**Agenda**
**City of**
**Cocoa**
**Planning & Zoning Board / Local Planning**
**Agency Regular Meeting**

**May 07, 2025**
**6:00 PM**
**65 Stone Street, Cocoa, FL 32922**

## I. Opening Matters:

1. Call to Order
2. Pledge of Allegiance
3. Roll Call

## II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of May 7, 2025.
2. Minutes: Regular Meeting of April 2, 2025.

## III. Old Business:

## IV. New Business:

1. PZ 25-00500002 LARGE SCALE COMPREHENSIVE PLAN TEXT AMENDMENT ORD 01-2025

   Consideration of an Expedited State Review Comprehensive Plan Text Amendment to amend Figure FLU-1, Standards for Future Land Use Categories, to include the Commercial Parkway (C-P) zoning district within the Four Corners Overlay District, as an applicable zoning district in the Mixed-Use (MU) Future Land Use Designation. **Postponed until next meeting**

2. PZ 25-02000002 LAND DEVELOPMENT REGULATIONS AMENDMENT ORD 02-2025

   Consideration of a Land Development Code Text Amendment Appendix A, Article XI Code of Ordinances of the City of Cocoa creating Section 23, Four Corners Overlay District, establishing permitted, special exception, and prohibited uses; providing for performance standards, including setbacks, parking, landscaping, and signage requirements; establishing building design standards; establishing the boundaries of the Four Corners Overlay District. **Postponed until next meeting**

3. PZ 24-07000006 PLUCKEBAUM PLANNED UNIT DEVELOPMENT (PRELIMINARY)

Consideration of a Preliminary Planned Unit Development (PUD) consistent with Appendix A, Zoning, Article XI, Section 17, for a 230 single-family residential subdivision on +/- 76.21 acres of property located at the northwest corner of Pluckebaum Road and Clearlake Road in the City of Cocoa.

**V. Tree Board:**

**VI. Open Discussion:**

**VII. Other Business:**

**VIII. Next Meeting Date:** Wednesday, June 4, 2025, at 65 Stone Street in Cocoa, FL

**IX. Adjournment:**

**General Notice Information:**

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.
The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

**Public Participation Information:**
Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

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  Documents pertaining to the above may also be inspected at the Planning & Zoning Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

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# PLANNING & ZONING AGENDA ITEM

| | |
|---|---|
| Memo Date: | 03/21/2025 |
| Agenda Date: | 5/7/2025 |
| Prepared By: | Breanna Earley, Assistant City Clerk |
| Through: | Jennifer Webster, Senior Planner |
| Requested Action: | Request Board Approval of the Short Agenda for the Regular Meeting on May 7, 2025, either as written or with amendments. |

**BACKGROUND:**
Board Members approve the agenda at the beginning of the meeting.

**PRIORITY AREA CONNECTION:**

**BUDGETARY IMPACT:**
N/A

**PREVIOUS ACTION:**
N/A

**RECOMMENDED MOTION:**
Request Board Approval of the Short Agenda for the Regular Meeting on May 7, 2025, either as written or with amendments.

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**VI. Open Discussion:**

**VII. Other Business:**

**VIII. Next Meeting Date:** Wednesday, June 4, 2025, at 65 Stone Street in Cocoa, FL

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# PLANNING & ZONING AGENDA ITEM

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|---|---|
| Memo Date: | 03/21/2025 |
| Agenda Date: | 5/7/2025 |
| Prepared By: | Breanna Earley, Assistant City Clerk |
| Through: | Jennifer Webster, Senior Planner |
| Requested Action: | Request Board approval of the Minutes from the Planning & Zoning March 5, 2025 Regular Meeting, either as written or with amendments. |

**BACKGROUND:**
Board members approve the minutes at the beginning of the meeting.

**PRIORITY AREA CONNECTION:**

**BUDGETARY IMPACT:**
N/A

**PREVIOUS ACTION:**
N/A

**RECOMMENDED MOTION:**
Request Board approval of the Minutes from the Planning & Zoning March 5, 2025 Regular Meeting, either as written or with amendments.

**MINUTES**
**CITY OF COCOA**
**PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY**
**REGULAR MEETING**
**April 2, 2025**

**A Regular meeting of the Planning & Zoning Board Local Planning Agency was held on April 2, 2025, at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.**

## I. CALL TO ORDER:

Chairperson Park called the meeting to order at 6:02PM.

**ROLL CALL:**

| | |
|---|---|
| Wesley Park | Chairperson |
| Todd Anderson | Vice Chairperson |
| Ron Chabot | Board Member |
| Tamisha Findlay | Board Member |
| Aleck Greenwood | Board Member |
| Victoria Jones | Board Member |
| Katherine Stewart | Board Member |
| Marcus Wheeler | Board Member |
| Russel Sengel | Board Member |
| Joseph Bachand | 2nd Alternate |
| Kristin Eick | City Attorney |

**PRESENT:**

| | |
|---|---|
| Wesley Park | Chairperson |
| Todd Anderson | Vice Chairperson |
| Ron Chabot | Board Member |
| Tamisha Findlay | Board Member |
| Aleck Greenwood | Board Member |
| Victoria Jones | Board Member |
| Katherine Stewart | Board Member |
| Marcus Wheeler | Board Member |
| Russell Sengel | Board Member |
| Joseph Bachand | 2nd Alternate |
| Kristin Eick | City Attorney |

**ABSENT:**

**STAFF PRESENT:**

Breanna Earley, Recording Secretary; Jennifer Webster, City Planner; Luci Ribero, City Planner, Stockton Whitten, City Manager.

Chairperson Park led the assembly in the Pledge of Allegiance.

## II. APPROVAL OF AGENDA AND MINUTES:

1. AGENDA: Meeting of April 2, 2025

* **MOTION BY VICECHAIR ANDERSON; SECONDED BY BOARD MEMBER WHEELER TO APPROVE THE APRIL 2, 2025, REGULAR MEETING AGENDA AS WRITTEN.**

**AYES: PARK, ANDERSON, CHABOT, GREENWOOD, FINDLAY, JONES, STEWART, WHEELER, SENGEL**

**MOTION PASSED UNANIMOUSLY (9-0)**

2. MINUTES: Regular Meeting of March 5, 2025

* **MOTION BY BOARD MEMBER CHABOT; SECONDED BY BOARD MEMBER WHEELER TO APPROVE THE MARCH 5, 2025, REGULAR MEETING MINUTES.**

**AYES: PARK, ANDERSON, CHABOT, GREENWOOD, FINDLAY, JONES, STEWART, WHEELER, SENGEL**

**MOTION PASSED UNANIMOUSLY (9-0)**

## III. OLD BUSINESS:

## IV. NEW BUSINESS:

### 1. PZ 25-02800001 Michael C. Blake Subdivision – Lennar Homes Development Agreement for Affordable Housing

Consideration of a Development Agreement for affordable housing in the Michael C. Blake Subdivision in Cocoa, Florida, situated in the Diamond Square Community Redevelopment area, affecting approximately 2.83 acres of city-owned property, located generally on Mango Avenue, Valencia Avenue, and Blake Avenue between Barbara Jenkins Street and Stone Street, for the development of seventeen (17) existing parcels of real property into thirty-two (32) affordable, single-family homes with lots not less than thirty-seven (37) feet in width and ninety-five (95) feet in depth. The agreement establishes building elevations and floor plans for the future homes and describes development schedules and future permitting requirements.

Jennifer Webster, City Planner, presented a PowerPoint about the proposed project[1].

Alternate Member Bachand asked about impact fees.

Assistant Attorney Eick explained the city may consider impact fees. It has not been decided. The proposal is requesting deviations from the existing code. Mostly regarding the widths of the lots, and they will be narrower than what's required in the district code.

Chairperson Park asked about the cost of utilities. In response, Board Member Wheeler stated that the builder utilizes its own mortgage company.

Chairperson Park opened the discussion for questions to the developer.

Board Member Wheeler asked if they would be CBF or frame.

Matthew Pisciotta, Lennar Homes, stated half and half.

Board Member Greenwood spoke about the project. He asked about numbers for selling.

Mr. Pisciotta stated they would be for sale. He stated it was an entry level project.

Board Member Greenwood asked if they are strictly for sale. In response, Mr. Pisciotta stated they were.

Board Member Chabot stated it was a good project.

* **MOTION BY BOARD MEMBER JONES; SECONDED BY BOARD MEMBER GREENWOOD TO APPROVE THE STAFF REQUEST FOR THE MICHAEL C. BLAKE SUBDIVISION.**

**AYES: PARK, ANDERSON, CHABOT, GREENWOOD, FINDLAY, JONES, STEWART, WHEELER, SENGEL**

**MOTION PASSED UNANIMOUSLY (9-0)**

## V. TREE BOARD:

Jennifer Webster, City Planner, provided an update about an oak tree that was removed at Cocoa High School. She received a message from Abby Morgan, Public Works Director, that the school board confirmed someone evaluated the tree and determined it was 75 percent dead. She stated a tree in that condition would be exempt from permit.

[1] Exhibit A: Proposed Subdivision Presentation

Vice Chairperson asked for clarification that it also made it exempt from being approved by the board. In response, Ms. Webster confirmed.

Board Member Greenwood gave a history about the Tree Board and its importance.

Board Member Chabot spoke about insurance companies requiring trees to be removed.

Board Member Greenwood acknowledged but would like an effort to replace trees.

## VI. OTHER BUSINESS:

Board Member Greenwood spoke about an "Open Discussion" section being on the agenda. He went on to speak about lime rock and chain-link fencing.

Board Member Stewart asked for clarification.

Board Member Greenwood spoke further about the "Open Discussion" section.

Chairperson Park asked if it was possible to add the "Open Discussion" section.

Assistant Attorney Eick spoke about the new agenda software possibly being the reason why it was no longer there. She stated it could be added back.

Vice Chair Anderson clarified the open discussion agenda item.

Board Member Sengel introduced himself and gave his background and experience.

Vice Chair Anderson emphasized Board Member Sengel's perspective and his history at the fire department makes him a valuable Board Member.

## VII. NEXT MEETING DATE:

The next scheduled meeting for the Planning and Zoning Board will be held on Wednesday, May 7, 2025, at 6 pm in Cocoa City Hall, 65 Stone St, Cocoa, FL 32922.

## VIII. ADJOURNMENT:

* **MOTION BY CHAIRPERSON PARK; SECONDED BY VICE CHAIR ANDERSON TO ADJOURN THE MEETING.**

**AYES: PARK, ANDERSON, CHABOT, GREENWOOD, FINDLAY, JONES, STEWART, WHEELER, SENGEL**

**MOTION PASSED UNANIMOUSLY (9-0)**

MEETING ADJOURNED AT 6:35 PM.

_____
**Wesley Park, Chairperson**

**Respectfully Submitted By:**

_____
**Breanna Earley, Recording Secretary**

# PLANNING & ZONING AGENDA ITEM

| | |
|---|---|
| Memo Date: | 04/23/2025 |
| Agenda Date: | 5/7/2025 |
| Prepared By: | Alexis Crespo, Planning Consultant, RVi |
| Through: | Stockton Whitten, City Manager |
| Requested Action: | Request to postpone consideration of an Expedited State Review Comprehensive Plan Text Amendment to amend Figure FLU-1, Standards for Future Land Use Categories, to include the Commercial Parkway (C-P) zoning district within the Four Corners Overlay District, as an applicable zoning district in the Mixed-Use (MU) Future Land Use Designation. |

**BACKGROUND:**

At the request of the City Manager, in order to provide more time for stakeholder input, the item will be continued to the next Planning and Zoning meeting scheduled for June 4th.

**PRIORITY AREA CONNECTION:**

Economic and Community Development

**BUDGETARY IMPACT:**

N/A

**PREVIOUS ACTION:**

**RECOMMENDED MOTION:**

Request to postpone consideration of an Expedited State Review Comprehensive Plan Text Amendment to amend Figure FLU-1, Standards for Future Land Use Categories, to include the Commercial Parkway (C-P) zoning district within the Four Corners Overlay District, as an applicable zoning district in the Mixed-Use (MU) Future Land Use Designation.

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Florida
GANNETT

PO Box 631244 Cincinnati, OH 45263-1244

## AFFIDAVIT OF PUBLICATION

Jennifer Webster, Planning & Zoning Dept.
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Classified Legal CLEGL, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

04/22/2025

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 04/22/2025

Legal Clerk

Notary, State of WI, County of Brown

9.19.25

My commission expires

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VICKY FELTY
Notary Public
State of Wisconsin

# CITY OF COCOA
# NOTICE OF
# PUBLIC HEARING

**NOTICE IS HEREBY GIVEN THAT**

**THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY AND THE COCOA CITY COUNCIL**

**PROPOSE TO CONSIDER THE FOLLOWING:**

**LARGE SCALE COMPREHENSIVE PLAN TEXT AMENDMENT | ORD 01-2025**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, ADOPTING A LARGE SCALE COMPREHENSIVE PLAN TEXT AMENDMENT; AMENDING FIGURE FLU-1 SET FORTH IN THE FUTURE LAND USE ELEMENT TO PROVIDE THAT THE COMMERCIAL PARKWAY ZONING DISTRICT WITHIN THE FOUR CORNERS OVERLAY DISTRICT IS AN ALLOWABLE ZONING DISTRICT IN THE MIXED USE FUTURE LAND USE CATEGORY; PROVIDING DATA AND ANALYSIS AND THE LEGAL BASIS SET FORTH IN THE RECITALS TO SUPPORT THE PROPOSED COMPREHENSIVE AMENDMENT; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT.

**LAND DEVELOPMENT REGULATIONS AMENDMENT| ORD 02-2025**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING APPENDIX A, ZONING, ARTICLE XI OF THE CODE OF THE CITY OF COCOA, CREATING AND ADOPTING THE FOUR CORNERS OVERLAY DISTRICT; PROVIDING FOR ITS PURPOSE AND APPLICABILITY; ESTABLISHING PERMITTED, SPECIAL EXCEPTION, AND PROHIBITED USES; PROVIDING FOR PERFORMANCE STANDARDS, INCLUDING SETBACKS, PARKING, LANDSCAPING, AND SIGNAGE REQUIREMENTS; ESTABLISHING BUILDING DESIGN STANDARDS; ESTABLISHING THE BOUNDARIES OF THE FOUR CORNERS OVERLAY DISTRICT, PARTICULARLY DEPICTED AND DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

**CONSISTING OF THE FOLLOWING TAX ID NUMBERS:**

24 3633-31-C-1,24 3633-32-*-3,24 3633-30-*-14,24 3633-00-251,24 3633-01-*-51,24 3633-00-289,24 3633-30-*-15,24 3633-30-*-8,24 3633-31-A-5,24 3633-31-C-2,24 3633-30-*-21.03,24 3633-30-*-21.04,24 3633-00-253,24 3633-31-*-R.4,24 3633-31-*-R.3,24 3633-31-*-R.5,24 3633-31-*-R.1,24 3633-31-*-R.2,24 3633-32-*-9,24 3633-00-288,24 3633-32-*-7,24 3633-31-D-11,
24 3633-31-D-12,24 3633-31-D-13, 24 3633-00-258

**PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY PUBLIC HEARING WILL BE HELD ON**

**May 7, 2025**

**CITY COUNCIL PUBLIC HEARING WILL BE HELD ON**

**May 27, 2025**

**ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FL**

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Viewing In Real Time. Interested persons may view and listen to the hearings live at the following internet address: https://www.cocoafl.gov/291/20338/City-Meetings The City is not responsible for technical difficulties that may occur while viewing or listening online.

FT-4169439

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Economic and Community Development

**BUDGETARY IMPACT:**

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Florida
GANNETT

PO Box 631244 Cincinnati, OH 45263-1244

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Jennifer Webster, Planning & Zoning Dept.
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

STATE OF WISCONSIN, COUNTY OF BROWN

Before the undersigned authority personally appeared, who on oath says that he or she is the Legal Advertising Representative of the Florida Today, a daily newspaper published in Brevard County, Florida; that the attached copy of advertisement, being a Legal Ad in the matter of Classified Legal CLEGL, was published on the publicly accessible website of Brevard County, Florida, or in a newspaper by print in the issues of, on:

04/22/2025

Affiant further says that the website or newspaper complies with all legal requirements for publication in chapter 50, Florida Statutes.
Subscribed and sworn to before me, by the legal clerk, who is personally known to me, on 04/22/2025

Legal Clerk

Notary, State of WI, County of Brown

9.19.25

My commission expires

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Notary Public
State of Wisconsin

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AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING APPENDIX A, ZONING, ARTICLE XI OF THE CODE OF THE CITY OF COCOA, CREATING AND ADOPTING THE FOUR CORNERS OVERLAY DISTRICT; PROVIDING FOR ITS PURPOSE AND APPLICABILITY; ESTABLISHING PERMITTED, SPECIAL EXCEPTION, AND PROHIBITED USES; PROVIDING FOR PERFORMANCE STANDARDS, INCLUDING SETBACKS, PARKING, LANDSCAPING, AND SIGNAGE REQUIREMENTS; ESTABLISHING BUILDING DESIGN STANDARDS; ESTABLISHING THE BOUNDARIES OF THE FOUR CORNERS OVERLAY DISTRICT, PARTICULARLY DEPICTED AND DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

**CONSISTING OF THE FOLLOWING TAX ID NUMBERS:**

24 3633-31-C-1,24 3633-32-*-3,24 3633-30-*-14,24 3633-00-251,24 3633-01-*-51,24 3633-00-289,24 3633-30-*-15,24 3633-30-*-8,24 3633-31-A-5,24 3633-31-C-2,24 3633-30-*-21.03,24 3633-30-*-21.04,24 3633-00-253,24 3633-31-*-R.4,24 3633-31-*-R.3,24 3633-31-*-R.5,24 3633-31-*-R.1,24 3633-31-*-R.2,24 3633-32-*-9,24 3633-00-288,24 3633-32-*-7,24 3633-31-D-11,
24 3633-31-D-12,24 3633-31-D-13, 24 3633-00-258

**PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY PUBLIC HEARING WILL BE HELD ON**

**May 7, 2025**

**CITY COUNCIL PUBLIC HEARING WILL BE HELD ON**

**May 27, 2025**

**ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FL**

**General Notice Information:**

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk, Monica Arsenault, at least 48 hours prior to the meeting by telephone at (321) 433-8484 or via email at marsenault@cocoafl.org.

The City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and, for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

**Public Participation Information:**

The public may inspect the agenda items, ordinances, and supporting documents at the Community Services Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8451, or on the City's website at the following link prior to the meeting: https://www.cocoafl.gov/291/20338/City-Meetings

Interested persons may submit their written comments or questions prior to the meeting through Email at meetings@cocoafl.org.

Viewing In Real Time. Interested persons may view and listen to the hearings live at the following internet address: https://www.cocoafl.gov/291/20338/City-Meetings The City is not responsible for technical difficulties that may occur while viewing or listening online.

FT-4169439

# PLANNING & ZONING AGENDA ITEM

| | |
|---|---|
| Memo Date: | 04/23/2025 |
| Agenda Date: | 5/7/2025 |
| Prepared By: | Alexis Crespo, Planning Consultant, RVi |
| Through: | Stockton Whitten, City Manager |
| Requested Action: | Consideration of a Preliminary Planned Unit Development (PUD) consistent with Appendix A, Zoning, Article XI, Section 17, for a 230 single-family residential subdivision on +/- 76.21 acres of property located at the northwest corner of Pluckebaum Road and Clearlake Road in the City of Cocoa. |

**BACKGROUND:**

The Applicant, Lennar Homes, LLC, on behalf of the property owners, Ongoing Investments, Inc. and Breyer Brothers Property Development, LLC, is requesting a Preliminary Planned Unit Development (PUD) approval for a +/- 76.21-acre single-family residential project located on the northwest corner of Pluckebaum Road and Clearlake Road. The Subject Property consists of the two (2) parcel ID numbers 24-36-31-00-756 and 24-36-31-00-752. The Subject Property is currently zoned RU-1-7 (Single-Family Residential District) with an underlying Future Land Use (FLU) category of VLDR (Very Low Density Residential), which allows for a maximum of 4 dwelling units per acre.

| | |
|---|---|
| Future Land Use Designation | Current: Very Low Density Residential |
| Zoning District | Current: RU-1-7 (Single-Family Residential District) |
| Existing Land Use | Vacant |
| Council District | District 1 - Councilmember Goins |
| Legal Ad Date | April 22, 2025 |

**OVERVIEW OF SURROUNDING AREA:**

| | Future Land Use Designations Zoning Districts Land Uses | Zoning Districts | Land Uses |
|---|---|---|---|
| North | LDR, Low Density Residential<br>MDR, Medium Density Residential | RU-2-15 Multiple-Family Dwelling District | Vacant land, singlefamily homes, and apartments |

| | | | |
|---|---|---|---|
| South | City of Rockledge Jurisdiction | City of Rockledge Jurisdiction | Single-family homes |
| East | City of Rockledge Jurisdiction | City of Rockledge Jurisdiction | Park owned by City of Rockledge |
| West | City of Rockledge Jurisdiction | City of Rockledge Jurisdiction | Vacant |

**Project Description:**
The Subject Property is located at the northwest corner of Pluckebaum Road and Clearlake Road. The site is currently vacant and consists of +/- 76.21 acres of land, the applicant is proposing a 230-lot, single-family detached subdivision with multiple open space tracts, an amenity area, wetland preserve with walking trails, and associated infrastructure. See attached Preliminary PUD Site Plan, Exhibit A.

The project proposes two (2) different single family detached lot types: 40-foot wide and 50- foot wide. Of the 230-lots, 154 lots are 40-foot wide, and 76 lots are 50-foot wide. Elevations of the proposed dwelling types are attached as Exhibit B. Staff has worked with the Applicant on the inclusion of additional building features on several of the models as noted in the Exhibit.

It is noted that the site contains significant acreage comprised of jurisdictional wetlands, with 42.8 acres of proposed wetland impacts.The Applicant has provided data and analysis demonstrating the wetlands are low quality due to high levels of exotic vegetation infestation. Thus, the proposed development of the site will serve to enhance the preserve wetlands through removal of exotic vegetation and restore portions of the site to higher quality habitat for protected species. Additionally, wetland mitigation credits will be purchased from the Lake Washington Mitigation Bank, which is located within the Core Foraging Area (CFA) and approximately 12,000 feet east of an established wood stork colony.

The Applicant provided preliminary information relating to on-site floodplains and stormwater design for the project. As this is an application for Preliminary PUD, and not Final PUD, Staff has reviewed the data provided and proffers conditions to ensure detailed stormwater analysis is provided at the time of Final PUD to ensure no adverse, off-site impacts.

**REZONING ANALYSIS**

The Planning & Zoning Division staff have addressed the criteria contained in

Appendix A of the City of Cocoa, Article XI, Section 17(I)(2)(e) as follows:
*1. Degree of departure of proposed planned unit development from surrounding areas in terms of character and density.*

**Staff Finding: To the north and northeast of the Project are the Lakeside Palms West and Lakeside Palms East single-family residential communities. To the northwest is the Cocoa Grand multifamily residential community and to the south of the Project is the Harvest Landing single-family residential community in the City of Rockledge. The existing Lakeside Palms West and Harvest Landing subdivisions generally have lot widths of 50 feet. The proposed PUD does not create a departure with the existing residential development patterns for this area as established by these communities. With regard to density, the Project will have a density of approximately 3.02 dwelling units per acre, which is well below the maximum 4 dwelling units per acre I the Very Low Density Residential future land use category.**

*2. Compatibility within the planned unit development and relationship with surrounding neighborhoods.*

**Staff Finding: This application is requesting a Preliminary PUD to allow for the development of a master planned residential community of single-family dwelling units consistent with the Very Low Density Residential category at three dwelling units per acre. The change in use from the previous agricultural operation is expected to bring the use of the Property into closer alignment with the nature of the surrounding residential communities. The proposed development will remain in harmony with the existing or any future use of the adjacent property through the thoughtful siting of homes, positioning of lakes, and landscape buffers.**

**The single-family detached dwelling type and proposed density are compatible with the surrounding neighborhoods.**

*3. Prevention of erosion and degrading of surrounding area.*

**Staff Finding: The proposed use and design attempts to minimize environmental impacts, including, but not limited to, water, air, stormwater management, wildlife, vegetation, wetlands and the natural functioning of the environment. As noted above, the site contains significant acreage comprised of jurisdictional wetlands, with 42.8 acres of proposed wetland impacts. The Applicant has provided data and analysis demonstrating the wetlands are low quality due to high levels of exotic vegetation infestation. Thus, the proposed development of the site**

**can serve to enhance the preserved wetlands through removal of exotic vegetation and restore portions of the site to higher quality habitat for protected species. Additionally, wetland mitigation credits will be purchased from the Lake Washington Mitigation Bank for the proposed impacts. Stormwater and flood control is discussed below in Finding 4.**

*4. Provision for future public education and recreation facilities, transportation, water supply, sewage disposal, surface drainage, flood control and soil conservation as shown in the preliminary development plan.*

**Staff Finding: The development will offset impacts to services and infrastructure via payment of impact fees. The Preliminary PUD site plan demonstrates on-site recreational facilities satisfying the minimum open space requirements under the City Code and stormwater management to provide flood control.**

**The City's Public Works Department offers the following analysis of the proposed stormwater design as it relates to this criterion, which has been incorporated into the Staff recommended conditions of approval:**

**As discussed with City staff and the applicant during a virtual meeting held on April 17, 2025, the proposed compensatory flood storage described in the memorandum "Preserve at Pluckebaum – Compensatory Flood Storage Summary", by B.S.E. Consultants, Inc., March 25, 2025 does not meet the City of Cocoa's compensatory storage requirement. First, the compensatory flood volume should have an unrestricted hydraulic connection to the flood source, which in this case, per the FEMA Flood Insurance Study, is the St. John's River. Second, the proposed volume must be dedicated to flood compensation. The proposed stormwater ponds would not have an unrestricted hydraulic connection to the flood source and the volume that would be dedicated to stormwater treatment and attenuation versus flood compensation was not specified. As such, the proposed stormwater ponds are not considered flood compensation.**

**Based on discussion with City staff and prior floodplain management decisions at other developments, the applicant may, in lieu of flood compensation, demonstrate the proposed project would not increase offsite flooding by performing a detailed study of the surrounding watershed. The "West Cocoa Watershed Evaluation", by Pegasus Engineering, 2014 includes a hydrologic and**

**hydraulic model that may be referenced and adapted for the purpose of the flood study. If this previous study model is used, the applicant should make updates to the previous study model where outdated, incorrect, or insufficient hydrologic or hydraulic parameterization may impact model results near the proposed development. The applicant should also develop a proposed conditions version of the watershed model by incorporating the proposed development into the existing conditions model. The existing and proposed model 100-year storm event peak stages should be compared to demonstrate reasonable assurance that the proposed development would not increase flood stages in the surrounding watershed.**

**Additional staff analysis will be performed at the Final PUD stage to ensure compliance with the conditions of approval when the stormwater and flood storage system has been fully designed.**

*5. The nature, intent and compatibility of common space, including the proposed method for the maintenance and conservation of said common space.*

**Staff Finding: Pursuant to City Code Section 17(G)(2), properties developed as a PUD are required to maintain a minimum of 20% common space. For the Subject Property of 76.21 acres (less the wetland areas) a minimum of 14.39 acres of common space are required. The proposed development will provide 14.39 acres of open space or 20% of the gross site area including the primary recreation areas, water management tracts, perimeter buffers, passive recreation areas, and open spaces inside the PUD per the Open Space Exhibit, attached as Exhibit C.**

**The Homeowner's association and/or CDD will be responsible for maintenance and conservation of the common open space.**

**A condition of approval is proposed by Staff to ensure the Final PUD plans demonstrate an open space calculation consistent with the Zoning Ordinance relating to calculations around manmade water bodies.**

*6. The feasibility and compatibility of the specified stages contained in the preliminary development plan to exist as an independent development.*

**Staff Finding: The proposed development will be constructed in a single phase. The developer will extend the necessary infrastructure to serve the development. Off-site improvements triggered by the project will be reviewed at the time of Final PUD.**

*7. The availability and adequacy of primary streets and thoroughfares to support traffic to be generated within the proposed planned unit development.*

**Staff Finding: Access to the project will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. A Traffic Study was submitted with the application demonstrating sufficiency capacity and Level of Service on impacted roadways based on the trips generated by the project.**

**The proposed access has been designed to minimize hazards to pedestrians or other vehicles by creating dedicated access points and internal street networks. A condition of approval requires the construction of sidewalks along both public street frontages to connect to the community's internal sidewalk system.**

**As part of the development of this community, the applicant will be making improvements to the drainage ditch along the north side of Pluckebaum Road by shaping the ditch and softening the back slope; this will be accomplished via a Right-of-Way Agreement with Brevard County for drainage and landscaping.**

*8. The availability and adequacy of water and sewer service to support the proposed planned unit development.*

**Staff Finding: The City of Cocoa has both existing potable water and reuse mains that the project will connect to, while the City of Rockledge has existing sanitary sewer facilities within the proximity of the project.**

*9. The benefits within the proposed development and to the general public to justify the requested departure from standard land use requirements inherent to a planned unit development classification.*

**Staff Finding: The change in use from the previous agricultural operation is expected to bring the use of the property into closer alignment with the nature of the surrounding residential communities. The proposed development will remain in harmony with the existing or any future use of the adjacent property through the thoughtful siting of homes, positioning of lakes, preserves and landscape buffers.**

**The community is designed to insulate the proposed residences from adjacent properties and vice-versa to minimize the potential for any impact of one**

**community on another. Single-family residential communities tend to be one of the least impactful uses, especially when located near other single-family neighborhoods, as they do not tend to result in discordant activities or produce noise, vibrations, smoke, hazardous odors, radiation or any other potential nuisance that might result from some commercial, industrial, or agricultural uses.**

**The proposed rezoning to a PUD, rather than the development of a traditional single-family subdivision in the RU-1-7 zoning district, encourages the preservation of higher quality wetlands and the provision of recreational amenities for future residents.**

***10.*** *The conformity and compatibility of the planned unit development with any adopted development plan of the city.*

**Staff Finding: There are no specific adopted development plans for this site. The Preliminary PUD conforms to the Comprehensive Plan and Zoning Ordinance.**

***11.*** *The conformity and compatibility of the proposed common space, primary residential and nonresidential uses within the proposed planned unit development.*

**Staff Finding: As further detailed on the Preliminary Development Plan, the development will provide 20% open space through recreational areas, amenitized lakes and trails.**

**The large lake system will be stocked with native fish species to promote fishing activities for both children and adults. A fishing dock is also proposed on the lake near the community entrance off of Pluckebaum Road.**

**The community will also have a tot lot and a separate pool with cabana for the residents and guests. Walking trails are shown on the Preliminary PUD site plan throughout the open space areas of the project.**

**COMPREHENSIVE PLAN CONSISTENCY**

The proposed Preliminary PUD is consistent with the allowable uses under the "Very Low Density Residential" Future Land Use per the City of Cocoa Comprehensive Plan as noted in Figure FLU-1, and FLU Policy 1.1.2.3.

The PUD complies with FLU Policy 1.1.5.1 relating to neighborhood protection via the proposed layout, perimeter buffers and density consistent with the surrounding neighborhoods.

The PUD complies with Transportation Element Objective 2.1.2 as the application provides a traffic study demonstrating transportation concurrency and available roadway capacity.

Through mitigation of environmental impacts off-site, as well as exotic removal and enhancement of the remaining on-site preserves, the application is consistent with Conservation Element Objective 12.1.6 and its sub-policies relating to the protection of native vegetation communities, and Objective 12.1.5 and supportive policies relating to protection of endangered species.
Through staff's proposed conditions, the Final PUD site plan must demonstrate full details of the stormwater management system for compliance with Objective 12.1.9 and its sub-policies. Objective 12.1.5, Policy 12.1.5.4, and Policy 12.1.6.6., generally prohibit development proposing to destroy natural vegetative communities known to provide habitat to listed, endangered species except where the developer has submitted a management plan which minimizes adverse effects on the species to the greatest extent possible. The applicant has identified that the site is currently used by wood stork, an endangered species. However, the applicant's ecological report prepared by Modica and Associates provides that the project site provides very limited suitable foraging habitat for wood storks in the western portion of the site and that the two wetland areas most suitable with an adequate hydroperiod to support aquatic prey are being preserved.

**CONCURRENCY MANAGEMENT/ADEQUATE PUBLIC FACILITIES**

*Section 15-22 of the City Code provides for a concurrency management system to ensure public facilities and services needed to support development are available concurrent with the impacts of such development and that development orders and development permits are not issued in a manner that will not result in a reduction in the levels of service below the adopted level of service standards adopted by the City for public facilities and services, as contained in the City's adopted Comprehensive Plan.*

Consistent with the requirements of Article IV (Concurrency Management System), Chapter 15 of the Code of the City of Cocoa, the applicant/developer will be required to submit a Final PUD application in addition to a final application for concurrency review prior to issuance of any City of Cocoa permits. If capacity issues relating to any public facilities or services regulated by the City of Cocoa adopted Comprehensive Plan are identified, necessary and appropriate mitigation will be

required to be addressed prior to approval of the final PUD.

**PROPOSED CONDITIONS:**

Staff recommends the following conditions of approval to ensure consistency with the Zoning Ordinance and Comprehensive Plan:

1. The Final PUD Site Plan must be in substantial compliance with the Preliminary PUD Site Plan dated and attached as Exhibit A.
2. Elevations of dwelling units must comply with Exhibit B. Adjacent lots shall not have the same elevation and color scheme as the dwelling unit on the directly abutting lot(s).
3. Final Site Plans must depict open space calculations in accordance with Zoning Ordinance, Article XI, Section 17(G)(2) in substantial compliance with Exhibit C. Trail areas around manmade lakes are not permitted to include acreage 50 feet into the waterbody in the calculation.
4. 5-foot-wide sidewalks must be installed on the Clearlake Road and Pluckebaum Road frontages and reviewed at the time of the Final PUD to ensure no impacts to drainage conveyances.
5. A 25' Drainage Easement on the western boundary of the PUD shall be dedicated to the public.
6. If flood compensation is not provided as part of the Final PUD design, the applicant must demonstrate the proposed project will not increase offsite flooding by performing a detailed study of the surrounding watershed. The detailed study must be based upon a methodology approved by the Public Works Department.

**RECOMMENDED MOTION:**

Staff recommends that the Planning & Zoning Board recommend APPROVAL WITH CONDITIONS to City Council of the Preliminary Planned Unit Development (PUD).

**PRIORITY AREA CONNECTION:**

Economic and Community Development

**BUDGETARY IMPACT:**

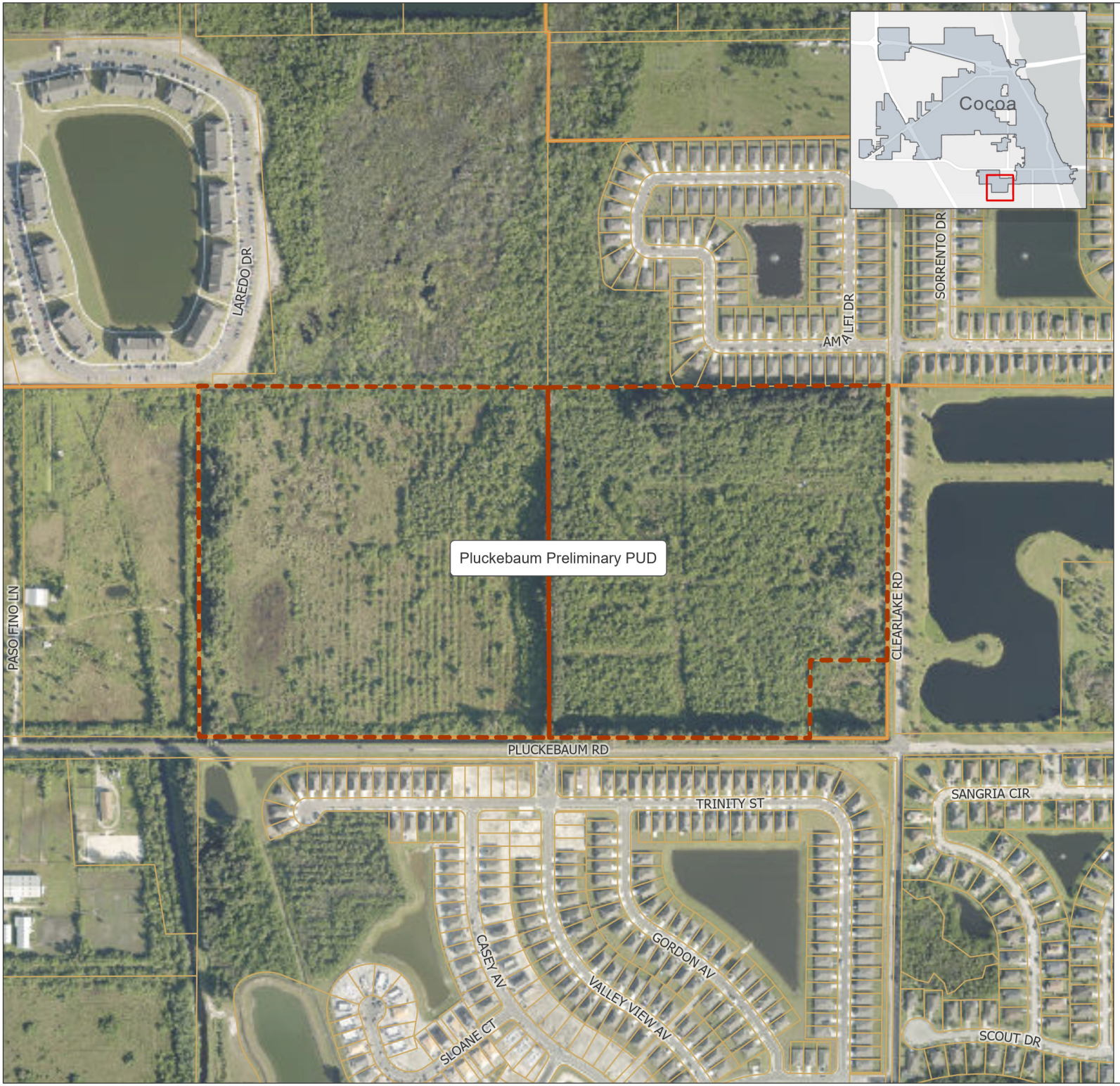
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**PREVIOUS ACTION:**

N/A

**RECOMMENDED MOTION:**

Consideration of a Preliminary Planned Unit Development (PUD) consistent with Appendix A, Zoning, Article XI, Section 17, for a 230 single-family residential subdivision on +/- 76.21 acres of property located at the northwest corner of Pluckebaum Road and Clearlake Road in the City of Cocoa.




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FLORIDA

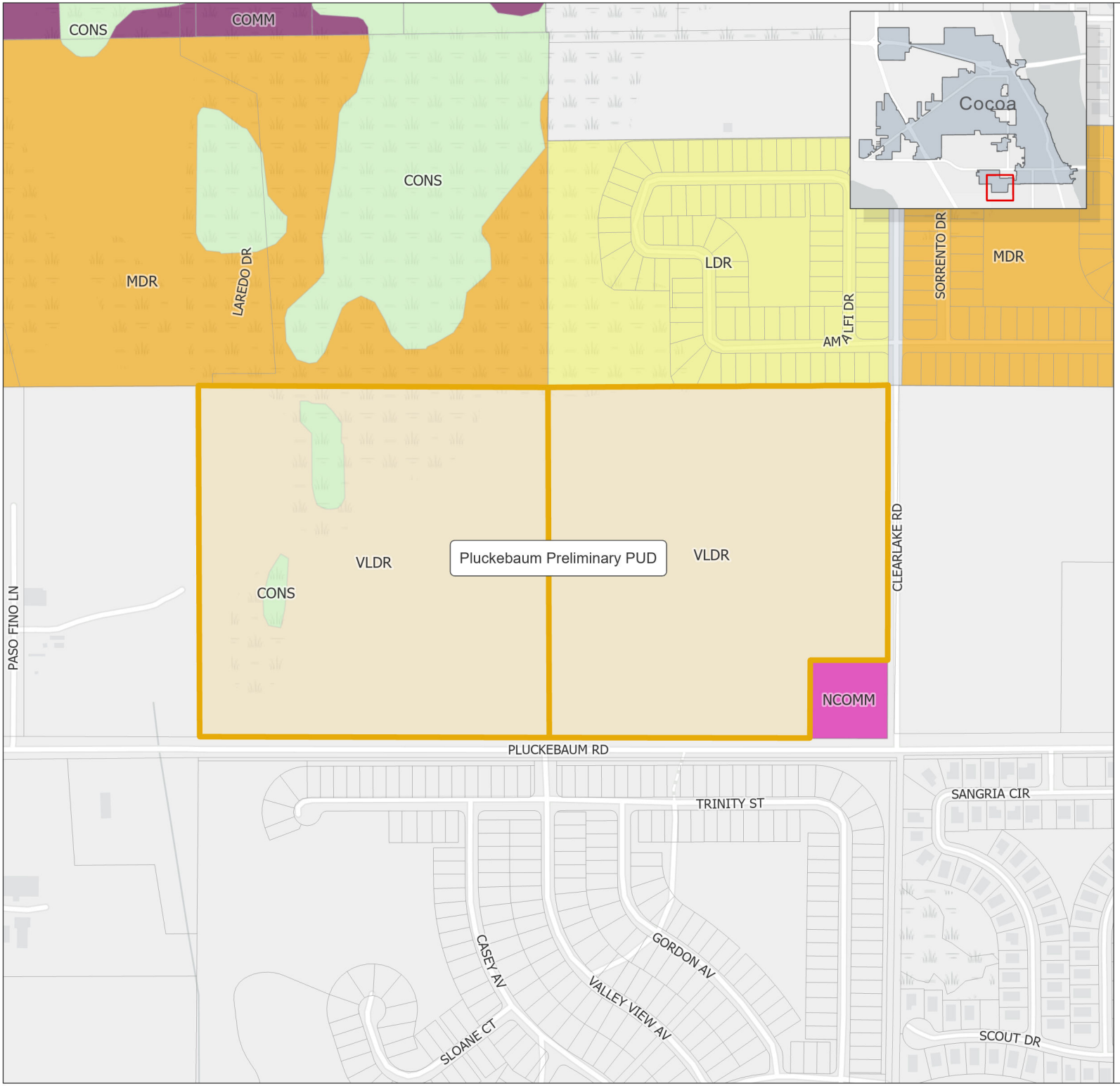
# Pluckebaum Preliminary PUD Location

April 28, 2025

- Subject Parcels
- Parcels
- Cocoa City Boundary

0 250 500 Feet

P20250424-172001.0.1




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COCOA
FLORIDA

# Pluckebaum Preliminary PUD Future Land Use

April 28, 2025

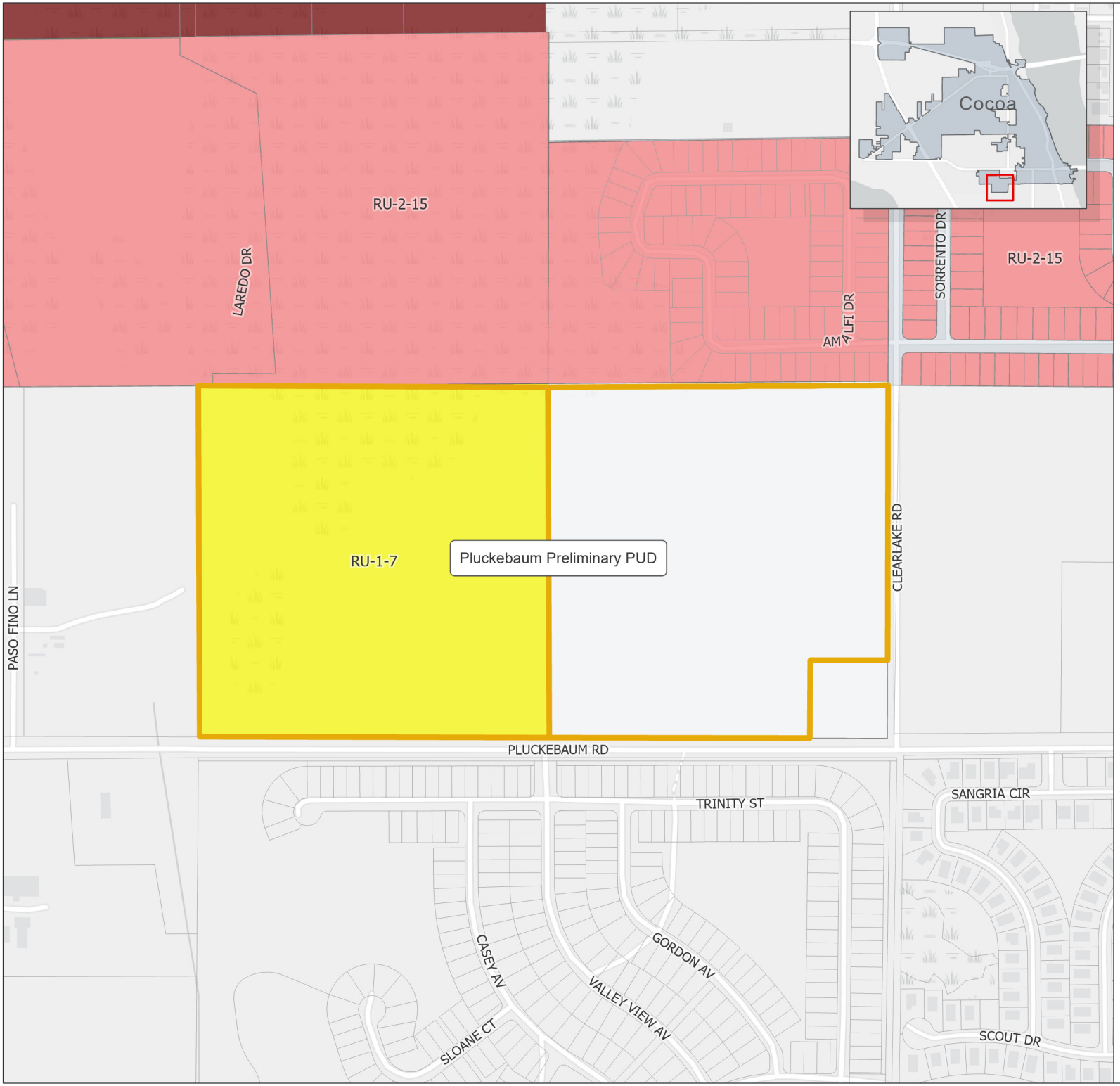
Subject Parcels

## Future Land Use

- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- Neighborhood Commercial
- Commercial
- Conservation
- Parcels
- Cocoa City Boundary

0 250 500 Feet

P20250424-172001.0.3




# Pluckebaum Preliminary PUD Zoning

April 28, 2025

N

COCOA FLORIDA

Subject Parcels

## Cocoa Zoning

- RR-1- Rural Residential
- RU-1-7 - Single-Family Residential
- RU-2-15 - Multiple Family Dwelling
- C-W - Wholesale Commercial
- Zoning Not Assigned
- Parcels
- Cocoa City Boundary

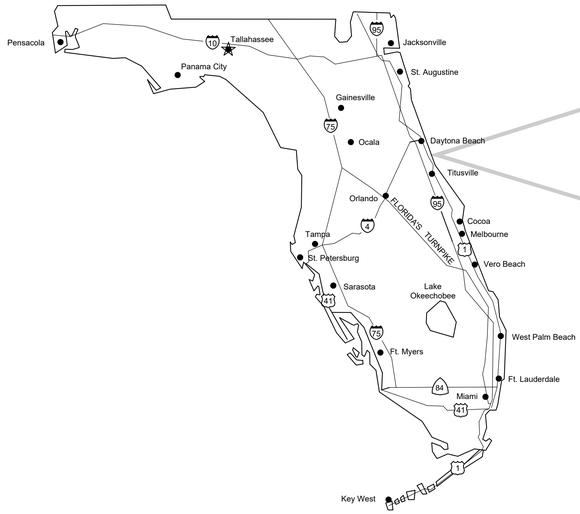
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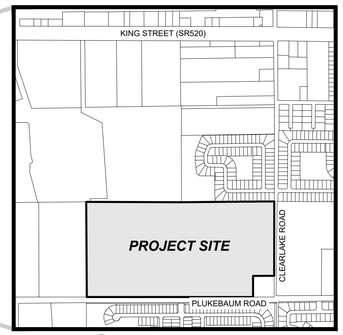
P20250424-172001.0.2

# PRESERVE AT PLUCKEBAUM

## PRELIMINARY DEVELOPMENT PLAN (PDP)
## SECTION 31, TOWNSHIP T24S, RANGE 36E
## CITY OF COCOA, BREVARD COUNTY, FLORIDA

| SHEET LIST TABLE | | |
|---|---|---|
| SHEET NUMBER | DRAWING NUMBER | SHEET TITLE |
| 1 | 1163820_203_001 | COVER SHEET |
| 2 | 1163820_203_002 | AERIAL EXHIBIT |
| 3 | 1163820_203_003 | EXISTING CONDITION PLAN |
| 4 | 1163820_203_004 | PRELIMINART DEVELOPMENT PLAN |
| 5 | 1163820_203_005 | OPEN SPACE PLAN |




**LOCATION MAP**
NTS

UTILITY CONTACTS:

WATER & WASTE WATER
CITY OF COCOA UTILITIES
351 SHEARER BLVD.
COCOA, FL 32922
(321) 433-8400

ELECTRIC
FLORIDA POWER & LIGHT
DONNA SMITH - PROJECT MANAGER
270 PIONEER RD
MERRITT ISLAND, FL 32953
(321) 455-6120

NATURAL GAS
FLORIDA CITY GAS
4045 NW 97TYH AVE
DORAL, FL 33178
(800) 933-7546

**LENNAR HOMES**
8895 N MILITARY TRAIL
PALM BEACH GARDENS, FL 33410
561-685-7300

**- PREPARED BY -**


**B.S.E. CONSULTANTS, INC.**
**CONSULTING - ENGINEERING - LAND SURVEYING**
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 / FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905



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CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

SCOTT M. GLAUBITZ LICENSE No. 33659 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Scott M Glaubitz
Date: 2025.04.22 12:19:34 -04'00'

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


VERTICAL DATUM: NAVD 88

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| **DATE:** | 04/21/2025 |
| **DESIGN/DRAWN:** | ALS/VDP |

**PROJECT TITLE**
**PRESERVE AT PLUCKEBAUM**

**SHEET TITLE**
**COVER SHEET**

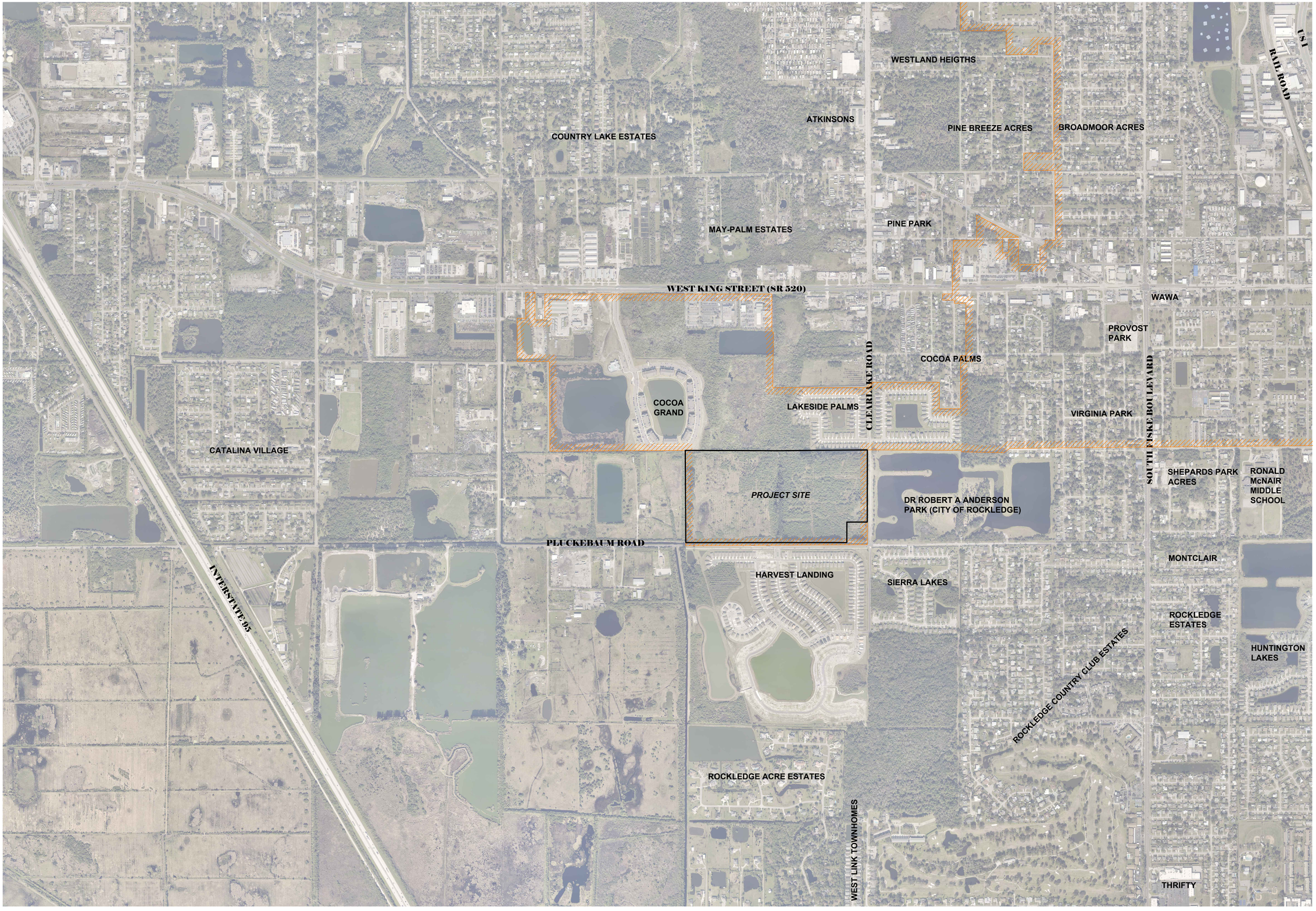
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11638.20

**DRAWING NO.**
1163820_203_001

**SHEET**
1 of 5

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.




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BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951

CITY OF COCOA
CITY LIMITS

600 0 300 600
( IN FEET )

VERTICAL DATUM: NAVD 88

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|---|---|
| DATE: | 04/21/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**

# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**

## AERIAL EXHIBIT

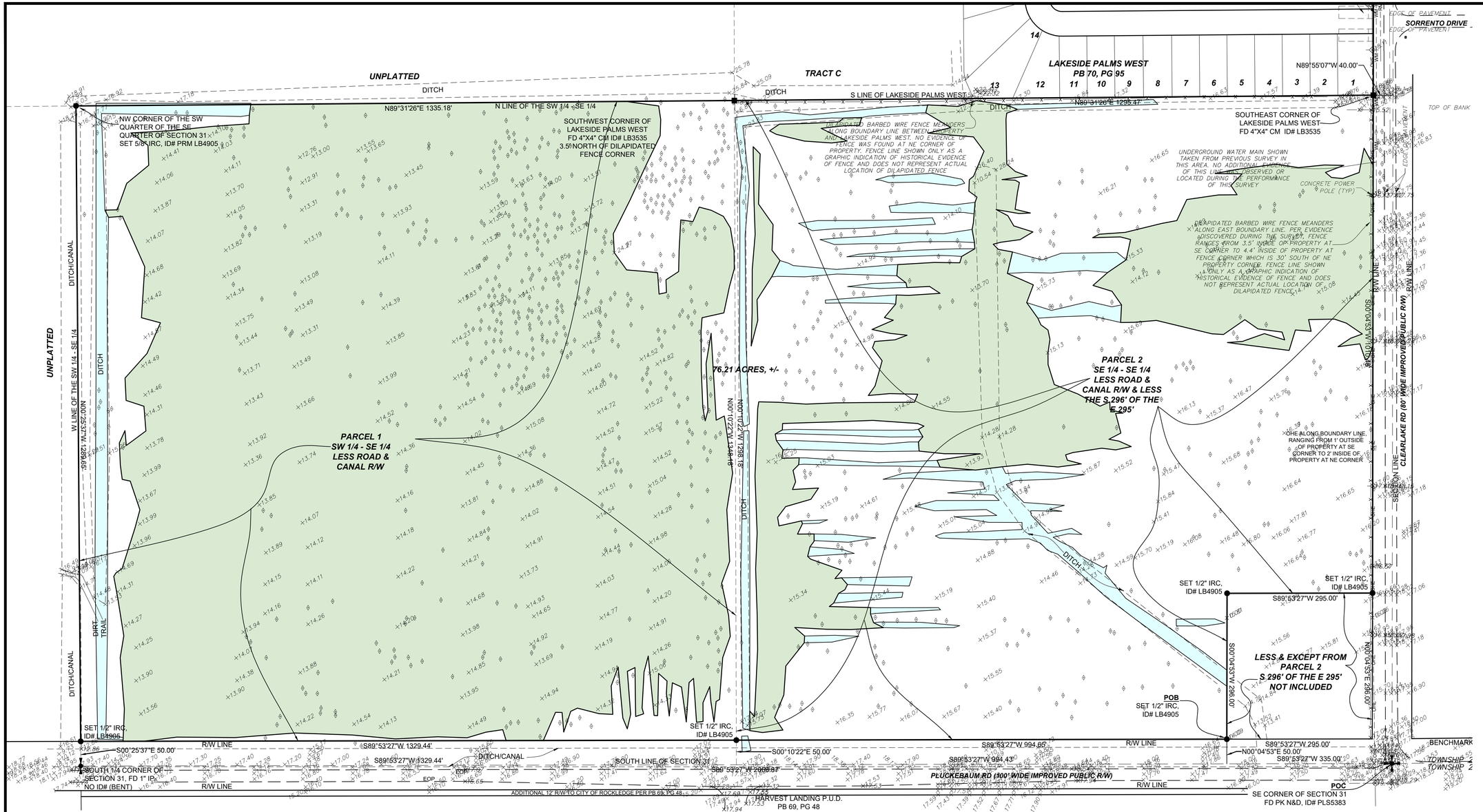
**PROJECT NO.** 11638.20

**DRAWING NO.** 1163820_203_002

**SHEET** 2 of 5

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.




## ABBREVIATIONS

| | |
|---|---|
| A/C | AIR CONDITIONER |
| AL | ARC LENGTH |
| AVE | AVENUE |
| BLVD | BOULEVARD |
| BM | BENCH MARK |
| BOC | BEGINNING OF CURVE |
| C/L | CENTERLINE |
| CA | CENTRAL ANGLE |
| CB | CHORD BEARING |
| CBS | CONCRETE BLOCK STRUCTURE |
| CH | CHORD LENGTH |
| CM | CONCRETE MONUMENT |
| CMP | CORRUGATED METAL PIPE |
| CONC | CONCRETE |
| COR | CORNER |
| DEL | DELTA / CENTRAL ANGLE |
| DRI | DEVELOPMENT OF REGIONAL IMPACT |
| ELEC | ELECTRIC |
| ELE/ELEV | ELEVATION |
| EOC | END OF CURVE |
| EOP | EDGE OF PAVEMENT |
| EOW | EDGE OF WATER |
| ERCP | ELLIPTICAL REINFORCED CONCRETE PIPE |
| ESMT | EASEMENT |
| FD | FOUND |
| FFE | FINISHED FLOOR ELEVATION |
| FH | FIRE HYDRANT |
| FP&L | FLORIDA POWER AND LIGHT |
| FT | FEET |
| HWY | HIGHWAY |
| ID# | IDENTIFICATION NUMBER |
| INV | INVERT |
| IR | IRON ROD |
| IRC | IRON ROD AND CAP |
| LB | LICENSED BUSINESS |
| LWP | LIGHTER WOOD POST |
| N# | NEIGHBORHOOD IDENTIFICATION |
| N&D | NAIL AND DISK |
| NAVD88 | NORTH AMERICAN VERTICAL DATUM 1988 |
| NGVD29 | NATIONAL GEODETIC VERTICAL DATUM 1929 |
| NTI | NON-TANGENT INTERSECTION |
| NTL | NON-TANGENT LINE |
| NTS | NOT TO SCALE |
| OHE | OVERHEAD ELECTRIC/ UTILITY |
| ORO/RB | OFFICIAL RECORDS BOOK |
| PB | PLAT BOOK |
| PCC | POINT OF COMPOUND CURVATURE |
| PCP | PERMANENT CONTROL POINT |
| PG(S) | PAGE(S) |
| PK | PARKER-KALEN |
| POB | POINT OF BEGINNING |
| POC | POINT OF COMMENCEMENT |
| PP | POWER/UTILITY POLE |
| PRC | POINT OF REVERSE CURVATURE |
| PUD | PLANNED UNIT DEVELOPMENT |
| PVC | POLYVINYL CHLORIDE PIPE |
| R | RADIUS |
| R/W | RIGHT-OF-WAY |
| RCP | REINFORCED CONCRETE PIPE |
| RR | RAILROAD |
| ST | STREET |
| TYP | TYPICAL |

FLOOD ZONE INFORMATION:
THIS PROPERTY IS LOCATED IN FLOOD ZONE AE, WITH A BASE FLOOD ELEVATION 17 (NAVD88) PER THE FIRM FLOOD INSURANCE RATE MAP FOR CITY OF COCOA, FLORIDA, PANEL 425 OF 825, MAP NUMBER: 12009C0425G, MAP REVISED: MARCH 17, 2014

## TREE LEGEND

- PALM TREE
- PINE TREE
- OAK TREE
- CYPRES TREE
- GUAVA TREE
- UNKNOWN TREE

## LEGEND

- EXISTING WETLAND (± 42.63 ACERS)
- OSW (OTHER SURFACE WATER) (± 3.57 ACERS)


**B.S.E. CONSULTANTS, INC.**
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )
VERTICAL DATUM: NAVD 88

| | |
|---|---|
| DATE: | 04/21/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**
# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**
# EXISTING CONDITION PLAN

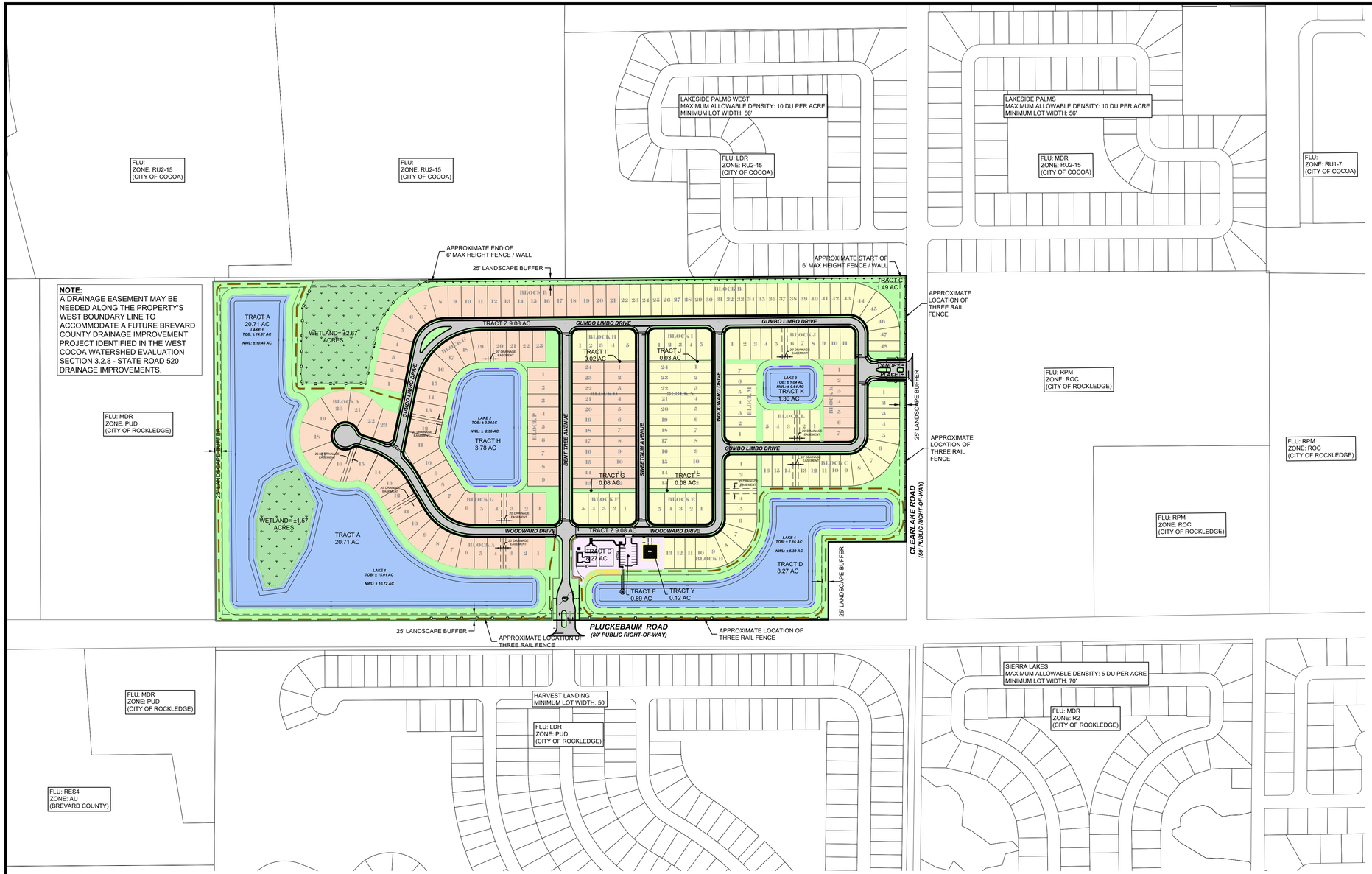
**PROJECT NO.** 11638.20

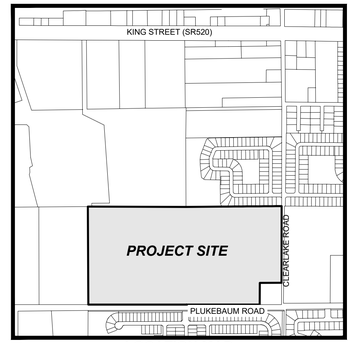
**DRAWING NO.** 1163820_203_003

**SHEET** 3 of 5

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.




## LOCATION MAP
N.T.S


**B.S.E. CONSULTANTS, INC.**
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SURVEYOR AND ENGINEER
B.S.E. CONSULTANTS, INC.
312 SOUTH HARBOR CITY BOULEVARD
SUITE 4
MELBOURNE, FLORIDA 32901
(321) 725-3674

APPLICANT
LENNAR HOMES
8895 N. MILITARY TRAIL
PALM BEACH GARDENS, FL 33410
561-685-7300

SITE DEVELOPMENT NOTES
PRELIMINARY DEVELOPMENT PLAN
EXISTING LAND USE: VLDR (VERY LOW DENSITY RESIDENTIAL)
FUTURE LAND USE : VLDR (VERY LOW DENSITY RESIDENTIAL)
CURRENT ZONING : RU-1-7 SINGLE FAMILY (CITY OF COCOA)
PROPOSED ZONING: PUD (CITY OF COCOA)

| TAX ID NUMBER | TAX ACCOUNT NUMBER |
|---|---|
| 24-36-31-00-752 | 2424013 |
| 24-36-31-00-756 | 2459107 |

TOTAL ACREAGE : 76.21 ACRES

SINGLE FAMILY LOTS : 230
DENSITY PERMITTED : UP TO 4 UNITS PER ACRE BY FUTURE LAND USE
DENSITY : 230/76.21 = 3.01 UNITS/ACRE

PROPOSED NO. OF PHASES: SINGLE

SINGLE FAMILY DETACHED
AVERAGE LOT SIZE : ±4,800 SQ FT
MINIMUM LIVING AREA : 1,200 SQ FT
MAXIMUM IMPERVIOUS AREA : 3,360 SQ FT (70%)

SINGLE FAMILY SETBACKS:
FRONT : 20 FEET
BUILDING SEPARATION : 10 FEET
SIDE (CORNER) : 20 FEET
REAR : 25 FEET

*** BUILDING SETBACKS MUST BE VERIFIED WITH THE CITY OF COCOA PRIOR TO CONSTRUCTION. ***

PROPOSED BUILDING TYPE : DETACHED SINGLE FAMILY (1 AND 2 STORIES)
PROPOSED BUILDING HEIGHT: 24 FEET MAXIMUM
-BUILDING HEIGHT IS MEASURED FROM THE ESTABLISHED AVERAGE SIDEWALK, STREET GRADE OR FINISHED GRADE AT THE BUILDING LINE, WHATEVER IS HIGHEST, TO (A) THE HIGHEST POINT OF A FLAT ROOF, (B) THE DECK LINE OF A MANSARD ROOF, OR (C) THE PEAK OF A GABLE, HIP OR GAMBREL ROOF.

DEVELOPMENT SCHEDULE:
Q2 2025: BREAK GROUND
Q2 2026: INFRASTRUCTURE COMPLETE
Q2 2026: COMMENCE HOME CONSTRUCTION

PARKING
SINGLE FAMILY HOME:
2 CAR GARAGE PLUS 2 SPACES PER DRIVEWAY PER LOT.
AMENITY:
REQUIRED: 1 SPACE PER 500 SF (1,252 / 500 = 3 SPACES)
PROPOSED: 4 SPACES (3 STANDARD + 1 ADA)

200 0 100 200
( IN FEET )
VERTICAL DATUM: NAVD 88

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| **DATE:** | 04/21/2025 |
| **DESIGN/DRAWN:** | ALS/VDP |

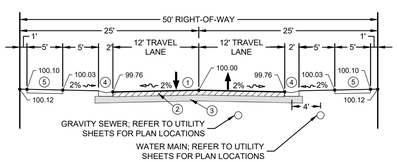
**PROJECT TITLE**
# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**
# PRELIMINART DEVELOPMENT PLAN

**PROJECT NO.**
11638.20

**DRAWING NO.**
1163820_203_004

**SHEET**
4 of 5

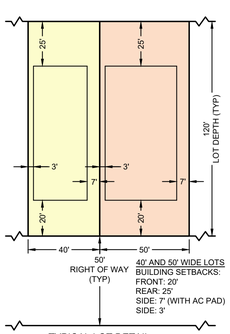



## KEY

1. 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME COAT
   OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 10" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 6" BEYOND CURB)
4. MIAMI CURB - 2' WIDE
5. CONCRETE SIDEWALK; 1.5% DESIGN CROSS SLOPE, 2% MAX.

NOTE: INSTALL 2' WIDE STRIP OF SOD BEHIND ALL CURB; SEED AND MULCH REMAINING DISTURBED AREAS WITHIN THE RIGHT-OF-WAY

## 50' WIDE RIGHT-OF-WAY AND ROAD SECTION DETAIL
N.T.S.




TYPICAL LOT DETAIL
N.T.S

| PARCEL ID | TRACT USE | AREA (SQFT) | AREA (ACRES) | OWNER AND MAINTENANCE |
|---|---|---|---|---|
| TRACT A | STORM WATER, OPEN SPACE, LANDSCAPING, PRESERVATION | 901,956 | 20.71 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT C | OPEN SPACE, LANDSCAPING | 64,785 | 1.49 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT D | OPEN SPACE, LANDSCAPING | 360,360 | 8.27 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT E | OPEN SPACE, LANDSCAPING, RECREATION, TOT LOT | 38,803 | 0.89 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT F | OPEN SPACE, LANDSCAPING, DRAINAGE | 3,600 | 0.08 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT G | OPEN SPACE, LANDSCAPING, DRAINAGE | 3,600 | 0.08 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT H | STORM WATER, OPEN SPACE, LANDSCAPING, DRAINAGE | 164,522 | 3.78 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT I | OPEN SPACE, LANDSCAPING, DRAINAGE | 1,069 | 0.02 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT J | OPEN SPACE, LANDSCAPING, DRAINAGE | 1,515 | 0.03 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT K | STORM WATER, OPEN SPACE, LANDSCAPING, DRAINAGE | 56,704 | 1.30 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT Y | LIFT STATION, LANDSCAPING | 5,173 | 0.12 | CITY OF COCOA |
| TRACT Z | PRIVATE RIGHT-OF-WAY | 395,577 | 9.08 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| | TOTAL : | 1,997,664 | 45.85 | |

## GENERAL NOTES:

1. ACCESSORY STRUCTURE SETBACKS DEFER TO THE CITY OF COCOA LAND DEVELOPMENT CODE.
2. FIRE HYDRANTS SHALL BE PLACED AT EACH ENTRANCE AND EVERY 500' THEREAFTER.
3. THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE FIRE DEPARTMENT ACCESS TO BE PROVIDED TO GATED SUBDIVISIONS OR DEPARTMENTS THOUGH THE USE OF AN APPROVED DEVICE OR SYSTEM. ALL MOTORIZED GATES SHALL INCLUDE A "CLICK" TO ENTER SYSTEM OR A SIREN OPERATED SWITCH AND KNOX KEY SWITCH BACKUP. ALL MANUAL GATES SHALL HAVE A KNOX PADLOCK. GATES SHALL HAVE A MINIMUM CLEAR WIDTH OF 14 FEET.

## FLOOD STORAGE CALCULATIONS:

(REFER TO FLOOD STORAGE MEMO DATED MARCH 25, 2025)

100 YEAR PRE- DEVELOPMENT FLOOD STORAGE REQUIRED: ±118.24 AC-FT

100 YEAR POST-DEVELOPMENT FLOOD STORAGE PROVIDED AS FOLLOWS:

| | |
|---|---|
| LAKE 1 | |
| (INCLUDES SOUTH WETLANDS): | 49.74 AC-FT |
| LAKE2: | 11.49 AC-FT |
| LAKE 3: | 3.20 AC-FT |
| LAKE 4: | 19.55 AC-FT |
| NORTH WETLAND: | 10.68 AC-FT |
| TOTAL: | 94.66 AC-FT |

## GENERAL STATEMENT

THE SITE IS APPROXIMATELY 76.21 ACRES AND IS LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF PLUCKEBAUM ROAD AND CLEARLAKE ROAD, IN THE CITY OF COCOA'S JURISDICTION. THE PROPERTY HAS A CURRENT ZONING OF RU-1-7 ON THE WEST HALF, AND NO ZONING DESIGNATION ON THE EAST HALF. THE PROJECT PROPOSES TO REZONE THE ENTIRE PROPERTY TO PUD. THE PROJECT WILL BE DEVELOPED AS A ±222 LOT SUBDIVISION CONSISTING OF SINGLE-FAMILY HOMES. LOTS WILL BE A MIX OF 40 AND 50 FEET WIDE BY 120 FEET DEEP. VEHICULAR ACCESS WILL BE VIA TWO PROPOSED ENTRANCES, ONE OFF CLEARLAKE ROAD AND ONE OFF PLUCKEBAUM ROAD. THE SUBDIVISION WILL BE SERVED WATER FROM THE CITY OF COCOA AND SANITARY SEWER FROM THE CITY OF ROCKLEDGE. TWO EXISTING WETLAND AREAS WILL BE PRESERVED. AMENITIES INCLUDED ARE AN AMENITY CENTER, TOT LOT, STOCKED FISHING LAKES, A FISHING DOCK, AND WETLAND OBSERVATION AREAS WITH BENCHES. THE STREETS AND STORMWATER SYSTEM WILL BE CONSTRUCTED PER CITY STANDARDS.

## SITE CHARACTERISTICS STATEMENT

THE SITE IN ITS EXISTING CONDITION IS UNDEVELOPED. THE SITE IS COVERED IN VEGETATION VARYING FROM THICK GRASS TO BRUSH TO TREES OF VARIOUS SIZE. MULTIPLE WETLAND AREAS EXIST ONSITE. PLEASE REFER TO THE EXISTING CONDITIONS PLAN.

## COMPATIBILITY STATEMENT

TO THE NORTHWEST OF THE PROPOSED DEVELOPMENT IS COCOA GRAND, A MULTI-FAMILY APARTMENT COMPLEX. TO THE NORTHEAST, IS LAKESIDE PALMS, A SINGLE-FAMILY RESIDENTIAL SUBDIVISION. LOCATED TO THE EAST IS A LARGE PARK OWNED BY THE CITY OF ROCKLEDGE. TO THE SOUTH OF THE PROPERTY IS HARVEST LANDING, A SINGLE-FAMILY RESIDENTIAL SUBDIVISION. TO THE WEST, IS A 20-ACRE HOMESTEAD. THE PROJECT PROPOSES A 25-FOOT BUFFER AROUND THE SITE, ALLOWING FOR A GRADUAL ELEVATION TRANSITION BACK DOWN TO NATURAL GRADE.

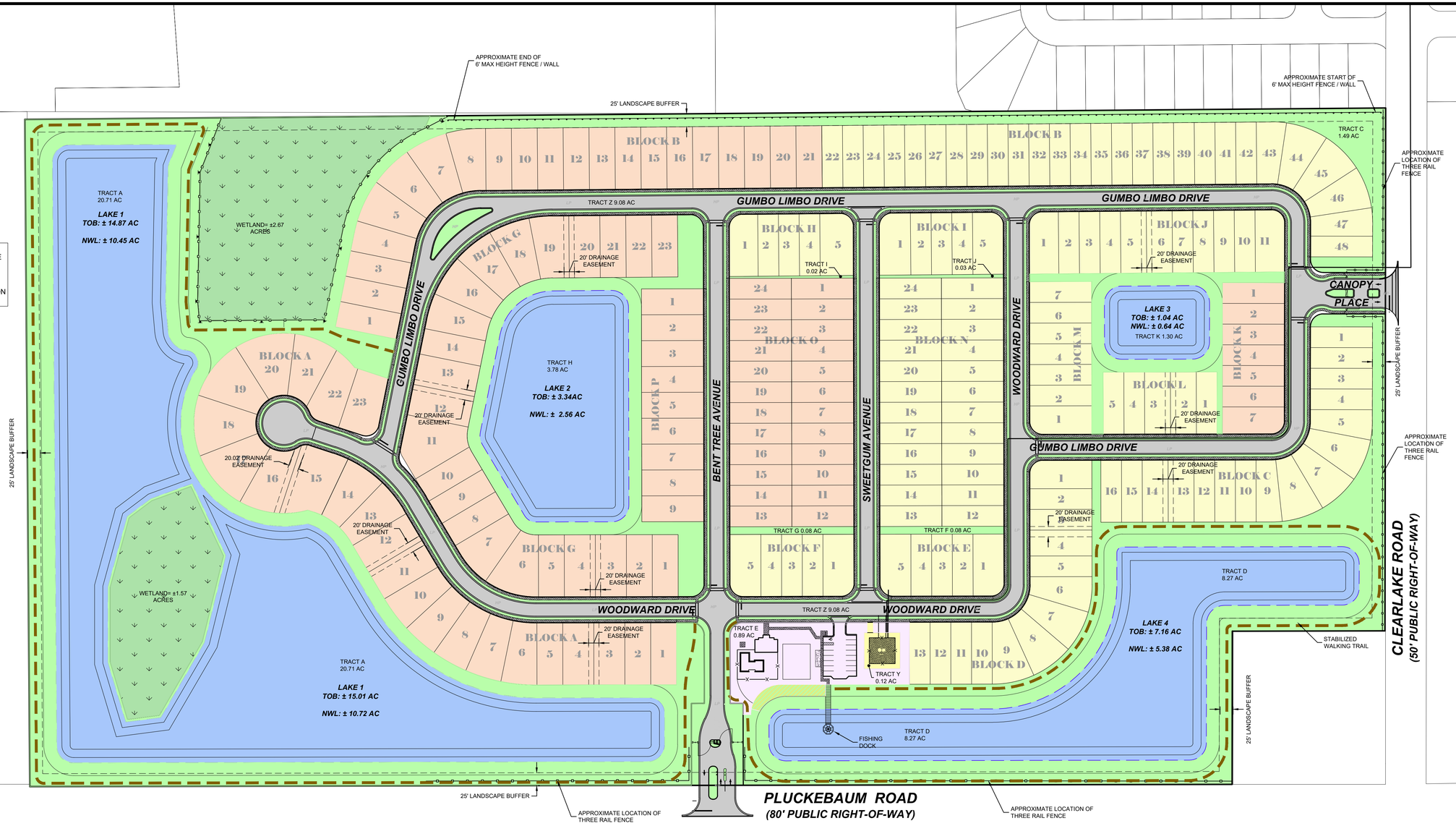
## DRAINAGE STATEMENT

THE PROJECT PROPOSES FOUR (4) INTERCONNECTED, WET DETENTION PONDS THAT WILL PROVIDE STORMWATER TREATMENT AND PEAK ATTENUATION. THESE PONDS WILL DISCHARGE VIA A SINGLE OUTFALL AT THE SOUTHWEST CORNER OF THE SITE TO THE EXISTING DITCH THAT RUNS ALONG PLUCKEBAUM ROAD.

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

**NOTE:**
A DRAINAGE EASEMENT MAY BE NEEDED ALONG THE PROPERTY'S WEST BOUNDARY LINE TO ACCOMMODATE A FUTURE BREVARD COUNTY DRAINAGE IMPROVEMENT PROJECT IDENTIFIED IN THE WEST COCOA WATERSHED EVALUATION SECTION 3.2.8 - STATE ROAD 520 DRAINAGE IMPROVEMENTS.




| PARCEL ID | TRACT USE | AREA (SQFT) | AREA (ACRES) | USEABLE OPEN SPACE CREDITS (ACRES) | % OF GROSS SITE (76.20 ACRES) | OWNER AND MAINTENANCE |
|---|---|---|---|---|---|---|
| TRACT A | STORM WATER, OPEN SPACE, LANDSCAPING, PRESERVATION | 901,956 | 20.71 | 7.62 | 10.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT C | OPEN SPACE, LANDSCAPING | 64,785 | 1.49 | 0.20 | 0.26 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT D | STORM WATER, OPEN SPACE, LANDSCAPING | 360,360 | 8.27 | 5.46 | 7.17 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT E | OPEN SPACE, LANDSCAPING, RECREATION, TOT LOT | 38,803 | 0.89 | 1.00 | 1.31 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT F | OPEN SPACE, LANDSCAPING, DRAINAGE | 3,600 | 0.08 | 0.00 | 0.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT G | OPEN SPACE, LANDSCAPING, DRAINAGE | 3,600 | 0.08 | 0.00 | 0.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT H | STORM WATER, OPEN SPACE, LANDSCAPING, DRAINAGE | 164,522 | 3.78 | 0.32 | 0.42 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT I | OPEN SPACE, LANDSCAPING, DRAINAGE | 1,069 | 0.02 | 0.00 | 0.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT J | OPEN SPACE, LANDSCAPING, DRAINAGE | 1,515 | 0.03 | 0.00 | 0.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT K | STORM WATER, OPEN SPACE, LANDSCAPING, DRAINAGE | 56,704 | 1.30 | 0.00 | 0.00 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT Y | LIFT STATION, LANDSCAPING | 5,173 | 0.12 | 0.00 | 0.00 | CITY OF COCOA |
| TRACT Z | PRIVATE RIGHT-OF-WAY | 395,577 | 9.08 | 0.07 | 0.09 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| SUB-TOTAL: | | 1,997,664 | 45.85 | 14.67 | 19.25 | |
| SINGLE FAMILY LOTS | | 1,322,044 | 30.35 | | | |
| TOTAL: | | 3,319,708 | 76.20 | | 19.25 | |
| REQUIRED COMMON OPEN SPACE: 20% MINIMUM COMMON OPEN SPACE REQUIRED LESS PRESERVATION AREA : 76.21 - (2.67 + 1.57) = 71.97 x 20% = 14.39 ACRES | | | | | | |
| COMMON OPEN SPACE PROVIDED: **14.67 AC** | | | | | | |

**AMENITIES**
THE DEVELOPMENT WILL FEATURE A MANMADE BEACH AREA NEXT TO THE PREMIERE LAKE LOCATED NEAR THE PLUCKEBAUM ROAD ENTRANCE. THE BEACH AREA WILL FEATURE A COMMUNITY GATHERING SPACE FOR RESIDENTS TO ENJOY PASSIVE RECREATION ACTIVITIES SUCH AS LOUNGING, PLAYING FRISBEE, PICNICKING, AND WALKS. THE LARGE LAKE SYSTEM WILL BE STOCKED WITH NATIVE FISH SPECIES TO PROMOTE FISHING ACTIVITIES FOR BOTH CHILDREN AND ADULTS AND A STABILIZED TRAIL SYSTEM AROUND THE LAKES WILL PROVIDE A SERENE AND TRANQUIL WALKING/RUNNING/BIRD WATCHING OPPORTUNITIES FOR RESIDENTS AND GUESTS OF THE COMMUNITY. THE COMMUNITY WILL ALSO HAVE A TOT LOT AND A SEPARATE POOL WITH CABANA FOR THE RESIDENTS AND GUESTS.


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100 0 50 100
( IN FEET )
VERTICAL DATUM: NAVD 88

| | |
|---|---|
| DATE: | 04/21/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**
# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**
## OPEN SPACE PLAN

**PROJECT NO.**
11638.20

**DRAWING NO.**
1163820_203_005

**SHEET**
5 of 5

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# Honor AM 40’



# Honor BM 40’



# Honor CM 40’



# Nova AM 40’



# Nova BM 40’



# Nova CM 40’



# Eclipse F 40’



# Eclipse AM 40’



# Eclipse BM 40’



# Eclipse D 40’



# Eclipse CM 40’



# Eclipse E 40’



# Celeste E 40’

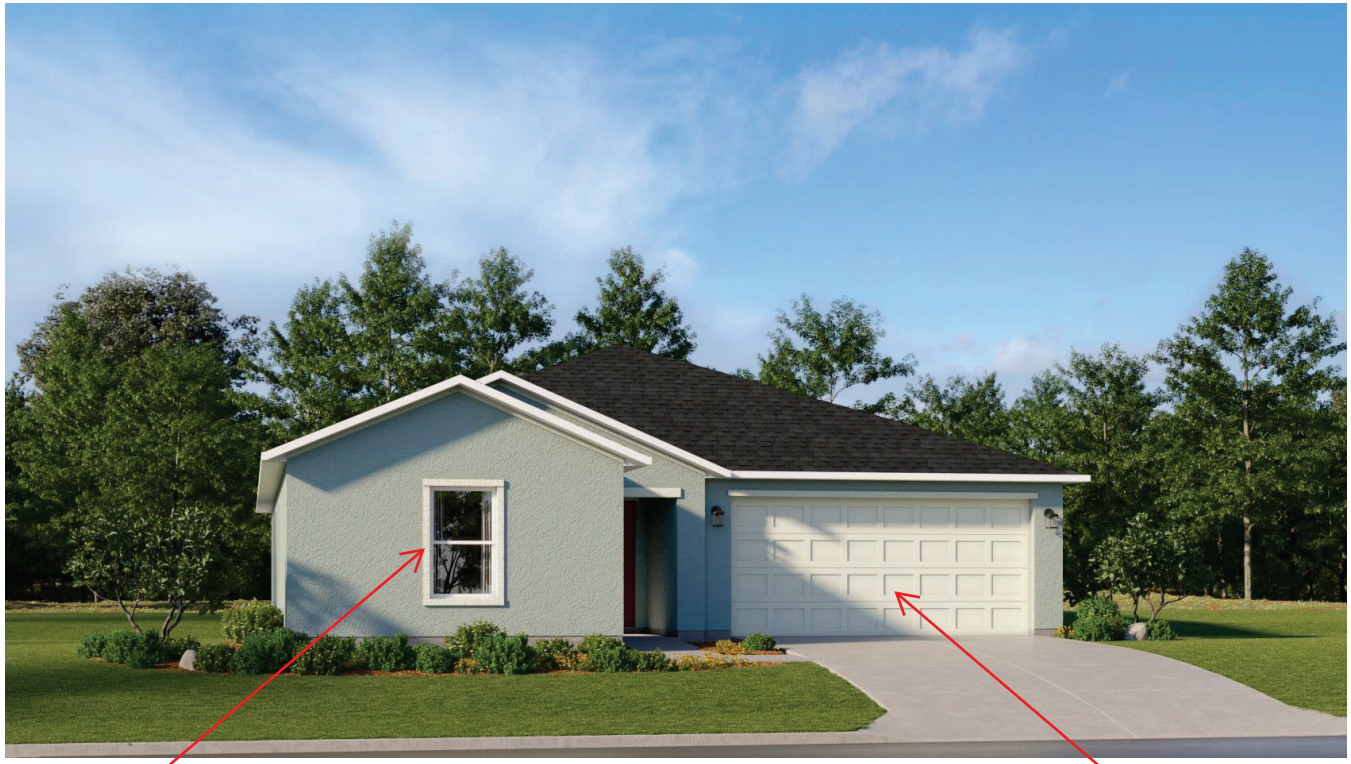


# Celeste F 40’



# Celeste AM 40’

-Revised April 21, 2025



Decorative Shutters
to be added

Contrasting Garage
Color

# Celeste CM 40’



# Celeste CM 40’



# Celeste D 40’

-Revised April 21, 2025



# Dawn AM 40’

-Revised April 21, 2025



# Dawn BM 40’

-Revised April 21, 2025



# Dawn CM 40’



# Dawn D 40’

-Revised April 21, 2025



# Dawn E 40’



# Dawn F 40’



# Bloom AM 40’



# Bloom BM 40’



# Bloom CM 40’



# Jefferson AM 30’



# Jefferson BM 30’



# Jefferson CM 30’



# Jefferson G 30’



# Jefferson H 30’



# Aura AM 40’

-Revised April 21, 2025



# Aura BM 40’



# Aura CM 40’



# Georgia AM 30’



# Georgia CM 30’



# Georgia CM 30’



# Georgia D 30’



# Georgia E 30’



# Georgia F 30’



# Edison D 30’



# Edison E 30’



# Edison F 30’



# Edison G 30’



# Edison H 30’



# Edison AM 30’



# Edison CN 30’



# Edison CM 30’



# Edison F 30’



# Columbus AM 30’



# Columbus CM 30’



# Columbus CM 30’



# Columbus D 30’



# Columbus E 30’



# Columbus F 30’



# Columbus G 30’



# Columbus H 30’



# Belmont AM 30’



# Belmont CM 30’



# Belmont CM 30’



# Belmont D 30’



# Belmont E 30’



# Belmont G 30’



# Belmont H 30’



# Abbey BM 30’



# Abbey D 30’



# Abbey E 30’



# Abbey AM 30’

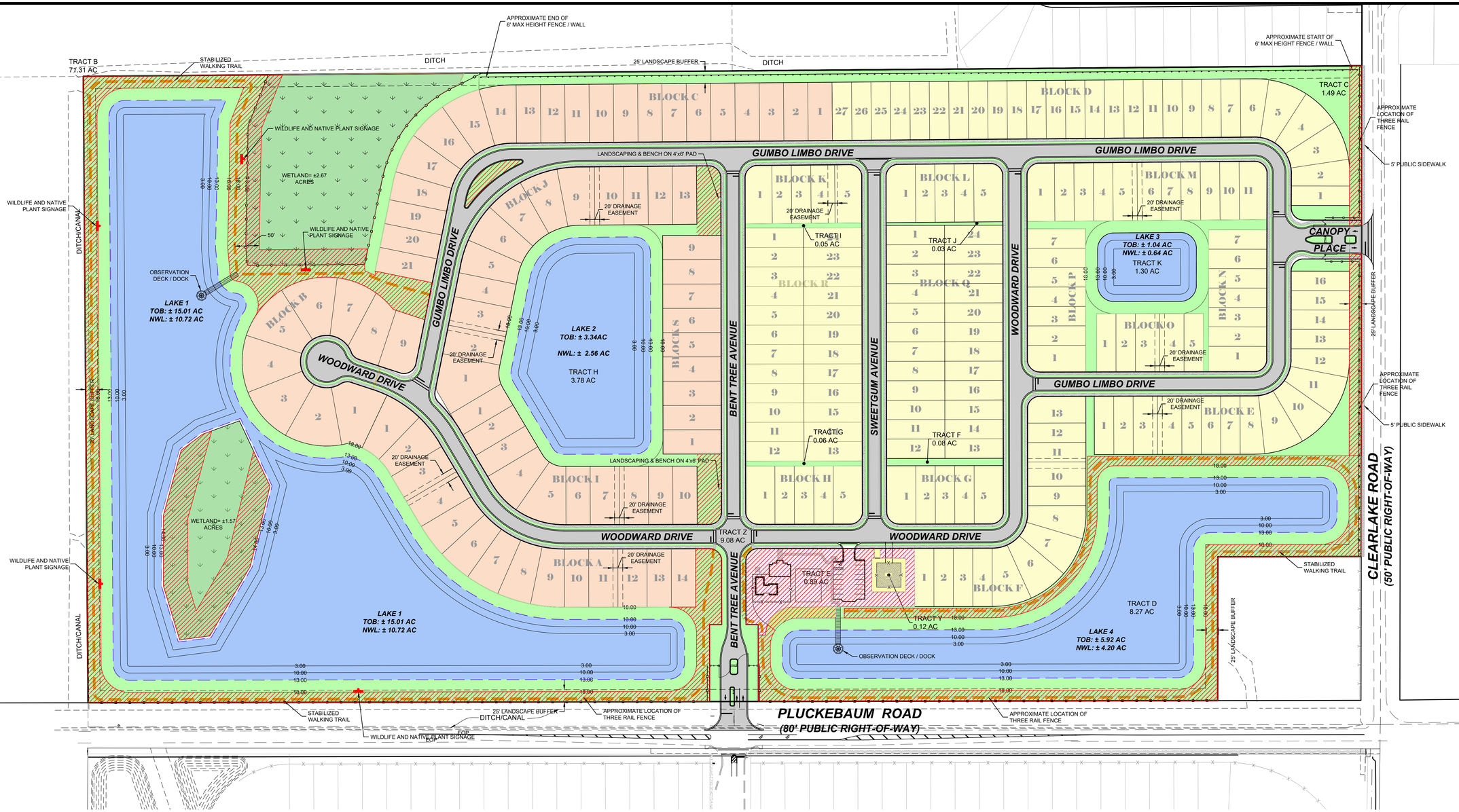


# Abbey CM 30’



# Abbey F 30’






AREA USED TO SATISFY OPEN SPACE REQUIREMENT

OPEN SPACE CALCULATION:

REQUIRED OPEN SPACE = 20% OF SITE LESS WETLAND AREAS = 14.39 ACRES REQUIRED

50% CAN COME FROM LAKES (IF LAKES ARE AMENITIZED). WET DETENTION LAKES
TO BE STOCKED WITH NATIVE FISH SPECIES IN ACCORDANCE WITH FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION'S GUIDELINES = 14.39 x 0.50 = 7.20 ACRES

ACTIVE OPEN SPACE AREAS PROVIDED:
WALKING TRAIL AROUND SW LAKE PLUS 50' INTO WETLAND = 3.14 ACRES
AMENITY CENTER/ TOT LOT/ BEACH = 1.00 ACRES
WALKING TRAIL AROUND SE LAKE = 1.63 ACRES
LANDSCAPE TRACTS W/ BENCH = 0.39 ACRES
LOOKING 50' INTO SW WETLAND = 0.88 ACRES
LANDSCAPE BUFFER ADJACENT TO CLEARLAKE RD SIDEWALK = 0.43

TOTAL OPEN SPACE PROVIDED = 14.67 ACRES

**TRACT TABLE**

| PARCEL ID | TRACT USE | AREA (SQFT) | AREA (ACRES) | OWNER AND MAINTENANCE |
|---|---|---|---|---|
| TRACT A | STORM WATER, OPEN SPACE, LANDSCAPING | 901,956 | 20.71 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT C | OPEN SPACE, LANDSCAPING | 64,785 | 1.49 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
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| TRACT E | OPEN SPACE, LANDSCAPING, RECREATION, TOT LOT | 38,842 | 0.89 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
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| TRACT I | OPEN SPACE, LANDSCAPING, DRAINAGE | 2,269 | 0.05 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT J | OPEN SPACE, LANDSCAPING, DRAINAGE | 1,515 | 0.03 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT K | STORM WATER, OPEN SPACE, LANDSCAPING, DRAINAGE | 56,704 | 1.30 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
| TRACT Y | LIFT STATION, LANDSCAPING | 5,134 | 0.12 | CITY OF COCOA |
| TRACT Z | PRIVATE RIGHT OF WAY | 395,577 | 9.08 | |
| | SUB-TOTAL : | 1,997,664 | 45.86 | |
| | SINGLE FAMILY LOTS | 1,322,209 | 30.35 | HOME OWNERS |
| | | 3,319,873 | 76.21 | |
| | | | | |
| | | | | |

**AMENITIES**
THE DEVELOPMENT WILL FEATURE A MANMADE BEACH AREA NEXT TO THE PREMIERE LAKE LOCATED NEAR THE PLUCKEBAUM ROAD ENTRANCE. THE BEACH AREA WILL FEATURE A COMMUNITY GATHERING SPACE FOR RESIDENTS TO ENJOY PASSIVE RECREATION ACTIVITIES SUCH AS LOUNGING, PLAYING FRISBEE, PICNICKING, AND WALKS. THE LARGE LAKE SYSTEM WILL BE STOCKED WITH NATIVE FISH SPECIES TO PROMOTE FISHING ACTIVITIES FOR BOTH CHILDREN AND ADULTS AND A STABILIZED TRAIL SYSTEM AROUND THE LAKES WILL PROVIDE A SERENE AND TRANQUIL WALKING/RUNNING/BIRD WATCHING OPPORTUNITIES FOR RESIDENTS AND GUESTS OF THE COMMUNITY. THE COMMUNITY WILL ALSO HAVE A TOT LOT AND A SEPARATE POOL WITH CABANA FOR THE RESIDENTS AND GUESTS.


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
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CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )

| | |
|---|---|
| DATE: | 02/17/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**
# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**
# OPEN SPACE PLAN

**PROJECT NO.**
11638.20

**DRAWING NO.**
1163820_200_010

**SHEET**
1 of 1

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

B.S.E. CONSULTANTS, INC.
Consulting ~ Engineering ~ Land Surveying

Scott M. Glaubitz, P.E., P.L.S.
President

Hassan Kamal, P.E.
Vice President

***Memorandum:***

**DATE:** **March 25, 2025**

**TO:** **Lennar**

**FROM:** **Ana Saunders, P.E.**

***Re:*** ***Preserve at Pluckebaum – Compensatory Flood Storage Summary***
***B.S.E. #11638.20***

ANA SAUNDERS LICENSE No. 63908 STATE OF FLORIDA PROFESSIONAL ENGINEER
Digitally signed by Ana L Saunders
Date: 2025.04.22 12:20:58 -04'00'

*All elevations referenced are in the NAVD88 datum*

This memo summarizes the project's 10-year and 100-year pre- and post-development flood storage volumes.

**SJRWMD Criteria**

SJRWMD Permit Information Manual Section 3.3.2 (Floodways and Floodplain Storage) states: *A system may not cause a net reduction in flood storage within a 10- year floodplain except for structures elevated on pilings or traversing works. Traversing works, works or other structures shall cause no more than a one-foot increase in the 100-year flood elevation immediately upstream and no more than one tenth of a foot increase in the 100-year flood elevation 500 feet upstream. A system will not cause a net reduction in flood storage within a 10-year floodplain if compensating storage is provided outside the 10-year floodplain.*

Based on geotechnical analysis, the seasonal high-water table (SHWT) is estimated to vary between elevations ±13 to 15 ft with an average elevation of 14 ft. Pre-development flood storage is calculated as the volume between the average SHWT and the 10-year flood stage (15.60 ft), interpolated from river stages reported in SJRWMD Publication SJ 85-3 (attached). 3D surface models of the existing ground level and elevation 15.6 ft were created in AutoCAD, to calculate the resulting pre-development flood storage volume of **±42.12 ac-ft**.

To promote the health and vitality of the preserved wetlands, the stormwater management system Normal Water Level (NWL) was set at an elevation of 13 ft (consistent with existing wetland topography).

The post-development flood storage in the wet detention ponds, calculated between elevations 13 and 15.6 ft, is **±58.91 ac-ft** which exceeds the pre-development conditions.

The 10-year pre- and post-development flood storage volume condition is met/exceeded.

Civil ~ Agricultural ~ Transportation ~ Utility ~ Site Planning ~ Environmental
312 South Harbor City Boulevard, Suite #4, Melbourne, Florida 32901
Telephone: (321) 725-3674 ~ Fax: (321) 723-1159 ~ Email: info@bseconsult.com
Toll Free: 1-800-523-4BSE (4273)

**City of Cocoa Criteria**

City of Cocoa Comprehensive Plan Stormwater Management Policy 6.1.3.6 states: *Except as provided in Future Land Use Element Policy 1.1.2.7 (H), flood control for new development will be accomplished through the limitation of fill in the 100-year floodplain* ***when economically feasible****. In cases where there is no practical alternative to fill in the 100-year floodplain, compensatory storage shall be provided through excavation of a volume equivalent to the loss of storage within the 100-year floodplain resulting from the placement of fill in adjacent upland areas (above the 100-year floodplain) where such compensatory storage* ***can be accomplished in an environmentally sound and economically feasible manner****. (****bold underlined*** *added for emphasis)*

Pre-development flood storage is calculated as the volume between the SHWT (13.0 ft) and the Base Flood Elevation (BFE) of 17.00 ft, taken from FEMA FIRM (exhibit attached). Using a 3-D surface model of the site in AutoCAD, the pre-development flood storage volume calculated at elevation 17 ft is determined to be **±118.24 ac-ft.**

Post-Development flood storage is calculated as the volume available between the normal water level (NWL) and BFE in the wet detention ponds however that does not consider storage provided between the BFE and top of bank (TOB) elevation. Both scenarios are provided in the table below.

| NWL (ft) | Upper Limit of Storage (ft) | Flood Storage Volume (ac-ft) | |
|---|---|---|---|
| 13.00 | BFE 17.00 | 94.66 | less than 118.24 ac-ft |
| 13.00 | TOB 18.00 | 121.93 | greater than 118.24 ac-ft |

Storage up to the BFE represents fully accessible volume for backwater effects from the surrounding 100-year flood zone. Storage between the BFE and TOB still provides for the 100-year runoff from the site, regulated by the control structure. It is important to note that the site is surrounded by the following conditions:

| | | |
|---|---|---|
| North | Lakeside Palms, Cocoa Grand Apartment complex, and offsite east-west ditch | Both developments provide their own flood storage, offsite east-west ditch to remain |
| East | Clearlake Road | N/A |
| South | Pluckebaum Road and roadside drainage ditch | Ditch provides conveyance |
| West | 20-acre single-family residence and offsite north-south ditch | Residential property continues to have uninterrupted access to north-south ditch (on their property) and Pluckebaum Rd ditch |

The commercial property located near the southeast corner continues to have uninterrupted access to the Pluckebaum road drainage ditch. The perimeter ditches and roadways separate the subject property from the surrounding areas and further allow the continual conveyance of drainage to the Pluckebaum Road drainage ditch.

**Summary**

The project exceeds the SJRWMD required 10-year flood storage volume requirement and nearly meets the City's 100-year flood storage requirement. When analyzing the storage volume available in the proposed stormwater management system to the top of bank, the storage volume requirement is exceeded. The geographic components, perimeter ditching to remain, and construction of neighboring development stormwater systems isolates the subject property. The construction of a stormwater management system for the subject property further reduces the need to provide additional flood storage. The City's comprehensive text cites the following:

*In cases where there is no practical alternative to fill in the 100-year floodplain, compensatory storage shall be provided through excavation of a volume equivalent to the loss of storage within the 100-year floodplain resulting from the placement of fill in adjacent upland areas (above the 100-year floodplain) where such compensatory storage* ***can be accomplished in an environmentally sound and economically feasible manner.***

There are three (3) factors identified in the above statement that require consideration:

1. The entirety of the site is located within the 100-year floodplain – there is no development alternative but to fill within it.
2. Environmentally sound – expansion of the proposed stormwater management areas would require impacts to the preserved wetland areas which is contrary to the City's request.
3. Economically feasible – the developer proposes a mixture of unit types, including the introduction of a 40-foot product not found in the City to further reduce the development footprint of the community, and increase compensatory storage. This specific product provides the residents with an opportunity to realize ownership at an affordable value. Expanding storm water management further remove home sites and renders the development economically unfeasible.

AS/as
25-as-1748.mar

Table 3. Flood Elevations in the Upper St. Johns River Under 1984 Basin Conditions (Feet NGVD).

| Reach No. | Location | River Mi. | Return Period: Mean Annual | 5-Yr. | 10-Yr. | 25-Yr. | 50-Yr. | 100-Yr. | Observed Max. El. | Low Chord of the Bridge |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | State Rd. 60 | 295.42 | 25.5 | 26.1 | 26.6 | 27.2 | 27.6 | 28.0 | 27.78 | 27.50 |
| 2 | Blue Cypress Lake | 287.75 | 24.8 | 25.4 | 26.0 | 26.7 | 27.2 | 27.8 | 26.7 | |
| 3 | Below Fellsmere Grade | 283.03 | 23.7 | 24.1 | 24.3 | 24.4 | 24.5 | 24.6 | | |
| 3 | Downstream End of Reach No. 3 | 277.06 | 19.1 | 19.5 | 19.9 | 20.4 | 20.8 | 21.1 | | |
| 4 | Downstream End of Reach No. 4 | 270.31 | 17.9 | 18.6 | 19.2 | 19.9 | 20.4 | 20.9 | | |
| 5 | State Rd. 500/ U.S. 192 | 262.00 | 17.4 | 18.2 | 18.8 | 19.5 | 20.0 | 20.5 | 20.88 | 24.70 |
| 6 | Lk. Washington Weir | 254.59 | 17.0 | 17.8 | 18.4 | 19.1 | 19.5 | 19.9 | 20.39 | |
| 7 | Below Lake Winder | 240.25 | 15.8 | 16.6 | 17.2 | 17.8 | 18.1 | 18.5 | | |
| 8 | State Road 520 | 232.03 | 15.4 | 16.3 | 16.8 | 17.3 | 17.6 | 17.9 | 16.96 | 18.05 |
| 9 | State Road 528 | 223.30 | 13.0 | 13.9 | 14.3 | 14.9 | 15.2 | 15.4 | | 30.75 |
| 10 | State Road 50 | 209.03 | 9.7 | 10.6 | 11.0 | 11.6 | 12.0 | 12.4 | 12.43 | 21.50 |
| 11 | Downstream End of Reach No. 5 | 197.13 | 7.6 | 8.7 | 9.4 | 10.3 | 10.7 | 11.2 | | |
| 12 | State Road 46 | 190.01 | 6.3 | 7.6 | 8.5 | 9.4 | 9.6 | 10.4 | 10.62 | 28.50 |

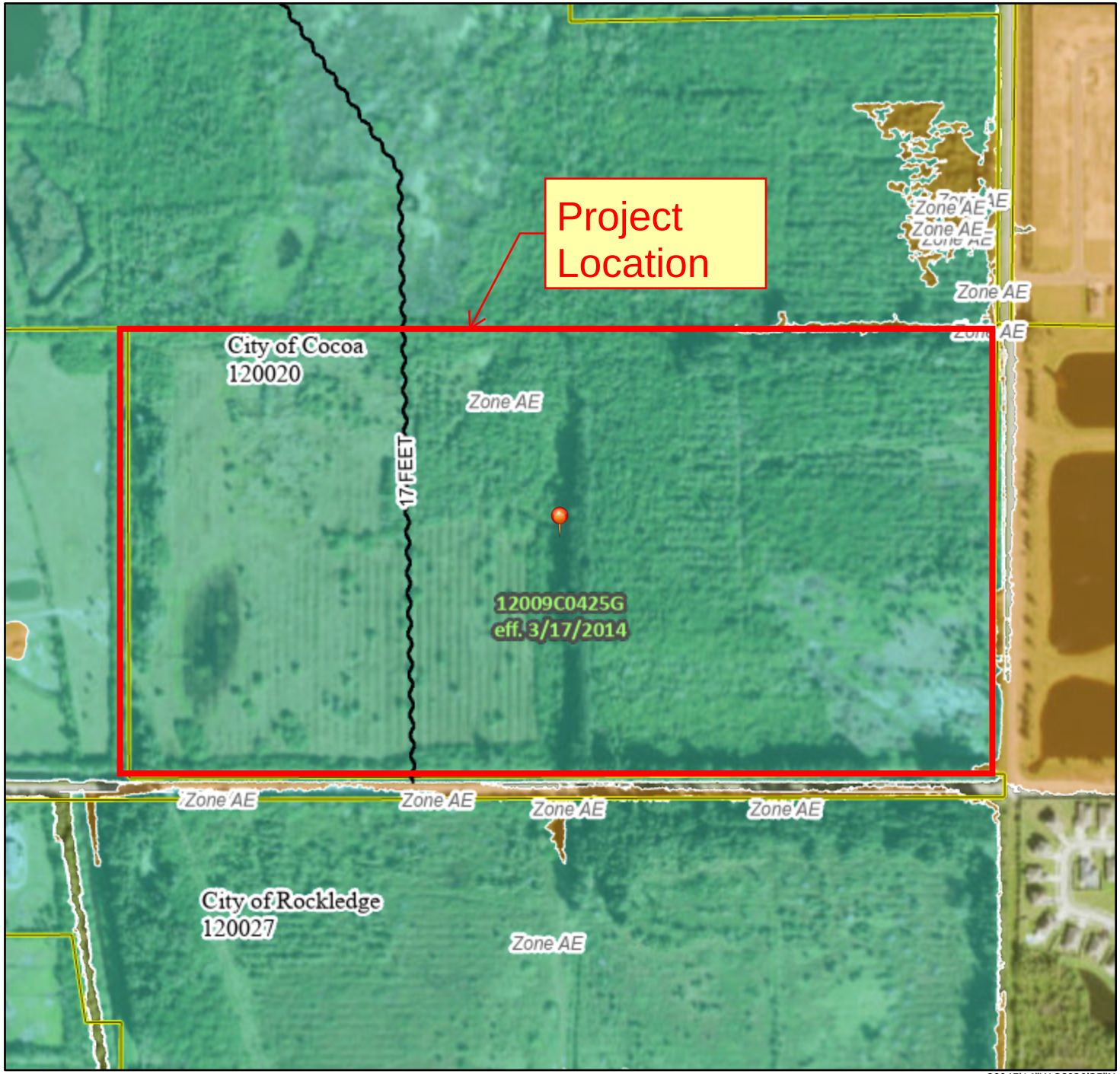


PROJECT IS LOCATED BETWEEN THESE POINTS;
10Y STAGE = 17.0 NGVD29

# National Flood Hazard Layer FIRMette

FEMA

80°45'52"W 28°21'7"N




80°45'14"W 28°20'35"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

*Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020*

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

**OTHER AREAS**
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

**GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**
- Digital Data Available
- No Digital Data Available
- Unmapped

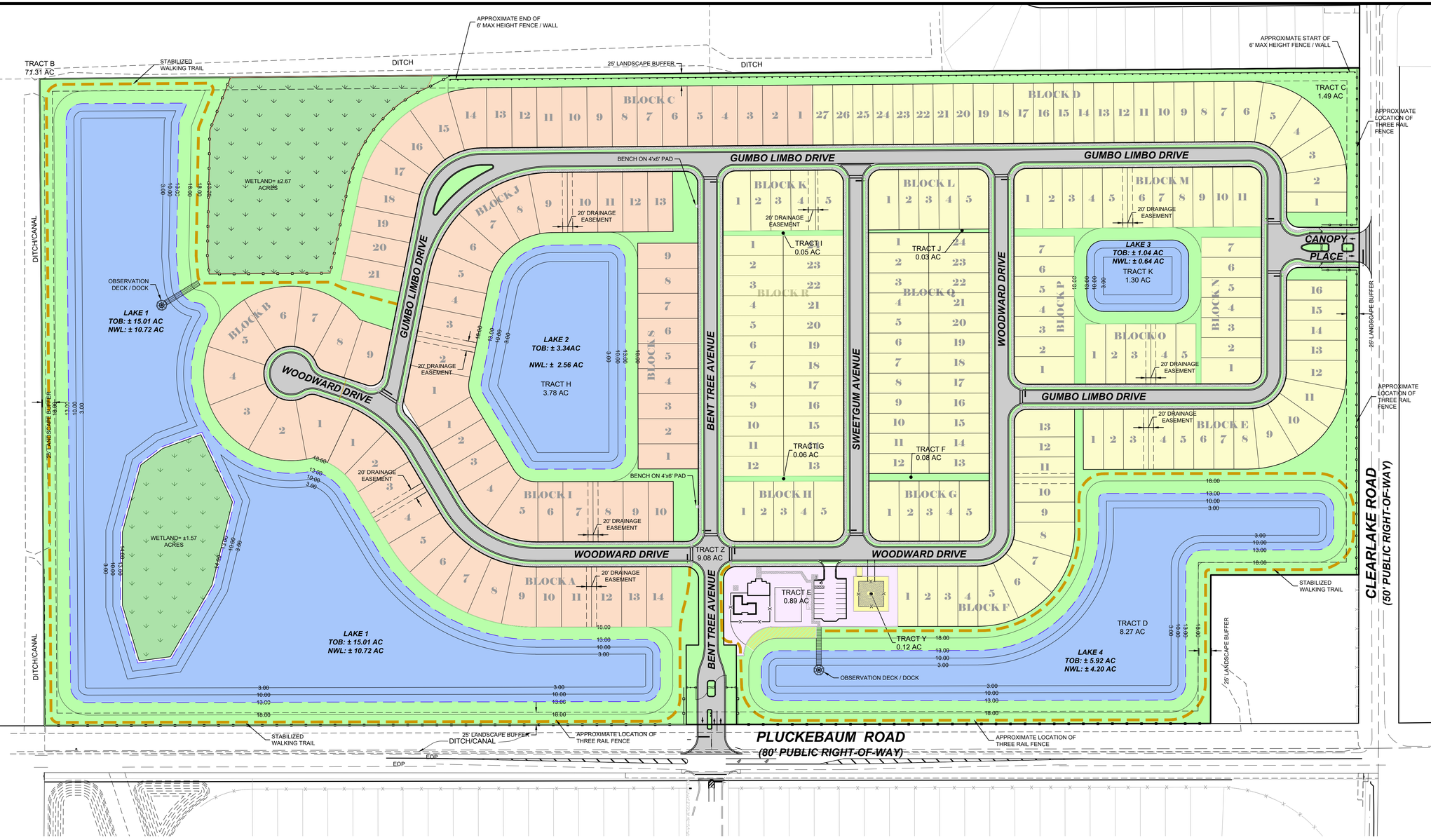
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/20/2022 at 9:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.




| TRACT TABLE | | | | |
|---|---|---|---|---|
| PARCEL ID | TRACT USE | AREA (SQFT) | AREA (ACRES) | OWNER AND MAINTENANCE |
| TRACT A | STORM WATER, OPEN SPACE, LANDSCAPING | 901,956 | 20.71 | HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND/OR ASSIGNS |
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**PROPOSED LOT INVENTORY**

40' LOTS: 154
50' LOTS: 76

TOTAL : 230


B.S.E. CONSULTANTS, INC.
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HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )

| | |
|---|---|
| DATE: | 02/17/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**

# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**

## CONCEPT ALT 3

**PROJECT NO.**
11638.20

**DRAWING NO.**
1163820_200_009

**SHEET**
1 of 1

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**Pluckebaum Rd. Subdivision**
**Flood Storage Calculations**
BSE #11638.20
*Elevations referenced to NAVD88*

**10-YEAR FLOOD STORAGE**

**PRE**
Flood Storage at Flood Elevation 15.6 (AutoCAD elevation model) **42.12** ac ft

**POST**
Storage in ponds and wetlands

| | ELEVATION | | AREA | | |
|---|---|---|---|---|---|
| | NWL | 10Y FLOOD | NWL | 10Y FLOOD | VOLUME |
| POND 1 (includes S Wetland) | 13 | 15.6 | 10.72 | 12.95 | 30.77 |
| POND 2 | 13 | 15.6 | 2.56 | 2.97 | 7.18 |
| POND 3 | 13 | 15.6 | 0.64 | 0.85 | 1.93 |
| POND 4 | 13 | 15.6 | 4.20 | 5.09 | 12.08 |
| N WETLAND | 13 | 15.6 | 2.67 | 2.67 | 6.94 |
| | | | | | **58.91** |

**Pluckebaum Rd. Subdivision**
**Flood Storage Calculations**
BSE #11638.20
*Elevations referenced to NAVD88*

**100-YEAR FLOOD STORAGE**

**PRE**

Flood Storage at Flood Elevation 17.0 (AutoCAD elevation model) **118.24** ac ft

**POST**

Storage in ponds and wetlands

| | ELEVATION | | AREA | | |
|---|---|---|---|---|---|
| | NWL | BFE | NWL | BFE | VOLUME |
| POND 1 (includes S Wetland) | 13 | 17 | 10.72 | 14.15 | 49.74 |
| POND 2 | 13 | 17 | 2.56 | 3.18 | 11.49 |
| POND 3 | 13 | 17 | 0.64 | 0.96 | 3.20 |
| POND 4 | 13 | 17 | 4.20 | 5.58 | 19.55 |
| N WETLAND | 13 | 17 | 2.67 | 2.67 | 10.68 |

**94.66** ac ft

| | ELEVATION | | AREA | | |
|---|---|---|---|---|---|
| | NWL | TOB | NWL | TOB | VOLUME |
| POND 1 (includes S Wetland) | 13 | 18 | 10.72 | 15.01 | 64.33 |
| POND 2 | 13 | 18 | 2.56 | 3.34 | 14.75 |
| POND 3 | 13 | 18 | 0.64 | 1.04 | 4.20 |
| POND 4 | 13 | 18 | 4.20 | 5.92 | 25.30 |
| N WETLAND | 13 | 18 | 2.67 | 2.67 | 13.35 |

**121.93** ac ft

# PRESERVE AT PLUCKEBAUM
# STORMWATER MANAGEMENT DESIGN REPORT

**SUBMITTED TO:**
St. Johns River Water Management District
525 Community College Parkway
Palm Bay, FL 32909

**PREPARED FOR:**
Lennar Homes, LLC
3931 RFCA Blvd, Ste 3105
Palm Beach Gardens, FL 33410

**PREPARED BY:**
B.S.E. Consultants, Inc.
312 South Harbor City Boulevard, Suite 4
Melbourne, FL 32901

**August 2024**

**Revised March 2024**

**B.S.E. File #11638.20**

SCOTT M. GLAUBITZ LICENSE No. 33659 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Scott M Glaubitz
Date: 2025.03.24 08:40:31 -04'00'

PRESERVE AT PLUCKEBAUM
STORMWATER MANAGEMENT DESIGN REPORT
BSE FILE #11638.20

# Table of Contents

Report.....Pages 1-5

**EXHIBITS**

Location Map
Basin Map

**APPENDICES**

NRCS Soils Report .....Appendix A

Stormwater Calculations.....Appendix B

ICPR Files.....Appendix C

Excerpts from Lakeside Palms West Stormwater Report.....Appendix D

Soil Boring Data .....Appendix E

**PRESERVE AT PLUCKEBAUM**
**STORMWATER MANAGEMENT DESIGN REPORT**
**BSE FILE #11638.20**

*Note: All elevations are relative to NAVD88*

## Project Description and Location

Preserve at Pluckebaum is a proposed residential development in the City of Cocoa, Brevard County, Florida, located at the northwest corner of Pluckebaum Road and Clearlake Road , in Section 31, Township 24 South, Range 36 East. Refer to Location Map Exhibit.

## Existing Site Description and Drainage

The residential site is ±76.21 acres. Existing land use is undeveloped brush/woods and pasture with active cattle grazing.

Site soils are primarily Anclote sand (HSG A/D), Basinger Sand (HSG A/D), and Delray Sand (HSG A/D). Typical wet season water table elevation is approximately ±14.00 ft. Refer to the Soils Boring Data in Appendix E.

Elevations generally range from 13.0 ft to 17.0 ft. The site is drained via existing on-site ditches that discharge to south to the ditch located along Pluckebaum Road and south to Lake Florence which is a part of the Upper St John's River Basin.

The site contains approximately 42 acres of wetlands. A formal wetland delineation has been completed. Please refer to the report prepared by Modica & Associates for additional information regarding the wetlands.

## Proposed Site Conditions and Stormwater Management System Design

The site will be developed as a single-family residential subdivision, with an amenity center and open space. Proposed land use is summarized in the tables in Appendix B.

Runoff from impervious surfaces will sheet flow to inlets and pipes into a system of interconnected wet detention ponds, which will provide the required treatment volume, attenuation, and permanent pool volume. The system will discharge to the Pluckebaum roadside ditch via one outfall.

The normal water level of 13.00 was estimated based on the surrounding properties and existing groundwater levels. Refer to Appendix E.

The stormwater management system is designed to meet the following design criteria:

a) Provide water quality treatment volume equal to 1.0 inch of runoff or 2.5 inches times the impervious area, whichever is greater.
b) Recover half of the treatment volume within 24-30 hours.
c) Provide 21-day residence time (no littoral zone).
d) Maintain peak discharge rates at or below the pre-development discharge rates for the mean annual 24-hour, 10-year 24-hour, and 25-year 24-hour storms.

Pre-Development (Target Peak Flow) Stormwater Calculations

Target flow rates are based on the predevelopment peak flow rates. See below table. Pre-development condition calculations are provided in Appendix B.

| **TARGET PEAK FLOW RATES** | | | | |
|---|---|---|---|---|
| | **Ann 24h (5.0")** | **10Y 24H (7.5")** | **25Y 24H (9.5")** | **100Y 24H (13")** |
| **Area** | 76.21 ac | | | |
| **Allowable Unit Flow Rate** | 1.38 cfs/ac | 2.44 cfs/ac | 3.30 cfs/ac | 4.80 cfs/ac |
| **Allowable Peak Flow Rate** | **105.03 cfs** | **185.95 cfs** | **251.50 cfs** | **365.56 cfs** |

Post-Development Stormwater Calculations

Water quality treatment calculations and curve number calculations are provided in Appendix B.

Site soils have dual HSGs of A/D, representing drained/undrained conditions. The seasonal high water table is more than 2 ft below proposed grades, demonstrating drained conditions. Post-development runoff calculations conservatively assume HSG C for all developed pervious areas. Wetland areas are modeled with HSG D. Refer to the ICPR report in Appendix B for curve numbers.

ICPR routing calculations are provided in Appendix C. Routing was performed for the following storms:

- Annual 24-hour storm: 5.0”
- 10-year 24-hour storm: 7.5”
- 25-year 24-hour storm: 9.5”
- 100-year 24-hour storm: 13”

The tailwater stage time series in the Pluckebaum ditch is based on data provided in the drainage report assembled by Morgan & Associates for a neighboring subdivision, Lakeside Palms West (SJRWMD Permit No 106760-4). Refer to Appendix D.

Summary of System Performance

As summarized below, the stormwater management system meets applicable design criteria:

a) The wet detention ponds provide water quality treatment volume equal to the required volume. Refer to water quality treatment calculations in Appendix B.

| WATER QUALITY TREATMENT VOLUME | |
|---|---|
| **Required Treatment Volume** | 7.18 ac-ft |
| **Provided Treatment Volume** | 7.18 ac-ft |

b) More than 50% of the required treatment volume is discharged by hour 30. Refer to ICPR water quality treatment volume recovery analysis in Appendix C (starting stage corresponding to the required treatment volume).

| WQ TREATMENT VOLUME RECOVERY | |
|---|---|
| **Required Treatment Volume** | 7.18 ac-ft |
| **Provided Treatment Volume** | 7.18 ac-ft |
| **Stage @ 30h** | 13.19 ft |

c) The wet detention pond provides permanent pool exceeding the minimum required for a 21-day residence time. Refer to water quality treatment calculations in Appendix B.

| PERMANENT POOL VOLUME | |
|---|---|
| **Required Permanent Pool** | 16.20 ac-ft |
| **Provided Permanent Pool** | 146.86 ac-ft |
| **Provided Residence Time** | 190 d |

d) Post-development peak discharge rates meet pre-development discharge limits for the design storm events (rounding the unit flow rate). Refer to ICPR routing reports in Appendix C (inflow to node PLUCKEBAUM DITCH D/S).

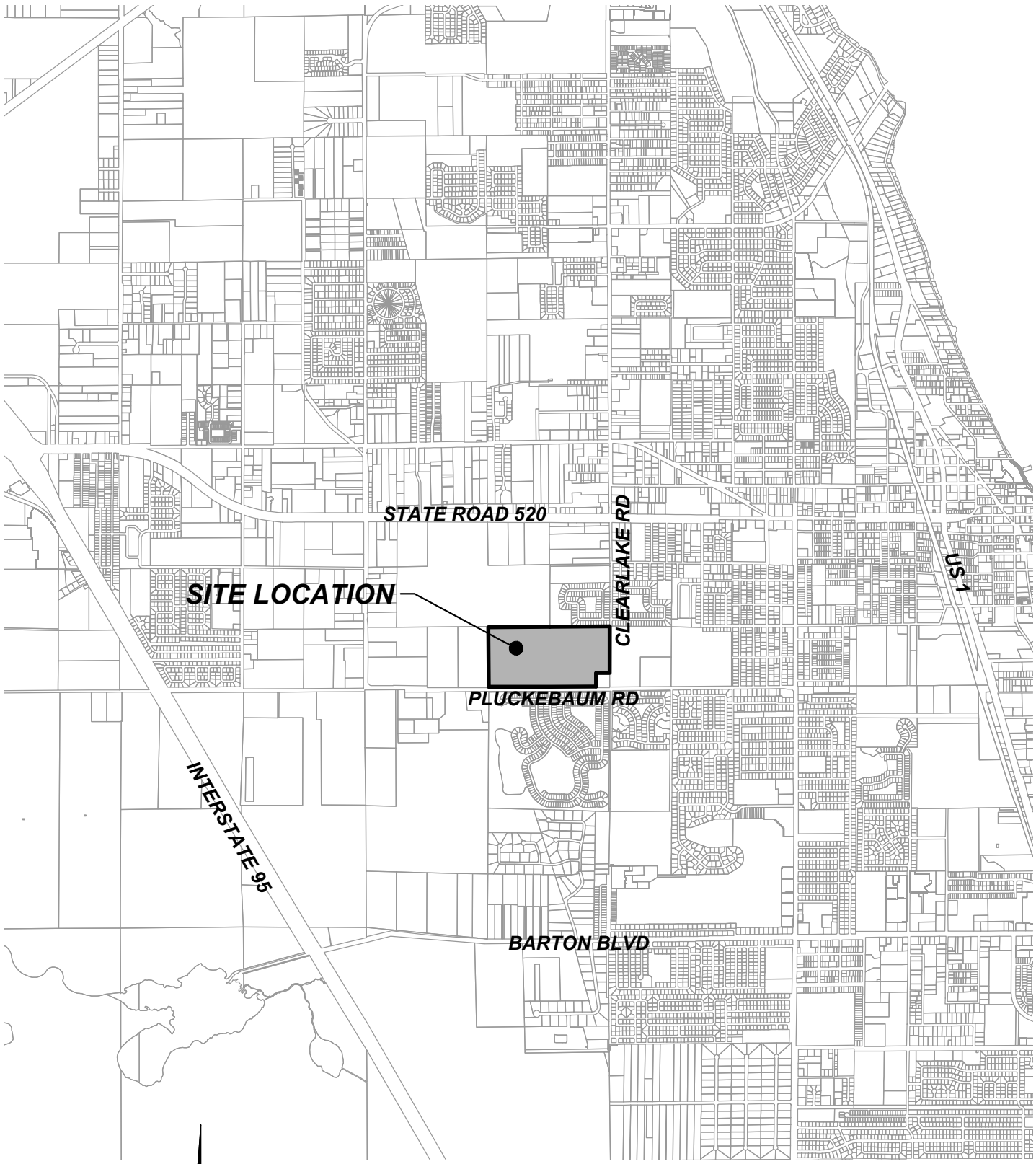
| PRE + POST-DEVELOPMENT DISCHARGE RATES | | | | |
|---|---|---|---|---|
| | **Ann 24h (5.0")** | **10y-24h (7.5")** | **25y-24h (9.0")** | **100y-24h (13.0")** |
| **Pre-Dev Q (cfs)** | 105.03 cfs | 185.95 cfs | 251.50 cfs | 365.56 cfs |
| **Post-Dev Q (cfs)** | 11.04 cfs | 16.11 cfs | 21.44 cfs | 30.09 cfs |
| **Post-Dev Unit Flow Rate** | 0.14 cfs/ac | 0.21 cfs/ac | 0.28 cfs/ac | 0.39 cfs/ac |

| PEAK STAGES<br>NWL = 13.00, TOB = 18.00 | | | | |
|---|---|---|---|---|
| | **ANN** | **10Y** | **25Y** | **100Y** |
| Lake 1 | 14.24 | 14.51 | 14.72 | 15.34 |
| Lake 2 | 14.24 | 15.06 | 15.76 | 16.95 |
| Lake 3 | 14.23 | 14.63 | 15.21 | 16.20 |
| Lake 4 | 14.24 | 14.50 | 14.75 | 15.46 |

e) Attenuation volume is recovered within 14 days. Refer to ICPR routing reports in Appendix C.

| 25Y 24H STORM – RECOVERY AT 14 DAYS | |
|---|---|
| **Normal Water Level** | 13.00 |
| **Stage at 14 days** | 13.02 |

# EXHIBITS




# LENNAR - PLUCKEBAUM RD
# VICINITY MAP

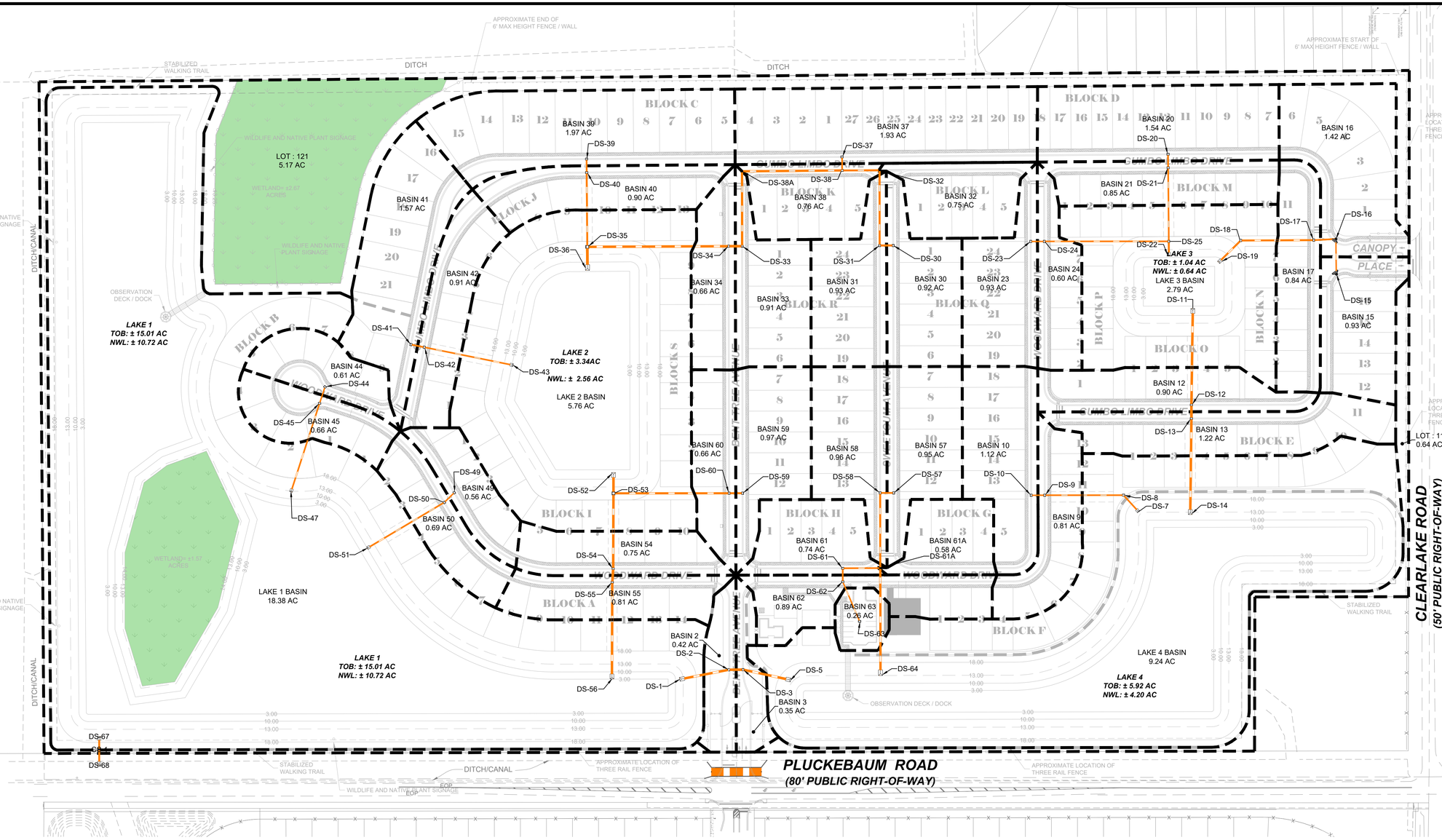
0 3000

( IN FEET )

**B.S.E. CONSULTANTS, INC.**
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901
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CERTIFICATE OF BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

DATE: 07/12/22
DESIGN/DRAWN: ALS/AH
DRAWING# 11638_200_005
PROJECT# 11638
SHEET 1 OF 1

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| TRACT TABLE | | |
|---|---|---|
| PARCEL ID | AREA (SQFT) | AREA (ACRES) |
| BASIN 2 | 18,499 | 0.42 |
| BASIN 3 | 15,348 | 0.35 |
| BASIN 9 | 35,364 | 0.81 |
| BASIN 10 | 48,726 | 1.12 |
| BASIN 12 | 39,105 | 0.90 |
| BASIN 13 | 53,334 | 1.22 |
| BASIN 15 | 40,600 | 0.93 |
| BASIN 16 | 61,657 | 1.42 |
| BASIN 17 | 36,710 | 0.84 |
| BASIN 20 | 67,272 | 1.54 |
| BASIN 21 | 36,925 | 0.85 |
| BASIN 23 | 40,673 | 0.93 |
| BASIN 24 | 26,276 | 0.60 |
| BASIN 30 | 40,156 | 0.92 |
| BASIN 31 | 40,556 | 0.93 |
| BASIN 32 | 32,698 | 0.75 |
| BASIN 33 | 39,559 | 0.91 |
| BASIN 34 | 28,744 | 0.66 |
| BASIN 37 | 84,226 | 1.93 |
| BASIN 38 | 32,907 | 0.76 |
| BASIN 39 | 85,807 | 1.97 |
| BASIN 40 | 39,200 | 0.90 |

| TRACT TABLE | | |
|---|---|---|
| PARCEL ID | AREA (SQFT) | AREA (ACRES) |
| BASIN 41 | 68,432 | 1.57 |
| BASIN 42 | 39,692 | 0.91 |
| BASIN 44 | 26,524 | 0.61 |
| BASIN 45 | 28,666 | 0.66 |
| BASIN 49 | 24,553 | 0.56 |
| BASIN 50 | 30,109 | 0.69 |
| BASIN 54 | 32,673 | 0.75 |
| BASIN 55 | 35,129 | 0.81 |
| BASIN 57 | 41,514 | 0.95 |
| BASIN 58 | 41,693 | 0.96 |
| BASIN 59 | 42,195 | 0.97 |
| BASIN 60 | 28,901 | 0.66 |
| BASIN 61 | 32,100 | 0.74 |
| BASIN 61A | 25,207 | 0.58 |
| BASIN 62 | 38,577 | 0.89 |
| BASIN 63 | 11,124 | 0.26 |
| LAKE 1 BASIN | 800,538 | 18.38 |
| LAKE 2 BASIN | 250,877 | 5.76 |
| LAKE 3 BASIN | 121,448 | 2.79 |
| LAKE 4 BASIN | 402,340 | 9.24 |
| LOT : 119 | 28,056 | 0.64 |
| LOT : 121 | 225,146 | 5.17 |


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STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


| | |
|---|---|
| DATE: | 03/04/2025 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**

**PRESERVE AT PLUCKEBAUM**

**SHEET TITLE**

**BASIN MAP**

**PROJECT NO.** 11638.20

**DRAWING NO.** 1163820_200_012

**SHEET** 1 of 1

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SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

# APPENDIX A
# NRCS SOILS REPORT

## Soil Map (Lennar Pluckebaum)



## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Brevard County, Florida
Survey Area Data: Version 21, Aug 25, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 28, 2015—May 18, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend (Lennar Pluckebaum)

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| 6 | Basinger sand, depressional | 19.9 | 19.8% |
| 26 | Holopaw sand, 0 to 2 percent slopes | 2.8 | 2.7% |
| 48 | Delray sand, occasionally flooded | 3.7 | 3.7% |
| 64 | Terra Ceia muck, frequently flooded | 2.1 | 2.1% |
| 70 | Valkaria sand | 0.2 | 0.2% |
| 91 | Anclote sand | 72.1 | 71.6% |
| **Totals for Area of Interest** | | **100.7** | **100.0%** |

# Map Unit Descriptions (Lennar Pluckebaum)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Brevard County, Florida

## 6—Basinger sand, depressional

**Map Unit Setting**

*National map unit symbol:* 1lg2k
*Elevation:* 0 to 50 feet
*Mean annual precipitation:* 49 to 57 inches
*Mean annual air temperature:* 68 to 75 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Basinger, depressional, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Basinger, Depressional**

**Setting**

*Landform:* Depressions on marine terraces
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Parent material:* Sandy marine deposits

**Typical profile**

*A - 0 to 2 inches:* sand
*Eg - 2 to 20 inches:* sand
*Bh/Eg - 20 to 27 inches:* sand
*Cg - 27 to 80 inches:* sand

**Properties and qualities**

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Negligible
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (19.98 to 50.02 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* None
*Frequency of ponding:* Frequent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Very low (about 2.8 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)

*Hydric soil rating:* Yes

**Minor Components**

**St. johns**

*Percent of map unit:* 5 percent
*Landform:* Depressions on marine terraces
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
*Hydric soil rating:* Yes

**Holopaw**

*Percent of map unit:* 5 percent
*Landform:* Depressions on marine terraces
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
*Hydric soil rating:* Yes

## 26—Holopaw sand, 0 to 2 percent slopes

**Map Unit Setting**

*National map unit symbol:* 2x9g9
*Elevation:* 0 to 190 feet
*Mean annual precipitation:* 46 to 57 inches
*Mean annual air temperature:* 68 to 77 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Holopaw and similar soils:* 84 percent
*Minor components:* 16 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Holopaw**

**Setting**

*Landform:* Flats on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Tread, talf, dip
*Down-slope shape:* Linear, concave
*Across-slope shape:* Concave, linear
*Parent material:* Sandy and loamy marine deposits

**Typical profile**

*A - 0 to 5 inches:* sand
*Eg - 5 to 48 inches:* sand
*Btg - 48 to 65 inches:* sandy clay loam
*BCkg - 65 to 80 inches:* sandy loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)
*Depth to water table:* About 3 to 18 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 4 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Low (about 4.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
*Hydric soil rating:* Yes

**Minor Components**

**Basinger**

*Percent of map unit:* 6 percent
*Landform:* Flats on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Tread, talf, dip
*Down-slope shape:* Concave
*Across-slope shape:* Linear
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
*Hydric soil rating:* Yes

**Riviera**

*Percent of map unit:* 4 percent
*Landform:* Drainageways on marine terraces, flats on marine terraces, flatwoods on marine terraces
*Landform position (three-dimensional):* Tread, dip, talf
*Down-slope shape:* Linear, concave
*Across-slope shape:* Linear, concave
*Other vegetative classification:* Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL), Slough (R156BY011FL)
*Hydric soil rating:* Yes

**Oldsmar**

*Percent of map unit:* 3 percent

*Landform:* Flatwoods on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Talf, dip
*Down-slope shape:* Linear, concave
*Across-slope shape:* Linear
*Other vegetative classification:* South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
*Hydric soil rating:* No

**Cypress lake**

*Percent of map unit:* 2 percent
*Landform:* Flats on marine terraces, drainageways on marine terraces
*Landform position (three-dimensional):* Tread, talf, dip
*Down-slope shape:* Convex, linear
*Across-slope shape:* Linear, concave
*Other vegetative classification:* South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
*Hydric soil rating:* Yes

**Gentry**

*Percent of map unit:* 1 percent
*Landform:* Depressions on marine terraces
*Landform position (three-dimensional):* Tread, dip
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
*Hydric soil rating:* Yes

## 48—Delray sand, occasionally flooded

### Map Unit Setting

*National map unit symbol:* 1lg3x
*Elevation:* 10 to 60 feet
*Mean annual precipitation:* 49 to 57 inches
*Mean annual air temperature:* 68 to 75 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Delray, flooded, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Delray, Flooded

#### Setting

*Landform:* Drainageways on marine terraces
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Linear

*Across-slope shape:* Concave
*Parent material:* Sandy and loamy marine deposits

**Typical profile**

*A - 0 to 15 inches:* sand
*Eg - 15 to 40 inches:* sand
*Btg1 - 40 to 52 inches:* sandy loam
*Btg2 - 52 to 60 inches:* sandy clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* OccasionalNone
*Frequency of ponding:* None
*Calcium carbonate, maximum content:* 5 percent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Moderate (about 6.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
*Hydric soil rating:* Yes

**Minor Components**

**Pineda**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
*Hydric soil rating:* Yes

**Basinger**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
*Hydric soil rating:* Yes

## 64—Terra Ceia muck, frequently flooded

### Map Unit Setting

*National map unit symbol:* 1lg4f
*Elevation:* 0 to 30 feet
*Mean annual precipitation:* 49 to 57 inches
*Mean annual air temperature:* 68 to 75 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Terra ceia, flooded, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Terra Ceia, Flooded

#### Setting

*Landform:* Flood plains on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Herbaceous organic material

#### Typical profile

*Oa - 0 to 70 inches:* muck

#### Properties and qualities

*Slope:* 0 to 1 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* NoneFrequent
*Frequency of ponding:* Frequent
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Very high (about 13.2 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 7w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Organic soils in depressions and on flood plains (G156BC645FL)
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G156BC645FL)
*Hydric soil rating:* Yes

**Minor Components**

**Tomoka, flooded**

*Percent of map unit:* 5 percent
*Landform:* Flood plains on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G156BC645FL)
*Hydric soil rating:* Yes

**Micco, flooded**

*Percent of map unit:* 5 percent
*Landform:* Flood plains on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G156BC645FL)
*Hydric soil rating:* Yes

## 70—Valkaria sand

**Map Unit Setting**

*National map unit symbol:* 1lg4l
*Elevation:* 0 to 100 feet
*Mean annual precipitation:* 49 to 57 inches
*Mean annual air temperature:* 68 to 75 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Valkaria and similar soils:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Valkaria**

**Setting**

*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Sandy marine deposits

**Typical profile**

*A - 0 to 9 inches:* sand
*E - 9 to 15 inches:* sand
*Bw - 15 to 41 inches:* sand

*Cg - 41 to 80 inches:* sand

**Properties and qualities**

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (19.98 to 50.02 in/hr)
*Depth to water table:* About 0 to 12 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Low (about 3.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 4w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
*Hydric soil rating:* Yes

**Minor Components**

**Pineda**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
*Hydric soil rating:* Yes

**Malabar**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
*Hydric soil rating:* Yes

**Hilolo, non-hydric**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Convex
*Across-slope shape:* Linear
*Other vegetative classification:* Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
*Hydric soil rating:* No

## 91—Anclote sand

### Map Unit Setting

*National map unit symbol:* 1lg58
*Elevation:* 10 to 80 feet
*Mean annual precipitation:* 49 to 57 inches
*Mean annual air temperature:* 68 to 75 degrees F
*Frost-free period:* 350 to 365 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Anclote and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Anclote

#### Setting

*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Sandy marine deposits

#### Typical profile

*A - 0 to 19 inches:* sand
*Cg - 19 to 72 inches:* sand

#### Properties and qualities

*Slope:* 0 to 2 percent
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Very poorly drained
*Runoff class:* Very high
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
*Sodium adsorption ratio, maximum:* 4.0
*Available water supply, 0 to 60 inches:* Low (about 5.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 3w
*Hydrologic Soil Group:* A/D
*Forage suitability group:* Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
*Other vegetative classification:* Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)

*Hydric soil rating:* Yes

**Minor Components**

**Chobee**

*Percent of map unit:* 5 percent
*Landform:* Flats on marine terraces
*Landform position (three-dimensional):* Talf
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Other vegetative classification:* Loamy and clayey soils on flats of hydric or mesic lowlands (G156BC341FL)
*Hydric soil rating:* Yes

**Floridana**

*Percent of map unit:* 5 percent
*Landform:* Depressions on marine terraces
*Landform position (three-dimensional):* Dip
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Other vegetative classification:* Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G156BC245FL)
*Hydric soil rating:* Yes

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# APPENDIX B
# STORMWATER CALCULATIONS

## Post-Development Stormwater Calculations
## Preserve at Pluckebaum
### (BSE File # 11638.20)

| Land use | IMPERVIOUS COVERAGE | | |
|---|---|---|---|
| | AC. | % IMPERVIOUS | IMPER. ACRES |
| Wetlands | 4.24 | 100% | 4.24 |
| Residential Lots | 43.21 | 70% | 30.25 |
| Stormwater(@NWL) | 19.02 | 100% | 19.02 |
| Open Space | 9.74 | 0% | 0.00 |
| ***SUBTOTAL -BASIN*** | 76.21 | | 53.51 |
| ***Weighted impervious cover =*** | 70% | (including NWL) | |
| ***Weighted impervious cover =*** | 95% | (excluding NWL) | |

REQUIRED WATER QUALITY TREATMENT VOLUME

1" OVER BASIN AREA = 6.35 AC -FT

OR

2.5" x IMPERVIOUS AREA = 7.18 AC -FT

***REQ'D WATER QUALITY TREATMENT VOLUME = 7.18 AC-FT***

### B. SET THE ELEVATION OF THE CONTROL STRUCTURE

CONTROL WATER LEVEL; BLEEDER ELEVATION = 13.00

| | POND 1 | POND 2 | POND 3 | POND 4 | Total |
|---|---|---|---|---|---|
| Area (ac.) @ NWL (Elev 13 ft) = | 12.65 | 1.68 | 1.19 | 3.50 | 19.02 |
| Area (ac.) @ TOB (Elev 18 ft) = | 17.73 | 2.37 | 1.76 | 4.66 | 26.52 |

STORAGE VOL. @ NWL = 0.00 AC -FT

STORAGE VOLUME @ ELEV. 18.00 113.85 AC- FT

REQUIRED TREAT. VOLUME 7.18 (AC-FT)

STAGE-STORAGE CALCULATIONS ARE AS FOLLOWS:

| STAGE | POND 1 STORAGE(AC-FT) | POND "2" STORAGE(AC-FT) | POND "3" STORAGE(AC-FT) | POND "4" STORAGE(AC-FT) | TOTAL (AC-FT) |
|---|---|---|---|---|---|
| 13.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14.00 | 10.84 | 1.65 | 1.28 | 3.62 | 17.39 |
| 15.00 | 23.04 | 3.44 | 2.67 | 7.47 | 36.62 |
| 16.00 | 35.74 | 5.36 | 4.17 | 11.55 | 56.82 |
| 17.00 | 48.96 | 7.41 | 5.79 | 15.86 | 78.02 |
| 18.00 | 56.64 | 9.60 | 7.53 | 20.41 | 94.18 |

BASED UPON STORAGE PROVIDED, SET OVERFLOW ELEVATION AT 13.38

**SET OVERFLOW ELEVATION = 13.4 FT**

# APPENDIX C
# ICPR ROUTING FILES

## Simulation: 100Y

Scenario: Scenario1
Run Date/Time: 8/28/2024 9:08:19 AM
Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

| | Year | Month | Day | Hour [hr] |
|---|---|---|---|---|
| Start Time: | 0 | 0 | 0 | 0.0000 |
| End Time: | 0 | 0 | 0 | 30.0000 |

| | Hydrology [sec] | Surface Hydraulics [sec] |
|---|---|---|
| Min Calculation Time: | 30.0000 | 0.0500 |
| Max Calculation Time: | | 30.0000 |

## Output Time Increments

### Hydrology

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

### Surface Hydraulics

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

### Restart File

Save Restart: False

## Resources & Lookup Tables

### Resources

Rainfall Folder:
Unit Hydrograph Folder:

### Lookup Tables

Boundary Stage Set: 100Y
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: IMP

## Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec

| | | | |
|---|---|---|---|
| Max dZ: | 1.0000 ft | Smp/Man Basin Rain Opt: | Global |
| Link Optimizer Tol: | 0.0001 ft | | |
| | | Rainfall Name: | ~FLMOD |
| | | Rainfall Amount: | 13.00 in |
| | | Storm Duration: | 24.0000 hr |
| | | Dflt Damping (1D): | 0.0050 ft |
| | | Min Node Srf Area (1D): | 100 ft2 |
| | | Energy Switch (1D): | Energy |

Comment:

## Simulation: 10Y

Scenario: Scenario1
Run Date/Time: 8/28/2024 9:15:41 AM
Program Version: ICPR4 4.07.08

### General

Run Mode: Normal

| | Year | Month | Day | Hour [hr] |
|---|---|---|---|---|
| Start Time: | 0 | 0 | 0 | 0.0000 |
| End Time: | 0 | 0 | 0 | 30.0000 |

| | Hydrology [sec] | Surface Hydraulics [sec] |
|---|---|---|
| Min Calculation Time: | 30.0000 | 0.0500 |
| Max Calculation Time: | | 30.0000 |

### Output Time Increments

#### Hydrology

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

#### Surface Hydraulics

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

#### Restart File

Save Restart: False

### Resources & Lookup Tables

| Resources | | Lookup Tables | |
|---|---|---|---|
| Rainfall Folder: | | Boundary Stage Set: | 10Y |
| | | Extern Hydrograph Set: | |
| Unit Hydrograph Folder: | | Curve Number Set: | CN |
| | | Green-Ampt Set: | |
| | | Vertical Layers Set: | |
| | | Impervious Set: | IMP |

## Tolerances & Options

| | | | |
|---|---|---|---|
| Time Marching: | SAOR | IA Recovery Time: | 24.0000 hr |
| Max Iterations: | 6 | | |
| Over-Relax Weight Fact: | 0.5 dec | Ia/S: | 0.20 dec |
| dZ Tolerance: | 0.0010 ft | | |
| Max dZ: | 1.0000 ft | Smp/Man Basin Rain Opt: | Global |
| Link Optimizer Tol: | 0.0001 ft | | |
| | | Rainfall Name: | ~FLMOD |
| | | Rainfall Amount: | 7.50 in |
| | | Storm Duration: | 24.0000 hr |
| | | Dflt Damping (1D): | 0.0050 ft |
| | | Min Node Srf Area (1D): | 100 ft2 |
| | | Energy Switch (1D): | Energy |

Comment:

## Simulation: 25Y

| | |
|---|---|
| Scenario: | Scenario1 |
| Run Date/Time: | 8/28/2024 9:23:23 AM |
| Program Version: | ICPR4 4.07.08 |

## General

Run Mode: Normal

| | Year | Month | Day | Hour [hr] |
|---|---|---|---|---|
| Start Time: | 0 | 0 | 0 | 0.0000 |
| End Time: | 0 | 0 | 0 | 336.0000 |

| | Hydrology [sec] | Surface Hydraulics [sec] |
|---|---|---|
| Min Calculation Time: | 30.0000 | 0.0500 |
| Max Calculation Time: | | 30.0000 |

## Output Time Increments

## Hydrology

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

## Surface Hydraulics

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

## Restart File

Save Restart: False

## Resources & Lookup Tables

### Resources

Rainfall Folder:

Unit Hydrograph Folder:

### Lookup Tables

Boundary Stage Set: 25Y
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: IMP

## Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FLMOD
Rainfall Amount: 9.50 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

## Simulation: ANN

Scenario: Scenario1

Run Date/Time: 8/28/2024 10:02:10 AM
Program Version: ICPR4 4.07.08

## General

Run Mode: Normal

| | Year | Month | Day | Hour [hr] |
|---|---|---|---|---|
| Start Time: | 0 | 0 | 0 | 0.0000 |
| End Time: | 0 | 0 | 0 | 30.0000 |

| | Hydrology [sec] | Surface Hydraulics [sec] |
|---|---|---|
| Min Calculation Time: | 30.0000 | 0.0500 |
| Max Calculation Time: | | 30.0000 |

## Output Time Increments

### Hydrology

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

### Surface Hydraulics

| Year | Month | Day | Hour [hr] | Time Increment [min] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 5.0000 |

### Restart File

Save Restart: False

## Resources & Lookup Tables

### Resources

Rainfall Folder:

Unit Hydrograph Folder:

### Lookup Tables

Boundary Stage Set: ANN
Extern Hydrograph Set:
Curve Number Set: CN
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: IMP

## Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global

Link Optimizer Tol: 0.0001 ft

| | |
|---|---|
| Rainfall Name: | ~FLMOD |
| Rainfall Amount: | 5.00 in |
| Storm Duration: | 24.0000 hr |
| Dflt Damping (1D): | 0.0050 ft |
| Min Node Srf Area (1D): | 100 ft2 |
| Energy Switch (1D): | Energy |

Comment:

## Impervious: IMP [Set]

| Land Cover Zone | % Impervious | % DCIA | % Direct | Ia/S [dec] | Ia Impervious [in] | Ia Pervious [in] |
|---|---|---|---|---|---|---|
| Open Space | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| Pavement | 98.00 | 98.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| Pond | 0.00 | 0.00 | 100.00 | 0.00 | 0.000 | 0.000 |
| Residential Lots | 70.00 | 20.00 | 0.00 | 0.00 | 0.000 | 0.000 |
| Wetland | 0.00 | 0.00 | 70.00 | 0.00 | 0.000 | 0.000 |

## Curve Number: CN [Set]

| Land Cover Zone | Soil Zone | Curve Number [dec] |
|---|---|---|
| Amenity | C | 74.0 |
| Open Space | C | 74.0 |
| Pavement | C | 74.0 |
| Pond | C | 74.0 |
| Residential Lots | C | 74.0 |
| Wetland | D | 80.0 |

## Boundary Stage: PLUCKEBAUM DITCH D/S

Boundary Stage Set: 100Y

| Year | Month | Day | Hour [hr] | Stage [ft] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 9.00 |
| 0 | 0 | 0 | 14.0000 | 12.00 |
| 0 | 0 | 0 | 24.0000 | 15.00 |
| 0 | 0 | 0 | 36.0000 | 12.00 |

Comment:

## Boundary Stage: PLUCKEBAUM DITCH D/S

Boundary Stage Set: 10Y

| Year | Month | Day | Hour [hr] | Stage [ft] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 9.00 |
| 0 | 0 | 0 | 14.0000 | 12.00 |
| 0 | 0 | 0 | 24.0000 | 15.00 |
| 0 | 0 | 0 | 36.0000 | 12.00 |

Comment:

## Boundary Stage: PLUCKEBAUM DITCH D/S

Boundary Stage Set: 25Y

| Year | Month | Day | Hour [hr] | Stage [ft] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 9.00 |
| 0 | 0 | 0 | 14.0000 | 12.00 |
| 0 | 0 | 0 | 24.0000 | 15.00 |
| 0 | 0 | 0 | 36.0000 | 12.00 |

Comment:

## Boundary Stage: PLUCKEBAUM DITCH D/S

Boundary Stage Set: ANN

| Year | Month | Day | Hour [hr] | Stage [ft] |
|---|---|---|---|---|
| 0 | 0 | 0 | 0.0000 | 9.00 |
| 0 | 0 | 0 | 14.0000 | 12.00 |
| 0 | 0 | 0 | 24.0000 | 15.00 |
| 0 | 0 | 0 | 36.0000 | 12.00 |

Comment:

## Manual Basin: B-DS10

| | |
|---|---|
| Scenario: | Scenario1 |
| Node: | DS-10 |
| Hydrograph Method: | NRCS Unit Hydrograph |
| Infiltration Method: | Curve Number |
| Time of Concentration: | 10.0000 min |
| Max Allowable Q: | 0.00 cfs |
| Time Shift: | 0.0000 hr |
| Unit Hydrograph: | UH484 |

Peaking Factor: 484.0
Area: 1.0000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1800 | Pavement | C | |
| 0.7300 | Residential Lots | C | |
| 0.0900 | Open Space | C | |

Comment:

## Manual Basin: B-DS12

Scenario: Scenario1
Node: DS-12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8200 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2000 | Pavement | C | |
| 0.5400 | Residential Lots | C | |
| 0.0800 | Open Space | C | |

Comment:

## Manual Basin: B-DS13

Scenario: Scenario1
Node: DS-13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.1700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2000 | Pavement | C | |
| 0.8900 | Residential Lots | C | |
| 0.0800 | Open Space | C | |

Comment:

## Manual Basin: B-DS15

Scenario: Scenario1
Node: DS-15
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9300 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1900 | Pavement | C | |
| 0.5700 | Residential Lots | C | |
| 0.1700 | Open Space | C | |

Comment:

## Manual Basin: B-DS16

Scenario: Scenario1
Node: DS-16
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2000 | Pavement | C | |
| 0.9600 | Residential Lots | C | |
| 0.2100 | Open Space | C | |

Comment:

## Manual Basin: B-DS17

Scenario: Scenario1
Node: DS-17
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.9200 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2400 | Pavement | C | |
| 0.5900 | Residential Lots | C | |
| 0.0900 | Open Space | C | |

Comment:

## Manual Basin: B-DS2

Scenario: Scenario1
Node: DS-02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1800 | Pavement | C | |

Comment:

## Manual Basin: B-DS20

Scenario: Scenario1
Node: DS-20
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2200 | Pavement | C | |
| 1.3900 | Residential Lots | C | |
| 0.0700 | Open Space | C | |

Comment:

## Manual Basin: B-DS21

Scenario: Scenario1
Node: DS-21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9100 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2200 | Pavement | C | |
| 0.6200 | Residential Lots | C | |
| 0.0700 | Open Space | C | |

Comment:

## Manual Basin: B-DS23

Scenario: Scenario1
Node: DS-23
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.7700 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS24

Scenario: Scenario1
Node: DS-24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.6600 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.4500 | Residential Lots | C | |
| 0.0400 | Open Space | C | |

Comment:

## Manual Basin: B-DS3

Scenario: Scenario1
Node: DS-03
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2400 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1900 | Pavement | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS30

Scenario: Scenario1
Node: DS-30
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1600 | Pavement | C | |
| 0.7600 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS31

Scenario: Scenario1
Node: DS-31
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1600 | Pavement | C | |
| 0.7600 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS33

Scenario: Scenario1
Node: DS-33
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.7600 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS34

Scenario: Scenario1
Node: DS-34
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.7000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.4700 | Residential Lots | C | |
| 0.0600 | Open Space | C | |

Comment:

## Manual Basin: B-DS37

Scenario: Scenario1
Node: DS-37
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.9300 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2500 | Pavement | C | |
| 1.6000 | Residential Lots | C | |
| 0.0800 | Open Space | C | |

Comment:

## Manual Basin: B-DS38

Scenario: Scenario1
Node: DS-38
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3500 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2500 | Pavement | C | |
| 1.0000 | Residential Lots | C | |
| 0.1000 | Open Space | C | |

Comment:

## Manual Basin: B-DS39

Scenario: Scenario1
Node: DS-39
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2000 | Pavement | C | |
| 1.3700 | Residential Lots | C | |
| 0.1200 | Open Space | C | |

Comment:

## Manual Basin: B-DS40

Scenario: Scenario1
Node: DS-40
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7200 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2000 | Pavement | C | |
| 0.4400 | Residential Lots | C | |
| 0.0800 | Open Space | C | |

Comment:

## Manual Basin: B-DS41

Scenario: Scenario1
Node: DS-41
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 1.5800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2200 | Pavement | C | |
| 1.2300 | Residential Lots | C | |
| 0.1300 | Open Space | C | |

Comment:

## Manual Basin: B-DS42

Scenario: Scenario1
Node: DS-42
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2200 | Pavement | C | |
| 0.5600 | Residential Lots | C | |
| 0.1000 | Open Space | C | |

Comment:

## Manual Basin: B-DS44

Scenario: Scenario1
Node: DS-44
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1800 | Pavement | C | |
| 1.0100 | Residential Lots | C | |
| 0.1000 | Open Space | C | |

Comment:

## Manual Basin: B-DS45

Scenario: Scenario1
Node: DS-45
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.4400 | Residential Lots | C | |
| 0.1800 | Pavement | C | |
| 0.1700 | Open Space | C | |

Comment:

## Manual Basin: B-DS48

Scenario: Scenario1
Node: DS-48
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1100 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1100 | Open Space | C | |

Comment:

## Manual Basin: B-DS49

Scenario: Scenario1
Node: DS-49
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6200 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1500 | Pavement | C | |
| 0.4300 | Residential Lots | C | |
| 0.0400 | Open Space | C | |

Comment:

## Manual Basin: B-DS50

Scenario: Scenario1
Node: DS-50
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7100 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1500 | Pavement | C | |
| 0.5000 | Residential Lots | C | |
| 0.0600 | Open Space | C | |

Comment:

## Manual Basin: B-DS54

Scenario: Scenario1
Node: DS-54
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5400 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1500 | Pavement | C | |
| 0.3600 | Residential Lots | C | |
| 0.0300 | Open Space | C | |

Comment:

## Manual Basin: B-DS55

Scenario: Scenario1
Node: DS-55
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1500 | Pavement | C | |
| 0.5000 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS57

Scenario: Scenario1
Node: DS-57
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.0000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.7700 | Residential Lots | C | |
| 0.0600 | Open Space | C | |

Comment:

## Manual Basin: B-DS58

Scenario: Scenario1
Node: DS-58
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 1.0000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.7700 | Residential Lots | C | |
| 0.0600 | Open Space | C | |

Comment:

## Manual Basin: B-DS59

Scenario: Scenario1
Node: DS-59
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.7700 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS60

Scenario: Scenario1
Node: DS-60
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1700 | Pavement | C | |
| 0.4800 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS61

Scenario: Scenario1
Node: DS-61
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6400 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1300 | Pavement | C | |
| 0.4800 | Residential Lots | C | |
| 0.0300 | Open Space | C | |

Comment:

## Manual Basin: B-DS62

Scenario: Scenario1
Node: DS-62
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5000 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1300 | Pavement | C | |
| 0.3100 | Residential Lots | C | |
| 0.0600 | Open Space | C | |

Comment:

## Manual Basin: B-DS65

Scenario: Scenario1
Node: DS-65
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.1600 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1300 | Pavement | C | |
| 0.0300 | Open Space | C | |

Comment:

## Manual Basin: B-DS8

Scenario: Scenario1
Node: DS-08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.1800 | Pavement | C | |
| 0.0600 | Residential Lots | C | |
| 0.0500 | Open Space | C | |

Comment:

## Manual Basin: B-DS9

Scenario: Scenario1
Node: DS-09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4300 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.2100 | Pavement | C | |
| 0.1900 | Residential Lots | C | |
| 0.0300 | Open Space | C | |

Comment:

## Manual Basin: B-POND1

Scenario: Scenario1
Node: POND-1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 18.3200 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 2.1700 | Residential Lots | C | |
| 5.7000 | Open Space | C | |
| 10.4500 | Pond | C | |

Comment:

## Manual Basin: B-POND2

Scenario: Scenario1
Node: POND-2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 5.3900 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 2.0700 | Residential Lots | C | |
| 0.7600 | Open Space | C | |
| 2.5600 | Pond | C | |

Comment:

## Manual Basin: B-POND3

Scenario: Scenario1
Node: POND-3
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 3.2800 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 1.9400 | Residential Lots | C | |
| 0.7000 | Open Space | C | |
| 0.6400 | Pond | C | |

Comment:

## Manual Basin: B-POND4

Scenario: Scenario1
Node: POND-4
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.0100 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 0.6700 | Residential Lots | C | |
| 1.9600 | Open Space | C | |
| 5.3800 | Pond | C | |

Comment:

## Manual Basin: B-WL1

Scenario: Scenario1
Node: WETLAND 1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.5700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 1.5700 | Wetland | D | |

Comment:

## Manual Basin: B-WL2

Scenario: Scenario1
Node: WETLAND 2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.6700 ac

| Area [ac] | Land Cover Zone | Soil Zone | Rainfall Name |
|---|---|---|---|
| 2.6700 | Wetland | D | |

Comment:

## Node: DS-10

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.42 | 0.0000 | 0 |

Comment:

## Node: DS-12

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.08 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.08 | 0.0000 | 0 |

Comment:

## Node: DS-13

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.08 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.08 | 0.0000 | 0 |

Comment:

## Node: DS-15

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.95 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.95 | 0.0000 | 0 |

Comment:

## Node: DS-16

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.74 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.74 | 0.0000 | 0 |

Comment:

## Node: DS-17

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.09 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.09 | 0.0000 | 0 |

Comment:

## Node: DS-18

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 18.00 | 0.0000 | 0 |

Comment:

## Node: DS-20

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.09 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.09 | 0.0000 | 0 |

Comment:

## Node: DS-21

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.09 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.09 | 0.0000 | 0 |

Comment:

## Node: DS-23

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.62 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.62 | 0.0000 | 0 |

Comment:

## Node: DS-24

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.62 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.62 | 0.0000 | 0 |

Comment:

## Node: DS-25

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 16.14 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 16.14 | 0.0000 | 0 |

Comment:

## Node: DS-30

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.36 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.36 | 0.0000 | 0 |

Comment:

## Node: DS-31

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.36 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.36 | 0.0000 | 0 |

Comment:

## Node: DS-32

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.84 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.84 | 0.0000 | 0 |

Comment:

## Node: DS-33

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.42 | 0.0000 | 0 |

Comment:

## Node: DS-34

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.42 | 0.0000 | 0 |

Comment:

## Node: DS-35

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 15.88 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 15.88 | 0.0000 | 0 |

Comment:

## Node: DS-37

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.58 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.58 | 0.0000 | 0 |

Comment:

## Node: DS-38

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.56 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.56 | 0.0000 | 0 |

Comment:

## Node: DS-39

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.18 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.18 | 0.0000 | 0 |

Comment:

## Node: DS-40

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.18 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.18 | 0.0000 | 0 |

Comment:

## Node: DS-41

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.41 | 0.0000 | 0 |

Comment:

## Node: DS-42

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.41 | 0.0000 | 0 |

Comment:

## Node: DS-44

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.09 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.08 | 0.0000 | 0 |

Comment:

## Node: DS-45

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.09 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.08 | 0.0000 | 0 |

Comment:

## Node: DS-46

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 18.00 | 0.0000 | 0 |

Comment:

## Node: DS-48

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 18.16 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 18.16 | 0.0000 | 0 |

Comment:

## Node: DS-49

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.48 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.48 | 0.0000 | 0 |

Comment:

## Node: DS-50

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.45 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.45 | 0.0000 | 0 |

Comment:

## Node: DS-53

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 15.45 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 15.45 | 0.0000 | 0 |

Comment:

## Node: DS-54

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.25 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.25 | 0.0000 | 0 |

Comment:

## Node: DS-55

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.25 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.25 | 0.0000 | 0 |

Comment:

## Node: DS-57

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.36 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.36 | 0.0000 | 0 |

Comment:

## Node: DS-58

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.36 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.36 | 0.0000 | 0 |

Comment:

## Node: DS-59

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.42 | 0.0000 | 0 |

Comment:

## Node: DS-60

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.42 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.42 | 0.0000 | 0 |

Comment:

## Node: DS-61

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.37 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.40 | 0.0000 | 0 |

Comment:

## Node: DS-62

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 0.00 ft
Warning Stage: 17.37 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 0.00 | 0.0000 | 0 |
| 17.40 | 0.0000 | 0 |

Comment:

## Node: PLUCKEBAUM DITCH D/S

Scenario: Scenario1
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 9.00 ft
Warning Stage: 16.00 ft
Alert Stage: 0.00 ft
Boundary Stage: PLUCKEBAUM DITCH D/S

Comment:

## Node: POND-1

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 13.00 | 10.4500 | 455202 |
| 18.00 | 14.8700 | 647737 |

Comment:

## Node: POND-2

Scenario: Scenario1

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 13.00 | 2.5600 | 111514 |
| 18.00 | 3.3400 | 145490 |

Comment:

## Node: POND-3

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 13.00 | 0.6400 | 27878 |
| 18.00 | 1.0400 | 45302 |

Comment:

## Node: POND-4

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 13.00 | 5.3800 | 234353 |
| 18.00 | 7.1600 | 311890 |

Comment:

## Node: WETLAND 1

Scenario: Scenario1

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.25 ft
Warning Stage: 19.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 14.25 | 1.1000 | 47916 |
| 18.00 | 1.6700 | 72745 |

Comment:

## Node: WETLAND 2

Scenario: Scenario1
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 18.00 ft
Alert Stage: 0.00 ft

| Stage [ft] | Area [ac] | Area [ft2] |
|---|---|---|
| 14.00 | 1.3200 | 57499 |
| 18.00 | 1.9600 | 85378 |

Comment:

## Drop Structure Link: CS-1

Scenario: Scenario1
From Node: POND-1
To Node: PLUCKEBAUM DITCH D/S
Link Count: 1
Pipe Flow Direction: Both
Solution: Combine
Increments: 10
Pipe Count: 1
Damping: 0.0000 ft
Length: 50.00 ft
FHWA Code: 1
Entr Loss Coef: 1
Exit Loss Coef: 1
Bend Loss Coef: 0
Bend Location: 0.00 dec
Energy Switch: Energy

| Upstream Pipe | | Downstream Pipe | |
|---|---|---|---|
| Invert: | 11.50 ft | Invert: | 11.00 ft |
| Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| Geometry: Circular | | Geometry: Circular | |
| Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Bottom Clip | | | |
| Default: | 0.00 ft | Default: | 0.00 ft |
| Op Table: | | Op Table: | |
| Ref Node: | | Ref Node: | |
| Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Top Clip | | | |
| Default: | 0.00 ft | Default: | 0.00 ft |
| Op Table: | | Op Table: | |
| Ref Node: | | Ref Node: | |
| Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Pipe Comment:

| Weir Component | | Bottom Clip | |
|---|---|---|---|
| Weir: | 1 | Default: | 0.00 ft |
| Weir Count: | 1 | Op Table: | |
| Weir Flow Direction: | Both | Ref Node: | |
| Damping: | 0.0000 ft | Top Clip | |
| Weir Type: | Sharp Crested Vertical | Default: | 0.00 ft |
| Geometry Type: | Rectangular | Op Table: | |
| Invert: | 13.00 ft | Ref Node: | |
| Control Elevation: | 13.00 ft | Discharge Coefficients | |
| Max Depth: | 0.40 ft | Weir Default: | 3.200 |
| Max Width: | 2.60 ft | Weir Table: | |
| Fillet: | 0.00 ft | Orifice Default: | 0.600 |
| | | Orifice Table: | |

Weir Comment:

| Weir Component | | Bottom Clip | |
|---|---|---|---|
| Weir: | 2 | Default: | 0.00 ft |
| Weir Count: | 1 | Op Table: | |
| Weir Flow Direction: | Both | Ref Node: | |
| Damping: | 0.0000 ft | Top Clip | |
| Weir Type: | Sharp Crested Vertical | Default: | 0.00 ft |
| Geometry Type: | Rectangular | Op Table: | |
| Invert: | 13.40 ft | Ref Node: | |
| Control Elevation: | 13.40 ft | Discharge Coefficients | |
| Max Depth: | 4.40 ft | Weir Default: | 3.200 |
| Max Width: | 4.08 ft | Weir Table: | |
| Fillet: | 0.00 ft | Orifice Default: | 0.600 |
| | | Orifice Table: | |

Weir Comment:

Drop Structure Comment:

| Pipe Link: P-DS10-DS8 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.74 ft | Invert: | 11.11 ft |
| From Node: | DS-10 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-08 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 63.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |

| | | | | | |
|---|---|---|---|---|---|
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS12-DS13 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 5.30 ft | Invert: | 5.30 ft |
| From Node: | DS-12 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-13 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 29.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS12-POND3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 5.30 ft | Invert: | 3.58 ft |
| From Node: | DS-12 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-3 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS13-POND4 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 5.30 ft | Invert: | 3.59 ft |
| From Node: | DS-13 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |

| | | | | | |
|---|---|---|---|---|---|
| To Node: | POND-4 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 171.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS15-DS16 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.00 ft | Invert: | 10.33 ft |
| From Node: | DS-15 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-16 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 67.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS16-DS17 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.33 ft | Invert: | 9.90 ft |
| From Node: | DS-16 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-17 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 43.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |

| | | | | | |
|---|---|---|---|---|---|
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS17-DS18 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.40 ft | Invert: | 8.00 ft |
| From Node: | DS-17 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-18 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 140.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS18-POND3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 8.00 ft | Invert: | 7.48 ft |
| From Node: | DS-18 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-3 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 52.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS2-DS3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.00 ft | Invert: | 9.00 ft |
| From Node: | DS-02 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-03 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |

| | | | | | |
|---|---|---|---|---|---|
| Flow Direction: | Both | | Bottom Clip | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | | Top Clip | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS2-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.00 ft | Invert: | 9.00 ft |
| From Node: | DS-02 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | | Bottom Clip | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 102.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | | Top Clip | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS20-DS21 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.26 ft | Invert: | 9.00 ft |
| From Node: | DS-20 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-21 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | | Bottom Clip | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | | Top Clip | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS21-POND3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.00 ft | Invert: | 7.28 ft |
| From Node: | DS-21 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-3 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS23-DS24 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.97 ft | Invert: | 12.71 ft |
| From Node: | DS-23 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-24 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS24-DS25 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.38 ft | Invert: | 10.96 ft |
| From Node: | DS-24 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-25 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 142.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 0 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |

| | | | | | |
|---|---|---|---|---|---|
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS25-POND3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.96 ft | Invert: | 10.47 ft |
| From Node: | DS-25 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-3 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 49.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS27-DS28 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 13.64 ft | Invert: | 12.91 ft |
| From Node: | DS-27 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-28 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 73.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS28-POND3 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.91 ft | Invert: | 12.17 ft |

| | | | | | |
|---|---|---|---|---|---|
| From Node: | DS-28 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-3 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 74.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS3-DS4 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.00 ft | Invert: | 9.00 ft |
| From Node: | DS-03 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-4 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 37.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS30-DS31 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.86 ft | Invert: | 12.60 ft |
| From Node: | DS-30 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-31 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |

| | | | | | |
|---|---|---|---|---|---|
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS31-DS32 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.60 ft | Invert: | 11.89 ft |
| From Node: | DS-31 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-32 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 71.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS32-DS33 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 8.24 ft | Invert: | 7.28 ft |
| From Node: | DS-32 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-33 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.00 ft | Max Depth: | 3.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 193.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS33-DS34 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 6.28 ft | Invert: | 6.15 ft |
| From Node: | DS-33 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-34 | Geometry: Circular | | Geometry: Circular | |

| | | | | | |
|---|---|---|---|---|---|
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS34-DS35 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 6.15 ft | Invert: | 5.22 ft |
| From Node: | DS-34 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-35 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 186.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS35-POND2 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 4.22 ft | Invert: | 4.07 ft |
| From Node: | DS-35 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-2 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 4.00 ft | Max Depth: | 4.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 30.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS37-DS38 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.90 ft | Invert: | 9.46 ft |
| From Node: | DS-37 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-38 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 44.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS38-DS32 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.46 ft | Invert: | 8.24 ft |
| From Node: | DS-38 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-32 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 144.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS39-DS40 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.70 ft | Invert: | 11.44 ft |
| From Node: | DS-39 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-40 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |

| | | | | | |
|---|---|---|---|---|---|
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS4-POND4 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.00 ft | Invert: | 9.00 ft |
| From Node: | DS-4 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-4 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 88.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS40-DS35 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.44 ft | Invert: | 10.01 ft |
| From Node: | DS-40 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-35 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 143.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS41-DS42 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.44 ft | Invert: | 10.18 ft |
| From Node: | DS-41 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-42 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Comment: | | | | | |

| Pipe Link: P-DS42-POND2 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.68 ft | Invert: | 7.96 ft |
| From Node: | DS-42 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-2 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Comment: | | | | | |

| Pipe Link: P-DS44-DS45 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.75 ft | Invert: | 9.49 ft |
| From Node: | DS-44 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-45 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |

| | | | | | |
|---|---|---|---|---|---|
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS45-DS46 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 9.49 ft | Invert: | 8.42 ft |
| From Node: | DS-45 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-46 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 107.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS46-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 7.92 ft | Invert: | 7.26 ft |
| From Node: | DS-46 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 66.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS48-DS46 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.66 ft | Invert: | 12.05 ft |

| | | | | | |
|---|---|---|---|---|---|
| From Node: | DS-48 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-46 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 61.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS49-DS50 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.97 ft | Invert: | 12.70 ft |
| From Node: | DS-49 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-50 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 27.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS50-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 12.70 ft | Invert: | 10.98 ft |
| From Node: | DS-50 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |

| | | | | | |
|---|---|---|---|---|---|
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS53-POND2 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 6.63 ft | Invert: | 6.11 ft |
| From Node: | DS-53 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-2 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 52.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS54-DS53 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.46 ft | Invert: | 9.01 ft |
| From Node: | DS-54 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-53 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 145.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS55-DS54 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.20 ft | Invert: | 10.46 ft |
| From Node: | DS-55 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-54 | Geometry: Circular | | Geometry: Circular | |

| | | | | | |
|---|---|---|---|---|---|
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS55-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.20 ft | Invert: | 8.48 ft |
| From Node: | DS-55 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.50 ft | Max Depth: | 3.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS57-DS58 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 13.36 ft | Invert: | 13.10 ft |
| From Node: | DS-57 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-58 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS58-DS59 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 13.10 ft | Invert: | 10.46 ft |
| From Node: | DS-58 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-59 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 264.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS59-DS60 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 8.26 ft | Invert: | 8.00 ft |
| From Node: | DS-59 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-60 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS60-DS53 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 8.00 ft | Invert: | 6.63 ft |
| From Node: | DS-60 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-53 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 3.00 ft | Max Depth: | 3.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |

| | | | | | |
|---|---|---|---|---|---|
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 137.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS61-DS62 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.90 ft | Invert: | 11.64 ft |
| From Node: | DS-61 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-62 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS62-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.64 ft | Invert: | 9.92 ft |
| From Node: | DS-62 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 172.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS64-DS65 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.86 ft | Invert: | 11.63 ft |
| From Node: | DS-63 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-65 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Comment: | | | | | |

| Pipe Link: P-DS65-POND1 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.63 ft | Invert: | 10.96 ft |
| From Node: | DS-65 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | POND-1 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 67.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Comment: | | | | | |

| Pipe Link: P-DS7-DS4 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.24 ft | Invert: | 9.19 ft |
| From Node: | DS-7 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-4 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.50 ft | Max Depth: | 2.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 164.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |

| | | | | | |
|---|---|---|---|---|---|
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS8-DS7 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 10.61 ft | Invert: | 10.24 ft |
| From Node: | DS-08 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-7 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 2.00 ft | Max Depth: | 2.00 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 94.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

| Pipe Link: P-DS9-DS8 | | Upstream | | Downstream | |
|---|---|---|---|---|---|
| Scenario: | Scenario1 | Invert: | 11.58 ft | Invert: | 11.32 ft |
| From Node: | DS-09 | Manning's N: | 0.0120 | Manning's N: | 0.0120 |
| To Node: | DS-08 | Geometry: Circular | | Geometry: Circular | |
| Link Count: | 1 | Max Depth: | 1.50 ft | Max Depth: | 1.50 ft |
| Flow Direction: | Both | Bottom Clip | | | |
| Damping: | 0.0000 ft | Default: | 0.00 ft | Default: | 0.00 ft |
| Length: | 26.00 ft | Op Table: | | Op Table: | |
| FHWA Code: | 1 | Ref Node: | | Ref Node: | |
| Entr Loss Coef: | 1 | Manning's N: | 0.0000 | Manning's N: | 0.0000 |
| Exit Loss Coef: | 1 | Top Clip | | | |
| Bend Loss Coef: | 0 | Default: | 0.00 ft | Default: | 0.00 ft |
| Bend Location: | 0.00 dec | Op Table: | | Op Table: | |
| Energy Switch: | Energy | Ref Node: | | Ref Node: | |
| | | Manning's N: | 0.0000 | Manning's N: | 0.0000 |

Comment:

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning | Alert Stage | Max Stage | Min/Max | Max Total | Max Total | Max Surface |
|---|---|---|---|---|---|---|---|---|

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-10 | 100Y | 17.42 | 0.00 | 17.28 | 0.0010 | 9.27 | 9.17 | 100 |
| DS-10 | 10Y | 17.42 | 0.00 | 14.69 | 0.0010 | 5.14 | 5.10 | 100 |
| DS-10 | 25Y | 17.42 | 0.00 | 15.51 | 0.0010 | 6.64 | 6.59 | 100 |
| DS-10 | ANN | 17.42 | 0.00 | 14.24 | 0.0010 | 3.25 | 3.22 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-12 | 100Y | 17.08 | 0.00 | 15.83 | 0.0513 | 102.76 | 32.76 | 236 |
| DS-12 | 10Y | 17.08 | 0.00 | 14.49 | 0.0513 | 102.76 | 22.51 | 236 |
| DS-12 | 25Y | 17.08 | 0.00 | 14.97 | 0.0513 | 102.76 | 26.63 | 236 |
| DS-12 | ANN | 17.08 | 0.00 | 14.24 | 0.0513 | 102.76 | 16.30 | 236 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-13 | 100Y | 17.08 | 0.00 | 15.57 | 0.0514 | 102.87 | 39.53 | 232 |
| DS-13 | 10Y | 17.08 | 0.00 | 14.50 | 0.0514 | 102.87 | 26.64 | 233 |
| DS-13 | 25Y | 17.08 | 0.00 | 14.81 | 0.0514 | 102.87 | 31.75 | 232 |
| DS-13 | ANN | 17.08 | 0.00 | 14.24 | 0.0514 | 102.87 | 19.33 | 233 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-15 | 100Y | 17.95 | 0.00 | 20.25 | 0.0008 | 8.53 | 8.35 | 100 |
| DS-15 | 10Y | 17.95 | 0.00 | 15.77 | 0.0010 | 4.68 | 4.60 | 100 |
| DS-15 | 25Y | 17.95 | 0.00 | 17.19 | 0.0010 | 6.08 | 5.97 | 100 |
| DS-15 | ANN | 17.95 | 0.00 | 14.34 | 0.0010 | 2.93 | 2.88 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-16 | 100Y | 17.74 | 0.00 | 19.36 | 0.0010 | 20.88 | 20.73 | 133 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-16 | 10Y | 17.74 | 0.00 | 15.50 | 0.0010 | 11.51 | 11.43 | 133 |
| DS-16 | 25Y | 17.74 | 0.00 | 16.74 | 0.0010 | 14.93 | 14.84 | 133 |
| DS-16 | ANN | 17.74 | 0.00 | 14.24 | 0.0010 | 7.21 | 7.17 | 133 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-17 | 100Y | 17.09 | 0.00 | 18.05 | 0.0010 | 29.23 | 29.09 | 230 |
| DS-17 | 10Y | 17.09 | 0.00 | 15.11 | 0.0010 | 16.16 | 16.09 | 230 |
| DS-17 | 25Y | 17.09 | 0.00 | 16.07 | 0.0010 | 20.94 | 20.85 | 230 |
| DS-17 | ANN | 17.09 | 0.00 | 14.23 | 0.0010 | 10.17 | 10.13 | 230 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-18 | 100Y | 18.00 | 0.00 | 16.69 | 0.0223 | 44.72 | 28.97 | 356 |
| DS-18 | 10Y | 18.00 | 0.00 | 14.71 | 0.0223 | 44.72 | 16.03 | 356 |
| DS-18 | 25Y | 18.00 | 0.00 | 15.39 | 0.0223 | 44.72 | 20.76 | 356 |
| DS-18 | ANN | 18.00 | 0.00 | 14.23 | 0.0223 | 44.72 | 10.08 | 356 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-20 | 100Y | 17.09 | 0.00 | 19.19 | 0.0010 | 15.64 | 15.47 | 100 |
| DS-20 | 10Y | 17.09 | 0.00 | 15.47 | 0.0010 | 8.70 | 8.63 | 100 |
| DS-20 | 25Y | 17.09 | 0.00 | 16.66 | 0.0010 | 11.23 | 11.13 | 100 |
| DS-20 | ANN | 17.09 | 0.00 | 14.23 | 0.0010 | 5.52 | 5.48 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-21 | 100Y | 17.09 | 0.00 | 18.53 | 0.0096 | 23.91 | 23.77 | 193 |
| DS-21 | 10Y | 17.09 | 0.00 | 15.26 | 0.0096 | 19.16 | 13.26 | 196 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-21 | 25Y | 17.09 | 0.00 | 16.32 | 0.0096 | 19.16 | 17.10 | 196 |
| DS-21 | ANN | 17.09 | 0.00 | 14.23 | 0.0096 | 19.16 | 8.42 | 196 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-23 | 100Y | 17.62 | 0.00 | 17.98 | 0.0005 | 9.21 | 9.06 | 100 |
| DS-23 | 10Y | 17.62 | 0.00 | 15.10 | 0.0005 | 5.13 | 5.06 | 100 |
| DS-23 | 25Y | 17.62 | 0.00 | 16.05 | 0.0005 | 6.62 | 6.52 | 100 |
| DS-23 | ANN | 17.62 | 0.00 | 14.23 | 0.0003 | 3.26 | 3.22 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-24 | 100Y | 17.62 | 0.00 | 17.23 | 0.0010 | 15.19 | 15.06 | 158 |
| DS-24 | 10Y | 17.62 | 0.00 | 14.87 | 0.0010 | 8.48 | 8.41 | 158 |
| DS-24 | 25Y | 17.62 | 0.00 | 15.66 | 0.0010 | 10.93 | 10.84 | 158 |
| DS-24 | ANN | 17.62 | 0.00 | 14.23 | 0.0010 | 5.40 | 5.36 | 158 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-25 | 100Y | 16.14 | 0.00 | 16.38 | 0.0048 | 15.06 | 14.94 | 262 |
| DS-25 | 10Y | 16.14 | 0.00 | 14.67 | 0.0048 | 9.56 | 8.34 | 262 |
| DS-25 | 25Y | 16.14 | 0.00 | 15.26 | 0.0048 | 10.84 | 10.75 | 262 |
| DS-25 | ANN | 16.14 | 0.00 | 14.23 | 0.0048 | 9.56 | 5.32 | 262 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-30 | 100Y | 17.36 | 0.00 | 22.13 | 0.0010 | 9.03 | 8.75 | 100 |
| DS-30 | 10Y | 17.36 | 0.00 | 16.52 | 0.0008 | 5.02 | 4.91 | 100 |
| DS-30 | 25Y | 17.36 | 0.00 | 18.31 | 0.0009 | 6.48 | 6.32 | 100 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-30 | ANN | 17.36 | 0.00 | 14.72 | -0.0008 | 3.19 | 3.12 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-31 | 100Y | 17.36 | 0.00 | 21.92 | 0.0010 | 17.71 | 17.49 | 114 |
| DS-31 | 10Y | 17.36 | 0.00 | 16.45 | 0.0010 | 9.92 | 9.82 | 114 |
| DS-31 | 25Y | 17.36 | 0.00 | 18.20 | -0.0010 | 12.77 | 12.64 | 114 |
| DS-31 | ANN | 17.36 | 0.00 | 14.69 | 0.0010 | 6.31 | 6.25 | 114 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-32 | 100Y | 17.84 | 0.00 | 21.52 | 0.0010 | 47.33 | 47.17 | 590 |
| DS-32 | 10Y | 17.84 | 0.00 | 16.32 | 0.0010 | 26.52 | 26.44 | 590 |
| DS-32 | 25Y | 17.84 | 0.00 | 17.99 | 0.0010 | 34.16 | 34.05 | 590 |
| DS-32 | ANN | 17.84 | 0.00 | 14.65 | 0.0010 | 16.87 | 16.81 | 590 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-33 | 100Y | 17.42 | 0.00 | 19.66 | 0.0013 | 56.17 | 56.02 | 557 |
| DS-33 | 10Y | 17.42 | 0.00 | 15.75 | 0.0012 | 31.49 | 31.40 | 546 |
| DS-33 | 25Y | 17.42 | 0.00 | 17.03 | 0.0013 | 40.55 | 40.44 | 552 |
| DS-33 | ANN | 17.42 | 0.00 | 14.42 | 0.0013 | 20.03 | 19.97 | 538 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-34 | 100Y | 17.42 | 0.00 | 18.81 | -0.0014 | 62.44 | 62.29 | 368 |
| DS-34 | 10Y | 17.42 | 0.00 | 15.49 | -0.0012 | 34.99 | 34.91 | 368 |
| DS-34 | 25Y | 17.42 | 0.00 | 16.59 | -0.0011 | 45.06 | 44.96 | 368 |
| DS-34 | ANN | 17.42 | 0.00 | 14.32 | -0.0012 | 22.26 | 22.21 | 368 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-35 | 100Y | 15.88 | 0.00 | 17.28 | 0.0786 | 157.35 | 84.01 | 606 |
| DS-35 | 10Y | 15.88 | 0.00 | 15.10 | 0.0786 | 157.35 | 47.00 | 606 |
| DS-35 | 25Y | 15.88 | 0.00 | 15.82 | 0.0786 | 157.35 | 60.57 | 606 |
| DS-35 | ANN | 15.88 | 0.00 | 14.24 | 0.0786 | 157.35 | 29.86 | 606 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-37 | 100Y | 17.58 | 0.00 | 23.96 | 0.0010 | 17.97 | 17.62 | 100 |
| DS-37 | 10Y | 17.58 | 0.00 | 17.09 | 0.0010 | 10.00 | 9.87 | 100 |
| DS-37 | 25Y | 17.58 | 0.00 | 19.25 | -0.0010 | 12.91 | 12.71 | 100 |
| DS-37 | ANN | 17.58 | 0.00 | 14.95 | 0.0010 | 6.34 | 6.27 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-38 | 100Y | 17.56 | 0.00 | 23.01 | 0.0010 | 30.12 | 29.85 | 255 |
| DS-38 | 10Y | 17.56 | 0.00 | 16.79 | 0.0010 | 16.82 | 16.71 | 255 |
| DS-38 | 25Y | 17.56 | 0.00 | 18.76 | 0.0010 | 21.69 | 21.53 | 255 |
| DS-38 | ANN | 17.56 | 0.00 | 14.83 | 0.0010 | 10.68 | 10.62 | 255 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-39 | 100Y | 17.18 | 0.00 | 18.66 | 0.0009 | 15.67 | 15.48 | 100 |
| DS-39 | 10Y | 17.18 | 0.00 | 15.43 | 0.0008 | 8.69 | 8.59 | 100 |
| DS-39 | 25Y | 17.18 | 0.00 | 16.50 | 0.0009 | 11.24 | 11.11 | 100 |
| DS-39 | ANN | 17.18 | 0.00 | 14.29 | 0.0008 | 5.49 | 5.43 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-40 | 100Y | 17.18 | 0.00 | 18.02 | 0.0010 | 22.14 | 21.96 | 217 |
| DS-40 | 10Y | 17.18 | 0.00 | 15.25 | 0.0010 | 12.29 | 12.20 | 214 |
| DS-40 | 25Y | 17.18 | 0.00 | 16.18 | 0.0010 | 15.89 | 15.76 | 215 |
| DS-40 | ANN | 17.18 | 0.00 | 14.24 | 0.0010 | 7.77 | 7.72 | 210 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-41 | 100Y | 17.42 | 0.00 | 19.24 | 0.0014 | 14.64 | 14.45 | 100 |
| DS-41 | 10Y | 17.42 | 0.00 | 15.60 | 0.0010 | 8.11 | 8.02 | 100 |
| DS-41 | 25Y | 17.42 | 0.00 | 16.78 | 0.0011 | 10.49 | 10.36 | 100 |
| DS-41 | ANN | 17.42 | 0.00 | 14.35 | 0.0010 | 5.12 | 5.06 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-42 | 100Y | 17.42 | 0.00 | 18.67 | 0.0076 | 22.58 | 22.41 | 174 |
| DS-42 | 10Y | 17.42 | 0.00 | 15.43 | 0.0076 | 15.38 | 12.44 | 175 |
| DS-42 | 25Y | 17.42 | 0.00 | 16.49 | 0.0076 | 16.20 | 16.08 | 175 |
| DS-42 | ANN | 17.42 | 0.00 | 14.29 | 0.0076 | 15.38 | 7.86 | 175 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-44 | 100Y | 17.09 | 0.00 | 18.63 | 0.0010 | 11.96 | 11.85 | 100 |
| DS-44 | 10Y | 17.09 | 0.00 | 15.07 | 0.0010 | 6.63 | 6.59 | 100 |
| DS-44 | 25Y | 17.09 | 0.00 | 16.19 | 0.0010 | 8.57 | 8.51 | 100 |
| DS-44 | ANN | 17.09 | 0.00 | 14.24 | 0.0010 | 4.19 | 4.17 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-45 | 100Y | 17.09 | 0.00 | 17.30 | 0.0010 | 19.05 | 18.98 | 139 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-45 | 10Y | 17.09 | 0.00 | 14.66 | 0.0009 | 10.54 | 10.50 | 139 |
| DS-45 | 25Y | 17.09 | 0.00 | 15.50 | 0.0010 | 13.65 | 13.60 | 139 |
| DS-45 | ANN | 17.09 | 0.00 | 14.24 | 0.0010 | 6.63 | 6.61 | 139 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-46 | 100Y | 18.00 | 0.00 | 15.82 | 0.0150 | 29.98 | 19.80 | 190 |
| DS-46 | 10Y | 18.00 | 0.00 | 14.50 | 0.0150 | 29.98 | 10.89 | 194 |
| DS-46 | 25Y | 18.00 | 0.00 | 14.74 | 0.0150 | 29.98 | 14.15 | 192 |
| DS-46 | ANN | 18.00 | 0.00 | 14.24 | 0.0150 | 29.98 | 6.81 | 196 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-48 | 100Y | 18.16 | 0.00 | 15.83 | 0.0010 | 0.91 | 0.95 | 100 |
| DS-48 | 10Y | 18.16 | 0.00 | 14.50 | 0.0010 | 0.44 | 0.47 | 100 |
| DS-48 | 25Y | 18.16 | 0.00 | 14.75 | 0.0010 | 0.61 | 0.62 | 100 |
| DS-48 | ANN | 18.16 | 0.00 | 14.24 | 0.0010 | 0.35 | 0.25 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-49 | 100Y | 17.48 | 0.00 | 15.54 | 0.0007 | 5.77 | 5.73 | 100 |
| DS-49 | 10Y | 17.48 | 0.00 | 14.50 | 0.0003 | 3.21 | 3.21 | 100 |
| DS-49 | 25Y | 17.48 | 0.00 | 14.71 | 0.0003 | 4.15 | 4.11 | 100 |
| DS-49 | ANN | 17.48 | 0.00 | 14.24 | -0.0004 | 2.04 | 2.04 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-50 | 100Y | 17.45 | 0.00 | 15.33 | 0.0010 | 12.31 | 12.27 | 180 |
| DS-50 | 10Y | 17.45 | 0.00 | 14.50 | 0.0010 | 6.87 | 6.86 | 179 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-50 | 25Y | 17.45 | 0.00 | 14.71 | 0.0010 | 8.84 | 8.81 | 179 |
| DS-50 | ANN | 17.45 | 0.00 | 14.24 | 0.0010 | 4.36 | 4.35 | 179 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-53 | 100Y | 15.45 | 0.00 | 16.66 | 0.0484 | 97.10 | 40.80 | 629 |
| DS-53 | 10Y | 15.45 | 0.00 | 14.91 | 0.0484 | 97.10 | 28.47 | 612 |
| DS-53 | 25Y | 15.45 | 0.00 | 15.56 | 0.0484 | 97.10 | 33.37 | 619 |
| DS-53 | ANN | 15.45 | 0.00 | 14.24 | 0.0484 | 97.10 | 21.20 | 599 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-54 | 100Y | 17.25 | 0.00 | 16.04 | 0.0014 | 42.71 | 42.70 | 293 |
| DS-54 | 10Y | 17.25 | 0.00 | 14.61 | 0.0013 | 29.69 | 29.67 | 293 |
| DS-54 | 25Y | 17.25 | 0.00 | 15.14 | 0.0014 | 34.84 | 34.82 | 293 |
| DS-54 | ANN | 17.25 | 0.00 | 14.24 | -0.0013 | 22.12 | 22.11 | 293 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-55 | 100Y | 17.25 | 0.00 | 15.56 | 0.0124 | 46.10 | 46.07 | 353 |
| DS-55 | 10Y | 17.25 | 0.00 | 14.50 | 0.0124 | 31.87 | 31.85 | 342 |
| DS-55 | 25Y | 17.25 | 0.00 | 14.83 | 0.0124 | 37.48 | 37.45 | 347 |
| DS-55 | ANN | 17.25 | 0.00 | 14.24 | 0.0124 | 24.79 | 23.64 | 336 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-57 | 100Y | 17.36 | 0.00 | 20.14 | -0.0010 | 9.30 | 9.09 | 100 |
| DS-57 | 10Y | 17.36 | 0.00 | 15.88 | -0.0010 | 5.17 | 5.07 | 100 |
| DS-57 | 25Y | 17.36 | 0.00 | 17.26 | -0.0010 | 6.68 | 6.54 | 100 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-57 | ANN | 17.36 | 0.00 | 14.50 | -0.0004 | 3.28 | 3.24 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-58 | 100Y | 17.36 | 0.00 | 19.92 | -0.0010 | 18.35 | 18.17 | 226 |
| DS-58 | 10Y | 17.36 | 0.00 | 15.81 | -0.0010 | 10.23 | 10.15 | 229 |
| DS-58 | 25Y | 17.36 | 0.00 | 17.14 | -0.0010 | 13.20 | 13.08 | 227 |
| DS-58 | ANN | 17.36 | 0.00 | 14.45 | 0.0004 | 6.51 | 6.47 | 237 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-59 | 100Y | 17.42 | 0.00 | 17.71 | 0.0010 | 27.34 | 27.19 | 131 |
| DS-59 | 10Y | 17.42 | 0.00 | 15.14 | 0.0010 | 15.26 | 15.18 | 131 |
| DS-59 | 25Y | 17.42 | 0.00 | 16.01 | 0.0010 | 19.68 | 19.57 | 131 |
| DS-59 | ANN | 17.42 | 0.00 | 14.24 | 0.0010 | 9.72 | 9.67 | 131 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-60 | 100Y | 17.42 | 0.00 | 16.96 | 0.0010 | 33.67 | 33.52 | 254 |
| DS-60 | 10Y | 17.42 | 0.00 | 14.96 | 0.0010 | 18.80 | 18.71 | 248 |
| DS-60 | 25Y | 17.42 | 0.00 | 15.64 | 0.0010 | 24.23 | 24.14 | 251 |
| DS-60 | ANN | 17.42 | 0.00 | 14.24 | 0.0010 | 11.97 | 11.92 | 243 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-61 | 100Y | 17.37 | 0.00 | 15.35 | 0.0011 | 5.96 | 5.92 | 100 |
| DS-61 | 10Y | 17.37 | 0.00 | 14.50 | 0.0010 | 3.32 | 3.30 | 100 |
| DS-61 | 25Y | 17.37 | 0.00 | 14.71 | 0.0010 | 4.29 | 4.26 | 100 |
| DS-61 | ANN | 17.37 | 0.00 | 14.24 | 0.0010 | 2.11 | 2.10 | 100 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| DS-62 | 100Y | 17.37 | 0.00 | 15.33 | 0.0022 | 10.54 | 10.51 | 188 |
| DS-62 | 10Y | 17.37 | 0.00 | 14.50 | 0.0022 | 5.86 | 5.84 | 189 |
| DS-62 | 25Y | 17.37 | 0.00 | 14.71 | 0.0022 | 7.57 | 7.54 | 189 |
| DS-62 | ANN | 17.37 | 0.00 | 14.24 | 0.0022 | 4.35 | 3.70 | 189 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| PLUCKEBAUM DITCH D/S | 100Y | 16.00 | 0.00 | 15.00 | 0.0001 | 30.09 | 0.00 | 0 |
| PLUCKEBAUM DITCH D/S | 10Y | 16.00 | 0.00 | 15.00 | -0.0001 | 16.11 | 15.13 | 0 |
| PLUCKEBAUM DITCH D/S | 25Y | 16.00 | 0.00 | 15.00 | 0.0001 | 21.44 | 11.83 | 0 |
| PLUCKEBAUM DITCH D/S | ANN | 16.00 | 0.00 | 15.00 | -0.0001 | 11.04 | 17.56 | 0 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| POND-1 | 100Y | 18.00 | 0.00 | 15.33 | -0.0060 | 296.58 | 110.83 | 592803 |
| POND-1 | 10Y | 18.00 | 0.00 | 14.50 | -0.0060 | 179.15 | 110.83 | 569662 |
| POND-1 | 25Y | 18.00 | 0.00 | 14.71 | -0.0060 | 227.55 | 110.83 | 575418 |
| POND-1 | ANN | 18.00 | 0.00 | 14.24 | -0.0060 | 117.57 | 110.83 | 562379 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| POND-2 | 100Y | 18.00 | 0.00 | 16.94 | -0.1346 | 148.31 | 269.82 | 96899 |
| POND-2 | 10Y | 18.00 | 0.00 | 15.06 | -0.1346 | 81.64 | 269.82 | 85550 |
| POND-2 | 25Y | 18.00 | 0.00 | 15.75 | -0.1346 | 105.32 | 269.82 | 89723 |

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| POND-2 | ANN | 18.00 | 0.00 | 14.24 | -0.1346 | 51.77 | 269.82 | 80632 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| POND-3 | 100Y | 18.00 | 0.00 | 16.20 | -0.0552 | 104.52 | 176.23 | 67721 |
| POND-3 | 10Y | 18.00 | 0.00 | 14.63 | -0.0552 | 57.98 | 176.23 | 59957 |
| POND-3 | 25Y | 18.00 | 0.00 | 15.20 | -0.0552 | 75.01 | 176.23 | 62794 |
| POND-3 | ANN | 18.00 | 0.00 | 14.23 | -0.0552 | 36.66 | 176.23 | 58001 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| POND-4 | 100Y | 18.00 | 0.00 | 15.45 | -0.0439 | 101.74 | 150.19 | 175689 |
| POND-4 | 10Y | 18.00 | 0.00 | 14.50 | -0.0439 | 59.65 | 150.19 | 166145 |
| POND-4 | 25Y | 18.00 | 0.00 | 14.75 | -0.0439 | 74.97 | 150.19 | 168678 |
| POND-4 | ANN | 18.00 | 0.00 | 14.24 | -0.0439 | 38.95 | 150.19 | 163545 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| WETLAND 1 | 100Y | 19.00 | 0.00 | 15.33 | 0.0002 | 23.42 | 14.37 | 55049 |
| WETLAND 1 | 10Y | 19.00 | 0.00 | 14.50 | 0.0000 | 8.32 | 8.27 | 49582 |
| WETLAND 1 | 25Y | 19.00 | 0.00 | 14.71 | 0.0001 | 10.71 | 10.65 | 50941 |
| WETLAND 1 | ANN | 19.00 | 0.00 | 14.26 | 0.0000 | 5.34 | 5.30 | 48011 |

Node Max Conditions [Scenario1]

| Node Name | Sim Name | Warning Stage [ft] | Alert Stage [ft] | Max Stage [ft] | Min/Max Delta Stage [ft] | Max Total Inflow [cfs] | Max Total Outflow [cfs] | Max Surface Area [ft2] |
|---|---|---|---|---|---|---|---|---|
| WETLAND 2 | 100Y | 18.00 | 0.00 | 15.85 | 0.0001 | 25.30 | 0.00 | 70418 |
| WETLAND 2 | 10Y | 18.00 | 0.00 | 15.08 | 0.0001 | 14.15 | 0.00 | 64999 |
| WETLAND 2 | 25Y | 18.00 | 0.00 | 15.36 | 0.0001 | 18.21 | 0.00 | 67012 |
| WETLAND 2 | ANN | 18.00 | 0.00 | 14.71 | 0.0001 | 9.09 | 0.00 | 62422 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| CS-1 - Pipe | 100Y | 30.09 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 |
| CS-1 - Weir: 1 | 100Y | 4.76 | 0.00 | 0.02 | 4.58 | 4.58 | 4.58 |
| CS-1 - Weir: 2 | 100Y | 25.98 | 0.00 | 0.05 | 3.31 | 3.31 | 3.31 |
| CS-1 - Pipe | 10Y | 16.11 | -15.13 | 0.03 | 0.00 | 0.00 | 0.00 |
| CS-1 - Weir: 1 | 10Y | 4.76 | -2.70 | -0.01 | 4.58 | 4.58 | 4.58 |
| CS-1 - Weir: 2 | 10Y | 11.55 | -12.43 | 0.02 | 3.04 | 3.04 | 3.04 |
| CS-1 - Pipe | 25Y | 21.44 | -11.83 | 0.03 | 0.00 | 0.00 | 0.00 |
| CS-1 - Weir: 1 | 25Y | 4.76 | -1.98 | -0.01 | 4.58 | 4.58 | 4.58 |
| CS-1 - Weir: 2 | 25Y | 17.04 | -9.84 | 0.02 | 3.21 | 3.21 | 3.21 |
| CS-1 - Pipe | ANN | 11.04 | -17.56 | 0.02 | 0.00 | 0.00 | 0.00 |
| CS-1 - Weir: 1 | ANN | 4.06 | -3.60 | 0.01 | 3.90 | 3.90 | 3.90 |
| CS-1 - Weir: 2 | ANN | 7.52 | -13.96 | 0.01 | -2.80 | -2.80 | -2.80 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS10-DS8 | 100Y | 9.17 | -1.32 | -0.28 | 5.19 | 5.19 | 5.19 |
| P-DS10-DS8 | 10Y | 5.10 | -1.05 | 0.28 | 2.88 | 2.88 | 2.88 |
| P-DS10-DS8 | 25Y | 6.59 | -1.13 | -0.29 | 3.73 | 3.73 | 3.73 |
| P-DS10-DS8 | ANN | 3.22 | -0.83 | -0.22 | 1.82 | -2.70 | 1.82 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS12-DS13 | 100Y | 32.76 | -19.37 | 4.07 | 3.41 | -4.90 | -3.73 |
| P-DS12-DS13 | 10Y | 22.51 | -19.34 | 4.08 | -3.02 | -4.90 | -3.73 |
| P-DS12-DS13 | 25Y | 26.63 | -19.35 | 4.14 | -3.02 | -4.90 | -3.73 |
| P-DS12-DS13 | ANN | 16.30 | -19.33 | -3.93 | -3.02 | -4.90 | -3.73 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS12-POND 3 | 100Y | 3.45 | -102.76 | 2.52 | -10.68 | -11.40 | -11.04 |
| P-DS12-POND 3 | 10Y | 2.79 | -102.76 | -2.38 | -10.68 | -11.40 | -11.04 |
| P-DS12-POND 3 | 25Y | 2.68 | -102.76 | -2.42 | -10.68 | -11.40 | -11.04 |
| P-DS12-POND 3 | ANN | 2.59 | -102.76 | -2.31 | -10.68 | -11.40 | -11.04 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS13-POND 4 | 100Y | 39.53 | -102.87 | 2.56 | -10.69 | -11.41 | -11.05 |
| P-DS13-POND 4 | 10Y | 26.64 | -102.87 | 2.43 | -10.69 | -11.41 | -11.05 |
| P-DS13-POND 4 | 25Y | 31.75 | -102.87 | -2.49 | -10.69 | -11.41 | -11.05 |
| P-DS13-POND 4 | ANN | 19.09 | -102.87 | 2.40 | -10.69 | -11.41 | -11.05 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS15-DS16 | 100Y | 8.35 | -0.45 | 0.23 | 4.73 | 4.73 | 4.73 |
| P-DS15-DS16 | 10Y | 4.60 | -0.84 | -0.24 | 2.60 | -2.70 | 2.60 |
| P-DS15-DS16 | 25Y | 5.97 | -0.58 | -0.24 | 3.38 | 3.38 | 3.38 |
| P-DS15-DS16 | ANN | 2.88 | -0.87 | 0.22 | 1.63 | -2.73 | 1.63 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS16-DS17 | 100Y | 20.73 | -1.37 | 0.89 | 6.60 | 6.60 | 6.60 |
| P-DS16-DS17 | 10Y | 11.43 | -0.93 | -0.86 | 3.64 | 3.64 | 3.64 |
| P-DS16-DS17 | 25Y | 14.84 | -1.10 | -0.89 | 4.72 | 4.72 | 4.72 |

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS16-DS17 | ANN | 7.17 | -0.86 | 0.84 | 2.28 | -2.48 | 2.28 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS17-DS18 | 100Y | 29.09 | -1.40 | -1.48 | 5.93 | 5.93 | 5.93 |
| P-DS17-DS18 | 10Y | 16.09 | -1.03 | -1.45 | 3.28 | 3.28 | 3.28 |
| P-DS17-DS18 | 25Y | 20.85 | -1.25 | 1.47 | 4.25 | 4.25 | 4.25 |
| P-DS17-DS18 | ANN | 10.13 | -0.89 | -1.33 | 2.06 | -2.45 | 2.06 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS18-POND 3 | 100Y | 28.97 | -44.72 | -1.22 | -9.11 | -9.70 | -9.41 |
| P-DS18-POND 3 | 10Y | 16.03 | -44.72 | -1.21 | -9.11 | -9.70 | -9.41 |
| P-DS18-POND 3 | 25Y | 20.76 | -44.72 | -1.22 | -9.11 | -9.70 | -9.41 |
| P-DS18-POND 3 | ANN | 10.08 | -44.72 | -1.16 | -9.11 | -9.70 | -9.41 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS2-DS3 | 100Y | 5.04 | -17.08 | 3.66 | 1.86 | 3.89 | 2.88 |
| P-DS2-DS3 | 10Y | 4.81 | -11.33 | -3.70 | 1.84 | 3.84 | 2.84 |
| P-DS2-DS3 | 25Y | 4.89 | -13.42 | 3.64 | 1.85 | 3.86 | 2.85 |
| P-DS2-DS3 | ANN | 5.36 | -8.64 | -3.69 | 1.82 | 3.82 | 2.82 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS2-POND1 | 100Y | 17.31 | -46.65 | 2.44 | -4.85 | -7.60 | -6.23 |
| P-DS2-POND1 | 10Y | 11.51 | -46.65 | 2.47 | -4.85 | -7.60 | -6.23 |
| P-DS2-POND1 | 25Y | 13.64 | -46.65 | 2.47 | -4.85 | -7.60 | -6.23 |
| P-DS2-POND1 | ANN | 8.34 | -46.65 | -2.48 | -4.85 | -7.60 | -6.23 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS20-DS21 | 100Y | 15.47 | -1.64 | -0.55 | 4.92 | 4.92 | 4.92 |
| P-DS20-DS21 | 10Y | 8.63 | -0.95 | 0.41 | 2.75 | 2.75 | 2.75 |
| P-DS20-DS21 | 25Y | 11.13 | -1.18 | -0.40 | 3.54 | 3.54 | 3.54 |
| P-DS20-DS21 | ANN | 5.48 | -0.74 | 0.33 | 1.74 | -2.50 | 1.74 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS21-POND 3 | 100Y | 23.77 | -19.16 | 0.35 | 7.57 | 7.57 | 7.57 |
| P-DS21-POND 3 | 10Y | 13.26 | -19.16 | 0.35 | -6.10 | -7.22 | -6.66 |
| P-DS21-POND 3 | 25Y | 17.10 | -19.16 | 0.35 | -6.10 | -7.22 | -6.66 |
| P-DS21-POND 3 | ANN | 8.42 | -19.16 | 0.35 | -6.10 | -7.22 | -6.66 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS23-DS24 | 100Y | 9.06 | -0.03 | 0.17 | 5.13 | 5.13 | 5.13 |
| P-DS23-DS24 | 10Y | 5.06 | -0.02 | 0.14 | 2.86 | 2.86 | 2.86 |
| P-DS23-DS24 | 25Y | 6.52 | -0.03 | -0.13 | 3.69 | 3.69 | 3.69 |
| P-DS23-DS24 | ANN | 3.22 | -0.02 | -0.16 | 2.59 | 2.26 | 2.42 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS24-DS25 | 100Y | 15.06 | -1.20 | -0.38 | 4.79 | 4.79 | 4.79 |
| P-DS24-DS25 | 10Y | 8.41 | -1.19 | -0.33 | 2.68 | -2.83 | 2.68 |
| P-DS24-DS25 | 25Y | 10.84 | -1.19 | 0.33 | 3.45 | 3.45 | 3.45 |
| P-DS24-DS25 | ANN | 5.36 | -1.18 | 0.50 | 2.13 | -2.83 | 1.88 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS25-POND 3 | 100Y | 14.94 | -9.56 | 0.42 | 4.75 | -5.41 | 4.75 |
| P-DS25-POND 3 | 10Y | 8.34 | -9.56 | 0.43 | -3.04 | -5.41 | -4.21 |
| P-DS25-POND 3 | 25Y | 10.75 | -9.56 | 0.42 | 3.42 | -5.41 | -4.21 |
| P-DS25-POND 3 | ANN | 5.32 | -9.56 | 0.44 | -3.04 | -5.41 | -4.21 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS27-DS28 | 100Y | 2.77 | 0.00 | 0.94 | 1.99 | 0.88 | 1.33 |
| P-DS27-DS28 | 10Y | 1.57 | 0.00 | -0.92 | 2.06 | 0.83 | 1.41 |
| P-DS27-DS28 | 25Y | 1.99 | 0.00 | 0.93 | 2.03 | 0.75 | 1.36 |
| P-DS27-DS28 | ANN | 1.02 | 0.00 | -0.02 | 1.84 | 0.96 | 1.37 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS28-POND 3 | 100Y | 2.64 | -0.03 | -0.72 | 0.84 | 0.84 | 0.84 |
| P-DS28-POND 3 | 10Y | 1.47 | -0.03 | -0.75 | 0.77 | 0.47 | 0.59 |
| P-DS28-POND 3 | 25Y | 1.90 | -0.03 | 0.74 | 0.69 | 0.61 | 0.62 |
| P-DS28-POND 3 | ANN | 0.96 | -0.04 | 0.06 | 0.90 | 0.36 | 0.62 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS3-DS4 | 100Y | 2.05 | -16.88 | 3.84 | -1.75 | 3.01 | 2.19 |
| P-DS3-DS4 | 10Y | 4.69 | -11.05 | -3.75 | 1.32 | 2.68 | 1.94 |
| P-DS3-DS4 | 25Y | 3.67 | -13.31 | -4.07 | 1.40 | 2.81 | 2.05 |
| P-DS3-DS4 | ANN | 5.28 | -9.24 | -4.07 | 1.19 | 2.45 | 1.77 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS30-DS31 | 100Y | 8.75 | -0.12 | 1.10 | 2.78 | 2.78 | 2.78 |
| P-DS30-DS31 | 10Y | 4.91 | -0.11 | 1.13 | 1.56 | 1.56 | 1.56 |
| P-DS30-DS31 | 25Y | 6.32 | -0.11 | 1.14 | 2.01 | 2.01 | 2.01 |
| P-DS30-DS31 | ANN | 3.12 | -0.10 | 0.95 | 1.54 | -1.51 | 1.28 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS31-DS32 | 100Y | 17.49 | -0.62 | 1.85 | 3.56 | 3.56 | 3.56 |
| P-DS31-DS32 | 10Y | 9.82 | -0.60 | 1.77 | 2.00 | -2.28 | 2.00 |
| P-DS31-DS32 | 25Y | 12.64 | -0.60 | -1.75 | 2.57 | 2.57 | 2.57 |
| P-DS31-DS32 | ANN | 6.25 | -0.59 | -1.79 | 1.76 | -2.28 | 1.36 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS32-DS33 | 100Y | 47.17 | -2.44 | 2.34 | 6.67 | 6.67 | 6.67 |
| P-DS32-DS33 | 10Y | 26.44 | -1.83 | 2.29 | 3.74 | 3.74 | 3.74 |
| P-DS32-DS33 | 25Y | 34.05 | -2.01 | 2.31 | 4.82 | 4.82 | 4.82 |
| P-DS32-DS33 | ANN | 16.81 | -1.64 | 2.18 | 2.38 | -2.64 | 2.38 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS33-DS34 | 100Y | 56.02 | -2.87 | -4.14 | 5.82 | 5.82 | 5.82 |
| P-DS33-DS34 | 10Y | 31.40 | -2.81 | 4.09 | 3.26 | 3.26 | 3.26 |
| P-DS33-DS34 | 25Y | 40.44 | -2.64 | 4.11 | 4.20 | 4.20 | 4.20 |
| P-DS33-DS34 | ANN | 19.97 | -2.57 | -3.89 | 2.08 | 2.08 | 2.08 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS34-DS35 | 100Y | 62.29 | -3.08 | 3.12 | 6.47 | 6.47 | 6.47 |
| P-DS34-DS35 | 10Y | 34.91 | -2.91 | 3.15 | 3.63 | 3.63 | 3.63 |
| P-DS34-DS35 | 25Y | 44.96 | -2.76 | 3.17 | 4.67 | 4.67 | 4.67 |
| P-DS34-DS35 | ANN | 22.21 | -2.67 | 3.06 | 2.31 | -2.79 | 2.31 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS35-POND 2 | 100Y | 84.01 | -157.35 | -3.50 | -12.52 | -12.88 | -12.70 |
| P-DS35-POND 2 | 10Y | 47.00 | -157.35 | -3.54 | -12.52 | -12.88 | -12.70 |
| P-DS35-POND 2 | 25Y | 60.57 | -157.35 | -3.46 | -12.52 | -12.88 | -12.70 |
| P-DS35-POND 2 | ANN | 29.86 | -157.35 | -3.41 | -12.52 | -12.88 | -12.70 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS37-DS38 | 100Y | 17.62 | -1.93 | -0.70 | 5.61 | 5.61 | 5.61 |
| P-DS37-DS38 | 10Y | 9.87 | -1.49 | -0.71 | 3.14 | 3.14 | 3.14 |
| P-DS37-DS38 | 25Y | 12.71 | -1.62 | -0.74 | 4.05 | 4.05 | 4.05 |
| P-DS37-DS38 | ANN | 6.27 | -1.28 | -0.69 | 2.00 | -2.88 | 2.00 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS38-DS32 | 100Y | 29.85 | -2.24 | -1.33 | 6.08 | 6.08 | 6.08 |
| P-DS38-DS32 | 10Y | 16.71 | -1.66 | -1.29 | 3.40 | 3.40 | 3.40 |
| P-DS38-DS32 | 25Y | 21.53 | -1.90 | -1.31 | 4.39 | 4.39 | 4.39 |
| P-DS38-DS32 | ANN | 10.62 | -1.39 | -1.30 | 2.16 | -2.84 | 2.16 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS39-DS40 | 100Y | 15.48 | -1.10 | -0.70 | 4.93 | 4.93 | 4.93 |
| P-DS39-DS40 | 10Y | 8.59 | -0.75 | -0.82 | 2.73 | 2.73 | 2.73 |
| P-DS39-DS40 | 25Y | 11.11 | -0.87 | 0.77 | 3.54 | 3.54 | 3.54 |
| P-DS39-DS40 | ANN | 5.43 | -0.55 | -0.88 | 1.73 | -2.31 | 1.73 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS4-POND4 | 100Y | 8.29 | -47.32 | -2.65 | -4.92 | -7.66 | -6.28 |
| P-DS4-POND4 | 10Y | 4.14 | -47.32 | -2.53 | -4.92 | -7.66 | -6.28 |
| P-DS4-POND4 | 25Y | 5.22 | -47.32 | 3.03 | -4.92 | -7.66 | -6.28 |
| P-DS4-POND4 | ANN | 4.42 | -47.32 | -2.83 | -4.92 | -7.66 | -6.28 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS40-DS35 | 100Y | 21.96 | -1.86 | -1.31 | 4.47 | 4.47 | 4.47 |
| P-DS40-DS35 | 10Y | 12.20 | -1.31 | 1.26 | 2.48 | -2.80 | 2.48 |
| P-DS40-DS35 | 25Y | 15.76 | -1.55 | 1.33 | 3.21 | 3.21 | 3.21 |
| P-DS40-DS35 | ANN | 7.72 | -1.10 | 1.21 | 1.57 | -2.67 | 1.57 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS41-DS42 | 100Y | 14.45 | -2.79 | 0.51 | 4.60 | 4.60 | 4.60 |

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS41-DS42 | 10Y | 8.02 | -1.83 | 0.49 | 2.55 | -3.18 | 2.55 |
| P-DS41-DS42 | 25Y | 10.36 | -2.03 | -0.48 | 3.30 | 3.30 | 3.30 |
| P-DS41-DS42 | ANN | 5.06 | -1.50 | -0.41 | 1.61 | -3.01 | -1.97 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS42-POND 2 | 100Y | 22.41 | -15.38 | 0.90 | 7.13 | 7.13 | 7.13 |
| P-DS42-POND 2 | 10Y | 12.44 | -15.38 | 0.90 | -4.90 | -6.50 | -5.69 |
| P-DS42-POND 2 | 25Y | 16.08 | -15.38 | 0.90 | 5.12 | -6.50 | -5.69 |
| P-DS42-POND 2 | ANN | 7.86 | -15.38 | 0.90 | -4.90 | -6.50 | -5.69 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS44-DS45 | 100Y | 11.85 | -1.69 | 0.13 | 6.70 | 6.70 | 6.70 |
| P-DS44-DS45 | 10Y | 6.59 | -1.31 | -0.13 | 3.73 | 3.73 | 3.73 |
| P-DS44-DS45 | 25Y | 8.51 | -1.49 | -0.13 | 4.82 | 4.82 | 4.82 |
| P-DS44-DS45 | ANN | 4.17 | -1.03 | 0.10 | 2.36 | -2.87 | 2.36 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS45-DS46 | 100Y | 18.98 | -1.99 | -0.31 | 6.04 | 6.04 | 6.04 |
| P-DS45-DS46 | 10Y | 10.50 | -1.89 | 0.30 | 3.34 | 3.34 | 3.34 |
| P-DS45-DS46 | 25Y | 13.60 | -1.93 | 0.32 | 4.33 | 4.33 | 4.33 |
| P-DS45-DS46 | ANN | 6.61 | -1.85 | -0.26 | 2.10 | -3.27 | 2.10 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow | Min Flow [cfs] | Min/Max | Max Us | Max Ds | Max Avg |
|---|---|---|---|---|---|---|---|

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS46-POND 1 | 100Y | 19.80 | -29.98 | 0.22 | -9.54 | -9.84 | -9.69 |
| P-DS46-POND 1 | 10Y | 10.89 | -29.98 | -0.20 | -9.54 | -9.84 | -9.69 |
| P-DS46-POND 1 | 25Y | 14.15 | -29.98 | -0.21 | -9.54 | -9.84 | -9.69 |
| P-DS46-POND 1 | ANN | 6.81 | -29.98 | 0.16 | -9.54 | -9.84 | -9.69 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS48-DS46 | 100Y | 0.95 | -0.38 | -0.38 | 0.54 | -2.19 | -1.24 |
| P-DS48-DS46 | 10Y | 0.47 | -0.36 | -0.43 | -0.30 | -2.16 | -1.22 |
| P-DS48-DS46 | 25Y | 0.62 | -0.37 | -0.44 | 0.35 | -2.17 | -1.23 |
| P-DS48-DS46 | ANN | 0.25 | -0.35 | 0.03 | -0.29 | -2.15 | -1.21 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS49-DS50 | 100Y | 5.73 | -0.05 | -0.31 | 3.24 | 3.24 | 3.24 |
| P-DS49-DS50 | 10Y | 3.21 | -0.04 | 0.22 | 2.19 | 1.94 | 2.06 |
| P-DS49-DS50 | 25Y | 4.11 | -0.04 | 0.16 | 2.33 | 2.33 | 2.33 |
| P-DS49-DS50 | ANN | 2.04 | -0.04 | -0.05 | 2.12 | 1.60 | 1.84 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS50-POND 1 | 100Y | 12.27 | -0.33 | 0.12 | 3.91 | 3.91 | 3.91 |
| P-DS50-POND 1 | 10Y | 6.86 | -0.32 | -0.11 | 3.09 | 2.18 | 2.64 |
| P-DS50-POND 1 | 25Y | 8.81 | -0.33 | 0.11 | 3.13 | 2.80 | 2.94 |
| P-DS50-POND 1 | ANN | 4.35 | -0.32 | -0.05 | 2.71 | -2.00 | 2.05 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS53-POND 2 | 100Y | 3.31 | -97.10 | 3.24 | -10.09 | -10.96 | -10.52 |
| P-DS53-POND 2 | 10Y | 2.75 | -97.10 | 3.24 | -10.09 | -10.96 | -10.52 |
| P-DS53-POND 2 | 25Y | 2.90 | -97.10 | 3.24 | -10.09 | -10.96 | -10.52 |
| P-DS53-POND 2 | ANN | 2.79 | -97.10 | 3.24 | -10.09 | -10.96 | -10.52 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS54-DS53 | 100Y | 3.82 | -40.80 | -3.32 | -4.24 | 5.02 | -4.24 |
| P-DS54-DS53 | 10Y | 3.00 | -28.47 | -3.17 | -2.96 | 4.47 | 3.26 |
| P-DS54-DS53 | 25Y | 2.66 | -33.37 | -3.30 | -3.47 | 4.73 | -3.47 |
| P-DS54-DS53 | ANN | 3.27 | -21.20 | -3.14 | -2.20 | 4.15 | 3.03 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS55-DS54 | 100Y | 3.82 | -42.70 | 3.88 | -4.44 | -4.44 | -4.44 |
| P-DS55-DS54 | 10Y | 3.11 | -29.67 | -3.75 | -3.08 | -3.08 | -3.08 |
| P-DS55-DS54 | 25Y | 2.63 | -34.82 | 3.59 | -3.62 | -3.62 | -3.62 |
| P-DS55-DS54 | ANN | 3.49 | -22.11 | -3.49 | -2.31 | 2.49 | -2.30 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS55-POND 1 | 100Y | 46.07 | -24.79 | 2.34 | 4.79 | -6.13 | 4.79 |
| P-DS55-POND 1 | 10Y | 31.85 | -24.79 | 2.24 | 3.31 | -6.13 | -4.35 |
| P-DS55-POND 1 | 25Y | 37.45 | -24.79 | 2.31 | 3.89 | -6.13 | -4.35 |
| P-DS55-POND | ANN | 23.64 | -24.79 | 2.22 | -2.58 | -6.13 | -4.35 |

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS57-DS58 | 100Y | 9.09 | 0.00 | 1.19 | 2.89 | 2.89 | 2.89 |
| P-DS57-DS58 | 10Y | 5.07 | 0.00 | 1.10 | 2.00 | 1.61 | 1.68 |
| P-DS57-DS58 | 25Y | 6.54 | 0.00 | 1.12 | 2.08 | 2.08 | 2.08 |
| P-DS57-DS58 | ANN | 3.24 | 0.00 | -0.04 | 1.98 | 1.52 | 1.70 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS58-DS59 | 100Y | 18.17 | 0.00 | 0.47 | 5.79 | 5.79 | 5.79 |
| P-DS58-DS59 | 10Y | 10.15 | -0.01 | -0.39 | 3.23 | 3.23 | 3.23 |
| P-DS58-DS59 | 25Y | 13.08 | 0.00 | 0.48 | 4.16 | 4.16 | 4.16 |
| P-DS58-DS59 | ANN | 6.47 | -0.02 | 0.13 | 3.04 | 2.06 | 2.55 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS59-DS60 | 100Y | 27.19 | -1.69 | 1.66 | 5.54 | 5.54 | 5.54 |
| P-DS59-DS60 | 10Y | 15.18 | -1.16 | -1.67 | 3.09 | 3.09 | 3.09 |
| P-DS59-DS60 | 25Y | 19.57 | -1.38 | -1.69 | 3.99 | 3.99 | 3.99 |
| P-DS59-DS60 | ANN | 9.67 | -0.89 | -1.61 | 1.97 | -2.54 | 1.97 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS60-DS53 | 100Y | 33.52 | -2.21 | 2.55 | 4.74 | 4.74 | 4.74 |
| P-DS60-DS53 | 10Y | 18.71 | -1.58 | 2.58 | 2.65 | -2.85 | 2.65 |
| P-DS60-DS53 | 25Y | 24.14 | -1.81 | 2.52 | 3.41 | 3.41 | 3.41 |
| P-DS60-DS53 | ANN | 11.92 | -1.24 | -2.10 | 1.69 | -2.68 | 1.69 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS61-DS62 | 100Y | 5.92 | -2.04 | 0.27 | 3.35 | -3.48 | 3.35 |
| P-DS61-DS62 | 10Y | 3.30 | -1.60 | 0.24 | 1.87 | -3.24 | -2.17 |
| P-DS61-DS62 | 25Y | 4.26 | -1.74 | 0.18 | 2.41 | -3.32 | 2.41 |
| P-DS61-DS62 | ANN | 2.10 | -1.32 | 0.12 | 1.19 | -3.07 | -2.03 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS62-POND 1 | 100Y | 10.51 | -4.35 | -0.19 | 3.34 | -4.18 | 3.34 |
| P-DS62-POND 1 | 10Y | 5.84 | -4.35 | -0.18 | 1.86 | -4.18 | -2.78 |
| P-DS62-POND 1 | 25Y | 7.54 | -4.35 | -0.14 | 2.40 | -4.18 | -2.78 |
| P-DS62-POND 1 | ANN | 3.70 | -4.35 | -0.10 | -1.39 | -4.18 | -2.78 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS64-DS65 | 100Y | 5.92 | -2.10 | 0.37 | 3.35 | -3.51 | 3.35 |
| P-DS64-DS65 | 10Y | 3.30 | -1.62 | 0.52 | 1.87 | -3.26 | -2.21 |
| P-DS64-DS65 | 25Y | 4.26 | -1.78 | 0.26 | 2.41 | -3.34 | 2.41 |
| P-DS64-DS65 | ANN | 2.10 | -1.31 | 0.46 | 1.19 | -3.06 | -2.05 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS65-POND 1 | 100Y | 7.37 | -4.78 | -0.51 | 2.35 | -4.30 | -2.91 |
| P-DS65-POND 1 | 10Y | 4.11 | -4.78 | -0.69 | -1.52 | -4.30 | -2.91 |
| P-DS65-POND 1 | 25Y | 5.30 | -4.78 | -0.38 | 1.69 | -4.30 | -2.91 |
| P-DS65-POND | ANN | 2.62 | -4.78 | -0.68 | -1.52 | -4.30 | -2.91 |

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS7-DS4 | 100Y | 19.05 | -1.87 | 1.41 | 3.88 | 3.88 | 3.88 |
| P-DS7-DS4 | 10Y | 10.59 | -1.34 | 1.34 | 2.16 | -2.67 | 2.16 |
| P-DS7-DS4 | 25Y | 13.65 | -1.53 | 1.41 | 2.78 | -2.80 | 2.78 |
| P-DS7-DS4 | ANN | 6.71 | -1.02 | 1.38 | 1.37 | -2.49 | -1.37 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS8-DS7 | 100Y | 15.74 | -1.89 | -0.85 | 5.01 | 5.01 | 5.01 |
| P-DS8-DS7 | 10Y | 8.78 | -1.35 | 0.79 | 2.80 | 2.80 | 2.80 |
| P-DS8-DS7 | 25Y | 11.32 | -1.54 | 0.83 | 3.60 | 3.60 | 3.60 |
| P-DS8-DS7 | ANN | 5.59 | -1.02 | 0.73 | 1.78 | -2.28 | 1.78 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| P-DS9-DS8 | 100Y | 3.95 | -1.25 | 0.43 | 2.23 | -3.02 | 2.23 |
| P-DS9-DS8 | 10Y | 2.22 | -0.92 | -0.36 | 1.26 | -2.78 | -1.80 |
| P-DS9-DS8 | 25Y | 2.85 | -1.04 | -0.36 | 1.61 | -2.87 | -1.87 |
| P-DS9-DS8 | ANN | 1.43 | -0.71 | -0.33 | 0.81 | -2.59 | -1.65 |

Link Min/Max Conditions [Scenario1]

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| Wetland 1 Connector | 100Y | 14.37 | -8.89 | -0.16 | -0.14 | -0.14 | -0.14 |
| Wetland 1 Connector | 10Y | 8.27 | -1.09 | -0.02 | -0.01 | -0.01 | -0.01 |

| Link Name | Sim Name | Max Flow [cfs] | Min Flow [cfs] | Min/Max Delta Flow [cfs] | Max Us Velocity [fps] | Max Ds Velocity [fps] | Max Avg Velocity [fps] |
|---|---|---|---|---|---|---|---|
| Wetland 1 Connector | 25Y | 10.65 | -4.61 | -0.12 | -0.07 | -0.07 | -0.07 |
| Wetland 1 Connector | ANN | 5.30 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |

# APPENDIX D
# EXCERPTS FROM LAKESIDE PALMS WEST STORMWATER REPORT (PREPARED BY MORGAN & ASSOCIATES)

| | |
|---|---|
| 15.0 | 1.1400 |
| 15.5 | 1.6900 |
| 16.0 | 3.0000 |

---

Name: PLB-200 Base Flow(cfs): 0.000 Init Stage(ft): 9.000
Group: BASE Warn Stage(ft): 16.000
Type: Time/Stage

PLUCKEBAUM DITCH NODE

| Time(hrs) | Stage(ft) |
|---|---|
| 0.00 | 9.0 |
| 14.00 | 12.0 |
| 24.00 | 15.0 |
| 36.00 | 12.0 |

---

Name: TRI-100-RCKPnd Base Flow(cfs): 0.000 Init Stage(ft): 11.000
Group: BASE Warn Stage(ft): 17.000
Type: Stage/Area

ROCKPOND Node

| Stage(ft) | Area(ac) |
|---|---|
| 9.0 | 30.0000 |
| 11.1 | 35.1000 |
| 12.0 | 37.4000 |
| 15.0 | 44.1300 |
| 16.0 | 50.5600 |
| 17.0 | 67.1800 |
| 18.0 | 128.4600 |

---

Name: TRI-200 Base Flow(cfs): 0.000 Init Stage(ft): 11.100
Group: BASE Warn Stage(ft): 17.000
Type: Stage/Area

OUTFALL NODE FROM ROCKPOND BEFORE THE BOX CULVERT
NODE NAME MATCHES SC NATURAL RESOURCES
WEST COCOA WATERSHED EVALUATION ICPR MODEL

| Stage(ft) | Area(ac) |
|---|---|
| 9.4 | 0.1000 |
| 18.0 | 0.1000 |

==========
==== Pipes ==========
==========

Name: CLKRD-TRI100-P1 From Node: CLK RD ROW Length(ft): 42.00
Group: BASE To Node: TRI-100-RCKPnd Count: 1
Friction Equation: Automatic
Solution Algorithm: Most Restrictive
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

| | UPSTREAM | DOWNSTREAM |
|---|---|---|
| Geometry: | Circular | Circular |
| Span(in): | 60.00 | 60.00 |
| Rise(in): | 60.00 | 60.00 |
| Invert(ft): | 9.280 | 9.250 |
| Manning's N: | 0.012000 | 0.012000 |
| Top Clip(in): | 0.000 | 0.000 |
| Bot Clip(in): | 0.000 | 0.000 |

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Culvert at Clearlake into RockPond (1 of 2)

---

Name: CLKRD-TRI100-P2 From Node: CLK RD ROW Length(ft): 42.00

# APPENDIX E
# SOIL BORINGS DATA

**Preserve at Pluckebaum**
**Soil Boring Elevations**

Soil boring data based on existing conditions survey and soils report prepared by Universal Engineering Sciences, LLC project number 0330.2200036.0000 dated April 13, 2022.

***Borings related to proposed perimeter stormwater areas.***

| Soil Boring ID | Existing Ground Elevation (ft - NAVD88) | Existing Groundwater Measurement | | Estimated WSHWT Elevation (ft - NAVD88) |
|---|---|---|---|---|
| | | distance bls (feet) | elevation (ft - NAVD88) | |
| ***B-1*** | ***14*** | ***-0.3*** | ***13.7*** | ***14.7*** |
| ***B-2*** | ***14*** | ***-0.2*** | ***13.8*** | ***14.8*** |
| ***B-3*** | ***14*** | ***-0.1*** | ***13.9*** | ***14.9*** |
| B-4 | 14 | -0.4 | 13.6 | 14.6 |
| B-5 | 14.18 | -0.2 | 13.98 | 14.98 |
| B-6 | 13.51 | -0.2 | 13.31 | 14.31 |
| B-7 | 14.72 | -1 | 13.72 | 14.72 |
| ***B-8*** | ***14.2*** | ***-2.2*** | ***12*** | ***13*** |
| B-9 | 14.54 | 0 | 14.54 | 15.54 |
| B-10 | 16.65 | 0 | 16.65 | 17.65 |
| T-1 | 14.5 | -1.8 | 12.7 | 13.7 |
| T-2 | 15.2 | -1.4 | 13.8 | 14.8 |
| T-3 | 14.1 | -1.3 | 12.8 | 13.8 |
| T-4 | 14.3 | -0.7 | 13.6 | 14.6 |
| ***T-5*** | ***15.19*** | ***-2.8*** | ***12.39*** | ***13.39*** |
| T-6 | 16.65 | -1.8 | 14.85 | 15.85 |
| T-7 | 15 | -1.3 | 13.7 | 14.7 |
| T-8 | 16.2 | -1.8 | 14.4 | 15.4 |

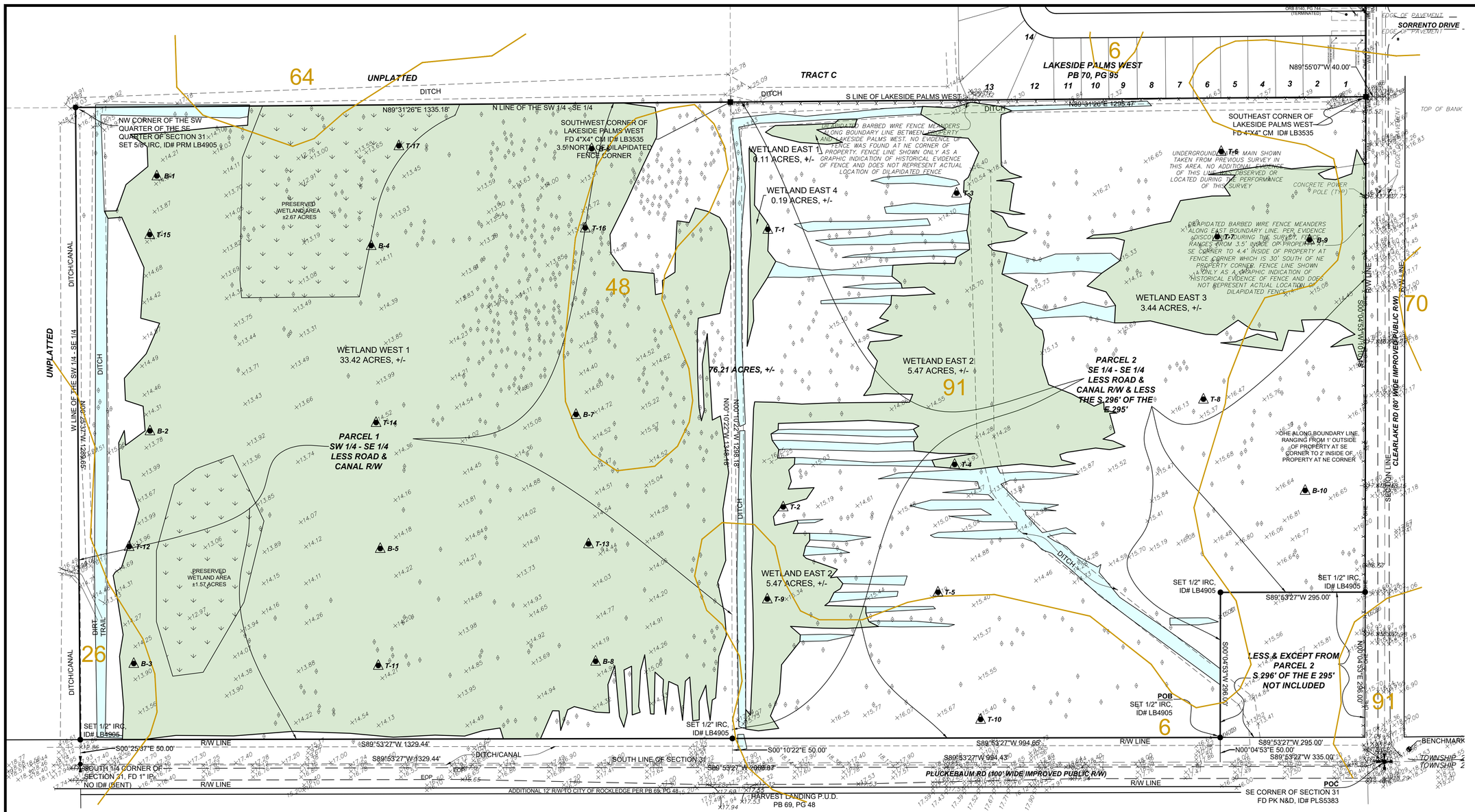
**Preserve at Pluckebaum**
**Soil Boring Elevations**

Soil boring data based on existing conditions survey and soils report prepared by Universal Engineering Sciences, LLC project number 0330.2200036.0000 dated April 13, 2022.

***Borings related to proposed perimeter stormwater areas.***

| Soil Boring ID | Existing Ground Elevation (ft - NAVD88) | Existing Groundwater Measurement | | Estimated WSHWT Elevation (ft - NAVD88) |
|---|---|---|---|---|
| | | distance bls (feet) | elevation (ft - NAVD88) | |
| T-9 | 15.3 | -0.8 | 14.5 | 15.5 |
| ***T-10*** | ***15.4*** | ***-3.6*** | ***11.8*** | ***12.8*** |
| ***T-11*** | ***14.2*** | ***-1.9*** | ***12.3*** | ***13.3*** |
| ***T-12*** | ***14*** | ***0*** | ***14*** | ***15*** |
| T-13 | 14.5 | -0.5 | 14 | 15 |
| T-14 | 14.52 | -0.4 | 14.12 | 15.12 |
| ***T-15*** | ***14*** | ***0*** | ***14*** | ***15*** |
| T-16 | 13.76 | -1.3 | 12.46 | 13.46 |
| T-17 | 13.65 | -0.1 | 13.55 | 14.55 |

The normal water level (NWL) of the interconnected stormwater system was set at elevation 13 feet NAVD88. Elevation 13 ft is consistent with elevations of the preserved wetland areas and promotes hydration without overinnudating (refer to the blue highlighted borings above) and is generally 2 feet below the existing land elevation for a majority of the site.




## SOILS RESOURCE REPORT MAP TABLE

| MAP UNIT SYMBOL | MAP UNIT NAME | ACRES IN AOI | PERCENT OF AOI |
|---|---|---|---|
| 6 | BASINGER SAND, DEPRESSIONAL | 19.9 | 19.8% |
| 26 | HOLOPAW SAND, 0 TO 2 PERCENT SLOPES | 2.8 | 2.7% |
| 48 | DELRAY SAND, OCCASIONALLY FLOODED | 3.7 | 3.7% |
| 64 | TERRA CEIA MUCK, FREQUENTLY FLOODED | 2.1 | 2.1% |
| 70 | VALKARIA SAND | 0.2 | 0.2% |
| 91 | ANCOLTE SAND | 72.1 | 71.6% |
| **TOTALS FOR AREA OF INTEREST** | | **100.7** | **100.0%** |

FLOOD ZONE INFORMATION:
THIS PROPERTY IS LOCATED IN FLOOD ZONE AE, WITH A BASE FLOOD ELEVATION 17 (NAVD88) PER THE FIRM FLOOD INSURANCE RATE MAP FOR CITY OF COCOA, FLORIDA, PANEL 425 OF 825, MAP NUMBER: 12009C0425G, MAP REVISED: MARCH 17, 2014

## WETLAND AND STORM WATER IMPACT AND PRESERVATION

WETLAND WEST 1
AREA= ±33.42 ACRES
IMPACT= ±29.18 ACRES (87%)
PRESERVED= ±4.24ACRES

WETLAND EAST 1
AREA= ±0.11 ACRES
IMPACT= ±0.11 ACRES (100%)
PRESERVED= 0 ACRES

WETLAND EAST 2
AREA= ±5.47 ACRES
IMPACT= ±5.47 ACRES (100%)
PRESERVED= 0 ACRES

WETLAND EAST 3
AREA= ±3.44 ACRES
IMPACT= ±3.44 ACRES (100%)
RESERVED= 0 ACRES

WETLAND EAST 4
AREA= ±0.19 ACRES
IMPACT= ±0.19 ACRES (100%)
PRESERVED= 0 ACRES

TOTAL WETLAND AREA:
AREA= ±42.63 ACRES
IMPACTED= ±38.39 ACRES
PRESERVED= ±4.26 ACRES

OTHER SURFACE WATER
TOTAL AREA= ±3.57 ACRES
TOTAL IMPACT= ±3.57 ACRES (100%)
TOTAL PRESERVED= 0 ACRES

## TREE LEGEND

- PALM TREE
- PINE TREE
- OAK TREE
- CYPRES TREE
- GUAVA TREE
- UNKNOWN TREE

## LEGEND

- EXISTING WETLAND (± 42.63 ACERS)
- OSW (OTHER SURFACE WATER) (± 3.57 ACERS)

## ABBREVIATIONS

| | |
|---|---|
| A/C | AIR CONDITIONER |
| AL | ARC LENGTH |
| AVE | AVENUE |
| BLVD | BOULEVARD |
| BM | BENCH MARK |
| BOC | BEGINNING OF CURVE |
| CL | CENTERLINE |
| CA | CENTRAL ANGLE |
| CB | CHORD BEARING |
| CBS | CONCRETE BLOCK STRUCTURE |
| CH | CHORD LENGTH |
| CM | CONCRETE MONUMENT |
| CMP | CORRUGATED METAL PIPE |
| CONC | CONCRETE |
| COR | CORNER |
| DEL | DELTA / CENTRAL ANGLE |
| DRI | DEVELOPMENT OF REGIONAL IMPACT |
| ELEC | ELECTRIC |
| ELE/ELEV | ELEVATION |
| EOC | END OF CURVE |
| EOP | EDGE OF PAVEMENT |
| EOW | EDGE OF WATER |
| ERCP | ELLIPTICAL REINFORCED CONCRETE PIPE |
| ESMT | EASEMENT |
| FD | FOUND |
| FFE | FINISHED FLOOR ELEVATION |
| FH | FIRE HYDRANT |
| FP&L | FLORIDA POWER AND LIGHT |
| FT | FEET |
| HWY | HIGHWAY |
| ID# | IDENTIFICATION NUMBER |
| INV | INVERT |
| IR | IRON ROD |
| IRC | IRON ROD AND CAP |
| LB | LICENSED BUSINESS |
| LWP | LIGHTER WOOD POST |
| N# | NEIGHBORHOOD IDENTIFICATION |
| N&D | NAIL AND DISK |
| NAVD88 | NORTH AMERICAN VERTICAL DATUM 1988 |
| NGVD29 | NATIONAL GEODETIC VERTICAL DATUM 1929 |
| NTI | NON-TANGENT INTERSECTION |
| NTL | NON-TANGENT LINE |
| NTS | NOT TO SCALE |
| OHE | OVERHEAD ELECTRIC/ UTILITY |
| OR/ORB | OFFICIAL RECORDS BOOK |
| PB | PLAT BOOK |
| PCC | POINT OF COMPOUND CURVATURE |
| PCP | PERMANENT CONTROL POINT |
| PG(S) | PAGE(S) |
| PK | PARKER-KALEN |
| POB | POINT OF BEGINNING |
| POC | POINT OF COMMENCEMENT |
| PP | POWER/UTILITY POLE |
| PRC | POINT OF REVERSE CURVATURE |
| PUD | PLANNED UNIT DEVELOPMENT |
| PVC | POLYVINYL CHLORIDE PIPE |
| R | RADIUS |
| R/W | RIGHT-OF-WAY |
| RCP | REINFORCED CONCRETE PIPE |
| RR | RAILROAD |
| ST | STREET |
| TYP | TYPICAL |

APPROXIMATE SOIL BORING LOCATION PER SOILS REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES, LLC. (PROJECT NUMBER 0330.2200036.0000 DATED APRIL 13, 2022.)

100 0 50 100
( IN FEET )
VERTICAL DATUM: NAVD 88


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


| | |
|---|---|
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| ⚠ | |
| ⚠ | |
| ⚠ | |
| ⚠ SJRWMD COMMENTS | 11/26/24 |
| **DATE:** | 2/14/25 |
| **DESIGN/DRAWN:** | ALS/VDP |

**PROJECT TITLE**

# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**

# EXISTING CONDITIONS PLAN

**PROJECT NO.** 11638.20

**DRAWING NO.** 1163820_401_003

**SHEET** 3 of 31

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



I:\Projects Folder\11638.20\Drawings\11638\20_401\1163820_401_003.dwg March 20, 2025 9:14:02 AM vdf

February 14, 2025

City of Cocoa
Planning & Zoning Division
65 Stone Street
Cocoa, FL 32922

MODICA & ASSOCIATES

ENVIRONMENTAL
PLANNING
DESIGN &
PERMITTING

**Re: Preserve at Pluckebaum – City of Cocoa, Brevard County, FL**
**Preliminary Development Plan Review**
**Response to Comments dated February 6, 2025**

Dear Staff:

This information is provided in response to the February 6, 2025 comments issued by the City of Cocoa for the Preliminary Development Plan review for the Preserve at Pluckebaum. The responses below are partial, and should be considered in conjunction with responses provided by the project engineer, B.S.E. Consultants, Inc.

2. **Wetland Impacts. Staff appreciates inclusion of the Environmental Report in the resubmittal materials. Staff remains concerned about the extent of impacts to wetlands which are noted in the Environmental Report with regard to compliance with the City's Comprehensive Plan Policies related to wetland impacts and impacts to habitat for endangered species, i.e. the wood stork. It is noted in the Applicant's response and Environmental Report that the wetlands are "low quality." Is this due to exotic infestation? If so, please assign a percentage of exotic infestation on the FLUCFCS map to provide data supporting that finding.**

   To address the City's concerns regarding impacts to habitat for endangered species, such as the wood stork, detailed information on the multiple site inspections and wildlife surveys conducted by Modica & Associates ("M&A") is provided herein. M&A has conducted more than 25 site inspections on the project site, beginning in February 2022 and continuing through December 2024. The wood stork was the only protected species of wildlife that was observed on the project site during any of these site inspections.

   Because the wetlands are federally jurisdictional, a permit authorizing impact to the wetlands and any federally protected species of wildlife is required from the U.S. Army Corps of Engineers ("ACOE"). Federally jurisdictional wetlands are regulated under Section 404 of the Clean Water Act ("CWA"). Additionally, when there is a federal nexus to evaluate the potential effects that a project may have on federally protected species of wildlife, consultation with the USFWS is initiated by the ACOE through Section 7 of the Endangered

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302 MOHAWK ROAD, CLERMONT, FLORIDA 34715
WWW.MODICAANDASSOCIATES.COM

Species Act ("ESA"). The wood stork is a federally protected species, and therefore it is the responsibility of the ACOE to initiate technical assistance with the USFWS under Section 7 ESA to obtain concurrence on the effect determination made for any federally protected species of wildlife for this project.

On January 29, 2025, the ACOE published the Public Notice ("PN") for the Preserve at Pluckebaum (**Exhibit A**). On page 2 of the PN, the ACOE provides the following statement regarding endangered species:

> ENDANGERED SPECIES: The proposed project site may contain suitable habitat for the federally listed wood stork (*Mycteria americana*), Eastern indigo snake (*Drymarchon couperi*), and Audubon's crested caracara (*Polyborus plancus audubonii*). No federally listed plant species were identified. Based on this information, the proposed project may affect but is not likely to adversely affect the federally listed species identified above. The Corps will request U.S. Fish and Wildlife Service concurrence with this determination pursuant to Section 7 of the Endangered Species Act.

The PN is published for a period of 21 days, during which other federal agencies can provide comments on the project. The PN expires on February 20, 2025, and no comments have been received from any agency.

The ACOE made the determination that site development is not likely to adversely affect the wood stork, eastern indigo snake and Audubon's crested caracara and initiated consultation with USFWS through the Section 7 process. It should also be noted that the wetland mitigation credits to be purchased as compensation for the proposed wetland impacts, also include credits for impact to SFH for the wood stork. No further permitting is required for these species.

To address the City's comments on wetland quality, an updated FLUCFCS Map is included as **Exhibit B**, and details the estimated coverage of nuisance and exotic vegetation present within the wetland systems. All wetlands present in the eastern half of the project site have 90% coverage of Brazilian pepper (*Schinus terebinthifolius*). The eastern third of the wetlands in the western half of the project site have 90% coverage of Brazilian pepper and Australian pine (*Casuarina equisetifolia*). With exception of the two areas of wetlands proposed for preservation, as described in the paragraph below, the remainder of the wetlands in the western half of the project are dominated with bahia grass (*Paspalum notatum*), torpedo grass (*Panicum repens*), primrose willow (*Ludwigia peruviana*), penny wort (*Hydrocotyle umbellata*) and bermuda grass (*Cynodon dactylon*).

There are two areas of wetlands within the western half of the project that are proposed for preservation. These two areas represent the "higher quality" areas of wetlands on the project site. These herbaceous portions of the wetland are

vegetated with pickerelweed (*Pontederia cordata*), alligator weed (*Alternanthera philoxeroides*) and southern cut grass (*Leersia hexandra*), and also contain torpedo grass, primrose willow, soft rush (*Juncus effusus*) and road grass (*Eleocharis* sp.).

Brazilian pepper, Australian pine, primrose willow and torpedo grass are all classified as "Category I" invasive species by the Florida Invasive Species Council ("FISC" 2023). The FISC identifies invasive plants as Category I "when they are altering native plant communities by displacing native species" and "changing community structures or ecological functions." Category I is the highest level, indicating the most concerning species. The wetland preservation areas also contain some of these invasive plants, but in lesser quantities.

The entire project site was historically under agricultural production for more than 80 years. Water was actively pumped from the property, and native vegetative communities haven't been present since that time. In fact, the majority of the wetlands are only classified as wetlands because of the presence of hydric soils which have generated since the pumping has ceased, not the presence of wetland vegetation. The presence and extent of the invasive plants throughout the wetlands increased significantly when citrus production and land management ceased. Because of the monocultures and dominance of these invasive plants throughout the wetlands, it can be stated that native communities do not exist, community structure has been significantly altered, and native species have been displaced by invasive plants.

The quality of wetlands is evaluated in the State of Florida by using the Uniform Mitigation Assessment Method ("UMAM"), as outlined in Chapter 62-345 F.A.C. Wetlands are scored on a scale of 1 to 10, with 1 being the lowest score possible, and 10 being the highest score possible, for three categories: Location & Landscape Support, Hydrology, and Community Structure. The total score awarded to a wetland system is divided by 30, to determine the functional value of the system (final functional value may range between 0.10 and 1.0).

The UMAM rule (Chapter 62-345 F.A.C.) does not quantify wetlands as low, moderate or high quality, but provides specific guidance on characteristics for scores of 10, 7 and 4 for each of the three categories being evaluated. As a general rule of thumb, wetlands that score 0.75 or higher may be considered high quality wetlands, a score between 0.50 and 0.75 may be considered moderate quality, and a score of 0.50 or below is generally considered low quality.

The UMAM scores submitted to SJRWMD for the project ranged between 0.20 and 0.33, which by any definition should equate to low quality. This low score is based on the infestation of invasive vegetation, altered hydrology and lack of

wildlife connectivity. Given this information, the proposed Site Plan is consistent with this sub policy and the objectives of the future land use category.

**Please tie in all available data and analysis to bolster compliance with the Comprehensive Plan including, but not limited to, Objective 12.1.6 and its sub-policies, and Objective 12.1.9 and its sub-policies. Please also address Objective 12.1.5 and supportive policies relating to protection of endangered species.**

To address this comment, the Objectives and some relevant sub policies referenced are written out for reference:

***Objective 12.1.6: Hydrology, Vegetation, and Wildlife.*** *Protect and conserve soils and native vegetation communities, and maintain the natural functions of the City's ecological zones in a manner consistent with the Goals, Objectives and Policies of the Future Land Use Element.*

As presented above, the project site does not contain "native vegetation communities." The project site consists of land that was under agricultural production for more than 80 years, and is now vegetated almost entirely with Category I invasive plant species. In fact, Policy 12.1.6.8 states that "the City shall require that the following non-native plant species be removed from the limits of construction and required buffer areas from all sites which are developed or re-developed: …Australian pine, Brazilian pepper."

The project site is identified as Very Low Density Residential on the Future Land Use Map, and the two areas of wetland currently proposed for preservation are indicated as Conservation on the Future Land Use Map. The Very Low Density Residential future land use category allows for 4 dwelling units per acre. Policy 1.1.2.2 of the Future Land Use Element states that the Very Low Density Residential areas will consist of single family detached housing.

The Site Plan as currently proposed is consistent with Objective 12.1.6 and its sub policies, as the proposed use is consistent with Future Land Use Element, and there are no native vegetation communities onsite to target for preservation. Additionally, the proposed development will remove the Category I invasive plant species, consistent with Policy 12.1.6.8.

Additional sub policies to Objective 12.1.6 require protection of rare and unique habitats, habitats of protected species of wildlife (i.e. gopher tortoises, eagles, alligators, etc.), and protection of endangered ecosystems. As presented above, and as outlined in the previously provided ecological report prepared by M&A, the project site does not

contain rare and unique habitats, protected species of wildlife or endangered ecosystems. The ACOE has made a determination that site development "is not likely to adversely affect" the wood stork, eastern indigo snake, or Audubon's crested caracara. No permitting for these species is required, and the proposed development is consistent with these sub policies.

***Policy 12.1.6.15 (D) (3) Low Quality Wetlands***. "I*f the SJRWMD determines a wetland (or portion thereof) is low quality and has minimal restoration potential, and beneficial restoration or enhancement mitigation of another wetland would be achieved as a result of mitigation permitting development in this low quality wetland (or portion thereof), then the future land use category shall apply*."

An Environmental Resource Permit ("ERP") application was submitted to SJRWMD on August 17, 2022. District Staff conducted a site inspection to review the wetland lines and UMAM scores on November 21, 2022. The UMAM rule (Chapter 62-345 F.A.C.) does not quantify wetlands as low, medium or high quality, but provides specific guidance on characteristics for scores of 10, 7 and 4 for each of the three categories being evaluated. As a general rule of thumb, wetlands that score 0.75 or higher may be considered high quality wetlands, a score between 0.50 and 0.75 may be considered moderate quality, and a score of 0.50 or below is generally considered low quality.

The UMAM scores submitted to SJRWMD ranged between 0.20 and 0.33, which by any definition should equate to low quality. Given this information, the proposed Site Plan is consistent with this sub policy and the objectives of the future land use category.

Lastly, the proposed mitigation plan to offset adverse impacts to wetlands consists of purchasing in-kind credits from the Lake Washington Mitigation Bank ("LWMB"). The LWMB is located in Brevard County and within the same SJRWMD Drainage Basin (Southern St. Johns River). Accordingly, the project site as currently proposed is consistent with Policy 12.1.6.15.

***Objective 12.1.9: Floodplain Management***

Please refer to responses prepared by B.S.E. Consultants, Inc.

***Objective 12.1.5: Endangered & Threatened Species****. The distribution and abundance of endangered and threatened species within the City will be identified, and the habitat of viable populations of any such species shall be*

*protected and managed, or the impacts to such habitat shall be adequately mitigated, so as to ensure their continued existence.*

The only protected species of wildlife identified on the project site has been the wood stork. The SJRWMD has provided a copy of the ERP application to FWC for review and comment, and the ACOE has initiated formal consultation with the USFWS for comment on protected species of wildlife. In the ACOE's PN, they made a determination that the proposed development "is not likely to adversely affect" the wood stork, eastern indigo snake or Audubon's crested caracara. The project site does not contain suitable habitat for gopher tortoises, nor any other state or federally protected species of wildlife. No formal wildlife permitting is required for this site. The proposed development will not result in impact to protected species of wildlife and is consistent with this Objective.

**Staff encourages the Applicant to evaluate the development footprint and consider alternative dwelling types, such as attached product, in certain areas to maintain the desired density/unit count, while demonstrating intent of minimizing and avoiding impacts to environmentally sensitive areas and native species habitat.**

Both the SJRWMD and the ACOE require extensive evaluations of a project design for "reduction and elimination" and "avoidance and minimization" of impact to wetlands and aquatic resources, respectively, during the permit application review process. The concept of alternative dwelling types was considered by the Applicant and Project Engineer very early in the design process. The concept of townhomes was discussed with the City, and the City indicated that townhomes would not be a desirable dwelling type for this project. The Site Plan incorporates a mixture of 40-foot and 50-foot lots to allow for the required density to make the project financially viable, while also balancing some wetland preservation, required stormwater management facilities and open space requirements.

As discussed in the above responses, the quality of the on-site wetlands is very low because of the extensive presence of nuisance and exotic vegetation, including monocultures of Brazilian pepper and Australian pines. Additionally, these wetlands were under agricultural production for more than 80 years; confirmation of citrus and row crop production can be seen on aerial imagery as early as 1943 (**Exhibit C**).

**Please provide additional information regarding status of environmental permitting with the state agencies, and evidence of their acceptance of the proposed mitigation plans for the impacts to wetlands/endangered species habitat. Input from SJRWMD and USFWS may be helpful to Staff in evaluating the**

**proposed PUD site plan/design. Any studies necessary to obtain an incidental take permit under the Endangered Species Act may be submitted to the City for purposes of demonstrating compliance with Policy 12.1.6.6 of the Comprehensive Plan. The City notes the Florida Fish & Wildlife Conservation Commission does not issue incidental take permits for wood stork, and the Developer will need to seek guidance from USFWS.**

An ERP application was submitted to SJRWMD on August 17, 2022. District Staff conducted a site inspection to review the wetland lines and UMAM scores on November 21, 2022. Negotiation of the final UMAM scores is underway, and it is anticipated that the final scores will be close to the initially proposed scores of 0.20 to 0.33. The proposed mitigation consists of purchasing credits from the LWMB, which is an in-basin, District-approved wetland mitigation bank, and SJRWMD has indicated that this is an acceptable plan. The most recent Request for Additional Information ("RAI") issued by SJRWMD acknowledges that the UMAM scores are being negotiated, and requests that a reservation letter be provided once the final scores are approved.

On January 29, 2025, the ACOE published the PN for the Preserve at Pluckebaum. The PN offers the following statement regarding the proposed wetland mitigation plan:

> COMPENSATORY MITIGATION: To offset the loss of 48.5 acres of wetlands the applicant is proposing to purchase 13 wetland mitigation credits from the Lake Washington Mitigation Bank.

Incidental take permitting is not required on any level. Both FWC and USFWS have been consulted, and no species-specific permitting is required. Please refer to **Exhibit A** for the ACOE's PN.

The information provided herein, considered in conjunction with the responses prepared by B.S.E. Consultants, Inc. should provide reasonable assurance that the project as designed is consistent with all Objectives and sub policies of the City's Comprehensive Plan, as well as in compliance with state and federal regulations.

Sincerely,



Amanda Walter
Project Manager
Amanda@Modica.cc

cc: Elaine Imbruglia, Modica and Associates, Inc. (via email)

**EXHIBITS**

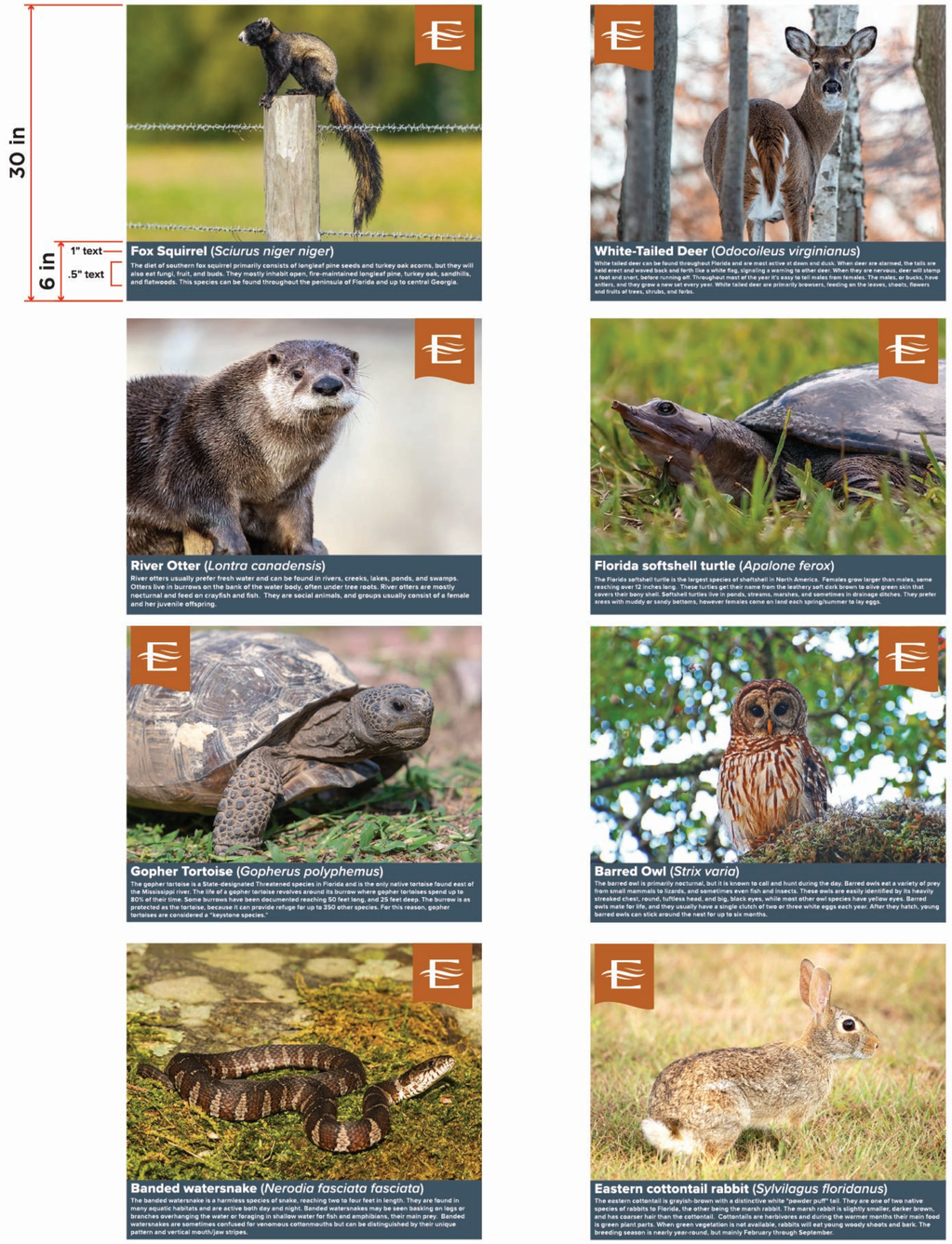
Exhibit A ACOE Public Notice
Exhibit B FLUCFCS Map with % Coverage of Invasive Species
Exhibit C Historical Aerial Imagery

**References**:

Florida Invasive Species Council. 2023. List of Invasive Plant Species. (https://www.floridainvasives.org/plant-list/2023-invasive-plant-species/)


WALKING TRAILS
YOU ARE HERE
THE TIMBERS

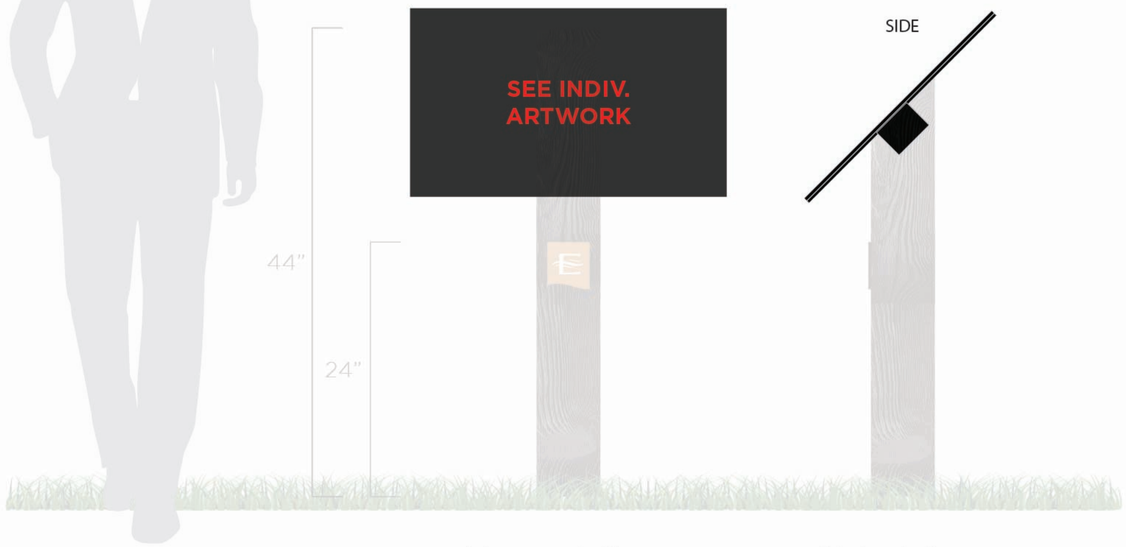
# LARGER/NEW LAYOUT




**Trail Sign - Informational**
Qty: 8 (1 of Each)
36”x30” Digital Print (IJ180)
w/ 3M8520 Matte Lam
on 3mm Dibond

Mounted on
36”x30” - 1/4” Alum Backer
FOR SCREWLESS FACE
Welded to (2) 3“x3”x4” - Alum L-Brackets
Painted 1 Color

Existing Posts




Front View Side View

**PRINT**

PANTONE 471 C

PANTONE 7545 C

**PAINT**

BLACK SATIN

wo.384626 v.09.30.24

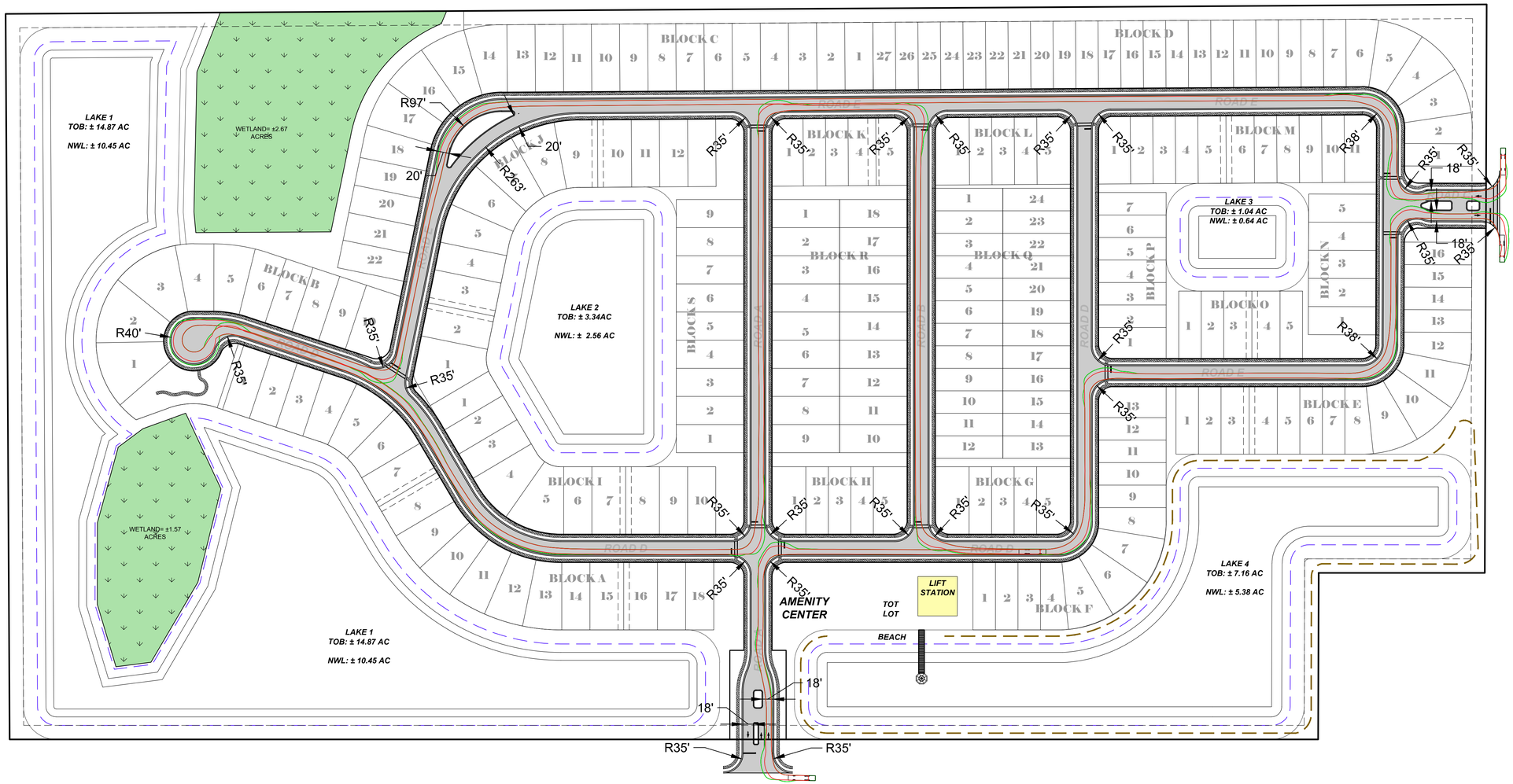
**Lennar - Palm Atlantic Land - Timbers at Everlands**

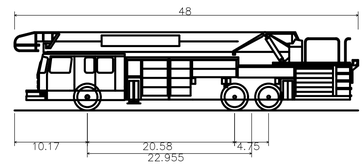
**Trail Signs - Nature Walk**

ONSIGHT INDUSTRIES LLC

C. SILVEIRA
C. DEMING

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| | |
|---|---|
| Default – Ladder Truck | |
| Overall Length | 48.000ft |
| Overall Width | 8.750ft |
| Overall Body Height | 10.935ft |
| Min Body Ground Clearance | 0.989ft |
| Track Width | 8.500ft |
| Lock–to–lock time | 4.00s |
| Curb to Curb Turning Radius | 37.750ft |


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING

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CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

SCOTT M. GLAUBITZ LICENSE No. 33659 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Scott M Glaubitz
Date: 2024.11.22 16:30:07 -05'00'

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )
VERTICAL DATUM: NAVD88

| | |
|---|---|
| DATE: | 11/18/2024 |
| DESIGN/DRAWN: | ALS/VDP |

**PROJECT TITLE**

# PRESERVE AT PLUCKEBAUM

**SHEET TITLE**

## FIRE TRUCK TURN RADIUS EXHIBIT

**PROJECT NO.**
11638.20

**DRAWING NO.**
1163820_202_006

**SHEET**
1 of 1

H:\Projects Folder\11638.20\Drawings\1163820_202 PGP\1163820_202_006.dwg November 18, 2024 3:15:01 PM VD

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

# Pluckebaum Residential

## Traffic Impact Analysis

*City of Cocoa, FL*

November 2023

Kimley»Horn

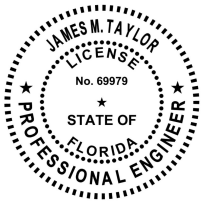
# *TRAFFIC IMPACT ANALYSIS*

# Pluckebaum Residential

## City of Cocoa, FL

***Prepared by:***

***Kimley-Horn and Associates, Inc.***




This document has been digitally signed and sealed by James M. Taylor, P.E. on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

cn=James M Taylor, c=US, o=KIMLEY-HORN AND ASSOCIATES INC, email=james.taylor@kimley-horn.com
2023.12.01 14:13:35 -05'00'

**November 2023**

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\\kimley-horn.com\FL_ORL02\ORL_TPTO\249101001_Pluckebaum Residential\02_Documentation\TIA\November 2023\Pluckebaum Residential TIA_11.03.2023.docx

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# 1.0 INTRODUCTION

Kimley-Horn has been retained to analyze and document the traffic impacts associated with the development of Pluckebaum Residential. The proposed single-family development is located in the northwest quadrant of the intersection of Pluckebaum Road & Clearlake Road in the City of Cocoa.

The project property is currently vacant. The proposed Pluckebaum Residential development is to consist of ±234 single-family homes. Buildout of the proposed development is anticipated in 2025. The Methodology Statement developed with the County to guide this transportation analysis is provided in **Appendix A.**

Access to the site will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. The access points are shown in the conceptual site plan provided in **Appendix B**.

## 1.1 STUDY AREA

The study area, determined using the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), was discussed and approved as part of the Traffic Impact Analysis Methodology (**Appendix A**). The agreed-upon study area roadway segments and intersections are listed below and displayed on **Figure 1**:

Study Area Roadway Segments

- Pluckebaum Road from Range Road to Clearlake Road
- Pluckebaum Road from Clearlake Road to Fiske Boulevard (Link #568)
- Clearlake Road from Pluckebaum Road to SR 520
- SR 520 from Range Road to Clearlake Road (Link #14)
- SR 520 from Clearlake Road to Lake Drive (Link #4)

Study Area Intersections

- Pluckebaum Road & Range Road
- Pluckebaum Road & Clearlake Road
- Pluckebaum Road & Fiske Boulevard
- SR 520 & Clearlake Road
- SR 520 & Range Road

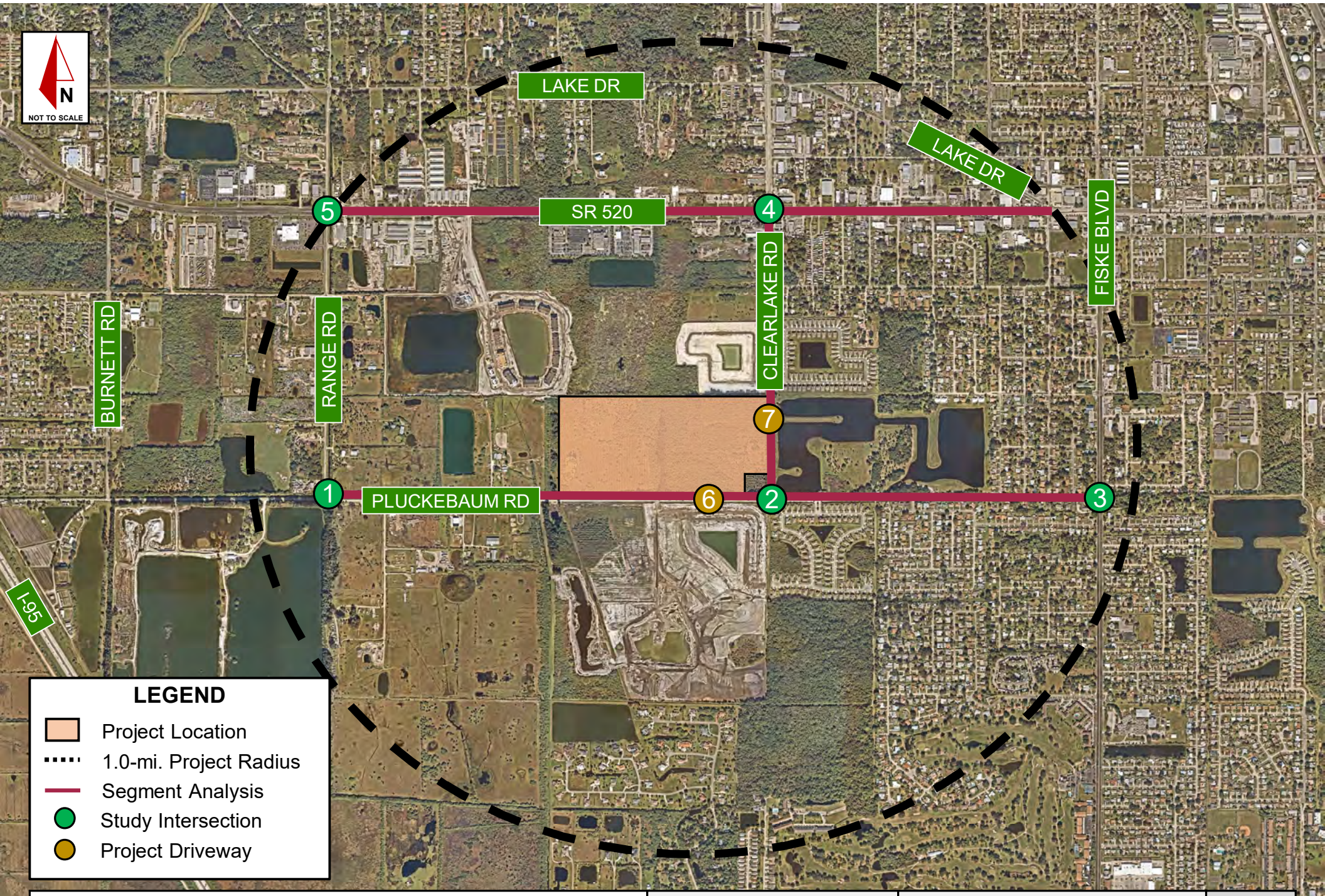



**Figure 1:** Project Location & Study Area

November 2023
Project No.: 249101001

Kimley»Horn

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189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407)-898-1511

2

Aerial imagery provided by: esri

# 2.0 FUTURE LAND USE

The project site is currently located in the City of Cocoa with a future land use designation of Very Low Density Residential. This future land use designation allows for a maximum of four (4) dwelling units per acre.

As part of the proposed development, the applicant is proposing a future land use designation of Planned Development (PD) with a maximum development potential of 234 single-family dwelling units.

The proposed density (234 SF DU / 78.66 AC = ~3) is less than the existing allowed density, therefore the trip generation potential of the existing FLU is greater than the trip generation potential of the proposed development. Therefore, the proposed FLU amendment is not anticipated to cause additional roadway capacity needs in the short or long-term planning horizons.

# 3.0 EXISTING CONDITIONS ANALYSIS

## 3.1 EXISTING TRAFFIC COUNTS

Turning movement counts (TMCs) were collected at the study intersections on Thursday, November 2, 2023, and are provided in **Appendix C**. Data was collected during the AM Peak Period (7:00 AM to 9:00 AM) and PM Peak Period (4:00 PM to 6:00 PM) at the study area intersections.

Turning movement volumes were adjusted by a seasonal factor (SF) of 1.04. SF data from FDOT's Florida Traffic Online (FTO) is included in **Appendix D**. Turning movement volume worksheets for all intersections can be found in **Appendix E.**

24-hour continuous machine approach counts were collected on Tuesday, November 7, 2023, along Clearlake Road and Pluckebaum Road, adjacent to the project site. These counts were adjusted by an SF of 1.05 based on FDOT's FTO data, included in **Appendix D**. Count data is provided in **Appendix C**.

## 3.2 EXISTING ROADWAY SEGMENT CONDITIONS

A roadway segment analysis was performed within the study area to determine existing Daily and PM peak hour conditions. The Daily analysis was conducted by comparing the 2022 Average Annual Daily Traffic (AADT) segment volumes from the latest Space Coast Transportation Planning Organization (TPO) Traffic Count publication to the TPO's Daily Maximum Service Volumes (MSV) corresponding to the adopted Level of Service (LOS) standard for each roadway segment. The 2022 AADT volumes were grown to Year 2023 existing volumes by applying a growth rate of two percent (2%) over one (1) year. An excerpt from the Space Coast TPO Traffic Count publication is provided in **Appendix F**. For the segment of Pluckebaum Road from Range Road to Clearlake Road, the existing volume was determined from the 24-hour continuous machine approach counts as the segment is not included in the Space Coast TPO Historic Counts document.

Additionally, a PM peak hour roadway segment analysis was conducted by comparing peak hour two-way volumes to the peak hour two-way MSV corresponding to the adopted Level of Service (LOS) standard for each roadway segment. Existing peak hour two-way roadway segment volumes were determined using the field collected data as the Space Coast TPO Historic Counts document does not provide peak hour data. In addition, the FDOT Q/LOS Handbook was used to determine each segment's peak hour two-way volume.

The existing roadway segment data is included in **Tables 1 and 2** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway segment capacity deficiencies within the study area under existing Daily and PM peak hour conditions.

## 3.3 EXISTING INTERSECTION CONDITIONS

An intersection operational analysis was performed for existing conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour existing conditions are provided in **Tables 3 and 4**. Synchro outputs are provided in **Appendix G**.

As shown in the tables below, all study area intersections currently operate with acceptable overall LOS and with movement v/c ratios less than one (1.0) under existing (2023) AM and PM peak hour conditions.

**Table 1:** Existing Roadway Segment Analysis (Daily)

| Roadway Link ID | From | To | Roadway Attributes [1] Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | Daily MSV[1] | Daily - Existing (2023) 2022 AADT[1] | Annual Growth Rate | 2023 AADT[2] | V/C Ratio | Deficient? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Pluckebaum Rd* | | | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 15,600 | - | - | 4,654 | 0.30 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 15,600 | 5,900 | 2.00% | 6,018 | 0.39 | No |
| *Clearlake Rd* | | | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 15,600 | 4,150 | 2.00% | 4,233 | 0.27 | No |
| *SR 520 / Kings Street* | | | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 41,790 | 22,350 | 2.00% | 22,797 | 0.55 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 39,800 | 19,310 | 2.00% | 19,696 | 0.49 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report.*

*2. Volumes were determined by applying a calculated growth rate. For the segment of Pluckebaum Road from Range Road to Clearlake Road, a 24-hour count was collected and seasonal factor applied to determine the daily traffic volume.*

**Table 2:** Existing Roadway Segment Analysis (PM Peak Hour)

| Roadway Link ID | From | To | Roadway Attributes [1] Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | PH 2-Way MSV[1] | Daily - Existing (2023) 2023 PH 2-Way Vol. [2] | V/C Ratio | Deficient? |
|---|---|---|---|---|---|---|---|---|---|---|
| *Pluckebaum Rd* | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 1,410 | 440 | 0.31 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 1,410 | 743 | 0.53 | No |
| *Clearlake Rd* | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 1,410 | 553 | 0.39 | No |
| *SR 520 / Kings Street* | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 3,760 | 1,809 | 0.48 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 3,580 | 1,539 | 0.43 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report and FDOT Q/LOS Handbook.*

*2. Volumes were determined from turning movement counts collected in 2023. The appropriate seasonal factor was applied to determine the peak season, peak hour existing two-way volume for each segment.*

**Table 3:** Existing Intersection Conditions (AM Peak Hour)

| Existing Condition - 2023 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | AM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.00 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.14 | SBL/R |
| | | | **Overall** | **-** | **0.14** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.02 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.36 | SBL/R |
| | | | **Overall** | **-** | **0.36** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | E | 0.95 | EBR |
| | | | WB | - | - | - |
| | | | NB | B | 0.55 | NBL |
| | | | SB | B | 0.43 | SBT/R |
| | | | **Overall** | **C *(25.0 s)*** | **0.95** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.34 | EBT |
| | | | WB | B | 0.23 | WBT |
| | | | NB | E | 0.84 | NBT/R |
| | | | SB | E | 0.77 | SBR |
| | | | **Overall** | **C *(31.2 s)*** | **0.84** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.48 | EBT/R |
| | | | WB | B | 0.31 | WBT |
| | | | NB | C | 0.41 | NBL/T/R |
| | | | SB | C | 0.61 | SBL/T/R |
| | | | **Overall** | **B *(15.0 s)*** | **0.61** | **SBL/T/R** |

**Table 4:** Existing Intersection Conditions (PM Peak Hour)

| Existing Condition - 2023 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | PM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.00 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.13 | SBL/R |
| | | | **Overall** | **-** | **0.13** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.02 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | C | 0.40 | SBL/R |
| | | | **Overall** | **-** | **0.40** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | E | 0.94 | EBR |
| | | | WB | - | - | - |
| | | | NB | B | 0.82 | NBL |
| | | | SB | C | 0.53 | SBT/R |
| | | | **Overall** | **C *(26.2 s)*** | **0.94** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.50 | EBL |
| | | | WB | C | 0.32 | WBT |
| | | | NB | E | 0.86 | NBT/R |
| | | | SB | E | 0.79 | SBL |
| | | | **Overall** | **C *(34.0 s)*** | **0.86** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.47 | EBT/R |
| | | | WB | B | 0.47 | WBT |
| | | | NB | C | 0.51 | NBL/T/R |
| | | | SB | C | 0.58 | SBL/T/R |
| | | | **Overall** | **B *(14.4 s)*** | **0.58** | **SBL/T/R** |

# 4.0 DEVELOPMENT TRAFFIC

The proposed Pluckebaum Residential development is to consist of ±234 single-family homes. Buildout of the proposed development is anticipated in 2025. The latest industry standards were referenced to evaluate the amount of new external trips to be generated by the site at buildout. The adopted regional travel demand model was used to forecast the distribution of trips throughout the study area.

## 4.1 TRIP GENERATION

Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. The Land Use Code (LUC) for the proposed site is:

- LUC 210, Single-Family Detached Housing

Relevant excerpts from the *Trip Generation Manual* are included in **Appendix H. Table 5** provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project. The proposed site is anticipated to generate 2,206 daily trips, 161 AM peak hour trips (42 inbound and 119 outbound), and 198 PM peak hour trips (125 inbound and 73 outbound).

**Table 5:** Trip Generation

| | Land Use | ITE LUC[1] | Size | Units | ITE Trip Rate[1] | $R^2$ | Fitted Equation | Daily | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Total | In[1] | | Out[1] | |
| Daily | Single-Family Detached Housing | 210 | **234** | DU | 9.43 | 0.95 | Ln(T) = 0.92 * Ln(X) + 2.68 | 2,206 | *50%* | 1,103 | *50%* | 1,103 |
| | **Total Generated Trips** | | | | | | | **2,206** | **1,103** | | **1,103** | |
| | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **$R^2$** | **Fitted Equation** | **AM Peak Hour** | | | | |
| | | | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| AM Peak Hour | Single-Family Detached Housing | 210 | **234** | DU | 0.69 | 0.90 | Ln(T) = 0.91 * Ln(X) + 0.12 | 161 | *26%* | 42 | *74%* | 119 |
| | **Total Generated Trips** | | | | | | | **161** | **42** | | **119** | |
| | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **$R^2$** | **Fitted Equation** | **PM Peak Hour** | | | | |
| | | | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| PM Peak Hour | Single-Family Detached Housing | 210 | **234** | DU | 0.94 | 0.92 | Ln(T) = 0.94 * Ln(X) + 0.27 | 198 | *63%* | 125 | *37%* | 73 |
| | **Total Generated Trips** | | | | | | | **198** | **125** | | **73** | |

*Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition*

## 4.2 TRIP DISTRIBUTION

Projected traffic demand of project trips on study roadways was derived with use of the adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Central Florida Regional Planning Model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plot showing the percent of daily project distribution is provided in **Appendix I**.

Daily model project distribution was referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. **Figure 2** shows the intersection movement project distribution within the study area for use in forecasting project trips.

## 4.3 TRIP ASSIGNMENT

Project trip distribution percentages were used to assign anticipated project trips to the study area roadways and intersections. **Figure 3** shows the anticipated project trip assignments at study area intersections during the AM and PM peak hours.

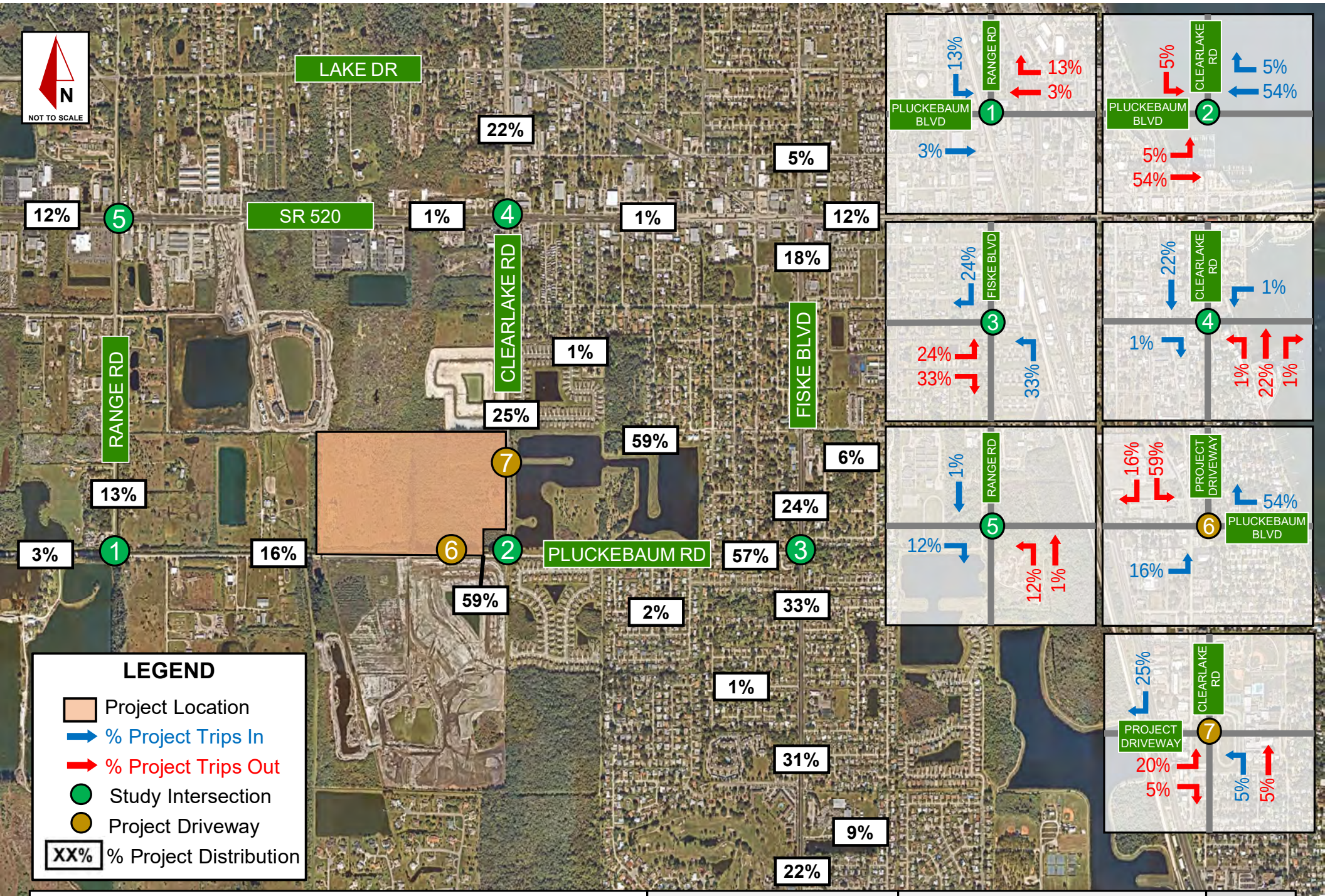



**Figure 2:** Project Trip Distribution

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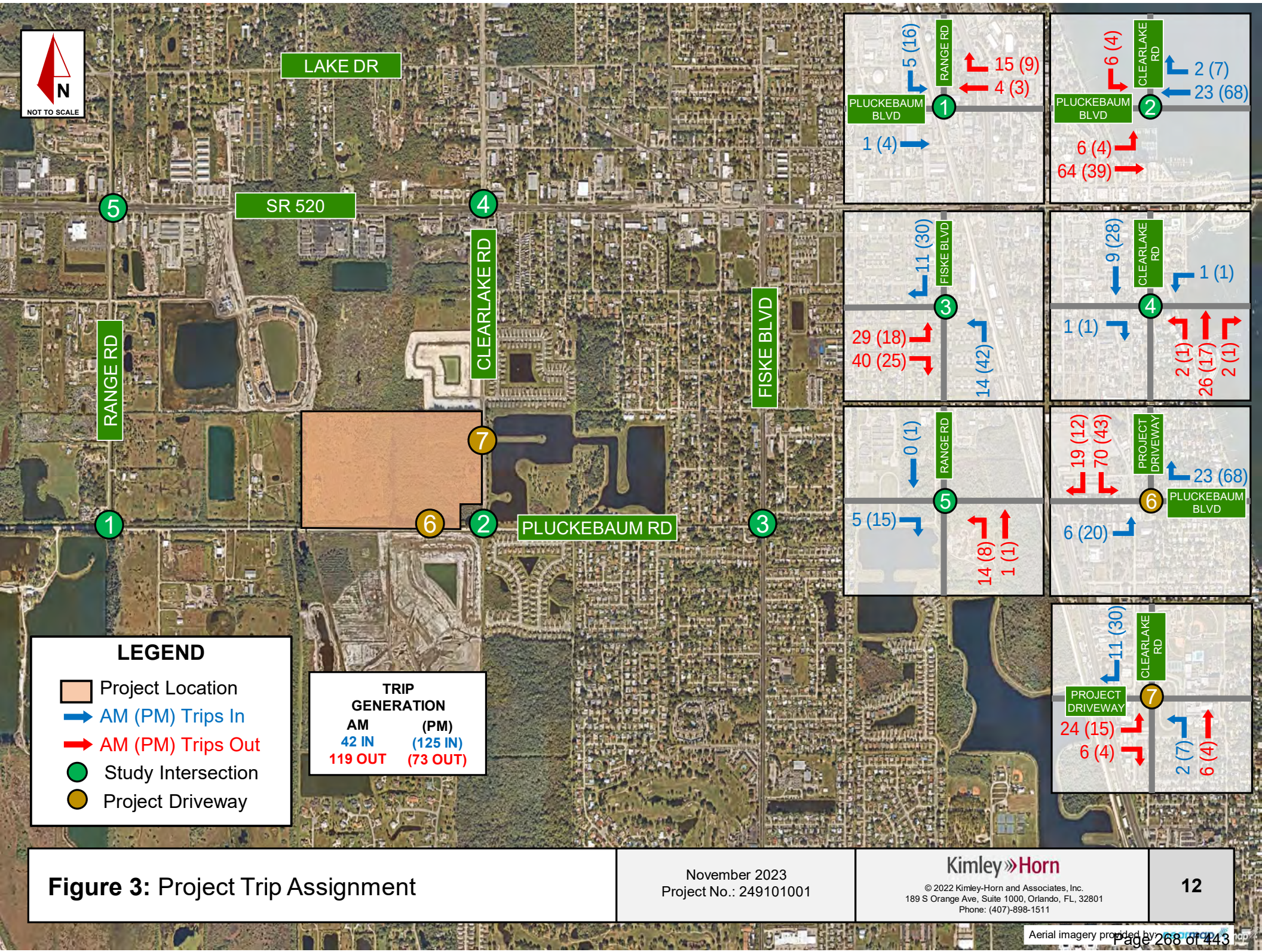



**Figure 3:** Project Trip Assignment

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# 5.0 BACKGROUND CONDITIONS ANALYSIS – YEAR 2025

## 5.1 BACKGROUND TRAFFIC

Traffic conditions were evaluated for year 2025 background conditions, without the impact of project trips on the roadway network. As stated in the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), annual growth rates shall be applied to the background traffic by either applying an annual growth factor of 2%, or the annual growth rate of the roadway or adjacent roadway as established by the TPO, whichever is greater. The growth rate was determined for each segment in the study area using Space Coast TPO counts and determined to be less than 2%, as shown in **Appendix J**. Therefore, background volumes on study area roadway segments and intersections were derived by applying a 2% annual growth rate to existing traffic counts. Adjusted turning movement volume worksheets for all intersections can be found in **Appendix E.**

## 5.2 BACKGROUND ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine background Daily and PM peak hour conditions. The analysis was conducted by comparing the projected 2025 Background AADT and PM peak hour two-way segment volumes to the segment's Maximum Service Volumes (MSV).

The background roadway segment data is included in **Tables 6 and 7** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no capacity deficiencies under background (2025) conditions.

**Table 6:** Background Roadway Segment Analysis (Daily)

| Roadway Link ID | From | To | Roadway Attributes [1] Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | Daily MSV[1] | Daily - Background (2025) Existing 2023 AADT | Annual Growth Rate | 2025 AADT[2] | V/C Ratio | Deficient? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Pluckebaum Rd* | | | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 15,600 | 4,654 | 2.00% | 4,840 | 0.31 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 15,600 | 6,018 | 2.00% | 6,259 | 0.40 | No |
| *Clearlake Rd* | | | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 15,600 | 4,233 | 2.00% | 4,402 | 0.28 | No |
| *SR 520 / Kings Street* | | | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 41,790 | 22,797 | 2.00% | 23,709 | 0.57 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 39,800 | 19,696 | 2.00% | 20,484 | 0.51 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report.*

*2. Volumes were determined by applying a calculated growth rate.*

*3. Percent project traffic assignment was the assumed maximum percent across the segment based on the model output and trip assignment at the project driveways.*

**Table 7:** Background Roadway Segment Analysis (PM Peak Hour)

| Roadway Link ID | From | To | Roadway Attributes [1] Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | PH 2-Way MSV[1] | Daily - Background (2025) 2023 PH 2-Way Vol. | Annual Growth Rate | 2025 PH 2-Way Vol.[2] | V/C Ratio | Deficient? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Pluckebaum Rd* | | | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 1,410 | 440 | 2.00% | 458 | 0.32 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 1,410 | 743 | 2.00% | 773 | 0.55 | No |
| *Clearlake Rd* | | | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 1,410 | 553 | 2.00% | 575 | 0.41 | No |
| *SR 520 / Kings Street* | | | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 3,760 | 1,809 | 2.00% | 1,881 | 0.50 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 3,580 | 1,539 | 2.00% | 1,601 | 0.45 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report.*

*2. Volumes were determined by applying a calculated growth rate.*

*3. Percent project traffic assignment was the assumed maximum percent across the segment based on the model output and trip assignment at the project driveways.*

## 5.3 BACKGROUND INTERSECTION ANALYSIS

An intersection operational analysis was performed for background conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. The existing (2023) volumes were grown to Year 2025 background volumes by applying a growth rate of two percent (2%) over two (2) years.

Intersection level of service (LOS) and maximum volume to capacity (v/c) ratios for the AM and PM peak hour background conditions are provided in **Tables 8 and 9**. Synchro outputs are provided in **Appendix G**.

As shown in the table below, all study area intersections are expected to operate at an acceptable LOS overall and v/c ratio in the background (2025) AM and PM peak hour.

**Table 8:** Background Intersection Conditions (AM Peak Hour)

| Background Condition - 2025 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | AM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.00 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.16 | SBL/R |
| | | | **Overall** | **-** | **0.16** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.03 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | C | 0.38 | SBL/R |
| | | | **Overall** | **-** | **0.38** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | E | 0.95 | EBR |
| | | | WB | - | - | - |
| | | | NB | B | 0.59 | NBL |
| | | | SB | C | 0.46 | SBT/R |
| | | | **Overall** | ***C (26.1 s)*** | **0.95** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.36 | EBT |
| | | | WB | B | 0.24 | WBT |
| | | | NB | E | 0.85 | NBT/R |
| | | | SB | E | 0.78 | SBR |
| | | | **Overall** | ***C (31.7 s)*** | **0.85** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.51 | EBT/R |
| | | | WB | B | 0.33 | WBT |
| | | | NB | C | 0.41 | NBL/T/R |
| | | | SB | C | 0.62 | SBL/T/R |
| | | | **Overall** | ***C (15.4 s)*** | **0.62** | **SBL/T/R** |

**Table 9:** Background Intersection Conditions (PM Peak Hour)

| Background Condition - 2025 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | PM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.00 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.13 | SBL/R |
| | | | **Overall** | **-** | **0.13** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.02 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | C | 0.42 | SBL/R |
| | | | **Overall** | **-** | **0.42** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | E | 0.94 | EBR |
| | | | WB | - | - | - |
| | | | NB | B | 0.88 | NBL |
| | | | SB | C | 0.57 | SBT/R |
| | | | **Overall** | **C *(28.4 s)*** | **0.94** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.53 | EBL |
| | | | WB | C | 0.34 | WBT |
| | | | NB | E | 0.87 | NBT/R |
| | | | SB | E | 0.80 | SBL |
| | | | **Overall** | **C *(34.7 s)*** | **0.87** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.49 | EBT/R |
| | | | WB | B | 0.49 | WBT |
| | | | NB | C | 0.53 | NBL/T/R |
| | | | SB | C | 0.59 | SBL/T/R |
| | | | **Overall** | **B *(14.8 s)*** | **0.59** | **SBL/T/R** |

# 6.0 BUILDOUT CONDITIONS ANALYSIS – YEAR 2025

Buildout volumes were developed by adding anticipated project trips to background volumes. A determination of the impact of project traffic on the roadway network was made, including LOS conditions for the intersections and roadway segments within the study area. Turning movement volume worksheets for all intersections and driveways are provided in **Appendix E.**

## 6.1 BUILDOUT ROADWAY SEGMENT ANALYSIS

A roadway segment analysis was performed within the study area to determine buildout Daily and PM peak hour two-way conditions. The Daily analysis was conducted by comparing the projected 2025 buildout AADT and PM peak hour two-way volume to the segment's Maximum Service Volumes (MSV).

The buildout roadway segment data is included in **Tables 10** and **11** for Daily and PM peak hour conditions, respectively. As shown in the tables, the analysis identifies no roadway capacity deficiencies under buildout (2025) Daily or PM peak hour two-way conditions. No new roadway deficiencies are anticipated due to project impact.

**Table 10:** Buildout Roadway Segment Analysis (Daily)

| Roadway | | | Roadway Attributes [1] | | | | | Daily - Buildout (2025) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Link ID | From | To | Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | Daily MSV[1] | 2,206 Daily Trips | | Buildout AADT | V/C Ratio | Deficient? |
| | | | | | | | | % Assign[3] | Project Trips | | | |
| *Pluckebaum Rd* | | | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 15,600 | 59% | 1,302 | 6,142 | 0.39 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 15,600 | 59% | 1,302 | 7,560 | 0.48 | No |
| *Clearlake Rd* | | | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 15,600 | 25% | 552 | 4,954 | 0.32 | No |
| *SR 520 / Kings Street* | | | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 41,790 | 1% | 22 | 23,731 | 0.57 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 39,800 | 1% | 22 | 20,506 | 0.52 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report.*

*2. Volumes were determined by applying a calculated growth rate.*

*3. Percent project traffic assignment was the assumed maximum percent across the segment based on the model output and trip assignment at the project driveways.*

**Table 11:** Buildout Roadway Segment Analysis (PM Peak Hour)

| Roadway | | | Roadway Attributes [1] | | | | | Daily - Buildout (2025) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Link ID | From | To | Functional Classification | Number of Lanes | Speed Limit | Adopted LOS | PH 2-Way MSV[1] | 198 Daily Trips | | Buildout PH 2-Way Vol. | V/C Ratio | Deficient? |
| | | | | | | | | % Assign[3] | Project Trips | | | |
| *Pluckebaum Rd* | | | | | | | | | | | | |
| - | Range Road | Clearlake Road | Urban Major Collector | 4 | 40 | E | 1,410 | 59% | 117 | 574 | 0.41 | No |
| 568 | Clearlake Road | Fiske Boulevard | Urban Major Collector | 4 | 35 | E | 1,410 | 59% | 117 | 890 | 0.63 | No |
| *Clearlake Rd* | | | | | | | | | | | | |
| 49 | Pluckebaum Rd | SR 520 / Kings St | Urban Major Collector | 2 | 30 | E | 1,410 | 25% | 50 | 625 | 0.44 | No |
| *SR 520 / Kings Street* | | | | | | | | | | | | |
| 14 | Range Road | Clearlake Road | Urban Principal Arterial | 4 | 55 | D | 3,760 | 1% | 2 | 1,883 | 0.50 | No |
| 4 | Clearlake Road | Lake Drive | Urban Principal Arterial | 4 | 45 | D | 3,580 | 1% | 2 | 1,603 | 0.45 | No |

*Notes*

*1. Data obtained from Space Coast TPO Historical Counts Report.*

*2. Volumes were determined by applying a calculated growth rate.*

*3. Percent project traffic assignment was the assumed maximum percent across the segment based on the model output and trip assignment at the project driveways.*

## 6.2 BUILDOUT INTERSECTION ANALYSIS

An intersection operational analysis was performed for Year 2025 buildout conditions during the AM and PM peak hours using procedures outlined in the *Highway Capacity Manual, 6th Edition* with Synchro (v11) software. Intersection level of service (LOS), delay, and maximum volume to capacity (v/c) ratios for the AM and PM peak hour buildout conditions are provided in **Tables 12 and 13**. Synchro outputs are provided in **Appendix G**.

As shown in the tables below, all study area intersections operate with an acceptable overall LOS and with movement v/c ratios less than one (1.0), except for the eastbound right movement at Fiske Boulevard & Pluckebaum Road, which operates with v/c greater than one (1) in the AM and PM peak hour.

To address the buildout deficiencies, improvements were implemented and analyzed in a separate improved buildout scenario. A summary of the recommended signal timing improvements and corresponding AM and PM peak hour intersection conditions are provided in **Table 14**.

**Table 12:** Buildout Intersection Conditions (AM Peak Hour)

| Buildout Condition - 2025 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | AM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB (L) | A | 0.00 | EBL |
| | | | WB (L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.16 | SBL/R |
| | | | **Overall** | **-** | **0.16** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB (L) | A | 0.03 | EBL |
| | | | WB (L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | C | 0.45 | SBL/R |
| | | | **Overall** | **-** | **0.45** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | F | 1.06 | EBR |
| | | | WB | - | - | - |
| | | | NB | B | 0.62 | NBL |
| | | | SB | C | 0.47 | SBT/R |
| | | | **Overall** | **C *(32.0 s)*** | **1.06** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.37 | EBT |
| | | | WB | B | 0.25 | WBT |
| | | | NB | E | 0.87 | NBT/R |
| | | | SB | E | 0.72 | SBL |
| | | | **Overall** | **C *(33.1 s)*** | **0.87** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | C | 0.51 | EBT/R |
| | | | WB | B | 0.33 | WBT |
| | | | NB | C | 0.47 | NBL/T/R |
| | | | SB | C | 0.62 | SBL/T/R |
| | | | **Overall** | **B (15.7 s)** | **0.62** | **SBL/T/R** |
| 6 | Project Driveway (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.01 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.17 | SBL/R |
| | | | **Overall** | **-** | **0.17** | **SBL/R** |
| 7 | Clearlake Road (NB/SB) & Project Driveway (WB) | Unsignalized (TWSC) | EB | B | 0.05 | EBL/R |
| | | | WB | - | - | - |
| | | | NB(L) | A | 0.00 | NBL |
| | | | SB(L) | - | - | - |
| | | | **Overall** | **-** | **0.05** | **EBL/R** |

**Table 13:** Buildout Intersection Conditions (PM Peak Hour)

| Buildout Condition - 2025 | | | | | | |
|---|---|---|---|---|---|---|
| Intersection | | Control Type | Approach | PM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 1 | Range Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.00 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.16 | SBL/R |
| | | | **Overall** | **-** | **0.16** | **SBL/R** |
| 2 | Clearlake Road (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.03 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | C | 0.51 | SBL/R |
| | | | **Overall** | **-** | **0.51** | **SBL/R** |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | EB | F | 1.05 | EBR |
| | | | WB | - | - | - |
| | | | NB | C | 0.94 | NBL |
| | | | SB | C | 0.59 | SBT/R |
| | | | **Overall** | **D *(37.1 s)*** | **1.05** | **EBR** |
| 4 | Clearlake Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.53 | EBL |
| | | | WB | C | 0.33 | WBT |
| | | | NB | F | 0.89 | NBT/R |
| | | | SB | E | 0.77 | SBL |
| | | | **Overall** | **D *(37.3 s)*** | **0.89** | **NBT/R** |
| 5 | Range Road (NB/SB) & SR 520 (EB/WB) | Signalized | EB | B | 0.50 | EBT/R |
| | | | WB | B | 0.49 | WBT |
| | | | NB | C | 0.56 | NBL/T/R |
| | | | SB | C | 0.58 | SBL/T/R |
| | | | **Overall** | **B *(15.1 s)*** | **0.58** | **SBL/T/R** |
| 6 | Project Driveway (NB) & Pluckebaum Road (EB/WB) | Unsignalized (TWSC) | EB(L) | A | 0.02 | EBL |
| | | | WB(L) | - | - | - |
| | | | NB | - | - | - |
| | | | SB | B | 0.12 | SBL/R |
| | | | **Overall** | **-** | **0.12** | **SBL/R** |
| 7 | Clearlake Road (NB/SB) & Project Driveway (WB) | Unsignalized (TWSC) | EB | B | 0.04 | EBL/R |
| | | | WB | - | - | - |
| | | | NB(L) | A | 0.01 | NBL |
| | | | SB(L) | - | - | - |
| | | | **Overall** | **-** | **0.04** | **EBL/R** |

**Table 14:** Buildout Intersection Conditions with Improvements (AM and PM Peak Hour)

| Buildout Condition with Improvements - 2025 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Intersection | | Control Type | Recommended Improvements | AM Peak Hour | | | PM Peak Hour | | |
| | | | | Max Level of Service | Max V/C Ratio | Max V/C Movement | Max Level of Service | Max V/C Ratio | Max V/C Movement |
| 3 | Fiske Boulevard (NB/SB) & Pluckebaum Road (EB) | Signalized | Signal Timing Adjustments | E<br>-<br>B<br>C<br>**C *(29.0 s)*** | 0.97<br>-<br>0.64<br>0.5<br>**0.97** | EBR<br>-<br>NBL<br>SBT/R<br>**EBR** | F<br>-<br>C<br>C<br>**D *(40.2 s)*** | 0.99<br>-<br>0.92<br>0.65<br>**0.99** | EBR<br>-<br>NBL<br>SBT/R<br>**EBR** |

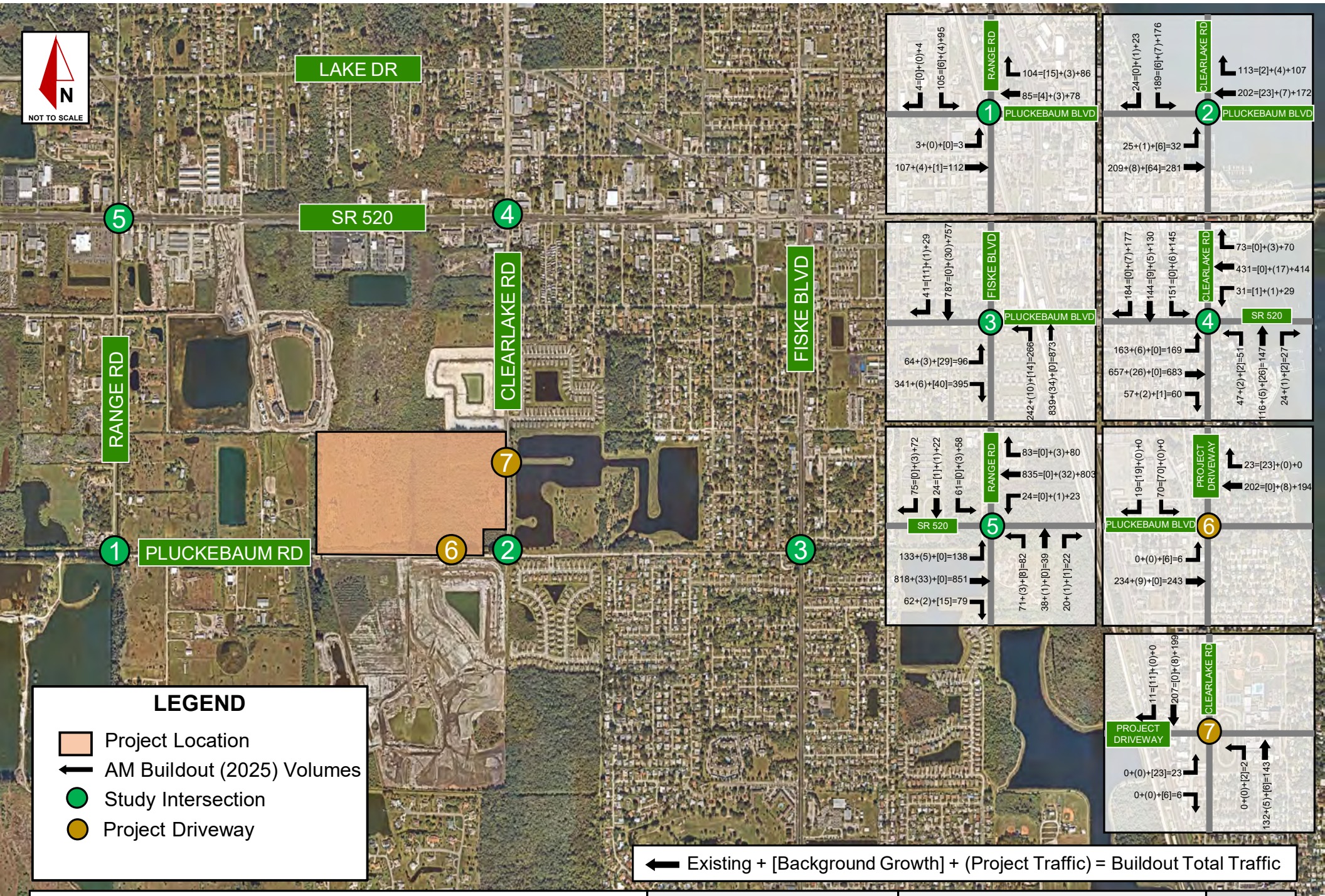



**Figure 4:** AM Peak Hour Buildout Intersection Volumes

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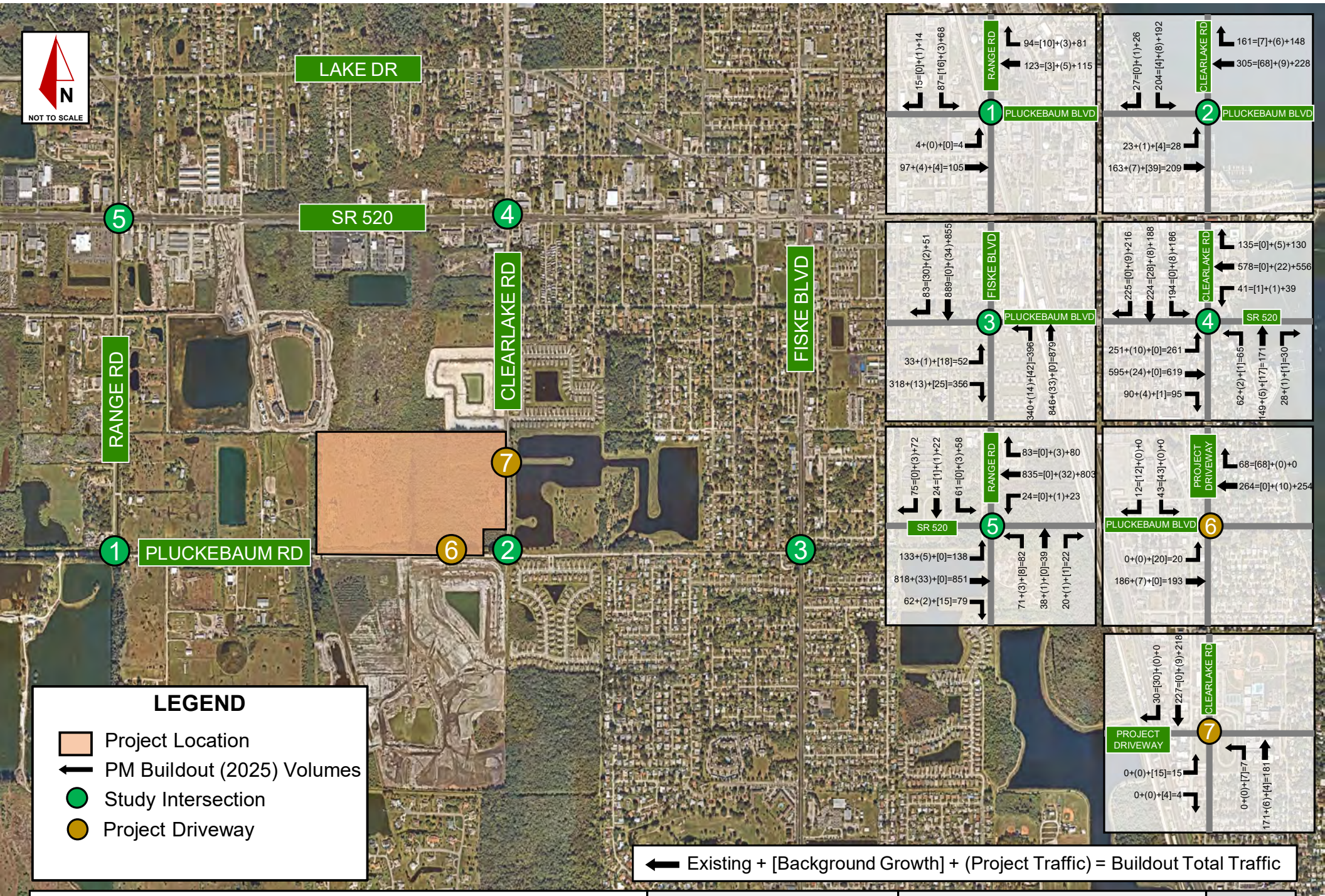



**Figure 5:** PM Peak Hour Buildout Intersection Volumes

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## 6.3 BUILDOUT INGRESS TURN LANE ANALYSIS

The need for exclusive ingress left-turn and right-turn lanes at the proposed access points was evaluated using the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds.

The need for exclusive right-turn lanes at the project driveways was determined by comparing the right turning volumes with the approach volume. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, no right-turn lanes are warranted at either project driveway.

The need for exclusive left-turn lanes on the project driveways was determined by comparing the percent left turning volume with the advancing and opposing volumes. Based on the project volumes shown in **Figures 4 and 5** and thresholds specified by the NCHRP Report 457, no left-turn lanes are warranted at either project driveway.

NCHRP outputs are provided in **Appendix K**.

# 7.0 CONCLUSION

This traffic impact analysis was performed to analyze and document the transportation impacts associated with the buildout of the Pluckebaum Residential located in the northwest quadrant of the intersection of Pluckebaum Road & Clearlake Road. The development, proposed for buildout in 2025, will consist of ±234 single-family homes. Access to the site will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road.

The project is expected to generate 2,206 daily trips, 161 AM peak hour trips (42 inbound and 119 outbound), and 198 PM peak hour trips (125 inbound and 73 outbound) based on data from the ITE *Trip Generation Manual*. Project trips were distributed onto the surrounding existing plus committed roadway network using the adopted regional travel demand model and manual assignment at the study area intersections.

A roadway segment capacity analysis was performed for the study area roadway segments for existing, background, and buildout conditions. The Daily and PM peak hour two-way analysis identified no roadway segment capacity deficiencies.

An operational analysis for existing and future conditions was performed at the intersections within the study area. All study area intersections operate with an acceptable overall LOS and with movement v/c ratios less than one (1.0) under existing, background, and buildout AM and PM peak hours with the exception of the eastbound right movement at Fiske Boulevard & Pluckebaum Road, which operates with v/c greater than one (1.0) in the buildout AM and PM peak hour. To address the buildout deficiency, signal timing adjustments are recommended. With the proposed improvement, the eastbound right movement operates with a v/c ratio less than one (1.0) in both the AM and PM peak hour.

The need for exclusive ingress right-turn lanes and left-turn lanes at the proposed site access points was evaluated based on the National Cooperative Highway Research Program (NCHRP) Report 457 thresholds. No right-turn lanes or left-turn lanes are warranted at either project driveway.

# APPENDIX A
# Methodology Statement

## Viteri, Sabrina

| | |
|---|---|
| From: | Figueroa-Chanza, Veronica <Veronica.Figueroa-Chanza@brevardfl.gov> |
| Sent: | Tuesday, June 28, 2022 3:54 PM |
| To: | Shellenberger, Erika |
| Cc: | Taylor, James; Viteri, Sabrina; jcooper@cityofrockledge.org; Gumm, Corrina |
| Subject: | RE: TIA Methodology - Pluckebaum Residential |
| Follow Up Flag: | Follow up |
| Flag Status: | Flagged |

Erika,

Brevard County staff has completed the review of the TIA methodology and offers the following comments to be addressed with submittal of the TIA:

1) Study area:
    a. The analysis extent of developments which fall under section III.C.2 of Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses shall be preliminarily established as 0.5-mile per every 100 peak hour trips, rounded up to the nearest 100 trips. Based on this development's PM peak hour trip generation, it is recommended to reduce the study area to a 1-mile radius.
    b. The segment analysis significance test is to extend the preliminary analysis extents as needed, not to remove segments within the preliminary area of influence. Include the following roadway segments in the analysis:
        i. SR 520 from Range Rd to Clearlake Rd (Link #14)
        ii. SR 520 from Clearlake Rd to Lake Dr (Link #4)
    c. Per Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses, all major signalized intersections shall be analyzed. Include the following intersections in the analysis:
        i. SR 520 at Range Rd
        ii. SR 520 at Clearlake Rd
2) Study Area Segments:
    a. Label all roadway segments with their roadway link ID as established by the Space Coast Transportation Planning Organization (SCTPO).
    b. Florida Traffic Online's data for Pluckebaum Rd is from Clearlake Rd to Fiske Blvd. Collect 24-Hour continuous machine approach counts for these two segments. Per Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses, The Traffic Operations Manager or designee reserves the right to request that roadway link data be collected.
    c. For Pluckebaum Rd from Burnett Rd to Range Rd and from Range Rd to Clearlake Rd, use a MAV of 15,600 and an adopted LOS of E.
    d. The 2021 AADT and v/c ratios presented in Table 1 do not match SCTPO counts. Use the SCTPO Traffic Counts Historical Report 2012-2021.
3) Trip Generation:
    a. The rates provided for land use code 210 do not match 11$^{th}$ edition rates.
    b. The $R^2$ value for all periods of both land use codes are at least 0.75 and they have at least 20 data points. Per ITE guidelines, use the fitted curve equations.
    c. Provide relevant ITE Trip Generation Manual excerpts.
4) Project Trip Distribution
    a. Label all roadway links with the road name in the daily trip distribution model output figures.
    b. In Figure 2, show 59% of project traffic between the project driveway and Clearlake Rd, in accordance with the CFRPM v7 model results.

5) Advisory comments:
    a. SCTPO has officially released its 2021 Traffic Counts. Use the SCTPO Traffic Counts Historical Report 2012-2021.
    b. Growth rates:
        i. Per Brevard County's Guidelines on Minimum Requirements for Traffic Impact Analyses, "Annual Growth Rates shall be applied to the background traffic by either applying an annual growth factor of 2%, or the annual growth rate of the roadway or adjacent roadway as established by the TPO, whichever is greater." Provide Annual Growth Rates for each roadway link as established by the SCTPO based on 2017-2021 data. For segments without 2021 counts, use 2014-2018 or 2015-2019 data. Additionally, use "Design Year" growth rates, not Trend Annual Historic Growth Rates.
        ii. Intersections: Apply approach growth rates based on the roadway segment corresponding to each intersection leg or a minimum annual growth factor of 2%, whichever is greater.

Regards,
Verónica

Verónica M. Figueroa-Chanza, PE
Transportation Engineer
Brevard County Public Works
2725 Judge Fran Jamieson Way, Viera, FL 32940
Office: 321-633-2077
veronica.figueroa-chanza@brevardfl.gov

---

From: Figueroa-Chanza, Veronica <>
Sent: Friday, June 24, 2022 9:43 AM
To: 'Shellenberger, Erika' <Erika.Shellenberger@kimley-horn.com>
Cc: Gumm, Corrina <corrina.gumm@brevardfl.gov>; Taylor, James <James.Taylor@kimley-horn.com>; Viteri, Sabrina <Sabrina.Viteri@kimley-horn.com>; jcooper@cityofrockledge.org
Subject: RE: TIA Methodology - Pluckebaum Residential

Erika,

Thank you for sending us the TIA methodology. We currently have a longer review timeframe due to a large backlog and other commitments. It may be 3-4 weeks before we can complete this. Also, I've attached the latest version of Brevard County's TIA Guidelines.

Regards,
Verónica

Verónica M. Figueroa-Chanza, PE
Transportation Engineer
Brevard County Public Works
2725 Judge Fran Jamieson Way, Viera, FL 32940
Office: 321-633-2077
veronica.figueroa-chanza@brevardfl.gov

---

From: Shellenberger, Erika <Erika.Shellenberger@kimley-horn.com>
Sent: Thursday, June 23, 2022 5:10 PM
To: jcooper@cityofrockledge.org
Cc: Figueroa-Chanza, Veronica <Veronica.Figueroa-Chanza@brevardfl.gov>; Gumm, Corrina <corrina.gumm@brevardfl.gov>; Taylor, James <James.Taylor@kimley-horn.com>; Viteri, Sabrina

<Sabrina.Viteri@kimley-horn.com>
Subject: TIA Methodology - Pluckebaum Residential

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon,

For your review, we have developed the attached TIA methodology based on the policies and guidelines of the City of Rockledge and Brevard County. Per the County's latest guidelines, the study area includes the roadway segments that are significantly impacted within a 1.5-mile radius and an operational analysis at the project access points and the following offsite intersections:

- Pluckebaum Road & Range Road
- Pluckebaum Road & Clearlake Road
- Pluckebaum Road & Fiske Boulevard

As part of the background volume development, trips from the currently under construction Harvest Landing project adjacent to the proposed development will be included.

Please let us know if this TIA methodology is acceptable and feel free to contact me with any comments or questions.

**Erika Shellenberger, E.I.**
**Kimley-Horn** | 189 S. Orange Ave. Suite 1000, Orlando, FL 32801
Direct: 689 206 9002 | Mobile: 317 549 5337

Kimley»Horn

# MEMORANDUM

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: June 23, 2022

Subject: Traffic Impact Analysis (TIA) Methodology
Pluckebaum Residential

---

**Purpose**
The following is a Traffic Impact Analysis (TIA) methodology outline for the above referenced project. The forthcoming TIA will generally conform to the methodology herein and the policies and guidelines of Brevard County and the City of Rockledge.

**Project Description**
Pluckebaum Residential is a proposed single-family development located in the northwest quadrant of the intersection of Pluckebaum Road & Clearlake Road in the City of Cocoa. As part of the development process, the applicant is planning to annex the project site into the City of Rockledge. The project property is currently vacant. The proposed Pluckebaum Residential development is to consist of ±141 single-family homes and ±132 single-family townhomes. Buildout of the proposed development is anticipated in 2025.

Access to the site will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. The access points are shown in the conceptual site plan provided in **Attachment A**.

**Study Area**

As stated in the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), the study area shall be preliminarily established with a radius of 0.5-miles per 100 peak hour trips. As determined in the Trip Generation portion of this memorandum, the proposed development is anticipated to generate 212 PM peak hour trips; therefore, the preliminary study area will have a radius of 1.5-miles.

A 5.0% significance test was performed for all roadway segments within the 1.5-mile area of influence that are included in the latest Space Coast TPO Traffic Counts Report. Significance was calculated by dividing the portion of total project trips assigned to each roadway segment by the corresponding maximum available volume (MAV) for that segment. A 5.0% significance test was performed for all concurrent roadway segments and a 1.0% significance test for all roadway segments with concurrency failure within the 1.5-mile preliminary study area. **Table 1** summarizes the roadway segment significance test and the study area determination.

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Per the Brevard County *Guidelines on Minimum Requirements for Traffic Impact Analyses* (2022), the study should include each major median opening where links are operating at 80% of the capacity of the road. As shown in **Table 1**, no links within the study area are operating at 80% of the capacity of the road; therefore, intersections along the significantly impacted study area segments will be included in the study area.

From this analysis, the study area roadway segments and intersections are listed below and displayed on **Figure 1**:

Study Area Roadway Segments

- Pluckebaum Road from Range Road to Clearlake Road
- Pluckebaum Road from Clearlake Road to Fiske Boulevard

Study Area Intersections

- Pluckebaum Road & Range Road
- Pluckebaum Road & Clearlake Road
- Pluckebaum Road & Fiske Boulevard

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**Table 1:** Study Area Segments

| Roadway | | Roadway Attributes [1] | | | | Daily Project Traffic Total Daily Trips = 2,341 | | | Included in Study Area [4] |
|---|---|---|---|---|---|---|---|---|---|
| From | To | Adopted LOS | Max Avail. Volume (MAV) | 2021 AADT | Existing V/C Ratio | % Project Distribution [2] | Project Trips | % Impact [3] | |
| ***Pluckebaum*** | | | | | | | | | |
| Burnett Rd. | Range Rd. | D | 15,930 | 3,600 | 0.23 | 2% | 47 | 0.30% | No |
| Range Rd. | Clearlake Rd. | D | 15,930 | 3,600 | 0.23 | 59% | 1,381 | 8.67% | **Yes** |
| Clearlake Rd. | Fiske Blvd. | E | 15,600 | 6,530 | 0.42 | 59% | 1,381 | 8.85% | **Yes** |
| ***Fiske Boulevard*** | | | | | | | | | |
| Barton Blvd. | St. Andrews Dr. | D | 41,790 | 10,620 | 0.25 | 31% | 726 | 1.74% | No |
| St. Andrews | Pluckebaum Rd. | D | 41,790 | 24,187 | 0.58 | 32% | 749 | 1.79% | No |
| Pluckebaum Rd. | Rosa Jones Dr. | D | 41,790 | 15,372 | 0.37 | 24% | 562 | 1.34% | No |
| Rosa Jones Dr. | SR-520 | D | 41,790 | 15,784 | 0.38 | 18% | 421 | 1.01% | No |
| SR-520 | Dixon Blvd. | E | 15,600 | 7,300 | 0.47 | 5% | 117 | 0.75% | No |
| ***Clearlake Road*** | | | | | | | | | |
| Pluckebaum Rd. | SR-520 | E | 15,600 | 6,530 | 0.42 | 25% | 585 | 3.75% | No |
| SR-520 | Lake Dr | D | 39,800 | 13,100 | 0.33 | 22% | 515 | 1.29% | No |
| Lake Dr | Dixon Blvd. | D | 39,800 | 16,460 | 0.41 | 20% | 468 | 1.18% | No |
| ***Range*** | | | | | | | | | |
| Pluckebaum Rd. | SR-520 | E | 15,600 | 3,600 | 0.23 | 13% | 304 | 1.95% | No |
| SR-520 | Lake Dr. | E | 15,600 | 7,300 | 0.47 | 1% | 23 | 0.15% | No |
| Lake Dr. | Michigan Ave. | E | 15,600 | 5,990 | 0.38 | 1% | 23 | 0.15% | No |
| ***SR 520*** | | | | | | | | | |
| Burnett Rd. | Range Rd. | D | 41,790 | 22,550 | 0.54 | 12% | 281 | 0.67% | No |
| Range Rd. | Clearlake Rd. | D | 41,790 | 22,400 | 0.54 | 1% | 23 | 0.06% | No |
| Clearlake Rd. | Lake Dr. | D | 39,800 | 21,550 | 0.54 | 1% | 23 | 0.06% | No |
| Lake Dr. | Fiske Blvd. | D | 39,800 | 24,750 | 0.62 | 1% | 23 | 0.06% | No |
| Fiske Blvd. | Blake Ave. | D | 41,790 | 26,680 | 0.64 | 13% | 304 | 0.73% | No |
| Blake Ave. | US 1 | D | 41,790 | 26,510 | 0.63 | 12% | 281 | 0.67% | No |

*Notes:*

*1. Data obtained from the Space Coast TPO Traffic Counts Report. If segment not included in SCTPO data, Florida Traffic Online data and 2020 FDOT Q/LOS Tables were used.*

*2. Percent project traffic assignment was calculated as the maximum across the segment.*

*3. Percent impact was calculated as the project traffic divided by the maximum service volume.*

*4. The minimum threshold for significance was at least 5% impact of the maximum service volume. For failing roadways, the threshold for significance was at least 1%.*

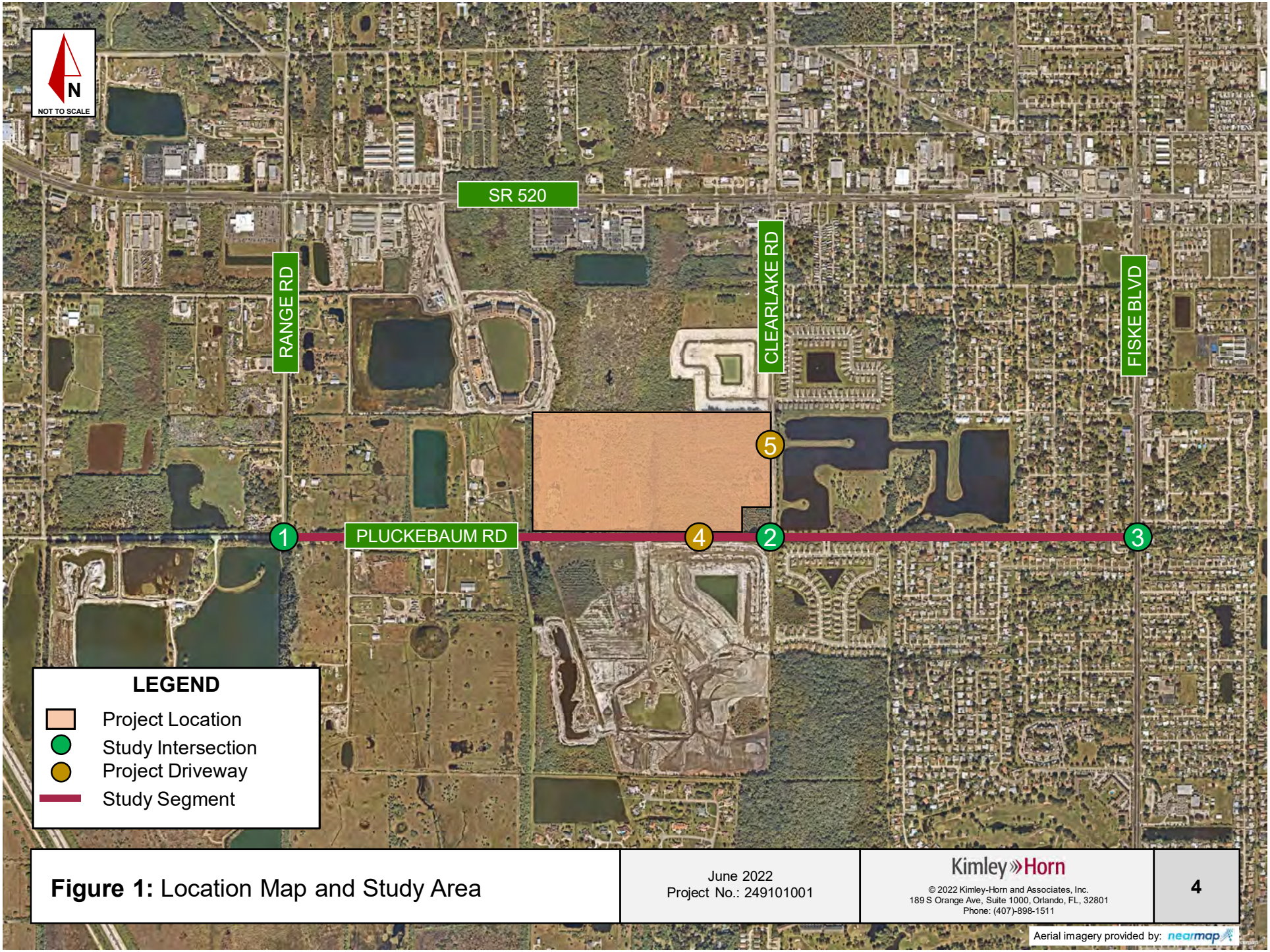



**Figure 1:** Location Map and Study Area

June 2022
Project No.: 249101001

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Phone: (407)-898-1511

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Aerial imagery provided by: nearmap

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**Existing and Background (2025) Conditions**
An existing roadway segment analysis will be performed for Daily and PM peak hour conditions within the study area by comparing existing count data available from the latest Space Coast Transportation Planning Organization (SCTPO) Traffic Counts Report and Florida Traffic Online database to the segment's maximum allowable volume, as provided by the SCTPO and the 2020 FDOT Q/LOS Tables. Background volumes on roadway segments will be derived by applying a 2% annual growth plus trips from the adjacent Harvest Landing project currently under construction. A background (2025) roadway segment analysis will also be conducted by comparing background volumes to maximum allowable volumes. Any capacity deficiencies will be identified.

Intersection turning movement counts will be collected in the AM and PM peak hour at study area intersections. An intersection capacity analysis will be performed using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate existing and background operational conditions at the study area intersections and project driveways by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified.

**Trip Generation**
Trip generation for the proposed project was calculated per procedures published in the 11th Edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*. The Land Use Codes (LUC) used for the proposed site are:

- LUC 210, Single-Family Detached Housing
- LUC 215, Single-Family Attached Housing

**Table 2** provides the Daily, AM peak hour, and PM peak hour trip generation summary for the project.

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**Table 2:** Trip Generation Summary

| | Land Use | ITE LUC[1] | Size | Units | ITE Trip Rate[1] | Daily | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Total | In[1] | | Out[1] | |
| Daily | Single-Family Detached Housing | 210 | **141** | DU | 9.82 | 1,385 | *50%* | 693 | *50%* | 692 |
| | Single-Family Attached Housing | 215 | **132** | DU | 7.24 | 956 | *50%* | 478 | *50%* | 478 |
| | **Total Generated Trips** | | | | | **2,341** | **1,171** | | **1,170** | |
| | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **AM Peak Hour** | | | | |
| | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| AM Peak Hour | Single-Family Detached Housing | 210 | **141** | DU | 0.72 | 102 | *26%* | 27 | *74%* | 75 |
| | Single-Family Attached Housing | 215 | **132** | DU | 0.48 | 63 | *31%* | 20 | *69%* | 43 |
| | **Total Generated Trips** | | | | | **165** | **47** | | **118** | |
| | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **PM Peak Hour** | | | | |
| | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| PM Peak Hour | Single-Family Detached Housing | 210 | **141** | DU | 0.97 | 137 | *63%* | 86 | *37%* | 51 |
| | Single-Family Attached Housing | 215 | **132** | DU | 0.57 | 75 | *57%* | 43 | *43%* | 32 |
| | **Total Generated Trips** | | | | | **212** | **129** | | **83** | |

*Note: [1] Vehicle trip rate and directional splits per ITE Trip Generation, 11th Edition*

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**Trip Distribution and Trip Assignment**
Projected traffic demand of project trips on study roadways was derived with use of the adopted regional travel demand model. Land use data for the project was entered into a new traffic analysis zone (TAZ) within the Central Florida Regional Planning Model model set and situated within the existing roadway network to appropriately represent project access. The model was used to assign trips for all trip purposes between allocated origin and destination pairs using project build-out year model data. Trip distribution for the project was extracted from the completed model assignment and reviewed for logic. The resulting model plot showing percent of daily project distribution is provided in **Attachment B**.

Daily model project distribution will be referenced to manually assign project distribution at the study area intersections and driveways in general accordance with the model output. **Figure 2** shows the project distribution generated by the proposed development to be used in the forthcoming TIA. This project trip distribution is subject to changed based upon the proposed site plan.

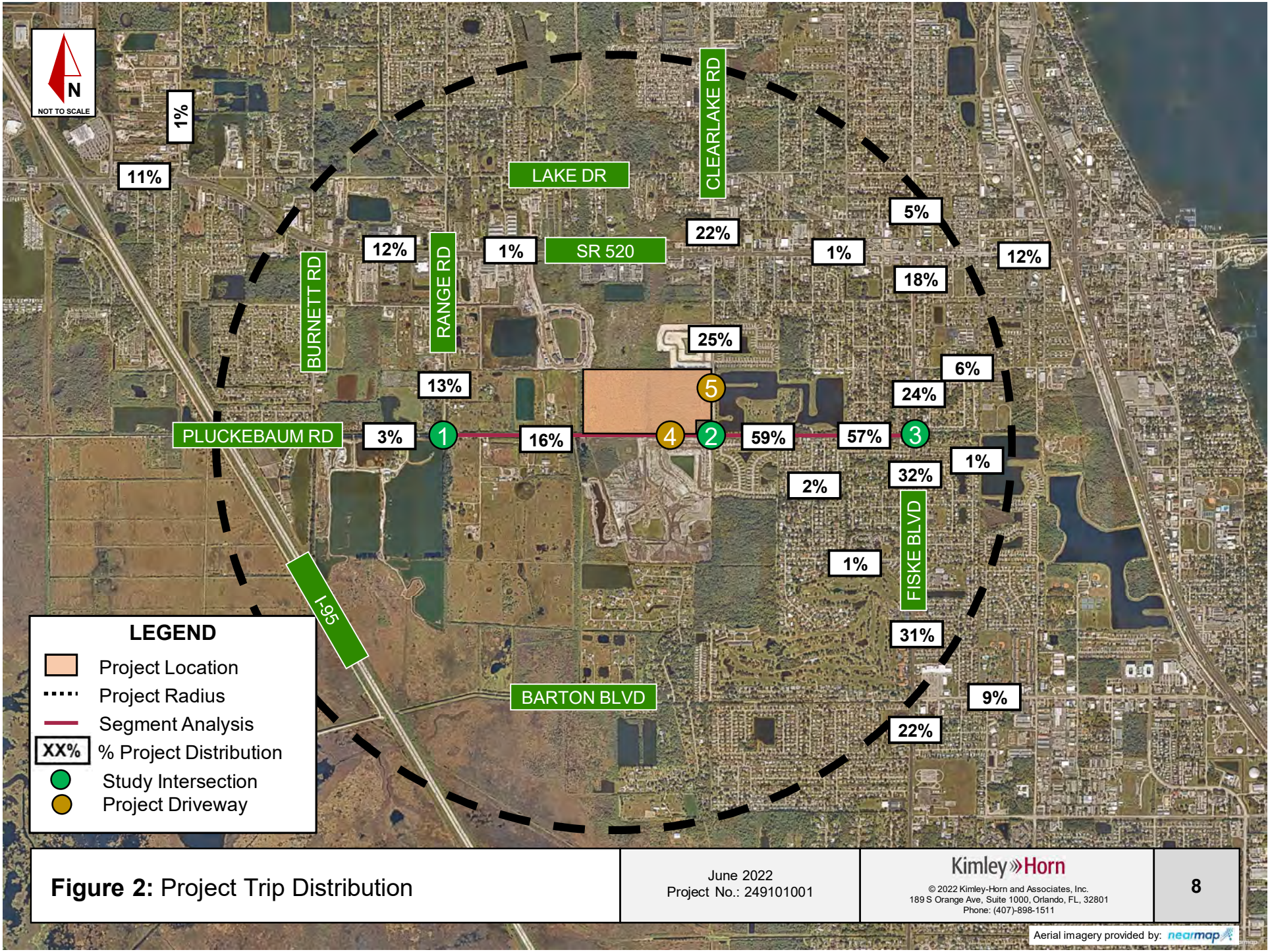



**Figure 2:** Project Trip Distribution

June 2022
Project No.: 249101001

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Phone: (407)-898-1511

8

Aerial imagery provided by: nearmap

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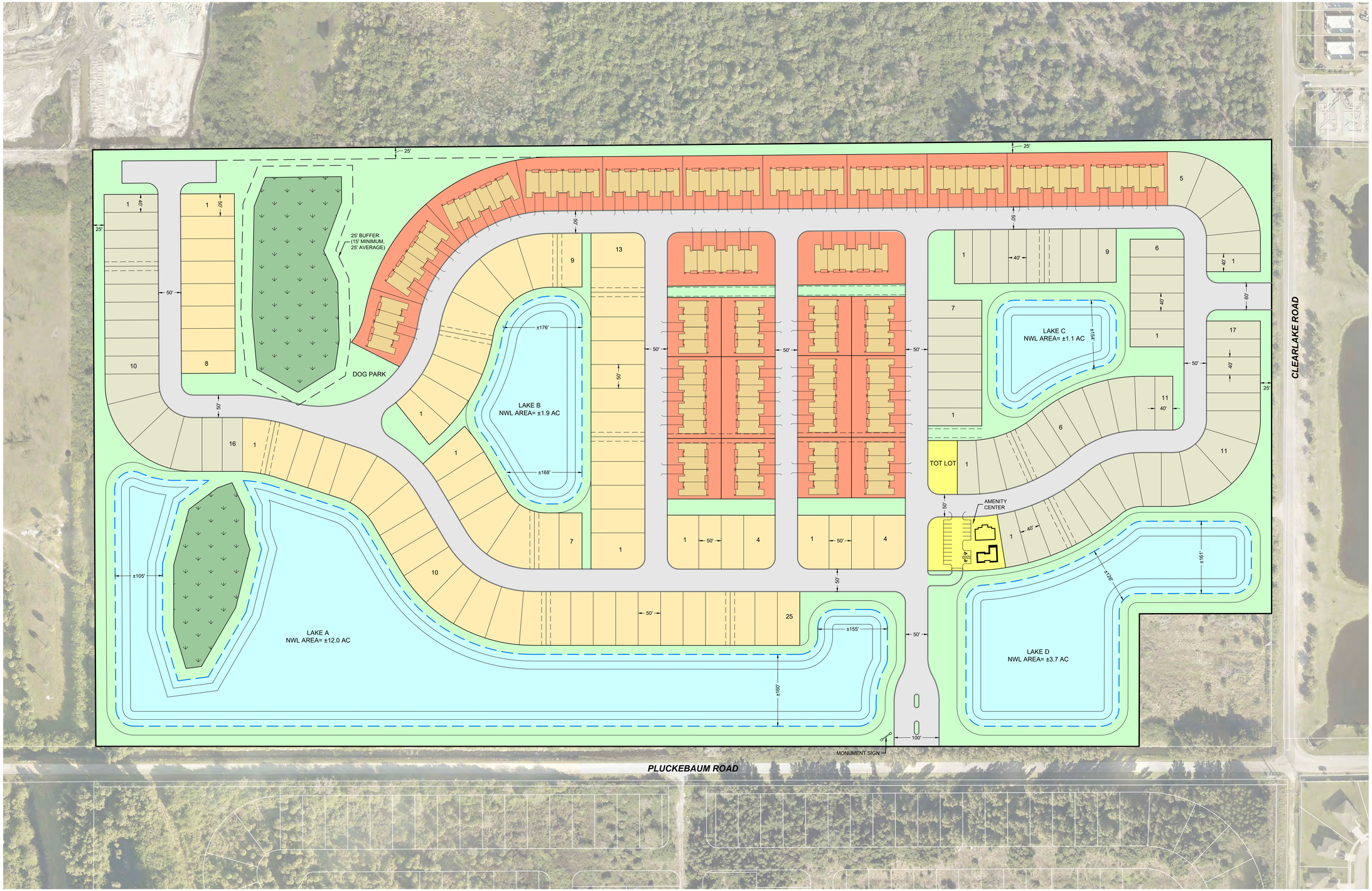
**Buildout (2025) Conditions**
A buildout (2025) roadway segment analysis will be performed for Daily and PM peak hour conditions within the study area by comparing buildout volume projections to the segment's maximum allowable volumes. Buildout volumes will be derived by adding background volumes and project trips on study area roadway segments. Any capacity deficiencies will be identified.

An intersection capacity analysis will be performed for buildout (2025) conditions using the operational analysis procedures outlined in the *Highway Capacity Manual* 6th Edition. Specifically, Synchro (v11) software will be used to evaluate buildout operational conditions at the study area intersections and project driveways by reporting volume to capacity (v/c) ratios, level of service, and queue length demands. Any operational deficiencies will be identified. If necessary, mitigating measures for any operational deficiencies identified due to project traffic impact will be recommended in the TIA.

**Report/Conclusions**
All analysis and findings will be documented in a report to be provided to the City of Rockledge for review.

K:\ORL_TPTO\249101001_Pluckebaum Residential\02_Documentation\Methodology\Pluckebaum Residential_TIA Methodology_06-22-2022.docx

**Attachment A**
Site Concept Plan




| | ACRES | % |
|---|---|---|
| OVERALL SITE AREA | 78.66 | 100 |
| OPEN/RECREATION SPACE AREA | 4.63 | 5.88 |
| DOG PARK | .29 | .37 |
| TOT LOT | .22 | .28 |

| | ACRES | % |
|---|---|---|
| AMENITY CENTER | .45 | .57 |
| LAKE TRACT | 25.02 | 31.77 |
| WETLAND/BUFFER | 4.36 | 5.53 |
| 25' PERIMETER BUFFER AND MISCELLANEOUS GREEN/OPEN SPACE | 4.49 | 5.70 |

| | LOT SIZE | FRONT SETBACK | REAR SETBACK | SIDE SETBACK | LOT COUNT | % |
|---|---|---|---|---|---|---|
| TOWN HOMES | 24'x120' | 20' | 5' | 5' | 132 | 48 |
| | | | | | | |
| SINGLE FAMILY 40's | 40'x120' | 20' | 25' | 3'/7' | 71 | 26.0 |
| | | | | | | |
| SINGLE FAMILY 50's | 50'x120' | 20' | 25' | 3'/7' | 70 | 26.0 |
| TOTAL LOT COUNT | | | | | 273 | 100 |


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING -
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159

CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


**NOTE:**
**BOUNDARY LINES BASED ON PROPERTY APPRAISER'S INFORMATION AND WETLANDS ARE FROM COUNTY GIS DATA.**

100 0 50 100
( IN FEET )

| | |
|---|---|
| DATE: | 04/27/22 |
| DESIGN/DRAWN: | ALS/DSN |

**PROJECT TITLE**

# LENNAR - PLUCKEBAUM RD

**SHEET TITLE**

## CONCEPT B

**PROJECT NO.** 11638

**DRAWING NO.** 11638_200_002

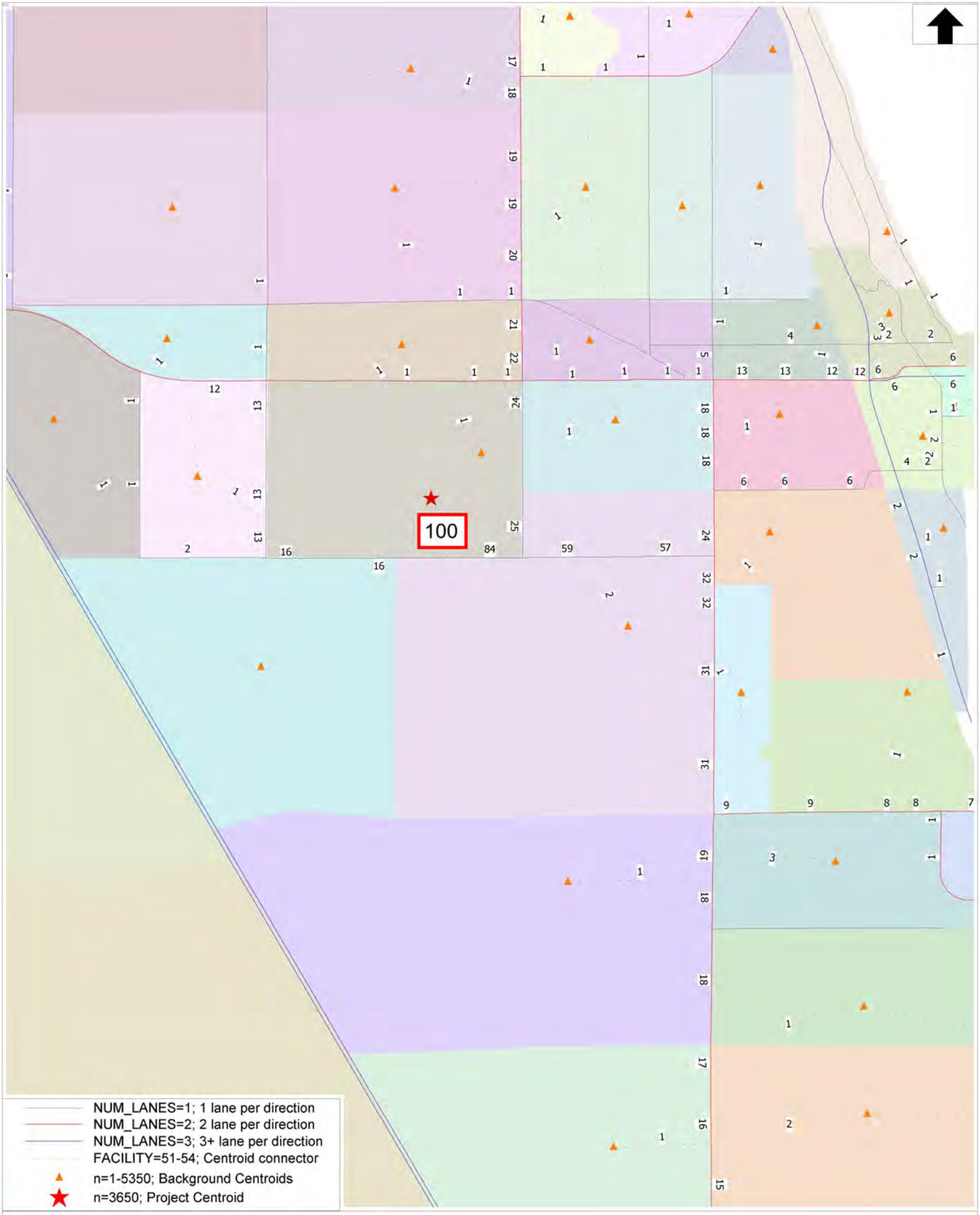
**SHEET** 1 of 1

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.



I:\Projects Folder\11638\Drawings\11638_200\11638_200_002.dwg, April 26, 2022 10:00:10 AM, DN

## Attachment B
Daily Model Plot

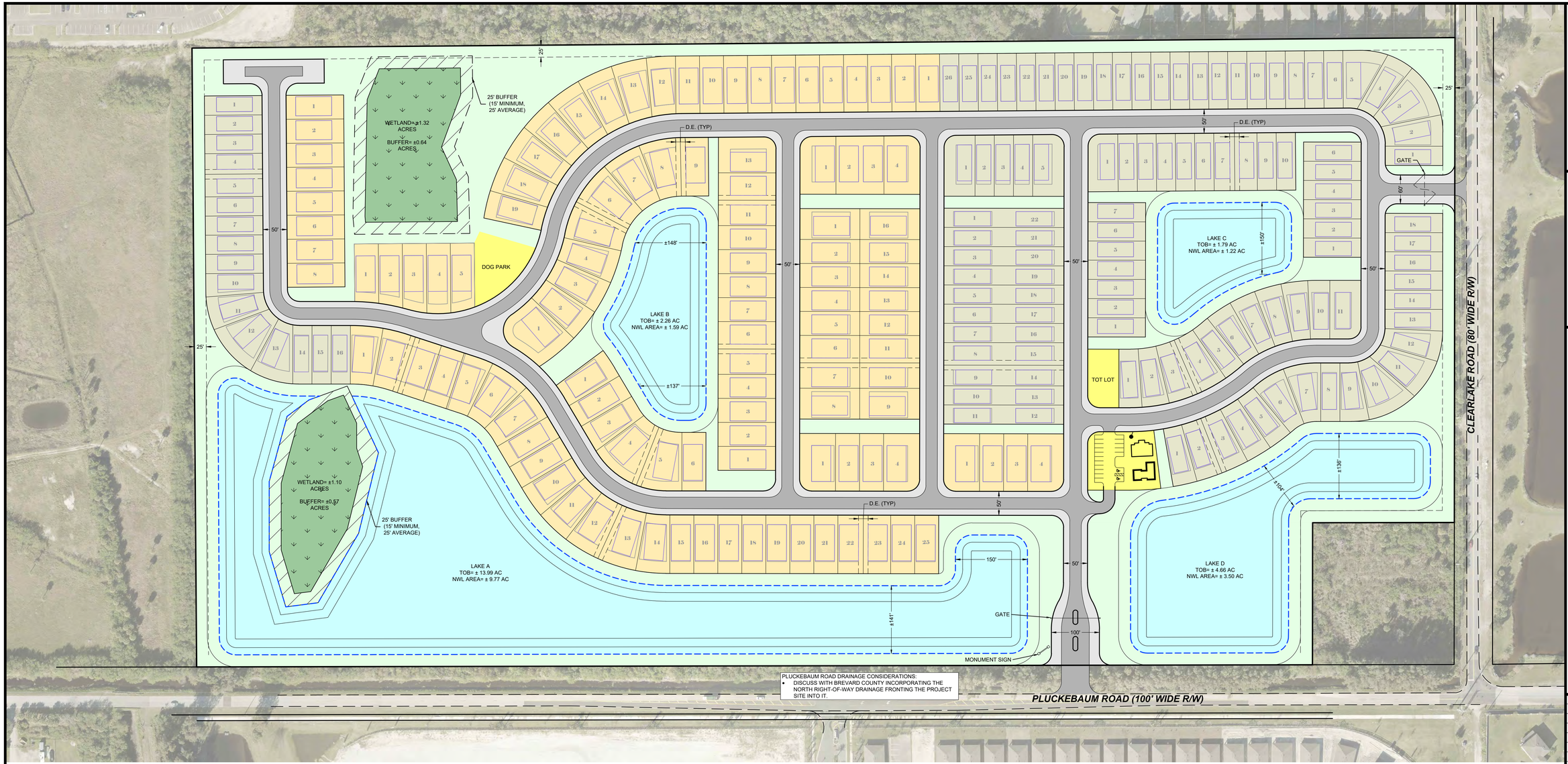



Pluckebaum Residential - Project Distribution (Percent)

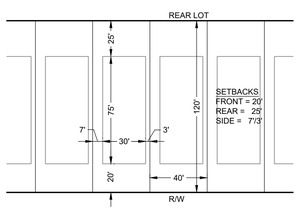
cube

(Licensed to Kimley Horn and Associates Inc)

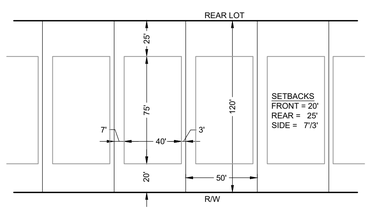
# APPENDIX B
## Concept Site Plan




AERIAL PHOTO PROVIDED BY BREVARD COUNTY PROPERTY APPRAISER 2023




40' LOT DETAIL




50' LOT DETAIL

| ZONING AND LAND USE TABLE | | |
|---|---|---|
| **LOCATION** | **ZONING** | **LAND USE** |
| SUBJECT SITE - EXISTING | RU-1-7 (COCOA) | RESIDENTIAL VERY LOW (COCOA) |
| SUBJECT SITE - PROPOSED | PUD (ROCKLEDGE) | MDR 3-15 DU / ACRE (ROCKLEDGE) |
| NORTH | RU-2-15 AND RR-1 (COCOA) | MDR AND LDR (COCOA) |
| SOUTH | PUD (ROCKLEDGE) | LDR (ROCKLEDGE) |
| EAST | ROC (ROCKLEDGE) | N COMM (COCOA) AND RPM (ROCKLEDGE) |
| WEST | RU-2-10 (COUNTY) | RES 15 DU / ACRE (COUNTY) |

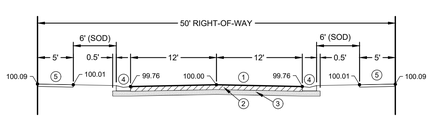
TOTAL SITE AREA = ± 76.21 ACRES
TOTAL LAKE AREA = ± 16.08 ACRES (±21.09 %)

**UNIT MIX**:

121 (51.71%) = 40 FT WIDE - SINGLE FAMILY
113 (48.29%) = 50 FT WIDE - SINGLE FAMILY
234 (100%) = TOTAL LOTS

**OPEN SPACE CALCULATION:**

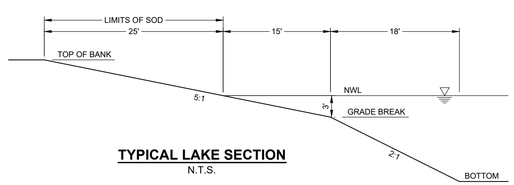
| | |
|---|---|
| TOTAL SITE AREA | = 76.21 ACRES |
| LESS THE FOLLOWING: | |
| LOT / BLOCK | = 32.88 ACRES |
| OPEN/GREEN/RECREATION SPACE | = 12.84 ACRES |
| DOG PARK | = 0.28 ACRES |
| TOT LOT | = 0.17 ACRES |
| AMENITY CENTER | = 0.40 ACRES |
| LAKE AT NWL | = 16.08 ACRES |
| ROAD RIGHT-OF-WAY | = 9.93 ACRES |
| WETLAND/ BUFFER | = 3.63 ACRES |




**50' WIDE RIGHT-OF-WAY AND ROAD SECTION DETAIL**
N.T.S.

## KEY

1. 1-1/2" TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME COAT
   OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 10" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 6" BEYOND CURB)
4. MIAMI CURB - 2' WIDE
5. CONCRETE SIDEWALK; 1.5% DESIGN CROSS SLOPE, 2% MAX.




**TYPICAL LAKE SECTION**
N.T.S.


**B.S.E. CONSULTANTS, INC.**
**CONSULTING - ENGINEERING - LAND SURVEYING**

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159

CERTIFICATE OF PROFESSIONAL ENGINEERS
BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )

| | |
|---|---|
| DATE: | 04/05/23 |
| DESIGN/DRAWN: | ALS/AH |

**PROJECT TITLE**

# LENNAR - PLUCKEBAUM RD

**SHEET TITLE**

# PRELIMINARY DEVELOPMENT PLAN (SINGLE-FAMILY)

**PROJECT NO.**
11638

**DRAWING NO.**
11638_200_015

**SHEET**
1 of 1

H:\Projects Folder\11638\Drawings\11638_200\11638_200_015.dwg April 5, 2023 1:47:39 PM AH

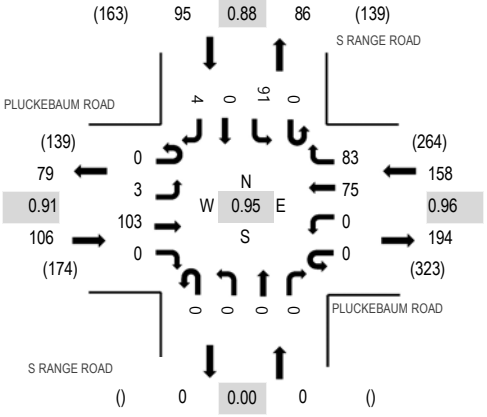
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

# APPENDIX C
## Turning Movement Counts

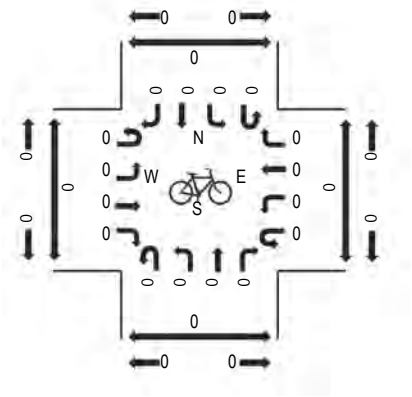
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 S RANGE ROAD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

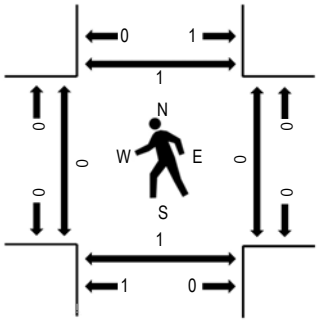
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 11 | 0 | 0 | 0 | 17 | 15 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 54 | 285 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 1 | 51 | 316 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 1 | 28 | 0 | 0 | 0 | 20 | 19 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 91 | 359 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 25 | 0 | 0 | 0 | 12 | 28 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 3 | 89 | 335 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 1 | 25 | 0 | 0 | 0 | 20 | 18 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 85 | 316 | 0 | 0 | 1 | 0 |
| 8:15 AM | 0 | 1 | 25 | 0 | 0 | 0 | 23 | 18 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 1 | 94 | | 0 | 0 | 0 | 1 |
| 8:30 AM | 0 | 0 | 21 | 0 | 0 | 0 | 12 | 17 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 2 | 67 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 24 | 0 | 0 | 0 | 12 | 9 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 3 | 70 | | 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 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| Lights | 0 | 2 | 97 | 0 | 0 | 0 | 71 | 78 | 0 | 0 | 0 | 0 | 0 | 82 | 0 | 2 | 332 |
| Mediums | 0 | 1 | 6 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 2 | 23 |
| Total | 0 | 3 | 103 | 0 | 0 | 0 | 75 | 83 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 4 | 359 |

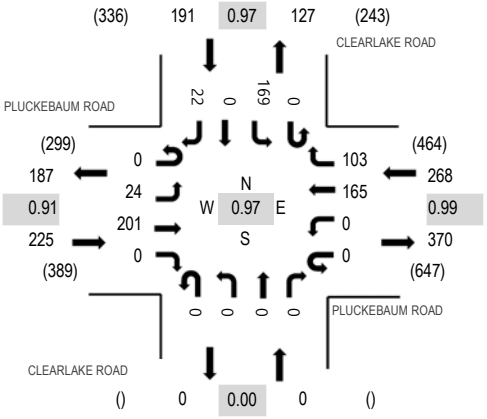
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 6.6% | | | | 5.7% | | | | 0.0% | | | | 11.6% | | | 7.5% |
| Heavy Vehicle % | 0.0% | 33.3% | 5.8% | 0.0% | 0.0% | 0.0% | 5.3% | 6.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 9.9% | 0.0% | 50.0% | 7.5% |
| Peak Hour Factor | | 0.91 | | | | 0.96 | | | | 0.00 | | | | 0.88 | | | 0.95 |
| Peak Hour Factor | 0.00 | 0.75 | 0.92 | 0.00 | 0.00 | 0.00 | 0.82 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 | 0.00 | 0.50 | 0.95 |

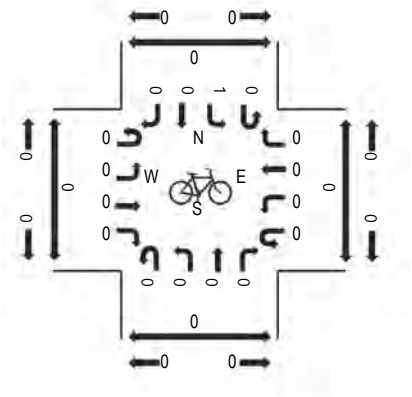
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 CLEARLAKE ROAD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

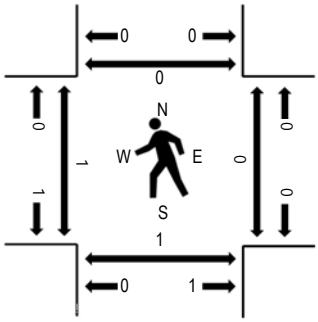
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 23 | 0 | 0 | 0 | 28 | 20 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 4 | 110 | 584 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 7 | 33 | 0 | 0 | 0 | 28 | 21 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 3 | 121 | 637 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 4 | 56 | 0 | 0 | 0 | 43 | 24 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 3 | 176 | 684 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 8 | 54 | 0 | 0 | 0 | 39 | 29 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 6 | 177 | 646 | 1 | 0 | 1 | 0 |
| 8:00 AM | 0 | 3 | 45 | 0 | 0 | 0 | 39 | 28 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 8 | 163 | 605 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 9 | 46 | 0 | 0 | 0 | 44 | 22 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 5 | 168 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 3 | 39 | 0 | 0 | 0 | 22 | 26 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 2 | 138 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 6 | 48 | 0 | 0 | 0 | 23 | 28 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 2 | 136 | | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 19 | 196 | 0 | 0 | 0 | 159 | 99 | 0 | 0 | 0 | 0 | 0 | 161 | 0 | 21 | 655 |
| Mediums | 0 | 5 | 5 | 0 | 0 | 0 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 29 |
| Total | 0 | 24 | 201 | 0 | 0 | 0 | 165 | 103 | 0 | 0 | 0 | 0 | 0 | 169 | 0 | 22 | 684 |

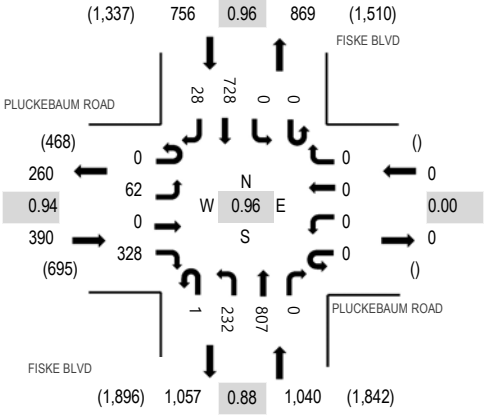
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 4.4% | | | | 3.7% | | | | 0.0% | | | | 4.7% | | | 4.2% |
| Heavy Vehicle % | 0.0% | 20.8% | 2.5% | 0.0% | 0.0% | 0.0% | 3.6% | 3.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 4.7% | 0.0% | 4.5% | 4.2% |
| Peak Hour Factor | | 0.91 | | | | 0.99 | | | | 0.00 | | | | 0.97 | | | 0.97 |
| Peak Hour Factor | 0.00 | 0.67 | 0.90 | 0.00 | 0.00 | 0.00 | 0.94 | 0.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 | 0.00 | 0.69 | 0.97 |

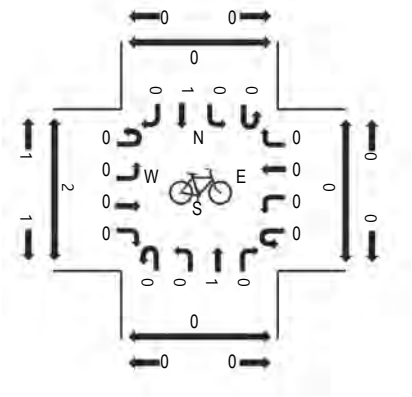
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 FISKE BLVD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 08:00 AM - 08:15 AM

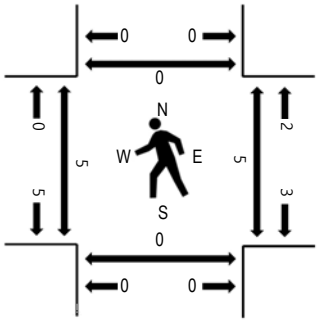
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | FISKE BLVD Northbound | | | | FISKE BLVD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 36 | 114 | 0 | 0 | 0 | 107 | 0 | 313 | 1,750 | 0 | 1 | 0 | 0 |
| 7:15 AM | 0 | 9 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 40 | 148 | 0 | 0 | 0 | 144 | 2 | 404 | 2,008 | 0 | 1 | 0 | 0 |
| 7:30 AM | 0 | 8 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 59 | 182 | 0 | 0 | 0 | 139 | 4 | 488 | 2,130 | 0 | 3 | 0 | 0 |
| 7:45 AM | 0 | 17 | 0 | 89 | 0 | 0 | 0 | 0 | 1 | 67 | 195 | 0 | 0 | 0 | 171 | 5 | 545 | 2,186 | 5 | 3 | 0 | 0 |
| 8:00 AM | 0 | 19 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 62 | 233 | 0 | 0 | 0 | 180 | 6 | 571 | 2,124 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 15 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 58 | 170 | 0 | 0 | 0 | 191 | 8 | 526 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 11 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 45 | 209 | 0 | 0 | 0 | 186 | 9 | 544 | | 0 | 1 | 0 | 0 |
| 8:45 AM | 0 | 9 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 57 | 166 | 0 | 0 | 0 | 175 | 10 | 483 | | 0 | 2 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 8 |
| Lights | 0 | 61 | 0 | 314 | 0 | 0 | 0 | 0 | 1 | 224 | 790 | 0 | 0 | 0 | 695 | 24 | 2,109 |
| Mediums | 0 | 1 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 8 | 15 | 0 | 0 | 0 | 28 | 4 | 69 |
| Total | 0 | 62 | 0 | 328 | 0 | 0 | 0 | 0 | 1 | 232 | 807 | 0 | 0 | 0 | 728 | 28 | 2,186 |

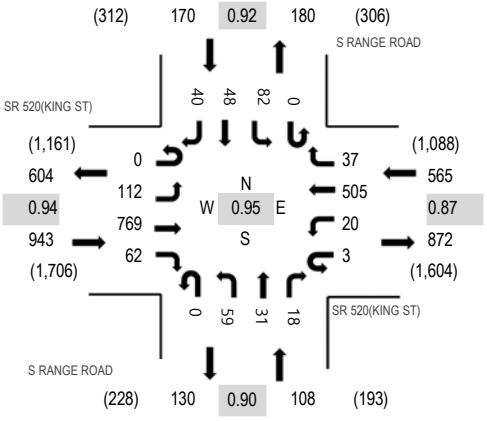
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 3.8% | | | | 0.0% | | | | 2.4% | | | | 4.9% | | | 3.5% |
| Heavy Vehicle % | 0.0% | 1.6% | 0.0% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 3.4% | 2.1% | 0.0% | 0.0% | 0.0% | 4.5% | 14.3% | 3.5% |
| Peak Hour Factor | | 0.94 | | | | 0.00 | | | | 0.88 | | | | 0.96 | | | 0.96 |
| Peak Hour Factor | 0.00 | 0.82 | 0.00 | 0.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.92 | 0.87 | 0.00 | 0.00 | 0.00 | 0.96 | 0.83 | 0.96 |

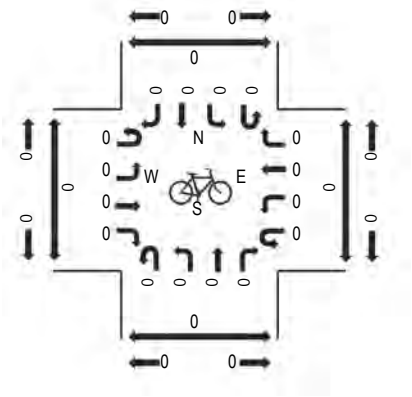
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 S RANGE ROAD & SR 520(KING ST) AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

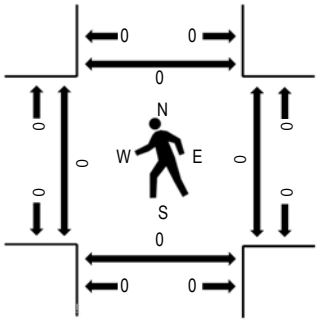
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 10 | 131 | 11 | 0 | 2 | 120 | 7 | 0 | 10 | 3 | 3 | 0 | 18 | 4 | 8 | 327 | 1,608 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 32 | 169 | 13 | 0 | 7 | 90 | 9 | 0 | 12 | 4 | 6 | 0 | 15 | 4 | 5 | 367 | 1,684 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 43 | 196 | 13 | 1 | 4 | 124 | 8 | 0 | 16 | 5 | 6 | 0 | 23 | 12 | 7 | 458 | 1,786 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 25 | 190 | 16 | 1 | 8 | 131 | 11 | 0 | 14 | 13 | 1 | 0 | 19 | 12 | 15 | 456 | 1,720 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 21 | 178 | 17 | 1 | 3 | 112 | 9 | 0 | 13 | 6 | 4 | 0 | 20 | 10 | 9 | 403 | 1,691 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 23 | 205 | 16 | 0 | 5 | 138 | 9 | 0 | 16 | 7 | 7 | 0 | 20 | 14 | 9 | 469 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 22 | 170 | 11 | 2 | 6 | 109 | 8 | 0 | 15 | 5 | 2 | 0 | 21 | 7 | 14 | 392 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 12 | 165 | 15 | 2 | 12 | 139 | 10 | 0 | 15 | 4 | 6 | 0 | 22 | 6 | 18 | 427 | | 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 | 10 | 2 | 0 | 1 | 5 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 23 |
| Lights | 0 | 106 | 731 | 58 | 3 | 16 | 467 | 35 | 0 | 52 | 29 | 12 | 0 | 71 | 46 | 38 | 1,664 |
| Mediums | 0 | 6 | 28 | 2 | 0 | 3 | 33 | 1 | 0 | 4 | 2 | 5 | 0 | 11 | 2 | 2 | 99 |
| Total | 0 | 112 | 769 | 62 | 3 | 20 | 505 | 37 | 0 | 59 | 31 | 18 | 0 | 82 | 48 | 40 | 1,786 |

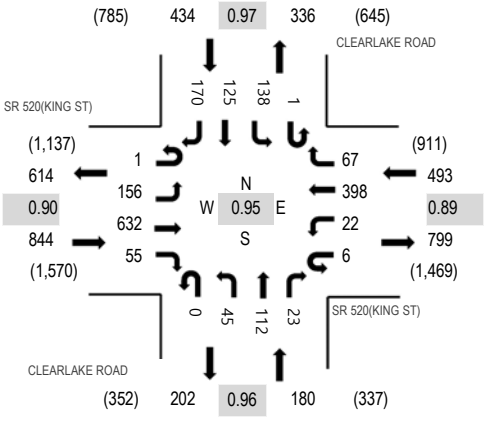
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 5.1% | | | | 7.8% | | | | 13.9% | | | | 8.8% | | | 6.8% |
| Heavy Vehicle % | 0.0% | 5.4% | 4.9% | 6.5% | 0.0% | 20.0% | 7.5% | 5.4% | 0.0% | 11.9% | 6.5% | 33.3% | 0.0% | 13.4% | 4.2% | 5.0% | 6.8% |
| Peak Hour Factor | | 0.94 | | | | 0.87 | | | | 0.90 | | | | 0.92 | | | 0.95 |
| Peak Hour Factor | 0.25 | 0.70 | 0.94 | 0.91 | 0.63 | 0.54 | 0.91 | 0.84 | 0.00 | 0.92 | 0.60 | 0.68 | 0.00 | 0.94 | 0.86 | 0.69 | 0.95 |

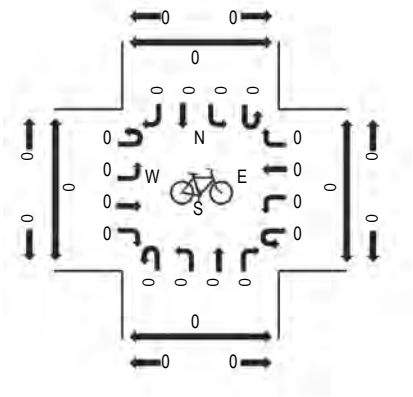
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 CLEARLAKE ROAD & SR 520(KING ST) AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

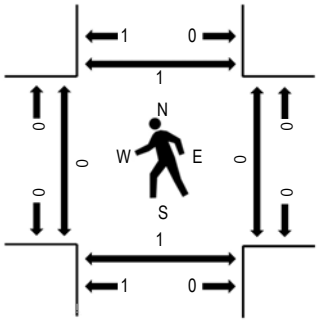
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 37 | 99 | 6 | 1 | 1 | 75 | 11 | 0 | 10 | 17 | 5 | 0 | 36 | 20 | 28 | 346 | 1,747 | 0 | 0 | 1 | 0 |
| 7:15 AM | 0 | 52 | 130 | 9 | 0 | 4 | 64 | 8 | 0 | 13 | 28 | 4 | 0 | 28 | 17 | 32 | 389 | 1,854 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 42 | 179 | 13 | 2 | 5 | 97 | 17 | 0 | 10 | 31 | 4 | 1 | 33 | 36 | 42 | 512 | 1,951 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 36 | 159 | 17 | 1 | 3 | 110 | 18 | 0 | 13 | 30 | 1 | 0 | 31 | 29 | 52 | 500 | 1,898 | 0 | 0 | 0 | 0 |
| 8:00 AM | 1 | 39 | 137 | 14 | 3 | 7 | 82 | 15 | 0 | 13 | 21 | 10 | 0 | 39 | 32 | 40 | 453 | 1,856 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 39 | 157 | 11 | 0 | 7 | 109 | 17 | 0 | 9 | 30 | 8 | 0 | 35 | 28 | 36 | 486 | | 0 | 0 | 1 | 1 |
| 8:30 AM | 1 | 36 | 142 | 23 | 2 | 4 | 96 | 13 | 0 | 10 | 26 | 4 | 0 | 39 | 38 | 25 | 459 | | 0 | 0 | 1 | 0 |
| 8:45 AM | 1 | 42 | 143 | 5 | 1 | 2 | 118 | 18 | 0 | 10 | 21 | 9 | 0 | 27 | 21 | 40 | 458 | | 0 | 1 | 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 | 2 | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 17 |
| Lights | 1 | 145 | 603 | 52 | 6 | 20 | 368 | 65 | 0 | 42 | 106 | 22 | 1 | 127 | 119 | 160 | 1,837 |
| Mediums | 0 | 9 | 21 | 3 | 0 | 2 | 25 | 2 | 0 | 3 | 6 | 1 | 0 | 9 | 6 | 10 | 97 |
| Total | 1 | 156 | 632 | 55 | 6 | 22 | 398 | 67 | 0 | 45 | 112 | 23 | 1 | 138 | 125 | 170 | 1,951 |

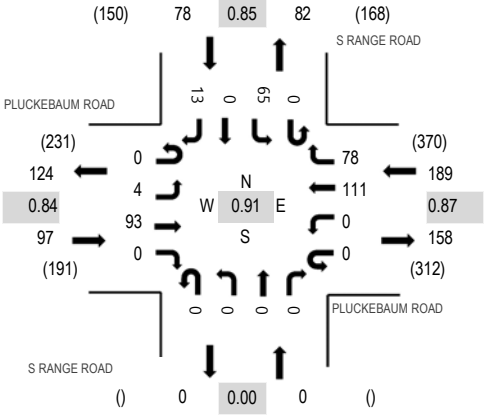
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 5.1% | | | | 6.9% | | | | 5.6% | | | | 6.2% | | | 5.8% |
| Heavy Vehicle % | 0.0% | 7.1% | 4.6% | 5.5% | 0.0% | 9.1% | 7.5% | 3.0% | 0.0% | 6.7% | 5.4% | 4.3% | 0.0% | 8.0% | 4.8% | 5.9% | 5.8% |
| Peak Hour Factor | | 0.90 | | | | 0.89 | | | | 0.96 | | | | 0.97 | | | 0.95 |
| Peak Hour Factor | 0.75 | 0.81 | 0.88 | 0.71 | 0.50 | 0.79 | 0.86 | 0.93 | 0.00 | 0.94 | 0.90 | 0.78 | 0.25 | 0.92 | 0.84 | 0.82 | 0.95 |

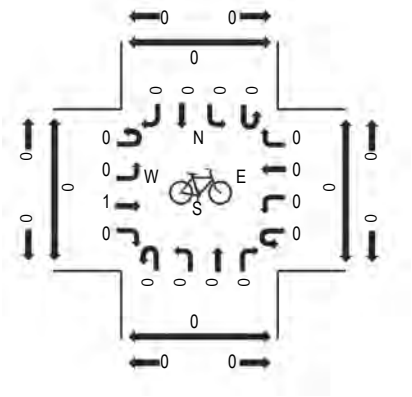
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 S RANGE ROAD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

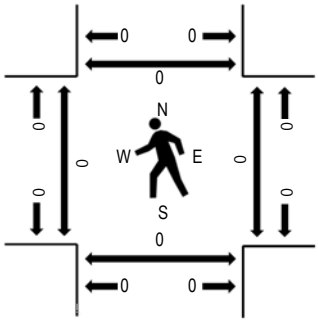
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 2 | 30 | 0 | 0 | 0 | 20 | 21 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 92 | 354 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 1 | 18 | 0 | 0 | 0 | 24 | 15 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 1 | 79 | 344 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 2 | 23 | 0 | 0 | 0 | 27 | 23 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 93 | 357 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 1 | 30 | 0 | 0 | 0 | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 1 | 90 | 364 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 16 | 0 | 0 | 0 | 29 | 17 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 2 | 82 | 357 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 18 | 0 | 0 | 0 | 35 | 22 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 1 | 92 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 3 | 29 | 0 | 0 | 0 | 25 | 20 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 9 | 100 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 1 | 17 | 0 | 0 | 0 | 30 | 21 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 5 | 83 | | 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 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lights | 0 | 4 | 91 | 0 | 0 | 0 | 110 | 75 | 0 | 0 | 0 | 0 | 0 | 61 | 0 | 12 | 353 |
| Mediums | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 10 |
| Total | 0 | 4 | 93 | 0 | 0 | 0 | 111 | 78 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 13 | 364 |

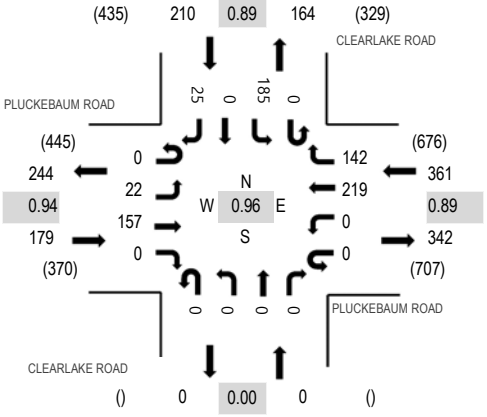
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 2.1% | | | | 2.1% | | | | 0.0% | | | | 6.4% | | | 3.0% |
| Heavy Vehicle % | 0.0% | 0.0% | 2.2% | 0.0% | 0.0% | 0.0% | 0.9% | 3.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 6.2% | 0.0% | 7.7% | 3.0% |
| Peak Hour Factor | | 0.84 | | | | 0.87 | | | | 0.00 | | | | 0.85 | | | 0.91 |
| Peak Hour Factor | 0.00 | 0.75 | 0.84 | 0.00 | 0.00 | 0.00 | 0.85 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.93 | 0.00 | 0.47 | 0.91 |

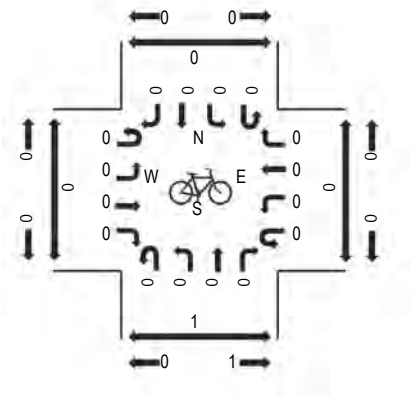
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 CLEARLAKE ROAD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

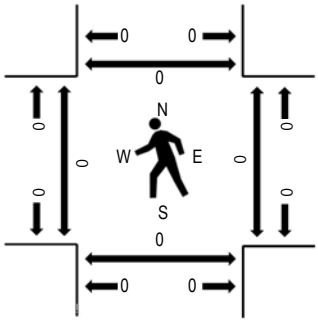
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 6 | 45 | 0 | 0 | 0 | 43 | 36 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 4 | 192 | 731 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 3 | 41 | 0 | 0 | 0 | 41 | 34 | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 8 | 182 | 711 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 6 | 39 | 0 | 0 | 0 | 44 | 31 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 11 | 176 | 725 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 6 | 45 | 0 | 0 | 0 | 43 | 43 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 7 | 181 | 735 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 6 | 37 | 0 | 0 | 0 | 54 | 27 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 5 | 172 | 750 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 3 | 43 | 0 | 0 | 0 | 63 | 38 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 6 | 196 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 8 | 42 | 0 | 0 | 0 | 52 | 29 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 8 | 186 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 5 | 35 | 0 | 0 | 0 | 50 | 48 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 6 | 196 | | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 22 | 154 | 0 | 0 | 0 | 215 | 142 | 0 | 0 | 0 | 0 | 0 | 182 | 0 | 25 | 740 |
| Mediums | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| Total | 0 | 22 | 157 | 0 | 0 | 0 | 219 | 142 | 0 | 0 | 0 | 0 | 0 | 185 | 0 | 25 | 750 |

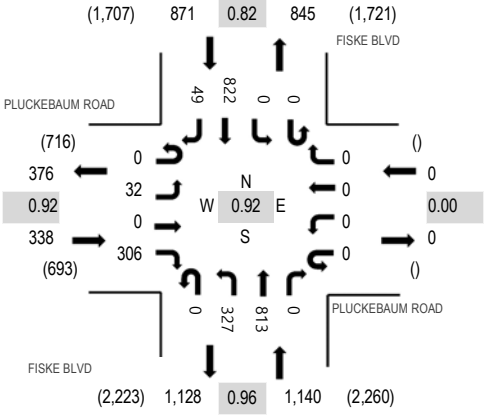
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | | 1.7% | | | | 1.1% | | | | 0.0% | | | | 1.4% | | 1.3% |
| Heavy Vehicle % | 0.0% | 0.0% | 1.9% | 0.0% | 0.0% | 0.0% | 1.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.6% | 0.0% | 0.0% | 1.3% |
| Peak Hour Factor | | | 0.94 | | | | 0.89 | | | | 0.00 | | | | 0.89 | | 0.96 |
| Peak Hour Factor | 0.00 | 0.72 | 0.94 | 0.00 | 0.00 | 0.00 | 0.87 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.84 | 0.00 | 0.70 | 0.96 |

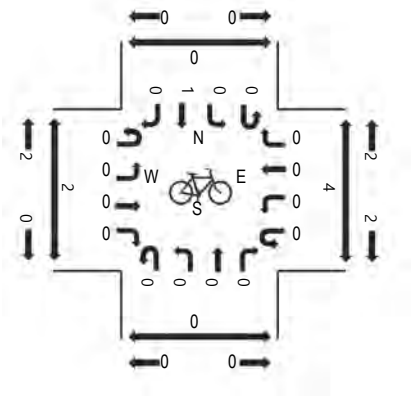
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 FISKE BLVD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

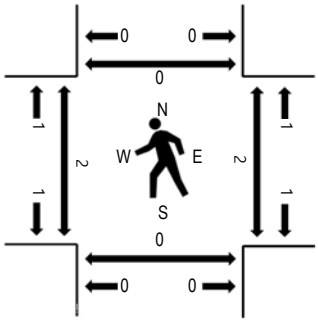
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | FISKE BLVD Northbound | | | | FISKE BLVD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 14 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 74 | 213 | 0 | 0 | 0 | 207 | 9 | 599 | 2,311 | 0 | 2 | 0 | 0 |
| 4:15 PM | 0 | 16 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 64 | 205 | 0 | 0 | 0 | 175 | 15 | 552 | 2,244 | 0 | 3 | 0 | 0 |
| 4:30 PM | 0 | 10 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 73 | 228 | 0 | 0 | 0 | 199 | 15 | 604 | 2,330 | 1 | 5 | 0 | 0 |
| 4:45 PM | 0 | 3 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 76 | 187 | 0 | 0 | 0 | 202 | 14 | 556 | 2,302 | 1 | 1 | 0 | 0 |
| 5:00 PM | 0 | 7 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 79 | 191 | 0 | 0 | 0 | 177 | 12 | 532 | 2,349 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 8 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 84 | 194 | 0 | 0 | 0 | 257 | 13 | 638 | | 2 | 1 | 0 | 0 |
| 5:30 PM | 0 | 5 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 80 | 217 | 0 | 0 | 0 | 186 | 9 | 576 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 12 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 84 | 211 | 0 | 0 | 0 | 202 | 15 | 603 | | 0 | 1 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 32 | 0 | 302 | 0 | 0 | 0 | 0 | 0 | 322 | 804 | 0 | 0 | 0 | 809 | 49 | 2,318 |
| Mediums | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | 0 | 0 | 0 | 13 | 0 | 30 |
| Total | 0 | 32 | 0 | 306 | 0 | 0 | 0 | 0 | 0 | 327 | 813 | 0 | 0 | 0 | 822 | 49 | 2,349 |

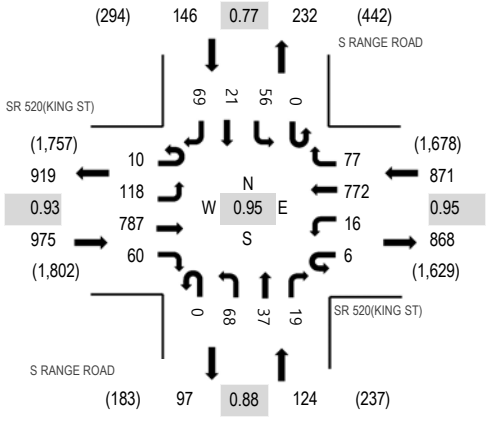
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 1.2% | | | | 0.0% | | | | 1.2% | | | | 1.5% | | | 1.3% |
| Heavy Vehicle % | 0.0% | 0.0% | 0.0% | 1.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.5% | 1.1% | 0.0% | 0.0% | 0.0% | 1.6% | 0.0% | 1.3% |
| Peak Hour Factor | | 0.92 | | | | 0.00 | | | | 0.96 | | | | 0.82 | | | 0.92 |
| Peak Hour Factor | 0.00 | 0.67 | 0.00 | 0.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | 0.91 | 0.00 | 0.00 | 0.00 | 0.81 | 0.93 | 0.92 |

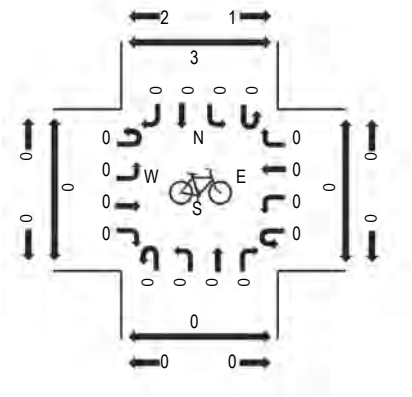
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 S RANGE ROAD & SR 520(KING ST) PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

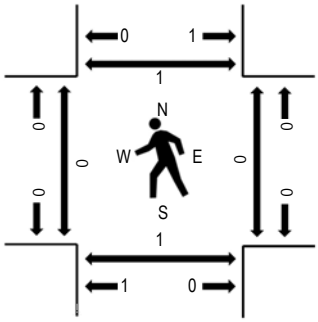
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 3 | 23 | 153 | 15 | 2 | 2 | 179 | 16 | 0 | 11 | 10 | 4 | 0 | 21 | 10 | 13 | 462 | 1,954 | 0 | 0 | 1 | 0 |
| 4:15 PM | 2 | 33 | 176 | 9 | 4 | 1 | 198 | 17 | 0 | 13 | 10 | 7 | 0 | 18 | 13 | 18 | 519 | 2,006 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 18 | 169 | 10 | 0 | 5 | 190 | 14 | 0 | 17 | 9 | 1 | 0 | 13 | 7 | 7 | 462 | 2,021 | 0 | 0 | 0 | 0 |
| 4:45 PM | 4 | 30 | 177 | 16 | 1 | 5 | 200 | 18 | 0 | 12 | 10 | 7 | 0 | 14 | 7 | 10 | 511 | 2,116 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 29 | 195 | 6 | 1 | 1 | 189 | 19 | 0 | 19 | 8 | 8 | 0 | 16 | 5 | 18 | 514 | 2,057 | 0 | 0 | 0 | 0 |
| 5:15 PM | 2 | 29 | 208 | 18 | 2 | 6 | 172 | 28 | 0 | 16 | 6 | 2 | 0 | 15 | 5 | 25 | 534 | | 0 | 0 | 1 | 1 |
| 5:30 PM | 4 | 30 | 207 | 20 | 2 | 4 | 211 | 12 | 0 | 21 | 13 | 2 | 0 | 11 | 4 | 16 | 557 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 32 | 174 | 8 | 2 | 2 | 156 | 19 | 0 | 17 | 9 | 5 | 0 | 12 | 4 | 12 | 452 | | 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 | 2 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 |
| Lights | 9 | 109 | 761 | 51 | 5 | 15 | 758 | 72 | 0 | 68 | 35 | 17 | 0 | 52 | 21 | 66 | 2,039 |
| Mediums | 1 | 7 | 21 | 8 | 1 | 1 | 12 | 5 | 0 | 0 | 2 | 2 | 0 | 4 | 0 | 2 | 66 |
| Total | 10 | 118 | 787 | 60 | 6 | 16 | 772 | 77 | 0 | 68 | 37 | 19 | 0 | 56 | 21 | 69 | 2,116 |

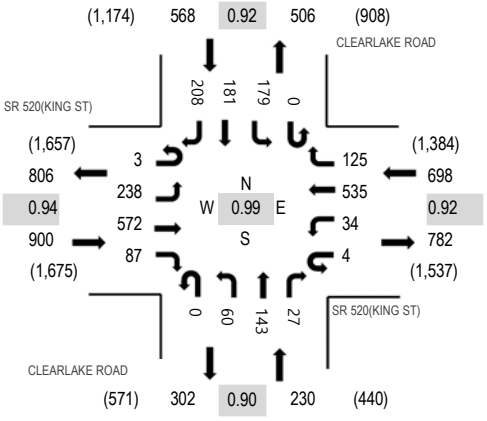
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 4.6% | | | | 2.4% | | | | 3.2% | | | | 4.8% | | | 3.6% |
| Heavy Vehicle % | 10.0% | 7.6% | 3.3% | 15.0% | 16.7% | 6.3% | 1.8% | 6.5% | 0.0% | 0.0% | 5.4% | 10.5% | 0.0% | 7.1% | 0.0% | 4.3% | 3.6% |
| Peak Hour Factor | | 0.93 | | | | 0.95 | | | | 0.88 | | | | 0.77 | | | 0.95 |
| Peak Hour Factor | 0.69 | 0.94 | 0.95 | 0.75 | 0.44 | 0.71 | 0.97 | 0.71 | 0.00 | 0.87 | 0.98 | 0.72 | 0.00 | 0.79 | 0.71 | 0.71 | 0.95 |

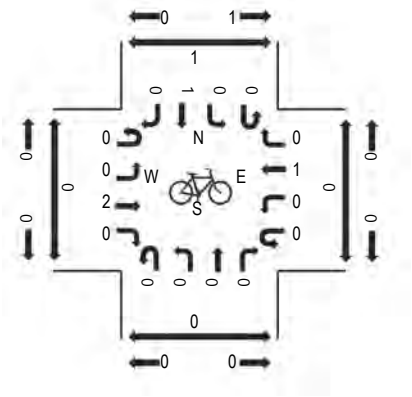
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 CLEARLAKE ROAD & SR 520(KING ST) PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

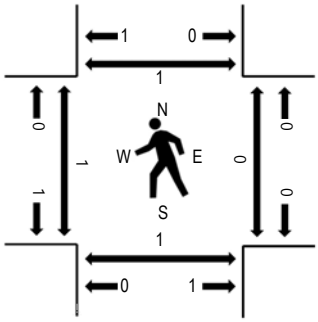
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 46 | 129 | 23 | 2 | 5 | 122 | 20 | 0 | 19 | 26 | 7 | 0 | 52 | 60 | 53 | 564 | 2,277 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 39 | 136 | 13 | 1 | 5 | 145 | 31 | 0 | 12 | 37 | 9 | 0 | 48 | 41 | 55 | 572 | 2,320 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 42 | 134 | 16 | 2 | 6 | 153 | 21 | 0 | 11 | 26 | 3 | 0 | 53 | 41 | 63 | 571 | 2,352 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 51 | 128 | 18 | 2 | 4 | 144 | 23 | 0 | 14 | 40 | 6 | 0 | 43 | 37 | 60 | 570 | 2,376 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 61 | 149 | 20 | 2 | 9 | 119 | 34 | 0 | 14 | 30 | 7 | 0 | 52 | 49 | 60 | 607 | 2,396 | 1 | 0 | 0 | 1 |
| 5:15 PM | 1 | 63 | 155 | 21 | 0 | 5 | 161 | 28 | 0 | 15 | 39 | 5 | 0 | 38 | 31 | 42 | 604 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 1 | 64 | 123 | 22 | 1 | 7 | 130 | 31 | 0 | 14 | 34 | 8 | 0 | 45 | 54 | 61 | 595 | | 0 | 0 | 1 | 0 |
| 5:45 PM | 0 | 50 | 145 | 24 | 1 | 13 | 125 | 32 | 0 | 17 | 40 | 7 | 0 | 44 | 47 | 45 | 590 | | 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 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 10 |
| Lights | 3 | 236 | 555 | 84 | 4 | 33 | 515 | 123 | 0 | 57 | 141 | 27 | 0 | 175 | 178 | 200 | 2,331 |
| Mediums | 0 | 1 | 14 | 3 | 0 | 0 | 18 | 2 | 0 | 2 | 1 | 0 | 0 | 4 | 2 | 8 | 55 |
| Total | 3 | 238 | 572 | 87 | 4 | 34 | 535 | 125 | 0 | 60 | 143 | 27 | 0 | 179 | 181 | 208 | 2,396 |

## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 2.4% | | | | 3.3% | | | | 2.2% | | | | 2.6% | | | 2.7% |
| Heavy Vehicle % | 0.0% | 0.8% | 3.0% | 3.4% | 0.0% | 2.9% | 3.7% | 1.6% | 0.0% | 5.0% | 1.4% | 0.0% | 0.0% | 2.2% | 1.7% | 3.8% | 2.7% |
| Peak Hour Factor | | 0.94 | | | | 0.92 | | | | 0.90 | | | | 0.92 | | | 0.99 |
| Peak Hour Factor | 0.75 | 0.93 | 0.92 | 0.91 | 0.88 | 0.65 | 0.90 | 0.92 | 0.00 | 0.88 | 0.89 | 0.84 | 0.00 | 0.92 | 0.84 | 0.94 | 0.99 |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 1
Station ID: 1
CLEARLAKE ROAD NORTH OF
PLUCKEBAUM ROAD

| Start Time | 07-Nov-23 Tues | NB Morning | NB Afternoon | Hour Totals Morning | Hour Totals Afternoon | SB Morning | SB Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 1 | 28 | | | 7 | 44 | | | | |
| 12:15 | | 1 | 31 | | | 1 | 44 | | | | |
| 12:30 | | 1 | 31 | | | 2 | 45 | | | | |
| 12:45 | | 1 | 22 | 4 | 112 | 1 | 38 | 11 | 171 | 15 | 283 |
| 01:00 | | 1 | 25 | | | 0 | 39 | | | | |
| 01:15 | | 0 | 24 | | | 1 | 38 | | | | |
| 01:30 | | 1 | 25 | | | 0 | 41 | | | | |
| 01:45 | | 0 | 23 | 2 | 97 | 2 | 38 | 3 | 156 | 5 | 253 |
| 02:00 | | 0 | 32 | | | 2 | 49 | | | | |
| 02:15 | | 0 | 18 | | | 1 | 39 | | | | |
| 02:30 | | 1 | 46 | | | 1 | 45 | | | | |
| 02:45 | | 1 | 40 | 2 | 136 | 1 | 37 | 5 | 170 | 7 | 306 |
| 03:00 | | 0 | 48 | | | 1 | 45 | | | | |
| 03:15 | | 0 | 40 | | | 4 | 40 | | | | |
| 03:30 | | 1 | 34 | | | 0 | 36 | | | | |
| 03:45 | | 0 | 35 | 1 | 157 | 3 | 62 | 8 | 183 | 9 | 340 |
| 04:00 | | 1 | 36 | | | 1 | 74 | | | | |
| 04:15 | | 5 | 49 | | | 5 | 56 | | | | |
| 04:30 | | 5 | 49 | | | 2 | 55 | | | | |
| 04:45 | | 2 | 35 | 13 | 169 | 9 | 58 | 17 | 243 | 30 | 412 |
| 05:00 | | 2 | 35 | | | 5 | 52 | | | | |
| 05:15 | | 6 | 36 | | | 10 | 61 | | | | |
| 05:30 | | 8 | 55 | | | 11 | 59 | | | | |
| 05:45 | | 13 | 47 | 29 | 173 | 22 | 46 | 48 | 218 | 77 | 391 |
| 06:00 | | 7 | 44 | | | 24 | 54 | | | | |
| 06:15 | | 14 | 20 | | | 18 | 45 | | | | |
| 06:30 | | 14 | 34 | | | 34 | 30 | | | | |
| 06:45 | | 20 | 16 | 55 | 114 | 44 | 39 | 120 | 168 | 175 | 282 |
| 07:00 | | 28 | 13 | | | 36 | 22 | | | | |
| 07:15 | | 27 | 22 | | | 40 | 21 | | | | |
| 07:30 | | 27 | 19 | | | 42 | 31 | | | | |
| 07:45 | | 32 | 12 | 114 | 66 | 55 | 23 | 173 | 97 | 287 | 163 |
| 08:00 | | 27 | 11 | | | 46 | 40 | | | | |
| 08:15 | | 29 | 16 | | | 41 | 21 | | | | |
| 08:30 | | 34 | 14 | | | 39 | 18 | | | | |
| 08:45 | | 31 | 10 | 121 | 51 | 47 | 22 | 173 | 101 | 294 | 152 |
| 09:00 | | 43 | 3 | | | 48 | 16 | | | | |
| 09:15 | | 28 | 4 | | | 49 | 19 | | | | |
| 09:30 | | 21 | 8 | | | 30 | 11 | | | | |
| 09:45 | | 22 | 4 | 114 | 19 | 36 | 16 | 163 | 62 | 277 | 81 |
| 10:00 | | 17 | 13 | | | 28 | 8 | | | | |
| 10:15 | | 25 | 6 | | | 34 | 13 | | | | |
| 10:30 | | 24 | 1 | | | 25 | 4 | | | | |
| 10:45 | | 30 | 1 | 96 | 21 | 41 | 4 | 128 | 29 | 224 | 50 |
| 11:00 | | 33 | 2 | | | 39 | 9 | | | | |
| 11:15 | | 25 | 3 | | | 18 | 4 | | | | |
| 11:30 | | 21 | 2 | | | 32 | 2 | | | | |
| 11:45 | | 25 | 4 | 104 | 11 | 28 | 5 | 117 | 20 | 221 | 31 |
| Total | | 655 | 1126 | | | 966 | 1618 | | | 1621 | 2744 |
| Percent | | 36.8% | 63.2% | | | 37.4% | 62.6% | | | 37.1% | 62.9% |
| Grand Total | | 655 | 1126 | | | 966 | 1618 | | | 1621 | 2744 |
| Percent | | 36.8% | 63.2% | | | 37.4% | 62.6% | | | 37.1% | 62.9% |
| ADT | | ADT 4,365 | | AADT 4,365 | | | | | | | |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 2
Station ID: 2
PLUCKEBAUM ROAD WEST OF
CLEARLAKE ROAD

| Start Time | 07-Nov-23 Tues | EB Morning | EB Afternoon | Hour Totals Morning | Hour Totals Afternoon | WB Morning | WB Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 1 | 27 | | | 6 | 41 | | | | |
| 12:15 | | 2 | 37 | | | 2 | 34 | | | | |
| 12:30 | | 1 | 25 | | | 2 | 48 | | | | |
| 12:45 | | 1 | 32 | 5 | 121 | 0 | 44 | 10 | 167 | 15 | 288 |
| 01:00 | | 1 | 38 | | | 0 | 47 | | | | |
| 01:15 | | 1 | 27 | | | 1 | 32 | | | | |
| 01:30 | | 1 | 30 | | | 0 | 37 | | | | |
| 01:45 | | 0 | 27 | 3 | 122 | 1 | 23 | 2 | 139 | 5 | 261 |
| 02:00 | | 0 | 39 | | | 1 | 42 | | | | |
| 02:15 | | 1 | 35 | | | 0 | 36 | | | | |
| 02:30 | | 0 | 37 | | | 1 | 35 | | | | |
| 02:45 | | 1 | 49 | 2 | 160 | 1 | 45 | 3 | 158 | 5 | 318 |
| 03:00 | | 1 | 43 | | | 2 | 56 | | | | |
| 03:15 | | 4 | 46 | | | 2 | 47 | | | | |
| 03:30 | | 2 | 42 | | | 2 | 43 | | | | |
| 03:45 | | 0 | 46 | 7 | 177 | 2 | 47 | 8 | 193 | 15 | 370 |
| 04:00 | | 3 | 48 | | | 1 | 53 | | | | |
| 04:15 | | 4 | 48 | | | 2 | 49 | | | | |
| 04:30 | | 6 | 49 | | | 3 | 59 | | | | |
| 04:45 | | 3 | 50 | 16 | 195 | 1 | 62 | 7 | 223 | 23 | 418 |
| 05:00 | | 2 | 49 | | | 4 | 71 | | | | |
| 05:15 | | 7 | 47 | | | 7 | 65 | | | | |
| 05:30 | | 7 | 53 | | | 5 | 59 | | | | |
| 05:45 | | 9 | 43 | 25 | 192 | 12 | 40 | 28 | 235 | 53 | 427 |
| 06:00 | | 15 | 32 | | | 12 | 36 | | | | |
| 06:15 | | 27 | 34 | | | 16 | 33 | | | | |
| 06:30 | | 26 | 17 | | | 19 | 31 | | | | |
| 06:45 | | 39 | 19 | 107 | 102 | 25 | 28 | 72 | 128 | 179 | 230 |
| 07:00 | | 42 | 20 | | | 21 | 20 | | | | |
| 07:15 | | 55 | 15 | | | 32 | 13 | | | | |
| 07:30 | | 53 | 9 | | | 47 | 20 | | | | |
| 07:45 | | 76 | 14 | 226 | 58 | 36 | 13 | 136 | 66 | 362 | 124 |
| 08:00 | | 55 | 11 | | | 42 | 18 | | | | |
| 08:15 | | 39 | 21 | | | 39 | 14 | | | | |
| 08:30 | | 44 | 11 | | | 47 | 10 | | | | |
| 08:45 | | 45 | 4 | 183 | 47 | 39 | 15 | 167 | 57 | 350 | 104 |
| 09:00 | | 45 | 13 | | | 29 | 20 | | | | |
| 09:15 | | 32 | 7 | | | 42 | 11 | | | | |
| 09:30 | | 27 | 13 | | | 31 | 7 | | | | |
| 09:45 | | 37 | 9 | 141 | 42 | 25 | 10 | 127 | 48 | 268 | 90 |
| 10:00 | | 24 | 6 | | | 28 | 5 | | | | |
| 10:15 | | 23 | 5 | | | 31 | 5 | | | | |
| 10:30 | | 32 | 5 | | | 35 | 8 | | | | |
| 10:45 | | 26 | 5 | 105 | 21 | 32 | 2 | 126 | 20 | 231 | 41 |
| 11:00 | | 33 | 0 | | | 26 | 3 | | | | |
| 11:15 | | 21 | 0 | | | 31 | 9 | | | | |
| 11:30 | | 26 | 4 | | | 27 | 1 | | | | |
| 11:45 | | 36 | 4 | 116 | 8 | 30 | 4 | 114 | 17 | 230 | 25 |
| Total | | 936 | 1245 | | | 800 | 1451 | | | 1736 | 2696 |
| Percent | | 42.9% | 57.1% | | | 35.5% | 64.5% | | | 39.2% | 60.8% |
| Grand Total | | 936 | 1245 | | | 800 | 1451 | | | 1736 | 2696 |
| Percent | | 42.9% | 57.1% | | | 35.5% | 64.5% | | | 39.2% | 60.8% |
| ADT | | ADT 4,432 | | AADT 4,432 | | | | | | | |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 3
Station ID: 3
PLUCKEBAUM ROAD EAST OF
CLEARLAKE ROAD

| Start Time | 07-Nov-23 Tues | EB Morning | EB Afternoon | Hour Totals Morning | Hour Totals Afternoon | WB Morning | WB Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 7 | 59 | | | 6 | 57 | | | | |
| 12:15 | | 3 | 67 | | | 3 | 52 | | | | |
| 12:30 | | 3 | 55 | | | 3 | 65 | | | | |
| 12:45 | | 2 | 63 | 15 | 244 | 1 | 59 | 13 | 233 | 28 | 477 |
| 01:00 | | 1 | 64 | | | 1 | 59 | | | | |
| 01:15 | | 2 | 58 | | | 1 | 49 | | | | |
| 01:30 | | 1 | 66 | | | 1 | 57 | | | | |
| 01:45 | | 2 | 57 | 6 | 245 | 1 | 38 | 4 | 203 | 10 | 448 |
| 02:00 | | 2 | 70 | | | 1 | 56 | | | | |
| 02:15 | | 2 | 67 | | | 0 | 47 | | | | |
| 02:30 | | 1 | 65 | | | 2 | 64 | | | | |
| 02:45 | | 2 | 74 | 7 | 276 | 2 | 73 | 5 | 240 | 12 | 516 |
| 03:00 | | 2 | 76 | | | 2 | 92 | | | | |
| 03:15 | | 6 | 70 | | | 0 | 71 | | | | |
| 03:30 | | 1 | 70 | | | 2 | 69 | | | | |
| 03:45 | | 3 | 91 | 12 | 307 | 2 | 65 | 6 | 297 | 18 | 604 |
| 04:00 | | 4 | 107 | | | 2 | 74 | | | | |
| 04:15 | | 7 | 93 | | | 5 | 87 | | | | |
| 04:30 | | 5 | 92 | | | 5 | 96 | | | | |
| 04:45 | | 10 | 100 | 26 | 392 | 1 | 89 | 13 | 346 | 39 | 738 |
| 05:00 | | 7 | 88 | | | 6 | 93 | | | | |
| 05:15 | | 11 | 96 | | | 7 | 89 | | | | |
| 05:30 | | 15 | 95 | | | 10 | 97 | | | | |
| 05:45 | | 28 | 82 | 61 | 361 | 22 | 80 | 45 | 359 | 106 | 720 |
| 06:00 | | 35 | 75 | | | 15 | 69 | | | | |
| 06:15 | | 39 | 73 | | | 24 | 47 | | | | |
| 06:30 | | 55 | 40 | | | 28 | 58 | | | | |
| 06:45 | | 78 | 50 | 207 | 238 | 40 | 36 | 107 | 210 | 314 | 448 |
| 07:00 | | 67 | 36 | | | 38 | 27 | | | | |
| 07:15 | | 83 | 35 | | | 47 | 34 | | | | |
| 07:30 | | 82 | 38 | | | 61 | 37 | | | | |
| 07:45 | | 124 | 34 | 356 | 143 | 61 | 22 | 207 | 120 | 563 | 263 |
| 08:00 | | 91 | 50 | | | 59 | 28 | | | | |
| 08:15 | | 75 | 40 | | | 63 | 28 | | | | |
| 08:30 | | 72 | 27 | | | 70 | 22 | | | | |
| 08:45 | | 83 | 25 | 321 | 142 | 61 | 24 | 253 | 102 | 574 | 244 |
| 09:00 | | 82 | 27 | | | 60 | 21 | | | | |
| 09:15 | | 70 | 23 | | | 59 | 12 | | | | |
| 09:30 | | 53 | 24 | | | 48 | 15 | | | | |
| 09:45 | | 68 | 25 | 273 | 99 | 42 | 14 | 209 | 62 | 482 | 161 |
| 10:00 | | 45 | 13 | | | 38 | 17 | | | | |
| 10:15 | | 43 | 17 | | | 42 | 10 | | | | |
| 10:30 | | 51 | 9 | | | 53 | 9 | | | | |
| 10:45 | | 61 | 9 | 200 | 48 | 56 | 3 | 189 | 39 | 389 | 87 |
| 11:00 | | 60 | 9 | | | 47 | 5 | | | | |
| 11:15 | | 31 | 4 | | | 48 | 12 | | | | |
| 11:30 | | 51 | 6 | | | 41 | 3 | | | | |
| 11:45 | | 57 | 7 | 199 | 26 | 48 | 6 | 184 | 26 | 383 | 52 |
| Total | | 1683 | 2521 | | | 1235 | 2237 | | | 2918 | 4758 |
| Percent | | 40.0% | 60.0% | | | 35.6% | 64.4% | | | 38.0% | 62.0% |
| Grand Total | | 1683 | 2521 | | | 1235 | 2237 | | | 2918 | 4758 |
| Percent | | 40.0% | 60.0% | | | 35.6% | 64.4% | | | 38.0% | 62.0% |
| ADT | | ADT 7,676 | | AADT 7,676 | | | | | | | |

# APPENDIX D
# FDOT's Florida Traffic Online (FTO) Data

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7000  BREVARD COUNTYWIDE

MOCF: 0.93

| WEEK | DATES | SF | PSCF |
|---|---|---|---|
| 1 | 01/01/2022 - 01/01/2022 | 1.03 | 1.11 |
| 2 | 01/02/2022 - 01/08/2022 | 1.02 | 1.10 |
| 3 | 01/09/2022 - 01/15/2022 | 1.01 | 1.09 |
| 4 | 01/16/2022 - 01/22/2022 | 0.99 | 1.06 |
| 5 | 01/23/2022 - 01/29/2022 | 0.98 | 1.05 |
| * 6 | 01/30/2022 - 02/05/2022 | 0.96 | 1.03 |
| * 7 | 02/06/2022 - 02/12/2022 | 0.94 | 1.01 |
| * 8 | 02/13/2022 - 02/19/2022 | 0.92 | 0.99 |
| * 9 | 02/20/2022 - 02/26/2022 | 0.92 | 0.99 |
| *10 | 02/27/2022 - 03/05/2022 | 0.91 | 0.98 |
| *11 | 03/06/2022 - 03/12/2022 | 0.91 | 0.98 |
| *12 | 03/13/2022 - 03/19/2022 | 0.90 | 0.97 |
| *13 | 03/20/2022 - 03/26/2022 | 0.91 | 0.98 |
| *14 | 03/27/2022 - 04/02/2022 | 0.92 | 0.99 |
| *15 | 04/03/2022 - 04/09/2022 | 0.93 | 1.00 |
| *16 | 04/10/2022 - 04/16/2022 | 0.94 | 1.01 |
| *17 | 04/17/2022 - 04/23/2022 | 0.95 | 1.02 |
| *18 | 04/24/2022 - 04/30/2022 | 0.96 | 1.03 |
| 19 | 05/01/2022 - 05/07/2022 | 0.97 | 1.04 |
| 20 | 05/08/2022 - 05/14/2022 | 0.98 | 1.05 |
| 21 | 05/15/2022 - 05/21/2022 | 0.99 | 1.06 |
| 22 | 05/22/2022 - 05/28/2022 | 1.00 | 1.08 |
| 23 | 05/29/2022 - 06/04/2022 | 1.02 | 1.10 |
| 24 | 06/05/2022 - 06/11/2022 | 1.04 | 1.12 |
| 25 | 06/12/2022 - 06/18/2022 | 1.05 | 1.13 |
| 26 | 06/19/2022 - 06/25/2022 | 1.05 | 1.13 |
| 27 | 06/26/2022 - 07/02/2022 | 1.05 | 1.13 |
| 28 | 07/03/2022 - 07/09/2022 | 1.05 | 1.13 |
| 29 | 07/10/2022 - 07/16/2022 | 1.05 | 1.13 |
| 30 | 07/17/2022 - 07/23/2022 | 1.04 | 1.12 |
| 31 | 07/24/2022 - 07/30/2022 | 1.04 | 1.12 |
| 32 | 07/31/2022 - 08/06/2022 | 1.04 | 1.12 |
| 33 | 08/07/2022 - 08/13/2022 | 1.04 | 1.12 |
| 34 | 08/14/2022 - 08/20/2022 | 1.04 | 1.12 |
| 35 | 08/21/2022 - 08/27/2022 | 1.05 | 1.13 |
| 36 | 08/28/2022 - 09/03/2022 | 1.06 | 1.14 |
| 37 | 09/04/2022 - 09/10/2022 | 1.07 | 1.15 |
| 38 | 09/11/2022 - 09/17/2022 | 1.08 | 1.16 |
| 39 | 09/18/2022 - 09/24/2022 | 1.06 | 1.14 |
| 40 | 09/25/2022 - 10/01/2022 | 1.04 | 1.12 |
| 41 | 10/02/2022 - 10/08/2022 | 1.02 | 1.10 |
| 42 | 10/09/2022 - 10/15/2022 | 1.00 | 1.08 |
| 43 | 10/16/2022 - 10/22/2022 | 1.02 | 1.10 |
| 44 | 10/23/2022 - 10/29/2022 | 1.03 | 1.11 |
| 45 | 10/30/2022 - 11/05/2022 | 1.04 | 1.12 |
| 46 | 11/06/2022 - 11/12/2022 | 1.05 | 1.13 |
| 47 | 11/13/2022 - 11/19/2022 | 1.06 | 1.14 |
| 48 | 11/20/2022 - 11/26/2022 | 1.05 | 1.13 |
| 49 | 11/27/2022 - 12/03/2022 | 1.05 | 1.13 |
| 50 | 12/04/2022 - 12/10/2022 | 1.04 | 1.12 |
| 51 | 12/11/2022 - 12/17/2022 | 1.03 | 1.11 |
| 52 | 12/18/2022 - 12/24/2022 | 1.02 | 1.10 |
| 53 | 12/25/2022 - 12/31/2022 | 1.01 | 1.09 |

* PEAK SEASON

23-FEB-2023 09:11:22 830UPD 5_7000_PKSEASON.TXT

# APPENDIX E
# Turning Movement Volume Worksheets

# Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 1 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Range Rd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | Pluckebaum Rd | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

***PHF:*** 0.950

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

| **Weekday AM Peak Hour** | **Range Rd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **7:30 AM - 8:30 AM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 4 | 0 | 3 | 103 | 0 | 0 | 0 | 75 | 83 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 10% | 0% | 50% | 0% | 33% | 6% | 0% | 0% | 0% | 5% | 6% |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **95** | **0** | **4** | **0** | **3** | **107** | **0** | **0** | **0** | **78** | **86** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **99** | **0** | **4** | **0** | **3** | **111** | **0** | **0** | **0** | **81** | **89** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | 13% | | | | | 3% | | | | | |
| *Egress* | | | | | | | | | | | | | | | 3% | 13% |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 15 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **105** | **0** | **4** | **0** | **3** | **112** | **0** | **0** | **0** | **85** | **104** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.910

| **Weekday PM Peak Hour** | **Range Rd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **4:45 PM - 5:45 PM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 13 | 0 | 4 | 93 | 0 | 0 | 0 | 111 | 78 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 6% | 0% | 8% | 0% | 0% | 2% | 0% | 0% | 0% | 1% | 4% |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **68** | **0** | **14** | **0** | **4** | **97** | **0** | **0** | **0** | **115** | **81** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **71** | **0** | **15** | **0** | **4** | **101** | **0** | **0** | **0** | **120** | **84** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | 13% | | | | | 3% | | | | | |
| *Egress* | | | | | | | | | | | | | | | 3% | 13% |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 10 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **87** | **0** | **15** | **0** | **4** | **105** | **0** | **0** | **0** | **123** | **94** |

# Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 2 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Clearlake Rd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | Pluckebaum Rd | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

***PHF:*** 0.970

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

| **Weekday AM Peak Hour** | **Clearlake Rd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **7:30 AM - 8:30 AM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 169 | 0 | 22 | 0 | 24 | 201 | 0 | 0 | 0 | 165 | 103 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 5% | 0% | 5% | 0% | 21% | 2% | 0% | 0% | 0% | 4% | 4% |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **176** | **0** | **23** | **0** | **25** | **209** | **0** | **0** | **0** | **172** | **107** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **183** | **0** | **24** | **0** | **26** | **217** | **0** | **0** | **0** | **179** | **111** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | | | | | | | | | 54% | 5% |
| *Egress* | | | | | | 5% | | | | 5% | 54% | | | | | |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 64 | 0 | 0 | 0 | 23 | 2 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **189** | **0** | **24** | **0** | **32** | **281** | **0** | **0** | **0** | **202** | **113** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.960

| **Weekday PM Peak Hour** | **Clearlake Rd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **5:00 PM - 6:00 PM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 185 | 0 | 25 | 0 | 22 | 157 | 0 | 0 | 0 | 219 | 142 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 2% | 0% | 0% | 0% | 0% | 2% | 0% | 0% | 0% | 2% | 0% |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **192** | **0** | **26** | **0** | **23** | **163** | **0** | **0** | **0** | **228** | **148** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **200** | **0** | **27** | **0** | **24** | **170** | **0** | **0** | **0** | **237** | **154** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | | | | | | | | | 54% | 5% |
| *Egress* | | | | | | 5% | | | | 5% | 54% | | | | | |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 39 | 0 | 0 | 0 | 68 | 7 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **204** | **0** | **27** | **0** | **28** | **209** | **0** | **0** | **0** | **305** | **161** |

# Intersection Development Worksheet

Kimley»Horn
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| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 3 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Fiske Blvd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | Pluckebaum Rd | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

***PHF:*** 0.960

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

| **Weekday AM Peak Hour** | **Fiske Blvd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **7:45 AM - 8:45 AM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 1 | 232 | 807 | 0 | 0 | 0 | 728 | 28 | 0 | 62 | 0 | 328 | 0 | 0 | 0 | 0 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 3% | 2% | 0% | 0% | 0% | 5% | 14% | 0% | 2% | 0% | 4% | 0% | 0% | 0% | 0% |
| **Existing (2023)** | **1** | **241** | **839** | **0** | **0** | **0** | **757** | **29** | **0** | **64** | **0** | **341** | **0** | **0** | **0** | **0** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **1** | **251** | **873** | **0** | **0** | **0** | **787** | **30** | **0** | **67** | **0** | **355** | **0** | **0** | **0** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | 33% | | | | | | 24% | | | | | | | | |
| *Egress* | | | | | | | | | | 24% | | 33% | | | | |
| Project Trips | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 29 | 0 | 40 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **1** | **265** | **873** | **0** | **0** | **0** | **787** | **41** | **0** | **96** | **0** | **395** | **0** | **0** | **0** | **0** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.920

| **Weekday PM Peak Hour** | **Fiske Blvd** | | | | | | | | **Pluckebaum Rd** | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Northbound** | | | | **Southbound** | | | | **Eastbound** | | | | **Westbound** | | | |
| **5:00 PM - 6:00 PM** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** | **U** | **L** | **T** | **R** |
| TMC (2023) | 0 | 327 | 813 | 0 | 0 | 0 | 822 | 49 | 0 | 32 | 0 | 306 | 0 | 0 | 0 | 0 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 2% | 1% | 0% | 0% | 0% | 2% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 0% |
| **Existing (2023)** | **0** | **340** | **846** | **0** | **0** | **0** | **855** | **51** | **0** | **33** | **0** | **318** | **0** | **0** | **0** | **0** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **354** | **879** | **0** | **0** | **0** | **889** | **53** | **0** | **34** | **0** | **331** | **0** | **0** | **0** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | 33% | | | | | | 24% | | | | | | | | |
| *Egress* | | | | | | | | | | 24% | | 33% | | | | |
| Project Trips | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 18 | 0 | 25 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **0** | **396** | **879** | **0** | **0** | **0** | **889** | **83** | **0** | **52** | **0** | **356** | **0** | **0** | **0** | **0** |

# Intersection Development Worksheet

Kimley»Horn
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| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 4 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Clearlake Rd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | SR 520 | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

***PHF:*** 0.950

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

| Weekday AM Peak Hour | Clearlake Rd | | | | | | | | SR 520 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| 7:30 AM - 8:30 AM | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 45 | 112 | 23 | 1 | 138 | 125 | 170 | 1 | 156 | 632 | 55 | 6 | 22 | 398 | 67 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 7% | 5% | 4% | 0% | 8% | 5% | 6% | 0% | 7% | 5% | 5% | 0% | 9% | 8% | 3% |
| **Existing (2023)** | **0** | **47** | **116** | **24** | **1** | **144** | **130** | **177** | **1** | **162** | **657** | **57** | **6** | **23** | **414** | **70** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **49** | **121** | **25** | **1** | **150** | **135** | **184** | **1** | **168** | **683** | **59** | **6** | **24** | **431** | **73** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | 22% | | | | | 1% | | 1% | | |
| *Egress* | | 1% | 22% | 1% | | | | | | | | | | | | |
| Project Trips | 0 | 2 | 26 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| **Project Buildout** | **0** | **51** | **147** | **27** | **1** | **150** | **144** | **184** | **1** | **168** | **683** | **60** | **6** | **25** | **431** | **73** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.990

| Weekday PM Peak Hour | Clearlake Rd | | | | | | | | SR 520 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| 5:00 PM - 6:00 PM | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 60 | 143 | 27 | 0 | 179 | 181 | 208 | 3 | 238 | 572 | 87 | 4 | 34 | 535 | 125 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 5% | 1% | 0% | 0% | 2% | 2% | 4% | 0% | 1% | 3% | 3% | 0% | 3% | 4% | 2% |
| **Existing (2023)** | **0** | **62** | **149** | **28** | **0** | **186** | **188** | **216** | **3** | **248** | **595** | **90** | **4** | **35** | **556** | **130** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **64** | **154** | **29** | **0** | **194** | **196** | **225** | **3** | **258** | **619** | **94** | **4** | **36** | **578** | **135** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | 22% | | | | | 1% | | 1% | | |
| *Egress* | | 1% | 22% | 1% | | | | | | | | | | | | |
| Project Trips | 0 | 1 | 17 | 1 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| **Project Buildout** | **0** | **65** | **171** | **30** | **0** | **194** | **224** | **225** | **3** | **258** | **619** | **95** | **4** | **37** | **578** | **135** |

# Intersection Development Worksheet

Kimley»Horn
Expect More. Experience Better.

| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 5 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Range Rd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | SR 520 | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

***PHF:*** 0.950

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

| Weekday AM Peak Hour | Range Rd | | | | | | | | SR 520 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| #N/A | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 59 | 31 | 18 | 0 | 82 | 48 | 40 | 0 | 112 | 769 | 62 | 3 | 20 | 505 | 37 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 12% | 6% | 33% | 0% | 13% | 4% | 5% | 0% | 5% | 5% | 6% | 0% | 0% | 1% | 5% |
| **Existing (2023)** | **0** | **61** | **32** | **19** | **0** | **85** | **50** | **42** | **0** | **116** | **800** | **64** | **3** | **21** | **525** | **38** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **63** | **33** | **20** | **0** | **88** | **52** | **44** | **0** | **121** | **832** | **67** | **3** | **22** | **546** | **40** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | 1% | | | | | 12% | | | | |
| *Egress* | | 12% | | 1% | | | | | | | | | | | | |
| Project Trips | 0 | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **0** | **77** | **33** | **21** | **0** | **88** | **52** | **44** | **0** | **121** | **832** | **72** | **3** | **22** | **546** | **40** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.950

| Weekday PM Peak Hour | Range Rd | | | | | | | | SR 520 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| #N/A | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 68 | 37 | 19 | 0 | 56 | 21 | 69 | 10 | 118 | 787 | 60 | 6 | 16 | 772 | 77 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 5% | 11% | 0% | 7% | 0% | 4% | 10% | 8% | 3% | 15% | 17% | 6% | 2% | 6% |
| **Existing (2023)** | **0** | **71** | **38** | **20** | **0** | **58** | **22** | **72** | **10** | **123** | **818** | **62** | **6** | **17** | **803** | **80** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **74** | **39** | **21** | **0** | **61** | **23** | **75** | **10** | **128** | **851** | **64** | **6** | **18** | **835** | **83** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | 1% | | | | | 12% | | | | |
| *Egress* | | 12% | | 1% | | | | | | | | | | | | |
| Project Trips | 0 | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **0** | **82** | **39** | **22** | **0** | **61** | **24** | **75** | **10** | **128** | **851** | **79** | **6** | **18** | **835** | **83** |

*\\kimley-horn.com\fl_orl02\orl_tpto\249101001_pluckebaum residential\03_excel\[traffic calcs_pluckebaum residential v2.xlsx]int.#5*

# Intersection Development Worksheet

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| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 6 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Pluckebaum Rd | E/W | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | Project Driveway | N/S | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

***PHF:*** 0.920

| Weekday AM Peak Hour | Project Driveway | | | | | | | | Pluckebaum Rd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 225 | 0 | 0 | 0 | 187 | 0 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Peak Hour Factor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **234** | **0** | **0** | **0** | **194** | **0** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **243** | **0** | **0** | **0** | **202** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | | | | 16% | | | | | | 54% |
| *Egress* | | | | | | 59% | | 16% | | | | | | | | |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 19 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 23 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **70** | **0** | **19** | **0** | **6** | **243** | **0** | **0** | **0** | **202** | **23** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.920

| Weekday PM Peak Hour | Project Driveway | | | | | | | | Pluckebaum Rd | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 0 | 0 | 0 | 244 | 0 |
| Seasonal Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Peak Hour Factor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Existing (2023)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **186** | **0** | **0** | **0** | **254** | **0** |
| Growth Rates | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | | |
| Growth Factor | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | | |
| **Background (2025)** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **193** | **0** | **0** | **0** | **264** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | | | | | | | | | 16% | | | | | | 54% |
| *Egress* | | | | | | 59% | | 16% | | | | | | | | |
| Project Trips | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 12 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 68 |
| **Project Buildout** | **0** | **0** | **0** | **0** | **0** | **43** | **0** | **12** | **0** | **20** | **193** | **0** | **0** | **0** | **264** | **68** |

# Intersection Development Worksheet

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| | | | | | |
|---|---|---|---|---|---|
| *Intersection #:* | 7 | | ***Existing Year:*** | 2023 | ***TMC Year:*** 2023 |
| *Major Street:* | Clearlake Rd | N/S | ***Buildout Year:*** | 2025 | |
| *Minor Street:* | Project Driveway | E/W | ***Seasonal Factor:*** | 1.04 | |
| | | | ***Pre-COVID 19 Factor:*** | - | |

*AM Peak Hour Trips:* IN = 42 **OUT =** 119

***PHF:*** 0.920

| Weekday AM Peak Hour | Clearlake Rd | | | | | | | | Project Driveway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 0 | 127 | 0 | 0 | 0 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seasonal Factor | | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Peak Hour Factor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Existing (2023)** | **0** | **0** | **132** | **0** | **0** | **0** | **199** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Growth Rates | | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | |
| Growth Factor | | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | |
| **Background (2025)** | **0** | **0** | **137** | **0** | **0** | **0** | **207** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | 5% | | | | | | 25% | | | | | | | | |
| *Egress* | | | 5% | | | | | | | 20% | | 5% | | | | |
| Project Trips | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 11 | 0 | 23 | 0 | 6 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **0** | **2** | **143** | **0** | **0** | **0** | **207** | **11** | **0** | **23** | **0** | **6** | **0** | **0** | **0** | **0** |

*PM Peak Hour Trips:* IN = 125 **OUT =** 73

***PHF:*** 0.920

| Weekday PM Peak Hour | Clearlake Rd | | | | | | | | Project Driveway | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | |
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| TMC (2023) | 0 | 0 | 164 | 0 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Seasonal Factor | | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | |
| Heavy Vehicle (%) | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Peak Hour Factor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Existing (2023)** | **0** | **0** | **171** | **0** | **0** | **0** | **218** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Growth Rates | | | 2.00% | | | | 2.00% | | | | 2.00% | | | | 2.00% | |
| Growth Factor | | | 1.04 | | | | 1.04 | | | | 1.04 | | | | 1.04 | |
| **Background (2025)** | **0** | **0** | **177** | **0** | **0** | **0** | **227** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Project Assignment | | | | | | | | | | | | | | | | |
| *Ingress* | | 5% | | | | | | 25% | | | | | | | | |
| *Egress* | | | 5% | | | | | | | 20% | | 5% | | | | |
| Project Trips | 0 | 7 | 4 | 0 | 0 | 0 | 0 | 30 | 0 | 15 | 0 | 4 | 0 | 0 | 0 | 0 |
| **Project Buildout** | **0** | **7** | **181** | **0** | **0** | **0** | **227** | **30** | **0** | **15** | **0** | **4** | **0** | **0** | **0** | **0** |

# APPENDIX F
# Space Coast TPO Traffic Counts

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2013 - 2022

| ID | ROAD | FROM | TO | 2013 AADT | 2014 AADT | 2015 AADT | 2016 AADT | 2017 AADT | 2018 AADT | 2019 AADT | 2020 AADT | 2021 AADT | 2022 AADT | Current MAV | Last Count Taken | Functional Classification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***AREA: CENTRAL*** | | | | | | | | | | | | | | | | |
| 75 | ADAMSON RD. | PINE ST. | SR 524 | 4,880 | 4,700 | 5,210 | 5,380 | 5,340 | 6,100 | 5,100 | 5,830 | 6,540 | 5,650 | 17,700 | 03/10/22-03/11/22 | Urban Minor Collector |
| | BARNES BLVD. | FISKE BLVD. (SR 519) | MURRELL RD. | 15,060 | 15,460 | 15,895 | | 13,145 | 13,835 | 17,545 | 16,660 | 15,580 | 15,705 | | | |
| 77 | BARNES BLVD. | FISKE BLVD. (SR 519) | THREE MEADOWS DR. | 15,060 | 15,460 | 15,940 | UC | 13,440 | 13,750 | 19,340 | 15,560 | 15,100 | 15,620 | 39,800 | 01/13/22-01/14/22 | Urban Principal Arterial-Other |
| 604 | BARNES BLVD. | THREE MEADOWS DR. | MURRELL RD. | | | 15,850 | UC | 12,850 | 13,920 | 15,750 | 17,760 | 16,060 | 15,790 | 39,800 | 01/13/22-01/14/22 | Urban Principal Arterial-Other |
| 72 | BARNES BLVD. | MURRELL RD. | US 1 | NC | 9,720 | 9,910 | 8,800 | 9,560 | 10,510 | 10,910 | 10,480 | 9,510 | 14,280 | 17,700 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| | BARTON BLVD. | FISKE BLVD. | US 1 | | | | | | | | | | 13,230 | | | |
| 43 | BARTON BLVD. | FISKE BLVD. | MURRELL RD. | | | | | | | | | | 13,550 | 34,020 | 01/13/22-01/14/22 | Urban Minor Arterial |
| 71 | BARTON BLVD. | MURRELL RD. | US 1 | | | | | | | | | | 12,910 | 34,020 | 01/13/22-01/14/22 | Urban Minor Arterial |
| 49 | CLEARLAKE RD. | PLUCKEBAUM RD. | SR 520 | 5,400 | 4,800 | 5,050 | 4,590 | 4,750 | 5,910 | 5,160 | 5,190 | 4,770 | 4,150 | 15,600 | 01/24/22-01/25/22 | Urban Major Collector |
| | CLEARLAKE RD. (SR 501) | SR 520 | MICHIGAN AVE. | 15,747 | 15,933 | 18,307 | 18,030 | 16,990 | 17,407 | 16,327 | 15,767 | 14,877 | 13,243 | | | |
| 29 | CLEARLAKE RD. (SR 501) | SR 520 | LAKE DR. | 11,550 | 11,640 | 14,160 | 13,400 | 12,810 | 14,590 | 12,870 | 11,330 | 12,320 | 11,060 | 39,800 | 03/10/22-03/11/22 | Urban Minor Arterial |
| 30 | CLEARLAKE RD. (SR 501) | LAKE DR. | DIXON BLVD. | 16,010 | 16,210 | 19,620 | 19,120 | 18,200 | 18,010 | 17,110 | 18,220 | 16,450 | 13,630 | 39,800 | 03/10/22-03/11/22 | Urban Minor Arterial |
| 31 | CLEARLAKE RD. (SR 501) | DIXON BLVD. | ROSETINE ST. | NC | 19,950 | NC | 21,570 | NC | 19,620 | NC | 17,750 | NC | 15,040 | 39,800 | 03/10/22-03/11/22 | Urban Minor Arterial |
| 32 | CLEARLAKE RD. (SR 501) | ROSETINE ST. | MICHIGAN AVE. | 19,680 | NC | 21,140 | NC | 19,960 | NC | 19,000 | NC | 15,860 | NC | 39,800 | 02/17/21-02/18/21 | Urban Minor Arterial |
| | CLEARLAKE RD. (SR 501) | MICHIGAN AVE. | SR 524 | 17,233 | 17,727 | 19,817 | 19,927 | 18,193 | 18,640 | 17,783 | 16,933 | 15,860 | 16,480 | | | |
| 39 | CLEARLAKE RD. (SR 501) | MICHIGAN AVE. | OTTERBEIN AVE. | 18,910 | 18,410 | 21,290 | 21,320 | 19,970 | 20,550 | 19,530 | 18,070 | 17,230 | 17,760 | 39,800 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 50 | CLEARLAKE RD. (SR 501) | OTTERBEIN AVE. | N. WALMART ENTRANCE | 14,120 | 15,520 | 16,960 | 16,090 | 14,810 | 15,770 | 15,210 | 13,840 | 13,580 | 14,530 | 41,790 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 95 | CLEARLAKE RD. (SR 501) | N. WALMART ENTRANCE | SR 524 | 18,670 | 19,250 | 21,200 | 22,370 | 19,800 | 19,600 | 18,610 | 18,890 | 16,770 | 17,150 | 41,790 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 61 | COX RD. | SR 520 | SR 524 | 4,260 | 4,100 | 4,560 | 4,810 | 4,240 | 4,460 | 4,370 | 4,850 | 4,770 | 4,650 | 17,700 | 03/10/22-03/11/22 | Urban Major Collector |
| 69 | COX RD. | SR 524 | JAMES RD. | 2,580 | 2,490 | 2,760 | 2,690 | 2,600 | 2,660 | 2,630 | 2,540 | 2,590 | 2,600 | 17,700 | 01/19/22-01/20/22 | Urban Major Collector |
| | DIXON BLVD. | CLEARLAKE RD. | US 1 | 9,855 | 9,630 | 10,160 | 10,415 | 10,303 | 10,758 | 10,340 | 10,475 | 9,745 | 10,153 | | | |
| 47 | DIXON BLVD. | CLEARLAKE RD. | PINEDA ST. | 10,280 | 10,320 | 11,360 | 11,290 | 10,920 | 11,070 | 10,620 | 10,950 | 10,150 | 10,520 | 39,800 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 51 | DIXON BLVD. | PINEDA ST. | FISKE BLVD. | 9,590 | 9,420 | 10,260 | 10,130 | 10,240 | 10,490 | 10,390 | 10,590 | 9,600 | 9,670 | 39,800 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 46 | DIXON BLVD. | FISKE BLVD. | BYRD PLAZA ENTRANCE | 10,140 | 9,800 | 10,220 | 10,760 | 10,560 | 11,260 | 10,780 | 10,940 | 10,000 | 10,510 | 39,800 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 45 | DIXON BLVD. | BYRD PLAZA ENTRANCE | US 1 | 9,410 | 8,980 | 8,800 | 9,480 | 9,490 | 10,210 | 9,570 | 9,420 | 9,230 | 9,910 | 39,800 | 02/10/22-02/11/22 | Urban Minor Arterial |
| | EYSTER BLVD. | FISKE BLVD. | US 1 | | | | | | | | | | 9,120 | | | |
| 635 | EYSTER BLVD. | FISKE BLVD. | HUNTINGTON | | | | | | | | | | 7,810 | 15,600 | 01/13/22-01/14/22 | Urban Major Collector |
| 636 | EYSTER BLVD. | HUNTINGTON | MURRELL RD. | | | | | | | | | | 7,020 | 15,600 | 01/13/22-01/14/22 | Urban Major Collector |
| 637 | EYSTER BLVD. | MURRELL RD. | US 1 | | | | | | | | | | 12,530 | 34,020 | 01/13/22-01/14/22 | Urban Minor Arterial |
| | FISKE BLVD. (SR 519) | I-95/BARNES BLVD. | BARTON BLVD. | 21,360 | 21,805 | 23,125 | 23,310 | 22,190 | 24,190 | 25,015 | 24,170 | 24,965 | 22,890 | | | |
| 44 | FISKE BLVD. (SR 519) | I-95/BARNES BLVD. | EYSTER BLVD. | 21,880 | 22,160 | 24,690 | 25,080 | 24,190 | 25,820 | 27,300 | 27,750 | 28,010 | 25,660 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 96 | FISKE BLVD. (SR 519) | EYSTER BLVD. | BARTON BLVD. | 20,840 | 21,450 | 21,560 | 21,540 | 20,190 | 22,560 | 22,730 | 20,590 | 21,920 | 20,120 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| | FISKE BLVD. (SR 519) | BARTON BLVD. | SR 520 | 20,578 | 20,465 | 21,915 | 20,000 | 20,118 | 20,908 | 21,038 | 20,070 | 21,043 | 19,423 | | | |
| 42 | FISKE BLVD. (SR 519) | BARTON BLVD. | ST. ANDREWS DR. | 23,250 | 24,240 | 24,150 | 24,200 | 22,660 | 24,320 | 24,130 | 22,260 | 22,700 | 20,700 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 41 | FISKE BLVD. (SR 519) | ST. ANDREWS DR. | PLUCKEBAUM RD. | 23,370 | 22,620 | 25,300 | 23,490 | 23,080 | 23,970 | 23,940 | 23,520 | 24,510 | 22,790 | 41,790 | 01/24/22-01/25/22 | Urban Principal Arterial-Other |
| 40 | FISKE BLVD. (SR 519) | PLUCKEBAUM RD. | ROSA JONES DR. | 18,700 | 18,130 | 19,860 | 18,210 | 18,920 | 17,720 | 18,690 | 18,960 | 19,140 | 17,490 | 41,790 | 02/16/22-02/17/22 | Urban Principal Arterial-Other |
| 38 | FISKE BLVD. (SR 519) | ROSA JONES DR. | SR 520 | 16,990 | 16,870 | 18,350 | 14,100 | 15,810 | 17,620 | 17,390 | 15,540 | 17,820 | 16,710 | 41,790 | 02/16/22-02/17/22 | Urban Principal Arterial-Other |
| 37 | FISKE BLVD. | SR 520 | DIXON BLVD. | 7,490 | 7,270 | 8,020 | 8,220 | 7,390 | 7,330 | 7,300 | 6,980 | 7,290 | 6,700 | 15,600 | 03/10/22-03/11/22 | Urban Minor Arterial |
| | FLORIDA AVE. | US 1 | SR 520 | 7,125 | 6,665 | 7,025 | 6,710 | 6,910 | 6,260 | 5,840 | 5,560 | 5,130 | 5,070 | | | |
| 55 | FLORIDA AVE. | US 1 | ROSA JONES DR. | 8,140 | 7,580 | 7,980 | 7,330 | 6,910 | 7,640 | 7,030 | 6,560 | 6,080 | 6,060 | 15,600 | 01/25/22-01/26/22 | Urban Minor Arterial |
| 54 | FLORIDA AVE. | ROSA JONES DR. | SR 520 | 6,110 | 5,750 | 6,070 | 6,090 | UC | 4,880 | 4,650 | 4,560 | 4,180 | 4,080 | 15,600 | 01/19/22-01/20/22 | Urban Minor Arterial |
| | FORREST AVE. | SR 520 | US 1 | 11,090 | 9,240 | 8,630 | 7,880 | 8,585 | 8,100 | 11,500 | 10,860 | 10,020 | 10,205 | | | |
| 52 | FORREST AVE. | SR 520 | PEACHTREE ST. | 12,580 | 10,170 | 9,890 | 8,700 | 8,930 | NC | 13,510 | 12,660 | 11,380 | 11,580 | 15,600 | 01/19/22-01/20/22 | Urban Minor Arterial |
| 53 | FORREST AVE. | PEACHTREE ST. | US 1 | 9,600 | 8,310 | 7,370 | 7,060 | 8,240 | 8,100 | 9,490 | 9,060 | 8,660 | 8,830 | 15,600 | 03/10/22-03/11/22 | Urban Minor Arterial |
| 67 | FRIDAY RD. | SR 520 | SR 524 | 1,150 | 1,220 | 1,530 | 1,390 | 1,500 | 1,470 | 1,780 | 1,790 | 1,970 | 1,840 | 15,600 | 03/09/22-03/10/22 | Urban Major Collector |
| 64 | FRIDAY RD. | SR 524 | JAMES RD. | 3,020 | NC | 3,290 | NC | 3,210 | NC | 2,960 | NC | 3,150 | NC | 17,700 | 01/19/21-01/20/21 | Urban Local |
| 593 | JUDGE F JAMIESON WY. | TAVISTOCK DR. | STADIUM PKWY. | | 4,400 | 4,480 | 4,650 | 5,040 | 4,960 | 4,860 | 4,650 | 4,000 | 4,070 | 17,700 | 01/11/22-01/12/22 | Urban Local |
| | JUDGE F JAMIESON WY. | STADIUM PKWY. | LAKE ANDREW DR. | 14,760 | 15,795 | 15,785 | 16,295 | 16,400 | 16,400 | 16,140 | 16,570 | 12,495 | 10,925 | | | |
| 80 | JUDGE F JAMIESON WY. | STADIUM PKWY. | GOV'T CENTER/SCH. BOARD ENTRANCE | 14,310 | 14,780 | 15,380 | 15,970 | 16,190 | 16,250 | 16,210 | 16,350 | 11,490 | 10,090 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 78 | JUDGE F JAMIESON WY. | GOV'T CENTER/SCH. BOARD ENTRANCE | LAKE ANDREW DR. | 15,210 | 16,810 | 16,190 | 16,620 | 16,610 | 16,550 | 16,070 | 16,790 | 13,500 | 11,760 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| | LAKE DR. | COX RD. | SR 520 | 3,190 | 3,133 | 3,767 | 4,033 | 3,870 | 4,510 | 3,880 | 3,927 | 3,793 | 3,677 | | | |
| 85 | LAKE DR. | COX RD. | RANGE RD. | 2,120 | 2,150 | 2,630 | 2,790 | 2,890 | NC | 3,510 | 3,360 | 3,300 | 3,300 | 17,700 | 01/31/22-02/01/22 | Urban Major Collector |
| 62 | LAKE DR. | RANGE RD. | CLEARLAKE RD. (SR 501) | 3,470 | 3,260 | 3,860 | 3,750 | 4,040 | NC | 4,110 | 4,110 | 4,100 | 3,640 | 15,600 | 01/31/22-02/01/22 | Urban Major Collector |
| 68 | LAKE DR. | CLEARLAKE RD. (SR 501) | SR 520 | 3,980 | 3,990 | 4,810 | 5,560 | 4,680 | 4,510 | 4,020 | 4,310 | 3,980 | 4,090 | 15,600 | 01/31/22-02/01/22 | Urban Major Collector |
| | LAKE ANDREW DR. | WICKHAM RD. | VIERA BLVD. | 16,555 | 17,085 | 17,900 | 17,350 | 17,130 | 19,090 | 17,280 | 17,390 | 16,625 | 15,845 | | | |
| 81 | LAKE ANDREW DR. | WICKHAM RD. | THE AVENUES ENTRANCE | 18,320 | 18,810 | 19,940 | 18,480 | 18,990 | 18,980 | 19,340 | 19,460 | 18,590 | 19,020 | 39,800 | 03/09/22-03/10/22 | Urban Minor Arterial |
| 82 | LAKE ANDREW DR. | THE AVENUES ENTRANCE | JUDGE F JAMIESON WY. | 14,790 | 15,360 | 15,860 | 16,220 | 15,270 | 19,200 | 15,220 | 15,320 | 14,660 | 15,930 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 640 | LAKE ANDREW DR. | JUDGE F JAMIESON WY. | PORADA DR. | | | | | | | | | | 11,100 | 39,800 | 01/11/22-01/12/22 | - |
| 641 | LAKE ANDREW DR. | PORADA DR. | VIERA BLVD. | | | | | | | | | | 17,330 | 39,800 | 01/11/22-01/12/22 | - |
| 86 | MICHIGAN AVE. | RANGE RD. | CLEARLAKE RD. | NC | 3,930 | NC | 4,180 | NC | 4,450 | NC | 4,120 | NC | 3,820 | 15,600 | 01/19/22-01/20/22 | Urban Major Collector |
| 48 | MICHIGAN AVE. | CLEARLAKE RD. | US 1 | 12,070 | 10,280 | 8,420 | 9,940 | 10,820 | 11,090 | 11,500 | 11,420 | 10,060 | 10,320 | 39,800 | 01/31/22-02/01/22 | Urban Minor Arterial |
| | MURRELL RD. | WICKHAM RD. | BARNES BLVD. | 16,630 | 16,070 | 17,400 | 16,978 | 16,493 | 17,170 | 17,998 | 16,428 | 15,478 | 15,563 | | | |
| 528 | MURRELL RD. | WICKHAM RD. | SPYGLASS HILL DR. | 17,800 | 17,120 | 18,160 | 17,710 | 16,870 | 17,330 | 19,070 | 15,830 | 14,190 | 14,290 | 33,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 59 | MURRELL RD. | SPYGLASS HILL DR. | VIERA BLVD. | 16,840 | 16,230 | 16,810 | 17,230 | 16,910 | 17,230 | 18,040 | 15,370 | 16,050 | 14,170 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 529 | MURRELL RD. | VIERA BLVD. | CLUB HOUSE DR. | 16,830 | 16,310 | 18,310 | 17,430 | 16,510 | 17,980 | 18,060 | 18,690 | 16,590 | 17,400 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 57 | MURRELL RD. | CLUB HOUSE DR. | BARNES BLVD. | 15,050 | 14,620 | 16,320 | 15,540 | 15,680 | 16,140 | 16,820 | 15,820 | 15,080 | 16,390 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
*NC=Not Counted; UC=Under Construction*

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2013 - 2022

| ID | ROAD | FROM | TO | 2013 AADT | 2014 AADT | 2015 AADT | 2016 AADT | 2017 AADT | 2018 AADT | 2019 AADT | 2020 AADT | 2021 AADT | 2022 AADT | Current MAV | Last Count Taken | Functional Classification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***AREA: CENTRAL*** | | | | | | | | | | | | | | | | |
| | MURRELL RD. | BARNES BLVD. | BARTON BLVD. | | | | | | | | | | 11,615 | | | |
| 60 | MURRELL RD. | BARNES BLVD. | EYSTER BLVD. | | | | | | | | | | 18,630 | 41,790 | 01/13/22-01/14/22 | Urban Minor Arterial |
| 56 | MURRELL RD. | EYSTER BLVD. | BARTON BLVD. | | | | | | | | | | 4,600 | 34,020 | 01/11/22-01/12/22 | Urban Major Collector |
| 592 | PEACHTREE ST. | LAKE DR. | FISKE BLVD. | 3,010 | 2,910 | NC | NC | NC | 3,380 | 4,330 | NC | 4,460 | 4,470 | 15,600 | 03/01/22-03/02/22 | Urban Major Collector |
| | PINEHURST AVE./HOLIDAY SPRINGS RD. | WICKHAM RD. | HOLIDAY SPRINGS RD. | 4,543 | 4,458 | 4,808 | 4,928 | 5,088 | 5,260 | 5,265 | 5,718 | 4,925 | 4,880 | | | |
| 17 | PINEHURST AVE. | WICKHAM RD. | SPYGLASS HILL DR. | 6,490 | 6,270 | 6,810 | 7,100 | 7,320 | 7,340 | 7,480 | 7,250 | 6,650 | 6,640 | 15,600 | 01/11/22-01/12/22 | Urban Minor Collector |
| 530 | PINEHURST AVE. | SPYGLASS HILL DR. | FARGO DR. | 5,140 | 5,040 | 5,340 | 5,350 | 5,430 | 5,810 | 5,550 | 6,170 | 5,130 | 5,010 | 15,600 | 01/11/22-01/12/22 | Urban Minor Collector |
| 16 | PINEHURST AVE. | FARGO DR. | HOLIDAY SPRINGS RD. | 3,000 | 2,950 | 3,190 | 3,340 | 3,380 | 3,590 | 3,750 | 4,460 | 3,650 | 3,740 | 15,600 | 01/11/22-01/12/22 | Urban Minor Collector |
| 94 | HOLIDAY SPRINGS RD. | PINEHURST AVE. | VIERA BLVD. | 3,540 | 3,570 | 3,890 | 3,920 | 4,220 | 4,300 | 4,280 | 4,990 | 4,270 | 4,130 | 15,600 | 01/11/22-01/12/22 | Urban Minor Collector |
| 568 | PLUCKEBAUM RD. | CLEARLAKE RD. | FISKE BLVD. (SR 519) | 5,970 | 6,240 | 7,030 | 6,490 | 6,560 | 7,570 | 7,270 | 6,820 | 6,530 | 5,900 | 15,600 | 01/31/22-02/01/22 | Urban Major Collector |
| | RANGE RD. | SR 520 | ROSETINE ST. | 4,330 | 5,140 | 4,760 | 5,860 | 4,740 | 5,970 | 4,360 | 5,990 | 4,470 | 5,970 | | | |
| 531 | RANGE RD. | SR 520 | LAKE DR. | 4,330 | NC | 4,760 | NC | 4,740 | NC | 4,360 | NC | 4,470 | NC | 15,600 | 01/19/21-01/20/21 | Urban Major Collector |
| 532 | RANGE RD. | LAKE DR. | ROSETINE ST. | NC | 5,140 | NC | 5,860 | NC | 5,970 | NC | 5,990 | NC | 5,970 | 15,600 | 01/19/22-01/20/22 | Urban Major Collector |
| 74 | ROSETINE ST. | RANGE RD. | CLEARLAKE RD. | NC | 2,730 | NC | NC | NC | 2,920 | NC | 3,140 | 2,760 | 2,920 | 15,600 | 01/19/22-01/20/22 | Urban Minor Collector |
| 18 | SPYGLASS HILL RD. | MURRELL RD. | PINEHURST AVE. | 3,880 | 3,780 | 3,960 | 4,240 | 4,720 | 4,640 | 4,780 | 4,410 | 3,940 | 4,220 | 15,600 | 01/11/22-01/12/22 | Urban Minor Collector |
| | SR 520 | ORANGE CO | I-95 | 15,090 | 15,167 | 17,220 | 16,670 | 16,637 | 16,567 | 17,160 | 17,767 | 17,273 | 16,097 | | | |
| 534 | SR 520 | ORANGE CO | SR 524 | 13,140 | 12,760 | 15,950 | 15,170 | 15,750 | 12,240 | 16,010 | 18,680 | 15,530 | 14,590 | 40,300 | 03/10/22-03/11/22 | Rural Principal Arterial Other |
| 1 | SR 520 | SR 524 | FRIDAY RD. | 14,050 | 13,990 | 15,720 | 14,880 | 14,320 | 16,610 | 14,650 | 14,700 | 15,100 | 12,460 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 84 | SR 520 | FRIDAY RD. | I-95 | 18,080 | 18,750 | 19,990 | 19,960 | 19,840 | 20,850 | 20,820 | 19,920 | 21,190 | 21,240 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| | SR 520 | I-95 | CLEARLAKE RD. (SR 501) | 20,367 | 20,583 | 23,857 | 22,600 | 21,240 | 20,573 | 23,173 | 21,193 | 22,727 | 21,840 | | | |
| 2 | SR 520 | I-95 | BURNETT RD. | 20,200 | 21,440 | 24,190 | 22,190 | 21,780 | 21,740 | 21,650 | 24,200 | 23,230 | 21,640 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 3 | SR 520 | BURNETT RD. | RANGE RD. | 19,980 | 19,680 | 24,180 | 22,970 | 21,040 | 20,040 | 21,280 | 19,840 | 22,550 | 21,530 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 14 | SR 520 | RANGE RD. | CLEARLAKE RD. (SR 501) | 20,920 | 20,630 | 23,200 | 22,640 | 20,900 | 19,940 | 26,590 | 19,540 | 22,400 | 22,350 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| | SR 520 | CLEARLAKE RD. (SR 501) | FISKE BLVD. (SR 519) | 20,815 | 21,385 | 24,880 | 24,575 | 22,915 | 22,735 | 22,115 | 21,730 | 23,145 | 21,260 | | | |
| 4 | SR 520 | CLEARLAKE RD. (SR 501) | LAKE DR. | 19,160 | 19,560 | 22,860 | 22,870 | 20,200 | 20,800 | 20,400 | 21,720 | 21,550 | 19,310 | 39,800 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 5 | SR 520 | LAKE DR. | FISKE BLVD. (SR 519) | 22,470 | 23,210 | 26,900 | 26,280 | 25,630 | 24,670 | 23,830 | 21,740 | 24,740 | 23,210 | 39,800 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| | SR 520 | FISKE BLVD. (SR 519) | US 1 | 23,775 | 25,160 | 28,120 | 28,250 | 26,600 | 25,495 | 25,275 | 23,310 | 26,600 | 24,575 | | | |
| 6 | SR 520 | FISKE BLVD. (SR 519) | BLAKE AVE. | 23,820 | 25,090 | 28,270 | 28,430 | 26,540 | 25,550 | 25,280 | NC | 26,680 | 25,010 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 7 | SR 520 | BLAKE AVE. | US 1 | 23,730 | 25,230 | 27,970 | 28,070 | 26,660 | 25,440 | 25,270 | 23,310 | 26,520 | 24,140 | 41,790 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| | SR 520 (EB) | US 1 | RIVEREDGE BLVD. | 19,838 | 19,020 | 21,483 | 18,600 | 20,718 | 20,855 | 21,135 | 19,265 | 22,220 | 19,625 | | | |
| 8 | SR 520 (EB) | US 1 | FORREST AVE. | 15,570 | 17,090 | 18,210 | 13,820 | 16,750 | 17,250 | 16,830 | 15,460 | NC | 16,470 | 19,440 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 9 | SR 520 (EB) | FORREST AVE. | BREVARD AVE. | 21,020 | 19,560 | 21,850 | 19,620 | 22,460 | 20,930 | 22,250 | 20,930 | 21,800 | 20,140 | 19,440 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 10 | SR 520 (EB) | BREVARD AVE. | DELANNOY AVE. | 20,900 | 19,450 | 22,930 | 22,010 | 21,670 | 22,280 | 22,500 | 19,990 | NC | 21,080 | 19,440 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 11 | SR 520 (EB) | DELANNOY AVE. | RIVEREDGE BLVD. | 21,860 | 19,980 | 22,940 | 18,950 | 21,990 | 22,960 | 22,960 | 20,680 | 22,640 | 20,810 | 19,440 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| | SR 520 (WB) | CAUSEWAY | US 1 | 20,770 | 20,643 | 21,703 | 20,098 | 21,220 | 20,920 | 21,915 | 19,093 | 17,797 | 21,705 | | | |
| 12 | SR 520 (WB) | CAUSEWAY | DELANNOY AVE. | 22,160 | 21,250 | 23,700 | 23,050 | 21,130 | 22,990 | 22,780 | 20,340 | 22,850 | 20,800 | 19,440 | 02/03/22-02/04/22 | Urban Principal Arterial-Other |
| 13 | SR 520 (WB) | DELANNOY AVE. | BREVARD AVE. | 23,970 | 23,100 | 23,460 | 21,900 | 24,290 | 22,980 | 24,250 | 21,420 | NC | 22,610 | 19,440 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 15 | SR 520 (WB) | BREVARD AVE. | FORREST AVE. | 21,220 | 21,560 | 22,400 | 18,690 | 21,810 | 20,660 | 21,610 | 19,840 | 22,080 | NC | 19,440 | 01/19/21-01/20/21 | Urban Principal Arterial-Other |
| 87 | SR 520 (WB) | FORREST AVE. | US 1 | 15,730 | 16,660 | 17,250 | 16,750 | 17,650 | 17,050 | 19,020 | 14,770 | NC | NC | 19,440 | 01/29/20-01/30/20 | Urban Principal Arterial-Other |
| 66 | SR 524 | SR 520 | I-95 | 4,670 | 4,530 | 5,690 | 5,300 | 5,890 | 7,200 | 6,870 | 6,600 | 8,460 | 6,280 | 24,200 | 03/10/22-03/11/22 | Urban Minor Arterial |
| | SR 524 | I-95 | INDUSTRY RD. | 11,220 | 10,880 | 12,765 | 12,605 | 11,710 | 13,860 | 12,540 | 11,775 | 13,965 | 13,625 | | | |
| 73 | SR 524 | I-95 | COX RD. | 9,780 | 9,670 | 11,440 | 11,170 | 10,460 | 12,690 | 11,700 | 11,020 | 13,300 | 12,870 | 18,590 | 02/02/22-02/03/22 | Urban Minor Arterial |
| 76 | SR 524 | COX RD. | INDUSTRY RD. | 12,660 | 12,090 | 14,090 | 14,040 | 12,960 | 15,030 | 13,380 | 12,530 | 14,630 | 14,380 | 19,470 | 01/24/22-01/25/22 | Urban Minor Arterial |
| | SR 528 | ORANGE CO | I-95 | 27,835 | 28,320 | 34,205 | 31,740 | 33,780 | 40,640 | 37,805 | 43,810 | 33,090 | 27,865 | | | |
| 91 | SR 528 | ORANGE CO | SR 407 | 30,820 | 30,220 | 37,830 | 35,120 | 37,330 | 40,640 | 42,560 | 49,690 | 36,880 | 31,390 | 43,000 | 02/02/22-02/03/22 | Rural Principal Arterial - Freeways & Expressways |
| 90 | SR 528 | SR 407 | I-95 | 24,850 | 26,420 | 30,580 | 28,360 | 30,230 | NC | 33,050 | 37,930 | 29,300 | 24,340 | 43,000 | 02/17/22-02/18/22 | Rural Principal Arterial - Freeways & Expressways |
| | SR 528 | I-95 | US 1 | 25,860 | 25,315 | 30,165 | 27,775 | 28,340 | 31,000 | 32,730 | 37,960 | 28,765 | 27,060 | | | |
| 93 | SR 528 | I-95 | INDUSTRY RD. | 21,000 | 23,050 | 23,030 | 22,810 | 23,290 | 29,350 | 28,880 | 33,780 | 24,750 | 22,810 | 74,400 | 02/02/22-02/03/22 | Urban Principal Arterial - Freeways & Expressways |
| 92 | SR 528 | INDUSTRY RD. | US 1 | 30,720 | 27,580 | 37,300 | 32,740 | 33,390 | 32,650 | 36,580 | 42,140 | 32,780 | 31,310 | 74,400 | 01/27/22-01/28/22 | Urban Principal Arterial - Freeways & Expressways |
| 25 | STADIUM PKWY. | WICKHAM RD. | JUDGE F JAMIESON WY. | 6,550 | 6,890 | 7,810 | 8,480 | 9,150 | 10,460 | 11,240 | 10,620 | 10,380 | 11,180 | 17,700 | 01/11/22-01/12/22 | Urban Minor Arterial |
| | STADIUM PKWY. | JUDGE F JAMIESON WY | I-95/FISKE BLVD. | 16,515 | 16,965 | 17,707 | 18,173 | 19,337 | 20,273 | 20,780 | 18,447 | 15,570 | 14,613 | | | |
| 26 | STADIUM PKWY. | JUDGE F JAMIESON WY | VIERA BLVD. | 18,270 | 18,910 | 19,950 | 20,890 | 22,170 | 22,920 | 23,650 | 24,190 | 18,970 | 16,590 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 535 | STADIUM PKWY. | VIERA BLVD. | ROSEMOUNT DR. | 14,760 | 15,020 | 15,980 | 16,120 | 17,160 | 17,870 | 18,460 | 15,370 | 13,700 | 13,780 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 606 | STADIUM PKWY. | ROSEMOUNT DR. | I-95/FISKE BLVD. | | | 17,190 | 17,510 | 18,680 | 20,030 | 20,230 | 15,780 | 14,020 | 13,470 | 39,800 | 01/11/22-01/12/22 | Urban Minor Arterial |
| 607 | TAVISTOCK DR. | JUDGE F JAMIESON WY. | VIERA BLVD. | | | 3,300 | 3,680 | 3,720 | 3,780 | 3,620 | 3,310 | 2,990 | 3,070 | 15,600 | 01/11/22-01/12/22 | Urban Local |
| 608 | TAVISTOCK DR. | VIERA BLVD. | STADIUM PKWY. | | | 2,890 | 2,680 | 2,650 | 3,160 | 2,290 | 2,250 | 2,180 | 2,130 | 15,600 | 01/11/22-01/12/22 | Urban Local |
| | US 1 | PINEDA CSWY. (SR 404) | BARNES BLVD. | 29,530 | 31,853 | 32,577 | 32,687 | 30,737 | 32,013 | 31,497 | 32,037 | 29,953 | 28,490 | | | |
| 89 | US 1 | PINEDA CSWY. (SR 404) | SUNTREE BLVD. | 33,100 | 37,580 | 37,310 | 38,750 | 34,340 | 38,730 | 37,540 | 38,150 | 35,090 | 31,640 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 567 | US 1 | SUNTREE BLVD. | VIERA BLVD. | 28,770 | 31,550 | 32,650 | 31,520 | 30,670 | 31,070 | 29,740 | 31,800 | 28,090 | 25,340 | 41,790 | 03/09/22-03/10/22 | Urban Principal Arterial-Other |
| 36 | US 1 | VIERA BLVD. | BARNES BLVD. | 26,720 | 26,430 | 27,770 | 27,790 | 27,200 | 26,240 | 27,210 | 26,160 | 26,680 | NC | 41,790 | 01/12/21-01/13/21 | Urban Principal Arterial-Other |
| 70 | US 1 | BARNES BLVD. | EYSTER BLVD. | 26,150 | 25,690 | 25,980 | 26,300 | 25,060 | 26,090 | 26,340 | 25,880 | 26,480 | 30,560 | 41,790 | 01/27/22-01/28/22 | Urban Principal Arterial-Other |
| | US 1 | EYSTER BLVD. | ROSA JONES DR. | 34,977 | 35,303 | 36,267 | 35,167 | 34,170 | 37,277 | 35,953 | 35,180 | 36,280 | 35,815 | | | |
| 34 | US 1 | EYSTER BLVD. | BARTON BLVD. | 33,220 | 32,820 | 34,440 | 33,650 | 32,520 | 31,160 | 34,410 | 32,080 | 33,300 | NC | 62,900 | 01/19/21-01/20/21 | Urban Principal Arterial-Other |
| 33 | US 1 | BARTON BLVD. | FLORIDA AVE. | 38,070 | 40,180 | 40,480 | 39,840 | 36,860 | 42,630 | 38,100 | 38,490 | 39,550 | 37,430 | 62,900 | 01/27/22-01/28/22 | Urban Principal Arterial-Other |
| 88 | US 1 | FLORIDA AVE. | ROSA JONES DR. | 33,640 | 32,910 | 33,880 | 32,010 | 33,130 | 38,040 | 35,350 | 34,970 | 35,990 | 34,200 | 62,900 | 01/27/22-01/28/22 | Urban Principal Arterial-Other |

**Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.*
*NC=Not Counted; UC=Under Construction*

# APPENDIX G
# Synchro Outputs

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 107 | 78 | 86 | 95 | 4 |
| Future Vol, veh/h | 3 | 107 | 78 | 86 | 95 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 33 | 6 | 5 | 6 | 10 | 50 |
| Mvmt Flow | 3 | 113 | 82 | 91 | 100 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 173 | 0 | - | 0 | 247 | 128 |
| Stage 1 | - | - | - | - | 128 | - |
| Stage 2 | - | - | - | - | 119 | - |
| Critical Hdwy | 4.43 | - | - | - | 6.5 | 6.7 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.5 | - |
| Follow-up Hdwy | 2.497 | - | - | - | 3.59 | 3.75 |
| Pot Cap-1 Maneuver | 1237 | - | - | - | 724 | 808 |
| Stage 1 | - | - | - | - | 878 | - |
| Stage 2 | - | - | - | - | 887 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1237 | - | - | - | 722 | 808 |
| Mov Cap-2 Maneuver | - | - | - | - | 722 | - |
| Stage 1 | - | - | - | - | 875 | - |
| Stage 2 | - | - | - | - | 887 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 10.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1237 | - | - | - | 725 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.144 |
| HCM Control Delay (s) | 7.9 | 0 | - | - | 10.8 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 25 | 209 | 172 | 107 | 176 | 23 |
| Future Vol, veh/h | 25 | 209 | 172 | 107 | 176 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 21 | 2 | 4 | 4 | 5 | 5 |
| Mvmt Flow | 26 | 215 | 177 | 110 | 181 | 24 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 287 | 0 | - | 0 | 444 | 177 |
| Stage 1 | - | - | - | - | 177 | - |
| Stage 2 | - | - | - | - | 267 | - |
| Critical Hdwy | 4.31 | - | - | - | 6.45 | 6.25 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.389 | - | - | - | 3.545 | 3.345 |
| Pot Cap-1 Maneuver | 1174 | - | - | - | 566 | 858 |
| Stage 1 | - | - | - | - | 846 | - |
| Stage 2 | - | - | - | - | 771 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1174 | - | - | - | 552 | 858 |
| Mov Cap-2 Maneuver | - | - | - | - | 552 | - |
| Stage 1 | - | - | - | - | 825 | - |
| Stage 2 | - | - | - | - | 771 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 14.7 |
| HCM LOS | | | B |

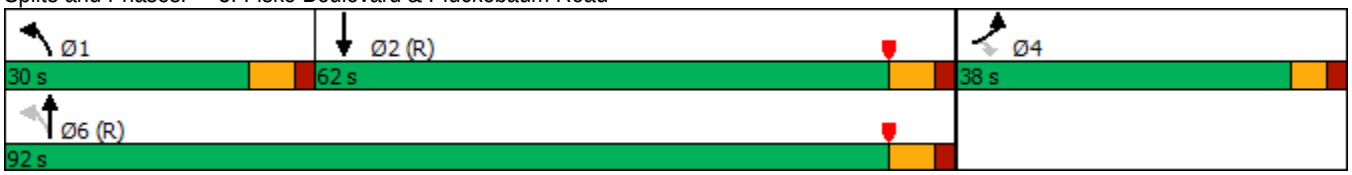
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1174 | - | - | - | 576 |
| HCM Lane V/C Ratio | 0.022 | - | - | - | 0.356 |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 14.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 1.6 |

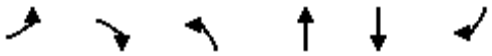
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 64 | 341 | 242 | 839 | 757 |
| Future Volume (vph) | 64 | 341 | 242 | 839 | 757 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 92.0 | 62.0 |
| Total Split (%) | 29.2% | 29.2% | 23.1% | 70.8% | 47.7% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 64 | 341 | 242 | 839 | 757 | 29 |
| Future Volume (veh/h) | 64 | 341 | 242 | 839 | 757 | 29 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1841 | 1856 | 1870 | 1826 | 1693 |
| Adj Flow Rate, veh/h | 67 | 355 | 252 | 874 | 789 | 30 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 4 | 3 | 2 | 5 | 14 |
| Cap, veh/h | 429 | 376 | 461 | 2370 | 1829 | 70 |
| Arrive On Green | 0.24 | 0.24 | 0.08 | 0.67 | 0.54 | 0.54 |
| Sat Flow, veh/h | 1781 | 1560 | 1767 | 3647 | 3499 | 130 |
| Grp Volume(v), veh/h | 67 | 355 | 252 | 874 | 402 | 417 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1560 | 1767 | 1777 | 1735 | 1803 |
| Q Serve(g_s), s | 3.9 | 29.1 | 7.9 | 14.1 | 18.1 | 18.1 |
| Cycle Q Clear(g_c), s | 3.9 | 29.1 | 7.9 | 14.1 | 18.1 | 18.1 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.07 |
| Lane Grp Cap(c), veh/h | 429 | 376 | 461 | 2370 | 931 | 968 |
| V/C Ratio(X) | 0.16 | 0.95 | 0.55 | 0.37 | 0.43 | 0.43 |
| Avail Cap(c_a), veh/h | 444 | 389 | 639 | 2370 | 931 | 968 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.9 | 48.5 | 12.7 | 9.6 | 18.1 | 18.1 |
| Incr Delay (d2), s/veh | 0.2 | 31.4 | 1.0 | 0.4 | 1.5 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 14.3 | 3.0 | 5.2 | 7.4 | 7.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 39.1 | 79.9 | 13.7 | 10.0 | 19.6 | 19.6 |
| LnGrp LOS | D | E | B | B | B | B |
| Approach Vol, veh/h | 422 | | | 1126 | 819 | |
| Approach Delay, s/veh | 73.4 | | | 10.8 | 19.6 | |
| Approach LOS | E | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.9 | 76.2 | | 36.9 | | 93.1 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 55.6 | | * 32 | | 85.6 |
| Max Q Clear Time (g_c+I1), s | 9.9 | 20.1 | | 31.1 | | 16.1 |
| Green Ext Time (p_c), s | 0.6 | 5.4 | | 0.2 | | 7.1 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 25.0 | |
| HCM 6th LOS | | C | |

Notes

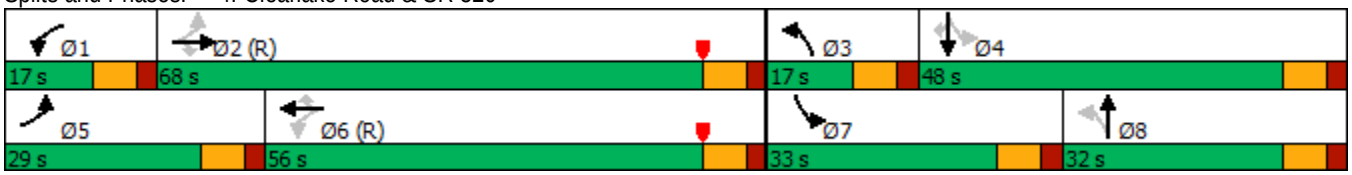
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

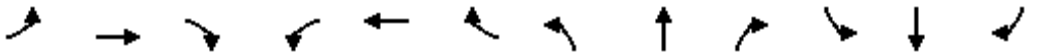
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 163 | 657 | 57 | 29 | 414 | 70 | 47 | 116 | 145 | 130 | 177 |
| Future Volume (vph) | 163 | 657 | 57 | 29 | 414 | 70 | 47 | 116 | 145 | 130 | 177 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 29.0 | 68.0 | 68.0 | 17.0 | 56.0 | 56.0 | 17.0 | 32.0 | 33.0 | 48.0 | 48.0 |
| Total Split (%) | 19.3% | 45.3% | 45.3% | 11.3% | 37.3% | 37.3% | 11.3% | 21.3% | 22.0% | 32.0% | 32.0% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 114 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 163 | 657 | 57 | 29 | 414 | 70 | 47 | 116 | 24 | 145 | 130 | 177 |
| Future Volume (veh/h) | 163 | 657 | 57 | 29 | 414 | 70 | 47 | 116 | 24 | 145 | 130 | 177 |
| 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 | 0.97 | 1.00 | 1.00 | 0.99 | 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 | 1796 | 1826 | 1826 | 1767 | 1781 | 1856 | 1796 | 1826 | 1841 | 1781 | 1826 | 1811 |
| Adj Flow Rate, veh/h | 172 | 692 | 60 | 31 | 436 | 74 | 49 | 122 | 25 | 153 | 137 | 186 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 7 | 5 | 5 | 9 | 8 | 3 | 7 | 5 | 4 | 8 | 5 | 6 |
| Cap, veh/h | 568 | 2036 | 883 | 422 | 1887 | 866 | 198 | 144 | 30 | 227 | 287 | 241 |
| Arrive On Green | 0.06 | 0.59 | 0.59 | 0.03 | 0.56 | 0.56 | 0.03 | 0.10 | 0.10 | 0.09 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1711 | 3469 | 1504 | 1682 | 3385 | 1554 | 1711 | 1470 | 301 | 1697 | 1826 | 1535 |
| Grp Volume(v), veh/h | 172 | 692 | 60 | 31 | 436 | 74 | 49 | 0 | 147 | 153 | 137 | 186 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1735 | 1504 | 1682 | 1692 | 1554 | 1711 | 0 | 1772 | 1697 | 1826 | 1535 |
| Q Serve(g_s), s | 6.4 | 15.4 | 2.6 | 1.2 | 9.8 | 3.3 | 3.8 | 0.0 | 12.2 | 11.8 | 10.3 | 17.4 |
| Cycle Q Clear(g_c), s | 6.4 | 15.4 | 2.6 | 1.2 | 9.8 | 3.3 | 3.8 | 0.0 | 12.2 | 11.8 | 10.3 | 17.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.17 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 568 | 2036 | 883 | 422 | 1887 | 866 | 198 | 0 | 174 | 227 | 287 | 241 |
| V/C Ratio(X) | 0.30 | 0.34 | 0.07 | 0.07 | 0.23 | 0.09 | 0.25 | 0.00 | 0.84 | 0.67 | 0.48 | 0.77 |
| Avail Cap(c_a), veh/h | 718 | 2036 | 883 | 484 | 1887 | 866 | 249 | 0 | 292 | 358 | 495 | 416 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.7 | 16.0 | 13.3 | 13.5 | 16.9 | 15.4 | 58.0 | 0.0 | 66.5 | 52.8 | 57.6 | 60.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.5 | 0.1 | 0.1 | 0.3 | 0.2 | 0.6 | 0.0 | 10.8 | 3.5 | 1.2 | 5.1 |
| 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 | 2.3 | 5.8 | 0.9 | 0.4 | 3.7 | 1.3 | 1.7 | 0.0 | 6.1 | 5.3 | 4.9 | 7.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 13.0 | 16.4 | 13.5 | 13.6 | 17.2 | 15.6 | 58.7 | 0.0 | 77.3 | 56.3 | 58.8 | 65.7 |
| LnGrp LOS | B | B | B | B | B | B | E | A | E | E | E | E |
| Approach Vol, veh/h | | 924 | | | 541 | | | 196 | | | 476 | |
| Approach Delay, s/veh | | 15.6 | | | 16.7 | | | 72.7 | | | 60.7 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.5 | 95.1 | 12.5 | 30.9 | 15.9 | 90.7 | 21.4 | 22.0 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 61 | 9.7 | 40.7 | * 22 | * 49 | 25.7 | 24.7 |
| Max Q Clear Time (g_c+I1), s | 3.2 | 17.4 | 5.8 | 19.4 | 8.4 | 11.8 | 13.8 | 14.2 |
| Green Ext Time (p_c), s | 0.0 | 4.7 | 0.0 | 1.3 | 0.3 | 2.8 | 0.3 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 31.2 |
| HCM 6th LOS | C |

Notes

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

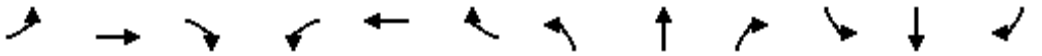
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 116 | 800 | 24 | 525 | 38 | 61 | 32 | 85 | 50 |
| Future Volume (vph) | 116 | 800 | 24 | 525 | 38 | 61 | 32 | 85 | 50 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 12.5 | 12.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

**Intersection Summary**

Cycle Length: 100
Actuated Cycle Length: 82.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 116 | 800 | 64 | 24 | 525 | 38 | 61 | 32 | 19 | 85 | 50 | 42 |
| Future Volume (veh/h) | 116 | 800 | 64 | 24 | 525 | 38 | 61 | 32 | 19 | 85 | 50 | 42 |
| 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 | 1826 | 1811 | 1900 | 1885 | 1826 | 1722 | 1811 | 1411 | 1707 | 1841 | 1826 |
| Adj Flow Rate, veh/h | 122 | 842 | 67 | 25 | 553 | 40 | 64 | 34 | 20 | 89 | 53 | 44 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 5 | 5 | 6 | 0 | 1 | 5 | 12 | 6 | 33 | 13 | 4 | 5 |
| Cap, veh/h | 549 | 1752 | 139 | 389 | 1781 | 769 | 170 | 83 | 37 | 171 | 78 | 55 |
| Arrive On Green | 0.07 | 0.54 | 0.54 | 0.03 | 0.50 | 0.50 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| Sat Flow, veh/h | 1739 | 3255 | 259 | 1810 | 3582 | 1547 | 667 | 577 | 254 | 695 | 544 | 384 |
| Grp Volume(v), veh/h | 122 | 449 | 460 | 25 | 553 | 40 | 118 | 0 | 0 | 186 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 1735 | 1779 | 1810 | 1791 | 1547 | 1498 | 0 | 0 | 1622 | 0 | 0 |
| Q Serve(g_s), s | 2.4 | 12.2 | 12.2 | 0.5 | 6.9 | 1.0 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.4 | 12.2 | 12.2 | 0.5 | 6.9 | 1.0 | 5.3 | 0.0 | 0.0 | 8.1 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.15 | 1.00 | | 1.00 | 0.54 | | 0.17 | 0.48 | | 0.24 |
| Lane Grp Cap(c), veh/h | 549 | 934 | 958 | 389 | 1781 | 769 | 290 | 0 | 0 | 305 | 0 | 0 |
| V/C Ratio(X) | 0.22 | 0.48 | 0.48 | 0.06 | 0.31 | 0.05 | 0.41 | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 825 | 934 | 958 | 750 | 1781 | 769 | 529 | 0 | 0 | 556 | 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 | 1.00 | 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 | 7.8 | 10.8 | 10.8 | 9.0 | 11.3 | 9.8 | 29.8 | 0.0 | 0.0 | 31.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 1.8 | 1.7 | 0.1 | 0.5 | 0.1 | 0.9 | 0.0 | 0.0 | 2.0 | 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 | 0.7 | 3.9 | 4.0 | 0.2 | 2.2 | 0.3 | 2.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.1 | 12.6 | 12.6 | 9.1 | 11.7 | 9.9 | 30.7 | 0.0 | 0.0 | 32.9 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | A | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1031 | | | 618 | | | 118 | | | 186 | |
| Approach Delay, s/veh | | 12.1 | | | 11.5 | | | 30.7 | | | 32.9 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.0 | 45.0 | | 17.4 | 9.9 | 48.1 | | 17.4 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 8.9 | | 7.3 | 2.5 | 14.2 | | 10.1 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.4 | | 0.5 | 0.0 | 5.1 | | 0.8 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 15.0 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 97 | 115 | 81 | 68 | 14 |
| Future Vol, veh/h | 4 | 97 | 115 | 81 | 68 | 14 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 2 | 1 | 4 | 6 | 8 |
| Mvmt Flow | 4 | 107 | 126 | 89 | 75 | 15 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 215 | 0 | - | 0 | 286 | 171 |
| Stage 1 | - | - | - | - | 171 | - |
| Stage 2 | - | - | - | - | 115 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.46 | 6.28 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.46 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.46 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.554 | 3.372 |
| Pot Cap-1 Maneuver | 1367 | - | - | - | 696 | 857 |
| Stage 1 | - | - | - | - | 849 | - |
| Stage 2 | - | - | - | - | 900 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1367 | - | - | - | 694 | 857 |
| Mov Cap-2 Maneuver | - | - | - | - | 694 | - |
| Stage 1 | - | - | - | - | 846 | - |
| Stage 2 | - | - | - | - | 900 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 10.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1367 | - | - | - | 717 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.126 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 10.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 163 | 228 | 148 | 192 | 26 |
| Future Vol, veh/h | 23 | 163 | 228 | 148 | 192 | 26 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 2 | 0 |
| Mvmt Flow | 24 | 170 | 238 | 154 | 200 | 27 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 392 | 0 | - | 0 | 456 | 238 |
| Stage 1 | - | - | - | - | 238 | - |
| Stage 2 | - | - | - | - | 218 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.42 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.518 | 3.3 |
| Pot Cap-1 Maneuver | 1178 | - | - | - | 562 | 806 |
| Stage 1 | - | - | - | - | 802 | - |
| Stage 2 | - | - | - | - | 818 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1178 | - | - | - | 550 | 806 |
| Mov Cap-2 Maneuver | - | - | - | - | 550 | - |
| Stage 1 | - | - | - | - | 784 | - |
| Stage 2 | - | - | - | - | 818 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 15.4 |
| HCM LOS | | | C |

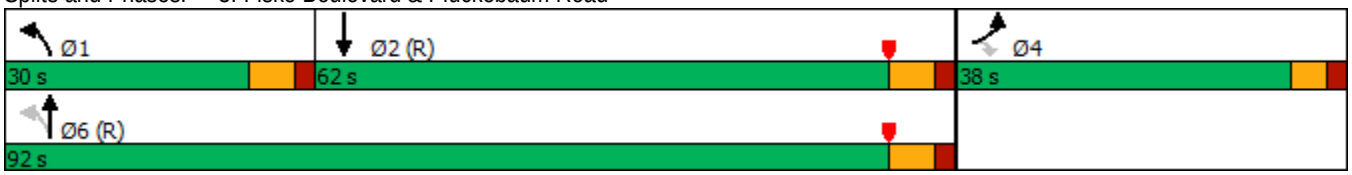
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1178 | - | - | - | 572 |
| HCM Lane V/C Ratio | 0.02 | - | - | - | 0.397 |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 15.4 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 1.9 |

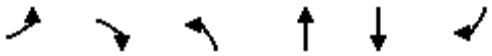
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 33 | 318 | 340 | 846 | 855 |
| Future Volume (vph) | 33 | 318 | 340 | 846 | 855 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 92.0 | 62.0 |
| Total Split (%) | 29.2% | 29.2% | 23.1% | 70.8% | 47.7% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 33 | 318 | 340 | 846 | 855 | 51 |
| Future Volume (veh/h) | 33 | 318 | 340 | 846 | 855 | 51 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1885 | 1870 | 1885 | 1870 | 1900 |
| Adj Flow Rate, veh/h | 36 | 346 | 370 | 920 | 929 | 55 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 1 | 2 | 1 | 2 | 0 |
| Cap, veh/h | 418 | 369 | 449 | 2424 | 1747 | 103 |
| Arrive On Green | 0.23 | 0.23 | 0.12 | 0.68 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 1598 | 1781 | 3676 | 3503 | 202 |
| Grp Volume(v), veh/h | 36 | 346 | 370 | 920 | 484 | 500 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1598 | 1781 | 1791 | 1777 | 1834 |
| Q Serve(g_s), s | 2.0 | 27.6 | 12.2 | 14.5 | 23.7 | 23.7 |
| Cycle Q Clear(g_c), s | 2.0 | 27.6 | 12.2 | 14.5 | 23.7 | 23.7 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.11 |
| Lane Grp Cap(c), veh/h | 418 | 369 | 449 | 2424 | 910 | 940 |
| V/C Ratio(X) | 0.09 | 0.94 | 0.82 | 0.38 | 0.53 | 0.53 |
| Avail Cap(c_a), veh/h | 451 | 398 | 567 | 2424 | 910 | 940 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.2 | 49.1 | 17.6 | 9.1 | 21.2 | 21.2 |
| Incr Delay (d2), s/veh | 0.1 | 28.8 | 7.8 | 0.5 | 2.2 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 13.7 | 5.4 | 5.3 | 10.1 | 10.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 39.3 | 77.9 | 25.4 | 9.6 | 23.5 | 23.4 |
| LnGrp LOS | D | E | C | A | C | C |
| Approach Vol, veh/h | 382 | | | 1290 | 984 | |
| Approach Delay, s/veh | 74.2 | | | 14.1 | 23.4 | |
| Approach LOS | E | | | B | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 21.4 | 73.0 | | 35.6 | | 94.4 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 55.6 | | * 32 | | 85.6 |
| Max Q Clear Time (g_c+I1), s | 14.2 | 25.7 | | 29.6 | | 16.5 |
| Green Ext Time (p_c), s | 0.8 | 6.7 | | 0.4 | | 7.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.2 |
| HCM 6th LOS | C |

Notes

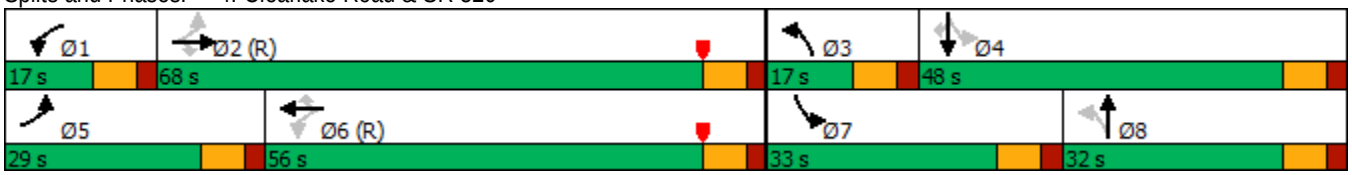
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

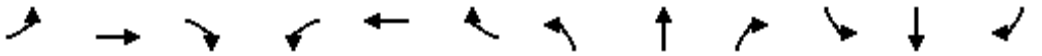
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 251 | 595 | 90 | 39 | 556 | 130 | 62 | 149 | 186 | 188 | 216 |
| Future Volume (vph) | 251 | 595 | 90 | 39 | 556 | 130 | 62 | 149 | 186 | 188 | 216 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 29.0 | 68.0 | 68.0 | 17.0 | 56.0 | 56.0 | 17.0 | 32.0 | 33.0 | 48.0 | 48.0 |
| Total Split (%) | 19.3% | 45.3% | 45.3% | 11.3% | 37.3% | 37.3% | 11.3% | 21.3% | 22.0% | 32.0% | 32.0% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 114 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 251 | 595 | 90 | 39 | 556 | 130 | 62 | 149 | 28 | 186 | 188 | 216 |
| Future Volume (veh/h) | 251 | 595 | 90 | 39 | 556 | 130 | 62 | 149 | 28 | 186 | 188 | 216 |
| 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 | 0.97 | 1.00 | 1.00 | 0.99 | 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 | 1885 | 1856 | 1856 | 1856 | 1841 | 1870 | 1826 | 1885 | 1900 | 1870 | 1870 | 1841 |
| Adj Flow Rate, veh/h | 254 | 601 | 91 | 39 | 562 | 131 | 63 | 151 | 28 | 188 | 190 | 218 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 1 | 3 | 3 | 3 | 4 | 2 | 5 | 1 | 0 | 2 | 2 | 4 |
| Cap, veh/h | 507 | 1963 | 851 | 452 | 1772 | 794 | 201 | 175 | 32 | 258 | 331 | 276 |
| Arrive On Green | 0.08 | 0.56 | 0.56 | 0.03 | 0.51 | 0.51 | 0.04 | 0.11 | 0.11 | 0.11 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1795 | 3526 | 1528 | 1767 | 3497 | 1566 | 1739 | 1547 | 287 | 1781 | 1870 | 1560 |
| Grp Volume(v), veh/h | 254 | 601 | 91 | 39 | 562 | 131 | 63 | 0 | 179 | 188 | 190 | 218 |
| Grp Sat Flow(s),veh/h/ln | 1795 | 1763 | 1528 | 1767 | 1749 | 1566 | 1739 | 0 | 1834 | 1781 | 1870 | 1560 |
| Q Serve(g_s), s | 9.8 | 13.7 | 4.2 | 1.6 | 14.2 | 6.8 | 4.8 | 0.0 | 14.4 | 13.6 | 14.0 | 20.1 |
| Cycle Q Clear(g_c), s | 9.8 | 13.7 | 4.2 | 1.6 | 14.2 | 6.8 | 4.8 | 0.0 | 14.4 | 13.6 | 14.0 | 20.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 507 | 1963 | 851 | 452 | 1772 | 794 | 201 | 0 | 207 | 258 | 331 | 276 |
| V/C Ratio(X) | 0.50 | 0.31 | 0.11 | 0.09 | 0.32 | 0.17 | 0.31 | 0.00 | 0.86 | 0.73 | 0.57 | 0.79 |
| Avail Cap(c_a), veh/h | 622 | 1963 | 851 | 512 | 1772 | 794 | 241 | 0 | 302 | 374 | 507 | 423 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.1 | 17.8 | 15.7 | 16.4 | 21.7 | 19.9 | 55.6 | 0.0 | 65.4 | 50.5 | 56.5 | 59.0 |
| Incr Delay (d2), s/veh | 0.8 | 0.4 | 0.3 | 0.1 | 0.5 | 0.4 | 0.9 | 0.0 | 15.9 | 4.0 | 1.6 | 5.5 |
| 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 | 3.8 | 5.4 | 1.6 | 0.6 | 5.7 | 2.6 | 2.2 | 0.0 | 7.7 | 6.4 | 6.8 | 8.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.9 | 18.2 | 15.9 | 16.5 | 22.2 | 20.4 | 56.5 | 0.0 | 81.3 | 54.5 | 58.1 | 64.5 |
| LnGrp LOS | B | B | B | B | C | C | E | A | F | D | E | E |
| Approach Vol, veh/h | | 946 | | | 732 | | | 242 | | | 596 | |
| Approach Delay, s/veh | | 17.3 | | | 21.6 | | | 74.8 | | | 59.3 | |
| Approach LOS | | B | | | C | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.9 | 90.6 | 13.6 | 33.9 | 19.4 | 83.1 | 23.2 | 24.2 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 61 | 9.7 | 40.7 | * 22 | * 49 | 25.7 | 24.7 |
| Max Q Clear Time (g_c+I1), s | 3.6 | 15.7 | 6.8 | 22.1 | 11.8 | 16.2 | 15.6 | 16.4 |
| Green Ext Time (p_c), s | 0.0 | 4.1 | 0.0 | 1.7 | 0.5 | 3.9 | 0.4 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.0 |
| HCM 6th LOS | C |

Notes

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

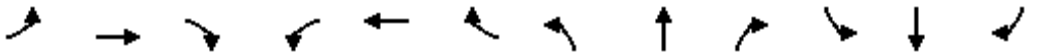
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 133 | 818 | 23 | 803 | 80 | 71 | 38 | 58 | 22 |
| Future Volume (vph) | 133 | 818 | 23 | 803 | 80 | 71 | 38 | 58 | 22 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 12.5 | 12.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

**Intersection Summary**

Cycle Length: 100
Actuated Cycle Length: 80.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 133 | 818 | 62 | 23 | 803 | 80 | 71 | 38 | 20 | 58 | 22 | 72 |
| Future Volume (veh/h) | 133 | 818 | 62 | 23 | 803 | 80 | 71 | 38 | 20 | 58 | 22 | 72 |
| 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 | 1781 | 1856 | 1678 | 1811 | 1870 | 1811 | 1900 | 1826 | 1737 | 1796 | 1900 | 1841 |
| Adj Flow Rate, veh/h | 140 | 861 | 65 | 24 | 845 | 84 | 75 | 40 | 21 | 61 | 23 | 76 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 8 | 3 | 15 | 6 | 2 | 6 | 0 | 5 | 11 | 7 | 0 | 4 |
| Cap, veh/h | 431 | 1838 | 139 | 384 | 1805 | 780 | 167 | 68 | 29 | 135 | 43 | 100 |
| Arrive On Green | 0.08 | 0.55 | 0.55 | 0.03 | 0.51 | 0.51 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1697 | 3322 | 251 | 1725 | 3554 | 1535 | 736 | 551 | 235 | 543 | 346 | 804 |
| Grp Volume(v), veh/h | 140 | 457 | 469 | 24 | 845 | 84 | 136 | 0 | 0 | 160 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1697 | 1763 | 1810 | 1725 | 1777 | 1535 | 1522 | 0 | 0 | 1693 | 0 | 0 |
| Q Serve(g_s), s | 2.8 | 11.5 | 11.5 | 0.5 | 11.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.8 | 11.5 | 11.5 | 0.5 | 11.3 | 2.1 | 6.2 | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.14 | 1.00 | | 1.00 | 0.55 | | 0.15 | 0.38 | | 0.47 |
| Lane Grp Cap(c), veh/h | 431 | 975 | 1001 | 384 | 1805 | 780 | 264 | 0 | 0 | 277 | 0 | 0 |
| V/C Ratio(X) | 0.32 | 0.47 | 0.47 | 0.06 | 0.47 | 0.11 | 0.51 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 703 | 975 | 1001 | 739 | 1805 | 780 | 543 | 0 | 0 | 576 | 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 | 1.00 | 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 | 8.1 | 9.9 | 9.9 | 8.4 | 11.7 | 9.4 | 31.0 | 0.0 | 0.0 | 31.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 1.6 | 1.6 | 0.1 | 0.9 | 0.3 | 1.5 | 0.0 | 0.0 | 1.9 | 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 | 0.7 | 3.6 | 3.7 | 0.1 | 3.6 | 0.6 | 2.3 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.5 | 11.6 | 11.5 | 8.5 | 12.6 | 9.7 | 32.5 | 0.0 | 0.0 | 33.0 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | A | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1066 | | | 953 | | | 136 | | | 160 | |
| Approach Delay, s/veh | | 11.1 | | | 12.2 | | | 32.5 | | | 33.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.2 | 45.0 | | 15.7 | 9.8 | 48.3 | | 15.7 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 13.3 | | 8.2 | 2.5 | 13.5 | | 8.5 | | | | |
| Green Ext Time (p_c), s | 0.2 | 5.6 | | 0.6 | 0.0 | 5.2 | | 0.7 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 14.4 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 111 | 81 | 89 | 99 | 4 |
| Future Vol, veh/h | 3 | 111 | 81 | 89 | 99 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 5 | 6 | 10 | 50 | 33 | 6 |
| Mvmt Flow | 3 | 117 | 85 | 94 | 104 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 179 | 0 | - | 0 | 255 | 132 |
| Stage 1 | - | - | - | - | 132 | - |
| Stage 2 | - | - | - | - | 123 | - |
| Critical Hdwy | 4.15 | - | - | - | 6.73 | 6.26 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.73 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.73 | - |
| Follow-up Hdwy | 2.245 | - | - | - | 3.797 | 3.354 |
| Pot Cap-1 Maneuver | 1379 | - | - | - | 671 | 907 |
| Stage 1 | - | - | - | - | 823 | - |
| Stage 2 | - | - | - | - | 831 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1379 | - | - | - | 670 | 907 |
| Mov Cap-2 Maneuver | - | - | - | - | 670 | - |
| Stage 1 | - | - | - | - | 821 | - |
| Stage 2 | - | - | - | - | 831 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 11.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1379 | - | - | - | 677 |
| HCM Lane V/C Ratio | 0.002 | - | - | - | 0.16 |
| HCM Control Delay (s) | 7.6 | 0 | - | - | 11.3 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 217 | 179 | 111 | 183 | 24 |
| Future Vol, veh/h | 26 | 217 | 179 | 111 | 183 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 100 | 2 | 4 | 4 | 5 | 5 |
| Mvmt Flow | 27 | 224 | 185 | 114 | 189 | 25 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 299 | 0 | - | 0 | 463 | 185 |
| Stage 1 | - | - | - | - | 185 | - |
| Stage 2 | - | - | - | - | 278 | - |
| Critical Hdwy | 5.1 | - | - | - | 6.45 | 6.25 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 3.1 | - | - | - | 3.545 | 3.345 |
| Pot Cap-1 Maneuver | 862 | - | - | - | 552 | 850 |
| Stage 1 | - | - | - | - | 839 | - |
| Stage 2 | - | - | - | - | 762 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 862 | - | - | - | 532 | 850 |
| Mov Cap-2 Maneuver | - | - | - | - | 532 | - |
| Stage 1 | - | - | - | - | 809 | - |
| Stage 2 | - | - | - | - | 762 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 15.5 |
| HCM LOS | | | C |

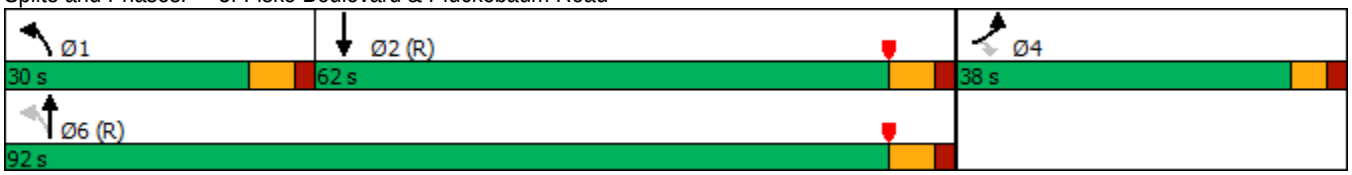
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 862 | - | - | - | 556 |
| HCM Lane V/C Ratio | 0.031 | - | - | - | 0.384 |
| HCM Control Delay (s) | 9.3 | 0 | - | - | 15.5 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 1.8 |

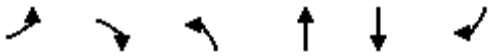
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 67 | 355 | 252 | 873 | 787 |
| Future Volume (vph) | 67 | 355 | 252 | 873 | 787 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 92.0 | 62.0 |
| Total Split (%) | 29.2% | 29.2% | 23.1% | 70.8% | 47.7% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 67 | 355 | 252 | 873 | 787 | 30 |
| Future Volume (veh/h) | 67 | 355 | 252 | 873 | 787 | 30 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1841 | 1856 | 1870 | 1826 | 1693 |
| Adj Flow Rate, veh/h | 70 | 370 | 262 | 909 | 820 | 31 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 4 | 3 | 2 | 5 | 14 |
| Cap, veh/h | 443 | 388 | 446 | 2341 | 1787 | 68 |
| Arrive On Green | 0.25 | 0.25 | 0.09 | 0.66 | 0.52 | 0.52 |
| Sat Flow, veh/h | 1781 | 1560 | 1767 | 3647 | 3500 | 129 |
| Grp Volume(v), veh/h | 70 | 370 | 262 | 909 | 417 | 434 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1560 | 1767 | 1777 | 1735 | 1803 |
| Q Serve(g_s), s | 4.0 | 30.4 | 8.5 | 15.2 | 19.6 | 19.6 |
| Cycle Q Clear(g_c), s | 4.0 | 30.4 | 8.5 | 15.2 | 19.6 | 19.6 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.07 |
| Lane Grp Cap(c), veh/h | 443 | 388 | 446 | 2341 | 909 | 945 |
| V/C Ratio(X) | 0.16 | 0.95 | 0.59 | 0.39 | 0.46 | 0.46 |
| Avail Cap(c_a), veh/h | 444 | 389 | 616 | 2341 | 909 | 945 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.2 | 48.1 | 13.8 | 10.2 | 19.4 | 19.4 |
| Incr Delay (d2), s/veh | 0.2 | 33.5 | 1.2 | 0.5 | 1.7 | 1.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 15.1 | 3.3 | 5.6 | 8.0 | 8.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.3 | 81.6 | 15.0 | 10.7 | 21.0 | 21.0 |
| LnGrp LOS | D | F | B | B | C | C |
| Approach Vol, veh/h | 440 | | | 1171 | 851 | |
| Approach Delay, s/veh | 74.7 | | | 11.6 | 21.0 | |
| Approach LOS | E | | | B | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.5 | 74.5 | | 38.0 | | 92.0 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 55.6 | | * 32 | | 85.6 |
| Max Q Clear Time (g_c+I1), s | 10.5 | 21.6 | | 32.4 | | 17.2 |
| Green Ext Time (p_c), s | 0.6 | 5.7 | | 0.0 | | 7.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.1 |
| HCM 6th LOS | C |

Notes

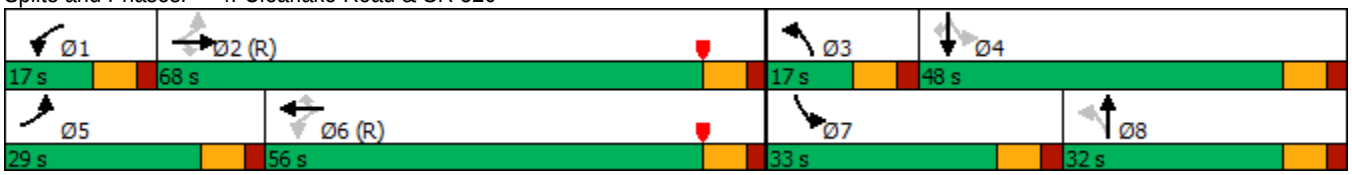
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

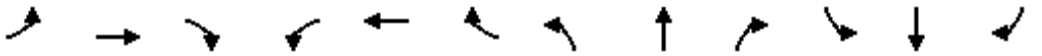
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 169 | 683 | 59 | 30 | 431 | 73 | 49 | 121 | 151 | 135 | 184 |
| Future Volume (vph) | 169 | 683 | 59 | 30 | 431 | 73 | 49 | 121 | 151 | 135 | 184 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 29.0 | 68.0 | 68.0 | 17.0 | 56.0 | 56.0 | 17.0 | 32.0 | 33.0 | 48.0 | 48.0 |
| Total Split (%) | 19.3% | 45.3% | 45.3% | 11.3% | 37.3% | 37.3% | 11.3% | 21.3% | 22.0% | 32.0% | 32.0% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 114 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 169 | 683 | 59 | 30 | 431 | 73 | 49 | 121 | 25 | 151 | 135 | 184 |
| Future Volume (veh/h) | 169 | 683 | 59 | 30 | 431 | 73 | 49 | 121 | 25 | 151 | 135 | 184 |
| 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 | 0.97 | 1.00 | 1.00 | 0.99 | 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 | 1796 | 1826 | 1826 | 1767 | 1781 | 1856 | 1796 | 1826 | 1841 | 1781 | 1826 | 1811 |
| Adj Flow Rate, veh/h | 178 | 719 | 62 | 32 | 454 | 77 | 52 | 127 | 26 | 159 | 142 | 194 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 7 | 5 | 5 | 9 | 8 | 3 | 7 | 5 | 4 | 8 | 5 | 6 |
| Cap, veh/h | 554 | 2013 | 873 | 405 | 1857 | 852 | 202 | 149 | 31 | 232 | 297 | 249 |
| Arrive On Green | 0.06 | 0.58 | 0.58 | 0.03 | 0.55 | 0.55 | 0.04 | 0.10 | 0.10 | 0.10 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1711 | 3469 | 1504 | 1682 | 3385 | 1554 | 1711 | 1471 | 301 | 1697 | 1826 | 1535 |
| Grp Volume(v), veh/h | 178 | 719 | 62 | 32 | 454 | 77 | 52 | 0 | 153 | 159 | 142 | 194 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1735 | 1504 | 1682 | 1692 | 1554 | 1711 | 0 | 1772 | 1697 | 1826 | 1535 |
| Q Serve(g_s), s | 6.8 | 16.5 | 2.7 | 1.2 | 10.5 | 3.5 | 4.1 | 0.0 | 12.7 | 12.2 | 10.6 | 18.2 |
| Cycle Q Clear(g_c), s | 6.8 | 16.5 | 2.7 | 1.2 | 10.5 | 3.5 | 4.1 | 0.0 | 12.7 | 12.2 | 10.6 | 18.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.17 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 554 | 2013 | 873 | 405 | 1857 | 852 | 202 | 0 | 180 | 232 | 297 | 249 |
| V/C Ratio(X) | 0.32 | 0.36 | 0.07 | 0.08 | 0.24 | 0.09 | 0.26 | 0.00 | 0.85 | 0.69 | 0.48 | 0.78 |
| Avail Cap(c_a), veh/h | 699 | 2013 | 873 | 466 | 1857 | 852 | 251 | 0 | 292 | 358 | 495 | 416 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.2 | 16.7 | 13.8 | 14.1 | 17.6 | 16.1 | 57.5 | 0.0 | 66.3 | 52.3 | 57.0 | 60.2 |
| Incr Delay (d2), s/veh | 0.3 | 0.5 | 0.2 | 0.1 | 0.3 | 0.2 | 0.7 | 0.0 | 12.2 | 3.6 | 1.2 | 5.2 |
| 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 | 2.5 | 6.3 | 1.0 | 0.5 | 4.0 | 1.3 | 1.8 | 0.0 | 6.4 | 5.5 | 5.0 | 7.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 13.6 | 17.2 | 13.9 | 14.2 | 18.0 | 16.3 | 58.2 | 0.0 | 78.4 | 55.8 | 58.2 | 65.4 |
| LnGrp LOS | B | B | B | B | B | B | E | A | E | E | E | E |
| Approach Vol, veh/h | | 959 | | | 563 | | | 205 | | | 495 | |
| Approach Delay, s/veh | | 16.3 | | | 17.5 | | | 73.3 | | | 60.3 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.5 | 94.1 | 12.7 | 31.7 | 16.2 | 89.4 | 21.8 | 22.5 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 61 | 9.7 | 40.7 | * 22 | * 49 | 25.7 | 24.7 |
| Max Q Clear Time (g_c+I1), s | 3.2 | 18.5 | 6.1 | 20.2 | 8.8 | 12.5 | 14.2 | 14.7 |
| Green Ext Time (p_c), s | 0.0 | 5.0 | 0.0 | 1.4 | 0.3 | 3.0 | 0.3 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 31.7 |
| HCM 6th LOS | C |

Notes

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

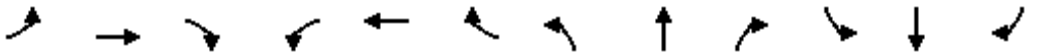
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 121 | 832 | 25 | 546 | 40 | 63 | 33 | 88 | 52 |
| Future Volume (vph) | 121 | 832 | 25 | 546 | 40 | 63 | 33 | 88 | 52 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 12.5 | 12.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

**Intersection Summary**

Cycle Length: 100
Actuated Cycle Length: 83.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 121 | 832 | 67 | 25 | 546 | 40 | 63 | 33 | 20 | 88 | 52 | 44 |
| Future Volume (veh/h) | 121 | 832 | 67 | 25 | 546 | 40 | 63 | 33 | 20 | 88 | 52 | 44 |
| 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 | 1826 | 1811 | 1900 | 1885 | 1826 | 1722 | 1811 | 1411 | 1707 | 1841 | 1826 |
| Adj Flow Rate, veh/h | 127 | 876 | 71 | 26 | 575 | 42 | 66 | 35 | 21 | 93 | 55 | 46 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 5 | 5 | 6 | 0 | 1 | 5 | 12 | 6 | 33 | 13 | 4 | 5 |
| Cap, veh/h | 534 | 1734 | 141 | 372 | 1767 | 763 | 172 | 85 | 38 | 174 | 80 | 57 |
| Arrive On Green | 0.07 | 0.53 | 0.53 | 0.03 | 0.49 | 0.49 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1739 | 3250 | 263 | 1810 | 3582 | 1547 | 659 | 563 | 254 | 692 | 535 | 381 |
| Grp Volume(v), veh/h | 127 | 468 | 479 | 26 | 575 | 42 | 122 | 0 | 0 | 194 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 1735 | 1778 | 1810 | 1791 | 1547 | 1475 | 0 | 0 | 1608 | 0 | 0 |
| Q Serve(g_s), s | 2.6 | 13.1 | 13.1 | 0.5 | 7.4 | 1.1 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.6 | 13.1 | 13.1 | 0.5 | 7.4 | 1.1 | 5.6 | 0.0 | 0.0 | 8.6 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.15 | 1.00 | | 1.00 | 0.54 | | 0.17 | 0.48 | | 0.24 |
| Lane Grp Cap(c), veh/h | 534 | 925 | 949 | 372 | 1767 | 763 | 295 | 0 | 0 | 312 | 0 | 0 |
| V/C Ratio(X) | 0.24 | 0.51 | 0.51 | 0.07 | 0.33 | 0.06 | 0.41 | 0.00 | 0.00 | 0.62 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 807 | 925 | 949 | 729 | 1767 | 763 | 521 | 0 | 0 | 550 | 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 | 1.00 | 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 | 8.1 | 11.3 | 11.3 | 9.3 | 11.6 | 10.0 | 29.7 | 0.0 | 0.0 | 31.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 2.0 | 1.9 | 0.1 | 0.5 | 0.1 | 0.9 | 0.0 | 0.0 | 2.0 | 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 | 0.7 | 4.2 | 4.3 | 0.2 | 2.4 | 0.3 | 2.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.3 | 13.3 | 13.2 | 9.4 | 12.1 | 10.2 | 30.6 | 0.0 | 0.0 | 33.0 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | B | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1074 | | | 643 | | | 122 | | | 194 | |
| Approach Delay, s/veh | | 12.7 | | | 11.9 | | | 30.6 | | | 33.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.1 | 45.0 | | 17.9 | 10.0 | 48.1 | | 17.9 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 9.4 | | 7.6 | 2.5 | 15.1 | | 10.6 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.6 | | 0.5 | 0.0 | 5.3 | | 0.8 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 15.4 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 101 | 120 | 84 | 71 | 15 |
| Future Vol, veh/h | 4 | 101 | 120 | 84 | 71 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 2 | 1 | 4 | 6 | 8 |
| Mvmt Flow | 4 | 111 | 132 | 92 | 78 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 224 | 0 | - | 0 | 297 | 178 |
| Stage 1 | - | - | - | - | 178 | - |
| Stage 2 | - | - | - | - | 119 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.46 | 6.28 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.46 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.46 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.554 | 3.372 |
| Pot Cap-1 Maneuver | 1357 | - | - | - | 686 | 850 |
| Stage 1 | - | - | - | - | 843 | - |
| Stage 2 | - | - | - | - | 896 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1357 | - | - | - | 684 | 850 |
| Mov Cap-2 Maneuver | - | - | - | - | 684 | - |
| Stage 1 | - | - | - | - | 840 | - |
| Stage 2 | - | - | - | - | 896 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1357 | - | - | - | 708 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.133 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 10.9 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 170 | 237 | 154 | 200 | 27 |
| Future Vol, veh/h | 24 | 170 | 237 | 154 | 200 | 27 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 2 | 0 |
| Mvmt Flow | 25 | 177 | 247 | 160 | 208 | 28 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 407 | 0 | - | 0 | 474 | 247 |
| Stage 1 | - | - | - | - | 247 | - |
| Stage 2 | - | - | - | - | 227 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.42 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.518 | 3.3 |
| Pot Cap-1 Maneuver | 1163 | - | - | - | 549 | 797 |
| Stage 1 | - | - | - | - | 794 | - |
| Stage 2 | - | - | - | - | 811 | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 1163 | - | - | - | 536 | 797 |
| Mov Cap-2 Maneuver | - | - | - | - | 536 | - |
| Stage 1 | - | - | - | - | 775 | - |
| Stage 2 | - | - | - | - | 811 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 16.1 |
| HCM LOS | | | C |

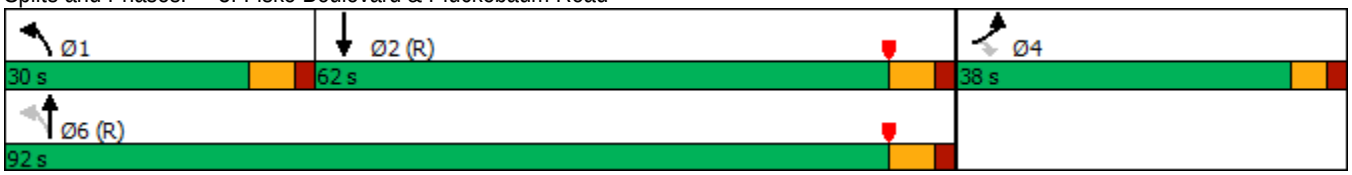
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1163 | - | - | - | 558 |
| HCM Lane V/C Ratio | 0.021 | - | - | - | 0.424 |
| HCM Control Delay (s) | 8.2 | 0 | - | - | 16.1 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 2.1 |

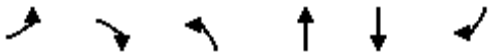
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 34 | 331 | 354 | 879 | 889 |
| Future Volume (vph) | 34 | 331 | 354 | 879 | 889 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 92.0 | 62.0 |
| Total Split (%) | 29.2% | 29.2% | 23.1% | 70.8% | 47.7% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 34 | 331 | 354 | 879 | 889 | 53 |
| Future Volume (veh/h) | 34 | 331 | 354 | 879 | 889 | 53 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1885 | 1870 | 1885 | 1870 | 1900 |
| Adj Flow Rate, veh/h | 37 | 360 | 385 | 955 | 966 | 58 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 1 | 2 | 1 | 2 | 0 |
| Cap, veh/h | 432 | 381 | 437 | 2396 | 1695 | 102 |
| Arrive On Green | 0.24 | 0.24 | 0.12 | 0.67 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1598 | 1781 | 3676 | 3499 | 204 |
| Grp Volume(v), veh/h | 37 | 360 | 385 | 955 | 504 | 520 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1598 | 1781 | 1791 | 1777 | 1834 |
| Q Serve(g_s), s | 2.1 | 28.8 | 13.1 | 15.6 | 25.9 | 25.9 |
| Cycle Q Clear(g_c), s | 2.1 | 28.8 | 13.1 | 15.6 | 25.9 | 25.9 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.11 |
| Lane Grp Cap(c), veh/h | 432 | 381 | 437 | 2396 | 884 | 912 |
| V/C Ratio(X) | 0.09 | 0.94 | 0.88 | 0.40 | 0.57 | 0.57 |
| Avail Cap(c_a), veh/h | 451 | 398 | 543 | 2396 | 884 | 912 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.5 | 48.6 | 19.9 | 9.7 | 22.9 | 22.9 |
| Incr Delay (d2), s/veh | 0.1 | 30.5 | 13.2 | 0.5 | 2.7 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 14.5 | 7.3 | 5.8 | 11.1 | 11.4 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.5 | 79.1 | 33.1 | 10.2 | 25.6 | 25.5 |
| LnGrp LOS | D | E | C | B | C | C |
| Approach Vol, veh/h | 397 | | | 1340 | 1024 | |
| Approach Delay, s/veh | 75.3 | | | 16.8 | 25.5 | |
| Approach LOS | E | | | B | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 22.3 | 71.1 | | 36.6 | | 93.4 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 55.6 | | * 32 | | 85.6 |
| Max Q Clear Time (g_c+I1), s | 15.1 | 27.9 | | 30.8 | | 17.6 |
| Green Ext Time (p_c), s | 0.8 | 7.0 | | 0.3 | | 8.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 28.4 |
| HCM 6th LOS | C |

Notes

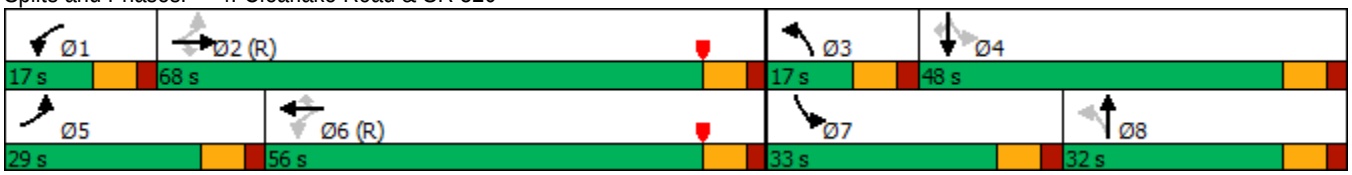
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

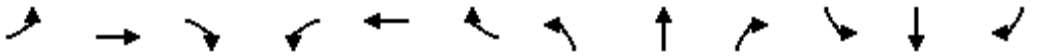
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 261 | 619 | 94 | 40 | 578 | 135 | 64 | 154 | 194 | 196 | 225 |
| Future Volume (vph) | 261 | 619 | 94 | 40 | 578 | 135 | 64 | 154 | 194 | 196 | 225 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 29.0 | 68.0 | 68.0 | 17.0 | 56.0 | 56.0 | 17.0 | 32.0 | 33.0 | 48.0 | 48.0 |
| Total Split (%) | 19.3% | 45.3% | 45.3% | 11.3% | 37.3% | 37.3% | 11.3% | 21.3% | 22.0% | 32.0% | 32.0% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 114 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 261 | 619 | 94 | 40 | 578 | 135 | 64 | 154 | 29 | 194 | 196 | 225 |
| Future Volume (veh/h) | 261 | 619 | 94 | 40 | 578 | 135 | 64 | 154 | 29 | 194 | 196 | 225 |
| 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 | 0.97 | 1.00 | 1.00 | 0.99 | 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 | 1885 | 1856 | 1856 | 1856 | 1841 | 1870 | 1826 | 1885 | 1900 | 1870 | 1870 | 1841 |
| Adj Flow Rate, veh/h | 264 | 625 | 95 | 40 | 584 | 136 | 65 | 156 | 29 | 196 | 198 | 227 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 1 | 3 | 3 | 3 | 4 | 2 | 5 | 1 | 0 | 2 | 2 | 4 |
| Cap, veh/h | 494 | 1938 | 840 | 434 | 1734 | 776 | 204 | 180 | 33 | 264 | 342 | 285 |
| Arrive On Green | 0.09 | 0.55 | 0.55 | 0.03 | 0.50 | 0.50 | 0.04 | 0.12 | 0.12 | 0.11 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1795 | 3526 | 1528 | 1767 | 3497 | 1566 | 1739 | 1546 | 287 | 1781 | 1870 | 1560 |
| Grp Volume(v), veh/h | 264 | 625 | 95 | 40 | 584 | 136 | 65 | 0 | 185 | 196 | 198 | 227 |
| Grp Sat Flow(s),veh/h/ln | 1795 | 1763 | 1528 | 1767 | 1749 | 1566 | 1739 | 0 | 1833 | 1781 | 1870 | 1560 |
| Q Serve(g_s), s | 10.5 | 14.6 | 4.5 | 1.6 | 15.2 | 7.2 | 4.9 | 0.0 | 14.9 | 14.1 | 14.5 | 20.9 |
| Cycle Q Clear(g_c), s | 10.5 | 14.6 | 4.5 | 1.6 | 15.2 | 7.2 | 4.9 | 0.0 | 14.9 | 14.1 | 14.5 | 20.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 494 | 1938 | 840 | 434 | 1734 | 776 | 204 | 0 | 213 | 264 | 342 | 285 |
| V/C Ratio(X) | 0.53 | 0.32 | 0.11 | 0.09 | 0.34 | 0.18 | 0.32 | 0.00 | 0.87 | 0.74 | 0.58 | 0.80 |
| Avail Cap(c_a), veh/h | 601 | 1938 | 840 | 493 | 1734 | 776 | 241 | 0 | 302 | 374 | 507 | 423 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.9 | 18.5 | 16.2 | 17.2 | 22.9 | 20.9 | 55.1 | 0.0 | 65.2 | 49.9 | 56.0 | 58.6 |
| Incr Delay (d2), s/veh | 0.9 | 0.4 | 0.3 | 0.1 | 0.5 | 0.5 | 0.9 | 0.0 | 17.0 | 4.8 | 1.6 | 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 | 4.1 | 5.7 | 1.7 | 0.7 | 6.1 | 2.8 | 2.2 | 0.0 | 8.0 | 6.7 | 7.0 | 8.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.8 | 18.9 | 16.5 | 17.3 | 23.4 | 21.4 | 56.0 | 0.0 | 82.2 | 54.7 | 57.6 | 64.9 |
| LnGrp LOS | B | B | B | B | C | C | E | A | F | D | E | E |
| Approach Vol, veh/h | | 984 | | | 760 | | | 250 | | | 621 | |
| Approach Delay, s/veh | | 18.1 | | | 22.7 | | | 75.4 | | | 59.3 | |
| Approach LOS | | B | | | C | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 12.0 | 89.5 | 13.8 | 34.7 | 20.0 | 81.5 | 23.8 | 24.7 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 61 | 9.7 | 40.7 | * 22 | * 49 | 25.7 | 24.7 |
| Max Q Clear Time (g_c+I1), s | 3.6 | 16.6 | 6.9 | 22.9 | 12.5 | 17.2 | 16.1 | 16.9 |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.0 | 1.8 | 0.5 | 4.0 | 0.4 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.7 |
| HCM 6th LOS | C |

Notes

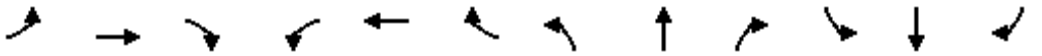
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 138 | 851 | 24 | 835 | 83 | 74 | 39 | 61 | 23 |
| Future Volume (vph) | 138 | 851 | 24 | 835 | 83 | 74 | 39 | 61 | 23 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 12.5 | 12.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

| Intersection Summary |
|---|
| Cycle Length: 100 |
| Actuated Cycle Length: 81.3 |
| Natural Cycle: 65 |
| Control Type: Actuated-Uncoordinated |

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 138 | 851 | 64 | 24 | 835 | 83 | 74 | 39 | 21 | 61 | 23 | 75 |
| Future Volume (veh/h) | 138 | 851 | 64 | 24 | 835 | 83 | 74 | 39 | 21 | 61 | 23 | 75 |
| 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 | 1781 | 1856 | 1678 | 1811 | 1870 | 1811 | 1900 | 1826 | 1737 | 1796 | 1900 | 1841 |
| Adj Flow Rate, veh/h | 145 | 896 | 67 | 25 | 879 | 87 | 78 | 41 | 22 | 64 | 24 | 79 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 8 | 3 | 15 | 6 | 2 | 6 | 0 | 5 | 11 | 7 | 0 | 4 |
| Cap, veh/h | 417 | 1825 | 136 | 369 | 1794 | 775 | 169 | 70 | 30 | 137 | 44 | 103 |
| Arrive On Green | 0.08 | 0.55 | 0.55 | 0.03 | 0.50 | 0.50 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1697 | 3325 | 249 | 1725 | 3554 | 1535 | 725 | 538 | 233 | 542 | 342 | 794 |
| Grp Volume(v), veh/h | 145 | 475 | 488 | 25 | 879 | 87 | 141 | 0 | 0 | 167 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1697 | 1763 | 1811 | 1725 | 1777 | 1535 | 1496 | 0 | 0 | 1679 | 0 | 0 |
| Q Serve(g_s), s | 2.9 | 12.4 | 12.4 | 0.5 | 12.1 | 2.2 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.9 | 12.4 | 12.4 | 0.5 | 12.1 | 2.2 | 6.6 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.14 | 1.00 | | 1.00 | 0.55 | | 0.16 | 0.38 | | 0.47 |
| Lane Grp Cap(c), veh/h | 417 | 968 | 994 | 369 | 1794 | 775 | 269 | 0 | 0 | 284 | 0 | 0 |
| V/C Ratio(X) | 0.35 | 0.49 | 0.49 | 0.07 | 0.49 | 0.11 | 0.53 | 0.00 | 0.00 | 0.59 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 686 | 968 | 994 | 719 | 1794 | 775 | 536 | 0 | 0 | 571 | 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 | 1.00 | 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 | 8.4 | 10.3 | 10.3 | 8.7 | 12.1 | 9.7 | 31.0 | 0.0 | 0.0 | 31.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.5 | 1.8 | 1.7 | 0.1 | 1.0 | 0.3 | 1.6 | 0.0 | 0.0 | 1.9 | 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 | 0.8 | 3.9 | 4.0 | 0.1 | 3.9 | 0.6 | 2.4 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.9 | 12.1 | 12.1 | 8.7 | 13.1 | 10.0 | 32.6 | 0.0 | 0.0 | 33.1 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | A | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1108 | | | 991 | | | 141 | | | 167 | |
| Approach Delay, s/veh | | 11.7 | | | 12.7 | | | 32.6 | | | 33.1 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.2 | 45.0 | | 16.1 | 9.9 | 48.3 | | 16.1 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.9 | 14.1 | | 8.6 | 2.5 | 14.4 | | 8.9 | | | | |
| Green Ext Time (p_c), s | 0.3 | 5.8 | | 0.6 | 0.0 | 5.5 | | 0.7 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 14.8 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 112 | 85 | 104 | 105 | 4 |
| Future Vol, veh/h | 3 | 112 | 85 | 104 | 105 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 33 | 6 | 5 | 6 | 10 | 50 |
| Mvmt Flow | 3 | 118 | 89 | 109 | 111 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 198 | 0 | - | 0 | 268 | 144 |
| Stage 1 | - | - | - | - | 144 | - |
| Stage 2 | - | - | - | - | 124 | - |
| Critical Hdwy | 4.43 | - | - | - | 6.5 | 6.7 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.5 | - |
| Follow-up Hdwy | 2.497 | - | - | - | 3.59 | 3.75 |
| Pot Cap-1 Maneuver | 1209 | - | - | - | 704 | 791 |
| Stage 1 | - | - | - | - | 864 | - |
| Stage 2 | - | - | - | - | 882 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1209 | - | - | - | 702 | 791 |
| Mov Cap-2 Maneuver | - | - | - | - | 702 | - |
| Stage 1 | - | - | - | - | 861 | - |
| Stage 2 | - | - | - | - | 882 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 11.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1209 | - | - | - | 705 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.163 |
| HCM Control Delay (s) | 8 | 0 | - | - | 11.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 32 | 281 | 202 | 113 | 189 | 24 |
| Future Vol, veh/h | 32 | 281 | 202 | 113 | 189 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 97 | 97 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 21 | 2 | 4 | 4 | 5 | 5 |
| Mvmt Flow | 33 | 290 | 208 | 116 | 195 | 25 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 324 | 0 | - | 0 | 564 | 208 |
| Stage 1 | - | - | - | - | 208 | - |
| Stage 2 | - | - | - | - | 356 | - |
| Critical Hdwy | 4.31 | - | - | - | 6.45 | 6.25 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.389 | - | - | - | 3.545 | 3.345 |
| Pot Cap-1 Maneuver | 1136 | - | - | - | 482 | 825 |
| Stage 1 | - | - | - | - | 820 | - |
| Stage 2 | - | - | - | - | 702 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1136 | - | - | - | 465 | 825 |
| Mov Cap-2 Maneuver | - | - | - | - | 465 | - |
| Stage 1 | - | - | - | - | 791 | - |
| Stage 2 | - | - | - | - | 702 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0 | 18.2 |
| HCM LOS | | | C |

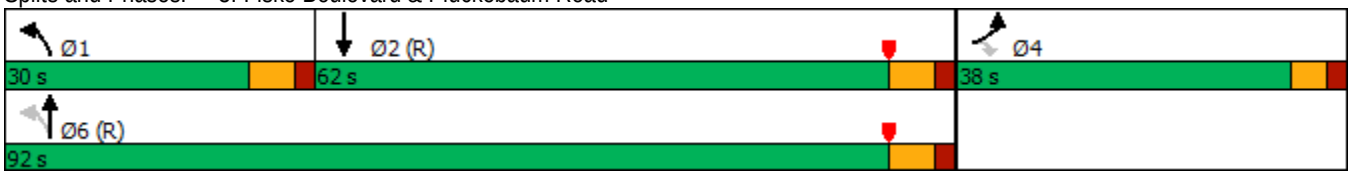
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1136 | - | - | - | 489 |
| HCM Lane V/C Ratio | 0.029 | - | - | - | 0.449 |
| HCM Control Delay (s) | 8.3 | 0 | - | - | 18.2 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 2.3 |

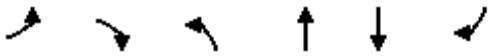
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 96 | 395 | 266 | 873 | 787 |
| Future Volume (vph) | 96 | 395 | 266 | 873 | 787 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 92.0 | 62.0 |
| Total Split (%) | 29.2% | 29.2% | 23.1% | 70.8% | 47.7% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 96 | 395 | 266 | 873 | 787 | 41 |
| Future Volume (veh/h) | 96 | 395 | 266 | 873 | 787 | 41 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1841 | 1856 | 1870 | 1826 | 1693 |
| Adj Flow Rate, veh/h | 100 | 411 | 277 | 909 | 820 | 43 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 4 | 3 | 2 | 5 | 14 |
| Cap, veh/h | 444 | 389 | 446 | 2340 | 1741 | 91 |
| Arrive On Green | 0.25 | 0.25 | 0.09 | 0.66 | 0.52 | 0.52 |
| Sat Flow, veh/h | 1781 | 1560 | 1767 | 3647 | 3444 | 176 |
| Grp Volume(v), veh/h | 100 | 411 | 277 | 909 | 424 | 439 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1560 | 1767 | 1777 | 1735 | 1794 |
| Q Serve(g_s), s | 5.8 | 32.4 | 9.1 | 15.3 | 20.2 | 20.2 |
| Cycle Q Clear(g_c), s | 5.8 | 32.4 | 9.1 | 15.3 | 20.2 | 20.2 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.10 |
| Lane Grp Cap(c), veh/h | 444 | 389 | 446 | 2340 | 901 | 932 |
| V/C Ratio(X) | 0.23 | 1.06 | 0.62 | 0.39 | 0.47 | 0.47 |
| Avail Cap(c_a), veh/h | 444 | 389 | 607 | 2340 | 901 | 932 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.8 | 48.8 | 14.2 | 10.2 | 19.9 | 19.9 |
| Incr Delay (d2), s/veh | 0.3 | 61.5 | 1.4 | 0.5 | 1.8 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 18.9 | 3.5 | 5.6 | 8.3 | 8.6 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 39.1 | 110.3 | 15.7 | 10.7 | 21.7 | 21.6 |
| LnGrp LOS | D | F | B | B | C | C |
| Approach Vol, veh/h | 511 | | | 1186 | 863 | |
| Approach Delay, s/veh | 96.4 | | | 11.8 | 21.6 | |
| Approach LOS | F | | | B | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.1 | 73.9 | | 38.0 | | 92.0 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 55.6 | | * 32 | | 85.6 |
| Max Q Clear Time (g_c+I1), s | 11.1 | 22.2 | | 34.4 | | 17.3 |
| Green Ext Time (p_c), s | 0.6 | 5.8 | | 0.0 | | 7.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.0 |
| HCM 6th LOS | C |

Notes

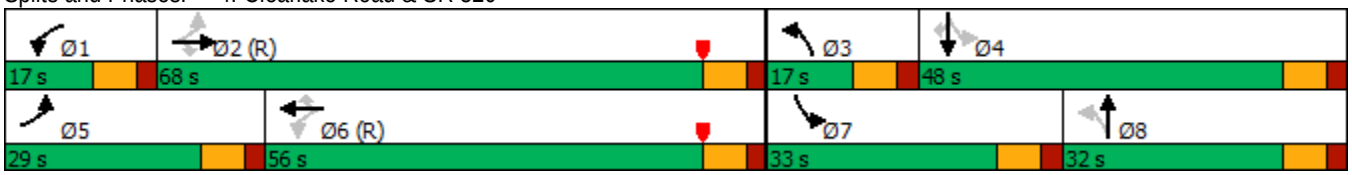
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

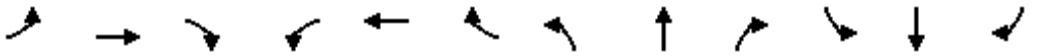
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 169 | 683 | 60 | 31 | 431 | 73 | 51 | 147 | 151 | 144 | 184 |
| Future Volume (vph) | 169 | 683 | 60 | 31 | 431 | 73 | 51 | 147 | 151 | 144 | 184 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 29.0 | 68.0 | 68.0 | 17.0 | 56.0 | 56.0 | 17.0 | 32.0 | 33.0 | 48.0 | 48.0 |
| Total Split (%) | 19.3% | 45.3% | 45.3% | 11.3% | 37.3% | 37.3% | 11.3% | 21.3% | 22.0% | 32.0% | 32.0% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 114 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 169 | 683 | 60 | 31 | 431 | 73 | 51 | 147 | 27 | 151 | 144 | 184 |
| Future Volume (veh/h) | 169 | 683 | 60 | 31 | 431 | 73 | 51 | 147 | 27 | 151 | 144 | 184 |
| 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 | 0.97 | 1.00 | 1.00 | 0.99 | 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 | 1796 | 1826 | 1826 | 1767 | 1781 | 1856 | 1796 | 1826 | 1841 | 1781 | 1826 | 1811 |
| Adj Flow Rate, veh/h | 178 | 719 | 63 | 33 | 454 | 77 | 54 | 155 | 28 | 159 | 152 | 194 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 7 | 5 | 5 | 9 | 8 | 3 | 7 | 5 | 4 | 8 | 5 | 6 |
| Cap, veh/h | 540 | 1959 | 849 | 393 | 1801 | 827 | 212 | 178 | 32 | 229 | 322 | 271 |
| Arrive On Green | 0.06 | 0.56 | 0.56 | 0.03 | 0.53 | 0.53 | 0.04 | 0.12 | 0.12 | 0.10 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1711 | 3469 | 1504 | 1682 | 3385 | 1554 | 1711 | 1505 | 272 | 1697 | 1826 | 1535 |
| Grp Volume(v), veh/h | 178 | 719 | 63 | 33 | 454 | 77 | 54 | 0 | 183 | 159 | 152 | 194 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1735 | 1504 | 1682 | 1692 | 1554 | 1711 | 0 | 1777 | 1697 | 1826 | 1535 |
| Q Serve(g_s), s | 7.1 | 17.1 | 2.9 | 1.3 | 10.9 | 3.7 | 4.1 | 0.0 | 15.2 | 12.0 | 11.2 | 17.9 |
| Cycle Q Clear(g_c), s | 7.1 | 17.1 | 2.9 | 1.3 | 10.9 | 3.7 | 4.1 | 0.0 | 15.2 | 12.0 | 11.2 | 17.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.15 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 540 | 1959 | 849 | 393 | 1801 | 827 | 212 | 0 | 210 | 229 | 322 | 271 |
| V/C Ratio(X) | 0.33 | 0.37 | 0.07 | 0.08 | 0.25 | 0.09 | 0.25 | 0.00 | 0.87 | 0.69 | 0.47 | 0.72 |
| Avail Cap(c_a), veh/h | 683 | 1959 | 849 | 453 | 1801 | 827 | 260 | 0 | 293 | 358 | 495 | 416 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 14.3 | 17.9 | 14.8 | 15.2 | 19.0 | 17.3 | 55.3 | 0.0 | 65.0 | 50.6 | 55.5 | 58.2 |
| Incr Delay (d2), s/veh | 0.4 | 0.5 | 0.2 | 0.1 | 0.3 | 0.2 | 0.6 | 0.0 | 18.3 | 3.8 | 1.1 | 3.5 |
| 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 | 2.6 | 6.5 | 1.0 | 0.5 | 4.2 | 1.4 | 1.8 | 0.0 | 8.0 | 5.4 | 5.3 | 7.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.6 | 18.5 | 15.0 | 15.3 | 19.3 | 17.5 | 56.0 | 0.0 | 83.3 | 54.4 | 56.5 | 61.7 |
| LnGrp LOS | B | B | B | B | B | B | E | A | F | D | E | E |
| Approach Vol, veh/h | | 960 | | | 564 | | | 237 | | | 505 | |
| Approach Delay, s/veh | | 17.5 | | | 18.8 | | | 77.1 | | | 57.9 | |
| Approach LOS | | B | | | B | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.6 | 91.8 | 12.8 | 33.8 | 16.5 | 86.9 | 21.6 | 25.0 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 61 | 9.7 | 40.7 | * 22 | * 49 | 25.7 | 24.7 |
| Max Q Clear Time (g_c+I1), s | 3.3 | 19.1 | 6.1 | 19.9 | 9.1 | 12.9 | 14.0 | 17.2 |
| Green Ext Time (p_c), s | 0.0 | 4.9 | 0.0 | 1.5 | 0.3 | 3.0 | 0.3 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.1 |
| HCM 6th LOS | C |

Notes

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

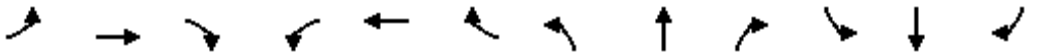
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 121 | 832 | 25 | 546 | 40 | 77 | 33 | 88 | 52 |
| Future Volume (vph) | 121 | 832 | 25 | 546 | 40 | 77 | 33 | 88 | 52 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 12.5 | 12.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

**Intersection Summary**

Cycle Length: 100
Actuated Cycle Length: 83.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 121 | 832 | 72 | 25 | 546 | 40 | 77 | 33 | 21 | 88 | 52 | 44 |
| Future Volume (veh/h) | 121 | 832 | 72 | 25 | 546 | 40 | 77 | 33 | 21 | 88 | 52 | 44 |
| 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 | 1826 | 1811 | 1900 | 1885 | 1826 | 1722 | 1811 | 1411 | 1707 | 1841 | 1826 |
| Adj Flow Rate, veh/h | 127 | 876 | 76 | 26 | 575 | 42 | 81 | 35 | 22 | 93 | 55 | 46 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 5 | 5 | 6 | 0 | 1 | 5 | 12 | 6 | 33 | 13 | 4 | 5 |
| Cap, veh/h | 533 | 1719 | 149 | 369 | 1762 | 761 | 184 | 74 | 35 | 173 | 81 | 57 |
| Arrive On Green | 0.07 | 0.53 | 0.53 | 0.03 | 0.49 | 0.49 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1739 | 3230 | 280 | 1810 | 3582 | 1547 | 713 | 486 | 227 | 678 | 530 | 376 |
| Grp Volume(v), veh/h | 127 | 470 | 482 | 26 | 575 | 42 | 138 | 0 | 0 | 194 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1739 | 1735 | 1775 | 1810 | 1791 | 1547 | 1427 | 0 | 0 | 1584 | 0 | 0 |
| Q Serve(g_s), s | 2.6 | 13.3 | 13.3 | 0.5 | 7.4 | 1.1 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.6 | 13.3 | 13.3 | 0.5 | 7.4 | 1.1 | 6.8 | 0.0 | 0.0 | 8.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 1.00 | 0.59 | | 0.16 | 0.48 | | 0.24 |
| Lane Grp Cap(c), veh/h | 533 | 923 | 945 | 369 | 1762 | 761 | 293 | 0 | 0 | 311 | 0 | 0 |
| V/C Ratio(X) | 0.24 | 0.51 | 0.51 | 0.07 | 0.33 | 0.06 | 0.47 | 0.00 | 0.00 | 0.62 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 804 | 923 | 945 | 724 | 1762 | 761 | 511 | 0 | 0 | 545 | 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 | 1.00 | 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 | 8.2 | 11.4 | 11.4 | 9.4 | 11.7 | 10.1 | 30.1 | 0.0 | 0.0 | 31.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 2.0 | 2.0 | 0.1 | 0.5 | 0.1 | 1.2 | 0.0 | 0.0 | 2.0 | 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 | 0.7 | 4.3 | 4.4 | 0.2 | 2.4 | 0.3 | 2.4 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 8.4 | 13.5 | 13.4 | 9.5 | 12.2 | 10.2 | 31.3 | 0.0 | 0.0 | 33.1 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | B | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1079 | | | 643 | | | 138 | | | 194 | |
| Approach Delay, s/veh | | 12.8 | | | 12.0 | | | 31.3 | | | 33.1 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.1 | 45.0 | | 18.1 | 10.0 | 48.1 | | 18.1 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.6 | 9.4 | | 8.8 | 2.5 | 15.3 | | 10.8 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.6 | | 0.6 | 0.0 | 5.3 | | 0.8 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 15.7 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.1 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 243 | 202 | 23 | 70 | 19 |
| Future Vol, veh/h | 6 | 243 | 202 | 23 | 70 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| 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, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 264 | 220 | 25 | 76 | 21 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 245 | 0 | - | 0 | 511 | 233 |
| Stage 1 | - | - | - | - | 233 | - |
| Stage 2 | - | - | - | - | 278 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1321 | - | - | - | 523 | 806 |
| Stage 1 | - | - | - | - | 806 | - |
| Stage 2 | - | - | - | - | 769 | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 1321 | - | - | - | 520 | 806 |
| Mov Cap-2 Maneuver | - | - | - | - | 520 | - |
| Stage 1 | - | - | - | - | 801 | - |
| Stage 2 | - | - | - | - | 769 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0 | 12.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1321 | - | - | - | 563 |
| HCM Lane V/C Ratio | 0.005 | - | - | - | 0.172 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 12.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 6 | 2 | 143 | 207 | 11 |
| Future Vol, veh/h | 23 | 6 | 2 | 143 | 207 | 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 | - | - | - | - | - |
| 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 | 25 | 7 | 2 | 155 | 225 | 12 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 390 | 231 | 237 | 0 | - | 0 |
| Stage 1 | 231 | - | - | - | - | - |
| Stage 2 | 159 | - | - | - | - | - |
| 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 | 614 | 808 | 1330 | - | - | - |
| Stage 1 | 807 | - | - | - | - | - |
| Stage 2 | 870 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 613 | 808 | 1330 | - | - | - |
| Mov Cap-2 Maneuver | 613 | - | - | - | - | - |
| Stage 1 | 805 | - | - | - | - | - |
| Stage 2 | 870 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.9 | 0.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1330 | - | 645 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.049 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 10.9 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 105 | 123 | 94 | 87 | 15 |
| Future Vol, veh/h | 4 | 105 | 123 | 94 | 87 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 2 | 1 | 4 | 6 | 8 |
| Mvmt Flow | 4 | 115 | 135 | 103 | 96 | 16 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 238 | 0 | - | 0 | 310 | 187 |
| Stage 1 | - | - | - | - | 187 | - |
| Stage 2 | - | - | - | - | 123 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.46 | 6.28 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.46 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.46 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.554 | 3.372 |
| Pot Cap-1 Maneuver | 1341 | - | - | - | 674 | 840 |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 893 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1341 | - | - | - | 672 | 840 |
| Mov Cap-2 Maneuver | - | - | - | - | 672 | - |
| Stage 1 | - | - | - | - | 832 | - |
| Stage 2 | - | - | - | - | 893 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 11.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1341 | - | - | - | 692 |
| HCM Lane V/C Ratio | 0.003 | - | - | - | 0.162 |
| HCM Control Delay (s) | 7.7 | 0 | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 28 | 209 | 305 | 161 | 204 | 27 |
| Future Vol, veh/h | 28 | 209 | 305 | 161 | 204 | 27 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 195 | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 96 | 96 | 96 | 96 | 96 | 96 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 2 | 0 |
| Mvmt Flow | 29 | 218 | 318 | 168 | 213 | 28 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 486 | 0 | - | 0 | 594 | 318 |
| Stage 1 | - | - | - | - | 318 | - |
| Stage 2 | - | - | - | - | 276 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.42 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.518 | 3.3 |
| Pot Cap-1 Maneuver | 1087 | - | - | - | 468 | 727 |
| Stage 1 | - | - | - | - | 738 | - |
| Stage 2 | - | - | - | - | 771 | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 1087 | - | - | - | 454 | 727 |
| Mov Cap-2 Maneuver | - | - | - | - | 454 | - |
| Stage 1 | - | - | - | - | 716 | - |
| Stage 2 | - | - | - | - | 771 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 20.1 |
| HCM LOS | | | C |

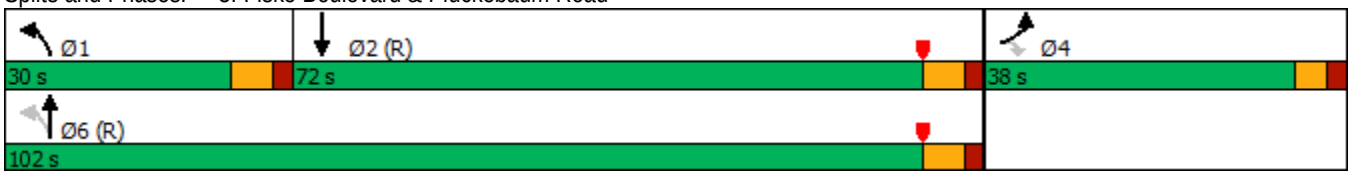
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1087 | - | - | - | 475 |
| HCM Lane V/C Ratio | 0.027 | - | - | - | 0.507 |
| HCM Control Delay (s) | 8.4 | 0 | - | - | 20.1 |
| HCM Lane LOS | A | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 2.8 |

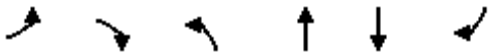
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 52 | 356 | 396 | 879 | 889 |
| Future Volume (vph) | 52 | 356 | 396 | 879 | 889 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 38.0 | 38.0 | 30.0 | 102.0 | 72.0 |
| Total Split (%) | 27.1% | 27.1% | 21.4% | 72.9% | 51.4% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 74.6 (53%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 52 | 356 | 396 | 879 | 889 | 83 |
| Future Volume (veh/h) | 52 | 356 | 396 | 879 | 889 | 83 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1885 | 1870 | 1885 | 1870 | 1900 |
| Adj Flow Rate, veh/h | 57 | 387 | 430 | 955 | 966 | 90 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 1 | 2 | 1 | 2 | 0 |
| Cap, veh/h | 419 | 370 | 455 | 2446 | 1632 | 152 |
| Arrive On Green | 0.23 | 0.23 | 0.14 | 0.68 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1598 | 1781 | 3676 | 3380 | 306 |
| Grp Volume(v), veh/h | 57 | 387 | 430 | 955 | 522 | 534 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1598 | 1781 | 1791 | 1777 | 1815 |
| Q Serve(g_s), s | 3.5 | 32.4 | 17.1 | 16.1 | 29.3 | 29.4 |
| Cycle Q Clear(g_c), s | 3.5 | 32.4 | 17.1 | 16.1 | 29.3 | 29.4 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.17 |
| Lane Grp Cap(c), veh/h | 419 | 370 | 455 | 2446 | 882 | 901 |
| V/C Ratio(X) | 0.14 | 1.05 | 0.94 | 0.39 | 0.59 | 0.59 |
| Avail Cap(c_a), veh/h | 419 | 370 | 505 | 2446 | 882 | 901 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.7 | 53.8 | 24.6 | 9.6 | 25.1 | 25.1 |
| Incr Delay (d2), s/veh | 0.1 | 59.5 | 25.6 | 0.5 | 2.9 | 2.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 18.9 | 10.4 | 6.0 | 12.7 | 13.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 42.8 | 113.3 | 50.1 | 10.1 | 28.0 | 28.0 |
| LnGrp LOS | D | F | D | B | C | C |
| Approach Vol, veh/h | 444 | | | 1385 | 1056 | |
| Approach Delay, s/veh | 104.3 | | | 22.5 | 28.0 | |
| Approach LOS | F | | | C | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 26.1 | 75.9 | | 38.0 | | 102.0 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 65.6 | | * 32 | | 95.6 |
| Max Q Clear Time (g_c+I1), s | 19.1 | 31.4 | | 34.4 | | 18.1 |
| Green Ext Time (p_c), s | 0.6 | 7.7 | | 0.0 | | 8.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.1 |
| HCM 6th LOS | D |

Notes

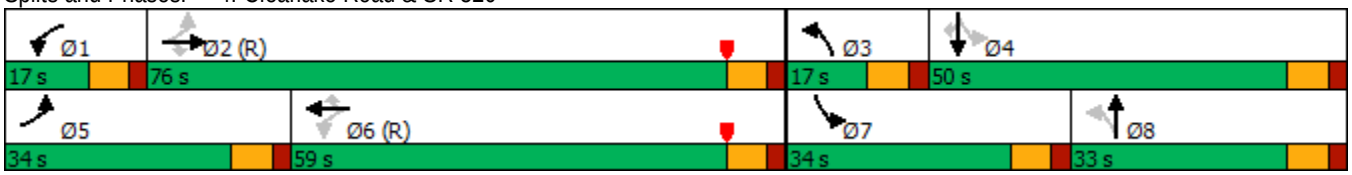
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

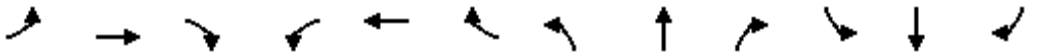
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 261 | 619 | 95 | 41 | 578 | 135 | 65 | 171 | 194 | 224 | 225 |
| Future Volume (vph) | 261 | 619 | 95 | 41 | 578 | 135 | 65 | 171 | 194 | 224 | 225 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | 7 | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 15.0 | 15.0 | 6.0 | 15.0 | 15.0 | 6.0 | 8.0 | 6.0 | 8.0 | 8.0 |
| Minimum Split (s) | 13.1 | 25.1 | 25.1 | 13.1 | 25.1 | 25.1 | 13.3 | 25.3 | 13.3 | 25.3 | 25.3 |
| Total Split (s) | 34.0 | 76.0 | 76.0 | 17.0 | 59.0 | 59.0 | 17.0 | 33.0 | 34.0 | 50.0 | 50.0 |
| Total Split (%) | 21.3% | 47.5% | 47.5% | 10.6% | 36.9% | 36.9% | 10.6% | 20.6% | 21.3% | 31.3% | 31.3% |
| Yellow Time (s) | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.1 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None |

**Intersection Summary**

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 118 (74%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 4: Clearlake Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 261 | 619 | 95 | 41 | 578 | 135 | 65 | 171 | 30 | 194 | 224 | 225 |
| Future Volume (veh/h) | 261 | 619 | 95 | 41 | 578 | 135 | 65 | 171 | 30 | 194 | 224 | 225 |
| 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 | 1885 | 1856 | 1856 | 1856 | 1841 | 1870 | 1826 | 1885 | 1900 | 1870 | 1870 | 1841 |
| Adj Flow Rate, veh/h | 264 | 625 | 96 | 41 | 584 | 136 | 66 | 173 | 30 | 196 | 226 | 227 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 1 | 3 | 3 | 3 | 4 | 2 | 5 | 1 | 0 | 2 | 2 | 4 |
| Cap, veh/h | 495 | 1960 | 874 | 435 | 1756 | 796 | 192 | 195 | 34 | 256 | 355 | 296 |
| Arrive On Green | 0.09 | 0.56 | 0.56 | 0.03 | 0.50 | 0.50 | 0.04 | 0.12 | 0.12 | 0.11 | 0.19 | 0.19 |
| Sat Flow, veh/h | 1795 | 3526 | 1572 | 1767 | 3497 | 1585 | 1739 | 1565 | 271 | 1781 | 1870 | 1560 |
| Grp Volume(v), veh/h | 264 | 625 | 96 | 41 | 584 | 136 | 66 | 0 | 203 | 196 | 226 | 227 |
| Grp Sat Flow(s),veh/h/ln | 1795 | 1763 | 1572 | 1767 | 1749 | 1585 | 1739 | 0 | 1836 | 1781 | 1870 | 1560 |
| Q Serve(g_s), s | 11.0 | 15.3 | 4.6 | 1.8 | 16.0 | 7.5 | 5.3 | 0.0 | 17.4 | 14.9 | 17.8 | 22.1 |
| Cycle Q Clear(g_c), s | 11.0 | 15.3 | 4.6 | 1.8 | 16.0 | 7.5 | 5.3 | 0.0 | 17.4 | 14.9 | 17.8 | 22.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.15 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 495 | 1960 | 874 | 435 | 1756 | 796 | 192 | 0 | 229 | 256 | 355 | 296 |
| V/C Ratio(X) | 0.53 | 0.32 | 0.11 | 0.09 | 0.33 | 0.17 | 0.34 | 0.00 | 0.89 | 0.77 | 0.64 | 0.77 |
| Avail Cap(c_a), veh/h | 644 | 1960 | 874 | 488 | 1756 | 796 | 222 | 0 | 295 | 361 | 499 | 416 |
| 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 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.6 | 19.2 | 16.8 | 18.0 | 23.8 | 21.7 | 57.8 | 0.0 | 68.9 | 52.6 | 59.8 | 61.5 |
| Incr Delay (d2), s/veh | 0.9 | 0.4 | 0.3 | 0.1 | 0.5 | 0.5 | 1.1 | 0.0 | 22.1 | 6.1 | 1.9 | 5.5 |
| 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 | 4.4 | 6.1 | 1.8 | 0.7 | 6.5 | 3.0 | 2.4 | 0.0 | 9.6 | 7.2 | 8.7 | 9.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 17.5 | 19.6 | 17.1 | 18.1 | 24.3 | 22.2 | 58.9 | 0.0 | 91.0 | 58.7 | 61.7 | 67.0 |
| LnGrp LOS | B | B | B | B | C | C | E | A | F | E | E | E |
| Approach Vol, veh/h | | 985 | | | 761 | | | 269 | | | 649 | |
| Approach Delay, s/veh | | 18.8 | | | 23.6 | | | 83.1 | | | 62.6 | |
| Approach LOS | | B | | | C | | | F | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 12.1 | 96.0 | 14.2 | 37.6 | 20.7 | 87.4 | 24.6 | 27.2 |
| Change Period (Y+Rc), s | * 7.1 | * 7.1 | 7.3 | 7.3 | * 7.1 | * 7.1 | 7.3 | 7.3 |
| Max Green Setting (Gmax), s | * 9.9 | * 69 | 9.7 | 42.7 | * 27 | * 52 | 26.7 | 25.7 |
| Max Q Clear Time (g_c+I1), s | 3.8 | 17.3 | 7.3 | 24.1 | 13.0 | 18.0 | 16.9 | 19.4 |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.0 | 2.0 | 0.6 | 4.1 | 0.4 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.3 |
| HCM 6th LOS | D |

**Notes**

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

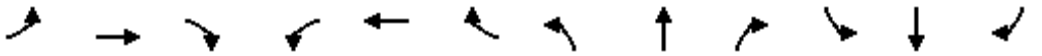
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 138 | 851 | 24 | 835 | 83 | 82 | 39 | 61 | 24 |
| Future Volume (vph) | 138 | 851 | 24 | 835 | 83 | 82 | 39 | 61 | 24 |
| Turn Type | pm+pt | NA | pm+pt | NA | Perm | Perm | NA | Perm | NA |
| Protected Phases | 1 | 6 | 5 | 2 | | | 4 | | 8 |
| Permitted Phases | 6 | | 2 | | 2 | 4 | | 8 | |
| Detector Phase | 1 | 6 | 5 | 2 | 2 | 4 | 4 | 8 | 8 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 6.0 | 12.0 | 6.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Minimum Split (s) | 13.5 | 25.5 | 13.5 | 25.5 | 25.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| Total Split (s) | 25.0 | 45.0 | 25.0 | 45.0 | 45.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 25.0% | 45.0% | 25.0% | 45.0% | 45.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 |
| Total Lost Time (s) | 7.5 | 7.5 | 7.5 | 7.5 | 7.5 | | 6.5 | | 6.5 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | None | Max | Max | None | None | None | None |

**Intersection Summary**

Cycle Length: 100
Actuated Cycle Length: 82.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Range Road & SR 520





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 138 | 851 | 79 | 24 | 835 | 83 | 82 | 39 | 22 | 61 | 24 | 75 |
| Future Volume (veh/h) | 138 | 851 | 79 | 24 | 835 | 83 | 82 | 39 | 22 | 61 | 24 | 75 |
| 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 | 1781 | 1856 | 1678 | 1811 | 1870 | 1811 | 1900 | 1826 | 1737 | 1796 | 1900 | 1841 |
| Adj Flow Rate, veh/h | 145 | 896 | 83 | 25 | 879 | 87 | 86 | 41 | 23 | 64 | 25 | 79 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 8 | 3 | 15 | 6 | 2 | 6 | 0 | 5 | 11 | 7 | 0 | 4 |
| Cap, veh/h | 414 | 1783 | 165 | 361 | 1786 | 771 | 175 | 65 | 30 | 137 | 47 | 104 |
| Arrive On Green | 0.08 | 0.55 | 0.55 | 0.03 | 0.50 | 0.50 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1697 | 3262 | 302 | 1725 | 3554 | 1535 | 750 | 490 | 225 | 532 | 353 | 785 |
| Grp Volume(v), veh/h | 145 | 484 | 495 | 25 | 879 | 87 | 150 | 0 | 0 | 168 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1697 | 1763 | 1801 | 1725 | 1777 | 1535 | 1464 | 0 | 0 | 1669 | 0 | 0 |
| Q Serve(g_s), s | 2.9 | 12.8 | 12.8 | 0.5 | 12.2 | 2.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.9 | 12.8 | 12.8 | 0.5 | 12.2 | 2.2 | 7.3 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 0.17 | 1.00 | | 1.00 | 0.57 | | 0.15 | 0.38 | | 0.47 |
| Lane Grp Cap(c), veh/h | 414 | 963 | 984 | 361 | 1786 | 771 | 270 | 0 | 0 | 288 | 0 | 0 |
| V/C Ratio(X) | 0.35 | 0.50 | 0.50 | 0.07 | 0.49 | 0.11 | 0.56 | 0.00 | 0.00 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 682 | 963 | 984 | 710 | 1786 | 771 | 529 | 0 | 0 | 568 | 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 | 1.00 | 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 | 8.6 | 10.6 | 10.6 | 8.8 | 12.3 | 9.8 | 31.1 | 0.0 | 0.0 | 31.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.5 | 1.9 | 1.8 | 0.1 | 1.0 | 0.3 | 1.8 | 0.0 | 0.0 | 1.9 | 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 | 0.8 | 4.1 | 4.2 | 0.1 | 3.9 | 0.6 | 2.6 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 9.1 | 12.4 | 12.4 | 8.9 | 13.2 | 10.1 | 32.9 | 0.0 | 0.0 | 33.0 | 0.0 | 0.0 |
| LnGrp LOS | A | B | B | A | B | B | C | A | A | C | A | A |
| Approach Vol, veh/h | | 1124 | | | 991 | | | 150 | | | 168 | |
| Approach Delay, s/veh | | 12.0 | | | 12.8 | | | 32.9 | | | 33.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.2 | 45.0 | | 16.4 | 9.9 | 48.3 | | 16.4 | | | | |
| Change Period (Y+Rc), s | 7.5 | 7.5 | | 6.5 | 7.5 | 7.5 | | 6.5 | | | | |
| Max Green Setting (Gmax), s | 17.5 | 37.5 | | 23.5 | 17.5 | 37.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.9 | 14.2 | | 9.3 | 2.5 | 14.8 | | 9.0 | | | | |
| Green Ext Time (p_c), s | 0.3 | 5.8 | | 0.6 | 0.0 | 5.6 | | 0.7 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | 15.1 | |
| HCM 6th LOS | | B | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 20 | 193 | 264 | 68 | 43 | 12 |
| Future Vol, veh/h | 20 | 193 | 264 | 68 | 43 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| 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, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 210 | 287 | 74 | 47 | 13 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 361 | 0 | - | 0 | 578 | 324 |
| Stage 1 | - | - | - | - | 324 | - |
| Stage 2 | - | - | - | - | 254 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1198 | - | - | - | 478 | 717 |
| Stage 1 | - | - | - | - | 733 | - |
| Stage 2 | - | - | - | - | 788 | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 1198 | - | - | - | 468 | 717 |
| Mov Cap-2 Maneuver | - | - | - | - | 468 | - |
| Stage 1 | - | - | - | - | 718 | - |
| Stage 2 | - | - | - | - | 788 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0 | 13.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1198 | - | - | - | 506 |
| HCM Lane V/C Ratio | 0.018 | - | - | - | 0.118 |
| HCM Control Delay (s) | 8.1 | 0 | - | - | 13.1 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 15 | 4 | 7 | 181 | 227 | 30 |
| Future Vol, veh/h | 15 | 4 | 7 | 181 | 227 | 30 |
| 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, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 16 | 4 | 8 | 197 | 247 | 33 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 477 | 264 | 280 | 0 | - | 0 |
| Stage 1 | 264 | - | - | - | - | - |
| Stage 2 | 213 | - | - | - | - | - |
| 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 | 547 | 775 | 1283 | - | - | - |
| Stage 1 | 780 | - | - | - | - | - |
| Stage 2 | 823 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 543 | 775 | 1283 | - | - | - |
| Mov Cap-2 Maneuver | 543 | - | - | - | - | - |
| Stage 1 | 775 | - | - | - | - | - |
| Stage 2 | 823 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.4 | 0.3 | 0 |
| HCM LOS | B | | |

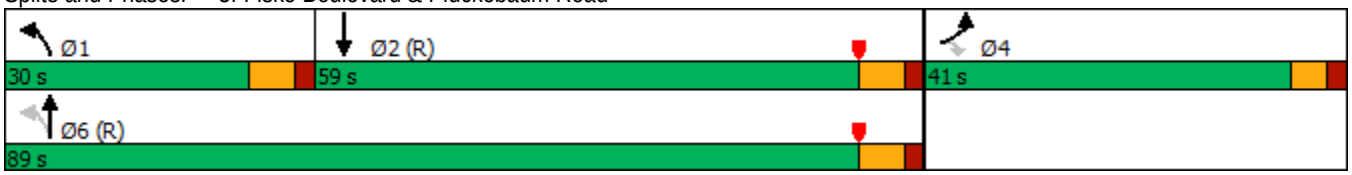
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1283 | - | 580 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | 0.036 | - | - |
| HCM Control Delay (s) | 7.8 | 0 | 11.4 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

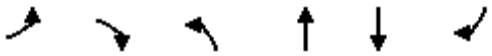
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 96 | 395 | 266 | 873 | 787 |
| Future Volume (vph) | 96 | 395 | 266 | 873 | 787 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 23.6 | 23.6 | 12.4 | 24.4 | 24.4 |
| Total Split (s) | 41.0 | 41.0 | 30.0 | 89.0 | 59.0 |
| Total Split (%) | 31.5% | 31.5% | 23.1% | 68.5% | 45.4% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lead | | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 34 (26%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 96 | 395 | 266 | 873 | 787 | 41 |
| Future Volume (veh/h) | 96 | 395 | 266 | 873 | 787 | 41 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1841 | 1856 | 1870 | 1826 | 1693 |
| Adj Flow Rate, veh/h | 100 | 411 | 277 | 909 | 820 | 43 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 4 | 3 | 2 | 5 | 14 |
| Cap, veh/h | 485 | 425 | 430 | 2258 | 1650 | 86 |
| Arrive On Green | 0.27 | 0.27 | 0.09 | 0.64 | 0.49 | 0.49 |
| Sat Flow, veh/h | 1781 | 1560 | 1767 | 3647 | 3444 | 176 |
| Grp Volume(v), veh/h | 100 | 411 | 277 | 909 | 424 | 439 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1560 | 1767 | 1777 | 1735 | 1794 |
| Q Serve(g_s), s | 5.6 | 33.8 | 9.6 | 16.3 | 21.4 | 21.4 |
| Cycle Q Clear(g_c), s | 5.6 | 33.8 | 9.6 | 16.3 | 21.4 | 21.4 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.10 |
| Lane Grp Cap(c), veh/h | 485 | 425 | 430 | 2258 | 853 | 883 |
| V/C Ratio(X) | 0.21 | 0.97 | 0.64 | 0.40 | 0.50 | 0.50 |
| Avail Cap(c_a), veh/h | 485 | 425 | 584 | 2258 | 853 | 883 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.5 | 46.7 | 16.0 | 11.6 | 22.2 | 22.2 |
| Incr Delay (d2), s/veh | 0.2 | 35.2 | 1.6 | 0.5 | 2.1 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 16.9 | 3.8 | 6.2 | 8.9 | 9.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.7 | 81.9 | 17.6 | 12.1 | 24.3 | 24.2 |
| LnGrp LOS | D | F | B | B | C | C |
| Approach Vol, veh/h | 511 | | | 1186 | 863 | |
| Approach Delay, s/veh | 73.1 | | | 13.4 | 24.2 | |
| Approach LOS | E | | | B | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.6 | 70.4 | | 41.0 | | 89.0 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 52.6 | | * 35 | | 82.6 |
| Max Q Clear Time (g_c+I1), s | 11.6 | 23.4 | | 35.8 | | 18.3 |
| Green Ext Time (p_c), s | 0.6 | 5.6 | | 0.0 | | 7.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.0 |
| HCM 6th LOS | C |

Notes

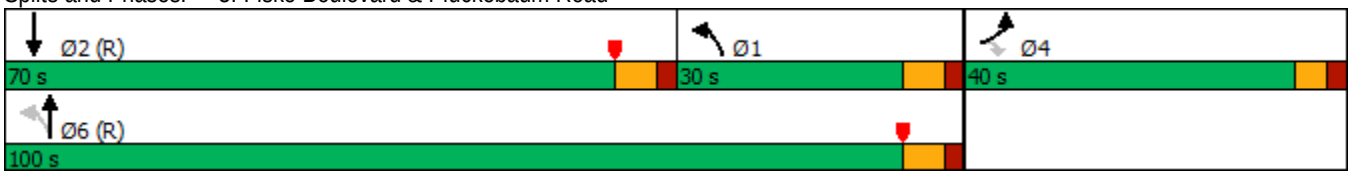
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

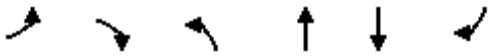
| Lane Group | EBL | EBR | NBL | NBT | SBT |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 52 | 356 | 396 | 879 | 889 |
| Future Volume (vph) | 52 | 356 | 396 | 879 | 889 |
| Turn Type | Prot | Perm | pm+pt | NA | NA |
| Protected Phases | 4 | | 1 | 6 | 2 |
| Permitted Phases | | 4 | 6 | | |
| Detector Phase | 4 | 4 | 1 | 6 | 2 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 6.0 | 6.0 | 6.0 | 15.0 | 15.0 |
| Minimum Split (s) | 34.6 | 34.6 | 12.4 | 24.4 | 35.4 |
| Total Split (s) | 40.0 | 40.0 | 30.0 | 100.0 | 70.0 |
| Total Split (%) | 28.6% | 28.6% | 21.4% | 71.4% | 50.0% |
| Yellow Time (s) | 3.4 | 3.4 | 4.4 | 4.4 | 4.4 |
| All-Red Time (s) | 2.2 | 2.2 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.6 | 5.6 | 6.4 | 6.4 | 6.4 |
| Lead/Lag | | | Lag | | Lead |
| Lead-Lag Optimize? | | | Yes | | Yes |
| Recall Mode | None | None | None | C-Max | C-Max |

**Intersection Summary**

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 104.6 (75%), Referenced to phase 2:SBT and 6:NBTL, Start of Yellow
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 3: Fiske Boulevard & Pluckebaum Road





| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 52 | 356 | 396 | 879 | 889 | 83 |
| Future Volume (veh/h) | 52 | 356 | 396 | 879 | 889 | 83 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1885 | 1870 | 1885 | 1870 | 1900 |
| Adj Flow Rate, veh/h | 57 | 387 | 430 | 955 | 966 | 90 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 1 | 2 | 1 | 2 | 0 |
| Cap, veh/h | 445 | 393 | 465 | 2395 | 1493 | 139 |
| Arrive On Green | 0.25 | 0.25 | 0.17 | 0.67 | 0.45 | 0.45 |
| Sat Flow, veh/h | 1810 | 1598 | 1781 | 3676 | 3380 | 306 |
| Grp Volume(v), veh/h | 57 | 387 | 430 | 955 | 522 | 534 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1598 | 1781 | 1791 | 1777 | 1815 |
| Q Serve(g_s), s | 3.4 | 33.8 | 19.9 | 16.9 | 31.8 | 31.8 |
| Cycle Q Clear(g_c), s | 3.4 | 33.8 | 19.9 | 16.9 | 31.8 | 31.8 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 0.17 |
| Lane Grp Cap(c), veh/h | 445 | 393 | 465 | 2395 | 807 | 825 |
| V/C Ratio(X) | 0.13 | 0.99 | 0.92 | 0.40 | 0.65 | 0.65 |
| Avail Cap(c_a), veh/h | 445 | 393 | 465 | 2395 | 807 | 825 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 41.1 | 52.6 | 48.9 | 10.5 | 29.5 | 29.5 |
| Incr Delay (d2), s/veh | 0.1 | 41.5 | 24.2 | 0.5 | 4.0 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 17.8 | 16.9 | 6.4 | 14.1 | 14.4 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 41.3 | 94.1 | 73.1 | 11.0 | 33.5 | 33.4 |
| LnGrp LOS | D | F | E | B | C | C |
| Approach Vol, veh/h | 444 | | | 1385 | 1056 | |
| Approach Delay, s/veh | 87.3 | | | 30.3 | 33.5 | |
| Approach LOS | F | | | C | C | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 30.0 | 70.0 | | 40.0 | | 100.0 |
| Change Period (Y+Rc), s | 6.4 | 6.4 | | * 5.6 | | 6.4 |
| Max Green Setting (Gmax), s | 23.6 | 63.6 | | * 34 | | 93.6 |
| Max Q Clear Time (g_c+I1), s | 21.9 | 33.8 | | 35.8 | | 18.9 |
| Green Ext Time (p_c), s | 0.3 | 9.2 | | 0.0 | | 8.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 40.2 |
| HCM 6th LOS | D |

Notes

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

# APPENDIX H
# ITE Excerpts

# Land Use: 210
# Single-Family Detached Housing

## Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

## Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

## Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

## Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077,1078, 1079

# Single-Family Detached Housing
# (210)

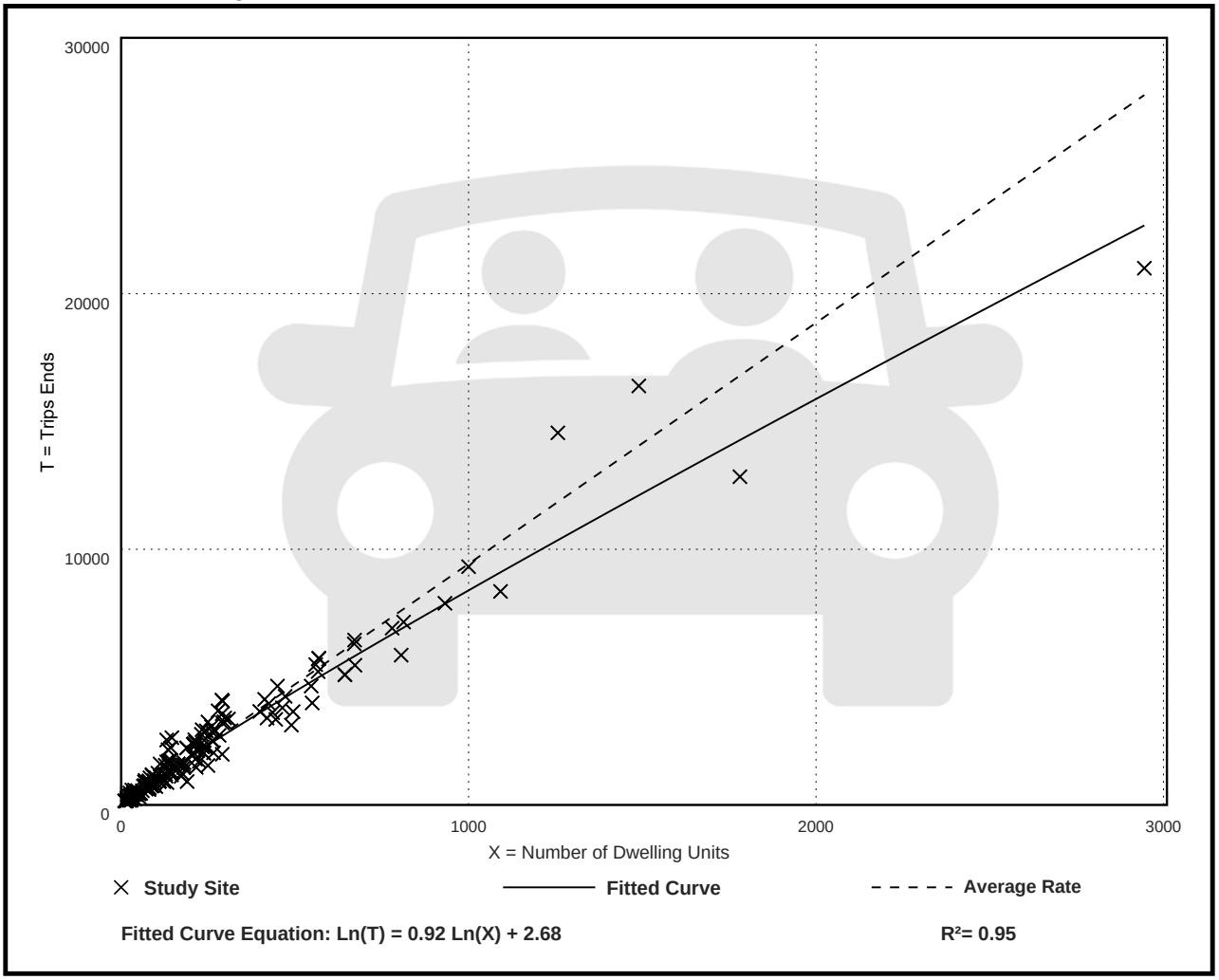
**Vehicle Trip Ends vs: Dwelling Units**
**On a: Weekday**

**Setting/Location: General Urban/Suburban**
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 9.43 | 4.45 - 22.61 | 2.13 |

## Data Plot and Equation




**Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.68**

**$R^2$= 0.95**

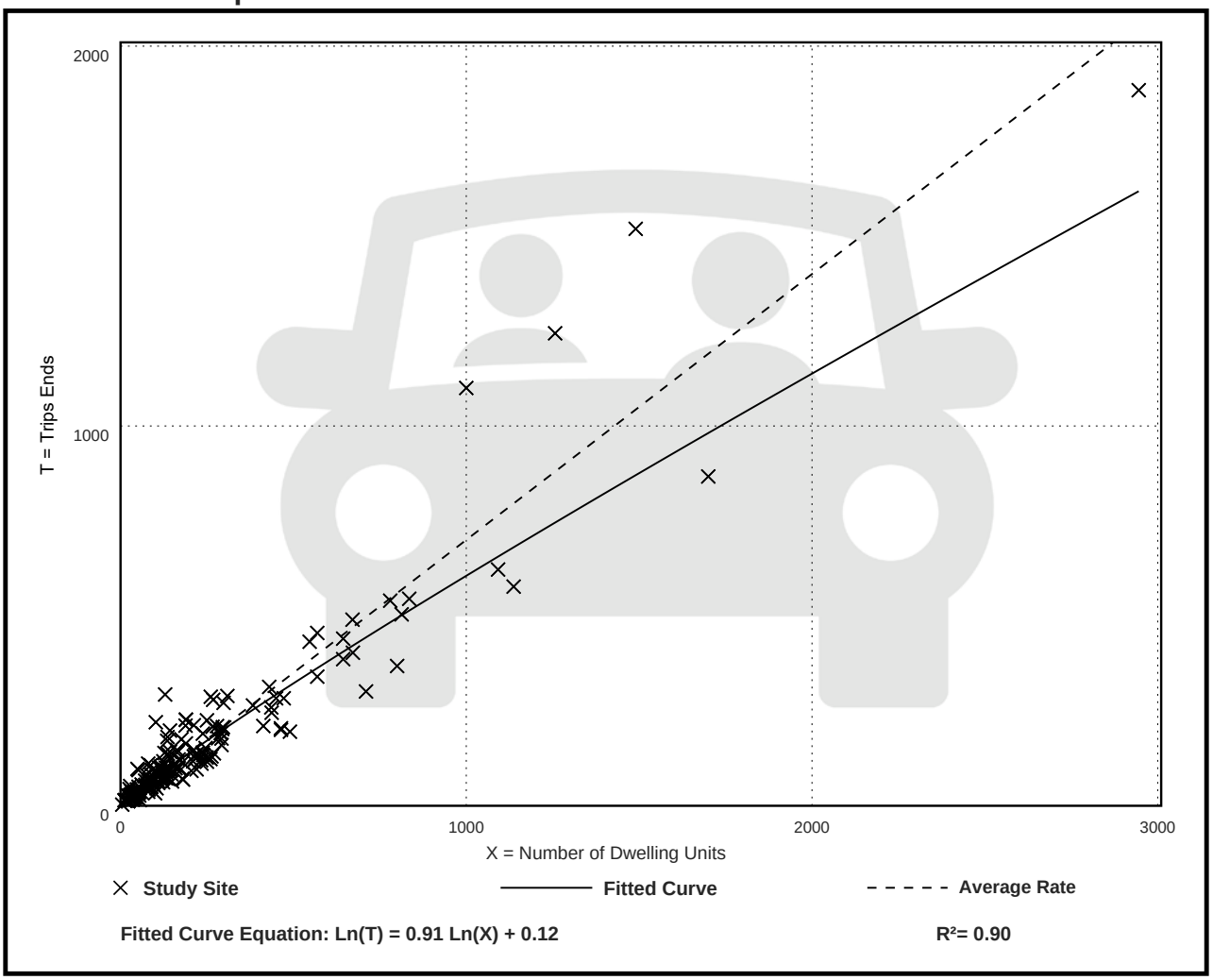
# Single-Family Detached Housing
# (210)

**Vehicle Trip Ends vs: Dwelling Units**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 7 and 9 a.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.70 | 0.27 - 2.27 | 0.24 |

## Data Plot and Equation



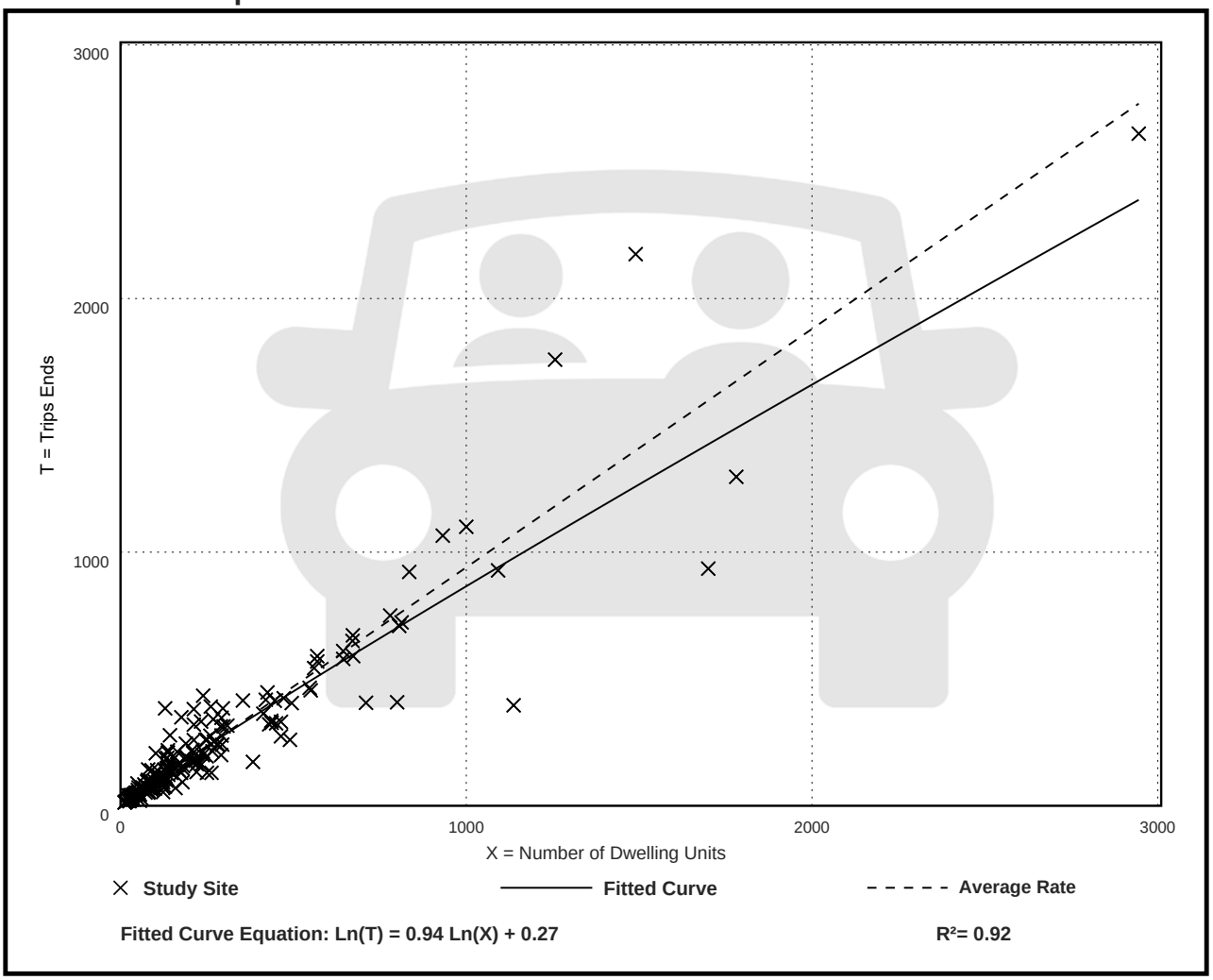
# Single-Family Detached Housing
# (210)

**Vehicle Trip Ends vs: Dwelling Units**
**On a: Weekday,**
**Peak Hour of Adjacent Street Traffic,**
**One Hour Between 4 and 6 p.m.**
**Setting/Location: General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

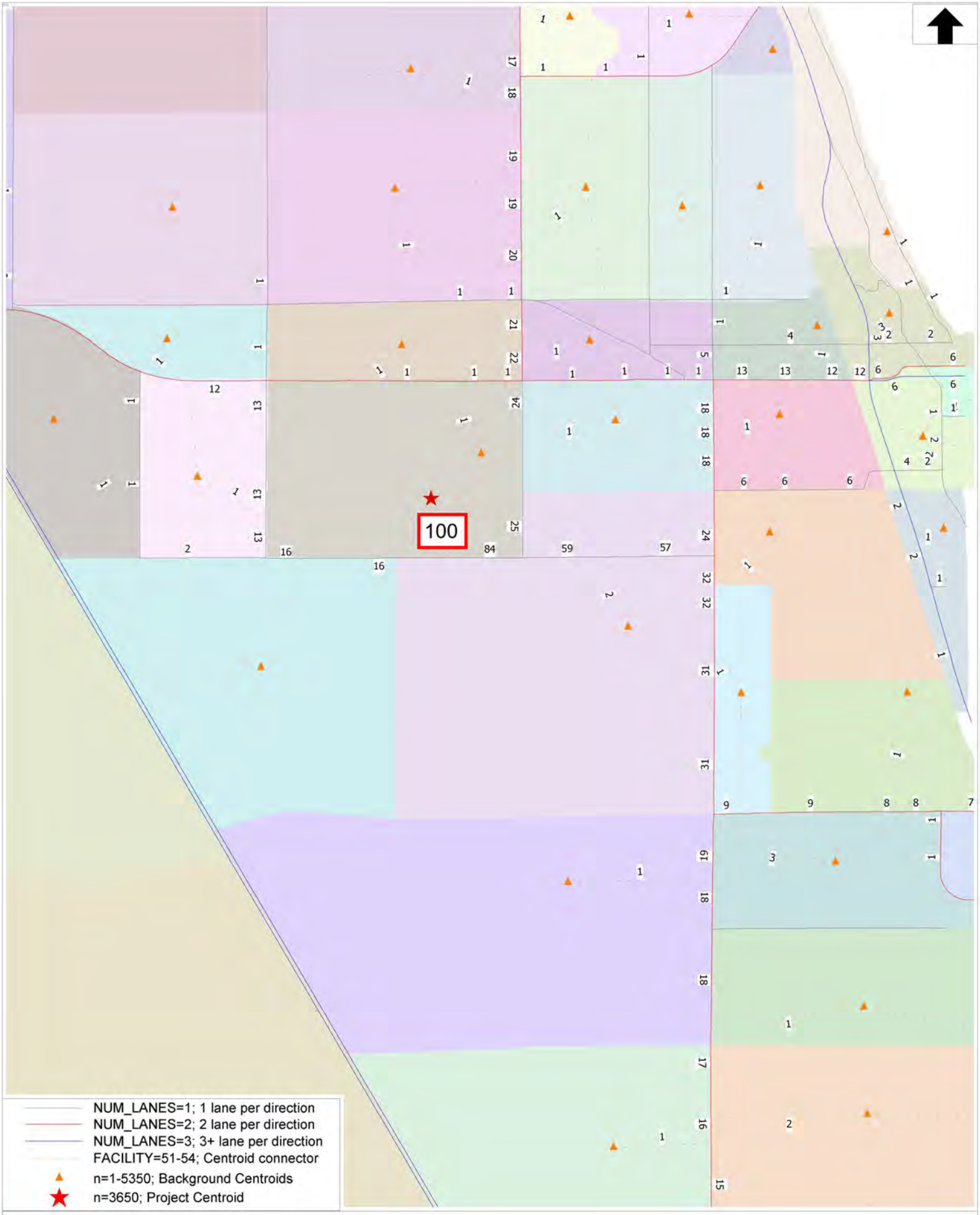
## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
|---|---|---|
| 0.94 | 0.35 - 2.98 | 0.31 |

## Data Plot and Equation



# APPENDIX I
# CFRPM Model Plot




Pluckebaum Residential - Project Distribution (Percent)

cube

(Licensed to Kimley Horn and Associates Inc)

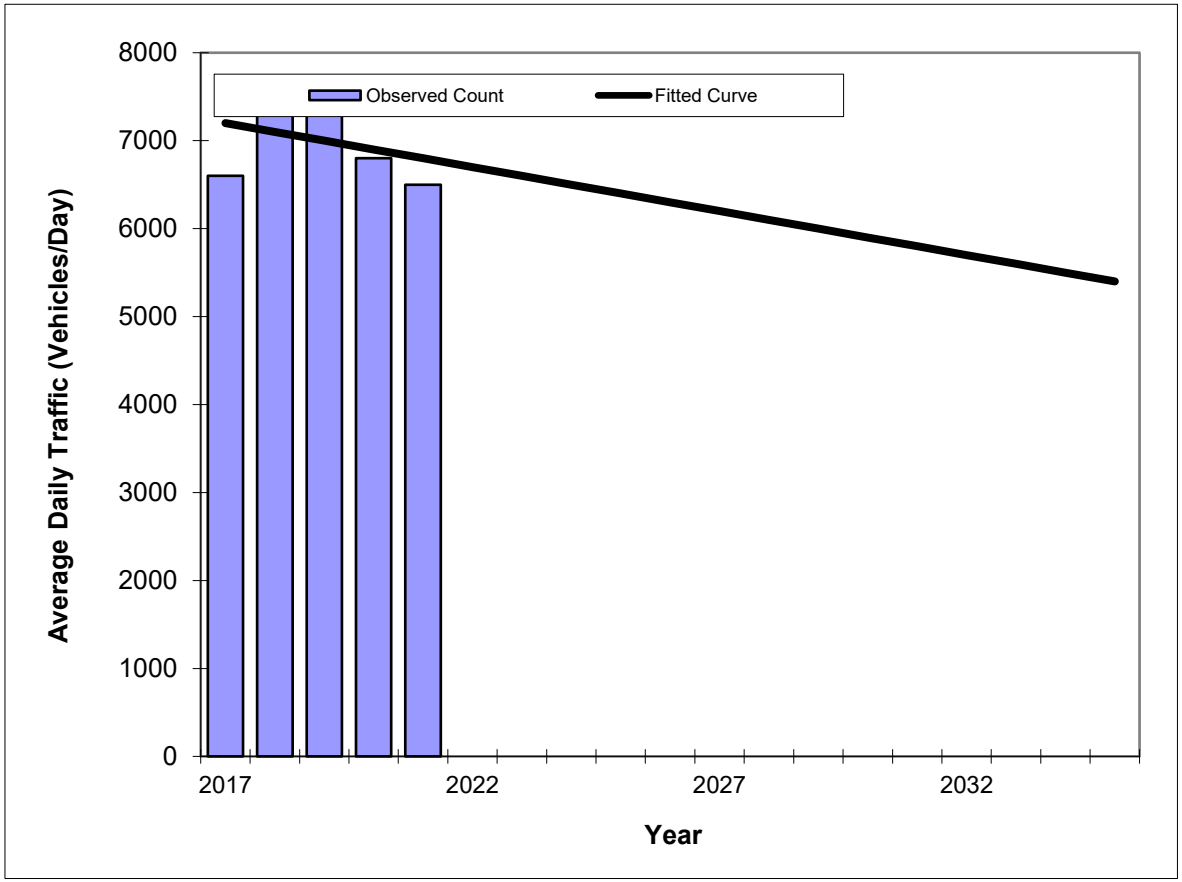
# APPENDIX J
# Growth Rate Worksheets

# Traffic Trends - V2.0

## PLUCKEBAUM RD -- Clearlake to Fiske

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 568 |
| **Highway:** | PLUCKEBAUM RD |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 6600 | 7200 |
| 2018 | 7600 | 7100 |
| 2019 | 7300 | 7000 |
| 2020 | 6800 | 6900 |
| 2021 | 6500 | 6800 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 6700 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 6600 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 6400 |
| **TRANPLAN Forecasts/Trends** | | |

*Axle-Adjusted

| | |
|---|---|
| ** Annual Trend Increase: | -100 |
| Trend R-squared: | 11.21% |
| Trend Annual Historic Growth Rate: | **-1.39%** |
| Trend Growth Rate (2021 to Design Year): | -1.47% |
| Printed: | 29-Jun-22 |

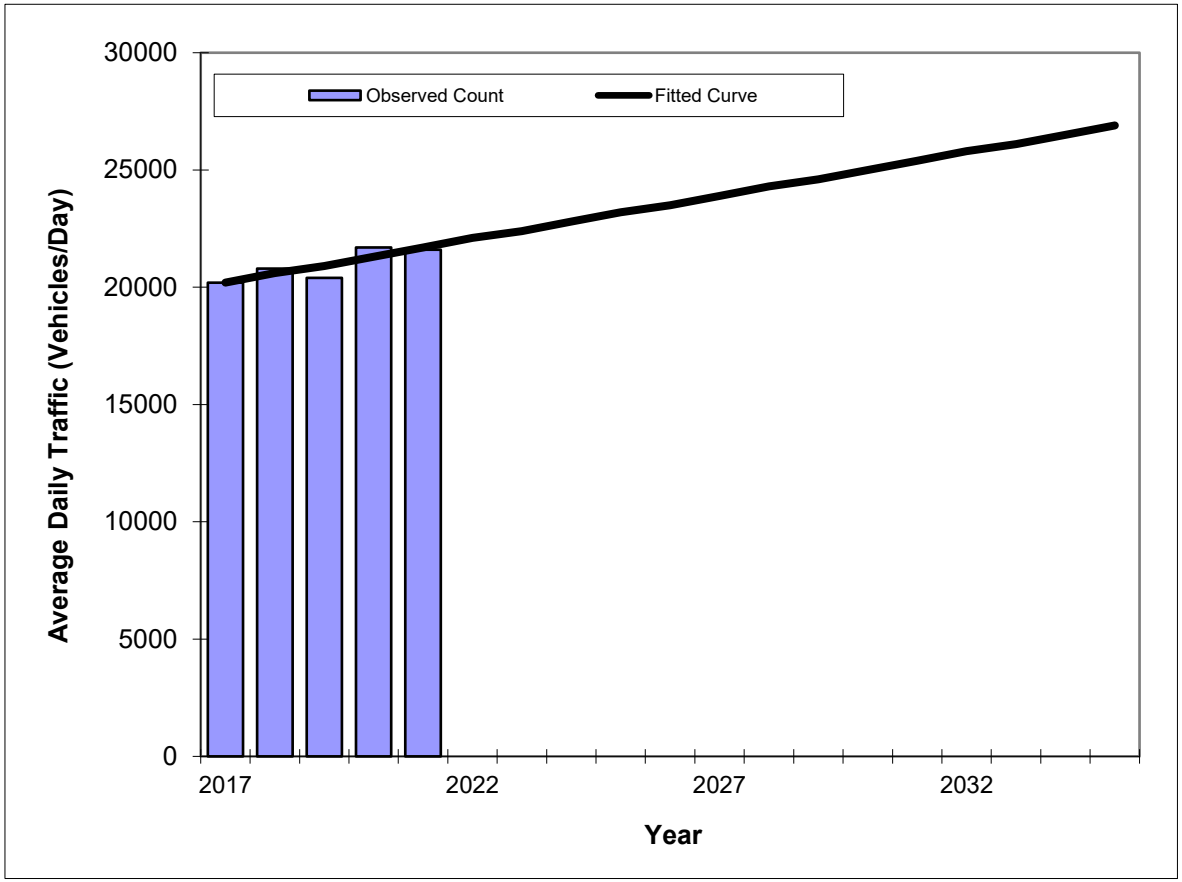
**Straight Line Growth Option**

# Traffic Trends - V2.0

## SR 520 -- Clearlake to Lake

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 4 |
| **Highway:** | SR 520 |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 20200 | 20200 |
| 2018 | 20800 | 20600 |
| 2019 | 20400 | 20900 |
| 2020 | 21700 | 21300 |
| 2021 | 21600 | 21700 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 22100 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 22400 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 23200 |
| **TRANPLAN Forecasts/Trends** | | |

| | |
|---|---|
| ** Annual Trend Increase: | 370 |
| Trend R-squared: | 73.13% |
| Trend Annual Historic Growth Rate: | **1.86%** |
| Trend Growth Rate (2021 to Design Year): | 1.73% |
| Printed: | 6-Jul-22 |

**Straight Line Growth Option**

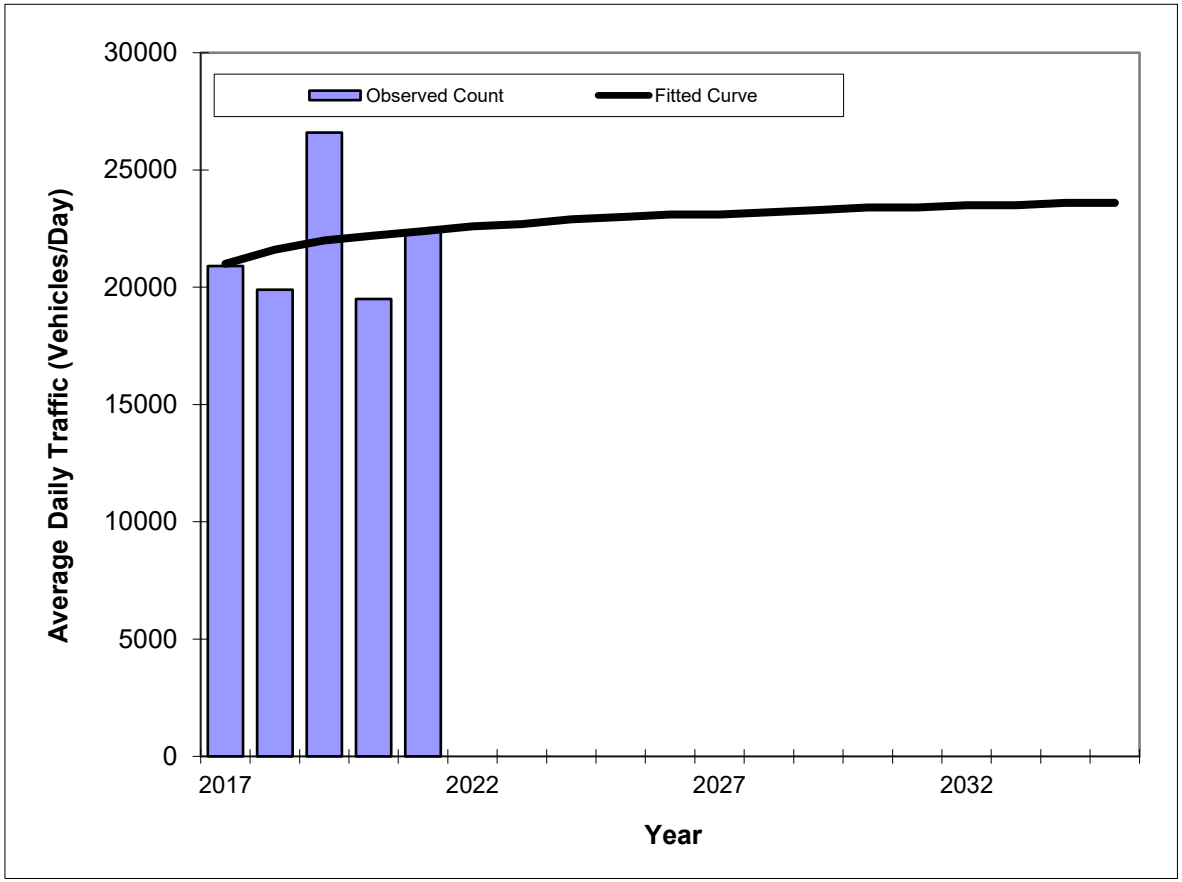
*Axle-Adjusted

# Traffic Trends - V2.0

## SR 520 -- Range to Clearlake

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 14 |
| **Highway:** | SR 520 |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 20900 | 21000 |
| 2018 | 19900 | 21600 |
| 2019 | 26600 | 22000 |
| 2020 | 19500 | 22200 |
| 2021 | 22400 | 22400 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 22600 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 22700 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 23000 |
| **TRANPLAN Forecasts/Trends** | | |

*Axle-Adjusted

| | |
|---|---|
| Trend R-squared: | 3.91% |
| Compounded Annual Historic Growth Rate: | **1.63%** |
| Compounded Growth Rate (2021 to Design Year): | 0.66% |
| Printed: | 29-Jun-22 |

**Decaying Exponential Growth Option**

# APPENDIX K
# NCHRP Warrant Worksheets

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

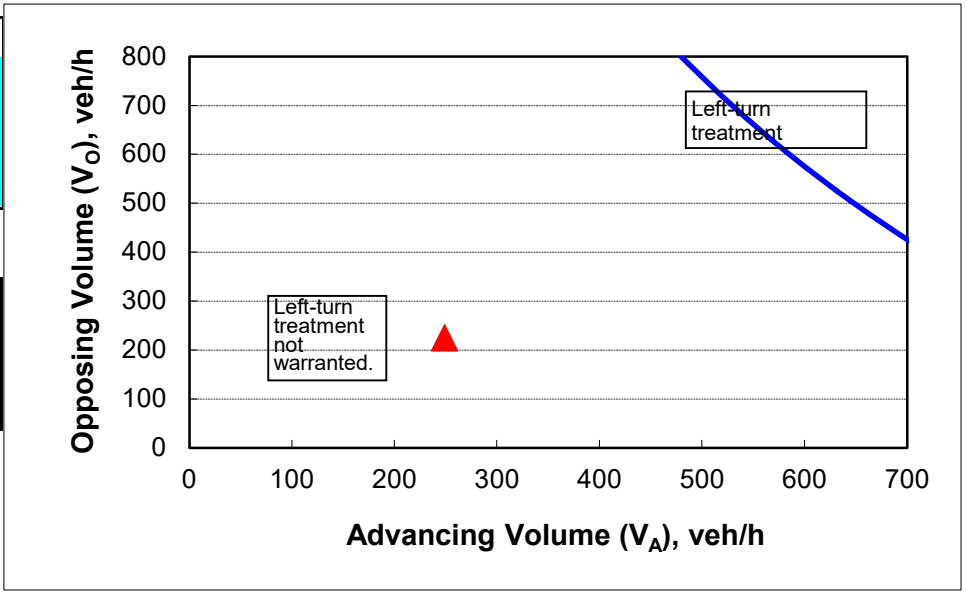
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 40 |
| Percent of left-turns in advancing volume ($V_A$), %: | 2% |
| Advancing volume ($V_A$), veh/h: | 249 |
| Opposing volume ($V_O$), veh/h: | 225 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 871 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

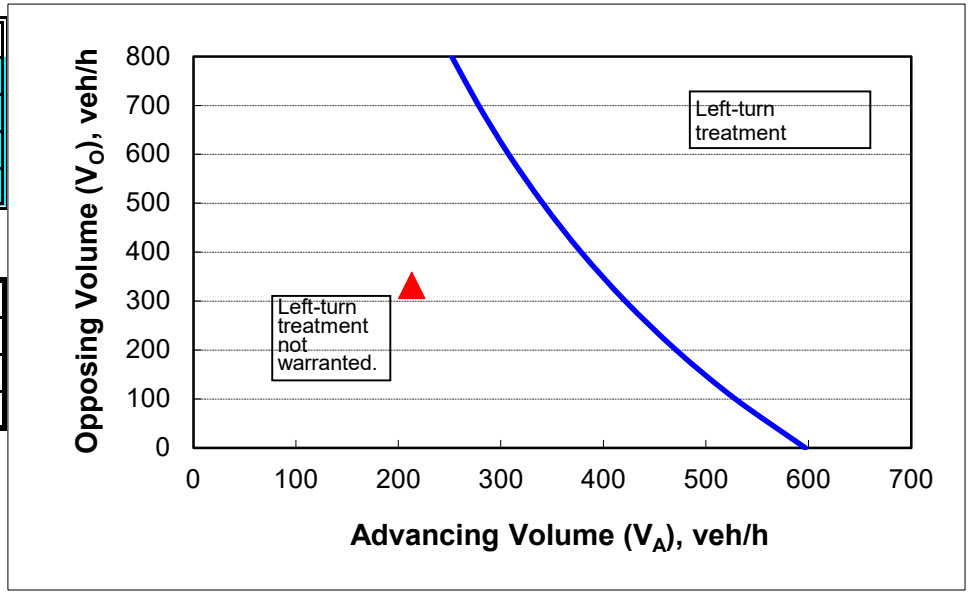
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 40 |
| Percent of left-turns in advancing volume ($V_A$), %: | 9% |
| Advancing volume ($V_A$), veh/h: | 213 |
| Opposing volume ($V_O$), veh/h: | 332 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 407 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

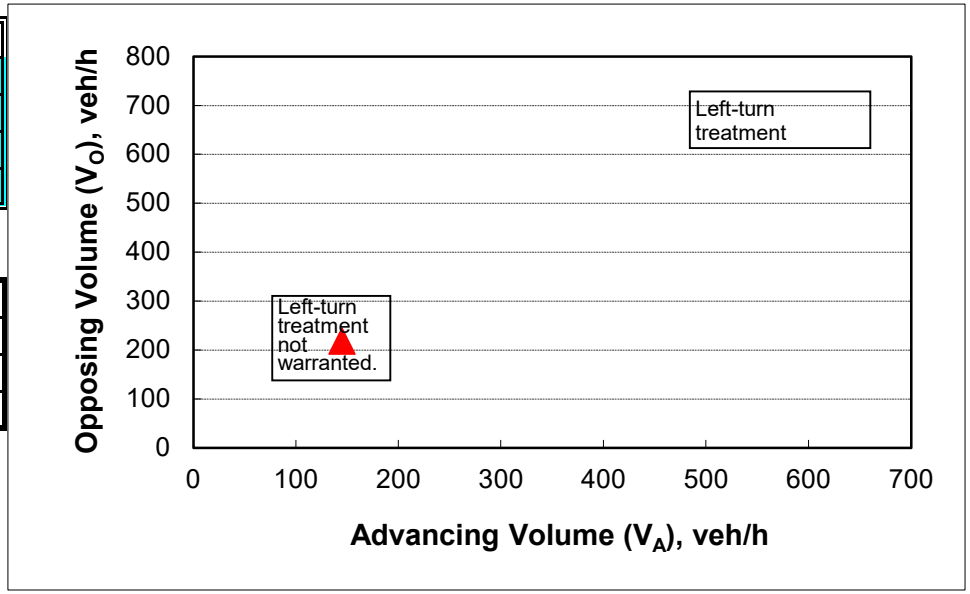
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 30 |
| Percent of left-turns in advancing volume ($V_A$), %: | 1% |
| Advancing volume ($V_A$), veh/h: | 145 |
| Opposing volume ($V_O$), veh/h: | 218 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 1290 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

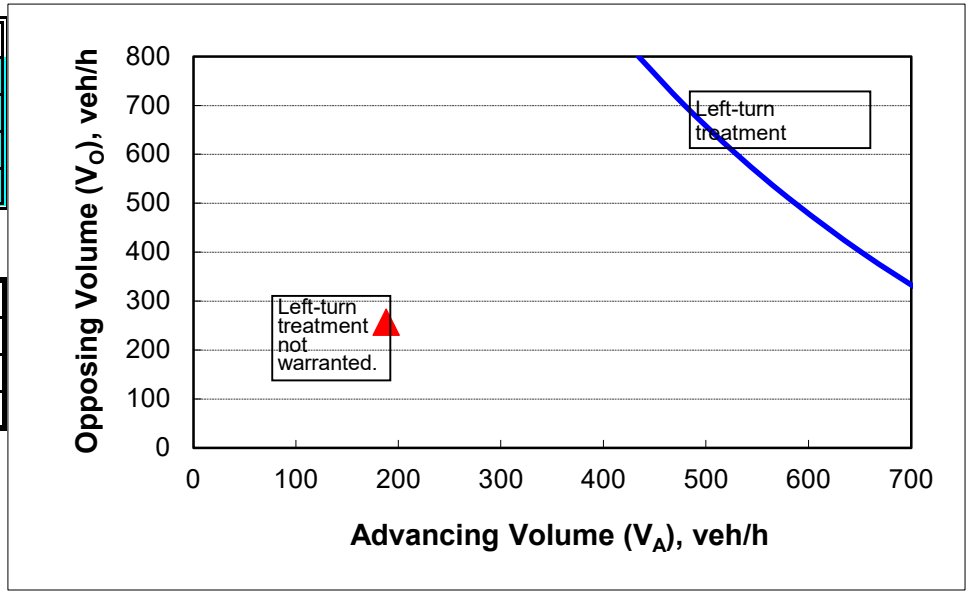
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 30 |
| Percent of left-turns in advancing volume ($V_A$), %: | 4% |
| Advancing volume ($V_A$), veh/h: | 188 |
| Opposing volume ($V_O$), veh/h: | 257 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 761 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 40 |
| Major-road volume (one direction), veh/h: | 225 |
| Right-turn volume, veh/h: | 23 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 724 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

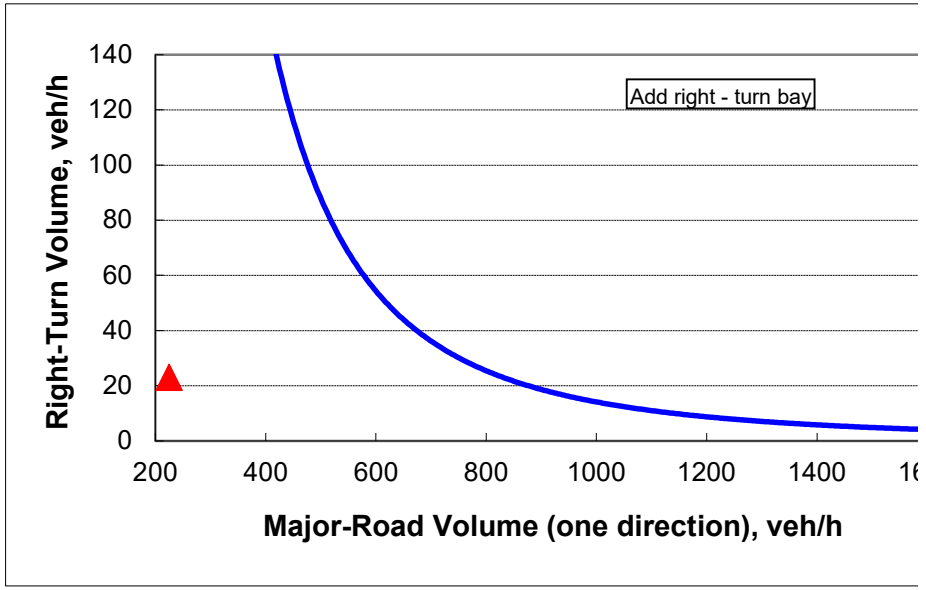


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 40 |
| Major-road volume (one direction), veh/h: | 332 |
| Right-turn volume, veh/h: | 68 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 259 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

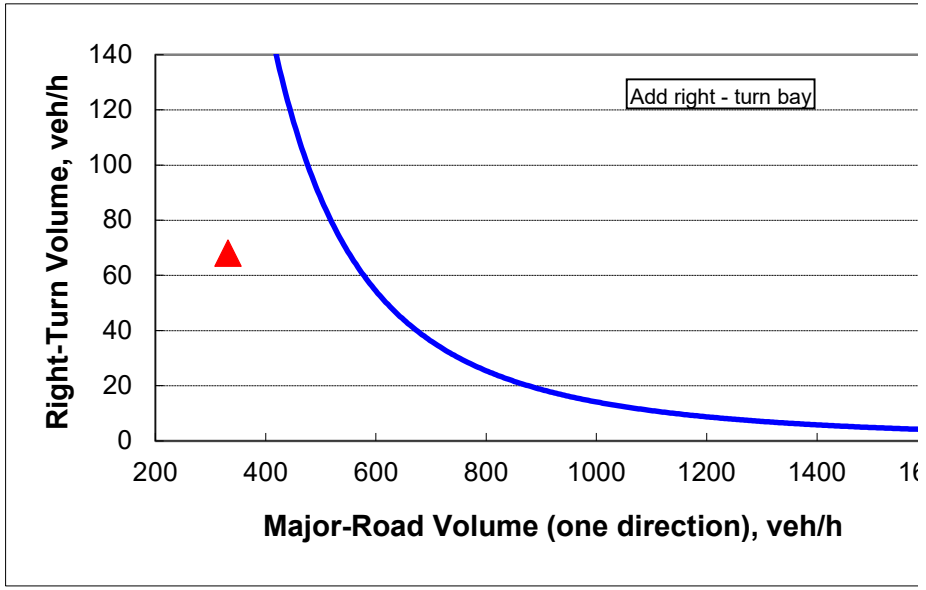


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 30 |
| Major-road volume (one direction), veh/h: | 218 |
| Right-turn volume, veh/h: | 11 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 30122 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

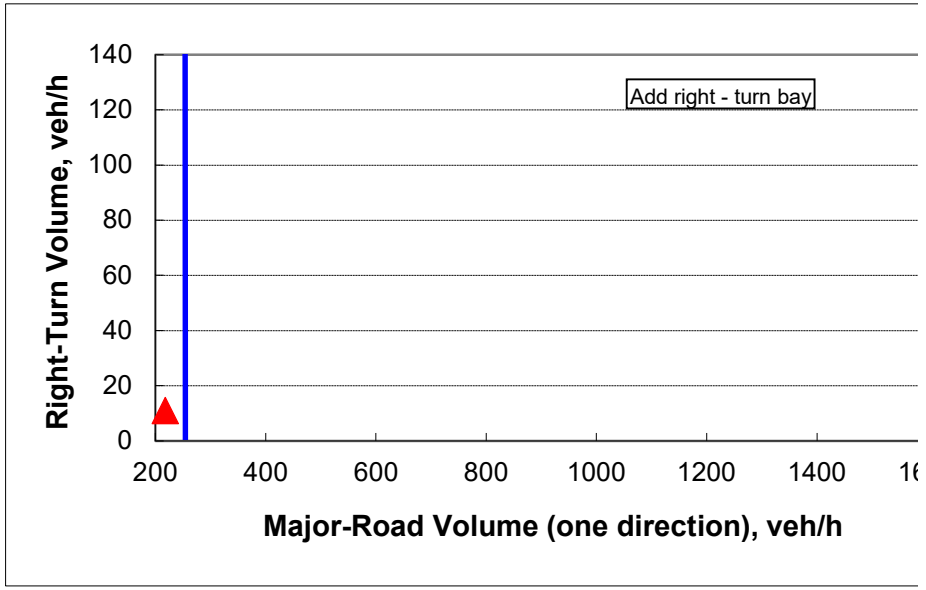


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

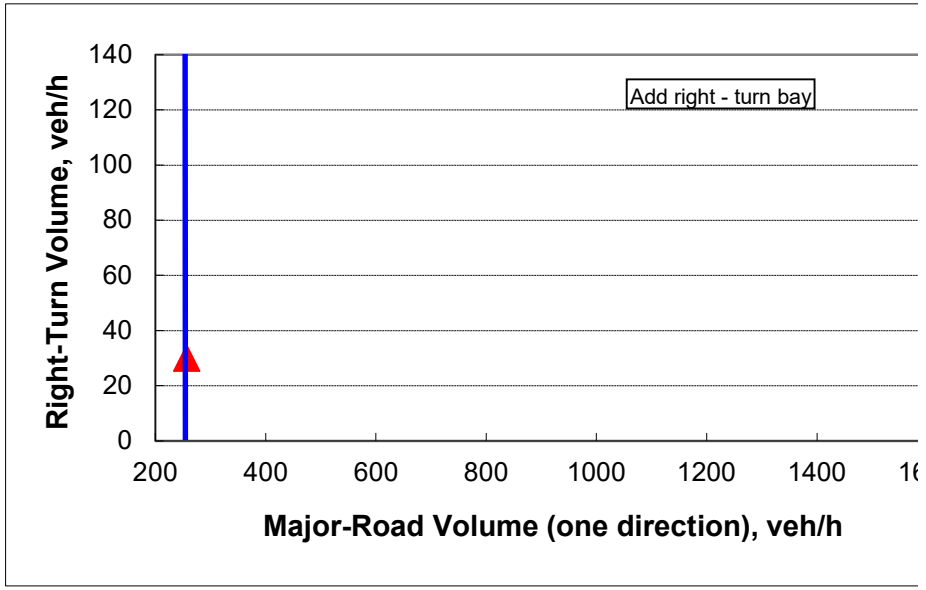
INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 30 |
| Major-road volume (one direction), veh/h: | 257 |
| Right-turn volume, veh/h: | 30 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 13628 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |



Kimley»Horn

# MEMORANDUM

To: Bryan A. DeSouza, MSRED, Land Acquisition Analyst
Lennar Homes

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: November 27, 2023

Subject: Pluckebaum Residential Traffic Due Diligence Memorandum
City of Cocoa, FL

---

**Executive Summary**

The proposed Pluckebaum Residential development will be located in the northwest quadrant of Pluckebaum Road & Clearlake Road in the City of Cocoa, Florida. The +/- 76 acres property is currently vacant. The proposed development will consist of 234 single family homes and is anticipated to be built out by the Year 2025.

The proposed residential development is anticipated to generate approximately 2,206 daily trips, 161 AM peak hour trips (42 inbound / 119 outbound), and 198 PM peak hour trips (125 inbound / 73 outbound). There is an existing sidewalk along the southern side of Pluckebaum Road, but there are no existing bicycle lanes or trails on either side of Pluckebaum Road or Clearlake Road near the project site. A minimum width 5 ft sidewalks are required by the Brevard County Land Development Code (LDC) on both sides of any adjacent roadways to a subdivision development. However, this requirement can be waived with approval from Brevard County if there is no demonstrated need for sidewalks in the immediate area.

Access to the project site will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. These driveways satisfy the Brevard County LDC requirement for subdivisions with between 201-350 dwelling units to have two entrances.

No roadway or intersection improvements are currently planned within the study area. There are existing overhead flashing beacons at the intersection of Pluckebaum Road & Clearlake Road. A safety analysis will need to be submitted to the Brevard County if the operational analysis of the TIS suggests that these overhead flashing beacons need to be removed or if any alternative improvements need to be installed. A traffic impact study methodology report with further details that follows the City of Cocoa's guidelines has been submitted to the City for review.

Kimley»Horn

# MEMORANDUM

To: Bryan A. DeSouza, MSRED, Land Acquisition Analyst
Lennar Homes

From: James M. Taylor, P.E.
Kimley-Horn and Associates, Inc.

Date: November 27, 2023

Subject: Pluckebaum Residential Traffic Due Diligence Memorandum
City of Cocoa, FL

---

**Purpose**

Kimley-Horn has been retained by Lennar Homes to prepare a Traffic Due Diligence Memorandum for the proposed development of Pluckebaum Residential. The purpose of this memorandum is to understand potential project impacts prior to performing a Traffic Impact Study (TIS). A trip generation, access management assessment, multimodal analysis, and a review of future transportation improvements was therefore conducted as part of due diligence for the proposed residential development.

**Project Description**

The proposed Pluckebaum Residential development will be located in the northwest quadrant of Pluckebaum Road & Clearlake Road in the City of Cocoa, Florida. The +/- 76 acres property (Parcel ID: 24-36-31-00-756) is currently vacant. The proposed residential development will consist of 234 single family homes. The development is anticipated to be buildout by the Year 2025.

Access to both project sites will be provided via two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. The project driveway and site layout are shown in the conceptual site plan provided in **Attachment A.**

Kimley»Horn

### Trip Generation

Trip generation for the proposed project was calculated per procedures published in the *Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition*. Land Use Code (LUC) 210 (Single-Family Detached Housing) was used to estimate trip generation for the project.

As shown in **Table 1**, the proposed residential development is expected to generate 2,206 daily trips, 161 AM peak hour trips (42 inbound / 119 outbound), and 198 PM peak hour trips (215 inbound / 73 outbound).

**Table 1:** Trip Generation Summary

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Daily** | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **$R^2$** | **Fitted Equation** | **Daily** | | | | |
| | | | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| | Single-Family Detached Housing | 210 | **234** | DU | 9.43 | 0.95 | Ln(T) = 0.92 * Ln(X) + 2.68 | 2,206 | *50%* | 1,103 | *50%* | 1,103 |
| | **Total Generated Trips** | | | | | | | **2,206** | **1,103** | | **1,103** | |
| **AM Peak Hour** | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **$R^2$** | **Fitted Equation** | **AM Peak Hour** | | | | |
| | | | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| | Single-Family Detached Housing | 210 | **234** | DU | 0.69 | 0.90 | Ln(T) = 0.91 * Ln(X) + 0.12 | 161 | *26%* | 42 | *74%* | 119 |
| | **Total Generated Trips** | | | | | | | **161** | **42** | | **119** | |
| **PM Peak Hour** | **Land Use** | **ITE LUC[1]** | **Size** | **Units** | **ITE Trip Rate[1]** | **$R^2$** | **Fitted Equation** | **PM Peak Hour** | | | | |
| | | | | | | | | **Total** | **In[1]** | | **Out[1]** | |
| | Single-Family Detached Housing | 210 | **234** | DU | 0.94 | 0.92 | Ln(T) = 0.94 * Ln(X) + 0.27 | 198 | *63%* | 125 | *37%* | 73 |
| | **Total Generated Trips** | | | | | | | **198** | **125** | | **73** | |

Kimley»Horn

**Access Management/Driveways**

Access to Pluckebaum Residential will be provided by two (2) full-access driveways: one (1) on Pluckebaum Road and one (1) on Clearlake Road. An evaluation of access management and driveway requirements was conducted to ensure the proposed project driveway meet the standards set forth within the Brevard County Land Development Code (LDC) Sec.62-2957. Based upon the Brevard County's LDC, a subdivision is required to have two entrances if the development has between 201 – 350 dwelling units (DUs). This requirement is met with the two full-access driveways.

Turning movement counts (TMCs) were collected at the study intersections on Thursday, November 2, 2023. Data was collected during the AM Peak Period (7:00 AM to 9:00 AM) and PM Peak Period (4:00 PM to 6:00 PM) at the study area intersections. Turning movement volumes were adjusted by a seasonal factor (SF) of 1.04 based on FDOT's Florida Traffic Online (FTO) data. 24-hour continuous machine approach counts were also collected on Tuesday, November 7, 2023, along Clearlake Road and Pluckebaum Road, adjacent to the project site. These counts were adjusted by an SF of 1.05 based on FDOT's FTO data. Count data is provided in **Attachment B**.

The need for turn lanes at the proposed driveway was assessed using the methodology established by the National Cooperative of Highway Research Programs (NCHRP) Report 457. The NCHRP 457 compares the major street speed and approach volume, opposing volume, and left-turning volume to determine whether a dedicated left-turn is warranted on the major street approach. The need for a major right-turn lane on the major approach is determined by comparing the right turning volumes with the approach volume.

The number of ingress left and right turns during the PM peak hour was calculated using anticipated buildout volumes. Based upon the NCHRP 457 Reports and the data provided in **Attachment C**, ingress turn lanes on Pluckebaum Road and Clearlake Road are not warranted as shown below:

- Pluckebaum Road – Left Turn Lane
    - Advancing volume (EBL+EBT+EBR) = 213 trips
    - % Left Turn (EBL / Advancing Volume) = 9%
    - Opposing volume (WBT+WBR) = 332 trips
        - The advancing volume is below the threshold for warranting a left turn lane.
- Pluckebaum Road – Right Turn Lane
    - Major-road volume (WBL+WBT+WBR) = 332 trips
    - Right-turn volume (WBR) = 68 trips
        - The right turn movement is below the threshold for warranting a right turn lane.

- Clearlake Road – Left Turn Lane
  - Advancing volume (NBL+NBT+NBR) = 188 trips
  - % Left Turn (EBL / Advancing Volume) = 4%
  - Opposing volume (SBT+SBR) = 257 trips
    - The advancing volume is below the threshold for warranting a left turn lane.
- Clearlake Road – Right Turn Lane
  - Major-road volume (SBL+SBT+SBR) = 257 trips
  - Right-turn volume (SBR) = 30 trips
    - The right turn movement is below the threshold for warranting a right turn lane.

Further findings and recommendations will be documented in the forthcoming TIS.

Kimley»Horn

**Roadway Segment Analysis**

Study roadway segments were evaluated to determine the existing and future Daily and PM peak hour levels of service (LOS). The maximum service volumes and 2022 Average Annual Daily Traffic (AADT) were obtained from 2022 Space Coast TPO's Historical Traffic Counts, FDOT's Florida Traffic Online, and FDOT's Q/LOS Tables. Existing (2023) AADT was developed by applying an annual growth rate to 2022 AADT for the adjacent study roadway segments of Pluckebaum Road and Clearlake Road. The calculated annual growth rate for each study roadway segment was determined based on historic AADT volumes from FDOT's Florida Traffic Online as provided in **Attachment C**. Project distribution for Pluckebaum Road was estimated as shown in the Access Management/Driveways section of this report. The project distribution for Clearlake Road is shown below:

Clearlake Road (2023): 4,365 Total – 1,781 Northbound (NB) & 2,584 Southbound (SB)

- Project distribution: (1,781 / 4,365) = 40% NB and (2,584 / 4,365) = 60% SB

**Table 2** illustrates the existing (2023) and anticipated future buildout (2025) Daily volumes and level of service for the adjacent roadway segments to the project site.

**Table 2:** Roadway Segment Conditions

| Roadway | | Roadway Attributes [1] | | | | Daily - Existing (2023) | | | | | Daily - Background (2025) | | | | Daily - Buildout (2025) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | 2,206 Daily Trips | | | | | |
| From | To | Functional Classification | Adopted LOS | Number of Lanes | Daily MSV[1] | 2022 AADT[1] | Annual Growth Rate | 2023 AADT[2] | V/C Ratio | LOS | 2025 AADT[2] | Daily MSV[1] | V/C Ratio | LOS | % Assign[3] | Project Trips | % Significance | Buildout AADT | V/C Ratio | LOS |
| *Pluckebaum Rd* | | | | | | | | | | | | | | | | | | | | |
| *Clearlake Rd* | *SR 519 / Fiske Blvd* | Urban Major Collector | E | 2 | 15,600 | 5,900 | 2.00% | 6,018 | 0.39 | C | 6,259 | 15,600 | 0.40 | C | 55% | 1,213 | 7.78% | 7,472 | 0.48 | C |
| *Clearlake Rd* | | | | | | | | | | | | | | | | | | | | |
| *Pluckebaum Rd* | *SR 520 / Kings St* | Urban Major Collector | D | 2 | 15,600 | 4,150 | 2.00% | 4,233 | 0.27 | C | 4,402 | 15,600 | 0.28 | C | 60% | 1,324 | 8.48% | 5,726 | 0.37 | C |

*Notes*

*1. Data obtained from 2022 Space Coast TPO Historical Traffic Volumes, FDOT's Florida Traffic Online, or FDOT's Q/LOS Tables*

*2. Volumes were determined by applying a calculated growth rate.*

*3. Percent project traffic assignment was the assumed maximum percent across the segment based on historic AADT.*

As shown in **Table 2**, Pluckebaum Road and Clearlake Road are anticipated to operate within their adopted LOS thresholds during existing (2023) and buildout (2025) conditions.

**Multimodal Analysis**

A multimodal analysis of impacts and connectivity to existing and future funded transit, bicycle, pedestrian, and trail facilities within the study area will be conducted within the TIS. The analysis will be included to address the Brevard County Land Development Code (LDC Sec. 62-2956b) that requires subdivisions to provide a minimum width of 5 ft sidewalks on both sides of any adjacent roadways of a development. However, this sidewalk requirement may be waived by Brevard County if it is demonstrated there is no current or future need for sidewalks in the immediate area. There is an existing sidewalk along the southern side of Pluckebaum Road, but there are no existing bicycle lanes or trails on either side of Pluckebaum Road or Clearlake Road near the project site.

Kimley»Horn

**Transportation Improvements**

Roadway and/or intersection improvements funded for construction within the City of Cocoa's Capital Improvements Program (CIP), Brevard County's Capital Improvement Plan (CIP), Space Coast Transportation Planning Organization's Transportation Improvement Program (TIP), and FDOT's Five-Year Work Program will be evaluated. There are currently no transportation improvements planned within the project study area.

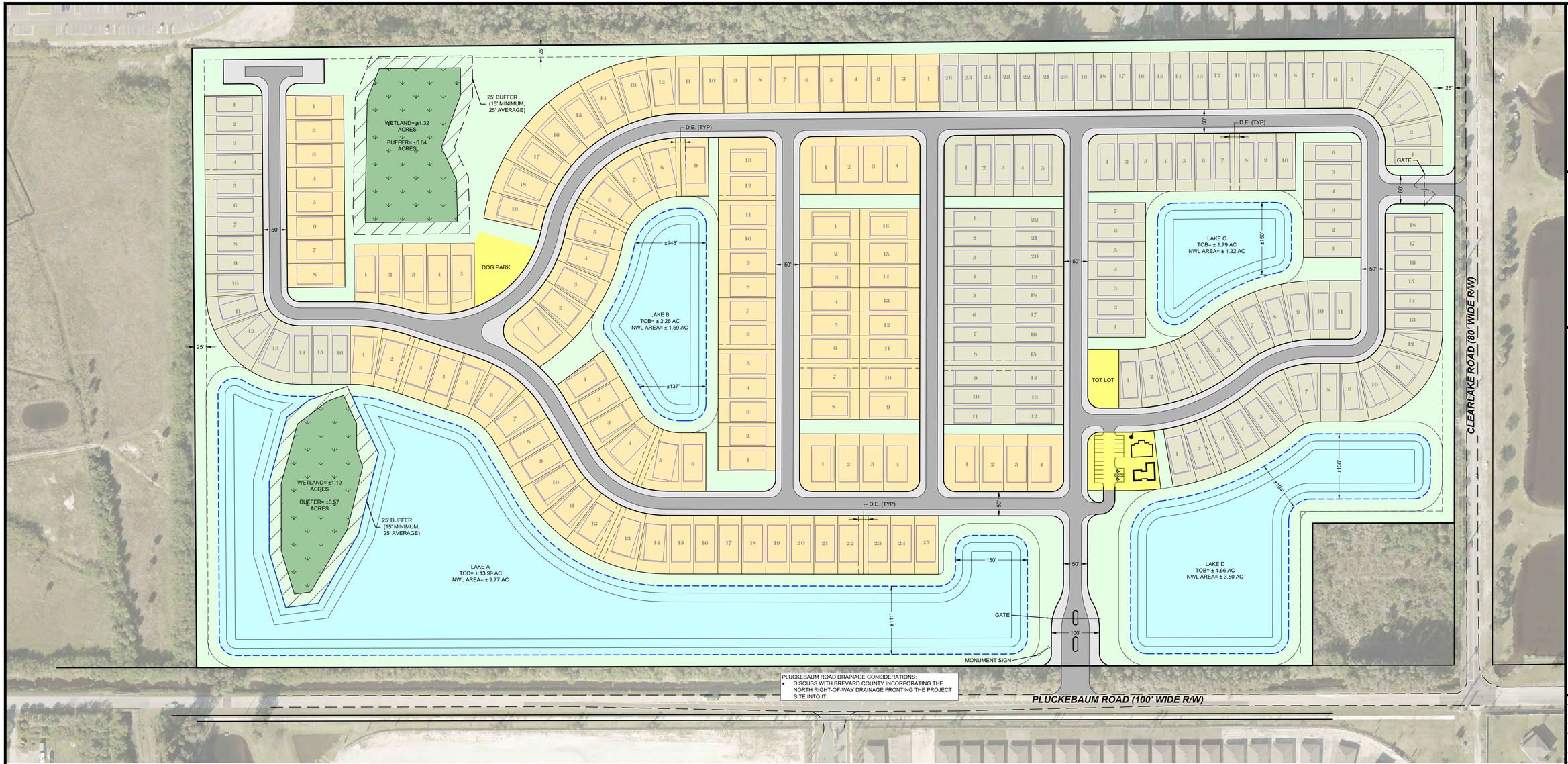
The intersection of Pluckebaum Road & Clearlake Road is currently a two-way stop controlled (TWSC) intersection that has overhead flashing beacons. The signal flashes red for the southbound approach on Clearlake Road to emphasize these drivers need to come to a complete stop at this intersection. The signal flashes yellow for the eastbound and westbound traffic on Pluckebaum Road so vehicles heed caution while approaching the intersection. If the operational analysis of the TIS suggests these overhead flashing beacons need to be removed or any alternative improvements need to be installed at this intersection, a safety analysis may be required to submit to Brevard County (the maintaining agency).

**Next Steps**

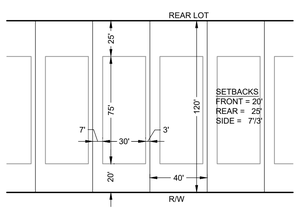
A TIS report will be submitted to the City of Cocoa to be reviewed.

*\\kimley-horn.com\FL_ORL02\ORL_TPTO\249101001_Pluckebaum Residential\02_Documentation\Due Dil Memo\November 2023\Pluckebaum Residential Traffic Due Diligence Memo_11.06.2023.docx*

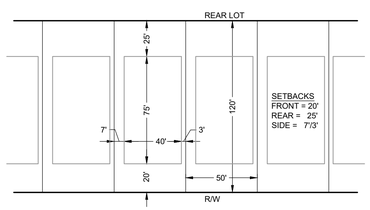
# ATTACHMENT A
Conceptual Site Plan




AERIAL PHOTO PROVIDED BY BREVARD COUNTY PROPERTY APPRAISER 2023




40' LOT DETAIL




50' LOT DETAIL

| ZONING AND LAND USE TABLE | | |
|---|---|---|
| **LOCATION** | **ZONING** | **LAND USE** |
| SUBJECT SITE - EXISTING | RU-1-7 (COCOA) | RESIDENTIAL VERY LOW (COCOA) |
| SUBJECT SITE - PROPOSED | PUD (ROCKLEDGE) | MDR 3-15 DU / ACRE (ROCKLEDGE) |
| NORTH | RU-2-15 AND RR-1 (COCOA) | MDR AND LDR (COCOA) |
| SOUTH | PUD (ROCKLEDGE) | LDR (ROCKLEDGE) |
| EAST | ROC (ROCKLEDGE) | N COMM (COCOA) AND RPM (ROCKLEDGE) |
| WEST | RU-2-10 (COUNTY) | RES 15 DU / ACRE (COUNTY) |

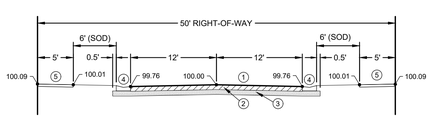
TOTAL SITE AREA = ± 76.21 ACRES
TOTAL LAKE AREA = ± 16.08 ACRES (±21.09 %)

**UNIT MIX**:

121 (51.71%) = 40 FT WIDE - SINGLE FAMILY
113 (48.29%) = 50 FT WIDE - SINGLE FAMILY
234 (100%) = TOTAL LOTS

**OPEN SPACE CALCULATION:**

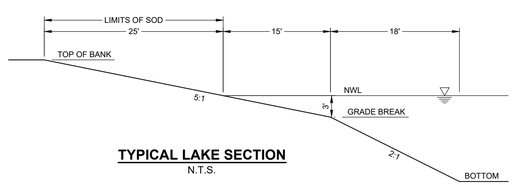
| | |
|---|---|
| TOTAL SITE AREA | = 76.21 ACRES |
| LESS THE FOLLOWING: | |
| LOT / BLOCK | = 32.88 ACRES |
| OPEN/GREEN/RECREATION SPACE | = 12.84 ACRES |
| DOG PARK | = 0.28 ACRES |
| TOT LOT | = 0.17 ACRES |
| AMENITY CENTER | = 0.40 ACRES |
| LAKE AT NWL | = 16.08 ACRES |
| ROAD RIGHT-OF-WAY | = 9.93 ACRES |
| WETLAND/ BUFFER | = 3.63 ACRES |




**50' WIDE RIGHT-OF-WAY AND ROAD SECTION DETAIL**
N.T.S.

## KEY

1. 1-1/2" TYPE SP-9.5 (FINE MIX) ASPHALTIC CONCRETE
2. 8" BASE WITH FDOT APPROVED PRIME COAT
   OPTIONS:
   - LIMEROCK, L.B.R. 100 MIN.
   - CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180
3. 10" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 6" BEYOND CURB)
4. MIAMI CURB - 2' WIDE
5. CONCRETE SIDEWALK; 1.5% DESIGN CROSS SLOPE, 2% MAX.




**TYPICAL LAKE SECTION**
N.T.S.


B.S.E. CONSULTANTS, INC.
CONSULTING - ENGINEERING - LAND SURVEYING
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4
MELBOURNE, FLORIDA 32901
PHONE: (321) 725-3674 FAX: (321) 723-1159
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.
STATE OF FLORIDA, No. 41951


100 0 50 100
( IN FEET )

| | |
|---|---|
| DATE: | 04/05/23 |
| DESIGN/DRAWN: | ALS/AH |

**PROJECT TITLE**

# LENNAR - PLUCKEBAUM RD

**SHEET TITLE**

# PRELIMINARY DEVELOPMENT PLAN (SINGLE-FAMILY)

**PROJECT NO.**
11638

**DRAWING NO.**
11638_200_015

**SHEET**
1 of 1

H:\Projects Folder\11638\Drawings\11638_200_015.dwg April 5, 2023 1:47:39 PM AH

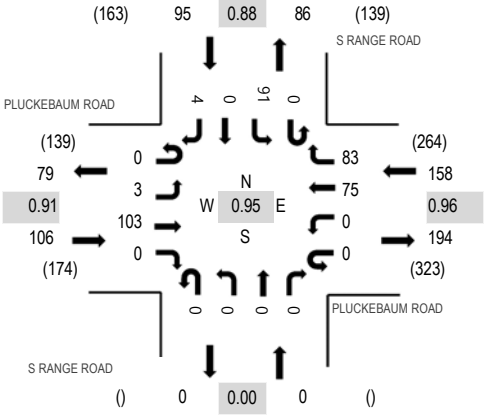
SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

# ATTACHMENT B
Turning Movement Counts

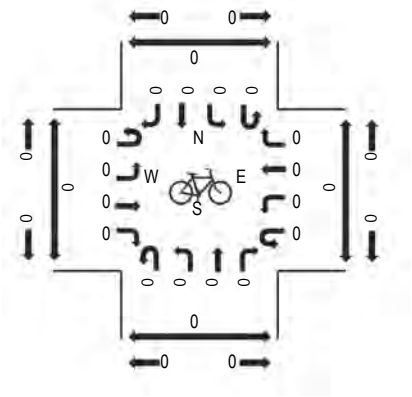
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 S RANGE ROAD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

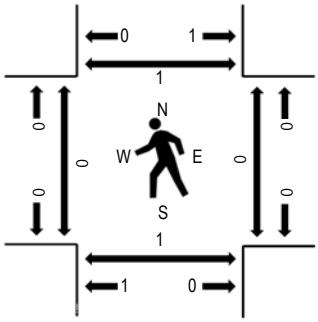
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 0 | 11 | 0 | 0 | 0 | 17 | 15 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 54 | 285 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 12 | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 1 | 51 | 316 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 1 | 28 | 0 | 0 | 0 | 20 | 19 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 91 | 359 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 25 | 0 | 0 | 0 | 12 | 28 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 3 | 89 | 335 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 1 | 25 | 0 | 0 | 0 | 20 | 18 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 85 | 316 | 0 | 0 | 1 | 0 |
| 8:15 AM | 0 | 1 | 25 | 0 | 0 | 0 | 23 | 18 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 1 | 94 | | 0 | 0 | 0 | 1 |
| 8:30 AM | 0 | 0 | 21 | 0 | 0 | 0 | 12 | 17 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 2 | 67 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 24 | 0 | 0 | 0 | 12 | 9 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 3 | 70 | | 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 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 |
| Lights | 0 | 2 | 97 | 0 | 0 | 0 | 71 | 78 | 0 | 0 | 0 | 0 | 0 | 82 | 0 | 2 | 332 |
| Mediums | 0 | 1 | 6 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 2 | 23 |
| Total | 0 | 3 | 103 | 0 | 0 | 0 | 75 | 83 | 0 | 0 | 0 | 0 | 0 | 91 | 0 | 4 | 359 |

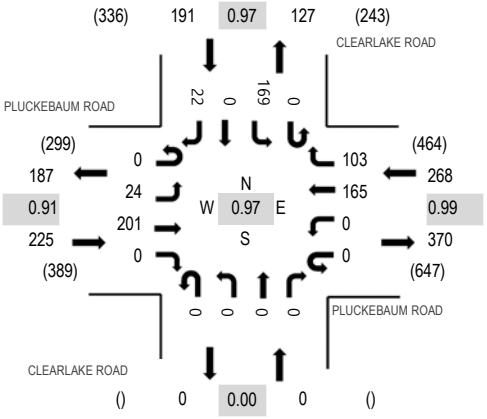
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 6.6% | | | | 5.7% | | | | 0.0% | | | | 11.6% | | | 7.5% |
| Heavy Vehicle % | 0.0% | 33.3% | 5.8% | 0.0% | 0.0% | 0.0% | 5.3% | 6.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 9.9% | 0.0% | 50.0% | 7.5% |
| Peak Hour Factor | | 0.91 | | | | 0.96 | | | | 0.00 | | | | 0.88 | | | 0.95 |
| Peak Hour Factor | 0.00 | 0.75 | 0.92 | 0.00 | 0.00 | 0.00 | 0.82 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 | 0.00 | 0.50 | 0.95 |

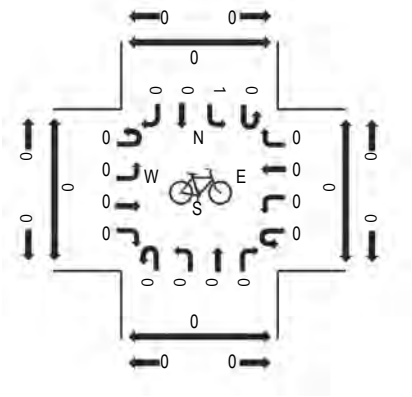
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 CLEARLAKE ROAD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 07:45 AM - 08:00 AM

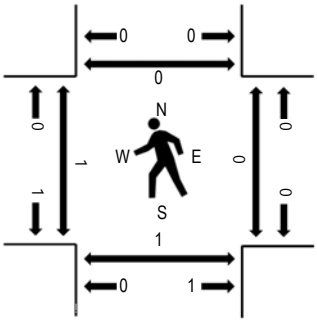
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles



## Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 23 | 0 | 0 | 0 | 28 | 20 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 4 | 110 | 584 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 7 | 33 | 0 | 0 | 0 | 28 | 21 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 3 | 121 | 637 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 4 | 56 | 0 | 0 | 0 | 43 | 24 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 3 | 176 | 684 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 8 | 54 | 0 | 0 | 0 | 39 | 29 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 6 | 177 | 646 | 1 | 0 | 1 | 0 |
| 8:00 AM | 0 | 3 | 45 | 0 | 0 | 0 | 39 | 28 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 8 | 163 | 605 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 9 | 46 | 0 | 0 | 0 | 44 | 22 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 5 | 168 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 3 | 39 | 0 | 0 | 0 | 22 | 26 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 2 | 138 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 6 | 48 | 0 | 0 | 0 | 23 | 28 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 2 | 136 | | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lights | 0 | 19 | 196 | 0 | 0 | 0 | 159 | 99 | 0 | 0 | 0 | 0 | 0 | 161 | 0 | 21 | 655 |
| Mediums | 0 | 5 | 5 | 0 | 0 | 0 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 1 | 29 |
| Total | 0 | 24 | 201 | 0 | 0 | 0 | 165 | 103 | 0 | 0 | 0 | 0 | 0 | 169 | 0 | 22 | 684 |

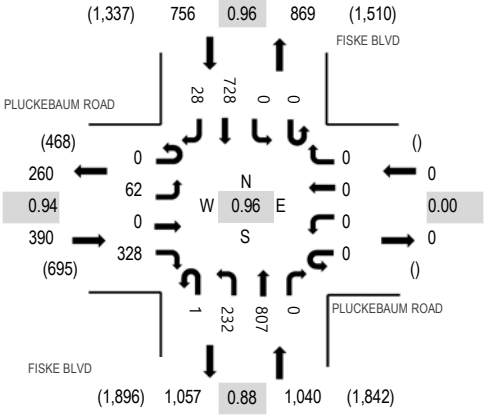
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 4.4% | | | | 3.7% | | | | 0.0% | | | | 4.7% | | | 4.2% |
| Heavy Vehicle % | 0.0% | 20.8% | 2.5% | 0.0% | 0.0% | 0.0% | 3.6% | 3.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 4.7% | 0.0% | 4.5% | 4.2% |
| Peak Hour Factor | | 0.91 | | | | 0.99 | | | | 0.00 | | | | 0.97 | | | 0.97 |
| Peak Hour Factor | 0.00 | 0.67 | 0.90 | 0.00 | 0.00 | 0.00 | 0.94 | 0.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 | 0.00 | 0.69 | 0.97 |

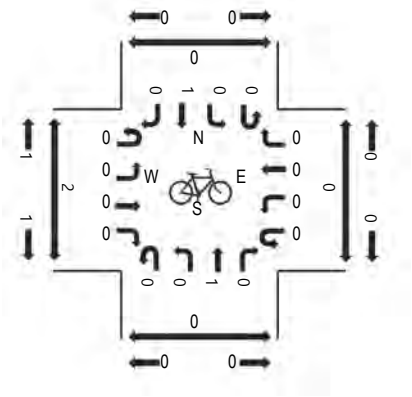
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 FISKE BLVD & PLUCKEBAUM ROAD AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:45 AM - 08:45 AM
**Peak 15-Minutes:** 08:00 AM - 08:15 AM

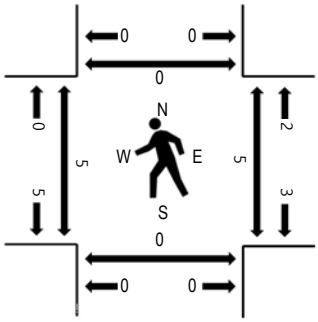
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | FISKE BLVD Northbound | | | | FISKE BLVD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 5 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 36 | 114 | 0 | 0 | 0 | 107 | 0 | 313 | 1,750 | 0 | 1 | 0 | 0 |
| 7:15 AM | 0 | 9 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 40 | 148 | 0 | 0 | 0 | 144 | 2 | 404 | 2,008 | 0 | 1 | 0 | 0 |
| 7:30 AM | 0 | 8 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 59 | 182 | 0 | 0 | 0 | 139 | 4 | 488 | 2,130 | 0 | 3 | 0 | 0 |
| 7:45 AM | 0 | 17 | 0 | 89 | 0 | 0 | 0 | 0 | 1 | 67 | 195 | 0 | 0 | 0 | 171 | 5 | 545 | 2,186 | 5 | 3 | 0 | 0 |
| 8:00 AM | 0 | 19 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 62 | 233 | 0 | 0 | 0 | 180 | 6 | 571 | 2,124 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 15 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 58 | 170 | 0 | 0 | 0 | 191 | 8 | 526 | | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 11 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 45 | 209 | 0 | 0 | 0 | 186 | 9 | 544 | | 0 | 1 | 0 | 0 |
| 8:45 AM | 0 | 9 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 57 | 166 | 0 | 0 | 0 | 175 | 10 | 483 | | 0 | 2 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 8 |
| Lights | 0 | 61 | 0 | 314 | 0 | 0 | 0 | 0 | 1 | 224 | 790 | 0 | 0 | 0 | 695 | 24 | 2,109 |
| Mediums | 0 | 1 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 8 | 15 | 0 | 0 | 0 | 28 | 4 | 69 |
| Total | 0 | 62 | 0 | 328 | 0 | 0 | 0 | 0 | 1 | 232 | 807 | 0 | 0 | 0 | 728 | 28 | 2,186 |

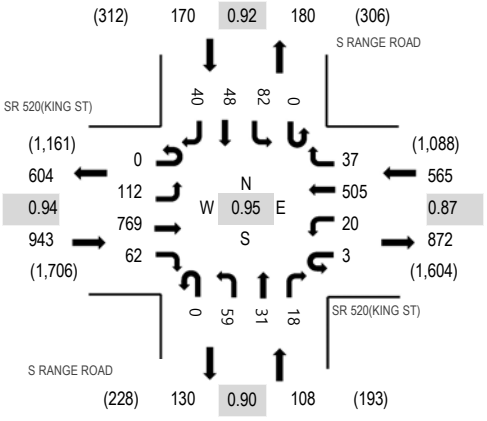
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 3.8% | | | | 0.0% | | | | 2.4% | | | | 4.9% | | | 3.5% |
| Heavy Vehicle % | 0.0% | 1.6% | 0.0% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 3.4% | 2.1% | 0.0% | 0.0% | 0.0% | 4.5% | 14.3% | 3.5% |
| Peak Hour Factor | | 0.94 | | | | 0.00 | | | | 0.88 | | | | 0.96 | | | 0.96 |
| Peak Hour Factor | 0.00 | 0.82 | 0.00 | 0.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.92 | 0.87 | 0.00 | 0.00 | 0.00 | 0.96 | 0.83 | 0.96 |

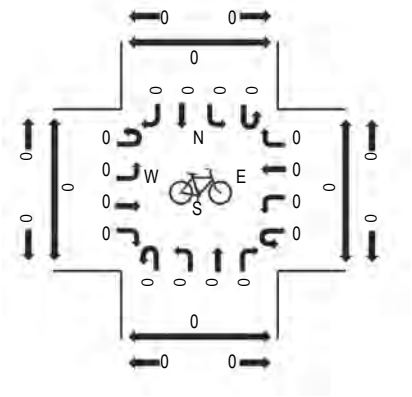
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 S RANGE ROAD & SR 520(KING ST) AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 08:15 AM - 08:30 AM

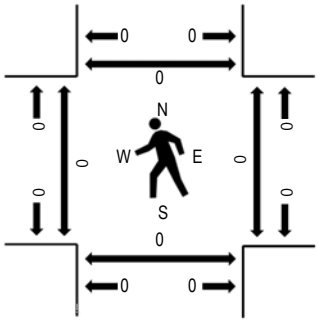
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 10 | 131 | 11 | 0 | 2 | 120 | 7 | 0 | 10 | 3 | 3 | 0 | 18 | 4 | 8 | 327 | 1,608 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 32 | 169 | 13 | 0 | 7 | 90 | 9 | 0 | 12 | 4 | 6 | 0 | 15 | 4 | 5 | 367 | 1,684 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 43 | 196 | 13 | 1 | 4 | 124 | 8 | 0 | 16 | 5 | 6 | 0 | 23 | 12 | 7 | 458 | 1,786 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 25 | 190 | 16 | 1 | 8 | 131 | 11 | 0 | 14 | 13 | 1 | 0 | 19 | 12 | 15 | 456 | 1,720 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 21 | 178 | 17 | 1 | 3 | 112 | 9 | 0 | 13 | 6 | 4 | 0 | 20 | 10 | 9 | 403 | 1,691 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 23 | 205 | 16 | 0 | 5 | 138 | 9 | 0 | 16 | 7 | 7 | 0 | 20 | 14 | 9 | 469 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 22 | 170 | 11 | 2 | 6 | 109 | 8 | 0 | 15 | 5 | 2 | 0 | 21 | 7 | 14 | 392 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 12 | 165 | 15 | 2 | 12 | 139 | 10 | 0 | 15 | 4 | 6 | 0 | 22 | 6 | 18 | 427 | | 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 | 10 | 2 | 0 | 1 | 5 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 23 |
| Lights | 0 | 106 | 731 | 58 | 3 | 16 | 467 | 35 | 0 | 52 | 29 | 12 | 0 | 71 | 46 | 38 | 1,664 |
| Mediums | 0 | 6 | 28 | 2 | 0 | 3 | 33 | 1 | 0 | 4 | 2 | 5 | 0 | 11 | 2 | 2 | 99 |
| Total | 0 | 112 | 769 | 62 | 3 | 20 | 505 | 37 | 0 | 59 | 31 | 18 | 0 | 82 | 48 | 40 | 1,786 |

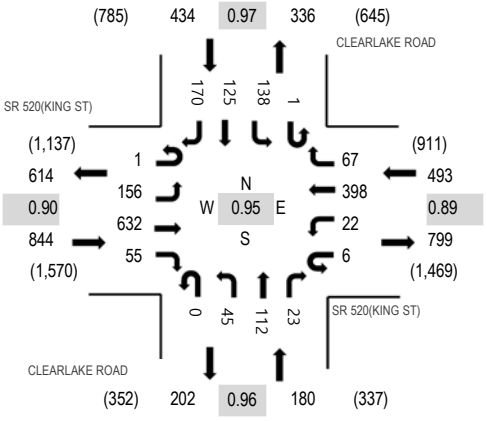
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 5.1% | | | | 7.8% | | | | 13.9% | | | | 8.8% | | | 6.8% |
| Heavy Vehicle % | 0.0% | 5.4% | 4.9% | 6.5% | 0.0% | 20.0% | 7.5% | 5.4% | 0.0% | 11.9% | 6.5% | 33.3% | 0.0% | 13.4% | 4.2% | 5.0% | 6.8% |
| Peak Hour Factor | | 0.94 | | | | 0.87 | | | | 0.90 | | | | 0.92 | | | 0.95 |
| Peak Hour Factor | 0.25 | 0.70 | 0.94 | 0.91 | 0.63 | 0.54 | 0.91 | 0.84 | 0.00 | 0.92 | 0.60 | 0.68 | 0.00 | 0.94 | 0.86 | 0.69 | 0.95 |

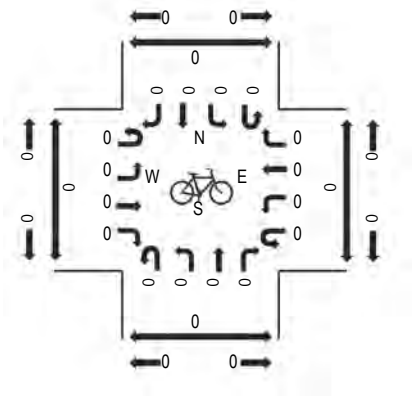
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 CLEARLAKE ROAD & SR 520(KING ST) AM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 07:30 AM - 08:30 AM
**Peak 15-Minutes:** 07:30 AM - 07:45 AM

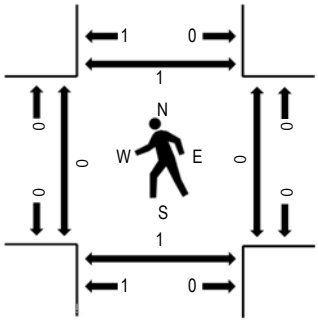
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 7:00 AM | 0 | 37 | 99 | 6 | 1 | 1 | 75 | 11 | 0 | 10 | 17 | 5 | 0 | 36 | 20 | 28 | 346 | 1,747 | 0 | 0 | 1 | 0 |
| 7:15 AM | 0 | 52 | 130 | 9 | 0 | 4 | 64 | 8 | 0 | 13 | 28 | 4 | 0 | 28 | 17 | 32 | 389 | 1,854 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 42 | 179 | 13 | 2 | 5 | 97 | 17 | 0 | 10 | 31 | 4 | 1 | 33 | 36 | 42 | 512 | 1,951 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 36 | 159 | 17 | 1 | 3 | 110 | 18 | 0 | 13 | 30 | 1 | 0 | 31 | 29 | 52 | 500 | 1,898 | 0 | 0 | 0 | 0 |
| 8:00 AM | 1 | 39 | 137 | 14 | 3 | 7 | 82 | 15 | 0 | 13 | 21 | 10 | 0 | 39 | 32 | 40 | 453 | 1,856 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 39 | 157 | 11 | 0 | 7 | 109 | 17 | 0 | 9 | 30 | 8 | 0 | 35 | 28 | 36 | 486 | | 0 | 0 | 1 | 1 |
| 8:30 AM | 1 | 36 | 142 | 23 | 2 | 4 | 96 | 13 | 0 | 10 | 26 | 4 | 0 | 39 | 38 | 25 | 459 | | 0 | 0 | 1 | 0 |
| 8:45 AM | 1 | 42 | 143 | 5 | 1 | 2 | 118 | 18 | 0 | 10 | 21 | 9 | 0 | 27 | 21 | 40 | 458 | | 0 | 1 | 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 | 2 | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 17 |
| Lights | 1 | 145 | 603 | 52 | 6 | 20 | 368 | 65 | 0 | 42 | 106 | 22 | 1 | 127 | 119 | 160 | 1,837 |
| Mediums | 0 | 9 | 21 | 3 | 0 | 2 | 25 | 2 | 0 | 3 | 6 | 1 | 0 | 9 | 6 | 10 | 97 |
| Total | 1 | 156 | 632 | 55 | 6 | 22 | 398 | 67 | 0 | 45 | 112 | 23 | 1 | 138 | 125 | 170 | 1,951 |

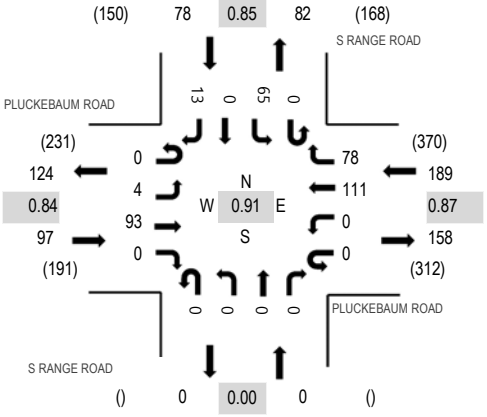
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 5.1% | | | | 6.9% | | | | 5.6% | | | | 6.2% | | | 5.8% |
| Heavy Vehicle % | 0.0% | 7.1% | 4.6% | 5.5% | 0.0% | 9.1% | 7.5% | 3.0% | 0.0% | 6.7% | 5.4% | 4.3% | 0.0% | 8.0% | 4.8% | 5.9% | 5.8% |
| Peak Hour Factor | | 0.90 | | | | 0.89 | | | | 0.96 | | | | 0.97 | | | 0.95 |
| Peak Hour Factor | 0.75 | 0.81 | 0.88 | 0.71 | 0.50 | 0.79 | 0.86 | 0.93 | 0.00 | 0.94 | 0.90 | 0.78 | 0.25 | 0.92 | 0.84 | 0.82 | 0.95 |

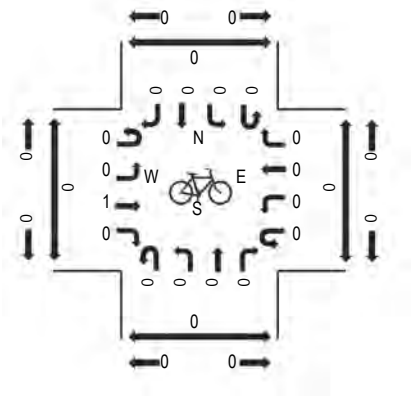
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 1 S RANGE ROAD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

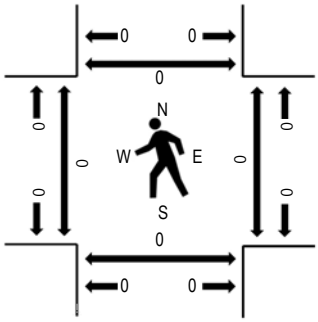
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 2 | 30 | 0 | 0 | 0 | 20 | 21 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 92 | 354 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 1 | 18 | 0 | 0 | 0 | 24 | 15 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 1 | 79 | 344 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 2 | 23 | 0 | 0 | 0 | 27 | 23 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 93 | 357 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 1 | 30 | 0 | 0 | 0 | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 1 | 90 | 364 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 16 | 0 | 0 | 0 | 29 | 17 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 2 | 82 | 357 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 18 | 0 | 0 | 0 | 35 | 22 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 1 | 92 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 3 | 29 | 0 | 0 | 0 | 25 | 20 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 9 | 100 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 1 | 17 | 0 | 0 | 0 | 30 | 21 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 5 | 83 | | 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 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lights | 0 | 4 | 91 | 0 | 0 | 0 | 110 | 75 | 0 | 0 | 0 | 0 | 0 | 61 | 0 | 12 | 353 |
| Mediums | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 10 |
| Total | 0 | 4 | 93 | 0 | 0 | 0 | 111 | 78 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 13 | 364 |

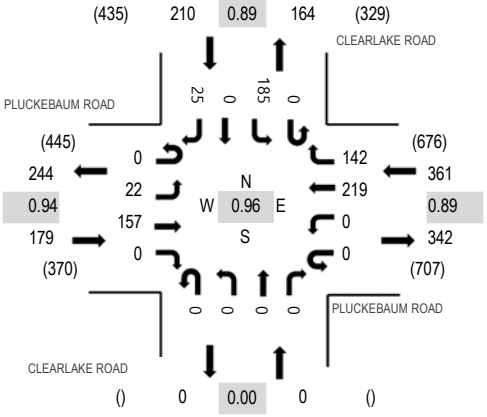
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 2.1% | | | | 2.1% | | | | 0.0% | | | | 6.4% | | | 3.0% |
| Heavy Vehicle % | 0.0% | 0.0% | 2.2% | 0.0% | 0.0% | 0.0% | 0.9% | 3.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 6.2% | 0.0% | 7.7% | 3.0% |
| Peak Hour Factor | | 0.84 | | | | 0.87 | | | | 0.00 | | | | 0.85 | | | 0.91 |
| Peak Hour Factor | 0.00 | 0.75 | 0.84 | 0.00 | 0.00 | 0.00 | 0.85 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.93 | 0.00 | 0.47 | 0.91 |

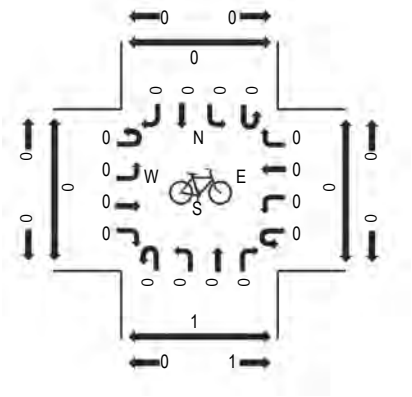
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 2 CLEARLAKE ROAD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

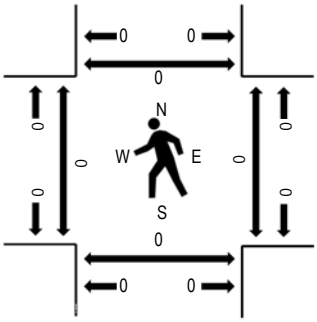
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 6 | 45 | 0 | 0 | 0 | 43 | 36 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 4 | 192 | 731 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 3 | 41 | 0 | 0 | 0 | 41 | 34 | 0 | 0 | 0 | 0 | 0 | 55 | 0 | 8 | 182 | 711 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 6 | 39 | 0 | 0 | 0 | 44 | 31 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 11 | 176 | 725 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 6 | 45 | 0 | 0 | 0 | 43 | 43 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 7 | 181 | 735 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 6 | 37 | 0 | 0 | 0 | 54 | 27 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 5 | 172 | 750 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 3 | 43 | 0 | 0 | 0 | 63 | 38 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 6 | 196 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 8 | 42 | 0 | 0 | 0 | 52 | 29 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 8 | 186 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 5 | 35 | 0 | 0 | 0 | 50 | 48 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 6 | 196 | | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 22 | 154 | 0 | 0 | 0 | 215 | 142 | 0 | 0 | 0 | 0 | 0 | 182 | 0 | 25 | 740 |
| Mediums | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 9 |
| Total | 0 | 22 | 157 | 0 | 0 | 0 | 219 | 142 | 0 | 0 | 0 | 0 | 0 | 185 | 0 | 25 | 750 |

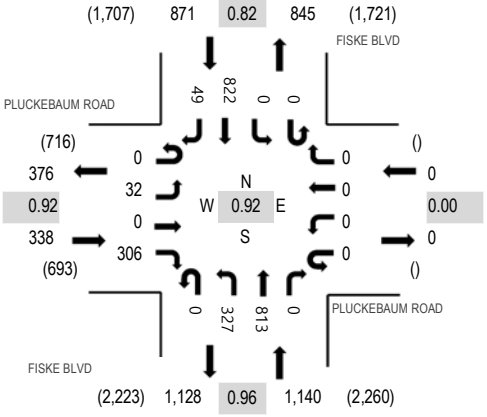
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | | 1.7% | | | | 1.1% | | | | 0.0% | | | | 1.4% | | 1.3% |
| Heavy Vehicle % | 0.0% | 0.0% | 1.9% | 0.0% | 0.0% | 0.0% | 1.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.6% | 0.0% | 0.0% | 1.3% |
| Peak Hour Factor | | | 0.94 | | | | 0.89 | | | | 0.00 | | | | 0.89 | | 0.96 |
| Peak Hour Factor | 0.00 | 0.72 | 0.94 | 0.00 | 0.00 | 0.00 | 0.87 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.84 | 0.00 | 0.70 | 0.96 |

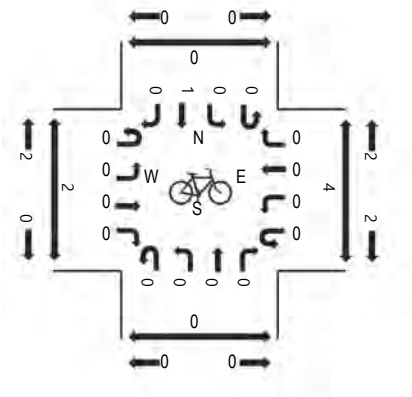
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 3 FISKE BLVD & PLUCKEBAUM ROAD PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 05:00 PM
**Peak 15-Minutes:** 05:15 PM - 05:30 PM

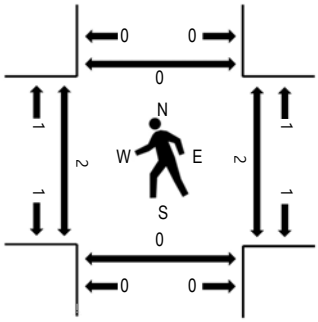
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | PLUCKEBAUM ROAD Eastbound | | | | PLUCKEBAUM ROAD Westbound | | | | FISKE BLVD Northbound | | | | FISKE BLVD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 14 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 74 | 213 | 0 | 0 | 0 | 207 | 9 | 599 | 2,311 | 0 | 2 | 0 | 0 |
| 4:15 PM | 0 | 16 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 64 | 205 | 0 | 0 | 0 | 175 | 15 | 552 | 2,244 | 0 | 3 | 0 | 0 |
| 4:30 PM | 0 | 10 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 73 | 228 | 0 | 0 | 0 | 199 | 15 | 604 | 2,330 | 1 | 5 | 0 | 0 |
| 4:45 PM | 0 | 3 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 76 | 187 | 0 | 0 | 0 | 202 | 14 | 556 | 2,302 | 1 | 1 | 0 | 0 |
| 5:00 PM | 0 | 7 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 79 | 191 | 0 | 0 | 0 | 177 | 12 | 532 | 2,349 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 8 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 84 | 194 | 0 | 0 | 0 | 257 | 13 | 638 | | 2 | 1 | 0 | 0 |
| 5:30 PM | 0 | 5 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 80 | 217 | 0 | 0 | 0 | 186 | 9 | 576 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 12 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 84 | 211 | 0 | 0 | 0 | 202 | 15 | 603 | | 0 | 1 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Lights | 0 | 32 | 0 | 302 | 0 | 0 | 0 | 0 | 0 | 322 | 804 | 0 | 0 | 0 | 809 | 49 | 2,318 |
| Mediums | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 9 | 0 | 0 | 0 | 13 | 0 | 30 |
| Total | 0 | 32 | 0 | 306 | 0 | 0 | 0 | 0 | 0 | 327 | 813 | 0 | 0 | 0 | 822 | 49 | 2,349 |

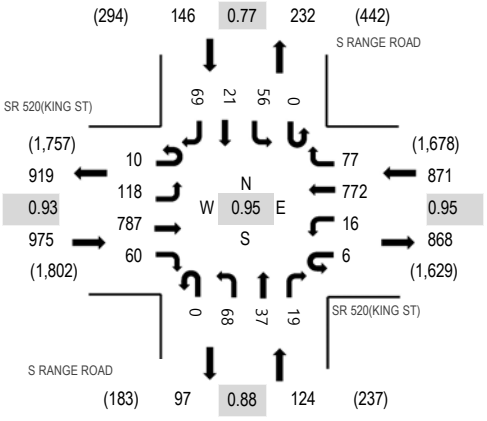
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 1.2% | | | | 0.0% | | | | 1.2% | | | | 1.5% | | | 1.3% |
| Heavy Vehicle % | 0.0% | 0.0% | 0.0% | 1.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.5% | 1.1% | 0.0% | 0.0% | 0.0% | 1.6% | 0.0% | 1.3% |
| Peak Hour Factor | | 0.92 | | | | 0.00 | | | | 0.96 | | | | 0.82 | | | 0.92 |
| Peak Hour Factor | 0.00 | 0.67 | 0.00 | 0.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | 0.91 | 0.00 | 0.00 | 0.00 | 0.81 | 0.93 | 0.92 |

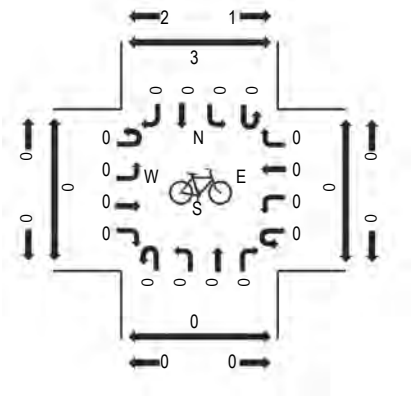
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 4 S RANGE ROAD & SR 520(KING ST) PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 04:45 PM - 05:45 PM
**Peak 15-Minutes:** 05:30 PM - 05:45 PM

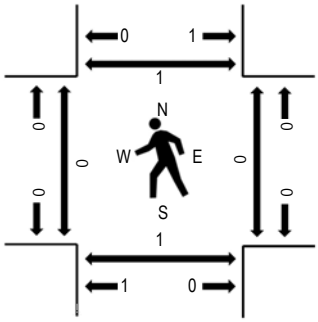
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | S RANGE ROAD Northbound | | | | S RANGE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 3 | 23 | 153 | 15 | 2 | 2 | 179 | 16 | 0 | 11 | 10 | 4 | 0 | 21 | 10 | 13 | 462 | 1,954 | 0 | 0 | 1 | 0 |
| 4:15 PM | 2 | 33 | 176 | 9 | 4 | 1 | 198 | 17 | 0 | 13 | 10 | 7 | 0 | 18 | 13 | 18 | 519 | 2,006 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 18 | 169 | 10 | 0 | 5 | 190 | 14 | 0 | 17 | 9 | 1 | 0 | 13 | 7 | 7 | 462 | 2,021 | 0 | 0 | 0 | 0 |
| 4:45 PM | 4 | 30 | 177 | 16 | 1 | 5 | 200 | 18 | 0 | 12 | 10 | 7 | 0 | 14 | 7 | 10 | 511 | 2,116 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 29 | 195 | 6 | 1 | 1 | 189 | 19 | 0 | 19 | 8 | 8 | 0 | 16 | 5 | 18 | 514 | 2,057 | 0 | 0 | 0 | 0 |
| 5:15 PM | 2 | 29 | 208 | 18 | 2 | 6 | 172 | 28 | 0 | 16 | 6 | 2 | 0 | 15 | 5 | 25 | 534 | | 0 | 0 | 1 | 1 |
| 5:30 PM | 4 | 30 | 207 | 20 | 2 | 4 | 211 | 12 | 0 | 21 | 13 | 2 | 0 | 11 | 4 | 16 | 557 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 32 | 174 | 8 | 2 | 2 | 156 | 19 | 0 | 17 | 9 | 5 | 0 | 12 | 4 | 12 | 452 | | 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 | 2 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 |
| Lights | 9 | 109 | 761 | 51 | 5 | 15 | 758 | 72 | 0 | 68 | 35 | 17 | 0 | 52 | 21 | 66 | 2,039 |
| Mediums | 1 | 7 | 21 | 8 | 1 | 1 | 12 | 5 | 0 | 0 | 2 | 2 | 0 | 4 | 0 | 2 | 66 |
| Total | 10 | 118 | 787 | 60 | 6 | 16 | 772 | 77 | 0 | 68 | 37 | 19 | 0 | 56 | 21 | 69 | 2,116 |

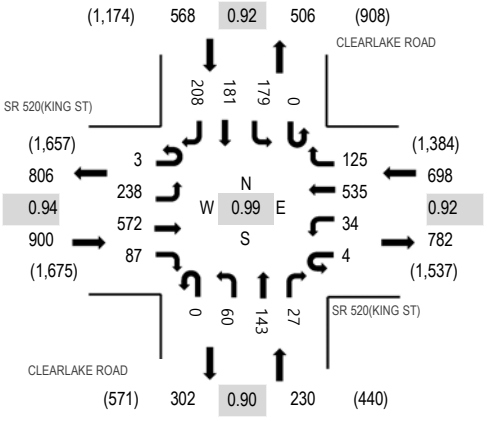
## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | | 4.6% | | | | 2.4% | | | | 3.2% | | | | 4.8% | | 3.6% |
| Heavy Vehicle % | 10.0% | 7.6% | 3.3% | 15.0% | 16.7% | 6.3% | 1.8% | 6.5% | 0.0% | 0.0% | 5.4% | 10.5% | 0.0% | 7.1% | 0.0% | 4.3% | 3.6% |
| Peak Hour Factor | | | 0.93 | | | | 0.95 | | | | 0.88 | | | | 0.77 | | 0.95 |
| Peak Hour Factor | 0.69 | 0.94 | 0.95 | 0.75 | 0.44 | 0.71 | 0.97 | 0.71 | 0.00 | 0.87 | 0.98 | 0.72 | 0.00 | 0.79 | 0.71 | 0.71 | 0.95 |

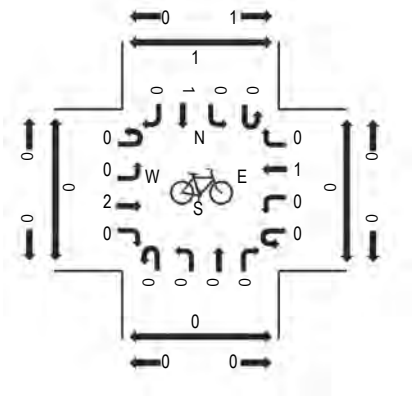
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

**Location:** 5 CLEARLAKE ROAD & SR 520(KING ST) PM
**Date:** Thursday, November 2, 2023
**Peak Hour:** 05:00 PM - 06:00 PM
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

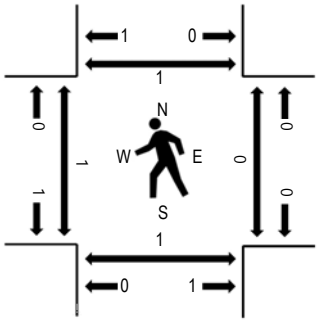
## Peak Hour - Motorized Vehicles




## Peak Hour - Bicycles




## Peak Hour - Pedestrians




Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval Start Time | SR 520(KING ST) Eastbound | | | | SR 520(KING ST) Westbound | | | | CLEARLAKE ROAD Northbound | | | | CLEARLAKE ROAD Southbound | | | | | Rolling Hour | Pedestrian Crossings | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | Total | | West | East | South | North |
| 4:00 PM | 0 | 46 | 129 | 23 | 2 | 5 | 122 | 20 | 0 | 19 | 26 | 7 | 0 | 52 | 60 | 53 | 564 | 2,277 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 39 | 136 | 13 | 1 | 5 | 145 | 31 | 0 | 12 | 37 | 9 | 0 | 48 | 41 | 55 | 572 | 2,320 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 42 | 134 | 16 | 2 | 6 | 153 | 21 | 0 | 11 | 26 | 3 | 0 | 53 | 41 | 63 | 571 | 2,352 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 51 | 128 | 18 | 2 | 4 | 144 | 23 | 0 | 14 | 40 | 6 | 0 | 43 | 37 | 60 | 570 | 2,376 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 61 | 149 | 20 | 2 | 9 | 119 | 34 | 0 | 14 | 30 | 7 | 0 | 52 | 49 | 60 | 607 | 2,396 | 1 | 0 | 0 | 1 |
| 5:15 PM | 1 | 63 | 155 | 21 | 0 | 5 | 161 | 28 | 0 | 15 | 39 | 5 | 0 | 38 | 31 | 42 | 604 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 1 | 64 | 123 | 22 | 1 | 7 | 130 | 31 | 0 | 14 | 34 | 8 | 0 | 45 | 54 | 61 | 595 | | 0 | 0 | 1 | 0 |
| 5:45 PM | 0 | 50 | 145 | 24 | 1 | 13 | 125 | 32 | 0 | 17 | 40 | 7 | 0 | 44 | 47 | 45 | 590 | | 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 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 10 |
| Lights | 3 | 236 | 555 | 84 | 4 | 33 | 515 | 123 | 0 | 57 | 141 | 27 | 0 | 175 | 178 | 200 | 2,331 |
| Mediums | 0 | 1 | 14 | 3 | 0 | 0 | 18 | 2 | 0 | 2 | 1 | 0 | 0 | 4 | 2 | 8 | 55 |
| Total | 3 | 238 | 572 | 87 | 4 | 34 | 535 | 125 | 0 | 60 | 143 | 27 | 0 | 179 | 181 | 208 | 2,396 |

## Heavy Vehicle Percentage and Peak Hour Factor

| | 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 | |
| Heavy Vehicle % | | 2.4% | | | | 3.3% | | | | 2.2% | | | | 2.6% | | | 2.7% |
| Heavy Vehicle % | 0.0% | 0.8% | 3.0% | 3.4% | 0.0% | 2.9% | 3.7% | 1.6% | 0.0% | 5.0% | 1.4% | 0.0% | 0.0% | 2.2% | 1.7% | 3.8% | 2.7% |
| Peak Hour Factor | | 0.94 | | | | 0.92 | | | | 0.90 | | | | 0.92 | | | 0.99 |
| Peak Hour Factor | 0.75 | 0.93 | 0.92 | 0.91 | 0.88 | 0.65 | 0.90 | 0.92 | 0.00 | 0.88 | 0.89 | 0.84 | 0.00 | 0.92 | 0.84 | 0.94 | 0.99 |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 1
Station ID: 1
CLEARLAKE ROAD NORTH OF
PLUCKEBAUM ROAD

| Start | 07-Nov-23 | NB | | Hour Totals | | SB | | Hour Totals | | Combined Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Tues | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 1 | 28 | | | 7 | 44 | | | | |
| 12:15 | | 1 | 31 | | | 1 | 44 | | | | |
| 12:30 | | 1 | 31 | | | 2 | 45 | | | | |
| 12:45 | | 1 | 22 | 4 | 112 | 1 | 38 | 11 | 171 | 15 | 283 |
| 01:00 | | 1 | 25 | | | 0 | 39 | | | | |
| 01:15 | | 0 | 24 | | | 1 | 38 | | | | |
| 01:30 | | 1 | 25 | | | 0 | 41 | | | | |
| 01:45 | | 0 | 23 | 2 | 97 | 2 | 38 | 3 | 156 | 5 | 253 |
| 02:00 | | 0 | 32 | | | 2 | 49 | | | | |
| 02:15 | | 0 | 18 | | | 1 | 39 | | | | |
| 02:30 | | 1 | 46 | | | 1 | 45 | | | | |
| 02:45 | | 1 | 40 | 2 | 136 | 1 | 37 | 5 | 170 | 7 | 306 |
| 03:00 | | 0 | 48 | | | 1 | 45 | | | | |
| 03:15 | | 0 | 40 | | | 4 | 40 | | | | |
| 03:30 | | 1 | 34 | | | 0 | 36 | | | | |
| 03:45 | | 0 | 35 | 1 | 157 | 3 | 62 | 8 | 183 | 9 | 340 |
| 04:00 | | 1 | 36 | | | 1 | 74 | | | | |
| 04:15 | | 5 | 49 | | | 5 | 56 | | | | |
| 04:30 | | 5 | 49 | | | 2 | 55 | | | | |
| 04:45 | | 2 | 35 | 13 | 169 | 9 | 58 | 17 | 243 | 30 | 412 |
| 05:00 | | 2 | 35 | | | 5 | 52 | | | | |
| 05:15 | | 6 | 36 | | | 10 | 61 | | | | |
| 05:30 | | 8 | 55 | | | 11 | 59 | | | | |
| 05:45 | | 13 | 47 | 29 | 173 | 22 | 46 | 48 | 218 | 77 | 391 |
| 06:00 | | 7 | 44 | | | 24 | 54 | | | | |
| 06:15 | | 14 | 20 | | | 18 | 45 | | | | |
| 06:30 | | 14 | 34 | | | 34 | 30 | | | | |
| 06:45 | | 20 | 16 | 55 | 114 | 44 | 39 | 120 | 168 | 175 | 282 |
| 07:00 | | 28 | 13 | | | 36 | 22 | | | | |
| 07:15 | | 27 | 22 | | | 40 | 21 | | | | |
| 07:30 | | 27 | 19 | | | 42 | 31 | | | | |
| 07:45 | | 32 | 12 | 114 | 66 | 55 | 23 | 173 | 97 | 287 | 163 |
| 08:00 | | 27 | 11 | | | 46 | 40 | | | | |
| 08:15 | | 29 | 16 | | | 41 | 21 | | | | |
| 08:30 | | 34 | 14 | | | 39 | 18 | | | | |
| 08:45 | | 31 | 10 | 121 | 51 | 47 | 22 | 173 | 101 | 294 | 152 |
| 09:00 | | 43 | 3 | | | 48 | 16 | | | | |
| 09:15 | | 28 | 4 | | | 49 | 19 | | | | |
| 09:30 | | 21 | 8 | | | 30 | 11 | | | | |
| 09:45 | | 22 | 4 | 114 | 19 | 36 | 16 | 163 | 62 | 277 | 81 |
| 10:00 | | 17 | 13 | | | 28 | 8 | | | | |
| 10:15 | | 25 | 6 | | | 34 | 13 | | | | |
| 10:30 | | 24 | 1 | | | 25 | 4 | | | | |
| 10:45 | | 30 | 1 | 96 | 21 | 41 | 4 | 128 | 29 | 224 | 50 |
| 11:00 | | 33 | 2 | | | 39 | 9 | | | | |
| 11:15 | | 25 | 3 | | | 18 | 4 | | | | |
| 11:30 | | 21 | 2 | | | 32 | 2 | | | | |
| 11:45 | | 25 | 4 | 104 | 11 | 28 | 5 | 117 | 20 | 221 | 31 |
| Total | | 655 | 1126 | | | 966 | 1618 | | | 1621 | 2744 |
| Percent | | 36.8% | 63.2% | | | 37.4% | 62.6% | | | 37.1% | 62.9% |
| Grand Total | | 655 | 1126 | | | 966 | 1618 | | | 1621 | 2744 |
| Percent | | 36.8% | 63.2% | | | 37.4% | 62.6% | | | 37.1% | 62.9% |
| ADT | | ADT 4,365 | | AADT 4,365 | | | | | | | |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 2
Station ID: 2
PLUCKEBAUM ROAD WEST OF
CLEARLAKE ROAD

| Start Time | 07-Nov-23 Tues | EB Morning | EB Afternoon | Hour Totals Morning | Hour Totals Afternoon | WB Morning | WB Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 1 | 27 | | | 6 | 41 | | | | |
| 12:15 | | 2 | 37 | | | 2 | 34 | | | | |
| 12:30 | | 1 | 25 | | | 2 | 48 | | | | |
| 12:45 | | 1 | 32 | 5 | 121 | 0 | 44 | 10 | 167 | 15 | 288 |
| 01:00 | | 1 | 38 | | | 0 | 47 | | | | |
| 01:15 | | 1 | 27 | | | 1 | 32 | | | | |
| 01:30 | | 1 | 30 | | | 0 | 37 | | | | |
| 01:45 | | 0 | 27 | 3 | 122 | 1 | 23 | 2 | 139 | 5 | 261 |
| 02:00 | | 0 | 39 | | | 1 | 42 | | | | |
| 02:15 | | 1 | 35 | | | 0 | 36 | | | | |
| 02:30 | | 0 | 37 | | | 1 | 35 | | | | |
| 02:45 | | 1 | 49 | 2 | 160 | 1 | 45 | 3 | 158 | 5 | 318 |
| 03:00 | | 1 | 43 | | | 2 | 56 | | | | |
| 03:15 | | 4 | 46 | | | 2 | 47 | | | | |
| 03:30 | | 2 | 42 | | | 2 | 43 | | | | |
| 03:45 | | 0 | 46 | 7 | 177 | 2 | 47 | 8 | 193 | 15 | 370 |
| 04:00 | | 3 | 48 | | | 1 | 53 | | | | |
| 04:15 | | 4 | 48 | | | 2 | 49 | | | | |
| 04:30 | | 6 | 49 | | | 3 | 59 | | | | |
| 04:45 | | 3 | 50 | 16 | 195 | 1 | 62 | 7 | 223 | 23 | 418 |
| 05:00 | | 2 | 49 | | | 4 | 71 | | | | |
| 05:15 | | 7 | 47 | | | 7 | 65 | | | | |
| 05:30 | | 7 | 53 | | | 5 | 59 | | | | |
| 05:45 | | 9 | 43 | 25 | 192 | 12 | 40 | 28 | 235 | 53 | 427 |
| 06:00 | | 15 | 32 | | | 12 | 36 | | | | |
| 06:15 | | 27 | 34 | | | 16 | 33 | | | | |
| 06:30 | | 26 | 17 | | | 19 | 31 | | | | |
| 06:45 | | 39 | 19 | 107 | 102 | 25 | 28 | 72 | 128 | 179 | 230 |
| 07:00 | | 42 | 20 | | | 21 | 20 | | | | |
| 07:15 | | 55 | 15 | | | 32 | 13 | | | | |
| 07:30 | | 53 | 9 | | | 47 | 20 | | | | |
| 07:45 | | 76 | 14 | 226 | 58 | 36 | 13 | 136 | 66 | 362 | 124 |
| 08:00 | | 55 | 11 | | | 42 | 18 | | | | |
| 08:15 | | 39 | 21 | | | 39 | 14 | | | | |
| 08:30 | | 44 | 11 | | | 47 | 10 | | | | |
| 08:45 | | 45 | 4 | 183 | 47 | 39 | 15 | 167 | 57 | 350 | 104 |
| 09:00 | | 45 | 13 | | | 29 | 20 | | | | |
| 09:15 | | 32 | 7 | | | 42 | 11 | | | | |
| 09:30 | | 27 | 13 | | | 31 | 7 | | | | |
| 09:45 | | 37 | 9 | 141 | 42 | 25 | 10 | 127 | 48 | 268 | 90 |
| 10:00 | | 24 | 6 | | | 28 | 5 | | | | |
| 10:15 | | 23 | 5 | | | 31 | 5 | | | | |
| 10:30 | | 32 | 5 | | | 35 | 8 | | | | |
| 10:45 | | 26 | 5 | 105 | 21 | 32 | 2 | 126 | 20 | 231 | 41 |
| 11:00 | | 33 | 0 | | | 26 | 3 | | | | |
| 11:15 | | 21 | 0 | | | 31 | 9 | | | | |
| 11:30 | | 26 | 4 | | | 27 | 1 | | | | |
| 11:45 | | 36 | 4 | 116 | 8 | 30 | 4 | 114 | 17 | 230 | 25 |
| Total | | 936 | 1245 | | | 800 | 1451 | | | 1736 | 2696 |
| Percent | | 42.9% | 57.1% | | | 35.5% | 64.5% | | | 39.2% | 60.8% |
| Grand Total | | 936 | 1245 | | | 800 | 1451 | | | 1736 | 2696 |
| Percent | | 42.9% | 57.1% | | | 35.5% | 64.5% | | | 39.2% | 60.8% |
| ADT | | ADT 4,432 | | AADT 4,432 | | | | | | | |

# *All Traffic Data Services, Inc.*

WWW.ALLTRAFFICDATA.NET

Site Code: 3
Station ID: 3
PLUCKEBAUM ROAD EAST OF
CLEARLAKE ROAD

| Start Time | 07-Nov-23 Tues | EB Morning | EB Afternoon | Hour Totals Morning | Hour Totals Afternoon | WB Morning | WB Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 7 | 59 | | | 6 | 57 | | | | |
| 12:15 | | 3 | 67 | | | 3 | 52 | | | | |
| 12:30 | | 3 | 55 | | | 3 | 65 | | | | |
| 12:45 | | 2 | 63 | 15 | 244 | 1 | 59 | 13 | 233 | 28 | 477 |
| 01:00 | | 1 | 64 | | | 1 | 59 | | | | |
| 01:15 | | 2 | 58 | | | 1 | 49 | | | | |
| 01:30 | | 1 | 66 | | | 1 | 57 | | | | |
| 01:45 | | 2 | 57 | 6 | 245 | 1 | 38 | 4 | 203 | 10 | 448 |
| 02:00 | | 2 | 70 | | | 1 | 56 | | | | |
| 02:15 | | 2 | 67 | | | 0 | 47 | | | | |
| 02:30 | | 1 | 65 | | | 2 | 64 | | | | |
| 02:45 | | 2 | 74 | 7 | 276 | 2 | 73 | 5 | 240 | 12 | 516 |
| 03:00 | | 2 | 76 | | | 2 | 92 | | | | |
| 03:15 | | 6 | 70 | | | 0 | 71 | | | | |
| 03:30 | | 1 | 70 | | | 2 | 69 | | | | |
| 03:45 | | 3 | 91 | 12 | 307 | 2 | 65 | 6 | 297 | 18 | 604 |
| 04:00 | | 4 | 107 | | | 2 | 74 | | | | |
| 04:15 | | 7 | 93 | | | 5 | 87 | | | | |
| 04:30 | | 5 | 92 | | | 5 | 96 | | | | |
| 04:45 | | 10 | 100 | 26 | 392 | 1 | 89 | 13 | 346 | 39 | 738 |
| 05:00 | | 7 | 88 | | | 6 | 93 | | | | |
| 05:15 | | 11 | 96 | | | 7 | 89 | | | | |
| 05:30 | | 15 | 95 | | | 10 | 97 | | | | |
| 05:45 | | 28 | 82 | 61 | 361 | 22 | 80 | 45 | 359 | 106 | 720 |
| 06:00 | | 35 | 75 | | | 15 | 69 | | | | |
| 06:15 | | 39 | 73 | | | 24 | 47 | | | | |
| 06:30 | | 55 | 40 | | | 28 | 58 | | | | |
| 06:45 | | 78 | 50 | 207 | 238 | 40 | 36 | 107 | 210 | 314 | 448 |
| 07:00 | | 67 | 36 | | | 38 | 27 | | | | |
| 07:15 | | 83 | 35 | | | 47 | 34 | | | | |
| 07:30 | | 82 | 38 | | | 61 | 37 | | | | |
| 07:45 | | 124 | 34 | 356 | 143 | 61 | 22 | 207 | 120 | 563 | 263 |
| 08:00 | | 91 | 50 | | | 59 | 28 | | | | |
| 08:15 | | 75 | 40 | | | 63 | 28 | | | | |
| 08:30 | | 72 | 27 | | | 70 | 22 | | | | |
| 08:45 | | 83 | 25 | 321 | 142 | 61 | 24 | 253 | 102 | 574 | 244 |
| 09:00 | | 82 | 27 | | | 60 | 21 | | | | |
| 09:15 | | 70 | 23 | | | 59 | 12 | | | | |
| 09:30 | | 53 | 24 | | | 48 | 15 | | | | |
| 09:45 | | 68 | 25 | 273 | 99 | 42 | 14 | 209 | 62 | 482 | 161 |
| 10:00 | | 45 | 13 | | | 38 | 17 | | | | |
| 10:15 | | 43 | 17 | | | 42 | 10 | | | | |
| 10:30 | | 51 | 9 | | | 53 | 9 | | | | |
| 10:45 | | 61 | 9 | 200 | 48 | 56 | 3 | 189 | 39 | 389 | 87 |
| 11:00 | | 60 | 9 | | | 47 | 5 | | | | |
| 11:15 | | 31 | 4 | | | 48 | 12 | | | | |
| 11:30 | | 51 | 6 | | | 41 | 3 | | | | |
| 11:45 | | 57 | 7 | 199 | 26 | 48 | 6 | 184 | 26 | 383 | 52 |
| Total | | 1683 | 2521 | | | 1235 | 2237 | | | 2918 | 4758 |
| Percent | | 40.0% | 60.0% | | | 35.6% | 64.4% | | | 38.0% | 62.0% |
| Grand Total | | 1683 | 2521 | | | 1235 | 2237 | | | 2918 | 4758 |
| Percent | | 40.0% | 60.0% | | | 35.6% | 64.4% | | | 38.0% | 62.0% |
| ADT | | ADT 7,676 | | AADT 7,676 | | | | | | | |

# ATTACHMENT C
NCRHP Report 457

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

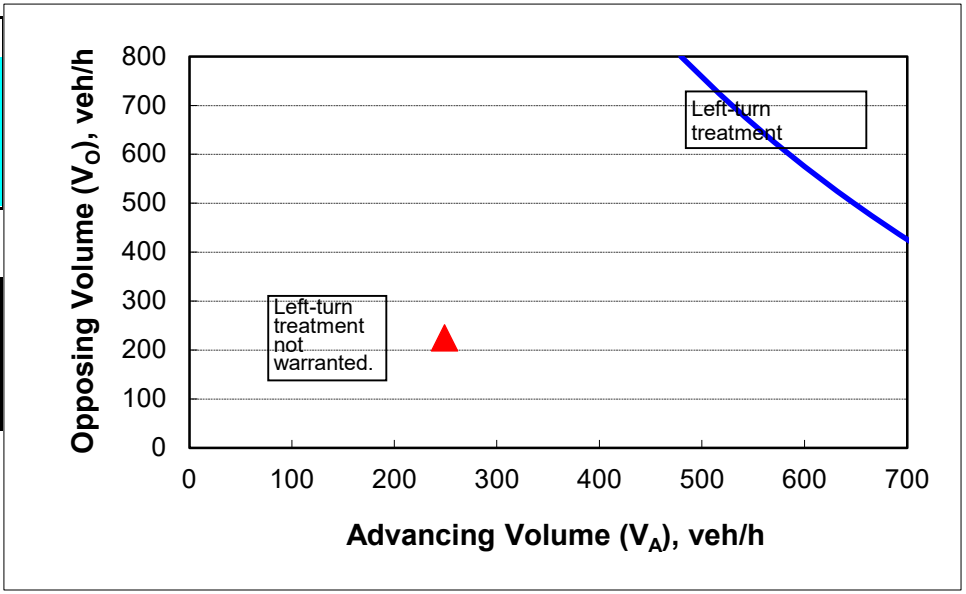
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 40 |
| Percent of left-turns in advancing volume ($V_A$), %: | 2% |
| Advancing volume ($V_A$), veh/h: | 249 |
| Opposing volume ($V_O$), veh/h: | 225 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 871 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

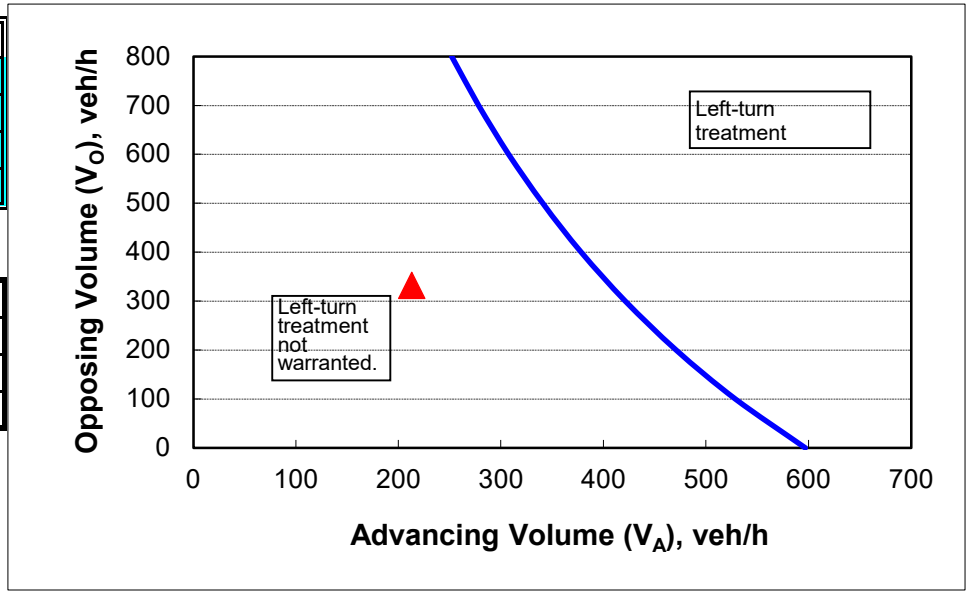
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 40 |
| Percent of left-turns in advancing volume ($V_A$), %: | 9% |
| Advancing volume ($V_A$), veh/h: | 213 |
| Opposing volume ($V_O$), veh/h: | 332 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 407 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

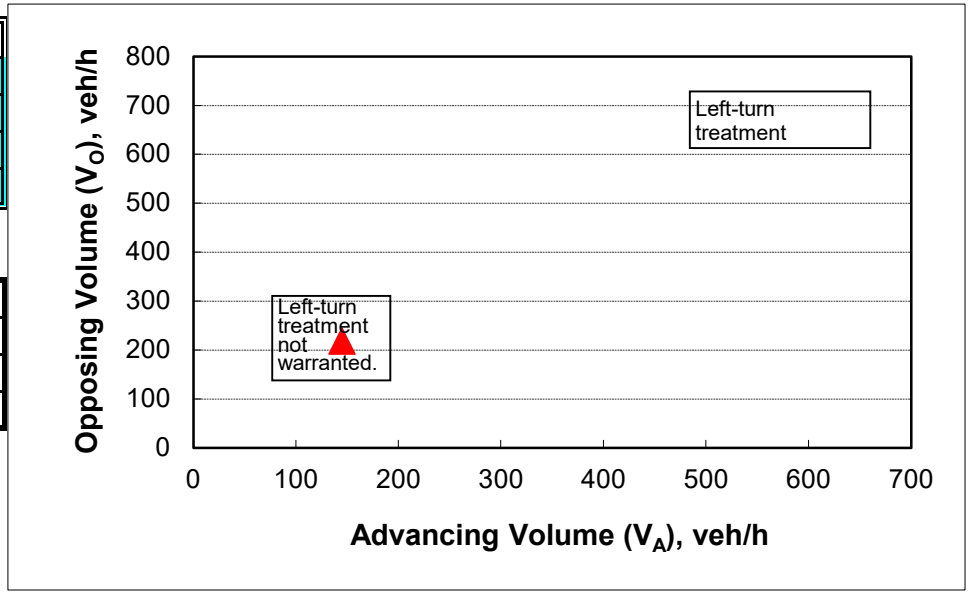
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 30 |
| Percent of left-turns in advancing volume ($V_A$), %: | 1% |
| Advancing volume ($V_A$), veh/h: | 145 |
| Opposing volume ($V_O$), veh/h: | 218 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 1290 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.**

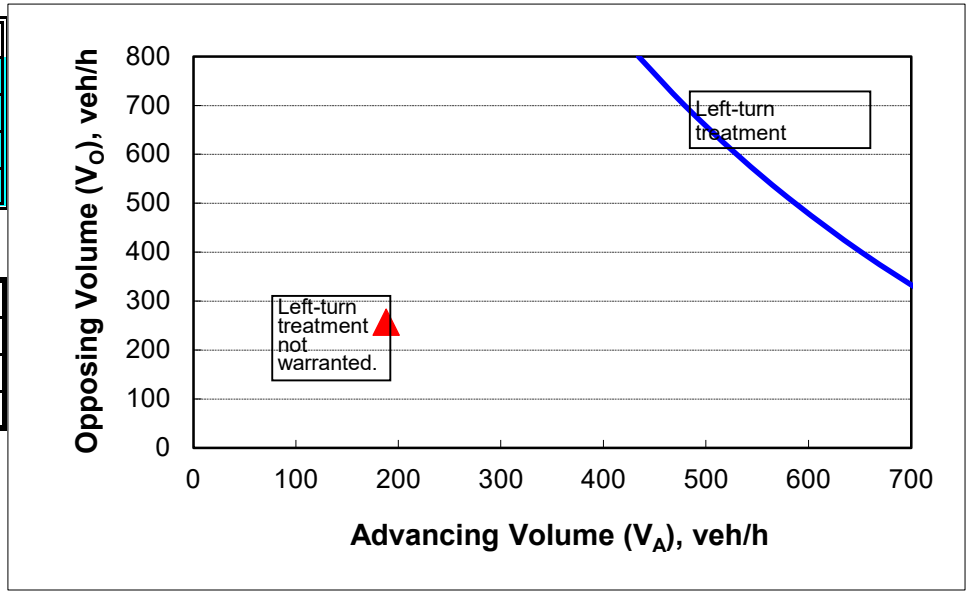
**2-lane roadway (English)**

INPUT

| Variable | Value |
|---|---|
| 85th percentile speed, mph: | 30 |
| Percent of left-turns in advancing volume ($V_A$), %: | 4% |
| Advancing volume ($V_A$), veh/h: | 188 |
| Opposing volume ($V_O$), veh/h: | 257 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting advancing volume ($V_A$), veh/h: | 761 |
| **Guidance for determining the need for a major-road left-turn bay:** | |
| **Left-turn treatment NOT warranted.** | |




CALIBRATION CONSTANTS

| Variable | Value |
|---|---|
| Average time for making left-turn, s: | 3.0 |
| Critical headway, s: | 5.0 |
| Average time for left-turn vehicle to clear the advancing lane, s: | 1.9 |

**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 40 |
| Major-road volume (one direction), veh/h: | 225 |
| Right-turn volume, veh/h: | 23 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 724 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

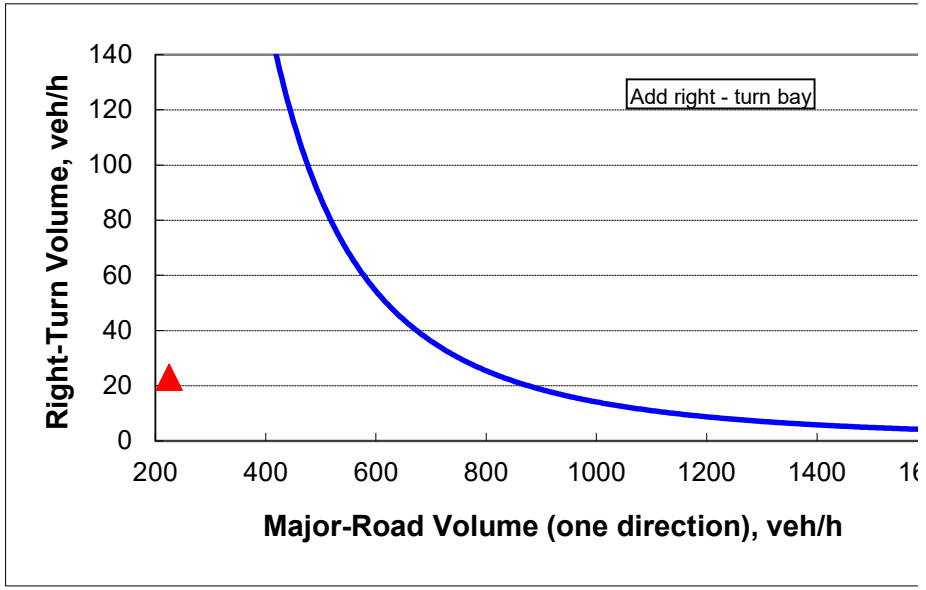


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 40 |
| Major-road volume (one direction), veh/h: | 332 |
| Right-turn volume, veh/h: | 68 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 259 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

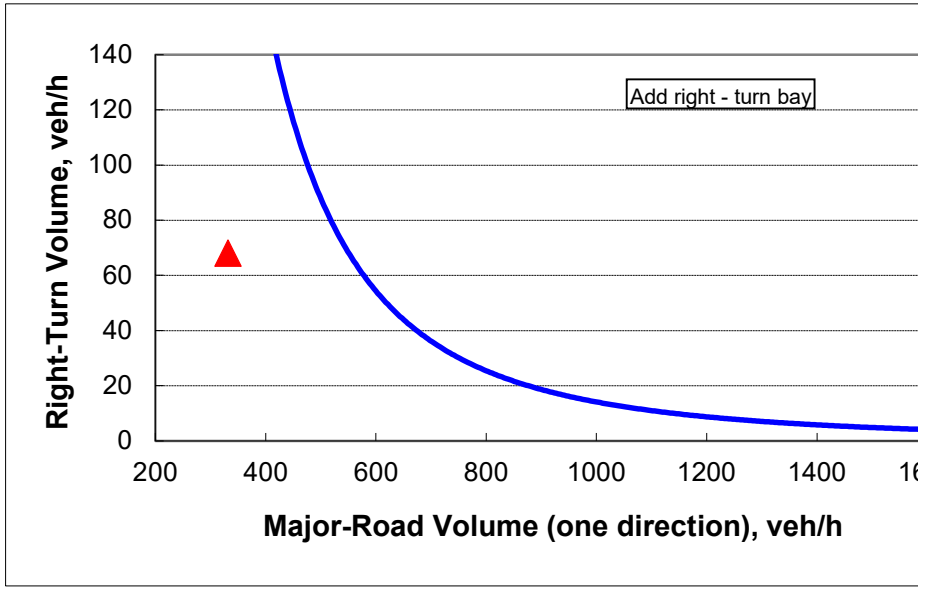


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 30 |
| Major-road volume (one direction), veh/h: | 218 |
| Right-turn volume, veh/h: | 11 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 30122 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |

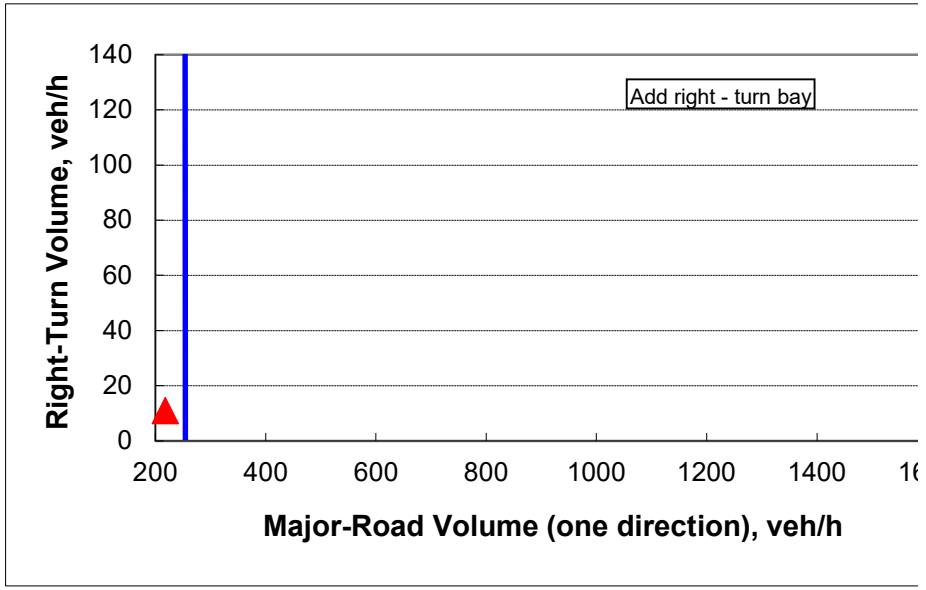


**Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**

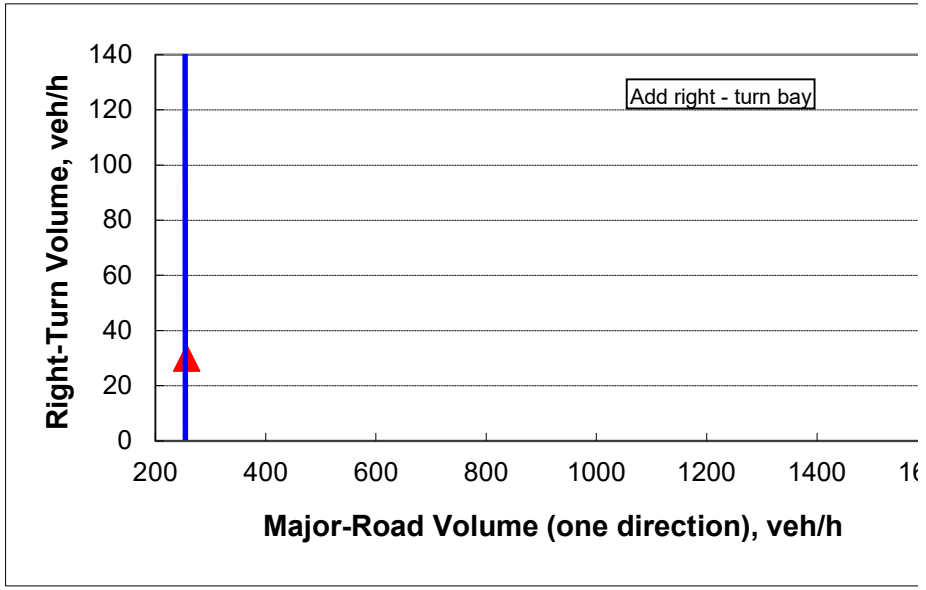
INPUT

| Roadway geometry: | 2-lane road |
|---|---|

| Variable | Value |
|---|---|
| Major-road speed, mph: | 30 |
| Major-road volume (one direction), veh/h: | 257 |
| Right-turn volume, veh/h: | 30 |

OUTPUT

| Variable | Value |
|---|---|
| Limiting right-turn volume, veh/h: | 13628 |
| **Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:** | |
| **Do NOT add right-turn bay.** | |



# ATTACHMENT D

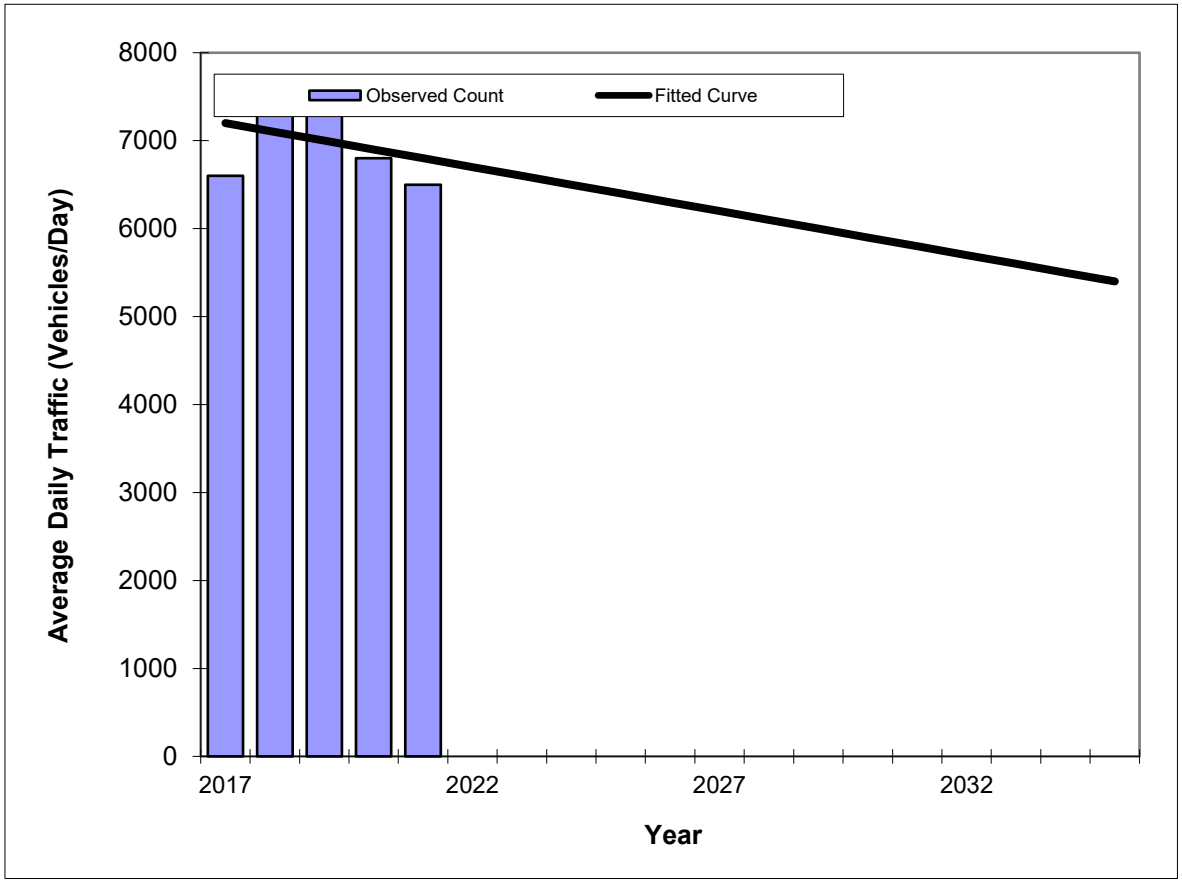
Growth Rates

# Traffic Trends - V2.0

## PLUCKEBAUM RD -- Clearlake to Fiske

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 568 |
| **Highway:** | PLUCKEBAUM RD |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 6600 | 7200 |
| 2018 | 7600 | 7100 |
| 2019 | 7300 | 7000 |
| 2020 | 6800 | 6900 |
| 2021 | 6500 | 6800 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 6700 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 6600 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 6400 |
| **TRANPLAN Forecasts/Trends** | | |

*Axle-Adjusted

| | |
|---|---|
| ** Annual Trend Increase: | -100 |
| Trend R-squared: | 11.21% |
| Trend Annual Historic Growth Rate: | **-1.39%** |
| Trend Growth Rate (2021 to Design Year): | -1.47% |
| Printed: | 29-Jun-22 |

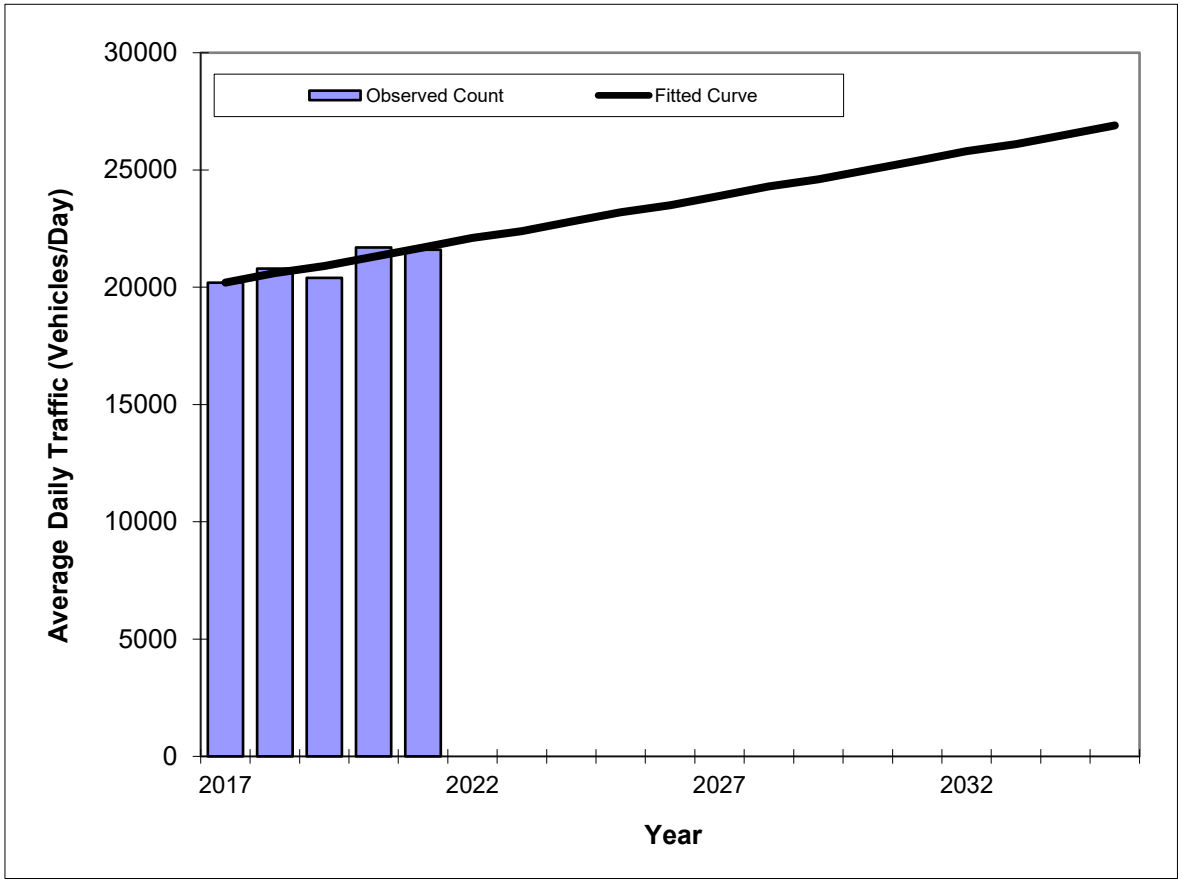
**Straight Line Growth Option**

# Traffic Trends - V2.0

## SR 520 -- Clearlake to Lake

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 4 |
| **Highway:** | SR 520 |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 20200 | 20200 |
| 2018 | 20800 | 20600 |
| 2019 | 20400 | 20900 |
| 2020 | 21700 | 21300 |
| 2021 | 21600 | 21700 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 22100 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 22400 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 23200 |
| **TRANPLAN Forecasts/Trends** | | |

| | |
|---|---|
| ** Annual Trend Increase: | 370 |
| Trend R-squared: | 73.13% |
| Trend Annual Historic Growth Rate: | **1.86%** |
| Trend Growth Rate (2021 to Design Year): | 1.73% |
| Printed: | 6-Jul-22 |

**Straight Line Growth Option**

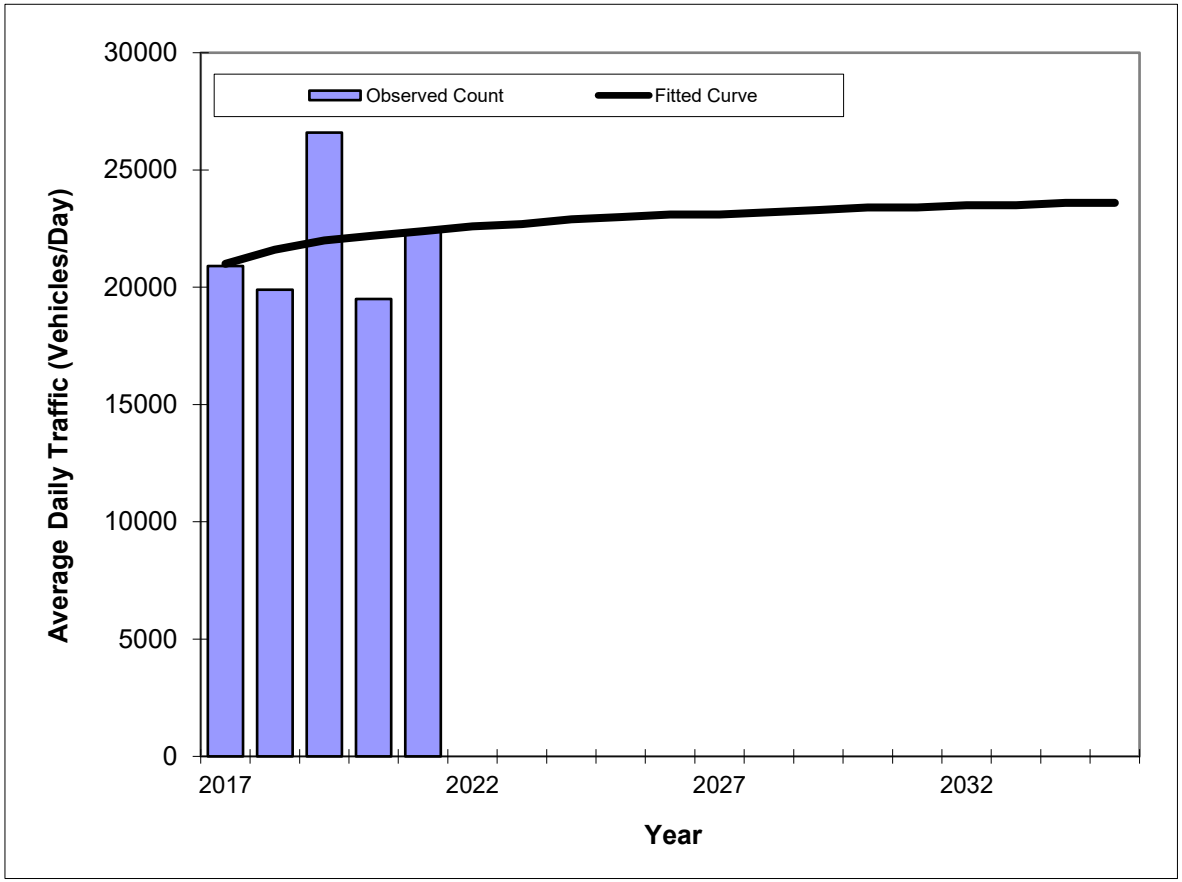
*Axle-Adjusted

# Traffic Trends - V2.0

## SR 520 -- Range to Clearlake

| | |
|---|---|
| PIN# | 0 |
| Location | 1 |

| | |
|---|---|
| **County:** | Brevard (70) |
| **Station #:** | 14 |
| **Highway:** | SR 520 |




| Year | Traffic (ADT/AADT) Count* | Trend** |
|---|---|---|
| 2017 | 20900 | 21000 |
| 2018 | 19900 | 21600 |
| 2019 | 26600 | 22000 |
| 2020 | 19500 | 22200 |
| 2021 | 22400 | 22400 |
| **2022 Opening Year Trend** | | |
| 2022 | N/A | 22600 |
| **2023 Mid-Year Trend** | | |
| 2023 | N/A | 22700 |
| **2025 Design Year Trend** | | |
| 2025 | N/A | 23000 |
| **TRANPLAN Forecasts/Trends** | | |

| | |
|---|---|
| Trend R-squared: | 3.91% |
| Compounded Annual Historic Growth Rate: | **1.63%** |
| Compounded Growth Rate (2021 to Design Year): | 0.66% |
| Printed: | 29-Jun-22 |

**Decaying Exponential Growth Option**

*Axle-Adjusted

LocaliQ
Florida
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PO Box 631244 Cincinnati, OH 45263-1244

# AFFIDAVIT OF PUBLICATION

Kimberly Ravenscroft
Attn: Accounting Division
City Of Cocoa (Te)
65 Stone St
Cocoa FL 32922-7982

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04/22/2025

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Legal Clerk

Notary, State of WI, County of Brown

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CITY OF COCOA
NOTICE OF PUBLIC HEARING
NOTICE IS HEREBY GIVEN THAT
THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY
AND THE COCOA CITY COUNCIL
PROPOSE TO CONSIDER THE FOLLOWING:
PZ24-07000006 PLUCKEBAUM PLANNED UNIT DEVELOPMENT (PRELIMINARY)

Consideration of a Preliminary Planned Unit Development (PUD) consistent with Appendix A, Zoning, Article XI, Section 17, for a 230 single-family residential subdivision on +/- 76.21 acres of property located at the northwest corner of Pluckebaum Road and Clearlake Road in the City of Cocoa.

PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY PUBLIC HEARING WILL BE HELD ON
May 7, 2025
CITY COUNCIL PUBLIC HEARING WILL BE HELD ON
May 27, 2025
ALL HEARINGS WILL TAKE PLACE AT 6:00 P.M. OR SOON THEREAFTER IN THE COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT 65 STONE STREET, COCOA, FL

General Notice Information:
This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk, Monica Arsenault, at least 48 hours prior to the meeting by telephone at (321) 433-8484 or via email at marsenault@cocoafl.org.
The City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and, for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.
The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.
Public Participation Information:
The public may inspect the agenda items, ordinances, and supporting documents at the Community Services Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8451, or on the City's website at the following link prior to the meeting: https://www.cocoafl.gov/291/20338/City-Meetings
Interested persons may submit their written comments or questions prior to the meeting through Email at meetings@cocoafl.org.
Viewing In Real Time. Interested persons may view and listen to the hearings live at the following internet address: https://www.cocoafl.gov/291/20338/City-Meetings The City is not responsible for technical difficulties that may occur while viewing or listening online.