UNLESS AN ENVIRONMENTAL WETLAND JURISDICTIONAL DETERMINATION SURVEY WAS PERFORMED BY THIS FIRM, AT THIS TIME, THE DETERMINATION OF THE ENVIRONMENTAL WETLAND JURISDICTIONAL WETLAND LINE(S) AND APPROVAL BY THE AFORESAID GOVERNMENTAL AGENCIES, IS THE RESPONSIBILITY OF THE OWNER(S), HIS OR HER AGENTS, AND ANY PARTY/PARTIES THAT UTILIZE THIS SURVEY WITHOUT OBTAINING AN ENVIRONMENTAL WETLAND JURISDICTIONAL LINE DETERMINATION AND APPROVAL BY THE APPROPRIATE GOVERNMENTAL AGENCIES DO SO AT THEIR OWN RISK.
- 8) EVERY ATTEMPT WAS MADE BY THIS FIRM TO CORRECTLY IDENTIFY THE TREES SHOWN HEREON BY SIZE AND SPECIES TYPE, (I.E. HICKORY, LIVE OAK, ETC.). HOWEVER, THIS FIRM DOES NOT HAVE ON ITS STAFF A BOTANIST OR DENDROLOGIST, NOR DOES IT PRACTICE IN THE FIELDS OF BOTANY OR DENDROLOGY, OR REPRESENTS ITSELF AS AN EXPERT IN TREE IDENTIFICATION, WHICH IS NOT A SURVEYING FUNCTION. THEREFORE, THERE MAY BE MIS-IDENTIFIED TREES SHOWN ON THIS SURVEY.



WARRANTY DEED
 J.P. HALL & SONS, INC. to
 BOARD OF TRUSTEES OF THE
 INTERNAL IMPROVEMENT TRUST
 FUND OF THE STATE OF FLORIDA
 O.R. BOOK 1523, PAGE 773

WARRANTY DEED
 J.P. HALL & SONS, INC. to
 CAROL LOOSE # 116 FARM
 O.R. BOOK 1410, PAGE 756

CORRECTIVE SPECIAL WARRANTY DEED
 J. LOUIS and GLENN P. REYNOLDS to
 CLAY COUNTY PORT, INC.
 O.R. BOOK 718, PAGE 128

SOURCE BENCHMARK:
 DESIGNATION ~ J 439
 PID ~ AC9027
 STATE/COUNTY ~ FL/CLAY
 COUNTRY ~ US
 USGS QUAD ~ GREEN COVE SPRINGS (2018)

CURRENT SURVEY CONTROL
 NAD 83(1986) POSITION ~ 29°58'10.89" (N) 81°40'33.52"
 NAVD 88 ORTHO HEIGHT ~ 5.834 (METERS) 19.14 (FEET)
 ADJUSTED

MARKER: 1 = METAL ROAD
 SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+) STAMPING: J 439 1995
 MARK LOGO ~ NGS
 PROJECTION: RECESSED 15 CENTIMETERS
 MAGNETIC: N = NO MAGNETIC MATERIAL

FLOOD ZONE NOTE: By graphic plotting the lands shown hereon lie within Flood Zone "A", (No Base Flood Determined) and "X", (Outside 500 year, North American Vertical Datum of 1988, (NAVD '88) as depicted on the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Community No. 120034 (Clay County), Map Number 12019C 0283 E, dated March 17, 2014, North American Vertical Datum of 1988, (NAVD '88).

The Flood Insurance Rate Map (FIRM) information and delineations on this plot are valid only for dates up to and including the effective recording date of this plot. There may have been subsequent revisions after this date that will supersede said information. Inquiries for this information should be made to the Community's Floodplain Management Repository, Development Services Division, Department of Planning and Development, City of Jacksonville and/or the Federal Emergency Management Agency (FEMA) web page.

Any Person, Firm, Insurance Company/Agent or banking institution utilizing this Plot to make a Flood Determination should be aware that the determination provided by this Firm on the face of this plot, is provided as a courtesy, and this Firm assumes no liability for its accuracy.

Furthermore, since the time of the preparation of the Plot, this Flood determination may have been superseded by either (a) (a) A Flood Insurance Rate Map, published on a later date than that shown on this Plot, (b) a Letter of Map Revision (LOMAR), issued by the Federal Emergency Management Agency, or (c) A Letter of Map Revision based on Fill (LOMAR-F), issued by the Federal Emergency Management Agency.

A Local Governmental Agency (City and/or County) may have a different interpretation of the location of the Flood Zone and the Government Agency location may be used by the Body of Politic, in order to issue Permits, Certificates of Occupancy, and/or Flood Insurance Policies.

CLINCH ESTATE
 Portion of Lots 3, 4 & 5
 Block 13 (P.B. 1, pgs. 31-34)

Closure Report
 Thu Feb 24 13:04:02 2022

Northing	Easting	Bearing	Distance
2047588.800	443782.882	S 28°13'15" E	1641.124
2046142.754	444558.923	S 68°04'35" W	486.405
2045961.146	444107.692	N 28°13'44" W	191.560
2046129.922	444017.085	N 23°43'25" W	127.127
2046246.307	443965.939	N 36°44'27" W	67.072
2046300.055	443925.817	N 28°13'56" W	430.860
2046679.659	443722.001	Radius: 2988.790 Chord: 708.561 Degree: 1°55'01" Dir: Left Length: 710.231 Delta: 13°36'55" Tangent: 356.796 Chord BRC: N 21°26'31" W Rad-In: S 75°21'56" W Rad-Out: S 61°45'01" W Radius Point: 2045924.543, 440630.174	
2047339.179	443462.980	N 28°14'52" W	340.341
2047638.989	443301.902	N 61°42'00" E	80.067
2047676.948	443372.400	S 28°13'14" E	271.775
2047437.478	443500.913	N 61°46'45" E	320.008
2047588.800	443782.882		

Closure Error Distance > 0.00000
 Total Distance > 4666.570
 Polyline Area: 756,272.1 sq ft, 17.36 acres

Jonathon B. Bowen
 State of Florida
 Registered Land Surveyor
 Certificate No. 4600

Job No. 54355
 F.B. 607, pages 51, 65, 76
 Cad File: Clinch Estates.Dwg
 Field Date: February 4, 2022
 Map Date: February 24, 2022

Prepared by
 A & J Land Surveyors, Inc.
 5847 Luella Street
 Jacksonville, Florida 32207
 T ~ 904.346.1736
 F ~ 904.346.1736

WARRANTY DEED
 DEEP SOUTH SYSTEMS, INC. to
 STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION
 O.R. BOOK 3702, PAGE 1646

Vision for Green Cove Springs Apartments

Clubhouse Exterior Rendering (example)

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



Vision for Green Cove Springs Apartments

Apartment Dwelling Exterior Rendering (example)

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



PIEDMONT
—Private Equity

Development Team Recent Projects

Preserve at Ridgeville (N. Charleston SC) 240-units

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



Preserve at Ridgeville (N. Charleston SC) Clubhouse Exterior Elevation

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



2 LEFT SIDE ELEVATION



1 REAR ELEVATION

Preserve at Ridgeville (N. Charleston SC) Clubhouse Interior Concepts

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



Preserve at Ridgeville (N. Charleston SC) Clubhouse Interior Concepts

Confidential – for City of Green Cove Springs
approved personnel on

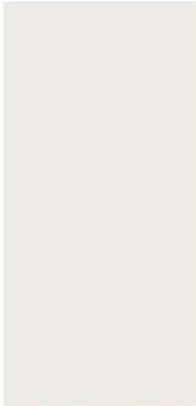
Item #10.



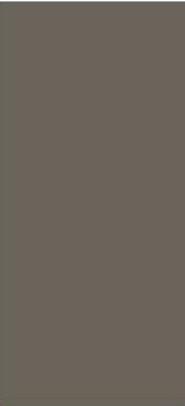
wood beam stain



lvf flooring



wainscot paint



accent paints



fabric sample

Preserve at Ridgeville (N. Charleston SC) 240-units Dwelling Building Elevation

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



PIEDMONT
—Private Equity



BUILDING MIX 3.1
EXTERIOR ELEVATION - B

1/8" = 1'-0"

- SW 7015 Repose Gray
- SW 6242 Bracing Blue
- Shingles Weathered Wood
- SW 7048 Urbane Bronze Fascia
- SW 7005 Pure White Trims/ B&B/ Panels

Development Team Recent Projects

Preserve at Ridgeville (N. Charleston SC) 240-units

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



Development Team Recent Projects

Preserve at Ridgeville (N. Charleston SC) 240-units

Confidential – for City of Green Cove Springs
approved personnel on

Item #10.



Development Team Recent Projects

Preserve at Flagler Beach (Flagler Beach FL) 240-units

Confidential – for City of Green Cove Springs approved personnel on

Item #10.

Construction Starts
June 1st 2022



Flagler Beach
Ecstatic
architecture | interiors | planning



architecture

				
Lap Siding- Aquarium SW 6767	Lap Siding- Pure White SW 7005	Shingles- Owens Corning Driftwood	Plygem Shutters- Dark Navy	Fascia/ Drip Panel/ Metal Roof- Brown

Development Team Recent Projects

Confidential – for City of Green Cove Springs approved personnel on

Item #10.

Preserve at Flagler Beach (Flagler Beach FL) 240-units

Construction Starts
June 1st 2022



- Lap Siding- Aquarium SW 6767
- Lap Siding- Pure White SW 7005
- Shingles- Owens Corning Driftwood
- Plygem Shutters- Dark Navy
- Fascia/ Drip Panel/ Metal Roof- Brown



FOR OFFICE USE ONLY		Item #10.
P Z File #	_____	
Application Fee:	_____	
Filing Date:	_____ Acceptance Date: _____	
Review Date:	SRDT _____ P & Z _____ CC _____	

PUD Rezoning Application

A. PROJECT

- Project Name: Preserve at Green Cove Springs
- Address of Subject Property: N/A
- Parcel ID Number(s): 38-06-26-016499-007-00 (Portion)
- Existing Use of Property: unimproved land
- Future Land Use Map Designation : Industrial (County)
- Existing Zoning Designation: Light Industrial (County)
- Proposed Zoning Designation: Planned Use Development (PUD)
- Acreage: 13.92

B. APPLICANT

- Applicant's Status Owner (title holder) Agent
- Name of Applicant(s) or Contact Person(s): Ellen-Avery Smith Title: Partner
 Company (if applicable): Rogers Towers, P.A.
 Mailing address: 100 Whetstone Place, Suite 200
 City: St. Augustine State: FL ZIP: 32086
 Telephone: 904-824-0879 FAX: () e-mail: eaverysmith@rtlaw.com

- If the applicant is agent for the property owner* Virginia S. Hall Revocable Trust, J.P. Hall Jr Second Amended and Restated Revocable Trust,, CHS LLC, Lyman G. Hall
 Name of Owner (titleholder): _____
 Mailing address: 2321 Egremont Drive
 City: Orange Park State: FL ZIP: 32073
 Telephone: 904-860-8739 FAX: () e-mail: viriniashall@msn.com

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

- Is there any additional contact for sale of, or options to purchase, the subject property?

Yes No If yes, list names of all parties involved:

If yes, is the contract/option contingent or absolute?

Contingent

Absolute

D. ATTACHMENTS

1. Statement of proposed change, including a map showing the proposed zoning change and zoning designations on surrounding properties
2. A current aerial map (Maybe obtained from the Clay County Property Appraiser.)
3. Plat of the property (Maybe obtained from the Clay County Property Appraiser.)
4. Legal description with tax parcel number.
5. Boundary survey
6. Warranty Deed or the other proof of ownership
7. Site Plan
8. Written Description
9. Binding Letter
10. Fee.

a. \$2,000 plus \$20 per acre

b. All applications are subject 10% administrative fee and must pay the cost of postage, signs, advertisements and the fee for any outside consultants.

No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any fees necessary for technical review or additional reviews of the application by a consultant will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any action of any kind on the development application.

All 10 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge:

Ellen Avery Smith
Signature of Applicant

Signature of Co-applicant

Ellen Avery Smith
Typed or printed name and title of applicant

Typed or printed name of co-applicant

March 7, 2022
Date

Date

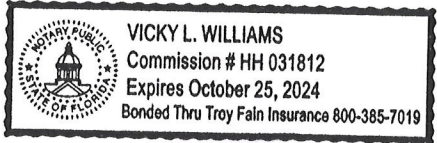
State of Florida County of St. Johns

The foregoing application is acknowledged before me this 7th day of MARCH, 2022, by Ellen

Avery-Smith, who is/are personally known to me, or who has/have produced _____ as identification.

NOTARY SEAL

Vicky L. Williams
Signature of Notary Public, State of _____



Application #: _____



School Concurrency Reservation Certificate (SCRC) APPLICATION FORM

Project Name Preserve at Green Cove Springs
Property Address South US Hwy 17
Acres 13.92 **Section** 38 **Township** 6 **Range** 26
Parcel Number(s) 38-06-26-016499--007-00 (Portion)

Future Land Use **Current** Industrial (County) **Proposed** Mixed-Use (City)
Zoning **Current** Light Industrial (County) **Proposed** Planned Unit Development (City)

PROJECT DESCRIPTION (INCLUDE ALL DEVELOPMENT, EXISTING & PROPOSED, ON THE PROPERTY)

E = Existing P = Proposed	Use/Description	Dwelling Units	Complete for EXISTING development only.		
			To Be Removed (Y or N)	CO Date	Active (Y or N)
E	Timber/Vacant				
P	Multi-Family	278			

(IF NECESSARY, CONTINUE ON A SEPARATE SHEET OF PAPER)

APPLICANT INFORMATION (ATTACH OWNER'S AUTHORIZATION FORM, IF THE APPLICANT IS NOT THE PROPERTY OWNER)

OWNER			AGENT/AUTHORIZED REPRESENTATIVE		
Virginia S. Hall Revocable Trust; Virginia S. Hall as Trustee of J.P.Hall Jr Second Amended and Restated Revocable Trust; CHS LLC; Lyman G. Hall			Ellen Avery-Smith, Esq.		
First Name	Last Name		First Name	Last Name	
			Rogers Towers, P.A.		
Company Name			Company Name		
2321 Egremont Drive			100 Whetstone Place, Suite 200		
Mailing Address			Mailing Address		
Orange Park	Florida	32073	St. Augustine	Florida	32086
City	State	Zip	City	State	Zip
904-860-8379	()		(904) 825-1615	(904)396-0663	
Phone	Fax		Phone	Fax	

Email Address: viriniashall@msn.com

eaverysmith@rtlaw.com

IMPACT MITIGATION (DESCRIPTION OF PAST OR PROPOSED PUBLIC SCHOOL FACILITY DEDICATION, CONSTRUCTION OR FUNDING TO MITIGATE IMPACTS OF DEVELOPMENT PROPOSAL)

The Owner, its successors and assigns, will pay applicable school impact fees or proportionate share mitigation, if due pursuant

to Section 163.3180, Florida Statutes.

ATTACHMENTS

THE FOLLOWING ATTACHMENTS MUST BE SUBMITTED WITH THE APPLICATION:

1. Proof of ownership (copy of deed or purchase agreement).
2. Legal description.
3. Vicinity (location) map.
4. General site plan including property boundaries and proposed development including use and intensity.
5. Phasing schedule for all proposed construction.
6. Owner's authorization form, if applicable.

FOR DEPARTMENT USE ONLY

Application Submittal: Date _____

Receipt # _____ Amount \$ _____

Reviewed By _____ Date _____

Application Determination COMPLETE Date Forwarded to School District _____

INCOMPLETE No further review will be made until the deficiencies indicated below are remedied. If the deficiencies are not remedied within 30 days, the application will be deemed withdrawn.

Description of Deficiencies: _____

RESUBMITTAL: Date _____

Reviewed By _____ Date _____

Application Determination COMPLETE Date Forwarded to School District _____

INCOMPLETE No further review will be made until the deficiencies indicated below are remedied. If the deficiencies are not remedied within 30 days, the application will be deemed withdrawn.

Description of Deficiencies: _____

FOR SCHOOL DISTRICT STAFF USE ONLY

**CONCURRENCY
DETERMINATION**

APPROVED, see School Concurrency Reservation Letter

DENIED, see School Concurrency Denial Letter

****ALL CAPACITY DETERMINATION/MITIGATION CALCULATIONS MUST BE ATTACHED TO THIS APPLICATION****

****The SCRC issued pursuant to this application is based on the information provided in the application package. A final development order will not be issued if the development for which a final development order is sought is not consistent with the description of development (including plans) on which the SCRC was issued.



SCHOOL BOARD CONCURRENCY RESERVATION LETTER (SCRL)

Project Name: Preserve at Green Cove Springs
Property Address: US 17 and CR 209
Owner/Developer: Hall Trust, 2321 Egremont Dr., Orange Park, FL 32073
City of Green Cove Springs CRC number: SCRC (PZ File) CC-22-001

Dwelling Type	Dwelling units	Impact Fee	Impact Fee extended	Student Generation Rate: Ed Fac Plan 2021-2022			
Single Family	N/A	\$7,034		0.2122	0.0644	0.1333	
Multi Family	260	\$3,236	\$841,360	0.0314	0.0095	0.0197	

SCHOOL CONCURRENCY SERVICE AREAS (SCSA) ANALYSIS

School	School Capacity (FISH)	LOS Capacity (110%)	Students Enrolled (Mar '22)	Reserved plus contiguous service area	Available Capacity	Project's Impact	Seats to Mitigate	Bus required
CE Bennett El	830	913	608	33	272	9	0	Y
Green Cove JH	930	1023	791	182	50	3	0	Y
Clay High	1944	2138	1603	437	98	6	0	Y

CONTIGUOUS IMPACTED SCHOOL CONCURRENCY SERVICE AREA (CISCSA)

School	School Capacity (FISH)	LOS Capacity (110%)	Students Enrolled (Mar '22)	Reserved plus contiguous service area	Available Capacity	Project's Impact	Seats to Mitigate	Bus required

School Capacity is based on capacity of one or more Contiguous Concurrency Service Areas. Capacity figures from the table above will be reflected in subsequent updates to each school Development Review Table.

Seat Reservations are perishable: reservation term will end three years from issue of this document. If no construction has commenced a new CCDS Concurrency Reservation request must be completed and approved.

Lance Addison
 Coordinator; Planning and Intergovernmental Relations
 Clay County District Schools
 Ph: (904) 336-6852 e-mail: lance.addison@myoneclay.net

ORDINANCE NO. O-13-2022

AN ORDINANCE OF THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA REZONING ±13.92 ACRES OF PROPERTY LOCATED ON US 17 AND CR 209, IDENTIFIED AS TAX ID NUMBER 016499-007-00, MORE PARTICULARLY DESCRIBED BY EXHIBIT “A”, FROM LIGHT INDUSTRIAL (COUNTY DESIGNATION), TO PUD, PLANNED UNIT DEVELOPMENT, KNOWN AS PRESERVE AT GREEN COVE SPRINGS; PROVIDING FOR REPEALER, SEVERABILITY AND SETTING AN EFFECTIVE DATE.

WHEREAS, the City has received a request to amend the Future Land Use Map for the subject parcel from Industrial (County) to Mixed Use; and

WHEREAS, if the City approved the Future Land Use Map amendment for the subject property it will be designated as Mixed Use on the Future Land Use Map of the City, and

WHEREAS, the City has received a request to rezone the subject parcel from Light Industrial (County) Corridor Commercial to Planned Unit Development (PUD); and

WHEREAS, the City has the authority pursuant to its home rule and other statutory powers to rezone properties within the City; and

WHEREAS, a duly advertised public hearing was conducted on the proposed rezoning on April 26, 2022 by the Planning and Zoning Board, sitting as the Local Planning Agency (LPA), and the LPA reviewed and considered comments received during the public hearing concerning the application and made its recommendation for approval to the City Council; and,

WHEREAS, the City Council considered the recommendations of the LPA at a duly advertised public hearing on May 17, 2022 and June 7, 2022 and provided for and received public participation; and,

WHEREAS, the City Council has determined and found said application for the amendment, to be consistent with the City of Green Cove Springs Comprehensive Plan and Land Development Regulations; and,

WHEREAS, for reasons set forth in this Ordinance that is hereby adopted and incorporated as findings of fact, that the Green Cove Springs City Council finds and declares that the enactment of this amendment is in the furtherance of the public health, safety, morals, order, comfort, convenience, appearance, prosperity, or general welfare.

NOW THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA AS FOLLOWS:

Section 1. Zoning Map Amended. The Zoning Map is hereby amended for the following property from Light Industrial (County) to Planned Unit Development (PUD).

Tax Parcel ID# 38-06-26-016499-007-00, in accordance with the legal description found in Exhibit “A” and map found in Exhibit “B” attached hereto.

Section 2. Ordinance to be Construed Liberally. This ordinance shall be liberally construed in order to effectively carry out the purposes hereof which are deemed to be in the best interest of the public health, safety and welfare of the citizens and residents of Green Cove Springs, Florida.

Section 3. Repealing Clause. All ordinance or parts of ordinances in conflict herewith are, to the extent of the conflict, hereby repealed.

Section 4. Severability. It is the declared intent of the City Council of the City of Green Cove Springs that, if any section, sentence, clause, phrase, or provision of this ordinance is for any reason held or declared to be unconstitutional, void, or inoperative by any court or agency of competent jurisdiction, such holding of invalidity or unconstitutionality shall not affect the remaining provisions of this ordinance, and the remainder of the ordinance after the exclusions of such part or parts shall be deemed to be valid.

Section 5. Effective Date. This Ordinance shall become effective upon passage.

INTRODUCED AND APPROVED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ON THIS 17TH DAY OF MAY 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

Matthew Johnson, Mayor

ATTEST:

Erin West, City Clerk

PASSED ON SECOND AND FINAL READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 7TH DAY OF JUNE 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

Matthew Johnson, Mayor

ATTEST:

Erin West, City Clerk

APPROVED AS TO FORM:

L. J. Arnold, III, City Attorney

EXHIBIT "A"

Legal Description

A PARCEL OF LAND CONSISTING OF A PORTION OF LOTS 3, 4 AND 5, BLOCK 13, CLINCH ESTATE, ACCORDING TO PLAT BOOK 1, PAGES 31 THROUGH 34 OF THE PUBLIC RECORDS OF CLAY COUNTY FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE ON THE NORTH LINE THEREOF, SOUTH 68°04'14" WEST, A DISTANCE OF 304.53 FEET, TO THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE SOUTH 28°13'15" EAST, ALONG THE WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF CLAY COUNTY, FLORIDA. A DISTANCE OF 1,104.56 FEET, TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, CONTINUE SOUTH 28°13'15" EAST, ALONG THE AFORESAID WESTERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126, OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 1,337.15 FEET, TO A POINT ON THE NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, SOUTH 69°38'54" WEST, ALONG THE AFORESAID NORTHERLY LINE OF THAT NON-EXCLUSIVE EASEMENT TO TECO PEOPLES GAS, (TEMPORARY EASEMENT), AS PER OFFICIAL RECORDS BOOK 3167, PAGE 1557 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 478.21 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED); RUN THENCE, ALONG THE AFORESAID EASTERLY RIGHT-OF-WAY LINE OF "COUNTY ROAD No. 209", (AN 80 FOOT PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED), THE FOLLOWING THREE (3) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTH 23°43'25" WEST, A DISTANCE OF 2.21 FEET, TO A POINT OF INTERSECTION IN SAID RIGHT-OF-WAY LINE;

COURSE No. 2: RUN THENCE, NORTH 36°44'27" WEST, A DISTANCE OF 67.07 FEET, TO A POINT;

COURSE No. 3: RUN THENCE, NORTH 28°13'56" WEST, A DISTANCE OF 430.86 FEET, TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF "STATE ROAD No. 15~U.S. HIGHWAY No. 17", (A VARIABLE WIDTH PUBLIC ROAD RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; PRESENTLY); RUN THENCE, ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID "STATE ROAD No. 15~U.S. HIGHWAY No. 17", THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, NORTHWESTERLY, ALONG AND AROUND THE ARC OF A CURVE, BEING CONCAVE WESTERLY, AND HAVING A RADIUS OF 2,988.79 FEET, THROUGH A CENTRAL ANGLE OF 13°36'55" TO THE LEFT, AN ARC DISTANCE OF 710.23 FEET, TO THE POINT OF TANGENCY OF LAST SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD BEARING AND DISTANCE OF NORTH 21°26'31" WEST, 708.56 FEET;

COURSE No. 2: RUN THENCE, NORTH 28°14'52" WEST, ALONG THE TANGENCY OF LAST SAID CURVE, A DISTANCE OF 340.34 FEET, TO A POINT, BEING THE MOST SOUTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, NORTH 61°42'00" EAST, ALONG THE SOUTHERLY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1523, PAGE 773 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, A DISTANCE OF 80.07 FEET, TO A POINT, BEING THE MOST NORTHWESTERLY CORNER OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA; RUN THENCE, ALONG THE WESTERLY, AND THEN SOUTHERLY BOUNDARY LINE OF SAID LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 1410, PAGE 756 OF THE PUBLIC RECORDS OF SAID CLAY COUNTY, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

COURSE No. 1: RUN THENCE, SOUTH 28°13'14" EAST, A DISTANCE OF 271.77 FEET, TO A POINT;

COURSE No. 2: RUN THENCE, NORTH 61°46'45" EAST, A DISTANCE OF 320.01 FEET, TO THE AFORESAID WESTERLY LINE OF THOSE LANDS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 718, PAGE 126 OF THE CURRENT PUBLIC RECORDS OF SAID CLAY COUNTY, FLORIDA, AND THE POINT OF BEGINNING.

THE LANDS THUS DESCRIBED CONTAINED 606,663 SQUARE FEET, OR 13.92 ACRES, MORE OR LESS, IN AREA.



Zoning - Proposed

-  Parcels
-  Municipal Boundary
-  Preserve Property
-  Road

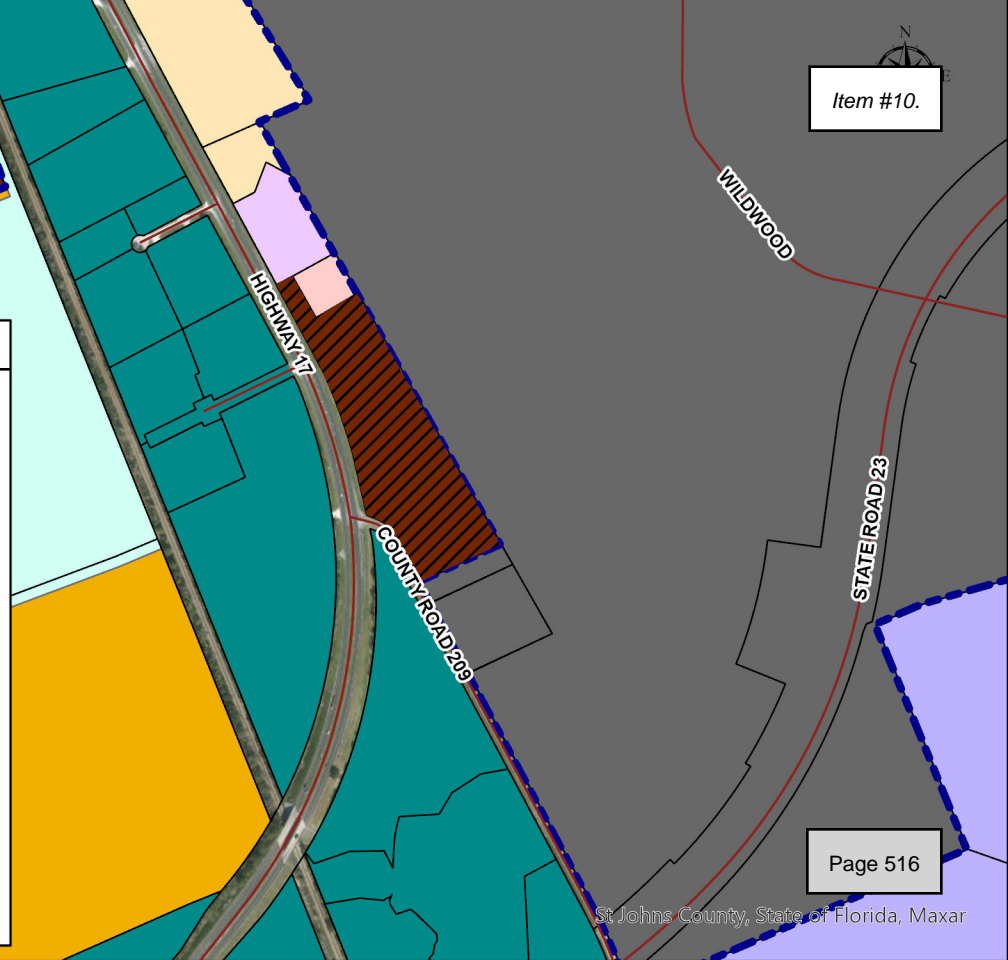
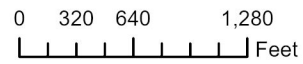


City Zoning

-  PUD
-  M-2

County Zoning

-  Agriculture
-  GCSMUNI
-  Light Industrial
-  Heavy Industrial
-  Industrial Select
-  Planned Industrial Development
-  Public Ownership - 1
-  Private Services - 2



	TOTAL VOTES	%	ED	Mail
PRECINCTS COUNTED (OF 5)	5	100.00		
REGISTERED VOTERS - TOTAL	15,645			
BALLOTS CAST - TOTAL	2,054		646	1,408
BALLOTS CAST - BLANK	3	.15	0	3
VOTER TURNOUT - TOTAL		13.13		
VOTER TURNOUT - BLANK		.02		
Orange Park Town Council, Seat 4				
(VOTE FOR) 1				
Susan Winnette Sandlin	344	39.72	137	207
Susana D. Thompson	522	60.28	234	288
Over Votes	0		0	0
Under Votes	0		0	0
Green Cove Springs City Council, Seat 4				
(VOTE FOR) 1				
Kenneth Mudge	343	29.47	71	272
Thomas Michael Smith	821	70.53	201	620
Over Votes	2		0	2
Under Votes	23		4	19
Green Cove Springs City Council, Seat 5				
(VOTE FOR) 1				
Steven Kelley	674	57.46	168	506
Darren Stutts	499	42.54	107	392
Over Votes	1		0	1
Under Votes	15		1	14

[Handwritten signatures in purple, green, and red ink]

[Handwritten signatures in green, blue, and red ink]

**AGREEMENT FOR THE CITY OF GREEN COVE SPRINGS TO
REIMBURSE THE PROPERTY APPRAISER**

This Agreement for the City of Green Cove Springs to reimburse the Clay County Property Appraiser (the "Agreement") is made and entered into as of _____, 2022, by and between the City of Green Cove Springs, a political subdivision of the State of Florida (the "City") and Tracy S. Drake in his capacity as the Clay County Property Appraiser (the "Property Appraiser").

NOW, THEREFORE, in consideration of the mutual promises, covenants, representations, and agreements contained herein, and other good and valuable consideration exchanged between the parties, the parties to this Agreement do undertake, promise and agree for themselves, and their successors as follows:

ARTICLE I

SECTION 1.01. FINDINGS, RECITALS AND ACKNOWLEDGEMENTS. It is hereby ascertained, determined and declared by the parties that:

(A) the City is authorized to impose non-ad valorem assessments and by appropriate resolution has expressed its intent to use the uniform method of levy, collection and enforcement of non-ad valorem assessments as provided in section 197.3632, Florida Statutes, under which assessments are included on an assessment roll and certified, in a compatible electronic medium tied to the property identification number, by the City to the Tax Collector for merging with the ad valorem tax roll, for collection by utilizing the tax notice provisions described in section 197.3635, Florida Statutes, and for sale of tax certificates and tax deeds under the non payment provisions of the ad valorem tax laws (the "Uniform Method");

(B) the Uniform Method, with its enforcement provisions including the use of tax sale certificates and tax deeds to collect delinquent annual payments, is less expensive and more equitable to the delinquent landowner than the traditional lien foreclosure methodology;

(C) the Uniform Method will provide for more efficient collection by virtue of the assessment being on the tax notice issued by the Tax Collector and will produce positive economic benefits to the affected landowners and the City;

(D) the Uniform Method will promote local government accountability;

(E) this Agreement is intended to conform with the requirement of section 197.3632, Florida Statutes, that the City and the Property Appraiser enter into a written agreement providing for reimbursement of necessary administrative and actual costs incurred as a result of the use of the Uniform Method; such administrative and actual

Rev. 5/11/22

costs include, but are not limited to those costs associated with personnel, forms, supplies, data processing, computer equipment, postage and programming;

(F) the duties of the Property Appraiser under section 197.3632, Florida Statutes, are ministerial;

(G) this Agreement is entered into in order to allow for the use of the Uniform Method relative to non-ad valorem assessments imposed and levied by the City to fund solid waste and stormwater services, facilities, and programs, code abatement services, and such other non-ad valorem assessments as may be imposed and levied by the City.

SECTION 1.02. INCORPORATION. The findings, recitals and acknowledgements contained herein are true, correct and incorporated in this Agreement.

ARTICLE II

SECTION 2.01. PURPOSE. The purpose of this Agreement is for the City, and the Property Appraiser to establish and agree upon the undertaking of the responsibilities pursuant to section 197.3632, Florida Statutes, in order for the City Council to implement the Uniform Method for the notice, levy, collection, and enforcement of non-ad valorem assessments; and to provide for reimbursement by the City to the Property Appraiser for all necessary administrative and actual costs incurred by them in such activity.

ARTICLE III

SECTION 3.01. COMPLIANCE WITH LAWS AND REGULATIONS. The parties shall abide by all statutes, rules and regulations pertaining to the levy and collection of non-ad valorem assessments, and any ordinance promulgated by the City, not inconsistent with, nor contrary to, the provisions of sections 197.3632, 197.3635, Florida Statutes, as amended, and any applicable rules duly promulgated by the Department of Revenue.

ARTICLE IV

SECTION 4.01. DUTIES AND RESPONSIBILITIES OF THE CITY. The City shall:

(A) be solely responsible for imposing and levying valid non-ad valorem assessments;

(B) reimburse the Property Appraiser for all necessary administrative and actual costs incurred by the Property Appraiser in providing the information and cooperation more particularly referenced in Section 4.02 hereof;

(C) make all reimbursement or payment to the Property Appraiser hereunder in accordance with the Florida Prompt Payment Act, Chapter 278, Part VII, Florida Statutes, or its successor in function;

(D) post the non-ad valorem assessment for each parcel on the non-ad valorem assessment roll in a manner that such non-ad valorem assessment roll is free of errors and omissions;

(E) cause the Mayor of the City Council, or his or her designee, to certify, by September 15 of each calendar year, to the Tax Collector, the non-ad valorem assessment roll on compatible medium, tied to the property parcel identification number, in a manner that conforms to the format of the ad valorem tax roll submitted by the Property Appraiser to the Department of Revenue;

(F) designate and authorize a person, other than the Property Appraiser to receive and process any request for changes, modifications or corrections to the subject non-ad valorem roll and, if necessary, file with the Clay County Tax Collector an appropriate certificate of correction; and

(G) cooperate with the Property Appraiser to implement the Uniform Method of notice, levy, collection and enforcement of each of the subject non-ad valorem assessment roll, pursuant to, and consistent with, all the provisions of Chapter 197, specifically sections 197.3632 and 197.3635, Florida Statutes, as amended.

SECTION 4.02. DUTIES AND RESPONSIBILITIES OF THE PROPERTY APPRAISER. The Property Appraiser shall:

(A) annually by June 1 provide the City with at least the following information by compatible electronic medium: (1) the legal description of the property affected by the levy, (2) the names and addresses of the owners of such property, (3) the property identification number of each parcel in a manner that conforms to the format of the ad valorem roll submitted to the Department of Revenue, and (4) any other information reasonably needed by the City to create, recompute, reconfigure, revise, correct or otherwise formulate the non-ad valorem assessment rolls;

(B) although the Property Appraiser is not required by law to submit information other than items (1), (2) and (3) in paragraph (A) of this section, the Property Appraiser shall make reasonable efforts to assist and accommodate the City's creation of a non-ad valorem assessment roll;

(C) cooperate with the City and the Tax Collector to implement the Uniform Method of notice, levy, collection and enforcement of the subject non-ad valorem assessment roll, pursuant to, and consistent with, all the provisions of Chapter 197, specifically sections 197.3632 and 197.3635, Florida Statutes, as amended; and

(D) provide the City with a written itemized statement of any necessary administrative and actual costs incurred by the Property Appraiser for which reimbursement is sought.

ARTICLE V

SECTION 5.01. TERM. The term of this Agreement shall commence upon the date first above written and shall run through the end of the next fiscal year and shall automatically be renewed thereafter, for successive periods, not to exceed one year each. However, the City shall inform the Property Appraiser and the Department of Revenue by January 10 in any calendar year the City intends to discontinue using the Uniform Method of collecting the non-ad valorem assessments referred to in this Agreement.

IN WITNESS WHEREOF, the City and the Property Appraiser have executed and delivered this Agreement as the date first above written.

ATTEST:

**CITY COUNCIL OF THE CITY OF
GREEN COVE SPRINGS, FLORIDA**

By: _____
Edward Gaw, Mayor

Clerk

WITNESSES:

**CLAY COUNTY
PROPERTY APPRAISER**

Tracy S. Drake, Clay County Property
Appraiser



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council Regular Session **MEETING DATE:** May 17, 2022
FROM: L. J. Arnold III, City Attorney
SUBJECT: Approval of two Agreements to Reimburse the Clay County Property Appraiser and Tax Collector for necessary administrative and actual costs incurred to implement non-ad valorem assessments programs for collection of stormwater, solid waste and nuisance abatement costs. The two proposed Agreements are attached hereto.

BACKGROUND

The City already collects for stormwater and certain solid waste services, facilities and programs by way of non-ad valorem assessments using the Tax Appraiser and Tax Collector. The City now has authorized by appropriate legislation the use of non-ad valorem assessments for nuisance abatement costs expended by the City. These two Agreements cover all of these programs and will automatically renew every year.

FISCAL IMPACT

The City should collect a higher percentage of stormwater, solid waste and nuisance abatement costs as a result of these collection methods.

RECOMMENDATION

Move to approve the two Agreements between the City and the Tax Collector and Tax Appraiser and authorize the Mayor and Clerk to execute same.

AGREEMENT FOR THE CITY OF GREEN COVE SPRINGS TO REIMBURSE THE TAX COLLECTOR

This Agreement for the City of Green Cove Springs to reimburse the Clay County Tax Collector (the "Agreement") is made and entered into as of _____, 2022, by and between the City of Green Cove Springs, Florida, a political subdivision of the State of Florida (the "City") and Diane Hutchings in her capacity as the Clay County Tax Collector (the "Tax Collector").

NOW, THEREFORE, in consideration of the mutual promises, covenants, representations, and agreements contained herein, and other good and valuable consideration exchanged between the parties, the parties to this Agreement do undertake, promise and agree for themselves, and their successors as follows:

ARTICLE I

SECTION 1.01. FINDINGS, RECITALS AND ACKNOWLEDGEMENTS. It is hereby ascertained, determined and declared by the parties that:

(A) the City is authorized to impose non-ad valorem assessments and by appropriate resolution has expressed its intent to use the uniform method of levy, collection and enforcement of non-ad valorem assessments as provided in section 197.3632, Florida Statutes, under which assessments are included on an assessment roll and certified, in a compatible electronic medium tied to the property identification number, by the City to the Tax Collector for merging with the ad valorem tax roll, for collection by utilizing the tax notice provisions described in section 197.3635, Florida Statutes, and for sale of tax certificates and tax deeds under the non payment provisions of the ad valorem tax laws (the "Uniform Method");

(B) the Uniform Method, with its enforcement provisions including the use of tax sale certificates and tax deeds to collect delinquent annual payments, is less expensive and more equitable to the delinquent landowner than the traditional lien foreclosure methodology;

(C) the Uniform Method will provide for more efficient collection by virtue of the assessment being on the tax notice issued by the Tax Collector and will produce positive economic benefits to the affected landowners and the City;

(D) the Uniform Method will promote local government accountability;

(E) this Agreement is intended to conform with the requirement of section 197.3632, Florida Statutes, that the City and the Tax Collector enter into a written agreement providing for reimbursement of necessary administrative and actual costs incurred as a result of the use of the Uniform Method; such administrative and actual

costs include, but are not limited to those costs associated with personnel, forms, supplies, data processing, computer equipment, postage and programming;

(F) the duties of the Tax Collector under section 197.3632, Florida Statutes, are ministerial;

(G) this Agreement is entered into in order to allow for the use of the Uniform Method relative to non-ad valorem assessments imposed and levied by the City to fund solid waste and stormwater services, facilities, and programs, code abatement services, and such other non-ad valorem assessments as may be imposed and levied by the City.

SECTION 1.02. INCORPORATION. The findings, recitals and acknowledgements contained herein are true, correct and incorporated in this Agreement.

ARTICLE II

SECTION 2.01. PURPOSE. The purpose of this Agreement is for the City and the Tax Collector to establish and agree upon the undertaking of the responsibilities pursuant to section 197.3632, Florida Statutes, in order for the City Council to implement the Uniform Method for the notice, levy, collection, and enforcement of non-ad valorem assessments; and to provide for reimbursement by the City to the Tax Collector for all necessary administrative and actual costs incurred by them in such activity.

ARTICLE III

SECTION 3.01. COMPLIANCE WITH LAWS AND REGULATIONS. The parties shall abide by all statutes, rules and regulations pertaining to the levy and collection of non-ad valorem assessments, and any ordinance promulgated by the County, not inconsistent with, nor contrary to, the provisions of sections 197.3632, 197.3635, Florida Statutes, as amended, and any applicable rules duly promulgated by the Department of Revenue.

ARTICLE IV

SECTION 4.01. DUTIES AND RESPONSIBILITIES OF THE CITY. The City shall:

(A) be solely responsible for imposing and levying valid non-ad valorem assessments;

(B) reimburse the Tax Collector for all necessary administrative and actual collection costs incurred, in the collection of the assessments, under the Uniform Method;

(C) pursuant to section 197.3632(7), Florida Statutes, pay for or alternatively reimburse the Tax Collector for any separate tax notices if the Tax Collector cannot merge the non-ad valorem assessment roll certified by the City;

(D) make all reimbursement or payment to the Property Appraiser and Tax collector hereunder in accordance with the Florida Prompt Payment Act, Chapter 278, Part VII, Florida Statutes, or its successor in function;

(E) post the non-ad valorem assessment for each parcel on the non-ad valorem assessment roll in a manner that such non-ad valorem assessment roll is free of errors and omissions;

(F) cause the Mayor of the City Council, or his or her designee, to certify, by September 15 of each calendar year, to the Tax Collector the non-ad valorem assessment roll on compatible medium, tied to the property parcel identification number, in a manner that conforms to the format of the ad valorem tax roll submitted by the Property Appraiser to the Department of Revenue;

(G) designate and authorize a person, other than the Tax Collector, to receive and process any request for changes, modifications or corrections to the subject non-ad valorem roll and, if necessary, file with the Tax Collector an appropriate certificate of correction; and

(H) cooperate with the Tax Collector to implement the Uniform Method of notice, levy, collection and enforcement of each of the subject non-ad valorem assessment roll, pursuant to, and consistent with, all the provisions of Chapter 197, specifically sections 197.3632 and 197.3635, Florida Statutes, as amended.

SECTION 4.02. DUTIES AND RESPONSIBILITIES OF THE TAX COLLECTOR. The Tax Collector shall:

(A) merge all rolls, prepare a collection roll and prepare a combined notice for both the ad valorem and non-ad valorem assessments in accordance with Chapter 197, any applicable rules promulgated by the Department of Revenue and in accordance with any specific ordinances and resolutions adopted by the City, so long as said ordinances and resolutions shall themselves not be inconsistent with or contrary to, the provisions of Chapter 197, specifically sections 197.3632 and 197.3635, Florida Statutes;

(B) collect the non-ad valorem assessments of the City as certified, no later than September 15 of each calendar year to the Tax Collector; provided such non-ad valorem roll is on compatible electronic medium tied to the property identification number for each parcel and in the format used by the Property Appraiser for the ad valorem roll submitted to the Department of Revenue and such non-ad valorem roll is free of errors and omissions;

(C) cooperate with the City and the Property Appraiser to implement the Uniform Method of notice, levy, collection and enforcement of each of the subject non-ad valorem assessment rolls, pursuant to, and consistent with, all the provisions of Chapter 197, specifically sections 197.3632 and 197.3635, Florida Statutes, as amended;

(D) provide the City with a written itemized statement of any necessary administrative and actual costs incurred by the Tax Collector for which reimbursement is sought;

(E) if he discovers any errors or omissions on any roll, request the City to file a corrected roll or the correction of the amount of any assessment by filing with the Tax Collector a certificate of correction, with a copy to the Property Appraiser and the Department of Revenue, pursuant to applicable rules provided by the Department of Revenue; and

(F) upon determining that a separate mailing is required pursuant to section 197.3632(7), Florida Statutes, mail, or require the City to mail, a separate notice of the particular non-ad valorem assessment

ARTICLE V

SECTION 5.01. TERM. The term of this Agreement shall commence upon the date first above written and shall run through the end of the next fiscal year and shall automatically be renewed thereafter, for successive periods, not to exceed one year each. However, the City shall inform the Property Appraiser and the Tax Collector and the Department of Revenue by January 10 in any calendar year the City intends to discontinue using the Uniform Method of collecting the non-ad valorem assessments referred to in this Agreement.

IN WITNESS WHEREOF, the City and the Tax Collector have executed and delivered this Agreement as the date first above written.

ATTEST:

**CITY COUNCIL OF THE CITY OF
GREEN COVE SPRINGS, FLORIDA**

By: _____
Matt Johnson, Mayor

Erin West, City Clerk

WITNESSES:

CLAY COUNTY TAX COLLECTOR

Diane Hutchings, Clay County Tax
Collector

CITY OF GREEN COVE SPRINGS CITY COUNCIL REGULAR SESSION

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, MARCH 15, 2022 – 7:00 PM



MINUTES

Invocation & Pledge of Allegiance to the Flag – **City Manager, Steve Kennedy**

Roll Call

COUNCIL MEMBERS PRESENT: Mayor Ed Gaw, Vice Mayor Matt Johnson, Council Member Connie Butler, Council Member Steven Kelley, Council Member Van Royal

STAFF MEMBERS PRESENT: L.J. Arnold, III, City Attorney, Steve Kennedy, City Manager, Mike Null, Assistant City Manager, Kimberly Thomas, Executive Assistant

Mayor to call on members of the audience wishing to address the Council on matters not on the Agenda.
No comments

PRESENTATIONS

1. Presentation regarding the School District plans for the City property on Roderico Street and the additional request to close Roderico Street between Center Street and Walnut Street **Lance Addison, Clay County School District**

Mr. Lance Addison with the Clay County School District presents to the Council briefing them on the plans for the property on Roderico Street the district plans to purchase and to foster a working relationship between the City and School District.

Motion to move Council Business Item #15 to 1A for discussion and possible approval.

Motion made by Council Member Royal, Seconded by Council Member Kelley.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

- 1A. City Council discussion and possible approval of closing Roderico Street between Center Street and Walnut Street. **Steve Kennedy**

Mayor Gaw asks Mr. Addison if the closing of the road is a deal breaker.

Mr. Addison advises yes, the closing of the road is a deal breaker.

Clay County School Board Attorney, Bruce Bickner 900 Walnut St. GCS, speaks concerning the closing of the road.

Mayor Gaw speaks about what closing Roderico Street could mean to the City in the future.

Mr. Addison advises the Clay Board needs to expand so if there street cannot be closed where can they expand.

Mayor Gaw asks what happens when they outgrow what they have now and questions putting everything in one building.

Mike Kemp 925 Center St. GCS, speaks to the Council and advises of the look and vision of the School Board has concerning the property.

Council Member Royal speaks concerning the site plan and closing of the road.

Mr. Kemp speaks concerning funding for projects.

Council discussion follows concerning topics of the road closure, growth, and the new Walnut Street design.

Council Member Butler questions thoughts about shifting the road over instead of closing it.

Mr. Kemp advises that shifting the road has not been discussed.

Council discussion follows.

City Manager, Steve Kennedy advises the original motion was for the sale of the property and included that a discussion of the road closure would be at a later date.

Council discussion follows.

Motion to not move forward with any further discussion of closing Roderico at this time.

Motion made by Council Member Royal, Seconded by Council Member Butler.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

CONSENT AGENDA

All matters under the consent agenda are considered to be routine by the city council and will be enacted by one motion in the form listed below. There will be no separate discussion on these items. If discussion is desired, that item will be removed from the consent agenda and will be considered separately. Backup documentation and staff recommendations have been previously submitted to the city council on these items.

Mayor Gaw pulled item 9 and City Manager, Steve Kennedy pulled item 13 to have it moved to Council Business.

Motion to Consent Agenda Items 2 through 13 minus items 9 and 13.

Motion made by Council Member Butler, Seconded by Vice Mayor Johnson.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

2. City Council approval of the Water Conservation Month Proclamation. *Erin West*
3. City Council approval of Resolution No. R-02-2022, requesting the reduction of permit fees by St. Johns River Water Management District and the Florida Department of Environmental Protection. *Steve Thomas*
4. City Council Approval to award Thomas May Construction Bid #2022-01 to construct the Police Metal Storage Building, in the amount of \$79,750.00. *Mike Null*
5. City Council approval of Docking Confirmation Summary - 2023 *Kim Thomas*
6. City Council approval of Minutes from Regular Sessions 1/4, 1/18 and 2/1. *Erin West*
7. City Council approval of Emergency Home Energy Assistance Program (EHEAP) Vendor Payment Agreement with Aging True. *Erin West*

8. City Council approval of Contractor's Pay Request #10 for Williams Industrial Services, LLC, in the amount of \$849,125.22, for the Florida Department of Environmental Protection (FDEP), State Revolving Fund (SRF), Harbor Road Water Reclamation Facility (WRF) Expansion, Phase 2, SRF Agreement No. WW1000420. In addition, upon completion by Mittauer staff, authorization for the mayor to sign the subsequent Disbursement Request which returns funds to the Wastewater CIP Budget. *Scott Schultz*
9. City Council approval to surplus the Information Technology items listed in the attachment. *Scott Schultz*

Mayor Gaw asks Assistant Water Utilities Director, Scott Schultz if any of the surplus items are able to be used at the Mentor Center. Mr. Schultz advises he can speak to IT Director. Assistant City Manager, Mike Null advises that IT Director, Angel Alicea has completed the rehab on computers that are being used at the Mentoring Center and the items being surplus are items that are beyond repair.

Motion to approve Consent Agenda Item 9.

Motion made by Council Member Royal, Seconded by Council Member Butler.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

10. City Council approval to surplus Bucket Truck #219, a 1992 Ford F-700 that has reached the end of its service life. *Scott Schultz*
11. City Council approval of Pay Application # 9 in the amount of \$29,421.50 and Pay Application # 10 in the amount of \$4,351.00 to Terry's Electric for Chapman Substation Construction Improvements, leaving a balance of \$47,731.01 in contract number LC 2020-17 in the total revised amount of \$954,620.17. *Andy Yeager*
12. City Council approval of the Houston Place plat, a replat of a portion of Lots 1 and 2, Block 64, North Suburbs of Green Cove Springs, identified as parcel ID 018094-000-00. *Michael Daniels*
13. Update on Walnut St roadway and streetscape construction. *Mike Null*

Assistant City Manager, Mike Null updates the Council on the results of the studies that have been completed, studies we are doing, the funding the Council has set aside and moving forward with construction plans on the Downtown area.

Council discussion follows.

Feleicia Hampshire 508 Franklin St. GCS, questions if the enhancements will be in specific areas.

Mr. Null advises this project is for Walnut Street.

Ms. Hampshire questions if there will be enhancements to MLK in the future.

Mayor Gaw advises this project will be a model of what is possible.

Mr. Null advises staff will bring back a task order to the April 5, 2022 meeting.

COUNCIL BUSINESS

14. Passage of attached Ordinance No. O-10-2022 on first reading as to form only to authorize the Non-Ad Valorem Assessment Program for Code Violation Abatement and Recovery of City Costs. ***L.J. Arnold, III***

City Attorney Arnold reads the Ordinance by title and presents to the Council.

Mayor Gaw questions how long once someone stops paying their taxes until it goes to auction.

Mr. Arnold advises 2 to 3 years.

Council Member Royal questions the enforcement board wording.

Council discussion follows.

Motion to approve Ordinance No. O-10-2022 on first reading as to form only to authorize the Non-Ad Valorem Assessment Program for Code Violation Abatement and Recovery of City Costs.

Motion made by Council Member Kelley, Seconded by Vice Mayor Johnson.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley

Voting Nay: Council Member Royal

15. Moved to item 1A

16. City Manager & City Attorney Reports / Correspondence

The City Manager and City Attorney made comments regarding various city activities, events, operations, and projects.

City Attorney Arnold advises there was an incident at the Soul Food Festival in 2018. In 2019 we received a letter concerning someone getting hurt. Mr. Arnold advises the City has received a lawsuit concerning a citizen getting hurt. Soul Food, Inc. has also received a lawsuit.

Ms. Hampshire speaks as a representative of Soul Food, Inc.

Council discussion follows.

Emergency Motion to have the City Manager and City Attorney engage with an outside attorney and utilize funds to provide assistance if needed not to exceed \$5,000 with the caveat that Soul Food Festival, Inc will use their \$2,000 first.

Amended emergency motion that Soul Food Festival, Inc will engage an outside attorney and after Soul Food Festival, Inc has exhausted their funds, the City will provide assistance if needed to not exceed \$5,000.

Motion made by Vice Mayor Johnson, Seconded by Council Member Butler.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley

Voting Nay: Council Member Royal

17. City Council Reports / Correspondence

The City Council made comments regarding various city activities, events, operations, and projects.

Adjournment

There being no further business to come before the City Council, the meeting was adjourned at 9:57 p.m.

CITY OF GREEN COVE SPRINGS, FLORIDA

Edward R. Gaw, Mayor

Attest:

Erin West, City Clerk

CITY OF GREEN COVE SPRINGS CITY COUNCIL REGULAR SESSION

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, APRIL 05, 2022 – 7:00 PM



MINUTES

Invocation & Pledge of Allegiance to the Flag - **Pastor Christian Pope, GCSPD & Springs Chapel**

Roll Call

COUNCIL MEMBERS PRESENT: Mayor Ed Gaw, Vice Mayor Matt Johnson, Council Member Connie Butler, Council Member Steven Kelley, Council Member Van Royal

STAFF MEMBERS PRESENT: L.J. Arnold, III, City Attorney, Steve Kennedy, City Manager, Assistant City Manager, Mike Null, Erin West, City Clerk

Mayor to call on members of the audience wishing to address the Council on matters not on the Agenda.

1. Alan Stevenson 3691 Winged Foot Circle GCS, speaks to the Council concerning the City noise ordinance and an event that happened at Magnolia Point Golf and Country Club on March 26, 2022.

Commander Hines from Green Cove Springs Police Department speaks to the Council concerning the enforcement of specific ordinances.

Mayor Gaw advises the Police Department, City Manager, and City Attorney will look into enforcing ordinances.

AWARDS & RECOGNITION

1. Swearing-In *Mayor Gaw*

Chief Guzman

Mayor Gaw swears-in Chief John Guzman

Chief Guzman speaks about his experience and excitement to be Police Chief.

2. Swearing-In *Chief Guzman*

Commander Luedtke

Sergeant Vineyard

Chief Guzman swears-in Commander Luedtke and Sergeant Vineyard.

3. Proclamation - Water Conservation Month

Council Member Kelley reads the proclamation and presents to representatives from the Clay County Soil and Water Conservation District Board.

PRESENTATIONS

4. Presentation - May Mann Jennings *Theresa Crockett*
Theresa Crockett with the General Federation of Women's Clubs Florida speaks to the Council concerning May Mann Jennings and getting Ms. Jennings voted into the Women's Hall of Fame by Governor DeSantis.
Council advises staff to create a proclamation and have a letter signed in support of getting Ms. Jennings into the Hall of Fame.

PUBLIC HEARINGS

5. Passage of Ordinance No. O-10-2022 on second and final reading to authorize the Non-Ad Valorem Assessment Program for Code Violation Abatement and Recovery of City Costs. *L.J. Arnold, III*
City Attorney Arnold reads Ordinance No. O-10-2022 by title and presents to the Council.
Mayor Gaw opens the public hearing.
Following no public comment, Mayor Gaw closes the public hearing.
Council Member Royal speaks concerning the enforcement board wording.

Motion to approve Ordinance No. O-10-2022 on second and final reading with dropping the wording about enforcement boards.

Motion made by Council Member Royal, Seconded by Council Member Butler.
Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

CONSENT AGENDA

All matters under the consent agenda are considered to be routine by the city council and will be enacted by one motion in the form listed below. There will be no separate discussion on these items. If discussion is desired, that item will be removed from the consent agenda and will be considered separately. Backup documentation and staff recommendations have been previously submitted to the city council on these items.

Motion to approve Consent Agenda items 6 through 15.

Motion made by Council Member Butler, Seconded by Vice Mayor Johnson.
Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

6. City Council approval of, and authorization for the City Manager to execute, a Professional Services Agreement with Planet Swim, LLC *Steve Kennedy*
7. City Council approval of, and authorization for the Mayor to execute, Disbursement Request #11, in the amount of \$677,329.06 for construction of the Advanced Wastewater Treatment Plant (AWWTP), as part of the Florida Department of Environmental Protection (FDEP), State Revolving Fund (SRF), Harbor Road Water Reclamation Facility (WRF) Expansion, Phase 2, SRF Agreement No. WW1000420 in the total amount of \$15,426,644.33. Note: This request returns funds to the Wastewater CIP budget. *Scott Schultz*

8. City Council approval of the National Public Service Week Proclamation. *Erin West*
9. City Council approval of Minutes from 2/15/2022 Regular Session and 1/18/2022, 2/1/2022 Special Sessions. *Erin West*
10. City Council approval of Change Order #2 to Contract Number LC 2020-17 Chapman Substation Construction to Terry's Electric in the additive amount of \$28,285.00, bringing the new total contract amount to \$982,905.17. *Andy Yeager*
11. City Council approval of the Police Memorial Proclamation. *Erin West*
12. City Council approval of, and authorization for the mayor to execute, Modification #2, which extends the expiration date from February 28, 2022 to May 31, 2022, and adds \$14,277.50 to the contract total, for installation of generators as part of the Hazard Mitigation Grant Program (HMGP), Federally-Funded Subaward and Grant Agreement # H0297 / Project Number 4337-217-R. This project includes 75% grant funding from HMGP. *Scott Schultz*
13. City Council approval of CAC Minutes for 2.10.2022. *Kimberly Thomas*
14. City Council approval of Emergency Home Energy Assistance Program (EHEAP) Vendor Payment Agreement with Aging True. *Erin West*
15. City Council review and approval of street closure requests, alcohol area request, and fee waiver requests for a Major Event, CalaVida Festival. *Michael Daniels*

COUNCIL BUSINESS

16. FMPA - April 2022 *Bob Page*
Mr. Page gave an overview of the April 2022 report.
17. First Reading of Ordinance No. O-05-2022, Set User Fees for City Furnished Barricades at Events and Related Issues. *L.J. Arnold, III, Steve Thomas*
City Attorney Arnold reads Ordinance No. O-05-2022 by title.
Assistant Public Works Director, Steve Thomas explains the purpose of the ordinance to the Council.
Mayor Gaw asks Mr. Thomas if other cities are implementing barricade fees.
Mr. Thomas advises that he will look to see what other cities are charging
Council Member Butler questions who determines how many barricades are needed.
Mr. Thomas advises the Public Works Department, the Police Department or the event can request the number of barricades.

Motion to approve Ordinance No. O-05-2022 on first reading as to form only with the report coming back from the Assistant Public Works Director.

Motion made by Council Member Butler, Seconded by Council Member Kelley.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

18. Lien Reduction Request For 481 Olive Cir. *Michael Daniels*

Code Enforcement Officer, Ben Plourd explains the lien to the Council and advises the shed has already been removed from the property and the new owner has cleaned up and is maintaining the property.

City Attorney Arnold advises the mortgage has a foreclosure and explains how it works when a lien is recorded after the foreclosure has started.

Council discussion follows.

Motion to approve satisfying the lien of \$17,650 on the property at 481 Olive Cir. lce.

Motion made by Vice Mayor Johnson, Seconded by Council Member Royal.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

19. City Council Reports / Correspondence

The City Manager and City Attorney made comments regarding various city activities, events, operations, and projects.

City Manager, Steve Kennedy speaks to the Council concerning an update to the ARPA funding and advises the City can now take a standard allowance for revenue replacement.

Emergency motion to accept the City Managers proposal of reporting our expenditures as revenue replacement and within the next meeting to revisit the capital projects or projects that are underway for possible reallocation at a future date.

Motion made by Council Member Royal, Seconded by Council Member Butler.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

City Manager, Steve Kennedy speaks to the Council about working with the Wood Group on the River Project. Mr. Kennedy advises the agreement with the scope is satisfactory and requests authorizing Mr. Kennedy to execute the agreement pending every concern relative to the agreement being worked out.

Emergency motion to authorize the City Manager to enter into an agreement with the Wood Group for the River Project.

Motion made by Vice Mayor Johnson, Seconded by Council Member Royal.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

20. City Manager & City Attorney Reports / Correspondence

The City Council made comments regarding various city activities, events, operations, and projects.

Adjournment

There being no further business to come before the City Council, the meeting was adjourned at 9:07 p.m.

CITY OF GREEN COVE SPRINGS, FLORIDA

Edward R. Gaw, Mayor

Attest:

Erin West, City Clerk

CITY OF GREEN COVE SPRINGS CITY COUNCIL REGULAR SESSION

321 WALNUT STREET, GREEN COVE SPRINGS, FLORIDA
TUESDAY, APRIL 19, 2022 – 7:00 PM



MINUTES

Invocation & Pledge of Allegiance to the Flag - **Pastor Bob Brown, Cornerstone Church**

Roll Call

COUNCIL MEMBERS PRESENT: Mayor Ed Gaw, Vice Mayor Matt Johnson, Council Member Connie Butler, Council Member Steven Kelley, Council Member Van Royal

STAFF MEMBERS PRESENT: L.J. Arnold, III, City Attorney, Steve Kennedy, City Manager, Mike Null, Assistant City Manager, Erin West, City Clerk

Mayor to call on members of the audience wishing to address the Council on matters not on the Agenda.

1. Bobby Wright PO Box 6701 Jacksonville, speaks to the Council concerning the Lions Club in Green Cove Springs. Mr. Wright explains what the Lions Club does and advises they are looking for a place to have their meetings.
Chief Guzman offers the Police Department Community room.
2. Stan Kinmonth 194 Malley Cove Lane Fleming Island, expresses his appreciation to the City for the support with the Winter Rally and Swap Meet.

AWARDS & RECOGNITION

1. Proclamation - National Public Service Recognition Week
Public Information Officer, Tiffanie Kelly reads the proclamation.
2. Proclamation - Public Safety Telecommunicators Week
Commander Luedtke reads the proclamation.
Chief Guzman presents the proclamation to Police Department Communications Supervisor Brandi Acres.

PUBLIC HEARINGS

3. Second and Final Reading Ordinance O-05-2022 - Set User Fees for City Furnished Barricades at Events and Related Issues. *L.J. Arnold, III / Steve Thomas*
City Attorney Arnold reads Ordinance No. O-05-2022 by title.
Assistant Public Works Director Steve Thomas speaks to the Council concerning the ordinance.
Mayor Gaw opens the public hearing.
Following no public comment, Mayor Gaw closes the public hearing.

Motion to approve Ordinance No. O-05-2022 on second and final reading.

Motion made by Council Member Royal, Seconded by Vice Mayor Johnson.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

4. First reading of Ordinance O-06-2022, a Future Land Use Amendment from Neighborhood to Public for approximately 21.89 acres, a portion of parcel #: 016515-008-00. *Michael Daniels* City Attorney Arnold reads Ordinance No. O-06-2022 by title.
Development Services Director, Michael Daniels presents and explains the presentation is for Ordinance No. O-06-2022 and Ordinance No. O-07-2022.
Council Member Royal questions the timeframe on the park and if the state is requiring the park project to move forward.
Mr. Daniels advises the state is requiring the park project to move forward.
Ellen Avery-Smith with Rogers Towers presents and explains her presentation is for public hearing items 4 through 7.
Mayor Gaw opens the public hearing.
Joe Sobotta 212 North St. GCS asks for clarification from last year about the entrances.
Mr. Daniels explains to Mr. Sobotta this item will not change anything from last year this is just an exchange of land for the park.
Following no further public comment, Mayor Gaw closes the public hearing.
Council discussion follows.

Motion to approve on first reading of Ordinance No. O-06-2022 to amend the Future Land Use of the property described therein from Residential Low Density to Public.

Motion made by Vice Mayor Johnson, Seconded by Council Member Butler.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

5. First reading of Ordinance O-07-2022, a Rezoning from Planned Unit Development to Recreation of approximately 21.89 acres, a portion of parcel #: 016515-008-00. *Michael Daniels* City Attorney Arnold reads Ordinance No. O-07-2022 by title.
Mayor Gaw opens the public hearing.
Following no public comment, Mayor Gaw closes the public hearing.
Council discussion followed.

Motion to approve on first reading of Ordinance No. O-07-2022 to amend the Zoning of the property described therein from Planned Unit Development to Recreation.

Motion made by Council Member Kelley, Seconded by Vice Mayor Johnson.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

6. First reading of Ordinance O-08-2022, a Future Land Use Map Amendment from Recreation to Neighborhood for approximately 21.3 acres, a portion of parcel number 016515-002-00. *Michael Daniels* City Attorney Arnold reads Ordinance No. O-08-2022 by title.
Development Services Director, Michael Daniels presents and explains the presentation is for Ordinance No. O-08-2022 and Ordinance No. O-09-2022.
Mayor Gaw opens the public hearing.
Following no public comment, Mayor Gaw closes the public hearing.
Council discussion followed.

Motion to approve on first reading of Ordinance No. O-08-2022 to amend the Future Land Use of the property described therein from Public to Neighborhood.

Motion made by Council Member Butler, Seconded by Council Member Kelley.
Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

7. First reading of Ordinance O-09-2022, a Rezoning from Recreation to Planned Unit Development for approximately 21.3 acres, a portion of parcel number 016515-002-00. **Michael Daniels**
City Attorney Arnold reads Ordinance No. O-09-2022 by title.
Mayor Gaw opens the public hearing.
Following no public comment, Mayor Gaw closes the public hearing.

Motion to approve on first reading of Ordinance No. O-09-2022 to amend the Zoning of the property described therein from Recreation to Planned Unit Development.

Motion made by Council Member Butler, Seconded by Council Member Kelley.
Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

CONSENT AGENDA

All matters under the consent agenda are considered to be routine by the city council and will be enacted by one motion in the form listed below. There will be no separate discussion on these items. If discussion is desired, that item will be removed from the consent agenda and will be considered separately. Backup documentation and staff recommendations have been previously submitted to the city council on these items.

Council Member Butler pulls item 13.

Motion to approve Consent Agenda Items 8 through 14 minus 13.

Motion made by Council Member Kelley, Seconded by Vice Mayor Johnson.
Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

8. City Council approval of the Public Safety Telecommunicators Week Proclamation. **Erin West**
9. City Council approval of the National Police Week Proclamation. **Erin West**
10. City Council approval for a purchase order to CW Builders in the amount of \$ 31,298.00 for the foundation work for the new Police Department storage building. **Steve Thomas**
11. City Council review and approval of street closure requests and fee waiver requests for a Minor Event, CCSO Police Memorial Ceremony. **Michael Daniels**
12. City Council approval to sign an agreement with GovQA (Granicus) for the purchase of a Public Record Request Software. **Erin West**
13. City Council approval to purchase nine wireless microphones as part of the audio and video upgrades with BIS. **Erin West**
Council Member Butler
City Clerk, Erin West advises the wireless microphones will mostly be used to budget but can be used in other spots in the Council Chambers

Motion to approve Consent Agenda item 13.

Motion made by Council Member Butler, Seconded by Council Member Kelley.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

14. City Council approval of Emergency Home Energy Assistance Program (EHEAP) Vendor Payment Agreement with Clay County. *Erin West*

COUNCIL BUSINESS

15. Downtown Master Plan *Michael Daniels*

Development Services Director, Michael Daniels speaks and introduces George Kramer from S&ME.

Mr. Kramer presents the Downtown Master Plan to the Council.

Council discussion follows with the Council agreeing S&ME did a great job.

City Manager, Steve Kennedy speaks and advises the Council of his commitment to the Downtown Master Plan.

Motion to accept the Downtown Master Plan as presented and approve the City to start making steps to implementation.

Motion made by Council Member Royal, Seconded by Vice Mayor Johnson.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

16. Approval of Resolution No R-03-2022, a resolution adopting a Finding of Necessity study regarding Community Redevelopment; finding the existence of slum and blight in an area of the City of Green Cove Springs, Florida; making certain findings and determinations; finding a need for creating a Community Redevelopment Agency. *Michael Daniels*

Development Services, Michael Daniels presents on Resolution No. R-03-2022.

City Manager, Steve Kennedy speaks concerning the resolution and updates the Council on the progress of the CRA.

Council discussion follows.

Motion to approve Resolution No. R-03-2022 and to submit a Finding of Necessity Report and Downtown Master Plan to Clay County Board of County Commissioners (BOCC) in order for the BOCC to delegate to the city the power to create a Community Redevelopment Area for the boundary of the City as set forth in Exhibit A of the Resolution.

Motion made by Council Member Butler, Seconded by Council Member Kelley.

Voting Yea: Mayor Gaw, Vice Mayor Johnson, Council Member Butler, Council Member Kelley, Council Member Royal

17. Discussion and possible revision of ARPA Projects. *Steve Kennedy*

City Manager, Steve Kennedy speaks to the Council concerning the revision of the ARPA Projects.

Council discussion follows with it being decided this item will be brought to the next meeting for further discussion.

18. City Manager & City Attorney Reports / Correspondence

The City Manager and City Attorney made comments regarding various city activities, events, operations, and projects.

19. City Council Reports / Correspondence

The City Council made comments regarding various city activities, events, operations, and projects.

Adjournment

There being no further business to come before the City Council, the meeting was adjourned at 9:50 p.m.

CITY OF GREEN COVE SPRINGS, FLORIDA

Edward. R Gaw, Mayor

Attest:

Erin West, City Clerk

Proclamation

WHEREAS, men and women throughout the history of the United States of America have given a part of their lives to serve in the Armed Forces of the United States; and

WHEREAS, many of those men and women have paid the ultimate sacrifice in service to their country; and

WHEREAS, freedom and the preservation of our republic does not come cheap, and young men and women in Military Service continue to protect our freedom, our nation’s borders, and our families; and

WHEREAS, those who are serving now and those who have served in the military, serve with pride and honor and with our respect; and

WHEREAS, the “Tribute to Fallen Soldiers” display in Spring Park further serves as a reminder of the dedicated men and women who bravely served and sacrificed their lives defending our freedom; and

WHEREAS, the City of Green Cove Springs will celebrate its 34th Annual Memorial Day RiverFest event on Monday, May 30, 2022, honoring the men and women of our Armed Forces for their devoted service to the United States of America; recognizing the many Wounded Warriors and their families and all the brave men and women who have paid the ultimate sacrifice of service defending our republic and the freedom we as Americans and our allies around the world are privileged to enjoy.

NOW, THEREFORE, BE IT PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, AS FOLLOWS:

SECTION 1. I, Daniel M. Johnson, Mayor of Green Cove Springs, on behalf of the City Council and the Citizens of Green Cove Springs, do hereby proclaim, Monday, May 30, 2022, as “**MILITARY SERVICE DAY**” in Green Cove Springs.

SECTION 2. A true copy of this Proclamation shall be spread upon the Official Minutes of the City Council of the City of Green Cove Springs.

DONE AND PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, IN REGULAR SESSION THIS 17TH DAY OF MAY, 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA



Daniel M. Johnson, Mayor

Attest:

Erin West, City Clerk



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council Regular Session **MEETING DATE:** May 17th, 2022
FROM: L. J. Arnold III, City Attorney
SUBJECT: City Council Passage of Ordinance O-16-2022 correcting a date for Credited Service in the Retirement Plan and Trust for Police Officers.

BACKGROUND

The City Council previously passed City Ordinance No.: O-22-2021(copy attached) wherein an incorrect date of September 1st was used for vesting of credited service in subsection O5) "Credited Service" instead of September 30th. The Board of Trustees requests this correction be made accordingly.

FISCAL IMPACT

None

RECOMMENDATION

Passage of Ordinance on 1st reading as to form only.

ORDINANCE NO. O-16-2022

AN ORDINANCE OF THE CITY OF GREEN COVE SPRINGS, FLORIDA AMENDING CITY ORDINANCE NO.: O-22-2021 TO CORRECT A DATE RELATED TO “CREDITED SERVICE” FOR THE RETIRMENT PLAN AND TRUST FOR POLICE OFFICERS; PROVIDING FOR SEVERABILITY, REPEALER, AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council passed City Ordinance NO.: O-22-2021 which contained an incorrect date for “Credited Service” of September 1st, instead of September 30th.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, AS FOLLOWS:

SECTION I. The City Council of the City of Green Cove Springs, in its capacity as the adopter of the Retirement Plan and Trust ("Plan and Trust") for the Firefighters and Police Officers of the City of Green Cove Springs hereby approves the changes as set forth below, with additions to the Plan and Trust and Adoption Agreement indicated by underlining (underlining) and deletions by strike through (stricken through).

O. Share Plan (Section 6.09)

O1) Effective Date. The Share Plan is effective upon the passing of the enacting ordinance, Ordinance Number: O-22-2021.

O2) The Share Plan. The Share Plan as set forth in Section 6.09, Defined Contribution Plan Component—Share Plan, of the Plan and Trust is hereby adopted and incorporated by reference herein, with the following amendments thereto.

O3) Eligibility. All employees who are a “Police Officer” as the term is defined in Section 1.23, Police Officer, of the Plan and Trust and as set forth in Section C, Eligibility, of the Adoption Agreement, and are members as set forth in Section 1.20, Participant or Member, and Article 2, Participation, of the Plan and Trust are eligible to participate in the Share Plan and are Share Plan members effective August 30, 2020. If a member, however, enters DROP, that member will be ineligible to participate in the Share Plan.

O4) Vesting. Members rights in the Share Plan will vest in the same manner as provided for Section J, Termination of Employment and Vesting, of the Adoption Agreement and in Article 9, Vesting, of the Plan and Trust. If a member’s service is terminated prior to vesting in the Share Plan, that member’s share account will be forfeited and reallocated (based on credited service as defined in Section E, Credited Service, of the Adoption Agreement) among the existing members.

O5) Credited Service. For the initial distribution of premium tax revenues to share plan members, all existing, active members will receive shares based on their credited service as

defined in Section E, Credited Service, of the Adoption Agreement and in Section 1.10, Credited Service, of the Plan and Trust. Beginning on September 30, 2020, each member employed by the City as of September 30 will receive one year of credited service each year and premium tax revenues credited to the share plan in that year shall be allocated equally to each member of the plan employed by the City as of September 30th.

O6) Valuation. The Plan and Trust’s net return will be distributed to the Share Plan on September 30 of each year. The Share Plan will be valued on September 30 of each year.

O7) Allocation. Investment earnings and losses will be allocated based on credited years of service. The Share Plan will not, however, allocate any expenses to the members until September 30, 2030 (the first ten years of the Share Plan). After September 30, 2030, the Share Plan, including allocations, will be evaluated.

O8) Distribution. Each vested member will have a right to distribution of his or her share account upon termination of service with the City. No Share Plan distribution will occur upon on a disability, unless the disabled member terminates service with the City.

SECTION 2. The City Council of the City of Green Cove Springs hereby empowers the Mayor or his appointee of the City of Green Cove Springs with the authority to execute such documents and agreements as are required to effectuate this amendment of the Plan and Trust.

SECTION 3. SEVERABILITY. Should any section or provision of this Ordinance or any portion thereof, or any paragraph, sentence, or word be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remainder hereof other than the part declared to be invalid.

SECTION 4. REPEALER. Any Ordinances or parts thereof in conflict with the provisions of this Ordinance are hereby repealed to the extent of such conflict.

SECTION 5. EFFECTIVE DATE. This Ordinance shall be effective upon passage and retroactively effective as of August 30, 2020.

INTRODUCTION AND APPROVED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF GREEN COVE SPRINGS, FLORIDA, ON THIS 17th DAY OF MAY, 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

By: _____
Matt Johnson, Mayor

ATTEST: _____
Erin West, City Clerk

PASSED ON SECOND AND FINAL READINGS BY THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 7th DAY OF JUNE, 2022.

CITY OF GREEN COVE SPRINGS, FLORIDA

By: _____
Matt Johnson, Mayor

ATTEST: _____
Erin West, City Clerk

APPROVED AS TO FORM:

L. J. Arnold III, City Attorney

ORDINANCE NO. O-22-2021

City of Green Cove Springs Board of Trustees Retirement
Plan & Trust for Police Officers – Local Option

AN ORDINANCE OF THE CITY OF GREEN COVE SPRINGS, CLAY COUNTY, FLORIDA; AMENDING THE CITY OF GREEN COVE SPRINGS BOARD OF TRUSTEES RETIREMENT PLAN & TRUST FOR POLICE OFFICERS – LOCAL OPTION PLAN, PROVIDING FOR CONFLICTING ORDINANCES; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council established a Retirement Plan and Trust for the Police Officers of the City of Green Cove Springs pursuant to Ordinance No. O-8-96; and

WHEREAS, the Retirement Plan and Trust agreement was executed on February 20, 1996; and

WHEREAS, Section 3.01 of the Plan and Trust authorizes the City Council to amend the Plan and Trust, in whole or in part, either retroactively or prospectively, by delivering to the Trustee a written amendment in accordance with the limitations set out in that section; and

WHEREAS, the City of Green Cove Springs and the Florida Municipal Pension Trust Fund have entered an Adoption Agreement, executed on February 8, 2012; and

WHEREAS, the City Council desires to amend the Plan and Trust and Adoption Agreement in order to create a share plan.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS:

SECTION 1. The City Council of the City of Green Cove Springs, in its capacity as the adopter of the Retirement Plan and Trust ("Plan and Trust") for the Firefighters and Police Officers of the City of Green Cove Springs hereby approves the changes as set forth below, with additions to the Plan and Trust and Adoption Agreement indicated by underlining (underlining) and deletions by strike through (~~stricken through~~).

O. Share Plan (Section 6.09)

O1) Effective Date. The Share Plan is effective upon the passing of the enacting ordinance, Ordinance Number: O-22-2021.

O2) The Share Plan. The Share Plan as set forth in Section 6.09, *Defined Contribution Plan Component – Share Plan*, of the Plan and Trust is hereby

adopted and incorporated by reference herein, with the following amendments thereto.

O3) Eligibility. All employees who are a “Police Officer” as the term is defined in Section 1.23, *Police Officer*, of the Plan and Trust and as set forth in Section C, *Eligibility*, of the Adoption Agreement, and are members as set forth in Section 1.20, *Participant or Member*, and Article 2, *Participation*, of the Plan and Trust are eligible to participate in the Share Plan and are Share Plan members effective August 30, 2020. If a member, however, enters DROP, that member will be ineligible to participate in the Share Plan.

O4) Vesting. Members rights in the Share Plan will vest in the same manner as provided for Section J, *Termination of Employment and Vesting*, of the Adoption Agreement and in Article 9, *Vesting*, of the Plan and Trust. If a member’s service is terminated prior to vesting in the Share Plan, that member’s share account will be forfeited and reallocated (based on credited service as defined in Section E, *Credited Service*, of the Adoption Agreement) among the existing members.

O5) Credited Service. For the initial distribution of premium tax revenues to share plan members, all existing, active members will receive shares based on their credited service as defined in Section E, *Credited Service*, of the Adoption Agreement and in Section 1.10, *Credited Service*, of the Plan and Trust. Beginning on September 30, 2020, each member employed by the City as of September 30 will receive one year of credited service each year and premium tax revenues credited to the share plan in that year shall be allocated equally to each member of the plan employed by the City as of September 30. 30th

O6) Valuation. The Plan and Trust’s net return will be distributed to the Share Plan on September 30 of each year. The Share Plan will be valued on September 30 of each year.

O7) Allocation. Investment earnings and losses will be allocated based on credited years of service. The Share Plan will not, however, allocate any expenses to the members until September 30, 2030 (the first ten years of the Share Plan). After September 30, 2030, the Share Plan, including allocations, will be evaluated.

O8) Distribution. Each vested member will have a right to distribution of his or her share account upon termination of service with the City. No Share Plan distribution will occur upon on a disability, unless the disabled member terminates service with the City.

SECTION 2. The City Council of the City of Green Cove Springs hereby empowers the Mayor or his appointee of the City of Green Cove Springs with the authority to execute such documents and agreements as are required to effectuate this amendment of the Plan and Trust.

SECTION 3. Severability. The various parts, sections and clauses of this Ordinance are hereby declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected thereby.

SECTION 4. Repealer. All Ordinances or parts of Ordinances in conflict with this Ordinance are hereby repealed.

SECTION 5. This Ordinance shall be effective upon passage and retroactively effective as of August 30, 2020.

INTRODUCED AND APPROVED AS TO FORM ONLY ON THE FIRST READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, ON THIS 2ND DAY OF NOVEMBER, 2021.

~~CITY OF GREEN COVE SPRINGS, FLORIDA~~



Edward R. Gaw, Mayor

ATTEST:



Erin West, City Clerk

PASSED ON SECOND AND FINAL READING BY THE CITY COUNCIL OF THE CITY OF GREEN COVE SPRINGS, FLORIDA, THIS 7TH DAY OF DECEMBER, 2021.

~~CITY OF GREEN COVE SPRINGS, FLORIDA~~



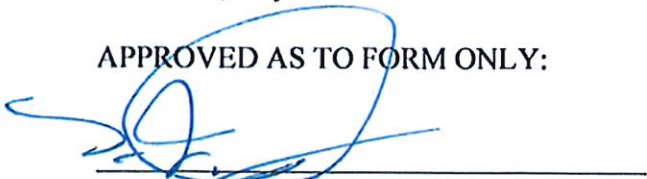
Edward R. Gaw, Mayor

ATTEST:



Erin West, City Clerk

APPROVED AS TO FORM ONLY:



L.J. Arnold, III, City Attorney



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council **MEETING DATE:** May 17, 2022
FROM: Michael Daniels, Planning and Zoning Director
SUBJECT: City Council approval of Nominees for Planning & Zoning Board Seats 3 and 4. *Michael Daniels*

BACKGROUND

Board Members Henreitta Francis and Gary Luke have reached the term end date.

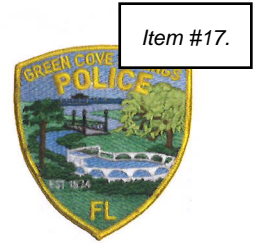
Council Member Butler will appoint Seat 3.

Council Member Royal has reach term for his Council Seat so new member Thomas Smith will appoint Seat 4.

STAFF RECOMMENDATION



CITY OF GREEN COVE SPRINGS POLICE DEPARTMENT



Chief E.J. Guzman ▪ 1001 Idlewild Avenue ▪ Green Cove Springs, FL 32043 ▪ Main (904) 297-7300 ▪ Fax (904) 284-1436 ▪ www.gcspd.com

The following is the official summary of activity conducted by members of the Green Cove Springs Police Department for the month of April 2022:

Total # Calls for Service: **857**
Total # Arrests: **36**
Total # Traffic Stops: **603** Total # Citations: **246** % Citations to stops: **41%**
Total # Building and business security checks: **1,539**
Total # Police Related Services: **4,554**
Response Times: Priority 1: **4M 01sec** Priority 2: **0M 30 sec** Priority 3: **4M 09sec**
Dispatch Phone Communication: 911 calls: **264** Non-Emergency calls: **348** Walk-In: **20**

Marine Enforcement: Marine enforcement was conducted on the following dates.
4/30/22: Hines, Patrol

Red Light Camera Program:

Video Review:
Ofc. Gann reviewed 1,703 violations, approved 1,491, and rejected 150

Total violations reviewed for the month: **1,641** Approval Rating: **90.86%**
Total hours reviewing video: **24.12**

Off Duty/Security Details:

GCSPD officers worked 21 security and off-duty details in the month of April
One detail was covered by the School Board Police

Traffic complaints received/completed:

Location	Issue	Traffic Stops	Traffic Citations	Traffic Warnings	Parking Citations	Complete Y/N
No Citizen						
Generated						
Complaints						

**** When evaluating traffic complaints, low numbers of stops/citations are a good indication that the issue may not be as prevalent as the citizen believes.**

Notable Criminal Investigations Activity:

Det. Patterson is working an on-going investigation with the DEA involving narcotics sales within the GCS area.
Ofc. Camp assisted with a local narcotics investigation
Det. Carpenter led the efforts of two local narcotics investigations.
Det. Patterson conducted Honor Guard duties in Tallahassee.

Notable K-9 Activity:

Apprehensions: 0 Training Sessions: 7 Total Time Training: 30.5 hrs
K9 Searches: 7 #Finds: 1 #No Finds: 6
Mutual Aid Calls: 0

Notable School Resource Officer Activity:

Ofc. Lee conducted a threat assessment reference a student commenting that she wanted to throw a Molotov cocktail in the lunchroom.
Ofc. Lee conducted Honor Guard duties in Tallahassee.

Training:

Ofc. Babcock completed Narcotics and Dangerous Drugs Class
Ofc. Babcock completed K-9 First Aid Training
Ofc. Camp completed Background Investigations Class

[Handwritten signature] #673
5/10/2022



City of Green Cove Springs

(904) 297-7500
Florida Relay – Dial 7-1-1

321 Walnut Street

Green Cove Springs, FL 32043
www.greencovesprings.com

MEMORANDUM

To: Steve Kennedy, City Manager
From: Development Services Department
Date: May 2, 2022
Subject: Monthly Planning, Code Enforcement and Building Report for April, 2022

PLANNING

In April, six new business tax receipts and one renewal were issued. They include:

- Front Runner Boat Works at 965 LEONARD C TAYLOR PKY
- Intermissions Barber Shop at 305 Spring Street
- Fast Track Staffing at 206 S Orange Avenue
- Pelicans Snoballs at 1100 Idlewild Ave
- Cypress Creek Realty at 439 North Street
- State Farm Insurance (outside City limits)
- Green Cove Springs Rehabilitation Center 803 Oak Street (Renewal)

Total Business Tax Revenue for the month was \$370.

During the month of April, Staff:

- Began or continued reviewing the following site development plans: **Dollar Tree Plaza** (to add two commercial outparcels, modify parking, and modify landscaping), the **Prelude** (a mixed-use development with approximately 38 residential units, a restaurant, and eight retail/office spaces), and a minor amendment to the approved site plan for GCSPD (1001 Idlewild Ave) to add a metal storage building.
- For RFP No 2021-12: **Downtown Master Plan** – Took the Downtown Master Plan to City Council for approval.
- Staff submitted the **Finding of Necessity** for the Downtown / US 17 Corridor / MLK Corridor to City Council for their approval to send it to Clay County to receive authorization to create a Community Redevelopment Area / Agency.
- Completed 27 **lien search requests**, reviewed 20 **permit applications**, and continued to work on Future Land Use Map Amendments, a Rezoning, and a PUD Rezoning all related to 21.3 acres for the Rookery development and the proposed land swap. The **Rookery** applicants additionally resubmitted their Developers Agreement for continued review. Staff additionally received a new project known as **Preserve at Green Cove Springs** which includes a Voluntary Annexation, Future Land Use Amendment (from County Industrial to Mixed-Use) and a rezoning (From County's Light Industrial to Planned Unit Development). This is for a multi-family development.

Revenues for Planning related fees for April were \$4,017.43.

CODE ENFORCEMENT

In April, there were 2 new Enforcement complaints filed. Voluntary compliance was achieved for both cases resulting in case closure. The City received \$0 in Code Enforcement fines for Special Magistrate orders previously issued. For Fiscal Year 2021-2022, Code Enforcement has collected \$45,575 in Code Enforcement fines.

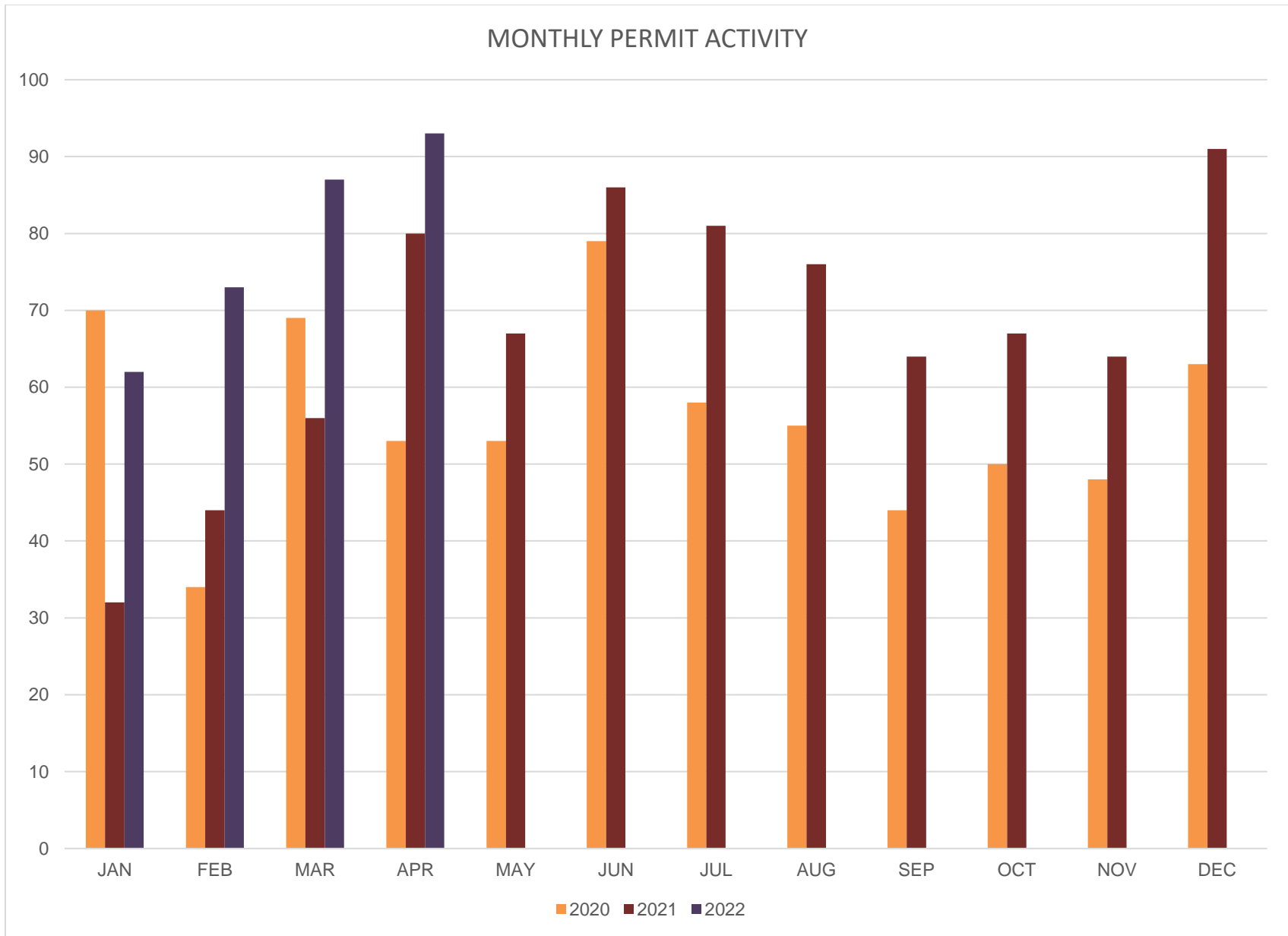
BUILDING

Building permit activity increased from March to April. The total number of building permits issued in April was 93 compared to 87 in March. Permit activity for April 2022 increased by 16% from April 2021.

Revenues for Building related fees for April were \$14,503.90.

2022 PERMIT SUMMARY	
NEW HOUSES	April
MAGNOLIA POINT:	0
CORE CITY:	1
CONDOS:	0
COMMERCIAL ACTIVITY	April
BUILDING (NEW)	0
OTHER PERMIT ACTIVITY	April
ADDITION - COMMERCIAL	0
ADDITION - RESIDENTIAL	4
REMODEL - COMMERCIAL	2
REMODEL - RESIDENTIAL	16
SCREEN ROOMS:	0
SHIP PROGRAM:	0
SIGNS:	2
POOLS:	0
RE-ROOFING:	22
GARAGE/SHED:	0
OTHER PERMITS:	46

TOTAL PERMITS ISSUED	93
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ELECTRIC DEPARTMENT

Significant activities for the month of April 2022

- 14 Streetlights repaired
- 1 Nightlight repaired
- 1 Nightlight installed
- 2 Temporary meters installed
- 4 Meters replaced
- 3 Meters inspected
- 1 Pole installed
- 4 Poles removed
- 3 Voltage check

In addition to the activities listed above, the Electric Department also:

- Conducted daily morning safety meetings.
- Conducted daily truck inspections.
- Trimmed limbs and vines from power lines and poles.
- Unloaded transformers and supplies when they come in.
- Inspect/locate ROW permits.
- Conduct warehouse inventory/order supplies.
- 3620 Shinnecock Ln., assist public works crew with install of bollards.
- 2008 Wedge Ct., secured with screws green box in the yard.
- 3231 River Rd., secured cables after a dump truck snap the lines.
- 415 Walnut St., reconnected overhead conductors.
- 204 Gum St., disconnected service for replacement of fascia board.
- 3465 Olympic Dr., removed lifting bolts from transformer.
- 914 Hall Park Rd., placed ground rod below ground level.
- 1856 Colonial Dr., removed lifting bolts from transformer and placed warning labels on above ground pedestal.
- 1247 Travers Rd., added fill dirt at bottom of pole and placed warning labels on above ground pedestal.
- 955 Worthington Ave., made repairs to reclosure cabinet.
- CR 315, installed conduit strap on flex conduit.
- 965 Leonard C. Taylor Pkwy., changed out gang switch pole and cut wire, and removed primary meter one pole north of pole change out.

During the month of April, the Electric Department responded to the following outages:

04/7/2022 – Between 10:23 a.m. – 11:00 a.m., 710 Highland Ave., squirrel knocked out feeder, 200 customers affected.

04/9/2022 – Between 4:30 p.m. – 7:00 p.m., 1611 Elsie St., tree felt on power lines, 2 customers affected.

04/9/2022 – Between 7:00 p.m. – 8:00 p.m., 1504 Walnut St., replaced blown fuse at transformer, 10 customers affected.

04/14/2022 – Between 9:05 a.m. – 10:00 a.m., 1442 Mahama Bluff., blown transformer fuse because of vines, 2 customers affected.

04/15/2022 – Between 5:00 p.m. – 5:25 p.m., 3387 Gator Bay Rd., refused blown Lateral fuse, 15 customers affected.

04/20/2022 – Between 4:45 p.m. – 5:15 p.m., 4233 North Rd., broken neutral, 3 customers affected.

04/27/2022 – Between 7:00 p.m. – 7:30 p.m., 3144 Bazley Rd., refused blown Lateral fuse, 1 customer affected.

Electric Utility Top Consumption Customers (kwh/meter) for April:

NAME	SERVICE ADDRESS	KWH	AMOUNT
BD Of County Commissioner	825 N. Orange Ave.	258,400	\$30,663.60
Clay County Jail	901 N. Orange Ave.	252,960	\$29,336.44
St. Johns Landing	1408 N. Orange Ave.	186,690	\$23,572.94
Kindred Health	801 Oak St.	181,400	\$20,864.60
Winn Dixie Stores, Inc	3260 Hwy. 17 N.	166,000	\$19,816.00
Permabase Building Products	1767 Wildwood Rd	152,480	\$17,430.32
Clay County Court House	825 N. Orange Ave.	101,120	\$10,060.88
Tamko Roofing Products	914 Hall Park Rd.	99,360	\$13,925.84
BD Of Public Instruction	2025 State Road 16	85,000	\$11,933.00
Governors Creek #436	803 Oak St.	72,000	\$ 8,946.00
City of Green Cove Springs	1277 Harbor Road	68,640	\$ 7,702.16
City of Green Cove Springs	Set Street Lights	66,392	\$ 8,576.57
Clay County Driver's License	477 Houston St.	59,360	\$ 7,368.24
VAC-CON	954 Hall Park Rd.	57,520	\$ 7,056.88
Coral Ridge Foods	1165 N Orange Ave.	56,560	\$ 6,662.64
Pegasus Technologies	932 Pilot Dr.	52,920	\$ 6,360.08
Garber Realty/GMC	3340 Highway 17	49,280	\$ 6,424.72
BD Of Public Instruction	801 Center St.	44,320	\$ 6,028.88
Duval Asphalt Products, Inc.	1921 Jersey Ave.	44,100	\$ 8,470.40
Direct TV/ATT Services Inc.	512 Center St.	44,000	\$ 5,154.00
Race Trac Petroleum Inc.	3106 Highway 17	39,600	\$ 4,657.20
Ammcon Corp.	1503 County Road 315 Ste 201	38,400	\$ 5,279.60
BD Of Public Instruction	1 N Oakridge Ave	36,720	\$ 5,725.28
BD Of Public Instruction	Clay High School	35,280	\$ 5,256.32

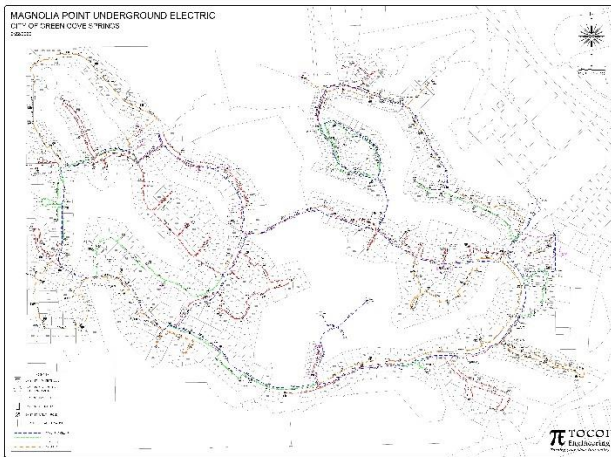
Electric Utility Department Capital Projects:

Pole top switch replacement

This project began 09-18-2019 with the installation of switches at Governors Creek for restoration plan if isolation of north feeder across Governors Creek Bridge during extreme emergencies. Project is now in the inspection and evaluation process involving Chapman 2 extension to Harbor Rd and load transfer of Chapman 1 to Chapman 2.

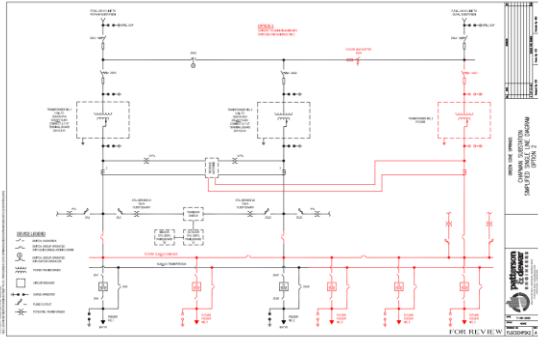
Magnolia Point Reconductor

This project has been reviewed by our new Electric Director and a local contractor and revised. The project will now focus on a brand new 3-phase backbone “ring” through the development with two feeds. This ring will be constructed as phase 1 utilizing a standing contract to bore in new 6” conduit for the entire ring and utilizing a contractor to pull in the new conductor and tie into the existing side roads along the way. The re-design is now completed by our engineer. Conduit and Conductor has been received for phase I and work has begun. Work started on October 11, 2021, with completion expected by Summer 2022.



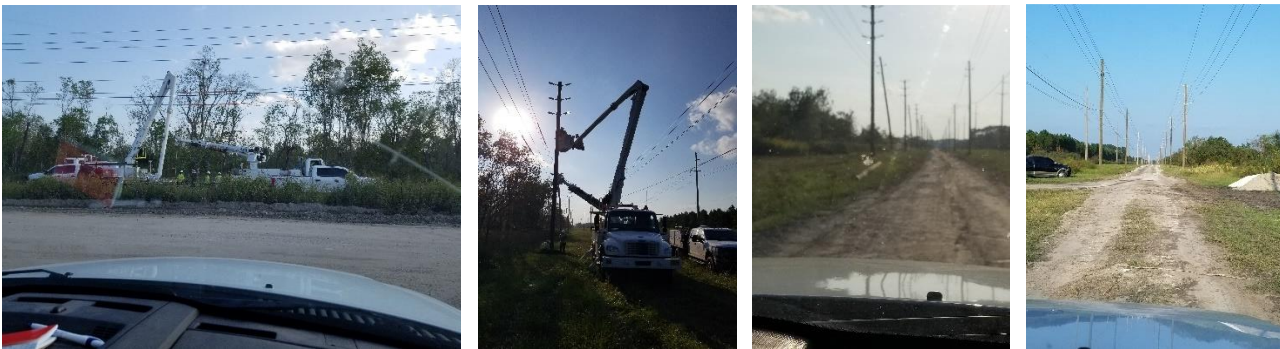
Chapman Substation upgrade

Patterson & Dewar is the City’s engineering firm for this project. The transformer is now energized with load on it, and we are now in the final stages of installing the new SCADA system on the older transformers. Patterson & Dewar have designed the rest of the improvements to the substation as well as SCADA to be installed throughout the system. Design is complete. The construction was awarded to Terry’s Electric. They arrived on site the first week of January 2021 to begin work at the substation. The substation work is complete, and we are working with Patterson & Dewar to finish up the last testing of the SCADA system before going live. The project should be complete by the middle of 2022.



Chapman 3RD Circuit

IRBY Construction began September 21, 2020, and the **PROJECT IS NOW COMPLETE.**



Chapman 1 / Chapman 2

Express circuit feed project of Chapman 1 to north of Governors Creek (a.k.a. **Magnolia Point Third Feed**) and Chapman 2 extension to Harbor Rd project have been combined to balance future load requirements north of Governors Creek and to supply additional restoration procedure options involving electric outages north of Governors Creek. Conductor had been installed on Roberts St. for Chapman 1 alternate path. City crews are now working on additional new line on south right of way that will enable Reynolds Park load to be transferred from Chapman 1 circuit to Chapman 2. Materials for this portion of the project are being funded by a DEO Grant. **PROJECT IS NOW COMPLETE.**

Houston St. re-conductor

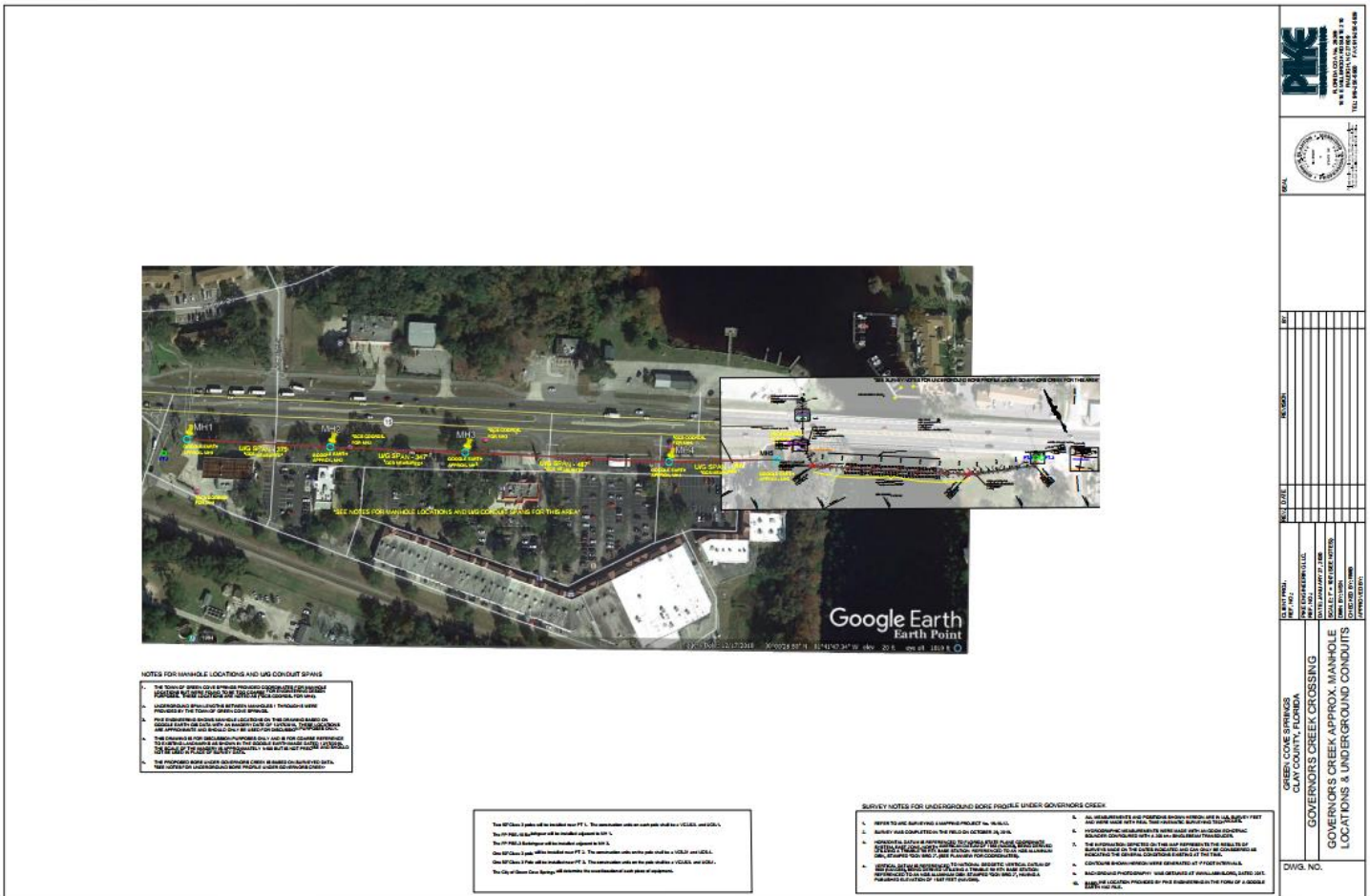
Planning for the reconductoring of Chapman 2 with 477 AAC from Martin Luther King Blvd. to Palmetto Ave. has begun. This will support a second circuit extending north of Governors Creek for restoration involving Magnolia Point, provide an alternate tie between Chapman 1 and Chapman 2 (was not possible before due to conductor size) and support AMMCON, PASS and other future expansion north of Governors Creek. Materials for this project are being funded by a DEO Grant. **PROJECT IS NOW COMPLETE.**

13kV to 23kv Conversion – US17 from Harbor Road to CR 315

Planning for this project has begun. This project will continue the Chapman 1 and Chapman 2 circuits north of Harbor Road to provide capacity and reliability for existing and future customers north of Governors Creek. Materials for this project are being funded by a DEO Grant. Materials have started arriving and we are installing the material as it arrives.

Governors Creek Hardening Project

This project will allow the overhead conductor crossing Governors Creek to be placed underground from Grove Street to Harbor Road. This project has been split into two phases: (1) design and permitting and (2) construction. It is being 75% funded by a FEMA HMGP grant. Phase 1 is complete. The project is now being evaluated by FDEM and FEMA funding for the construction phase. Once funding is in place and a contract is executed, bidding and construction should take approximately 9 months. This project will also support to extension of Chapman 1 and Chapman 2 circuits north of Governors Creek to provide additional capacity and reliability for all customers north of Governors Creek.



North and South Substation Improvements

North and South substation sub-station upgrades have begun with directional bore designs completed to install URD 23KV feeds to substation transformers eliminating the possibility of catastrophic failure in the event of lightning or material failure which could cause conductor to fall into existing bus work.

Public Works Monthly Executive Summary April 2022



Street Department

During the month of April, The Street Department has been busy throughout the City. Additional activities included:

- Trim back limbs and vegetation on the city rights-of-way.
- Palmetto Ave Welcome Wall improvements.
- 2 Silt fence inspections.
- City Wide Street Sign Maintenance.

The Street Department completed 41 additional work orders that pertained to street and stormwater issues.

Parks Department

During the month of April, the Parks Department mowed, weed-eated, and edged all areas one time including the DOT rights-of-way, City Parks, and FCT property. Additional activities included:

- Monthly playground equipment inspection and necessary repairs.
- Clean storm drains City Wide.
- Preparation for the CalaVida Festival.
- Cleaned the pool 4 times

The Parks Department completed 3 additional work orders outside of their normal daily work schedules.

Equipment Maintenance

The Equipment Maintenance Shop, as always, works hard to keep the equipment and vehicles going so the city can continue to provide our citizens with the exceptional service they are accustomed to. During the month of April, Danny, John and Donald completed **81** work orders.

Tradesworker

During the month of April **29** work orders were completed.

Solid Waste Department

Cove Life, Litter Cleanup Program & New Services:

- Picked up everything around the rollout cans.
- Picked up as much loose trash, palm fronds, and sticks as possible on the streets, along the R.O.W. and ditches regardless of if it is near a container or not.
- Delivered 9 trash cans and 9 recycle bins to new customers.
- Delivered 4 blue recycle bins to current customers.
- Repaired 3 trash cans.
- Replaced 10 trash cans.

This month, the city collected:

- **314.33** tons of Class I garbage (14% decrease)
- **15.61** tons of recycling (28% decrease)
- **161.03** tons of yard waste (21% increase)
- **19.06** tons Street Sweepings
- **11.84** tons of white goods and other junk

For comparison during April 2021, the city collected:

- **358.23** tons of Class I garbage
- **19.93** tons of recycling
- **132.54** tons of yard waste
- **14.06** tons Street Sweepings

Water/Wastewater

- W/WW crews/management had personal interaction with several citizens regarding water/sewer issues.
- Contacted all customers on water and irrigation “Highest Users” report that had unusual consumption (not usually on report)
- Staff continues to refine the scope and financials of the consolidated AWWTP, expanded reclaimed water system, wastewater collection system improvements and water system capital improvements to obtain maximum grant potential, optimize loan conditions and minimize impact to customers.
- W/WW/RW Projects;
 - Design of the improvements to the city’s wastewater treatment system (all phases) is complete. In order to maximize grant opportunities, the initial construction phase was split into two pieces, for a total of four phases;
 - Phase I is construction of the on-site reclaimed water system (storage tanks, high service pumps, electrical) at the existing Harbor Road Facility, and rehabilitation of Master Lift Stations #2 and #4. This phase went out to bid in January in two parts – plant reclaimed water improvements & lift station #2 & #4. **Construction was completed in June 2020.** The total Phase I cost is \$6,120,600. Staff received \$4,063,425.00 in “Principal Forgiveness” (grant) from FDEP (SRF).
 - Phase II:
 - Construction of the new 1.25 million gallon per day (MGD) advanced wastewater treatment plant (AWWTP) at the Harbor Road site.

- Phase III:
 - A new force main from Lift Station #2 diverting the sewage from the South Plant to Harbor Road (all sewage generated in the City will be treated at the new Harbor Road AWWTP).
 - Decommissioning and “mothballing” of the South Wastewater Treatment Plant. The permit will remain in place and the plant could be re-commissioned at a later date depending on future activities at the Reynolds site.
- Phase IV (future – determined by growth) is a second identical 1.25 MGD AWWTP built at the Harbor Road site. An alternative would be construction of this train at the south Plant site in Reynolds Park if the southern /Reynolds portion of our service territory is where significant growth occurs
- Phase V (future – determined by growth) is a third identical 1.25 MGD AWWTP built at the Harbor Road or Reynolds site.
- Sanitary Sewer Evaluation Survey (SSES) of the Core City wastewater collection system is **complete**, including Mittauer final report. Staff utilizes this data daily in evaluating collection system repairs and requests for sewer connections.
- Continuing to work with FDOT and clay County on utility relocations associated with the First Coast Expressway and Clay County road expansions (CR 315 & CR 209 / Russel Road).
- **Senate Bill 64:** In 2021 the Florida Senate approved SB 64, which requires wastewater treatment plants to eliminate surface water discharges by 2035, which has become a significant financial burden to utilities. This requires the city to eliminate effluent discharge from the Harbor Road and South wastewater treatment plants to the St. Johns River. While the city has been implementing reclaimed water projects for several years, there are not enough uses to take all of the city’s treated wastewater. In November 2021 the city submitted to FDEP a plan as to how surface water discharges will be eliminated.

Potable Water:

- Staff and Mittauer have completed a full review of the future capital needs of the water system. A comprehensive capital improvement program (CIP) has been developed as part of the Water Master Plan. As in the past, the timing of many of these improvements is driven by future activities in Reynolds Industrial Park and other areas of our service territory. The city has received an FDEP – SRF loan for Planning and Engineering of several of the CIP improvements so that as the need for the improvements occur, the City is ahead of the game and can apply very quickly to SRF for actual construction dollars as “shovel-ready” projects. The total design project cost is \$356,800.00, with a \$178,400.00 (50%) principal forgiveness (grant), leaving an actual loan of \$180,100.00.
- Reynolds Water System Improvements:
 - New water mains along two primary streets to remedy fire hydrants that were inadequate.
 - New 12” water main crossing under SR 16 to replace aging mains that endanger the integrity of the road. This eliminated four existing crossings.
 - New water main along Red Bay Road eliminating existing aging and leaking pipes. In addition remediating fire hydrants that were inadequate.
 - New water main and sewer force main extension from Reynolds Park to and across the MOBRO complex. This extension is designed to supply water, fire protection & sewer needs to MOBRO and future developments to the east.
 - **Completed September 2021**

South Service Territory Improvements:

- New 12” water main loop from US17 along CR 209 S to the existing 12” water main that terminated at 4600 CR 209 S. This also included a new 4” sewer force main from US 17 along CR 209 S to the First Coast Expressway crossing. **Completed September 2021**
- The City has received grants from the State of Florida Hazard Mitigation Grant Program (HMGP) to install auxiliary generators at 17 sewage lift stations, and install generators / raise infrastructure at four additional stations. The grant funds 75% of the improvements. **Approximately 75% complete**
- Continued remediation of malfunctioning or out-of-service hydrants.
- Operated and maintained the Harbor Rd. and South Wastewater Treatment Plants as well as the Harbor Rd. and Reynolds Water Treatment Plants to meet the requirements of Regulatory Agencies.
- Continued to make process control adjustments at the Harbor Rd. and South WWTP in efforts to further lower Total Nitrogen and Total Phosphorus levels being discharged to the St. Johns River.
- Continued landscape maintenance at Water and Wastewater Treatment Facilities as well as lift stations.
- Continued preventative maintenance on all treatment facility generators.
- Completed 0 new services.
- Completed 65 water related work orders.
- Completed 36 sewer related work orders.
- Responded to 159 utilities locate requests.

TOP 10 WATER CUSTOMERS APRIL 2022

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	Sheriff’s Department	1	Sheriff’s Department
2	Governors Creek#436	2	Clay High
3	Clay High	3	Governors Creek#436
4	Clay County Court House	4	Clay County Court House
5	Springs Coin Laundry	5	Kindred Health
6	Kindred Health	6	Springs coin Laundry
7	A-1 Stone World INC	7	Diamond Assisted Living
8	Clay Port INC	8	Premier Surface Design LLC
9	Premier Surface Design LLC	9	Clay Port INC
10	Diamond Assisted Living	10	R C Bannerman Learning Center

TOP 10 IRRIGATION CUSTOMERS APRIL 2022

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	Permabsae Building Products	1	Permabase Building Products
2	Magnolia Point Investment	2	Magnolia Point Investments
3	Vallencourt Construction	3	Vallencourt Construction
4	Sheriff's Department	4	Sheriff's Department
5	Montee & Edwin Jenkins	5	Governors Point Yacht Club
6	Governors Point Yacht Club	6	Montee & Edwin Jenkins
7	Larry Sechrest	7	Larry Sechrest
8	Jeffrey Schoen	8	Magnolia Point Association
9	Magnolia Point Association	9	Jeffrey Schoen
10	Vystar Credit Union	10	Vystar Credit Union

TOP 10 SEWER CUSTOMERS APRIL 2022

Largest (By Consumption)		Largest (By Dollar Amount)	
Rank	CONSUMER	Rank	CONSUMER
1	St. John's Landing	1	St John's Landing
2	Sheriff's Department	2	Sheriff's Department
3	Governors Creek#436	3	Clay High
4	Clay High	4	Governors Creek #436
5	Clay County Court House	5	Clay County Court House
6	Spring Coin Laundry	6	Kindred Health
7	Kindred Health	7	Springs Coin Laundry
8	A-1 Stone world INC	8	Diamond Assisted Living
9	Clay Port INC	9	Clay Port INC
10	Premier Surface Design LLC	10	Premier Surface Design LLC

Wastewater Plant Capacity Status

South Plant: TMDL Capacity 0.350 MGD*

- Current Loading 0.270 MGD*, 80% Capacity (February 2022 Annual Average)
- Current & Committed (.333) Loading 0.606 MGD*, 175% Capacity
- Current, Committed (.333) & Requested (0.50) Loading 0.656 MGD*, 189% Capacity

Harbor Road: TMDL Capacity 0.650 MGD*

- Current Loading 0.475 MGD*, 73% Capacity (February 2022 Annual Average)
- Current & Committed (.092) Loading 0.567 MGD*, 87% Capacity
- Current, Committed & Requested (0) Loading 0.567 MGD*, 87% Capacity

*MGD = Million Gallons per Day

Note: No Reynolds growth or loading projections included in above.