

TRAFFIC IMPACT ASSESSMENT

SEMINOLE TRACE for KOLTER LAND PARTNERS LLC

PALM COAST, FL

ETM No. 21-224-09

SUBMITTED BY

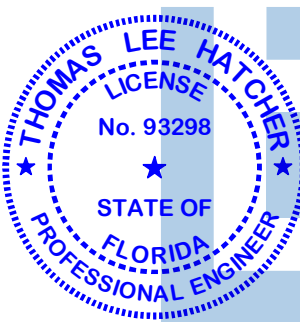


14775 Old St. Augustine Road
Jacksonville, FL 32258
Phone: 904.642.8990
Fax: 904.646.9485

March 11th, 2026

Table of Contents

List of Figures	ii
List of Tables	ii
List of Appendices	iii
Introduction.....	1
Study Methodology.....	1
Significance Calculations.....	4
Existing Conditions.....	6,9
Background Conditions	9
Trip Generation Estimates	12
Traffic Distribution and Assignment Methodology.....	12
Total Traffic Conditions	12
Access Improvements	16
Construction Timing.....	16
Conclusions and Recommendations	17



Digitally signed by Thomas L. Hatcher
DN: CN=Thomas L. Hatcher,
dnQualifier=A01410C0000018D315E2C180000EAAA,
O=ENGLAND THIMS AND MILLER INC., C=US
Reason: I am the author of this document
Date: 2026.03.11 08:45:28-04'00'

THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:
THOMAS L. HATCHER, PE, PTOE, PTP
FLORIDA PE NUMBER 93298

Software: Cube Version 6.4.5, CFRPM v7.0, Synchro/Sim Traffic v. 12

This work is intended solely for Kolter Land Partners LLC and the City of Palm Coast. The scope of work and related responsibilities is as defined in the Client Contract. Any use which a third party makes of the work, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Decisions made or actions taken as a result of our work shall be the responsibility of the parties directly involved in the decisions or action

List of Figures

Figure 1 – Location Map.....	2
Figure 2 – Conceptual Site Plan	3
Figure 3 – Project Traffic Distribution Map.....	5
Figure 4 – Existing AM Peak Hour Turning Movement Volumes (2026).....	7
Figure 5 – Existing PM Peak Hour Turning Movement Volumes (2026).....	8
Figure 6 – Background AM Peak Hour Turning Movement Volumes (2033).....	10
Figure 7 – Background PM Peak Hour Turning Movement Volumes (2033)	11
Figure 8 – Peak Hour Project Traffic Distribution	13
Figure 9 – Total AM Peak Hour Turning Movement Volumes (2033).....	14
Figure 10 – Total PM Peak Hour Turning Movement Volumes (2033).....	15

List of Tables

Table 1 – Gross Trip Generation	1
Table 2 – Significance Calculations	4
Table 3 – Segment – 2026 Existing Traffic Volumes.....	6
Table 4 – Segment – 2033 Background Traffic Volumes	9
Table 5 – Segment – 2033 Total Traffic Volumes	12
Table 6 – Recommended Turn Lane Lengths.....	16

List of Appendices

Appendix A – Traffic Impact Study Methodology

Appendix B – Project Traffic Distribution Model Plot

Appendix C – 2024 Transportation Facility Status Report

Appendix D – Turning Movement Counts

Appendix E – FDOT Seasonal Factor Report

Appendix F – Synchro Printouts - Existing Traffic Conditions

Appendix G – Grand Landings Phase 5 and 6 Traffic Study Report Text

Appendix H – Synchro Printouts - Background Traffic Conditions

Appendix I – Synchro Printouts - Total Traffic Conditions

Appendix J – Volume Calculation Spreadsheet

Appendix K – City of Palm Coast Turn Lane Technical Guidelines November 10, 2020

Introduction

The purpose of this traffic impact assessment is to identify the potential impact of Seminole Trace Development. The proposed project is located in the southern portion of the City of Palm Coast (COPC), south of SR-100 (Moody Boulevard) and the Flagler Executive Airport, on the north side of Seminole Woods Boulevard. **Figure 1** illustrates the location of the project. Seminole Trace will be developed in two phases and consist of approximately 461 single family residential dwelling units (DUs) and approximately 282 multi-family low rise DUs with expected completion by 2033. The proposed development will also be interconnected with Grand Landings Phase 5 & 6 situated to the north. **Figure 2** illustrates the site plan for the Seminole Trace development.

Study Methodology

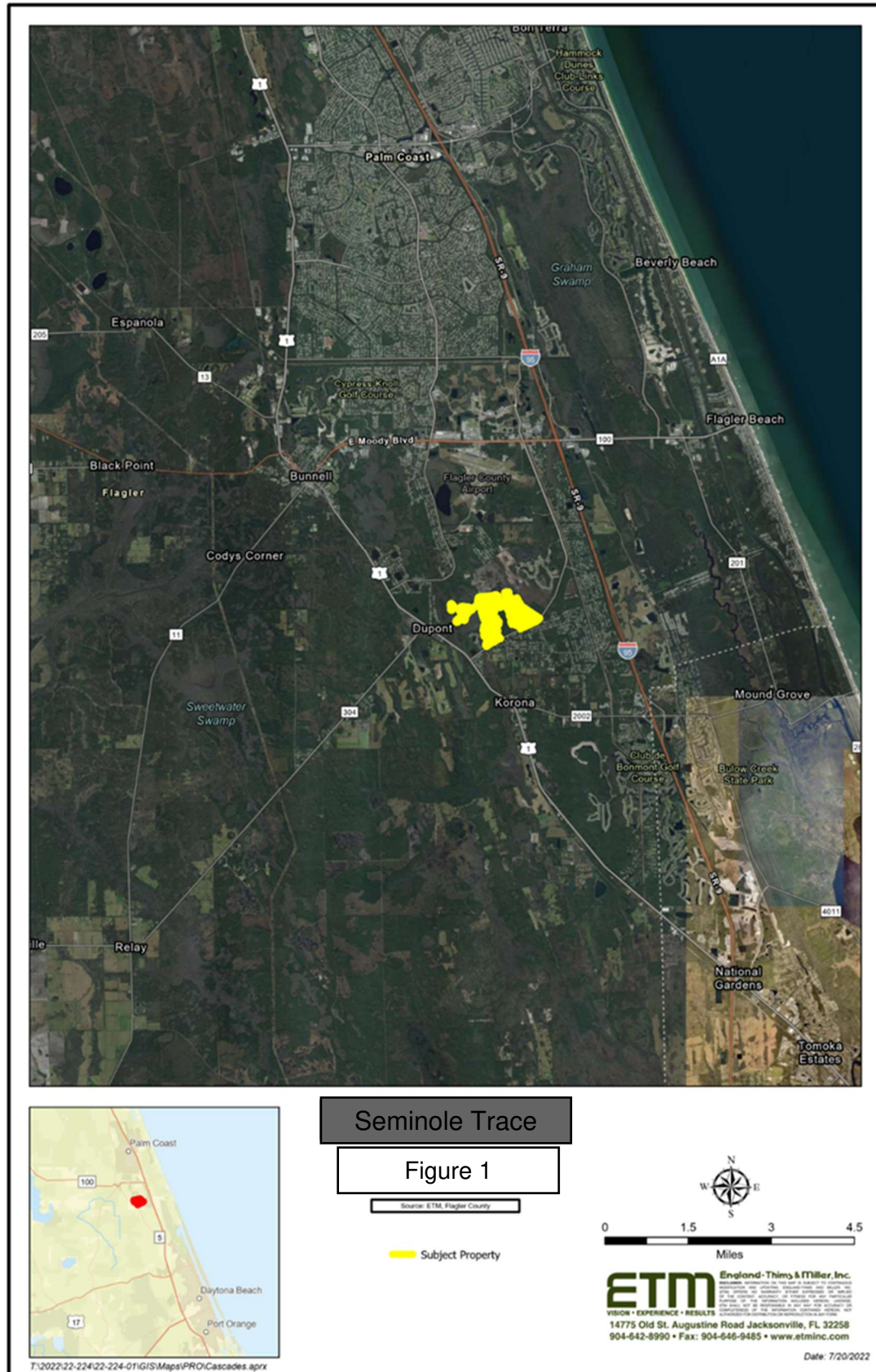
The traffic impact analysis will follow the requirements of the River to Sea TPO, as required by the City of Palm Coast. A detailed methodology was submitted to the City of Palm Coast on June 23, 2023, outlining the specific methodology to be used for this impact assessment. **Appendix A** contains the proposed study methodology. The study area for projects that will generate more than 100 PM peak hour net new external trips is determined where the project is anticipated to consume three percent (3%) or more of the adopted maximum service volume (MSV) on a roadway segment. **Table 1** presents the estimated gross trip generation for the project based on the trip rates and equations from the 12th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, including typical weekday and AM and PM peak hour conditions. As a single use residential project, there will not be any reduction of the gross traffic estimates for internal capture or pass-by traffic.

Table 1
Seminole Trace
Project Trip Generation Estimates

CFRPMv7 TAZ	Land Use Code	Description	Quantity	Units	Trip Generation				
					Period	Rate/Equation	Total	Entering	Exiting
1353	210	Single Family Residential	461	DUs	Daily	$T = 8.07(X) + 265.45$	3,986	1,993	1,993
					AM Peak	$T = 0.67(X) + 5.59$	314	85	229
					PM Peak	$\ln(t) = 0.92\ln(x) + 0.33$	393	244	149
1353	220	Multifamily Housing (Low-Rise) - Not Close to Rail	282	DUs	Daily	$T = 5.63(X) + 120.45$	1,708	854	854
					AM Peak	$T = 0.35(X) + 12.93$	112	27	85
					PM Peak	$T = 0.48(X) + 7.35$	143	89	54
1353	Total		743	DUs	Daily		5,694	2,847	2,847
					AM Peak		426	112	314
					PM Peak		536	333	203

Source: 12th edition of the Institute of Transportation Engineers *Trip Generation Manual*

Figure 1 – Project Location Map



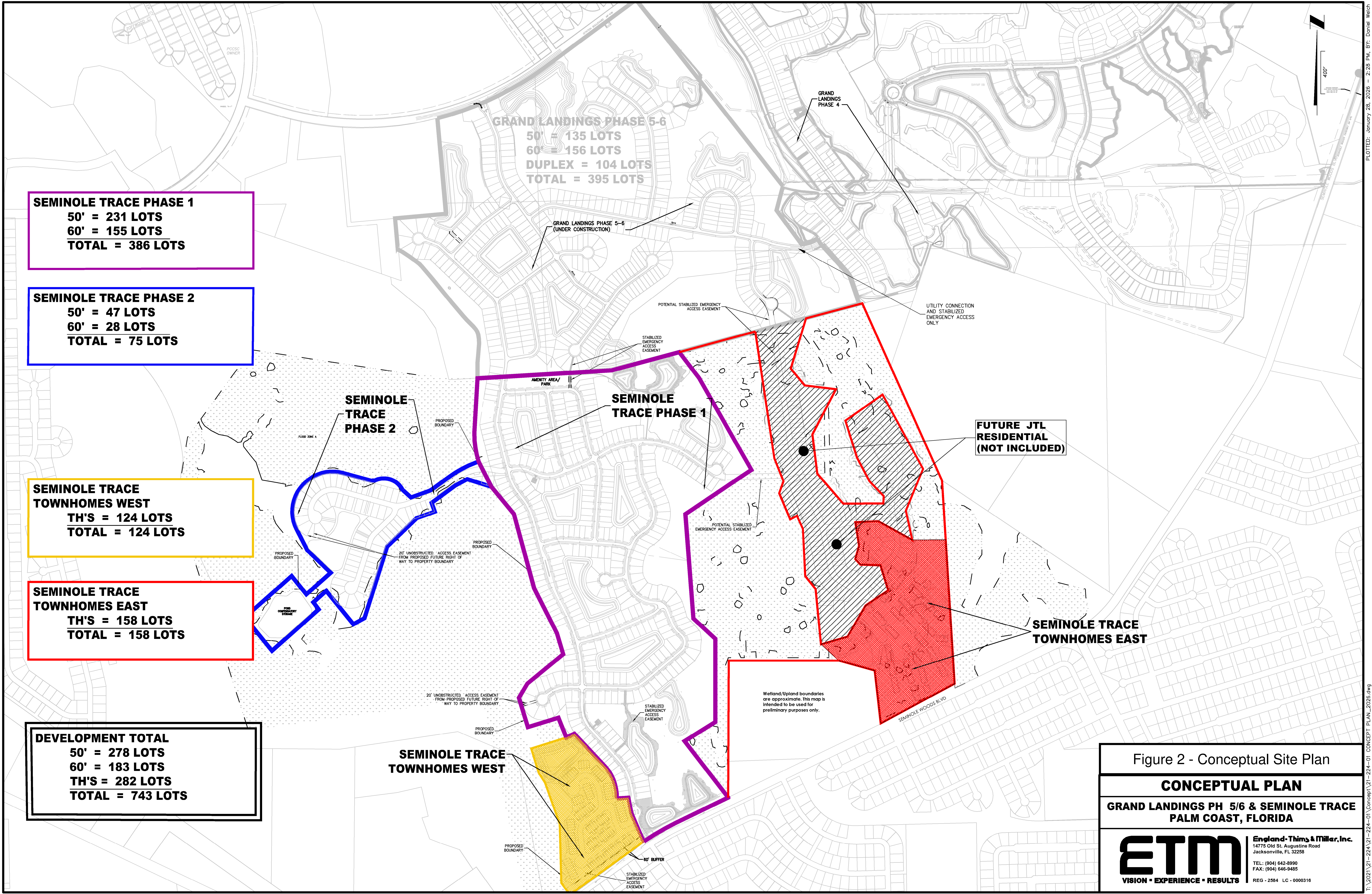


Figure 2 - Conceptual Site Plan

CONCEPTUAL PLAN

**GRAND LANDINGS PH 5/6 & SEMINOLE TRACE
PALM COAST, FLORIDA**



England-Thims & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
REG - 2584 LC - 0000316

Significance Calculations

A select link analysis was conducted for a new traffic analysis zone (TAZ 1351) that contains the land use data for Seminole Trace added to the 2030 data set for version 7 of the Central Florida Regional Planning Model (CFRPMv7). The distribution of project traffic was calculated and used to determine where the project is expected to consume three percent (3%) or more of the adopted MSV. **Figure 3** illustrates the distribution of project traffic while. **Appendix B** contains a printout of the distribution extracted from the CFRPMv7, as well as an AADT printout. The percentage of project traffic was multiplied by the external traffic to be generated by Seminole Trace to calculate the project traffic on each roadway segment in the vicinity of the project. As shown, the addition of the segment of Citation Boulevard extension from its current eastern terminus to Seminole Woods Boulevard does not significantly alter the project traffic distribution. This value was then compared to the MSV to determine if the project will consume three percent (3%) or more of the MSV on each road segment. **Table 2** illustrates these calculations and whether Seminole Trace is significant. **Appendix C** contains the 2024 Transportation Facility Status Report used in the analysis.

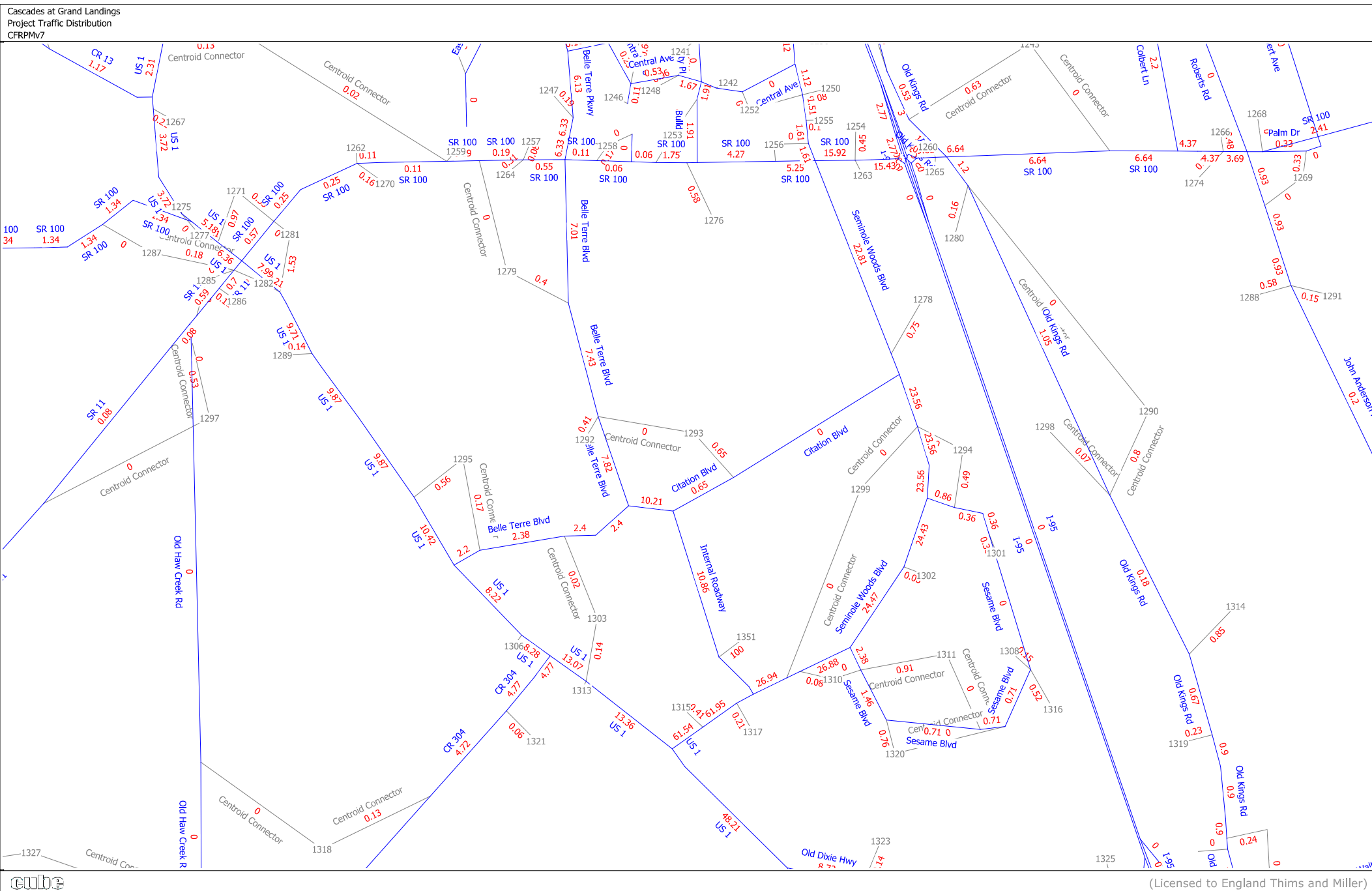
Table 2
Seminole Trace
Significance Calculations

Link	Roadway	Segment	Typical Section	Maintaining Agency	LOS Standard	Peak Hour MSV	Project Traffic Distribution	PM Peak Hour		
						(vph)	(%)	Project Traffic (vph)	Percent MSV (%)	Significant (≥ 3%)
1260	Belle Terre Parkway	East Hampton Boulevard to SR 100	4ln - Div	COPC	D	3,580	6.33%	34	0.95%	NO
1263	Belle Terre Blvd.	SR 100 to Zebulas Trail	2-ln - UnDiv	COPC	D	2,170	7.01%	38	1.75%	NO
1265	Belle Terre Blvd.	Zebulas Trail to Zaun Trail	2-ln - UnDiv	COPC	D	2,170	7.43%	40	1.84%	NO
1270	Belle Terre Blvd.	Zaun Trail to Citation Parkway	2-ln - UnDiv	COPC	D	2,170	7.82%	42	1.94%	NO
1275	Belle Terre Blvd.	Citation Parkway to US 1	2-ln - UnDiv	COPC	D	2,170	2.40%	13	0.60%	NO
4300	Bulldog Drive	SR 100 to Central Avenue	2-ln - UnDiv	COPC	D	1,330	1.91%	10	0.75%	NO
3312	Citation Parkway	Belle Terre Parkway to Laguna Forest Lane	2-ln - UnDiv	COPC	D	2,170	10.21%	55	2.53%	NO
3315	Citation Parkway	Seminole Woods Parkway to Sesame Boulevard	2-ln - UnDiv	COPC	D	2,170	0.86%	5	0.23%	NO
251	I-95 (SR 9)	Palm Coast City Limit to Palm Coast Parkway	6ln - Div	FDOT	C	8,370	0.00%	0	0.00%	NO
292	I-95 (SR 9)	Palm Coast Parkway to SR 100	6ln - Div	FDOT	C	8,370	5.77%	31	0.37%	NO
255	I-95 (SR 9)	SR 100 to Old Dixie Highway	6ln - Div	FDOT	C	8,370	0.00%	0	0.00%	NO
3325	Seminole Woods Parkway	SR 100 to Ulaturn Place	4ln - Div	COPC	D	5,900	22.81%	122	2.07%	NO
3300	Seminole Woods Parkway	Ulaturn Place to Citation Parkway	4ln - Div	COPC	D	5,900	23.56%	126	2.14%	NO
3310	Seminole Woods Parkway	Citation Parkway to Sesame Boulevard	2-ln - UnDiv	COPC	D	2,170	24.47%	131	6.04%	YES
3305	Seminole Woods Parkway	Sesame Boulevard to US 1	2-ln - UnDiv	COPC	D	2,170	62.18%	333	15.35%	YES
3320	Sesame Boulevard	Seminole Woods Parkway to terminus	2-ln - UnDiv	COPC	D	2,170	2.38%	13	0.60%	NO
3560	State Road 100	John Anderson Drive to Colbert Lane	4ln - Div	FDOT	D	3,580	4.37%	23	0.64%	NO
3550	State Road 100	Colbert Lane to Tuscany Blvd.	4ln - Div	FDOT	D	3,580	6.64%	36	1.01%	NO
3540	State Road 100	Tuscany Blvd. to Old Kings Road	4ln - Div	FDOT	D	3,580	6.64%	36	1.01%	NO
3530	State Road 100	Old Kings Road to I-95	4ln - Div	FDOT	D	3,580	9.66%	52	1.45%	NO
3525	State Road 100	I-95 to Memorial Medical Parkway	4ln - Div	FDOT	C	3,420	15.43%	83	2.43%	NO
3520	State Road 100	Memorial Medical Pkwy to Seminole Woods Parkway	4ln - Div	FDOT	C	3,420	15.92%	85	2.49%	NO
3515	State Road 100	Seminole Woods Pkwy to Bulldog Drive	4ln - Div	FDOT	C	3,420	5.25%	28	0.82%	NO
3510	State Road 100	Bulldog Drive to Landings Blvd.	4ln - Div	FDOT	C	3,420	2.36%	13	0.38%	NO
3505	State Road 100	Landings Blvd. to Belle Terre Parkway	4ln - Div	FDOT	C	3,420	0.11%	1	0.03%	NO
3500	State Road 100	Belle Terre Parkway to Palm Coast City Limits	4ln - Div	FDOT	C	3,420	0.55%	3	0.09%	NO
4100	Town Center Blvd.	SR 100 to Hospital Drive	4ln - Div	COPC	D	5,900	1.61%	9	0.15%	NO
101	US1 (SR5)	Palm Coast City Limit to Belle Terre Parkway	4ln - Div	FDOT	D	3,580	10.42%	56	1.56%	NO
3750	US1 (SR5)	Belle Terre Parkway to DuPont Road	4ln - Div	FDOT	D	3,580	8.28%	44	1.23%	NO
3755	US1 (SR5)	DuPont Road to Seminole Woods Parkway	4ln - Div	FDOT	D	3,580	13.36%	72	2.01%	NO
235	US1 (SR5)	Seminole Woods Parkway to Palm Coast City Limit	4ln - Div	FDOT	D	3,580	48.21%	258	7.21%	YES

 = Significantly Impacted Link

Source: 2024 Transportation Facility Status Report, CFRPMv7.0

Figure 3 – Project Traffic Distribution Map



Existing Conditions

As indicated in **Table 2**, the following roadway segment and intersections are significantly impacted by the project and were included in this analysis.

Roadway Segments

- Seminole Woods Parkway from Citation Boulevard to Sesame Boulevard
- Seminole Woods Parkway from Sesame Boulevard to US 1 (SR 5)
- US 1 (SR 5) from Seminole Woods Parkway to Palm Coast City Limits

Intersections

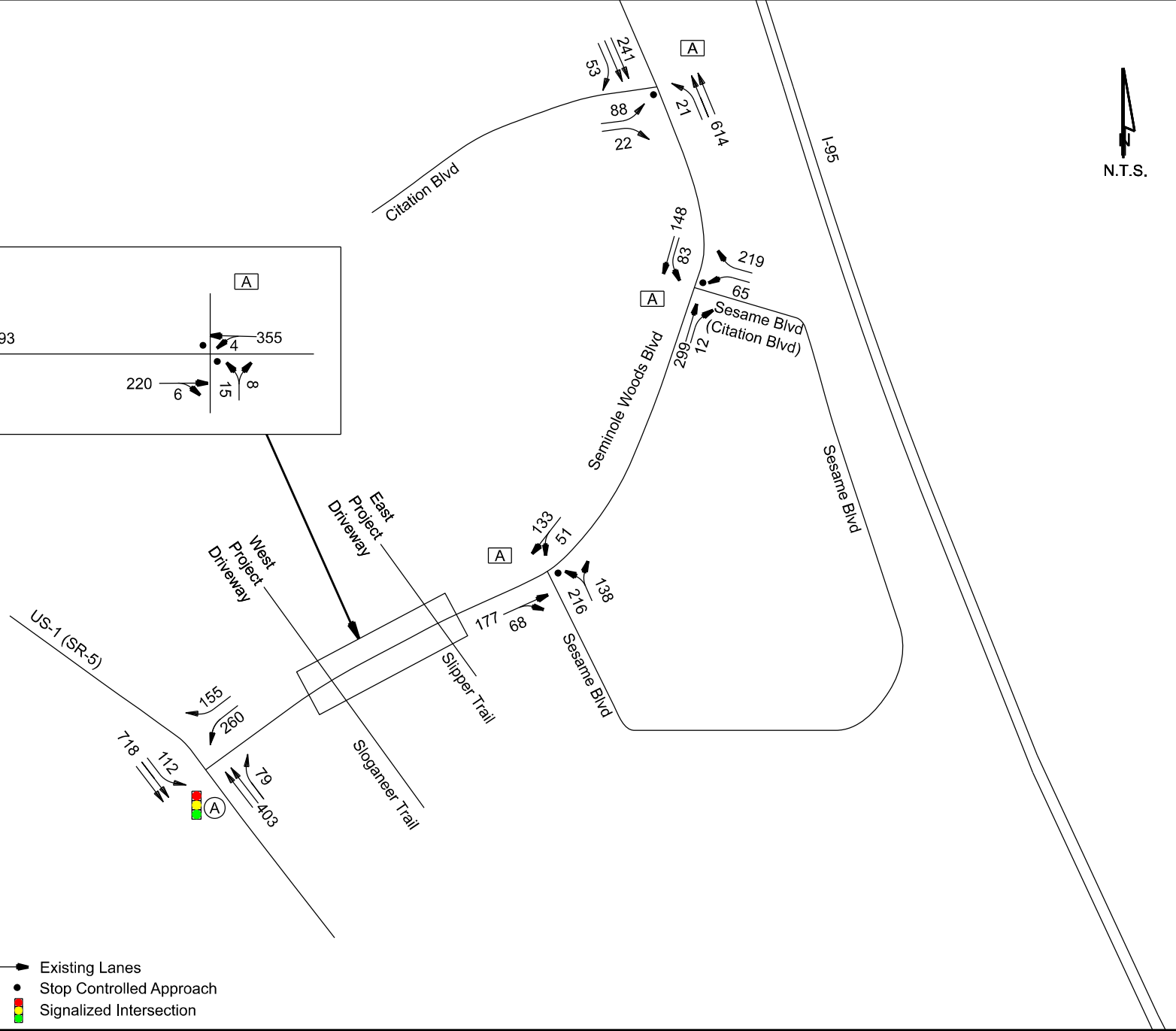
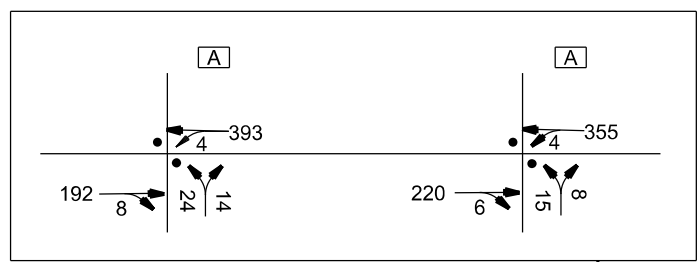
- Citation Boulevard at Seminole Woods Boulevard
- US-1 at Seminole Woods Boulevard
- Seminole Woods Boulevard at Sloganeer Trail (West Project Driveway)
- Seminole Woods Boulevard at Slipper Trail (East Project Driveway)
- Seminole Woods Boulevard and Sesame Boulevard (South)
- Seminole Woods Boulevard and Sesame Boulevard (North)

Traffic counts were collected during the morning (AM) and afternoon (PM) peak hours at the intersection of Seminole Woods Boulevard and Sesame Boulevard (North) on February 26, 2026, while all other intersections were collected during the AM and PM peak hours on February 11, 2026. These counts are presented in **Appendix D. Table 3** depicts the existing PM peak hour traffic on each impacted segment along with the level of service based on the *2024 Transportation Facility Status Report* (TFSR) for the City of Palm Coast (COPC). The segment volumes were taken from the 2024 TFSR as well. Traffic counts were annualized with their respective seasonal factors. **Appendix E** contains the FDOT Seasonal Factor Report. **Figure 4** and **Figure 5** present the existing AM and PM peak hour turning movement volumes at the study intersections, along with the current lane configurations and the corresponding Level of Service (LOS) results. LOS for both peak hours was determined in accordance with the methodologies and procedures outlined in the *Highway Capacity Manual 7th Edition*, with operational analyses performed using *Synchro/SimTraffic* software.

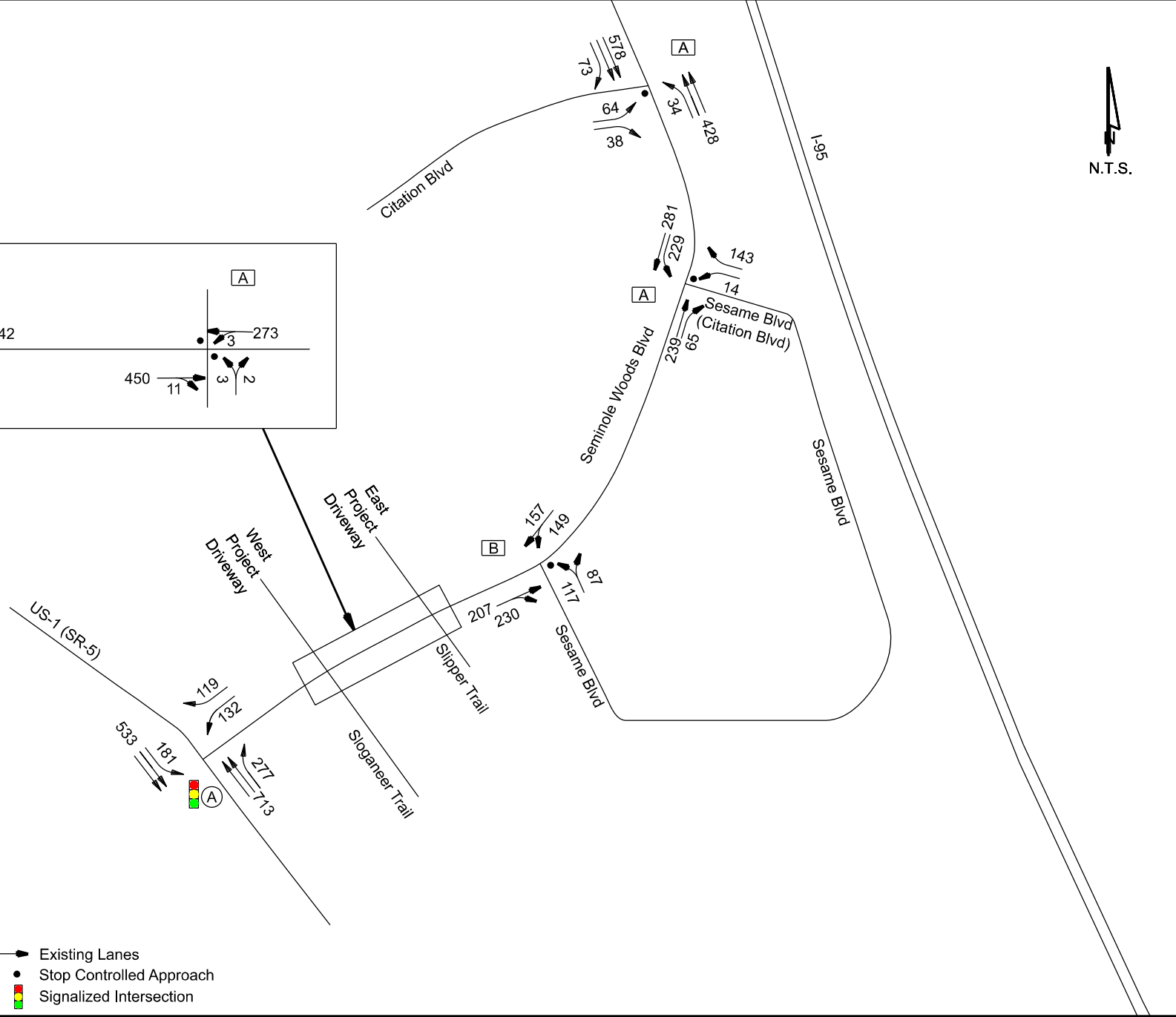
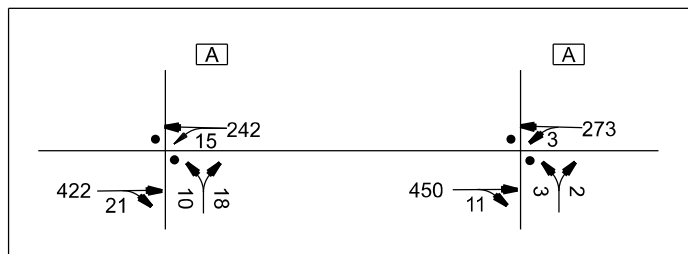
Table 3
Seminole Trace
Segment - 2026 Existing Traffic Volumes

Link	Roadway	Segment	LOS Standard	PM Peak Hour		
				MSV	Existing Volume	Level of Service
				(vph)	(vph)	
3310	Seminole Woods Parkway	Citation Parkway to Sesame Boulevard	D	2,170	918	C
3305	Seminole Woods Parkway	Sesame Boulevard to US 1	D	2,170	994	C
235	US1 (SR5)	Seminole Woods Parkway to Palm Coast City Limit	D	3,580	2,005	C

Source: COPC 2024 Transportation Facility Status Report



- LEGEND**
- XXX Peak Hour Traffic
 - (X) Signalized Level of Service
 - (X) ICU Level of Service
 - Existing Lanes
 - Stop Controlled Approach
 - Signalized Intersection



- LEGEND**
- XXX Peak Hour Traffic
 - (X) Signalized Level of Service
 - (X) ICU Level of Service
 - Existing Lanes
 - Stop Controlled Approach
 - Signalized Intersection



England-Thim & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002584 LC - 0000316

Traffic Impact Assessment Seminole Trace

PM Peak Hour Existing Volumes (2026)

Figure 5

As shown, all the study segments of Seminole Woods Parkway and US-1 (SR-5) are currently operating at an acceptable LOS. The intersection analysis also indicates that the impacted intersections are currently operating at an acceptable level of service. Copies of the Synchro printouts for the AM and PM existing conditions are contained in **Appendix F**.

Background Traffic Estimates

2033 background traffic volume estimates, trips associated with non-project growth, were estimated by adding the PM Peak Hour Vested trips to the existing PM peak hour volumes. The turning movement volumes at the intersections were factored up based on the percentage increase in traffic with the addition of the vested trips on each approach. If the approach isn't included in the Transportation Facilities Status Report or if there were no vested trips, a growth rate of one percent per year (1%/yr) was used to expand the existing turning movement volumes. Grand Landings Phase 5 and 6 was included in the background at the intersection of Citation Blvd & Seminole Woods Blvd. The report text for Grand Landings Phase 5 and 6 traffic study is included in **Appendix G. Table 4** illustrates the background traffic volumes (2033) for the roadway segments on which the project is significant.

As shown in **Table 4**, none of the roadway segments are projected to fail under existing and committed traffic volumes. **Figure 6** and **Figure 7** illustrate the estimated turning movement volumes on the intersections as specified in the methodology for the AM and PM background traffic conditions respectively. **Appendix H** provides the Synchro analysis printouts for both peak periods under background traffic conditions.

Table 4
Seminole Trace
Segment - 2033 Background Traffic Volumes

Link	Roadway	Segment	LOS Standard	PM Peak Hour						
				MSV	Existing Volume	Vested Traffic	Grand Landings 5 & 6	Background Traffic	Growth Factor	Level of Service
				(vph)	(vph)	(vph)	(vph)	(vph)		
3310	Seminole Woods Parkway	Citation Parkway to Sesame Boulevard	D	2,170	918	306	6	1,230	1.333	C
3305	Seminole Woods Parkway	Sesame Boulevard to US 1	D	2,170	994	310	4	1,308	1.312	C
235	US1 (SR5)	Seminole Woods Parkway to Palm Coast City Limit	D	3,580	2,005	325	0	2,330	1.162	C

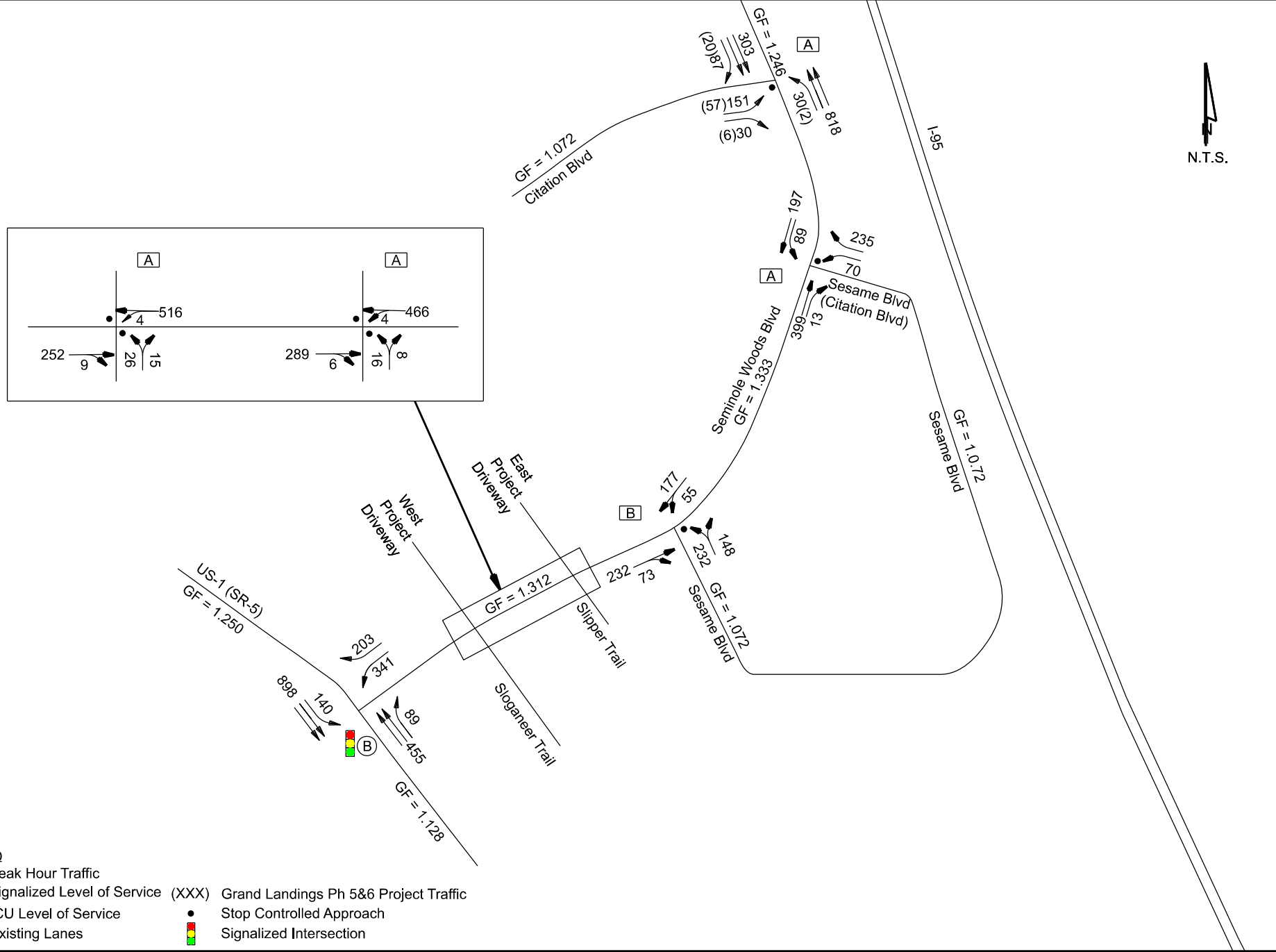
Source: 2024 Transportation Facility Status Report, Grand Landings Phase 5 & 6 Traffic Impact Analysis

Note: Growth Factor calculated by dividing background traffic (without Grand Landings 5 & 6) by existing traffic

Growth Factors used to expand turning movement counts at the study intersections

If the link does not include vested trips, a growth rate of one percent per year (1%/year) was used to expand the turning movement counts

PM peak hour growth factors were applied equivalently to the AM peak hour.

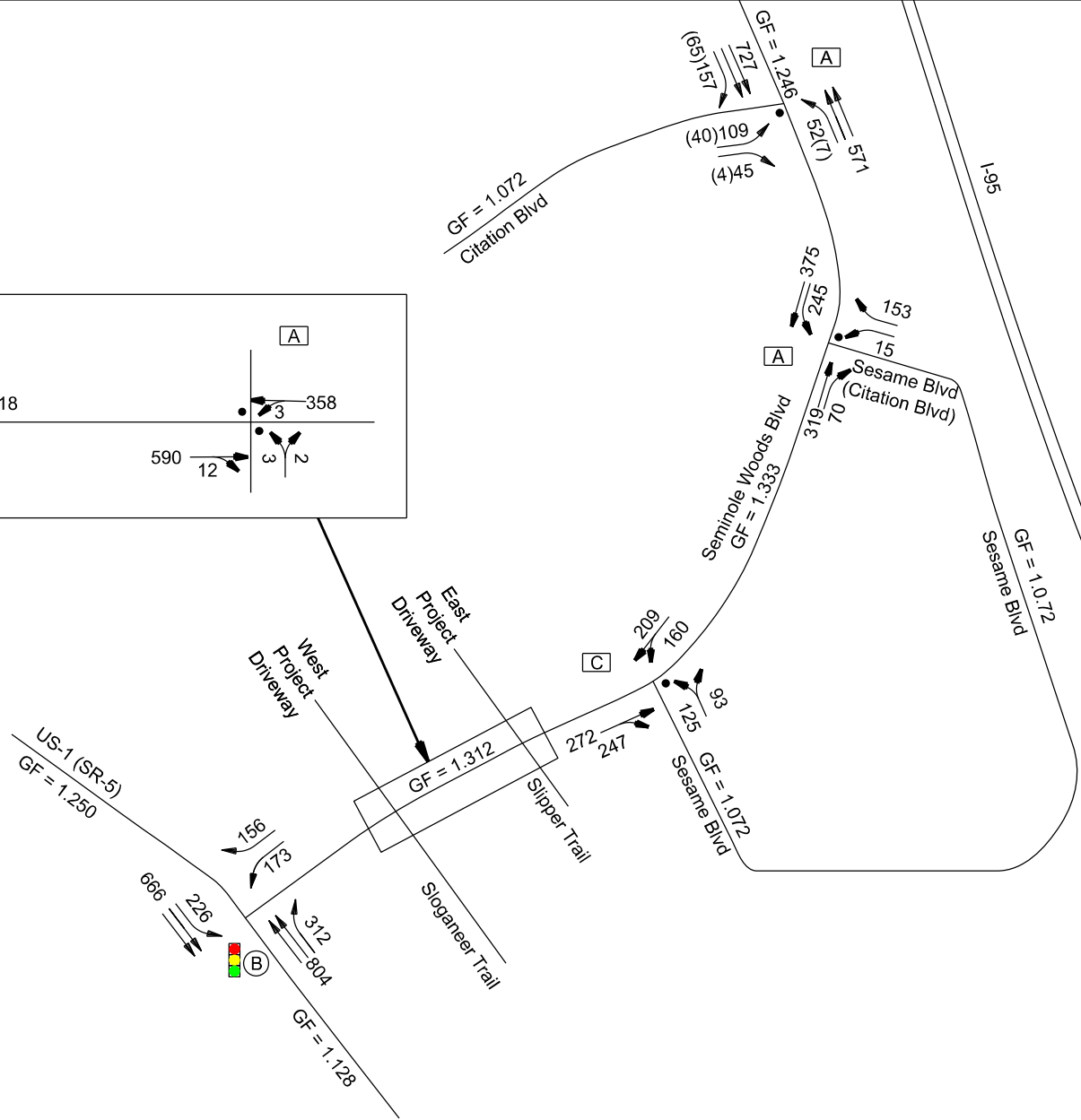
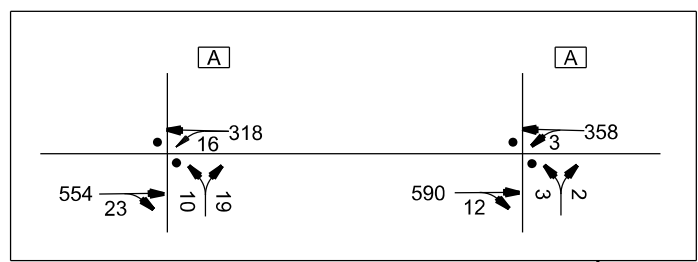


England-Thim & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002584 LC - 0000316

Traffic Impact Assessment Seminole Trace

AM Peak Hour
Background Volumes
(2033)

Figure 6



- LEGEND**
- XXX Peak Hour Traffic
 - (X) Signalized Level of Service (XXX) Grand Landings Ph 5&6 Project Traffic
 - [X] ICU Level of Service
 - Existing Lanes
 - Stop Controlled Approach
 - Signalized Intersection

Trip Generation Estimates

Project traffic volume estimates were developed using the trip generation equations contained in the 12th edition of the Institute of Transportation's (ITE) *Trip Generation Manual*. **Table 1** illustrates the calculation of the gross daily, AM peak hour and PM peak hour traffic associated with the Seminole Trace development.

Traffic Distribution and Assignment Methodology

Total project traffic was assigned to the area roadway network using traffic distribution patterns developed using the CFRPMv7.0. **Figure 8** illustrates the distribution of project traffic at each of the study intersections. Project traffic volumes between the western and eastern driveway onto Seminole Woods Boulevard were pro-rated based off development quantities within phases.

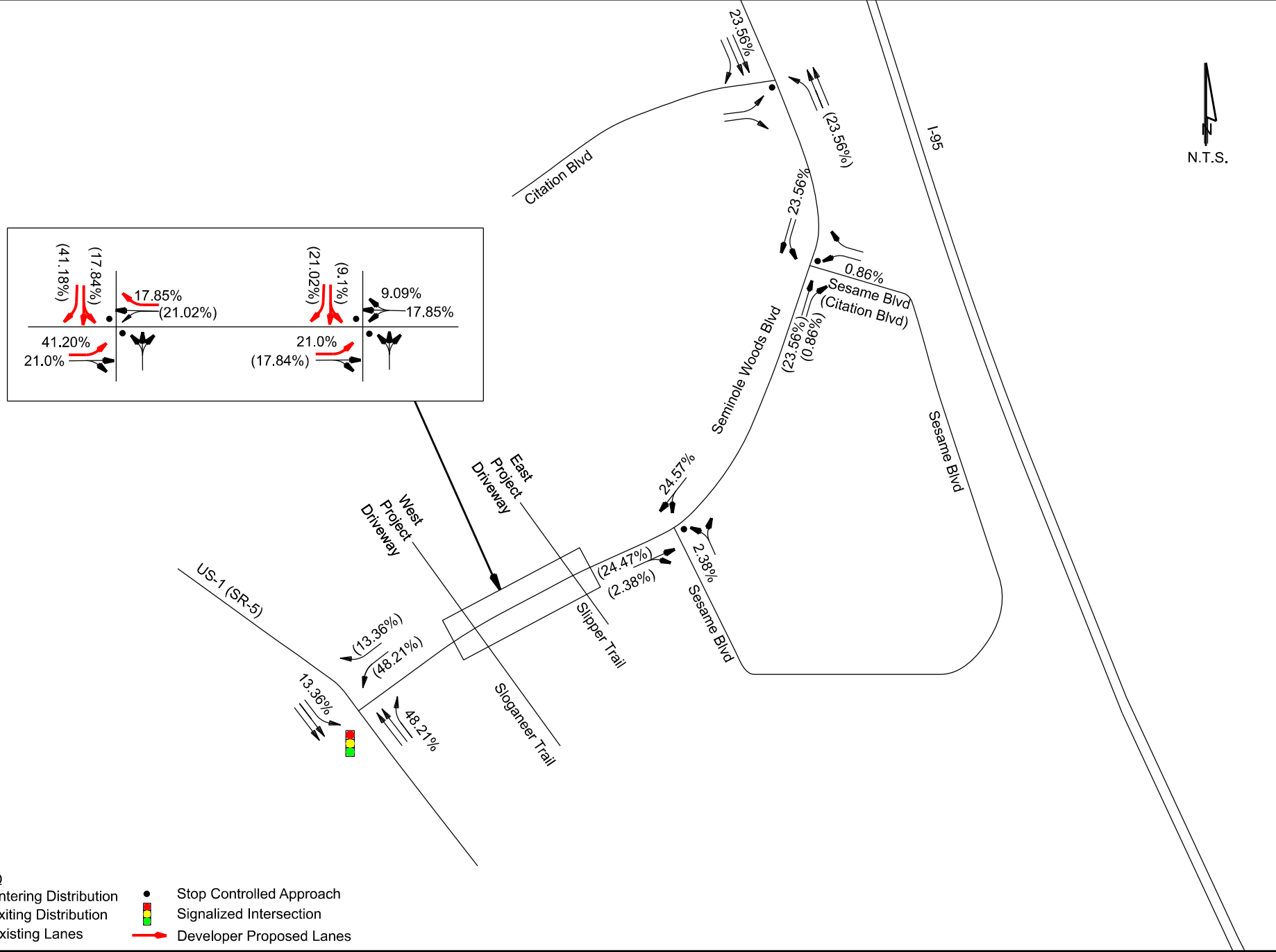
Total Traffic Conditions

Table 5 below illustrates the operating conditions on the significantly impacted roadway segment. As shown, none of the roadway segments are anticipated to fail in the total traffic conditions. **Figure 9** and **Figure 10** illustrate the estimated turning movement volumes on the intersections as specified in the methodology for the AM and PM total traffic conditions respectively. Copies of the Synchro printouts for the AM and PM total traffic conditions are included in **Appendix J**. The volume calculations are provided in **Appendix K**.

Table 5
Seminole Trace
Segment - 2033 Total Traffic Volumes

Link	Roadway	Segment	LOS Standard	PM Peak Hour					
				MSV	Background Traffic	Project Traffic Distribution	Project Traffic	Total Traffic	Level of Service
				(vph)	(vph)	(%)	(vph)	(vph)	
3310	Seminole Woods Parkway	Citation Parkway to Sesame Boulevard	D	2,170	1,230	24.47%	131	1,361	C
3305	Seminole Woods Parkway	Sesame Boulevard to US 1	D	2,170	1,308	62.18%	333	1,641	D
235	US1 (SR5)	Seminole Woods Parkway to Palm Coast City Limit	D	3,580	2,330	48.21%	258	2,588	C

Source: 2024 Transportation Facility Status Report, Grand Landings Phase 5 & 6 Traffic Impact Analysis

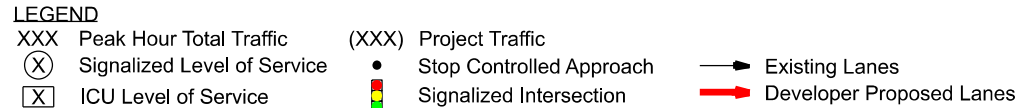


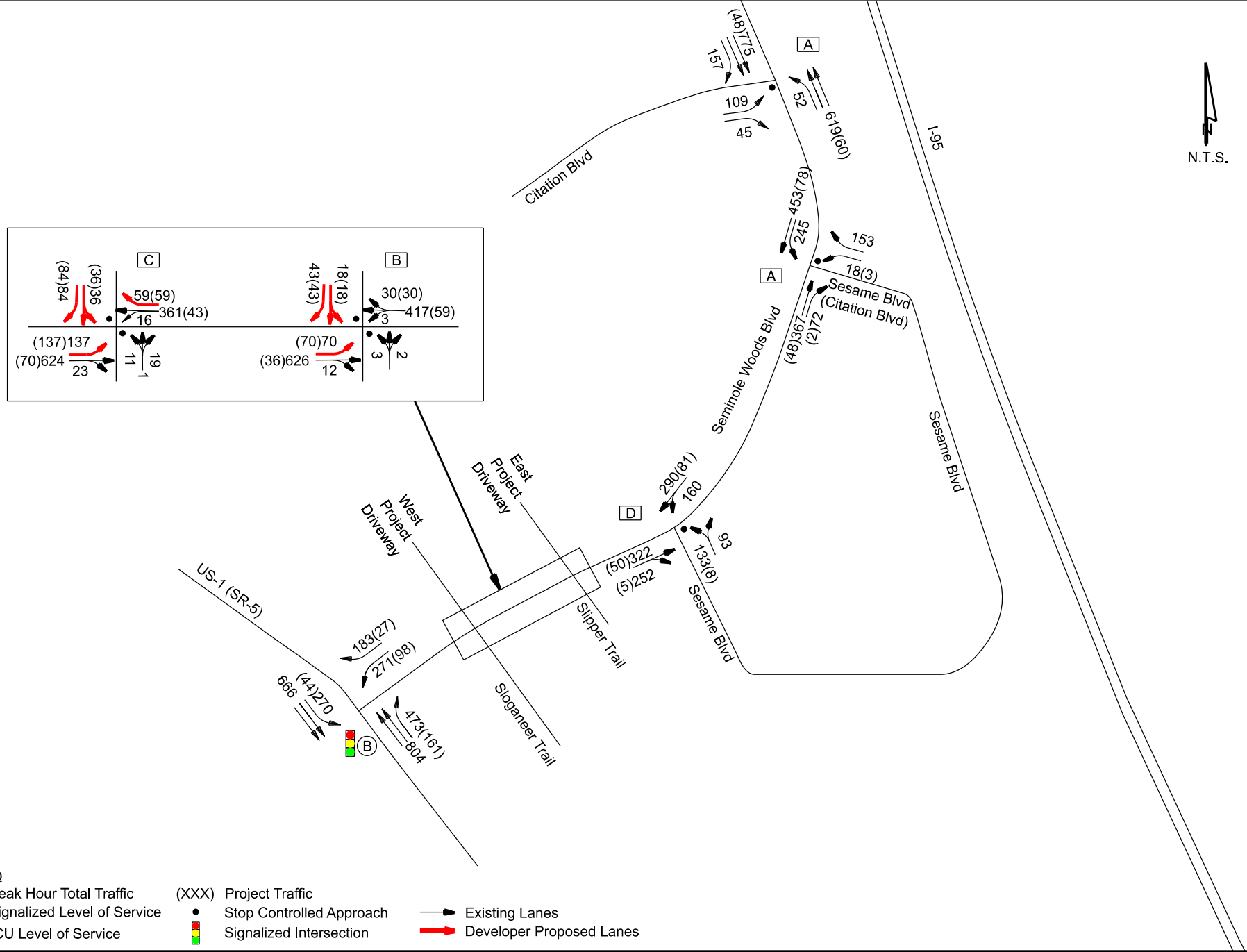
England-Thim & Miller, Inc.
14775 Old St. Augustine Road
Jacksonville, FL 32258
TEL: (904) 642-8990
FAX: (904) 646-9485
CA - 00002584 LC - 00003116

Traffic Impact Assessment Seminole Trace

Peak Hour Traffic Distribution

Figure 8





LEGEND

XXX	Peak Hour Total Traffic	(XXX)	Project Traffic	—	Existing Lanes
(X)	Signalized Level of Service	•	Stop Controlled Approach	—	Developer Proposed Lanes
[X]	ICU Level of Service	•	Signalized Intersection		

Access Improvements

Seminole Woods Boulevard in the vicinity of the project entrances is a 2-lane roadway with an AADT greater than 5,000 vehicles per day and a posted speed limit of 55 miles per hour. In accordance with the City of Palm Coast Turn Lane Technical Guidelines, an eastbound left turn lane is warranted at both the western driveway, which aligns with Sloganeer Trail, and at the eastern driveway which aligns with Slipper Trail. A westbound right turn lane is not warranted at either access point based on the projected turning movement volumes. The west entrance, eastbound left turn lane is recommended to provide a 100-ft taper and a full width storage length of 295-ft for a total length of 395-ft. The east entrance, eastbound left turn lane is recommended to provide a 100-ft taper and a full width storage length of 210-ft for a total length of 310-ft. **Table 6** below details turn lane lengths for each project access.

Table 6
Seminole Trace
Recommended Turn Lane Lengths

Movement	Number of Lanes	AADT (vpd)	Posted Speed Limit (mph)	Peak Hour Turning Volumes (vph)	Warranted?	Recommended Taper Length (ft)	Recommended Deceleration Length (ft)	Storage Length Dimension Table (SLDT) (ft)	Deceleration Length + SLDT (ft)	Recommended Turn Lane Length (ft)
Western Driveway at Seminole Woods Parkway										
Westbound Right Turn	2	>5,000	55	59	No	N/A	N/A	N/A	N/A	N/A
Eastbound Left Turn				137	Yes	100	135	155.5	290.5	395
Eastern Driveway at Seminole Woods Parkway										
Westbound Right Turn	2	>5,000	55	30	No	N/A	N/A	N/A	N/A	N/A
Eastbound Left Turn				70	Yes	100	135	75	210	310

Construction Timing

Per discussions with COPC staff, ETM has included the construction timing of the proposed access improvements. Per the COPC Turn Lane Standards about construction timing *“Turn lanes shall be constructed with the infrastructure and prior to the vertical construction of any buildings unless the City allows some of the vertical building construction prior to completion of the turn lanes. When a project is phased, the turn lanes shall be constructed with the earliest phase that the turn lane meets at least 50% of the criteria for requiring the turn lane.”* In accordance with this guidance, ETM's proposal entails the construction of access improvements at the western project driveway as part of the infrastructure development for Seminole Trace Phase 1 and Phase 2. Furthermore, ETM's plan also involves the construction of access enhancements at the eastern project driveway in conjunction with the infrastructure development within Seminole Trace Phase 3.

Conclusions and Recommendations

Based upon the analysis, the project is not anticipated to significantly impact the operation of the surrounding roadway network. ETM recommends the installation of an eastbound left turn lane at the western project driveway and an eastbound left turn lane at the eastern project driveway. No additional improvements are recommended at this time.

Appendix A

Traffic Impact Study Methodology

June 6, 2023

Mr. Michael Grunewald
Traffic Engineer
City of Palm coast
160 Lake Avenue
Palm Coast, FL 32164

Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast,
Florida
ETM No. 21-224

Dear Mr. Grunewald:

England, Thims & Miller, Inc. (ETM) has been retained by Byrndog, PCP LLC to prepare a Traffic Impact Analysis (TIA) for the proposed Cascades at Grand Landings development. The proposed project is located on the north of Seminole Woods Boulevard to the south of Flagler Executive Airport in the City of Palm Coast, Florida, between US 1 to the West and Seminole Woods Boulevard to the East. The primary access to the external roadway network will be located on Seminole Woods Boulevard, however the development will have a secondary access through the Grand Landings Phase 5 and 6 development to the north. A general location map is attached as **Figure 1** and the conceptual site plan as **Figure 2**.

The purpose of performing the TIA is to provide the necessary traffic operational information to obtain transportation concurrency for the proposed development illustrated in the conceptual site plan and to identify the potential impacts of the project. The project is expected to be fully developed and fully occupied by 2030 and will consist of approximately 557 single family dwelling units and 333 multifamily dwelling units.

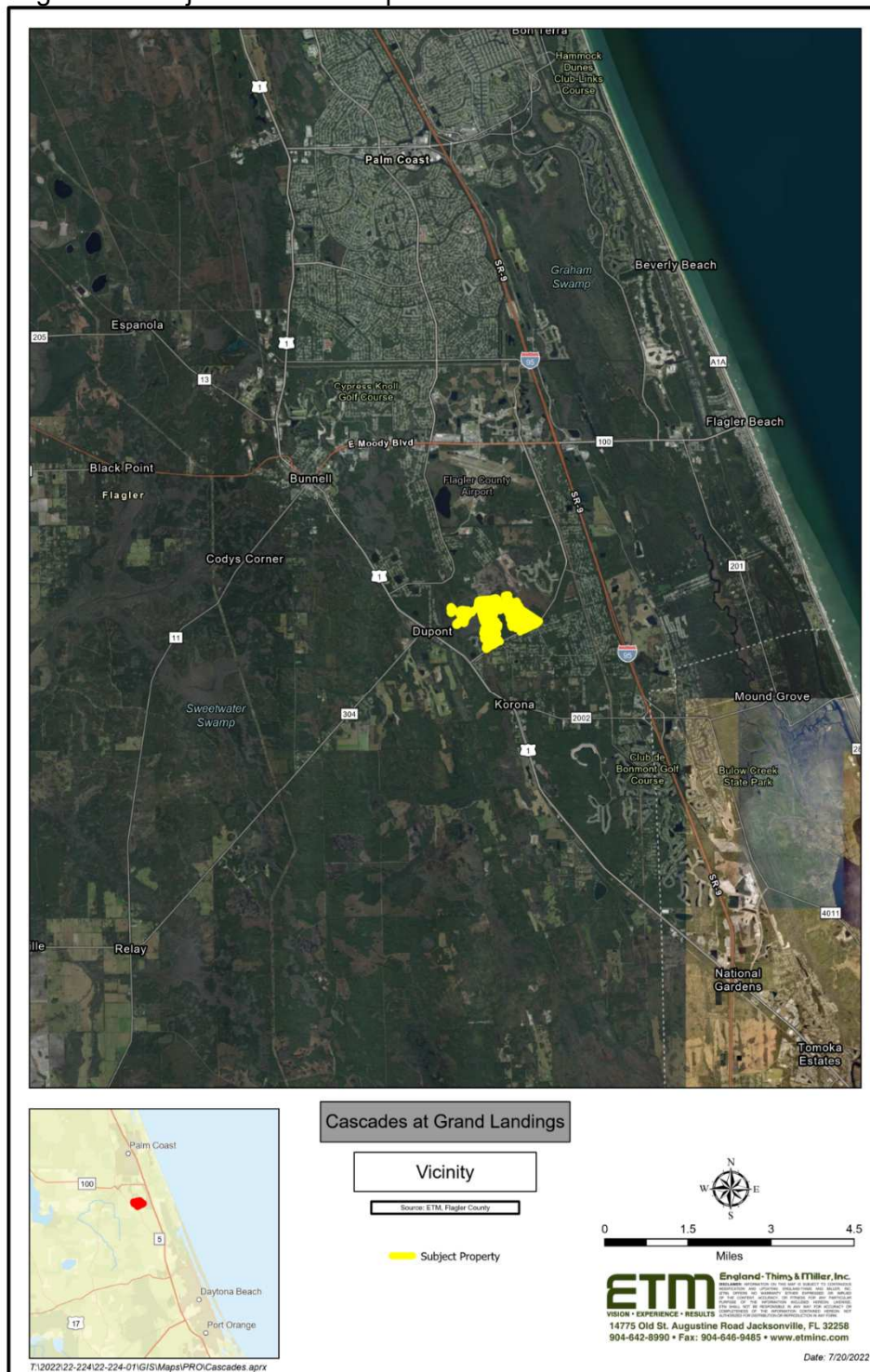
The City of Palm Coast has adopted the River to Sea Transportation Planning Organization (R2CTPO) TIA guidelines. In accordance with these guidelines, this letter outlines the proposed methodology used to guide the analysis.

Mr. Michael Grunewald, PE
Traffic Engineer
City of Palm Coast
June 23, 2023

Page 2

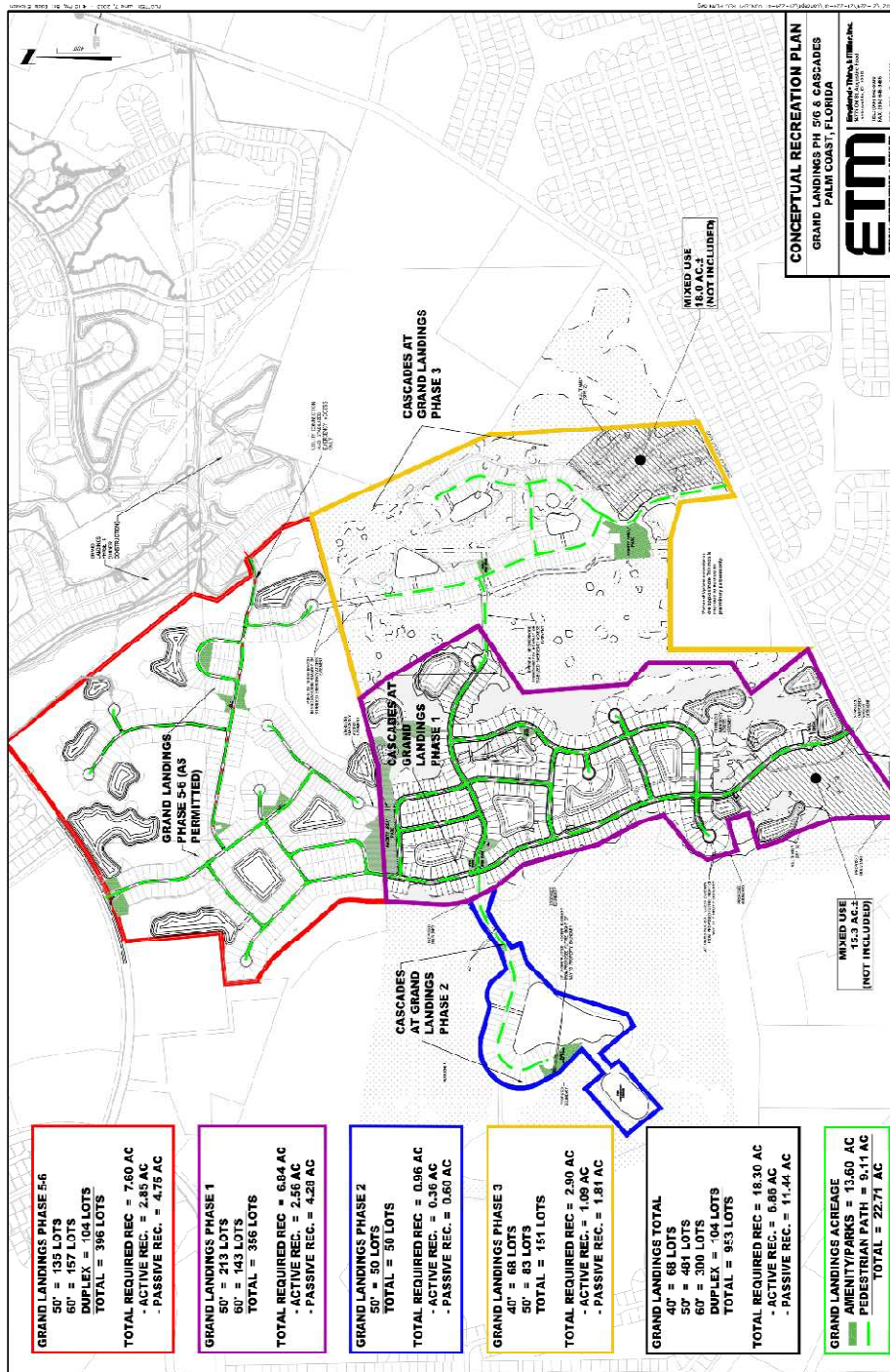
**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

Figure 1 – Project Location Map



**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

Figure 2 – Conceptual Site Plan



**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

Analysis Period

Roadway Segments and **Intersections** will be analyzed based on the PM peak-hour two-way traffic. The analysis will be conducted for the 2023 existing conditions, 2030 background conditions and 2030 full build-out conditions. The analysis will be based on the latest concurrency information, as obtained from the City of Palm Coast and the Florida Department of Transportation (FDOT).

Turning Movement Counts (TMCs) will be ordered at the following intersections:

- Belle Terre Boulevard at Citation Parkway
- Citation Boulevard at Project Driveways (future conditions)
- US 1 at Seminole Woods Boulevard
- Seminole Woods Boulevard at Slipper Trail (Project Driveway)
- Seminole Woods Boulevard at Sloganeer Trail (Project Driveway)
- Seminole Woods Boulevard at Sesame Boulevard

Traffic Volumes

The analysis will be based on the latest traffic information, obtained from the City of Palm Coast Public Works and/or Development Services Departments and FDOT.

Project Trip Distribution

The Central Florida Regional Planning Model, version 7.0 was used to obtain the project trip distribution. The 2030 socio-economic (S/E) data sets were modified to include the proposed development and used a select link analysis to generate the distribution of the project's traffic. The project traffic distribution is graphically displayed in **Figure 3**.

Trip Generation

The PM peak-hour trip generation of the proposed development was determined by using the Institute of Transportation Engineer's (ITE) ***Trip Generation Manual***, 11th edition. The proposed trip generation for the proposed development is shown in **Table 1**.

**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

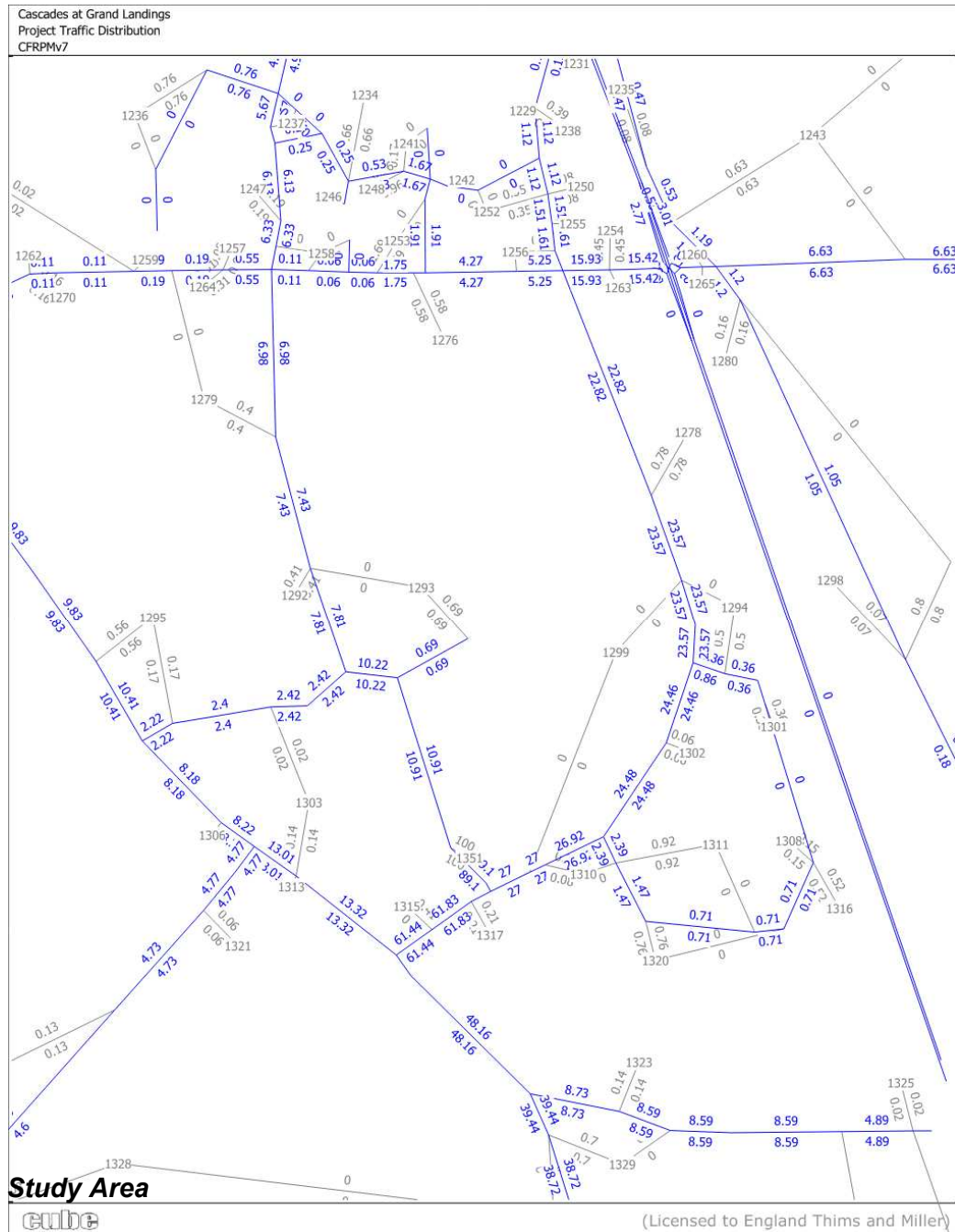
CFRPM7 TAZ	Land Use Code	Description	Quantity	Units	Trip Generation				
					Period	Rate/Equation	Total	Entering	Exiting
1353	210	Single Family Residential	557	DUs	Daily	$\text{Ln}(t) = 0.92\text{Ln}(x) + 2.68$	4,899	2,450	2,449
					AM Peak	$\text{Ln}(t) = 0.91\text{Ln}(x) + 0.12$	356	89	267
					PM Peak	$\text{Ln}(t) = 0.94\text{Ln}(x) + 0.27$	499	314	185
1353	220	Multifamily Housing (Low-Rise) - Not Close to Rail	333	DUs	Daily	$T = 6.41(X) + 75.31$	2,210	1,105	1,105
					AM Peak	$T = 0.31(X) + 22.85$	126	30	96
					PM Peak	$T = 0.43(X) + 20.55$	164	103	61
1353		Total	890	DUs	Daily		7,109	3,555	3,554
					AM Peak		482	119	363
					PM Peak		663	417	246

Source: 11th edition of the Institute of Transportation Er 619/100

Source: 11th edition of the Institute of Transportation Er 619/100

**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

Figure 3 – Project Traffic Distribution



**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

Per the R2CTPO guidelines, projects which generate more than 100 PM peak-hour two-way trips must include all roadway segments that are impacted by the proposed project to a level of three percent (3%) or more of the adopted maximum service volume (MSV) of roadway segment.

Using the estimated pm peak hour project trips and the project trip distribution, the project on each roadway segment in the area was estimated and compared to the MSV to determine which roadway segments in the area will be significantly impacted by the project. **Table 2** depicts the significance test on the major roadway network in the vicinity of the project.

Table 2
Cascades at Grand Landings
Significance Calculations

Link	Roadway	Segment	Typical Section	Maintaining Agency	LOS Standard	Peak Hour MSV (vph)	Project Traffic Distribution (%)	PM Peak Hour		
								Project Traffic (vph)	Percent MSV (%)	Significant (≥ 3%)
1260	Belle Terre Parkway	East Hampton Boulevard to SR 100	4ln - Div	COPC	D	3,580	6.33%	42	1.17%	NO
1263	Belle Terre Blvd.	SR 100 to Zebulas Trail	2-ln - UnDiv	COPC	D	2,170	6.98%	46	2.12%	NO
1265	Belle Terre Blvd.	Zebulas Trail to Zaun Trail	2-ln - UnDiv	COPC	D	2,170	6.98%	46	2.12%	NO
1270	Belle Terre Blvd.	Zaun Trail to Citation Parkway	2-ln - UnDiv	COPC	D	2,170	7.81%	52	2.40%	NO
1275	Belle Terre Blvd.	Citation Parkway to US 1	2-ln - UnDiv	COPC	D	2,170	2.42%	16	0.74%	NO
4300	Bulldog Drive	SR 100 to Central Avenue	2-ln - UnDiv	COPC	D	1,330	1.91%	13	0.98%	NO
3312	Citation Parkway	Belle Terre Parkway to Laguna Forest Lane	2-ln - UnDiv	COPC	D	2,170	10.22%	68	3.13%	YES
251	I-95 (SR 9)	Palm Coast City Limit to Palm Coast Parkway	6ln - Div	FDOT	C	10,060	0.00%	0	0.00%	NO
292	I-95 (SR 9)	Palm Coast Parkway to SR 100	6ln - Div	FDOT	C	10,060	2.77%	18	0.18%	NO
255	I-95 (SR 9)	SR 100 to Old Dixie Highway	6ln - Div	FDOT	C	10,060	0.00%	0	0.00%	NO
3325	Seminole Woods Parkway	SR 100 to Ulaturn Place	4ln - Div	COPC	D	5,900	22.82%	151	2.56%	NO
3300	Seminole Woods Parkway	Ulaturn Place to Citation Parkway	4ln - Div	COPC	D	5,900	23.57%	156	2.64%	NO
3310	Seminole Woods Parkway	Citation Parkway to Sesame Boulevard	2-ln - UnDiv	COPC	D	2,170	24.46%	162	7.47%	YES
3305	Seminole Woods Parkway	Sesame Boulevard to US 1	2-ln - UnDiv	COPC	D	2,170	62.09%	412	18.99%	YES
3320	Sesame Boulevard	Seminole Woods Parkway to terminus	2-ln - UnDiv	COPC	D	2,170	2.39%	16	0.74%	NO
3560	State Road 100	John Anderson Drive to Colbert Lane	4ln - Div	FDOT	D	3,580	6.75%	45	1.26%	NO
3550	State Road 100	Colbert Lane to Tuscany Blvd.	4ln - Div	FDOT	D	3,580	9.02%	60	1.68%	NO
3540	State Road 100	Tuscany Blvd. to Old Kings Road	4ln - Div	FDOT	D	3,580	6.63%	44	1.23%	NO
3530	State Road 100	Old Kings Road to I-95	4ln - Div	FDOT	D	3,580	9.66%	64	1.79%	NO
3525	State Road 100	I-95 to Memorial Medical Parkway	4ln - Div	FDOT	D	3,580	15.42%	102	2.85%	NO
3520	State Road 100	Memorial Medical Pkwy to Seminole Woods P	4ln - Div	FDOT	D	3,580	15.93%	106	2.96%	NO
3515	State Road 100	Seminole Woods Pkwy to Bulldog Drive	4ln - Div	FDOT	D	3,580	5.25%	35	0.98%	NO
3510	State Road 100	Bulldog Drive to Landings Blvd.	4ln - Div	FDOT	D	3,580	2.35%	16	0.45%	NO
3505	State Road 100	Landings Blvd. to Belle Terre Parkway	4ln - Div	FDOT	D	3,580	0.11%	1	0.03%	NO
3500	State Road 100	Belle Terre Parkway to Palm Coast City Limits	4ln - Div	FDOT	D	3,580	0.55%	4	0.11%	NO
4100	Town Center Blvd.	SR 100 to Hospital Drive	4ln - Div	COPC	D	5,900	1.61%	11	0.19%	NO
101	US1 (SR5)	Palm Coast City Limit to Belle Terre Parkway	4ln - Div	FDOT	D	3,580	10.41%	69	1.93%	NO
3750	US1 (SR5)	Belle Terre Parkway to DuPont Road	4ln - Div	FDOT	D	3,580	8.18%	54	1.51%	NO
3755	US1 (SR5)	DuPont Road to Seminole Woods Parkway	4ln - Div	FDOT	D	3,580	13.32%	88	2.46%	NO
235	US1 (SR5)	Seminole Woods Parkway to Palm Coast City	4ln - Div	FDOT	D	3,580	48.16%	319	8.91%	YES

 = Significantly Impacted Link
Source: FDOT Quality/Level of Service Handbook, CFRPMv7

**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

As indicated in **Table 2**, the following roadway segment and intersections are significantly impacted by the project and will be included in this analysis.

Roadway Segments

- Citation Parkway from Belle Terre Parkway to Laguna Forest Lane
- Seminole Woods Parkway from Citation Parkway to Sesame Boulevard
- Seminole Woods Parkway from Sesame Boulevard to US 1 (SR 5)
- US 1 (SR 5) from Seminole Woods Parkway to Palm Coast City Limits

Intersections

- Belle Terre Boulevard at Citation Parkway
- Citation Parkway at Project Driveways (future conditions)
- US 1 at Seminole Woods Boulevard
- Seminole Woods Boulevard at Slipper Trail (Project Driveway)
- Seminole Woods Boulevard at Sloganeer Trail (Project Driveway)
- Seminole Woods Boulevard at Sesame Boulevard

Total Traffic

2030 background traffic volume estimates, trips associated with non-project growth, for the road segments was calculated as the total of existing segment volumes plus the vested traffic. Intersection turning movements were estimated using a growth rate. The growth factor was calculated for each intersection approach by dividing the total PM peak hour trips (existing plus vested) by the existing PM peak hour volumes. The turning movement volumes at the intersections were expanded based on these growth factors.

Segment Analysis – Existing, Background and Total PM Peak Hour Traffic Conditions

The existing, background and total traffic volumes on each significantly impacted roadway segment will be compared to the maximum service volume for the segment to determine if the facility is operating at an acceptable level of service. A link specific capacity analysis may be conducted to determine the actual service volumes for a specific roadway segment (if authorized by the applicant). The procedures outlined in the most recent FDOT Quality/Level of Service Handbook will be used to conduct the analysis.

Intersection Analysis – Existing, Background and Total PM Peak Hour Traffic Conditions

An operational analysis of the existing and future PM Peak Hour traffic will be analyzed utilizing

Mr. Michael Grunewald, PE
Traffic Engineer
City of Palm Coast
June 23, 2023

Page 9

**Re: Cascades at Grand Landings – Traffic Impact Analysis Methodology, Palm Coast, Florida
ETM No. 21-224**

the methodologies and procedures contained in the 6th edition of the Highway Capacity Manual using the Synchro/Sim Traffic Software for signalized intersections. The operating conditions of existing, background and total traffic will be tabulated in the TIA Report. The need for turn lanes will be based on FDOT's turn lane requirements.

Access Analysis

Access to the proposed development will be from Seminole Woods Parkway. The entrance will be analyzed for right and left turn lanes.

Alternative Travel Modes Analysis

The availability of alternative travel modes to and from the proposed development, inclusive of Paratransit, will be identified and discussed. Both pedestrian and bicycle mobility external to the site will also be included in the TIA.

Improvements

If warranted, appropriate roadway and intersection improvements will be identified at built-out of the project including site access improvements. Mitigation or proportionate fair share calculations for significant and adverse impacts to City facilities will be made in accordance with the City of Palm Coast Engineering and Construction process and procedures.

Please review the proposed methodology and advise if the City of Palm Coast is in agreement with the methodology as proposed. If you have any questions or need additional information, please advise.

Sincerely,
ENGLAND, THIMS & MILLER, INC.

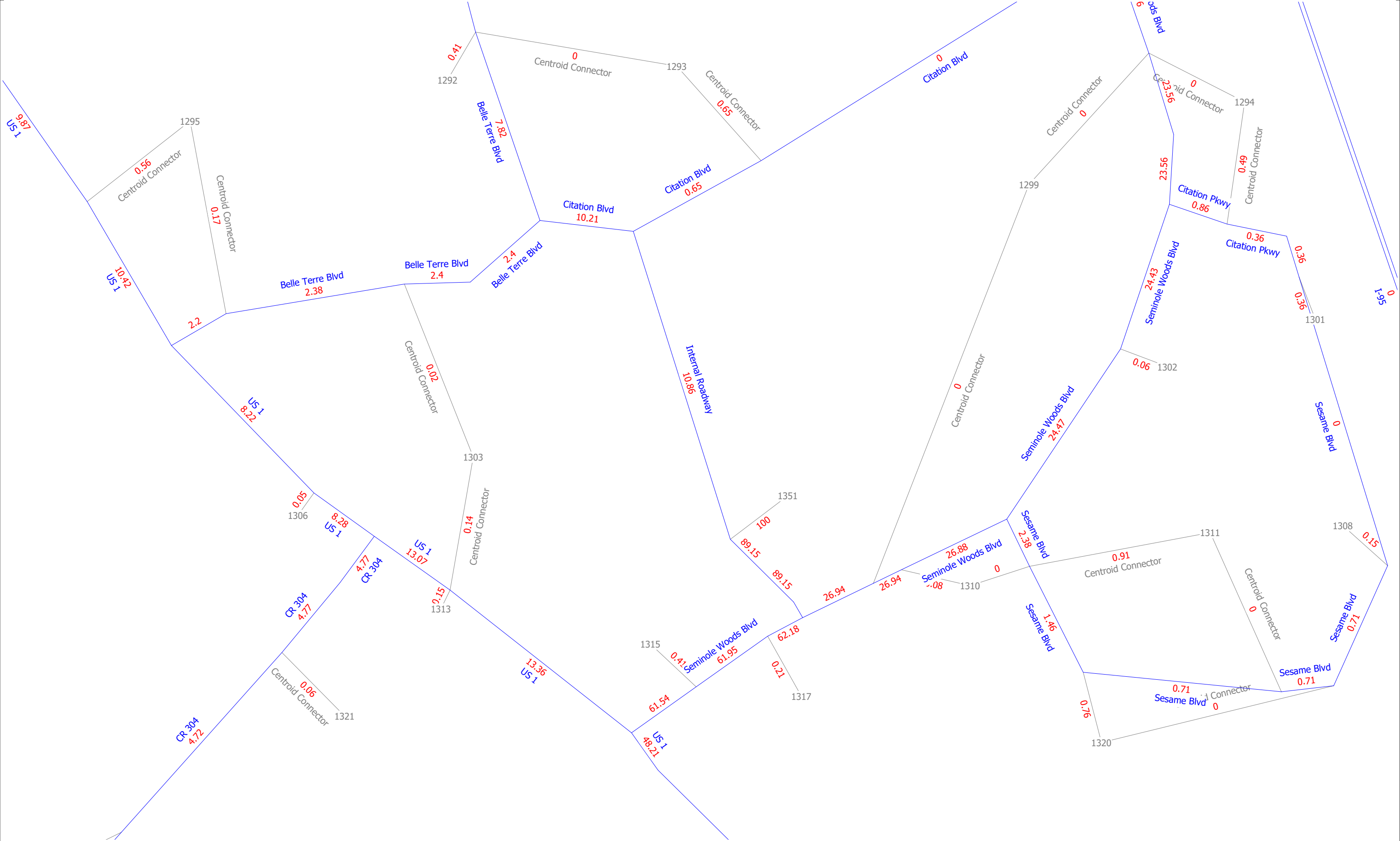


Thomas L. Hatcher, P.E., PTOE, PTP
Transportation Engineer

Appendix B

Project Traffic Distribution Model Plot





Appendix C

2024 Transportation Facility Status Report

Transportation Facility Status Report			Published May 19, 2024		Citywide Traffic Counts Fall 2023 / Vested trips through December 31, 2023																				
Link	Facility	Facility Type	Classification	Length (miles)	Number of Lanes	Divided	Turn Left	Lanes Right	Signals	Speed / Mile	Limit	2023 AADT	K (actual)	PMPH Trips	PMPH Vested Trips	Total PMPH Trips	FDOT Current Service Volumes (2012)					Adopted LOS	LOS w/o Vested Trips	LOS with Vested Trips	
	Belle Terre Parkway																	A	B	C	D	E			
1200	Matanzas Woods Parkway to Bird of Paradise Drive	Arterial	Class 1	1.86	4	Yes	Yes	Yes	5	1.28	45	7,814	0.1029	804	367	1,171	*	**	3,420	3,580	***	D	C	C	
1205	Bird of Paradise Drive to Pine Lakes Parkway (North)			16,208								0.0908	1,472	367	1,839	C							C		
1210	Pine Lakes Parkway (North) to Bellaire Drive			14,871								0.0955	1,420	252	1,672	C							C		
1215	Bellaire Drive to Palm Coast Parkway(WB)			18,724								0.0897	1,680	314	1,994	C							C		
		Segment Length:		3.90																					
1220	Palm Coast Parkway (WB) to Palm Coast Parkway (EB)	Arterial	Class 1	0.22	4	Yes	Yes	Yes	5	8.06	45	22,150	0.0878	1,945	271	2,216	*	**	3,420	3,580	***	D	C	C	
1225	Palm Coast Parkway (EB) to Cypress Point Parkway			21,694								0.0826	1,792	363	2,155	C							C		
1230	Cypress Point Parkway to Pine Lakes Parkway (South)			35,119								0.083	2,897	378	3,275	C							C		
		Segment Length:		0.62																					
1240	Pine Lakes Parkway (South) to Parkview Drive	Arterial	Class 1	1.03	4	Yes	Yes	Yes	7	1.38	45	31,904	0.0841	2,683	353	3,036	*	**	3,420	3,580	***	D	C	C	
1245	Parkview Drive to White View Parkway			27,740								0.0855	2,372	375	2,747	C							C		
1250	White View Parkway to Rymfire Drive			28,101								0.0894	2,512	428	2,940	C							C		
1252	Rymfire Drive to Royal Palms Parkway			30,109								0.0942	2,836	412	3,248	C							C		
1254	Royal Palms Parkway to East Hampton Boulevard			30,628								0.0908	2,781	384	3,165	C							C		
1260	East Hampton Boulevard to SR 100			25,394								0.0873	2,217	269	2,486	C							C		
		Segment Length:		5.06																					
	Belle Terre Blvd.																								
1263	SR 100 to Zebulas Trail	Arterial	UFH	0.21	2	No	n.a.	n.a.	n.a.	n.a.	50	9,353	0.0898	840	179	1,019	*	770	1,530	2,170	2,990	D	C	C	
1265	Zebulas Trail to Zaun Trail			7,688								0.0879	676	167	843	B							C		
1270	Zaun Trail to Citation Parkway			5,297								0.0967	512	167	679	B							B		
1275	Citation Parkway to US 1			4,301								0.106	456	184	640	B							B		
		Segment Length:		3.73																					
	Bird of Paradise Drive																								
2420	Matanzas Woods Parkway to Birchwood Drive	Collector	UFH	1.31	2	No	n.a.	n.a.	n.a.	n.a.	30	4,494	0.1362	612	0	612	*	770	1,530	2,170	2,990	D	B	B	
2430	Birchwood Drive to Belle Terre Parkway			1.01								7,069	0.1019	720	0	720							B	B	
		Segment Length:		2.32																					
	Bulldog Drive																								
4300	SR 100 to Central Avenue	Collector	Class 2	0.54	2	No	No	No	1	1.1															

Citywide Traffic Counts Fall 2023 / Vested trips through December 31, 2023

Link	Facility	Facility Type	Classification	Length (miles)	Number of Lanes	Divided	Turn Left	Lanes Right	Signals	Signals / Mile	Speed Limit	2023 AADT	K (actual)	PMPH Trips	PMPH Vested Trips	Total PMPH Trips	FDOT Current Service Volumes (2012)					Adopted LOS	LOS w/o Vested Trips	LOS with Vested Trips							
																	A	B	C	D	E										
Colbert Lane		Arterial	Class 2	0.20	2	No	n.a.	n.a.	n.a.	n.a.	30	4,167	0.1056	440	9	449	*	**	660	1,330	1,410	D	C	C							
3105	Palm Coast Parkway (WB) to Palm Coast Parkway (EB)			1.70								45	9,199	0.1061	976	6	982												C	C	
3110	Palm Coast Parkway (EB) to Waterside Parkway (N)			1.40									5,191	0.0955	496	1	497												B	B	
3120	Waterside Parkway (N) to Waterside Park (S)			0.60									5,788	0.1071	620	1	621												B	B	
3125	Waterside Park (S) to South Park Road			1.87									6,371	0.086	548	1	549												B	B	
3130	South Park Road to Roberts Road			1.29									4,289	0.1007	432	1	433												B	B	
3135	Roberts Road to SR 100																														
		Segment Length:		7.06																											
Cypress Point Parkway		Arterial	Class 2	0.22	4	Yes	Yes	No	3	3.80	35	18,853	0.0893	1,684	65	1,749	*	**	1,310	2,920	3,040	D	D	D							
4200	Belle Terre Parkway to Pine Cone Drive			0.29								17,801	0.0854	1,520	65	1,585													D	D	
4205	Pine Cone Drive to Cypress Edge (S)			0.16								17,801	0.0854	1,520	65	1,585													D	D	
4210	Cypress Edge (S) to Cypress Edge (N)			0.12								20,966	0.0914	1,916	65	1,981													D	D	
4215	Cypress Edge (N) to Palm Coast Parkway																														
		Segment Length:		0.79																											
Farmsworth Drive		Collector	Class 2*	0.90	2	No	n.a.	n.a.	n.a.	n.a.	30	2,376	0.1061	252	0	252	*	**	600	1,200	1,270	D	C	C							
2716	Old Kings Road to Florida Park Drive																														
Farragut Drive		Collector	Class 2*	0.97	2	No	n.a.	n.a.	n.a.	n.a.	30	1,045	0.0995	104	0	104	*	**	600	1,200	1,270	D	C	C							
2717	Old Kings Road to Florida Park Drive																														
Fleetwood Drive		Collector	Class 2*	0.94	2	No	n.a.	n.a.	n.a.	n.a.	30	2,329	0.0962	224	0	224	*	**	600	1,200	1,270	D	C	C							
2714	Old Kings Road to Florida Park Drive																														
Florida Park Drive		Collector	Class 1	0.32	2	No	Yes	No	1	0.52	30	5,055	0.0942	476	27	503	*	**	660	1,330	1,410	D	C	C							
2090	Palm Harbor Parkway to Forest Hill Drive											0.64	7,122	0.091	648	24	672													C	D
2100	Forest Hill Drive to Fleetwood Drive											0.25	7,122	0.091	648	24	672													C	D
2105	Fleetwood Drive to Farragut Drive											0.63	9,172	0.0925	848	25	873													D	D
2110	Farragut Drive to Palm Coast Parkway (WB)											0.08	5,066	0.1003	508	67	575													C	C
2120	Palm Coast Parkway (WB) to Palm Coast Parkway (EB)																														
		Segment Length:		1.92																											
Forest Grove Drive		Collector	Class 2*	0.59	2	No	n.a.	n.a.	n.a.	n.a.	30	1,704	0.1713	292	0	292	*	**	600	1,200	1,270	D	C	C							
4000	Old Kings Road (W) to Old Kings Road (E)			0.41								0	0.094	289	289																
4010	Old Kings Road (E) to Palm Harbor Parkway																														
		Segment Length:		1.00																											
Frontier Drive		Collector	Class 2*	1.14	2	No	n.a.	n.a.	n.a.	n.a.	30	3,657	0.1072	392	0	392	*	**	600	1,200	1,270	D	C	C							
2712	Old Kings Road (E) to Palm Harbor Parkway																														
Hargrove Grade Road		Collector	Class 2*	1.00	2	No	n.a.	n.a.	n.a.	n.a.	35	3,304	0.1501	496	0	496	*	**	600	1,200	1,270	D	C	C							
3707	US 1 to RR Xing																														
I-95 (SR 9)		Arterial	Freeway	7.64	6	Yes	n.a.	n.a.	n.a.	n.a.	70	66,798	0.131	8,751	25	8,776	*	6,130	8,370	10,060	11,100	C	D	D							
251	Palm Coast City Limit to Palm Coast Parkway											5.80	78,040	0.106	8,272	329	8,601													C	D
292	Palm Coast Parkway to SR 100											5.26	78,768	0.132	10,397	312	10,709													D	E
255	SR 100 to Old Dixie Highway																														
		Segment Length:		18.70																											
Lakeview Boulevard		Collector	UFH	1.33	2	No	n.a.	n.a.	n.a.	n.a.	n.a.	5,008	0.0926	464	0	464	*	770	1,530	2,170	2,990	D	B	B							
3925	London Drive to Matanzas Woods Parkway																														

Link	Facility	Facility Type	Classification	Length (miles)	Number of Lanes	Divided	Turn Lanes Left	Right	Signals	Signals / Mile	Speed Limit	2023 AADT	K (actual)	PMPH Trips	PMPH Vested Trips	Total PMPH Trips	FDOT Current Service Volumes (2012)					Adopted LOS	LOS w/o Vested Trips	LOS with Vested Trips	
Landings Blvd.																	A	B	C	D	E				
4500	SR 100 to Central Avenue	Collector	UFH	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			-	0	-									
4510	Central Avenue to Lake Avenue														-	0	-								
Lake Avenue																									
4550	Market Avenue to Landings Blvd.	Collector	UFH	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.			-	0	-									
4560	Landings Blvd.to City Place Drive														-	0	-								
4570	City Place Drive to Town Center Blvd.														-	0	-								
Market Avenue																									
4600	Belle Terre Parkway to Central Avenue	Collector	UFH	0.28	2	No	n.a.	n.a.	n.a.	n.a.	25	2,990	0.103	308	0	308	*	770	1,530	2,170	2,990	D	B	B	
4610	Central Avenue to Lake Avenue														-	0	-								
				Segment Length:	0.28																				
Matanzas Woods Parkway																									
2400	US 1 to Belle Terre Parkway	Arterial	Class 1	1.06	2	No	Yes	No	3	0.33	45	6,514	0.1069	696	321	1,017	*	**	1,510	1,600	***	D	C	C	
2410	Belle Terre Parkway to Bird of Paradise Drive			10,120								0.1067	1,080	183	1,263	C							C		
2415	Bird of Paradise Drive to I-95 SB			13,880								0.1182	1,641	337	1,978	E							E		
2416	I-95 SB to I-95 NB			12,690								0.1157	1,468	305	1,773	C							E		
2417	I-95 NB to Old King Rd Extension			12,168								0.1351	1,644	305	1,949	E							E		
2418	Old Kings Rd Extension at Matanzas HS Entrance			8,208								0.1896	1,556	305	1,861	D							E		
				Segment Length:								3.00													
Old Kings Road																									
2700	US 1 to Princess Place Preserve Entrance	Arterial	UFH	1.55	2	No	n.a.	n.a.	n.a.	n.a.	55	1,598	0.1127	180	49	229	*	770	1,530	2,170	2,990	D	B	B	
2702	Princess Place Preserve Entrance to Forest Grove Drive			3.01								6,707	0.0823	552	49	601							B	B	
2705	Forest Grove Drive to Farmsworth Drive			1.55								7,405	0.0956	708	222	930							B	C	
2707	Farmsworth Drive to Frontier Drive			0.39								9,730	0.0958	932	222	1,154							C	C	
2710	Frontier Drive to Fleetwood Drive			0.46								12,513	0.0879	1,100	220	1,320							C	C	
2715	Fleetwood Drive to Farragut Drive			0.65								16,203	0.0857	1,389	220	1,609							C	D	
				Segment Length:								7.61													
2720	Farragut Drive to Palm Coast Parkway	Arterial	Class 1	0.39	4	Yes	Yes	Yes	1	2.56	35	23,893	0.084	2,007	199	2,206	*	**	3,420	3,580	**	D	C	C	
				Segment Length:	0.39																				
2730	Palm Coast Parkway to Utility Drive	Arterial	UFH	0.63	2	No	n.a.	n.a.	n.a.	n.a.	35	15,971	0.0829	1,324	224	1,548	*	770	1,530	2,170	2,990	D	C	D	
2735	Utility Drive to Oak Trails Boulevard			0.25								9,556	0.0892	852	224	1,076							C	C	
2740	Oak Trails Boulevard to Hidden Lake Blvd			3.35								9,332	0.0883	824	257	1,081									
2743	Hidden Lake Blvd to Town Center Drive			0.20								9,645	0.0887	856	257	1,113							C	C	
2745	Town Center Boulevard to SR 100			1.61								4	Yes												
2750	SR 100 to Palm Coast City Limit			0.30								2	No												
				Segment Length:	6.34																				
Palm Coast Parkway																									
2800	US 1 to Pine Lakes Parkway	Arterial	Class 1	0.53	4	Yes	Yes	Yes	1	1.89	45	15,106	0.0988	1,492	922	2,414	*	**	3,420	3,580	***	D	C	C	
Palm Coast Parkway (Eastbound)																									
2815	Pine Lakes Parkway to Belle Terre Parkway	Arterial	Class 1 (One Way)	1.22	2	One Way	Yes	No	2	1.06	45	13,199	0.0949	1,253	478	1,731	*	**	2,050	2,150	***	D	C	C	
2825	Belle Terre Parkway to Cypress Point Parkway			0.66	3							40	19,308	0.0849	1,639	321	1,960	*	**	3,150	3,240		***	C	C
				Segment Length:	1.88																				
Palm Coast Parkway (Westbound)																									
2820	Cypress Point Parkway to Belle Terre Parkway	Arterial	Class 1 (One Way)	0.65	3	One Way	Yes	No	2	1.10	40	18,837	0.0941	1,773	321	2,094	*	**	3,150	3,240	***	D	C	C	
2810	Belle Terre Parkway to Pine Lakes Parkway			1.16	2							45	12,729	0.087	1,107	478	1,585	*	**	2,050	2,150		***	C	C
				Segment Length:	1.81																				
Palm Coast Parkway																									
2826	Cypress Point Parkway to I-95 South Bound Ramps			0.27								48,983	0.0846	4,144	562	4,706							C	C	

Link	Facility	Facility Type	Classification	Length (miles)	Number of Lanes	Divided	Turn Left	Lanes Right	Signals	Mile	Speed Limit	2023 AADT	K (actual)	PMPH Trips	PMPH Vested Trips	Total PMPH Trips	FDOT Current Service Volumes (2012)					Adopted LOS	LOS w/o Vested Trips	LOS with Vested Trips
2827	I-95 South Bound Ramps to I-95 North Bound Ramps	Arterial	Class 1	0.39	6	Yes	Yes	Yes	3	3.33	40	40,003	0.0968	3,872	240	4,112	*	**	5,250	5,390	***	D	C	C
2830	I-95 North Bound Ramps to Old Kings Road			0.24								48,084	0.0819	3,938	262	4,200						C	C	
			Segment Length:	0.90																				
	Palm Coast Parkway (Eastbound)																							
2845	Old Kings Road to Florida Park Drive	Arterial	Class 1 (One Way)	0.34	2	One Way	Yes	Yes	3	1.69	45	16,857	0.0847	1,428	155	1,583	*	**	3,150	3,240	***	D	C	C
2855	Florida Park Drive to Club House Drive			0.26								13,953	0.0903	1,260	188	1,448							C	C
2865	Club House Drive to Colbert Lane			0.25								11,633	0.0908	1,056	122	1,178							C	C
2875	Colbert Lane to Palm Harbor Parkway			0.93								7,301	0.0893	652	130	782							C	C
			Segment Length:	1.78																				
	Palm Coast Parkway (Westbound)																							
2870	Palm Harbor Parkway to Colbert Lane	Arterial	Class 1 (One Way)	0.65	2						45	7,938	0.0821	652	119	771	*	**	2,050	2,150	***	D	C	C
2860	Colbert Lane to Club House Drive			0.32								11,333	0.08	907	113	1,020							C	C
2850	Club House Drive to Florida Park Drive			0.28								14,148	0.0888	1,256	150	1,406							C	C
2840	Florida Park Drive to Old Kings Road			0.33								18,891	0.0881	1,664	132	1,796							C	C
			Segment Length:	1.58																				
	Palm Coast Parkway (Hammock Dunes Parkway)																							
2880	Palm Harbor Parkway to SR A1A	Arterial	Class 1	1.11	2	No	Yes	Yes	1	0.90	45	14,253	0.0856	1,220	125	1,345	*	**	1,510	1,600	***	D	C	C
	Palm Harbor Parkway																							
2890	Matanzas HS Entrance to Cris Lane	Collector	UFH	0.60	2	No	n.a.	n.a.	n.a.	n.a.	45	6,731	0.1129	760	217	977	*	770	1,530	2,170	2,990	D	B	C
2895	Cris Lane to Fellowship Lane			0.70								6,916	0.1087	752	217	969							B	C
2900	Fellowship Lane to Florida Park Drive			0.70								7,727	0.0958	740	217	957							B	C
2910	Florida Park Drive to Club House Drive			1.78								6,994	0.0938	656	173	829							B	C
			Segment Length:	3.78																				
2920	Club House Drive to Palm Coast Parkway	Collector	Class 2	0.75	2	No	No	No	2	2.67	35	6,394	0.0857	548	181	729	*	**	660	1,330	1,410	D	C	D
	Pine Lakes Parkway																							
3000	Belle Terre Parkway (N) to Palm Coast Parkway	Collector	Class 1	1.21	2	No	Yes	Yes	2	0.40	45	5,585	0.0931	520	21	541	*	**	1,510	1,600	***	D	C	C
3002	Palm Coast Parkway to Commerce Boulevard			0.15								10,271	0.0931	956	30	986							C	C
3010	Commerce Boulevard to White Mill Drive			1.85								10,752	0.09	968	35	1,003							C	C
3020	White Mill Drive to Belle Terre Parkway (S)			1.81								13,192	0.0879	1,160	22	1,182							C	C
			Segment Length:	5.02																				
	Ravenwood Drive																							
3911	White View Parkway to Rymfire Drive	Collector	UFH	0.56	2	No	n.a.	n.a.	n.a.	n.a.	45	5,939	0.0855	508	0	508	*	770	1,530	2,170	2,990	D	B	B
	Royal Palms Parkway																							
3200	US 1 to Rymfire Drive	Arterial	Class 1	0.68	2	No	Yes	No	1	0.23	55	7,140	0.1042	744	178	922	*	**	1,510	1,600	***	D	C	C
3210	Rymfire Drive to Belle Terre Parkway			2.05								5,412	0.1027	556	178	734							C	C
3212	Belle Terre Parkway to Town Center Boulevard			1.57								8,824	0.0993	876	146	1,022							C	C
			Segment Length:	4.30																				
	Rymfire Drive																							
3215	Royal Palms Parkway to Ravenwood Drive	Collector	UFH	1.71	2	No	n.a.	n.a.	n.a.	0.00	45	5,606	0.1042	584	0	584	*	770	1,530	2,170	2,990	D	B	B
3225	Ravenwood Drive to Belle Terre Parkway			1.34								11,401	0.0895	1,020	0	1,020							C	C
			Segment Length:	3.05																				
	Seminole Woods Parkway																							
3325	SR 100 to Ulaturm Place	Collector	UFH	0.95	4	Yes	n.a.	n.a.	n.a.	n.a.	50	14,303	0.09	1,287	384	1,671	*	3,300	4,660	5,900	6,530	D	B	B
3300	Ulaturm Place to Citation Parkway			1.45								12,272	0.09	1,104	381	1,485							B	B
3310	Citation Parkway to Sesame Boulevard			1.15	4,536	0.1349						612	306	918	B	B								
3305	Sesame Boulevard to US 1			1.37	6,959	0.0983						684	310	994	B	B								
			Segment Length:	4.92																				

Link	Facility	Facility Type	Classification	Length (miles)	Number of Lanes	Divided	Turn Lanes		Signals	Signals / Mile	Speed Limit	2023 AADT	K (actual)	PMPH Trips	PMPH Vested Trips	Total PMPH Trips	FDOT Current Service Volumes (2012)					Adopted LOS	LOS w/o Vested Trips	LOS with Vested Trips					
							Left	Right									A	B	C	D	E								
Sesame Boulevard																													
3320	Seminole Woods Parkway to terminus	Collector	UFH	2.92	2	No	n.a.	n.a.	n.a.	n.a.	45	6,170	0.1031	636	0	636	*	770	1,530	2,170	2,990	D	B	B					
State Road 100																													
3560	John Anderson Drive to Colbert Lane	Arterial	State Class 1	1.17	4	Yes	Yes	No	2	0.74	55	23,062	0.0846	1,951	232	2,183	*	**	3,420	3,580	***	D	C	C					
3550	Colbert Lane to Tuscany Blvd.			0.46								24,630	0.0888	2,187	252	2,439							C	C					
3540	Tuscany Blvd. to Old Kings Road			1.07								24,346	0.0729	1,775	252	2,027							C	C					
Segment Length:				2.70																									
3530	Old Kings Road to I-95	Arterial	State Class 1	0.49	4	Yes	Yes	No	6	1.96	55	27,565	0.0663	1,828	408	2,236	*	**	3,420	3,580	***	D	C	C					
3525	I-95 to Memorial Medical Parkway			0.27								37,732	0.0859	3,241	747	3,988							C	F					
3520	Memorial Medical Pkwy to Seminole Woods Parkway			0.35							34,523	0.1013	3,497	745	4,242	C						D	F						
3515	Seminole Woods Pkwy to Bulldog Drive			0.27							34,279	0.0629	2,156	249	2,405							C	C						
3510	Bulldog Drive to Landings Blvd.			0.78							32,283	0.0814	2,628	232	2,860							C	C						
3505	Landings Blvd. to Belle Terre Parkway			0.45							28,600	0.0892	2,551	232	2,783							C	C						
3500	Belle Terre Parkway to Palm Coast City Limits			0.45							32,025	0.0814	2,607	236	2,843							C	C						
Segment Length:				3.06																									
Town Center Blvd.																													
4100	SR 100 to Hospital Drive	Collector	UFH	0.29	4	Yes	n.a.	n.a.	n.a.	25	7,242	0.1265	916	686	1,602	*	3,300	4,660	5,900	6,530	D	B	B						
4110	Hospital Drive to Central Avenue			0.39							7,129	0.1246	888	648	1,536							B	B						
4120	Central Avenue to Lake Avenue			0.30							6,810	0.1521	1,036	35	1,071							C	C						
4130	Lake Avenue to Royal Palm Parkway			0.59	6,409	0.1267					812	35	847	*	770	1,530	2,170	2,990	D	C	C								
4140	Royal Palm Parkway to Old Kings Road			0.25	10,206	0.0909					928	390	1,318							C	C								
Segment Length:				1.82																									
Tuscany Blvd.																													
4145	Old Kings Road to SR100	Collector	Class 1	2.01	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.				-	0	-													
US1 (SR5)																													
3700	St. Johns County Line to Old Kings Road	Arterial	State Class 1	0.76	4	Yes	Yes	No	3	0.25	60	13,684	0.1117	1,529	508	2,037	*	**	3,420	3,580	***	D	C	C					
3702	Old Kings Road to Matanzas Woods Parkway			2.61							15,505	0.096	1,488	739	2,227	C							C						
3705	Matanzas Woods Parkway to Palm Coast Parkway			3.65							18,687	0.0955	1,785	1,383	3,168	C							C						
3710	Palm Coast Parkway to White View Parkway			2.11							20,783	0.0943	1,960	545	2,505	C							C						
3720	White View Parkway to Royal Palms Parkway			1.78							22,118	0.093	2,057	463	2,520	C							C						
3725	Royal Palms Parkway to Espanola Road			1.07							24,367	0.0913	2,225	273	2,498	C							C						
Segment Length:				11.98																									
101	Palm Coast City Limit to Belle Terre Parkway	Arterial	State Class 1	0.57	4	Yes	Yes	No	2	0.69	60	14,567	0.0901	1,312	264	1,576	*	**	3,420	3,580	***	D	C	C					
3750	Belle Terre Parkway to DuPont Road			0.9								17,288	0.085	1,469	490	1,959							C	C					
3755	DuPont Road to Seminole Woods Parkway			1.04								19,314	0.0994	1,920	281	2,201							C	C					
235	Seminole Woods Parkway to Palm Coast City Limit			0.37								18,084	0.0929	1,680	325	2,005							C	C					
Segment Length:				2.88																									
White Mill Drive																													
3915	Pine Lakes Parkway to White View Parkway	Collector	UFH	0.39	2	No	n.a.	n.a.	n.a.	n.a.	40	5,014	0.0902	452	18	470	*	770	1,530	2,170	2,990	D	B	B					
White View Parkway																													
3920	US 1 to White Mill Drive	Arterial	Class 1	0.88	4	Yes	Yes	No	1	0.28	45	8,964	0.0982	880	10	890	*	**	3,420	3,580	***	D	C	C					
3910	White Mill Drive to Belle Terre Parkway			1.53	2	No					50	8,446	0.0928	784	23	807							*	**	1,510	1,600	***	C	C
3900	Belle Terre Parkway to Pritchard Drive			1.11	45	8,277					0.0797	660	5	665	C	C													
Segment Length:				3.52																									

Freeway = Interstate Highway, State = State Highway, UFH = Uninterrupted Flow Highway, Class 1 = 40 mph or higher speed limit, Class 2 = 35 mph or lower speed limit, PMPH = P.M. Peak Hour, K (actual) = Measured Peak Hour Factor.

Appendix D

Turning Movement Counts



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

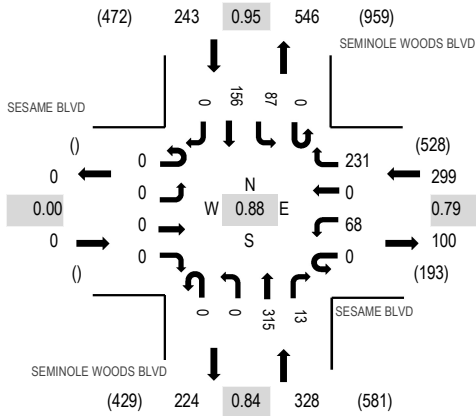
Location: 1 SEMINOLE WOODS BLVD & SESAME BLVD AM

Date: Thursday, February 26, 2026

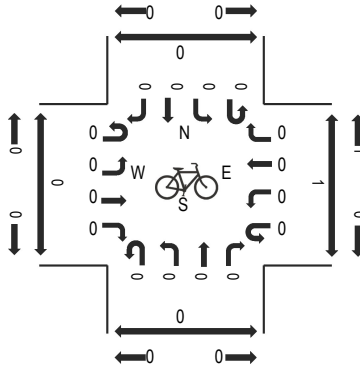
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

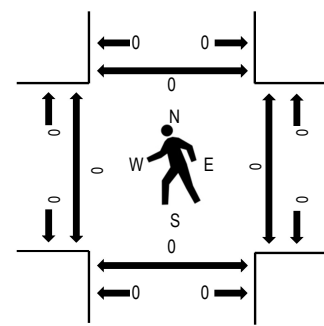
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SESAME BLVD Eastbound				SESAME BLVD Westbound				SEMINOLE WOODS BLVD Northbound				SEMINOLE WOODS BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	20	0	35	0	0	50	0	0	9	26	0	140	793	0	0	0	0
7:15 AM	0	0	0	0	0	11	0	41	0	0	63	6	0	20	41	0	182	850	0	0	0	0
7:30 AM	0	0	0	0	0	20	0	75	0	0	94	4	0	17	36	0	246	870	0	0	0	0
7:45 AM	0	0	0	0	0	23	0	53	0	0	89	4	0	14	42	0	225	830	0	0	0	0
8:00 AM	0	0	0	0	0	14	0	44	0	0	67	2	0	30	40	0	197	788	0	0	0	0
8:15 AM	0	0	0	0	0	11	0	59	0	0	65	3	0	26	38	0	202		0	0	0	0
8:30 AM	0	0	0	0	0	11	0	51	0	0	69	7	0	21	47	0	206		0	0	0	0
8:45 AM	0	0	0	0	0	6	0	54	0	0	50	8	0	22	43	0	183		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	1	0	0	2	1	0	4
Lights	0	0	0	0	0	68	0	228	0	0	305	12	0	76	151	0	840
Mediums	0	0	0	0	0	0	0	3	0	0	9	1	0	9	4	0	26
Total	0	0	0	0	0	68	0	231	0	0	315	13	0	87	156	0	870

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 %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	3.2%	7.7%	0.0%	12.6%	3.2%	0.0%	3.4%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.77	0.00	0.00	0.84	0.63	0.00	0.83	0.89	0.00	0.88

	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 %		0.0%				0.9%				9.6%				6.7%			6.1%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	1.9%	0.0%	0.0%	10.7%	3.7%	0.0%	12.4%	5.9%	0.0%	6.1%
Peak Hour Factor		0.00				0.89				0.90				0.91			0.95
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.79	0.00	0.00	0.89	0.91	0.25	0.94	0.89	0.00	0.95



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

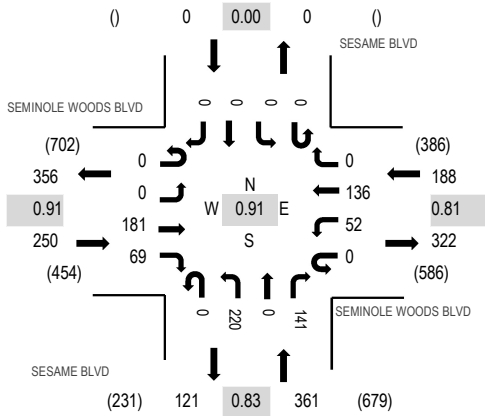
Location: 3 SESAME BLVD & SEMINOLE WOODS BLVD AM

Date: Wednesday, February 11, 2026

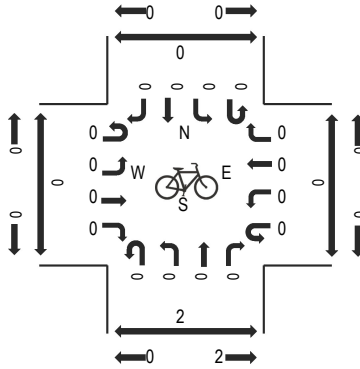
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

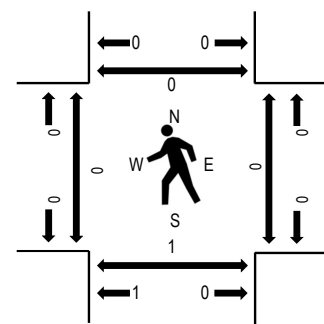
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SESAME BLVD				SESAME BLVD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	31	19	0	5	32	0	0	59	0	24	0	0	0	0	170	788	0	0	1	0
7:15 AM	0	0	48	16	0	12	32	0	0	59	0	26	0	0	0	0	193	799	0	0	0	0
7:30 AM	0	0	40	16	0	12	40	0	0	59	0	53	0	0	0	0	220	795	0	0	1	0
7:45 AM	0	0	55	14	0	11	35	0	0	56	0	34	0	0	0	0	205	772	0	0	0	0
8:00 AM	0	0	38	23	0	17	29	0	0	46	0	28	0	0	0	0	181	731	0	0	0	0
8:15 AM	0	0	36	15	0	17	48	0	0	47	0	26	0	0	0	0	189		0	0	0	0
8:30 AM	0	0	40	16	0	15	39	0	0	55	0	32	0	0	0	0	197		0	0	0	0
8:45 AM	0	0	34	13	0	10	32	0	0	34	0	41	0	0	0	0	164		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	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lights	0	0	170	65	0	50	134	0	0	217	0	137	0	0	0	0	773
Mediums	0	0	7	4	0	2	2	0	0	3	0	4	0	0	0	0	22
Total	0	0	181	69	0	52	136	0	0	220	0	141	0	0	0	0	799

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 %		6.0%				2.1%				1.9%				0.0%			3.3%
Heavy Vehicle %	0.0%	0.0%	6.1%	5.8%	0.0%	3.8%	1.5%	0.0%	0.0%	1.4%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	3.3%
Peak Hour Factor		0.91				0.81				0.83				0.00			0.91
Peak Hour Factor	0.00	0.00	0.82	0.75	0.00	0.88	0.79	0.00	0.00	0.99	0.00	0.67	0.00	0.00	0.00	0.00	0.91



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

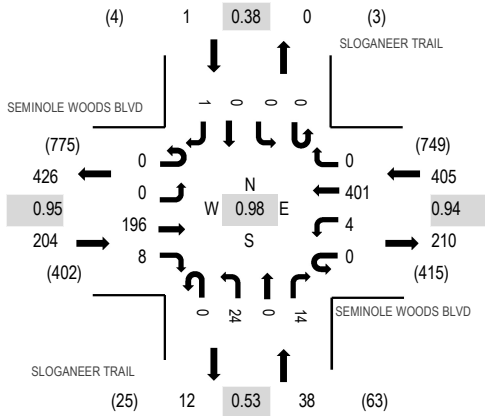
Location: 4 SLOGANEER TRAIL & SEMINOLE WOODS BLVD AM

Date: Wednesday, February 11, 2026

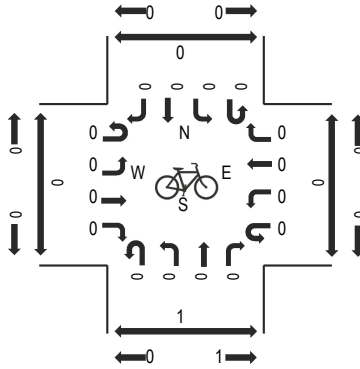
Peak Hour: 07:00 AM - 08:00 AM

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

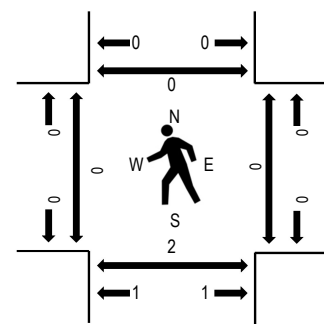
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SLOGANEER TRAIL				SLOGANEER TRAIL				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	42	3	0	1	102	0	0	15	0	3	0	0	0	0	166	648	0	0	1	0
7:15 AM	0	0	48	1	0	1	94	0	0	3	0	6	0	0	0	1	154	620	0	0	0	0
7:30 AM	0	0	49	4	0	2	106	0	0	3	0	2	0	0	0	0	166	619	0	0	1	0
7:45 AM	0	0	57	0	0	0	99	0	0	3	0	3	0	0	0	0	162	599	0	0	0	0
8:00 AM	0	0	55	1	0	1	76	0	0	2	0	3	0	0	0	0	138	570	0	0	0	0
8:15 AM	0	0	49	2	0	4	92	3	0	1	0	1	0	1	0	0	153		0	0	0	0
8:30 AM	0	0	50	1	0	0	84	0	0	5	0	4	0	0	0	2	146		0	0	0	0
8:45 AM	0	0	39	1	0	3	81	0	0	6	0	3	0	0	0	0	133		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	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lights	0	0	180	6	0	3	398	0	0	24	0	13	0	0	0	1	625
Mediums	0	0	13	2	0	1	3	0	0	0	0	1	0	0	0	0	20
Total	0	0	196	8	0	4	401	0	0	24	0	14	0	0	0	1	648

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 %	8.8%				1.0%				2.6%				0.0%				3.5%
Heavy Vehicle %	0.0%	0.0%	8.2%	25.0%	0.0%	25.0%	0.7%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	3.5%
Peak Hour Factor	0.95				0.94				0.53				0.38				0.98
Peak Hour Factor	0.00	0.00	0.93	0.50	0.00	0.50	0.95	0.25	0.00	0.40	0.00	0.58	0.00	0.25	0.00	0.25	0.98



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

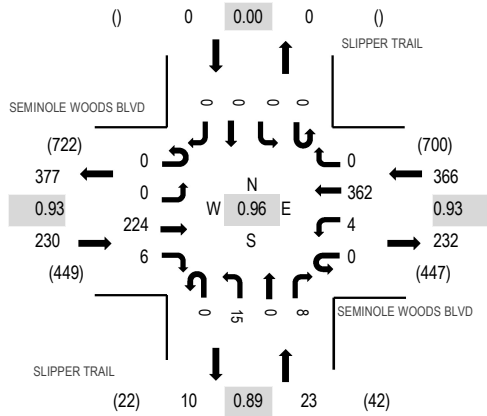
Location: 5 SLIPPER TRAIL & SEMINOLE WOODS BLVD AM

Date: Wednesday, February 11, 2026

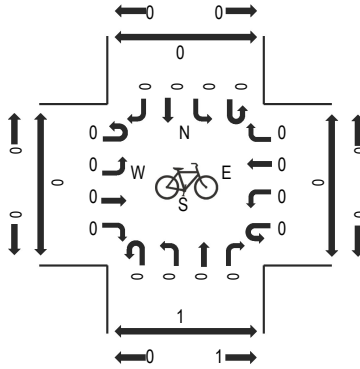
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

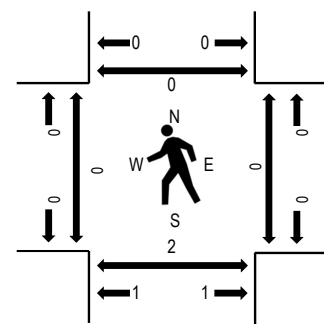
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SLIPPER TRAIL				SLIPPER TRAIL				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	46	2	0	0	88	0	0	2	0	2	0	0	0	0	140	619	0	0	1	0
7:15 AM	0	0	59	1	0	1	89	0	0	3	0	3	0	0	0	0	156	618	0	0	0	0
7:30 AM	0	0	55	2	0	2	96	0	0	5	0	2	0	0	0	0	162	615	0	0	1	0
7:45 AM	0	0	64	1	0	1	89	0	0	5	0	1	0	0	0	0	161	605	0	0	0	0
8:00 AM	0	0	60	1	0	2	70	0	0	5	0	1	0	0	0	0	139	572	0	0	0	0
8:15 AM	0	0	49	3	0	2	94	0	0	4	0	1	0	0	0	0	153		0	0	0	0
8:30 AM	0	0	54	2	0	1	92	0	0	2	0	1	0	0	0	0	152		0	0	0	0
8:45 AM	0	0	49	1	0	0	73	0	0	5	0	0	0	0	0	0	128		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	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lights	0	0	204	4	0	4	358	0	0	15	0	8	0	0	0	0	593
Mediums	0	0	17	2	0	0	4	0	0	0	0	0	0	0	0	0	23
Total	0	0	224	6	0	4	362	0	0	15	0	8	0	0	0	0	619

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 %																	4.2%
Heavy Vehicle %	0.0%	0.0%	8.9%	33.3%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%
Peak Hour Factor																	0.96
Peak Hour Factor	0.00	0.00	0.93	0.58	0.00	0.88	0.94	0.00	0.00	0.95	0.00	0.67	0.00	0.00	0.00	0.00	0.96



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

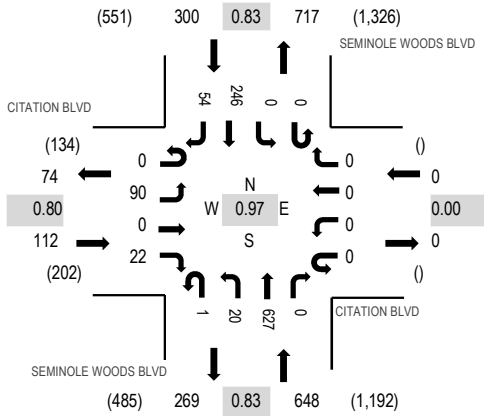
Location: 7 SEMINOLE WOODS BLVD & CITATION BLVD AM

Date: Wednesday, February 11, 2026

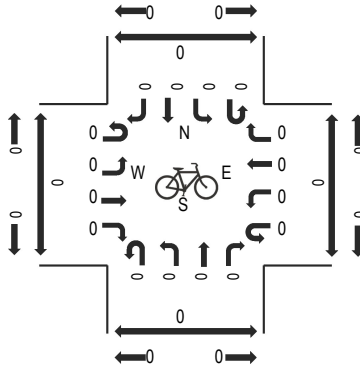
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

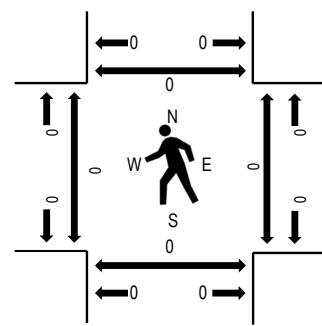
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CITATION BLVD Eastbound				CITATION BLVD Westbound				SEMINOLE WOODS BLVD Northbound				SEMINOLE WOODS BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	14	0	0	0	0	0	0	0	0	116	0	0	0	32	16	178	932	0	1	0	0
7:15 AM	0	20	0	1	0	0	0	0	0	2	136	0	0	0	41	12	212	1,025	0	0	0	0
7:30 AM	0	31	0	4	0	0	0	0	0	4	169	0	0	0	44	16	268	1,060	0	0	0	0
7:45 AM	0	16	0	4	0	0	0	0	0	10	186	0	0	0	52	6	274	1,056	0	0	0	0
8:00 AM	0	21	0	9	0	0	0	0	1	2	138	0	0	0	80	20	271	1,013	0	0	0	0
8:15 AM	0	22	0	5	0	0	0	0	0	4	134	0	0	0	70	12	247		0	0	0	0
8:30 AM	0	17	0	12	0	0	0	0	0	4	150	0	1	0	67	13	264		0	0	0	0
8:45 AM	0	22	0	4	0	0	0	0	0	3	133	0	0	0	59	10	231		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	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6
Lights	0	85	0	19	0	0	0	0	1	20	606	0	0	0	234	50	1,015
Mediums	0	1	0	3	0	0	0	0	0	0	19	0	0	0	12	4	39
Total	0	90	0	22	0	0	0	0	1	20	627	0	0	0	246	54	1,060

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 %		7.1%				0.0%				3.2%				5.3%			4.2%
Heavy Vehicle %	0.0%	5.6%	0.0%	13.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	4.9%	7.4%	4.2%
Peak Hour Factor		0.80				0.00				0.83				0.83			0.97
Peak Hour Factor	0.00	0.73	0.00	0.63	0.00	0.00	0.00	0.00	0.25	0.50	0.85	0.00	0.25	0.00	0.86	0.69	0.97



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

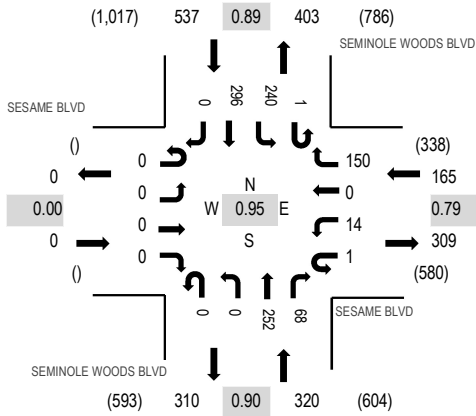
Location: 1 SEMINOLE WOODS BLVD & SESAME BLVD PM

Date: Thursday, February 26, 2026

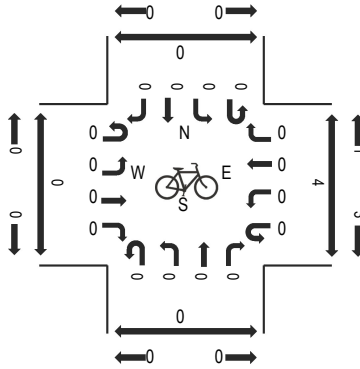
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

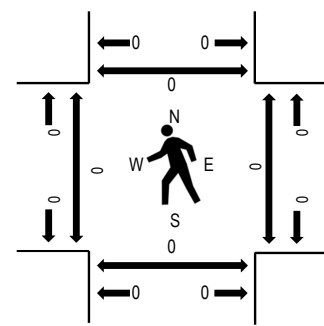
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SESAME BLVD Eastbound				SESAME BLVD Westbound				SEMINOLE WOODS BLVD Northbound				SEMINOLE WOODS BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	2	0	37	0	0	56	7	0	57	66	0	225	995	0	0	0	0
4:15 PM	0	0	0	0	0	4	0	38	0	0	66	12	0	48	74	0	242	1,022	0	0	0	0
4:30 PM	0	0	0	0	0	3	0	31	0	0	65	25	1	62	71	0	258	1,019	0	0	0	0
4:45 PM	0	0	0	0	0	3	0	45	0	0	58	13	0	76	75	0	270	1,010	0	0	0	0
5:00 PM	0	0	0	0	1	4	0	36	0	0	63	18	0	54	76	0	252	964	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	32	0	0	62	19	0	53	72	0	239		0	0	0	0
5:30 PM	0	0	0	0	0	14	0	43	0	0	57	13	0	65	57	0	249		0	0	0	0
5:45 PM	0	0	0	0	0	6	0	38	0	0	58	12	0	45	65	0	224		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	0	0	0	1	14	0	148	0	0	249	67	1	238	295	0	1,013
Mediums	0	0	0	0	0	0	0	2	0	0	3	1	0	2	1	0	9
Total	0	0	0	0	1	14	0	150	0	0	252	68	1	240	296	0	1,022

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 %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	1.3%	1.5%	0.0%	0.8%	0.3%	0.0%	0.9%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.25	0.45	0.00	0.87	0.00	0.00	0.95	0.75	0.25	0.82	0.97	0.00	0.95



ALL TRAFFIC DATA SERVICES

(303) 216-2439

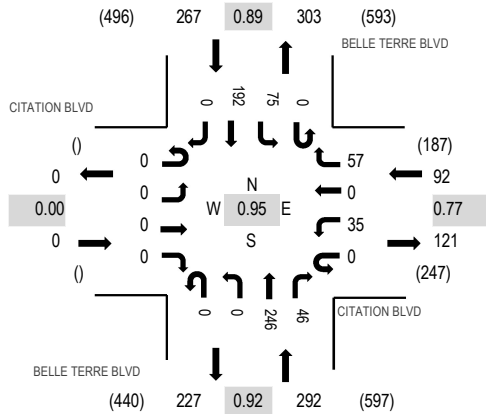
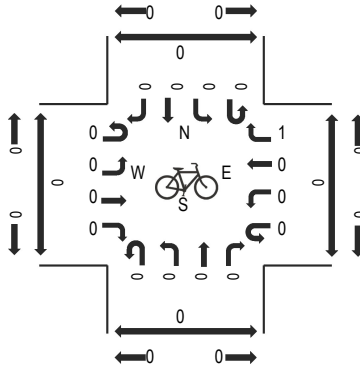
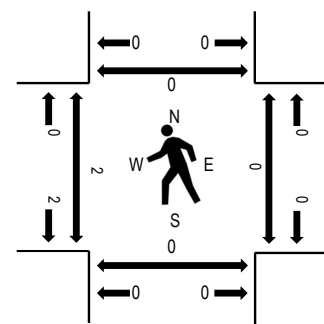
www.alltrafficdata.net

Location: 1 BELLE TERRE BLVD & CITATION BLVD PM

Date: Wednesday, February 11, 2026

Peak Hour: 04:45 PM - 05:45 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	CITATION BLVD Eastbound				CITATION BLVD Westbound				BELLE TERRE BLVD Northbound				BELLE TERRE BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	18	0	13	0	0	61	16	0	19	38	0	165	638	0	0	0	0
4:15 PM	0	0	0	0	0	7	0	15	0	0	62	19	0	14	41	0	158	645	0	0	0	0
4:30 PM	0	0	0	0	0	7	0	12	0	0	57	15	0	14	53	0	158	642	2	0	0	0
4:45 PM	0	0	0	0	0	7	0	14	0	0	64	5	0	24	43	0	157	651	0	0	0	0
5:00 PM	0	0	0	0	0	9	0	22	0	0	55	11	0	23	52	0	172	642	0	0	0	0
5:15 PM	0	0	0	0	0	11	0	13	0	0	63	11	0	11	46	0	155		0	0	0	0
5:30 PM	0	0	0	0	0	8	0	8	0	0	64	19	0	17	51	0	167		2	0	0	0
5:45 PM	0	0	0	0	0	12	0	11	0	0	59	16	0	13	37	0	148		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Lights	0	0	0	0	0	34	0	54	0	0	244	46	0	74	189	0	641
Mediums	0	0	0	0	0	1	0	2	0	0	2	0	0	1	3	0	9
Total	0	0	0	0	0	35	0	57	0	0	246	46	0	75	192	0	651

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 %	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	5.3%	0.0%	0.0%	0.8%	0.0%	0.0%	1.3%	1.6%	0.0%	1.5%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.72	0.00	0.00	0.96	0.75	0.00	0.78	0.92	0.00	0.95



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

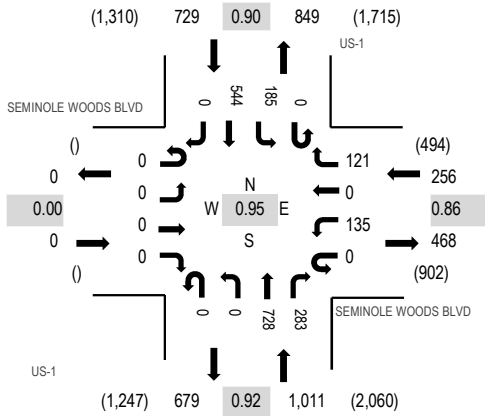
Location: 2 US-1 & SEMINOLE WOODS BLVD PM

Date: Wednesday, February 11, 2026

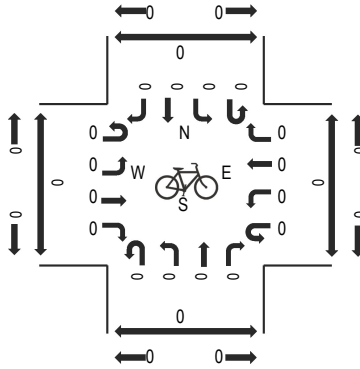
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

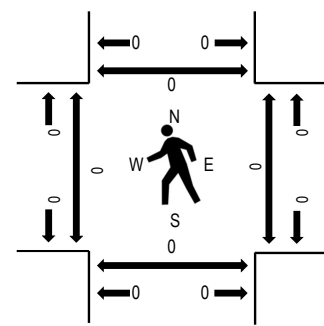
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				US-1				US-1				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM	0	0	0	0	0	34	0	24	0	0	192	63	0	36	118	0	467	1,969	0	0	0	0
4:15 PM	0	0	0	0	0	49	0	27	0	0	192	73	0	46	139	0	526	1,995	0	0	0	0
4:30 PM	0	0	0	0	0	33	0	34	0	0	191	80	0	52	138	0	528	1,996	0	0	0	0
4:45 PM	0	0	0	0	0	31	0	28	0	0	179	59	0	36	115	0	448	1,922	0	0	0	0
5:00 PM	0	0	0	0	0	23	0	31	0	0	165	72	0	48	154	0	493	1,895	0	0	0	0
5:15 PM	0	0	0	0	0	48	0	28	0	0	193	72	0	49	137	0	527		0	0	0	0
5:30 PM	0	0	0	0	0	20	0	24	0	0	195	84	0	34	97	0	454		0	0	0	0
5:45 PM	0	0	0	0	0	29	0	31	0	0	181	69	0	29	82	0	421		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	6	0	0	1	8	0	16
Lights	0	0	0	0	0	135	0	112	0	0	707	283	0	182	517	0	1,936
Mediums	0	0	0	0	0	0	0	8	0	0	15	0	0	2	19	0	44
Total	0	0	0	0	0	135	0	121	0	0	728	283	0	185	544	0	1,996

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 %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.4%	0.0%	0.0%	2.9%	0.0%	0.0%	1.6%	5.0%	0.0%	3.0%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.89	0.00	0.00	0.98	0.88	0.00	0.89	0.89	0.00	0.95



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

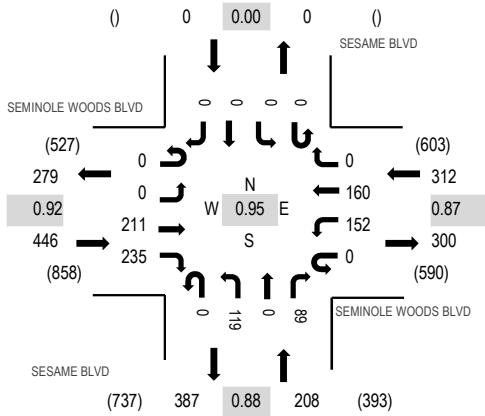
Location: 3 SESAME BLVD & SEMINOLE WOODS BLVD PM

Date: Wednesday, February 11, 2026

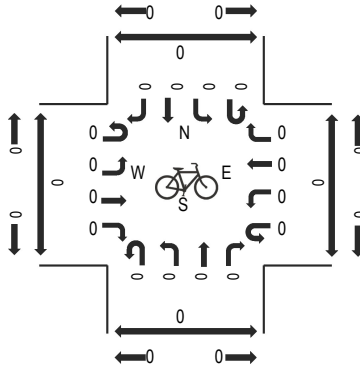
Peak Hour: 04:30 PM - 05:30 PM

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

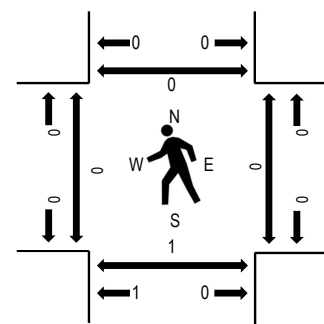
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SESAME BLVD				SESAME BLVD				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM	0	0	47	47	0	27	45	0	0	28	0	20	0	0	0	0	214	922	0	0	0	0
4:15 PM	0	0	62	46	0	34	43	0	0	22	0	24	0	0	0	0	231	961	0	0	0	0
4:30 PM	0	0	54	67	0	26	41	0	0	32	0	27	0	0	0	0	247	966	0	0	0	0
4:45 PM	0	0	45	44	0	55	37	0	0	25	0	24	0	0	0	0	230	949	0	0	1	0
5:00 PM	0	0	52	67	0	47	38	0	0	28	0	21	0	0	0	0	253	932	0	0	0	0
5:15 PM	0	0	60	57	0	24	44	0	0	34	0	17	0	0	0	0	236		0	0	0	0
5:30 PM	0	0	47	69	0	39	26	0	0	28	0	21	0	0	0	0	230		0	0	0	0
5:45 PM	0	0	48	46	0	42	35	0	0	21	0	21	0	0	0	0	213		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
Lights	0	0	209	232	0	150	155	0	0	117	0	87	0	0	0	0	950
Mediums	0	0	2	2	0	2	5	0	0	1	0	2	0	0	0	0	14
Total	0	0	211	235	0	152	160	0	0	119	0	89	0	0	0	0	966

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 %		1.1%				2.2%				1.9%				0.0%			1.7%
Heavy Vehicle %	0.0%	0.0%	0.9%	1.3%	0.0%	1.3%	3.1%	0.0%	0.0%	1.7%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	1.7%
Peak Hour Factor		0.92				0.87				0.88				0.00			0.95
Peak Hour Factor	0.00	0.00	0.86	0.87	0.00	0.75	0.92	0.00	0.00	0.88	0.00	0.89	0.00	0.00	0.00	0.00	0.95



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

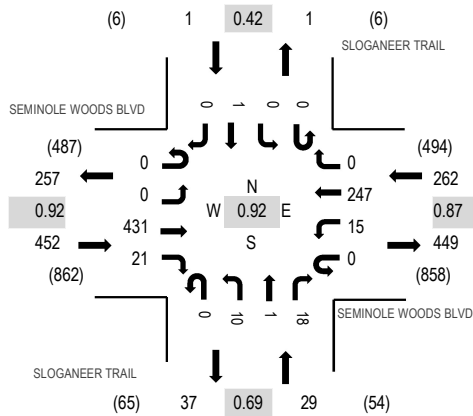
Location: 4 SLOGANEER TRAIL & SEMINOLE WOODS BLVD PM

Date: Wednesday, February 11, 2026

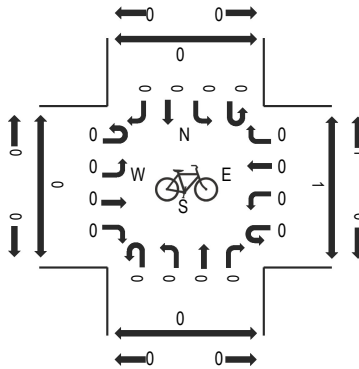
Peak Hour: 04:30 PM - 05:30 PM

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

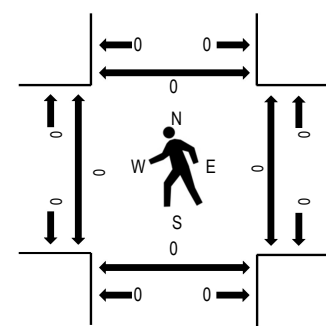
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SLOGANEER TRAIL				SLOGANEER TRAIL				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM	0	0	90	4	0	1	55	1	0	0	0	2	0	0	1	0	154	698	0	0	2	0
4:15 PM	0	1	104	4	0	6	59	1	0	10	0	2	0	0	1	2	190	731	0	0	0	0
4:30 PM	0	0	116	4	0	1	71	0	0	3	1	2	0	0	0	0	198	744	0	0	0	0
4:45 PM	0	0	81	8	0	7	47	0	0	4	0	8	0	0	1	0	156	713	0	0	0	0
5:00 PM	0	0	119	4	0	4	57	0	0	1	0	2	0	0	0	0	187	718	0	0	0	0
5:15 PM	0	0	115	5	0	3	72	0	0	2	0	6	0	0	0	0	203		0	0	0	0
5:30 PM	0	0	110	1	0	7	44	0	0	0	0	4	0	0	1	0	167		0	0	1	0
5:45 PM	0	1	94	1	0	1	56	1	0	4	0	3	0	0	0	0	161		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	0	431	20	0	15	238	0	0	9	1	17	0	0	1	0	732
Mediums	0	0	0	1	0	0	8	0	0	1	0	1	0	0	0	0	11
Total	0	0	431	21	0	15	247	0	0	10	1	18	0	0	1	0	744

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 %	0.2%				3.4%				6.9%				0.0%				1.6%
Heavy Vehicle %	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	3.6%	0.0%	0.0%	10.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	1.6%
Peak Hour Factor	0.92				0.87				0.69				0.42				0.92
Peak Hour Factor	0.00	0.25	0.92	0.66	0.00	0.75	0.86	0.50	0.00	0.45	0.25	0.63	0.00	0.00	0.75	0.25	0.92



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

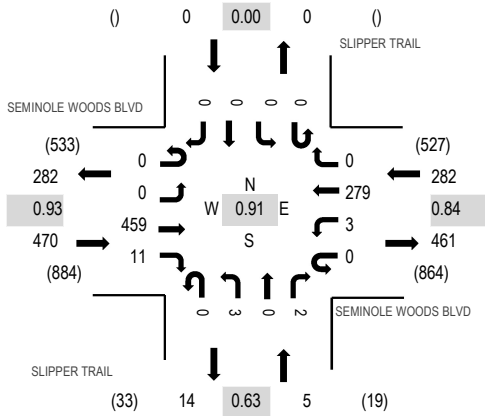
Location: 5 SLIPPER TRAIL & SEMINOLE WOODS BLVD PM

Date: Wednesday, February 11, 2026

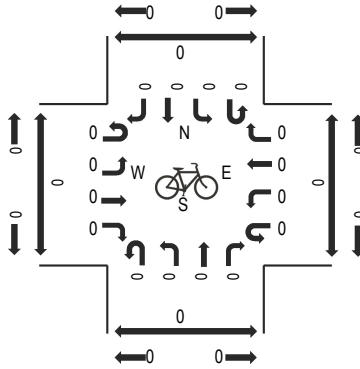
Peak Hour: 04:30 PM - 05:30 PM

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

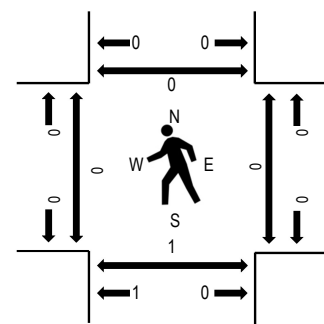
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SLIPPER TRAIL				SLIPPER TRAIL				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM	0	0	92	5	0	0	67	0	0	2	0	1	0	0	0	0	167	707	0	0	2	0
4:15 PM	0	0	102	6	0	2	65	0	0	2	0	2	0	0	0	0	179	727	0	0	0	0
4:30 PM	0	0	127	0	0	0	70	0	0	1	0	0	0	0	0	0	198	757	0	0	0	0
4:45 PM	0	0	93	4	0	1	63	0	0	0	0	2	0	0	0	0	163	728	0	0	1	0
5:00 PM	0	0	121	2	0	1	63	0	0	0	0	0	0	0	0	0	187	723	0	0	0	0
5:15 PM	0	0	118	5	0	1	83	0	0	2	0	0	0	0	0	0	209		0	0	0	0
5:30 PM	0	0	110	3	0	0	52	0	0	3	0	1	0	0	0	0	169		0	0	0	0
5:45 PM	0	0	94	2	0	1	58	0	0	2	0	1	0	0	0	0	158		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Lights	0	0	455	11	0	3	272	0	0	3	0	2	0	0	0	0	746
Mediums	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	9
Total	0	0	459	11	0	3	279	0	0	3	0	2	0	0	0	0	757

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 %	0.9%				2.5%				0.0%				0.0%				1.5%
Heavy Vehicle %	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%
Peak Hour Factor	0.93				0.84				0.63				0.00				0.91
Peak Hour Factor	0.00	0.00	0.90	0.63	0.00	0.50	0.84	0.00	0.00	0.58	0.00	0.63	0.00	0.00	0.00	0.00	0.91



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

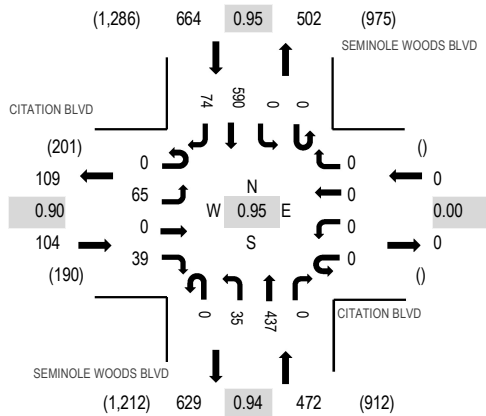
Location: 7 SEMINOLE WOODS BLVD & CITATION BLVD PM

Date: Wednesday, February 11, 2026

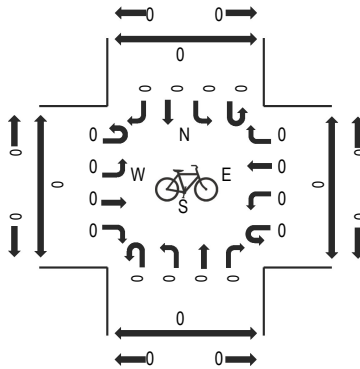
Peak Hour: 04:15 PM - 05:15 PM

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

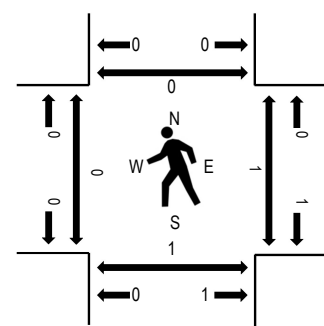
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CITATION BLVD Eastbound				CITATION BLVD Westbound				SEMINOLE WOODS BLVD Northbound				SEMINOLE WOODS BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	11	0	12	0	0	0	0	0	6	84	0	0	0	133	13	259	1,173	0	0	0	0
4:15 PM	0	15	0	13	0	0	0	0	0	16	110	0	0	0	137	10	301	1,240	0	1	0	0
4:30 PM	0	15	0	8	0	0	0	0	0	5	115	0	0	0	148	17	308	1,233	0	0	1	0
4:45 PM	0	15	0	9	0	0	0	0	0	9	99	0	0	0	151	22	305	1,209	0	0	0	0
5:00 PM	0	20	0	9	0	0	0	0	0	5	113	0	0	0	154	25	326	1,215	0	0	0	0
5:15 PM	0	7	0	9	0	0	0	0	0	2	111	0	0	0	141	24	294		0	0	0	0
5:30 PM	0	19	0	5	0	0	0	0	0	5	110	0	0	0	132	13	284		0	0	0	0
5:45 PM	0	16	0	7	0	0	0	0	0	7	115	0	0	0	144	22	311		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	1	0	0	0	0	1	2
Lights	0	64	0	37	0	0	0	0	0	34	426	0	0	0	584	72	1,217
Mediums	0	1	0	2	0	0	0	0	0	1	10	0	0	0	6	1	21
Total	0	65	0	39	0	0	0	0	0	35	437	0	0	0	590	74	1,240

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 %		2.9%				0.0%				2.5%				1.2%			1.9%
Heavy Vehicle %	0.0%	1.5%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.5%	0.0%	0.0%	0.0%	1.0%	2.7%	1.9%
Peak Hour Factor		0.90				0.00				0.94				0.95			0.95
Peak Hour Factor	0.00	0.81	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.56	0.98	0.00	0.00	0.00	0.96	0.88	0.95

Appendix E

FDOT Seasonal Factor Report

2024 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7300 FLAGLER COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2024 - 01/06/2024	1.04	1.09
2	01/07/2024 - 01/13/2024	1.05	1.11
3	01/14/2024 - 01/20/2024	1.07	1.13
4	01/21/2024 - 01/27/2024	1.04	1.09
5	01/28/2024 - 02/03/2024	1.02	1.07
6	02/04/2024 - 02/10/2024	1.00	1.05
7	02/11/2024 - 02/17/2024	0.98	1.03
* 8	02/18/2024 - 02/24/2024	0.97	1.02
* 9	02/25/2024 - 03/02/2024	0.95	1.00
*10	03/03/2024 - 03/09/2024	0.94	0.99
*11	03/10/2024 - 03/16/2024	0.93	0.98
*12	03/17/2024 - 03/23/2024	0.94	0.99
*13	03/24/2024 - 03/30/2024	0.94	0.99
*14	03/31/2024 - 04/06/2024	0.95	1.00
*15	04/07/2024 - 04/13/2024	0.95	1.00
*16	04/14/2024 - 04/20/2024	0.96	1.01
*17	04/21/2024 - 04/27/2024	0.96	1.01
*18	04/28/2024 - 05/04/2024	0.97	1.02
*19	05/05/2024 - 05/11/2024	0.97	1.02
*20	05/12/2024 - 05/18/2024	0.98	1.03
21	05/19/2024 - 05/25/2024	0.99	1.04
22	05/26/2024 - 06/01/2024	0.99	1.04
23	06/02/2024 - 06/08/2024	1.00	1.05
24	06/09/2024 - 06/15/2024	1.01	1.06
25	06/16/2024 - 06/22/2024	1.01	1.06
26	06/23/2024 - 06/29/2024	1.01	1.06
27	06/30/2024 - 07/06/2024	1.01	1.06
28	07/07/2024 - 07/13/2024	1.02	1.07
29	07/14/2024 - 07/20/2024	1.02	1.07
30	07/21/2024 - 07/27/2024	1.02	1.07
31	07/28/2024 - 08/03/2024	1.02	1.07
32	08/04/2024 - 08/10/2024	1.02	1.07
33	08/11/2024 - 08/17/2024	1.02	1.07
34	08/18/2024 - 08/24/2024	1.02	1.07
35	08/25/2024 - 08/31/2024	1.03	1.08
36	09/01/2024 - 09/07/2024	1.03	1.08
37	09/08/2024 - 09/14/2024	1.04	1.09
38	09/15/2024 - 09/21/2024	1.05	1.11
39	09/22/2024 - 09/28/2024	1.03	1.08
40	09/29/2024 - 10/05/2024	1.02	1.07
41	10/06/2024 - 10/12/2024	1.00	1.05
42	10/13/2024 - 10/19/2024	0.99	1.04
43	10/20/2024 - 10/26/2024	0.99	1.04
44	10/27/2024 - 11/02/2024	1.00	1.05
45	11/03/2024 - 11/09/2024	1.00	1.05
46	11/10/2024 - 11/16/2024	1.00	1.05
47	11/17/2024 - 11/23/2024	1.01	1.06
48	11/24/2024 - 11/30/2024	1.02	1.07
49	12/01/2024 - 12/07/2024	1.03	1.08
50	12/08/2024 - 12/14/2024	1.03	1.08
51	12/15/2024 - 12/21/2024	1.04	1.09
52	12/22/2024 - 12/28/2024	1.05	1.11
53	12/29/2024 - 12/31/2024	1.07	1.13

* PEAK SEASON

04-MAR-2025 16:32:53

830UPD

5_7300_PKSEASON.TXT

Appendix F

Synchro Printouts - Existing Traffic Conditions

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	112	718	403	79	260	155
Future Volume (vph)	112	718	403	79	260	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.409				0.950	
Satd. Flow (perm)	762	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				86		168
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	780	438	86	283	168
Shared Lane Traffic (%)						
Lane Group Flow (vph)	122	780	438	86	283	168
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

2026 Existing AM Peak Hour Traffic 1:18 pm 03/02/2026

Synchro 12 Report
Page 1

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	32.5	22.5	22.5	22.5	22.5
Total Split (%)	18.2%	59.1%	40.9%	40.9%	40.9%	40.9%
Maximum Green (s)	5.5	28.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	29.0	29.0	21.0	21.0	13.0	13.0
Actuated g/C Ratio	0.57	0.57	0.41	0.41	0.25	0.25
v/c Ratio	0.23	0.39	0.30	0.12	0.63	0.32
Control Delay (s/veh)	7.3	7.5	12.6	4.3	23.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.3	7.5	12.6	4.3	23.1	4.7
LOS	A	A	B	A	C	A
Approach Delay (s/veh)		7.4	11.3		16.3	
Approach LOS		A	B		B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 51

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 10.6

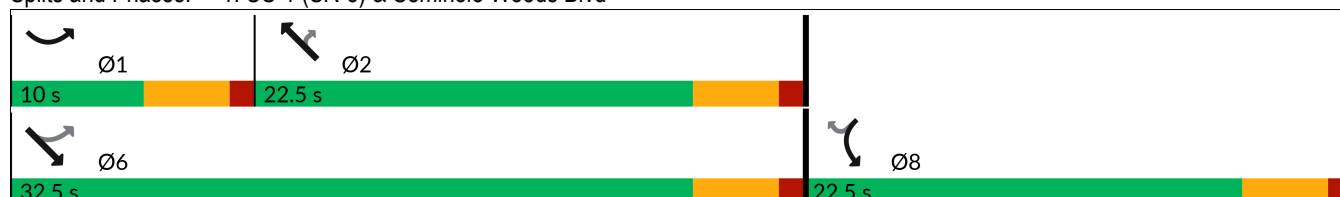
Intersection LOS: B

Intersection Capacity Utilization 43.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	112	718	403	79	260	155
Future Volume (veh/h)	112	718	403	79	260	155
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	780	438	86	283	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	621	2117	1476	658	379	337
Arrive On Green	0.08	0.60	0.42	0.42	0.21	0.21
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	122	780	438	86	283	168
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	1.6	5.3	3.9	1.6	7.0	4.4
Cycle Q Clear(g_c), s	1.6	5.3	3.9	1.6	7.0	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	621	2117	1476	658	379	337
V/C Ratio(X)	0.20	0.37	0.30	0.13	0.75	0.50
Avail Cap(c_a), veh/h	678	2117	1476	658	682	607
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	5.7	4.9	9.2	8.5	17.3	16.3
Incr Delay (d2), s/veh	0.2	0.5	0.5	0.4	3.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	1.3	0.5	2.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	5.8	5.4	9.7	8.9	20.3	17.4
LnGrp LOS	A	A	A	A	C	B
Approach Vol, veh/h		902	524		451	
Approach Delay, s/veh		5.5	9.5		19.2	
Approach LOS		A	A		B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.5	24.0			32.5	14.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.5	18.0			28.0	18.0
Max Q Clear Time (g_c+I1), s	3.6	5.9			7.3	9.0
Green Ext Time (p_c), s	0.0	2.5			5.5	1.0
Intersection Summary						
HCM 7th Control Delay, s/veh			9.9			
HCM 7th LOS			A			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	192	8	4	393	0	24	0	14	0	0	1
Future Volume (vph)	0	192	8	4	393	0	24	0	14	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		0	0		165	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.951				0.850
Flt Protected								0.969				
Satd. Flow (prot)	1863	1852	0	0	1863	1863	0	1717	0	0	1863	1583
Flt Permitted								0.969				
Satd. Flow (perm)	1863	1852	0	0	1863	1863	0	1717	0	0	1863	1583
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		2822			2497			302			828	
Travel Time (s)		35.0			31.0			6.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	209	9	4	427	0	26	0	15	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	218	0	0	431	0	0	41	0	0	0	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		60	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.6%				ICU Level of Service A							
Analysis Period (min)	15											

Lanes, Volumes, Timings

3: Slipper Trail & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	220	6	4	355	15	8
Future Volume (vph)	220	6	4	355	15	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.951	
Flt Protected				0.999	0.969	
Satd. Flow (prot)	1855	0	0	1861	1717	0
Flt Permitted				0.999	0.969	
Satd. Flow (perm)	1855	0	0	1861	1717	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	2497			1960	501	
Travel Time (s)	31.0			24.3	11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	7	4	386	16	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	246	0	0	390	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.9%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

4: Sesame Blvd & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	177	68	51	133	216	138
Future Volume (vph)	177	68	51	133	216	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.962				0.947	
Flt Protected				0.986	0.970	
Satd. Flow (prot)	1792	0	0	1837	1711	0
Flt Permitted				0.986	0.970	
Satd. Flow (perm)	1792	0	0	1837	1711	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	24.3			3.7	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	74	55	145	235	150
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	0	200	385	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	53.7%			ICU Level of Service A		
Analysis Period (min)	15					

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	65	219	299	12	83	148
Future Volume (vph)	65	219	299	12	83	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		55			55
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		36.6			12.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	238	325	13	90	161
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	238	325	13	90	161
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	22	21	614	241	53
Future Volume (vph)	88	22	21	614	241	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	24	23	667	262	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	96	24	23	667	262	58
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.5%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	181	533	713	277	132	119
Future Volume (vph)	181	533	713	277	132	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.251				0.950	
Satd. Flow (perm)	468	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				301		129
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	197	579	775	301	143	129
Shared Lane Traffic (%)						
Lane Group Flow (vph)	197	579	775	301	143	129
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

2026 Existing PM Peak Hour Traffic 11:33 am 02/20/2026

Synchro 12 Report
Page 1

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	32.5	22.9	22.9	22.5	22.5
Total Split (%)	17.5%	59.1%	41.6%	41.6%	40.9%	40.9%
Maximum Green (s)	5.1	28.0	18.4	18.4	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	31.0	31.9	21.4	21.4	9.0	9.0
Actuated g/C Ratio	0.66	0.68	0.46	0.46	0.19	0.19
v/c Ratio	0.44	0.24	0.48	0.34	0.42	0.32
Control Delay (s/veh)	7.6	4.6	11.7	3.0	20.1	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.6	4.6	11.7	3.0	20.1	6.2
LOS	A	A	B	A	C	A
Approach Delay (s/veh)		5.4	9.3		13.5	
Approach LOS		A	A		B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 47

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay (s/veh): 8.4

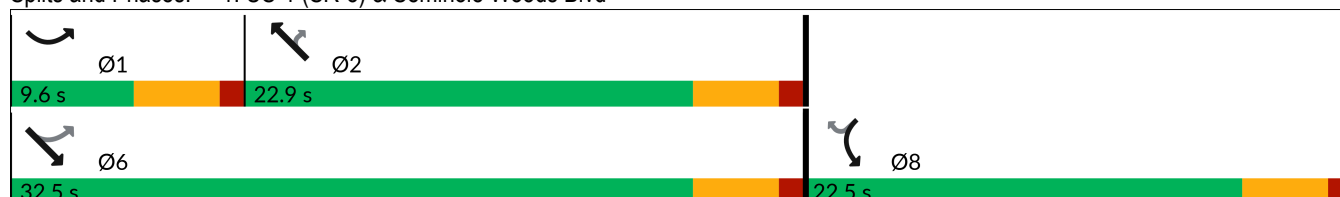
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	181	533	713	277	132	119
Future Volume (veh/h)	181	533	713	277	132	119
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	197	579	775	301	143	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	558	2330	1580	705	238	212
Arrive On Green	0.11	0.66	0.44	0.44	0.13	0.13
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	197	579	775	301	143	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	2.1	2.9	6.6	5.6	3.2	3.3
Cycle Q Clear(g_c), s	2.1	2.9	6.6	5.6	3.2	3.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	558	2330	1580	705	238	212
V/C Ratio(X)	0.35	0.25	0.49	0.43	0.60	0.61
Avail Cap(c_a), veh/h	583	2330	1580	705	751	668
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	5.1	3.0	8.4	8.1	17.4	17.4
Incr Delay (d2), s/veh	0.4	0.3	1.1	1.9	2.4	2.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	2.1	1.7	1.3	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	5.5	3.3	9.5	10.0	19.9	20.3
LnGrp LOS	A	A	A	B	B	C
Approach Vol, veh/h		776	1076		272	
Approach Delay, s/veh		3.8	9.7		20.1	
Approach LOS		A	A		C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.0	23.5			32.5	10.2
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.1	18.4			28.0	18.0
Max Q Clear Time (g_c+I1), s	4.1	8.6			4.9	5.3
Green Ext Time (p_c), s	0.1	4.5			4.1	0.7
Intersection Summary						
HCM 7th Control Delay, s/veh			8.9			
HCM 7th LOS			A			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	422	21	15	242	0	10	1	18	0	1	0
Future Volume (vph)	0	422	21	15	242	0	10	1	18	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		0	0		165	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993						0.916				
Flt Protected					0.997			0.983				
Satd. Flow (prot)	1863	1850	0	0	1857	1863	0	1677	0	0	1863	1863
Flt Permitted					0.997			0.983				
Satd. Flow (perm)	1863	1850	0	0	1857	1863	0	1677	0	0	1863	1863
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		2822			2497			302			828	
Travel Time (s)		35.0			31.0			6.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	459	23	16	263	0	11	1	20	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	0	0	279	0	0	32	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		60	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	40.1%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings
3: Slipper Trail & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	11	3	273	3	2
Future Volume (vph)	450	11	3	273	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.946	
Flt Protected					0.971	
Satd. Flow (prot)	1857	0	0	1863	1711	0
Flt Permitted					0.971	
Satd. Flow (perm)	1857	0	0	1863	1711	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	2497			1960	501	
Travel Time (s)	31.0			24.3	11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	489	12	3	297	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	501	0	0	300	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.4%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗	
Traffic Volume (vph)	207	230	149	157	117	87
Future Volume (vph)	207	230	149	157	117	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929				0.942	
Flt Protected				0.976	0.972	
Satd. Flow (prot)	1730	0	0	1818	1706	0
Flt Permitted				0.976	0.972	
Satd. Flow (perm)	1730	0	0	1818	1706	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	24.3			3.7	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	250	162	171	127	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	475	0	0	333	222	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	63.3%			ICU Level of Service B		
Analysis Period (min)	15					

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	143	239	65	229	281
Future Volume (vph)	14	143	239	65	229	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		55			55
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		36.6			12.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	155	260	71	249	305
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	155	260	71	249	305
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.6%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	64	38	34	428	578	73
Future Volume (vph)	64	38	34	428	578	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	41	37	465	628	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	41	37	465	628	79
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.9%			ICU Level of Service A		
Analysis Period (min)	15					

Appendix G
Grand Landings Phase 5 and 6 Traffic Study Report
Text

**Grand Landings Phase 5 & 6
Palm Coast, Florida**

Traffic Impact Analysis

Prepared for: Douglas Property and Development, Inc.

**By: LTG, Inc.
May 2022**



PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with LTG, Inc., a corporation authorized to operate as an engineering business, EB 0009227, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Grand Landings Phase 5 & 6 – Traffic Impact Analysis
LOCATION: Palm Coast, Florida
CLIENT: Douglas Property and Development, Inc.
JOB #: 5516.02

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

Prepared by:

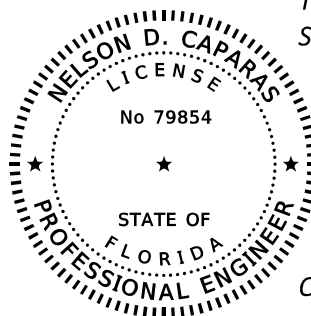
LTG, Inc.

1450 W. Granada Blvd, Suite 2

Ormond Beach, FL 32174

Certificate of Authorization 9227

386/257-2571



*THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:*

Nelson Caparas



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.*

LTG, INC.

1450 W. GRANADA BLVD, SUITE 2

ORMOND BEACH, FL 32174

CERTIFICATE OF AUTHORIZATION 9227

NELSON D. CAPARAS, P.E. NO. 79854

TABLE OF CONTENTS

LIST OF FIGURESiii

LIST OF TABLESiii

INTRODUCTION1

 Study Area1

 Study Procedures1

 Planned Roadway Improvements1

EXISTING ROADWAY ANALYSIS.....3

 Unsignalized Intersection Analysis3

 Signalized Intersection Analysis3

 Roadway Segment Analysis5

2027 FUTURE TRAFFIC CONDITIONS6

 Background Traffic6

2027 BACKGROUND ROADWAY ANALYSIS7

 Unsignalized Intersection Analysis7

 Signalized Intersection Analysis7

 Roadway Segment Analysis11

2027 BUILD-OUT ROADWAY ANALYSIS13

 Project Trip Generation13

 Project Trip Distribution.....13

 Project Trip Assignment.....13

 Unsignalized Intersection Analysis18

 Signalized Intersection Analysis18

 Roadway Segment Analysis19

 Site Access Analysis21

 Alternative Mode Analysis21

CONCLUSION AND RECOMMENDATIONS22

LIST OF FIGURES

Figure 1: Project Location Map.....2

Figure 2: Existing P.M. Peak-Hour Volumes4

Figure 3A: 2027 Background A.M. Peak-Hour Volumes.....9

Figure 3B: 2027 Background P.M. Peak-Hour Volumes.....10

Figure 4: Project Trip Distribution14

Figure 5A: 2027 Build-Out A.M. Peak-Hour Volumes15

Figure 5B: 2027 Build-Out P.M. Peak-Hour Volumes16

Figure 5C: 2027 Build-Out A.M. & P.M. Peak-Hour Volumes17

LIST OF TABLES

Table 1: Existing AM and PM Peak-Hour LOS – Unsignalized Intersections3

Table 2: Existing AM and PM Peak-Hour LOS – Signalized Intersections3

Table 3: Existing P.M. Peak-Hour LOS – Roadway Segments5

Table 4: Annual Growth Rates.....6

Table 5: 2027 Background AM and PM Peak-Hour LOS – Unsignalized Intersections7

Table 6: 2027 Background AM and PM Peak-Hour LOS – Signalized Intersections7

Table 7: 2027 Background AM and PM Peak-Hour LOS – Signalized Intersections Improved8

Table 8: 2027 Background P.M. Peak-Hour LOS – Roadway Segments12

Table 9: Project Trip Generation.....13

Table 10: 2027 Build-Out A.M. and P.M. Peak-Hour LOS – Unsignalized Intersections18

Table 11: 2027 Build-Out P.M. Peak-Hour LOS – Unsignalized Intersections Improved.....18

Table 12: 2027 Build-Out A.M. and P.M. Peak-Hour LOS – Signalized Intersections19

Table 13: 2027 Build-Out P.M. Peak-Hour LOS – Roadway Segments.....20

Table 14: Recommended Intersection Improvements to Restore Adopted Standards22

LIST OF APPENDICES

Appendix A-	Site Plan
Appendix B-	Methodology
Appendix C-	Turning Movement Count Data
Appendix D-	Unsignalized Intersections HCS Summary Sheets – Existing Conditions
Appendix E-	Signal Timings
Appendix F-	Signalized Intersections HCS Summary Sheets – Existing Conditions
Appendix G-	Traffic Trends Analysis Sheets
Appendix H-	Unsignalized Intersections HCS Summary Sheets – 2024 Background Conditions
Appendix I-	Signalized Intersections HCS Summary Sheets – 2024 Background Conditions
Appendix J-	Signalized Intersections HCS Summary Sheets – 2024 Background Conditions Improved
Appendix K-	Unsignalized Intersections HCS Summary Sheets– 2024 Build-Out Conditions
Appendix L-	Unsignalized Intersections HCS Summary Sheets– 2024 Build-Out Conditions Improved
Appendix M-	Signalized Intersections HCS Summary Sheets– 2024 Build-Out Conditions

1

INTRODUCTION

LTG, Inc. (LTG) was retained by Douglas Property and Development, Inc. to prepare a Traffic Impact Analysis (TIA) for the proposed Grand Landings Phase 5 and Phase 6 development. The development is located on Citation Boulevard in the City of Palm Coast, Florida. Figure 1 shows the location of the project relative to the surrounding road network.

Build-out of the proposed development is anticipated by year 2027. Access for the proposed development will be provided from Citation Boulevard and Grand Landings Parkway. A preliminary site plan is attached as Appendix A.

Study Area

The following roadway segments and intersections are included in the analysis as determined during the transportation methodology. A copy of the approved methodology letter is attached as Appendix B.

Roadway Segments:

- Belle Terre Boulevard from Zebulas Trail to US 1
- Citation Boulevard from Belle Terre Boulevard to Laguna Forest Lane
- Seminole Woods Boulevard from SR 100 to US 1
- Sesame Boulevard South from Seminole Woods Boulevard to Sesame Boulevard North
- Sesame Boulevard North from Seminole Woods Boulevard to Sesame Boulevard South
- US 1 from Kankakee Trail to 0.40 miles south of Seminole Woods Boulevard

Intersections:

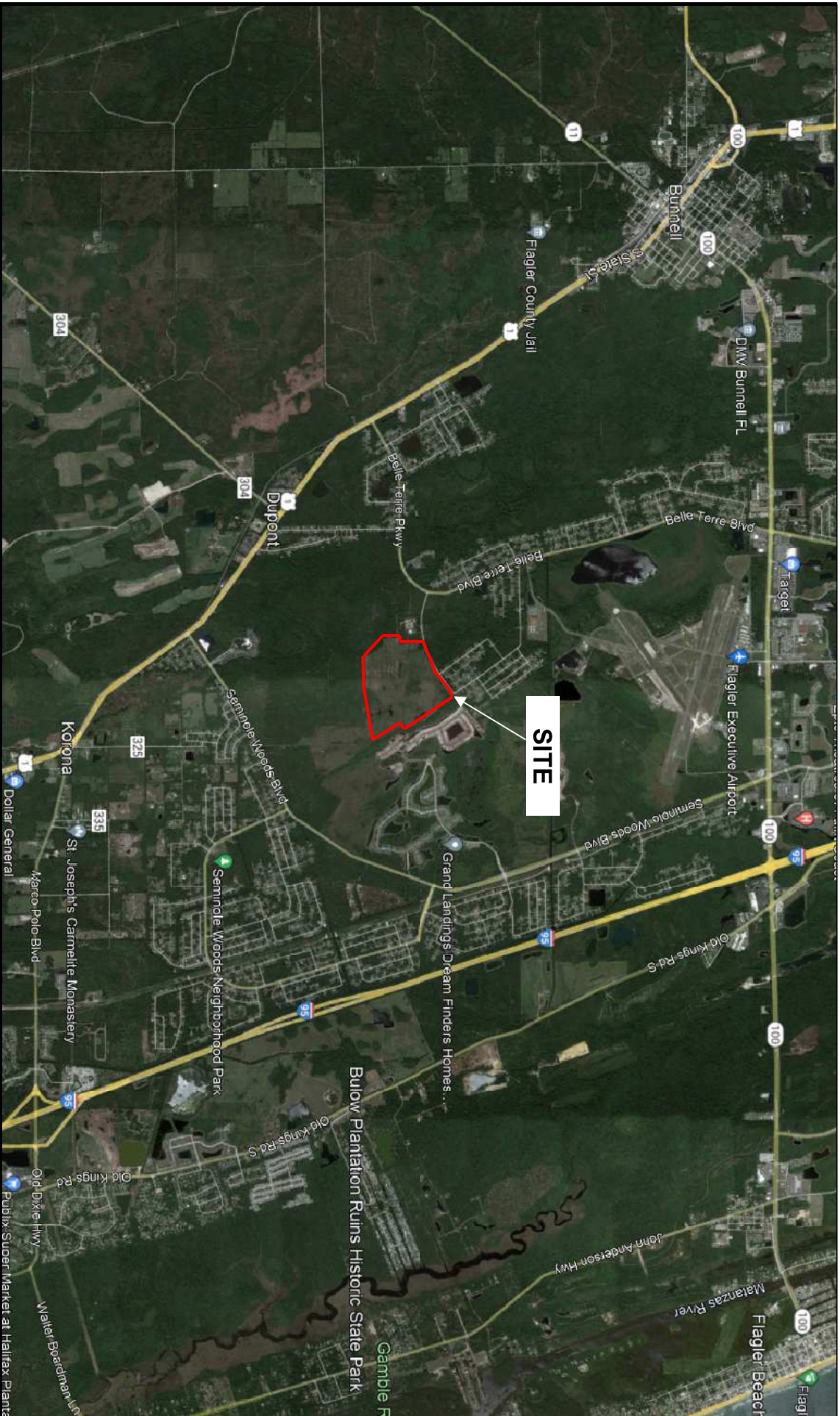
- Citation Boulevard at Belle Terre Boulevard
- Seminole Woods Boulevard at Grand Landings Parkway
- Seminole Woods Boulevard at Sesame Boulevard North
- Seminole Woods Boulevard at Sesame Boulevard South
- SR 100 at Belle Terre Boulevard
- SR 100 at Seminole Woods Boulevard
- US 1 at Seminole Woods Boulevard
- US 1 at Belle Terre Boulevard
- Citation Boulevard at Project Driveway (future conditions)

Study Procedures

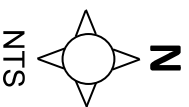
Standard engineering and planning procedures were used to determine the impacts of this project. Reference data was obtained from the Florida Department of Transportation (FDOT), Flagler County Planning and Zoning Department, the Institute of Transportation Engineers (ITE), the River to Sea Transportation Planning Organization (R2CTPO), the City of Palm Coast, and the National Cooperative Highway Research Program (NCHRP).

Planned Roadway Improvements

Information on programmed or planned roadway improvements in the area of interest was obtained from FDOT, Flagler County, the City of Palm Coast, and previously approved projects. The Citation Boulevard Extension, which will connect Seminole Woods Boulevard to Belle Terre Boulevard, is anticipated to be completed by project build-out.



Grand Landings Phases 5 & 6



Site Location Map

Project No.: 5516.02

Figure: 1



1450 W. Granada Blvd., Suite 2, Ormond Beach, Florida 32174
Telephone: 386.257.2571 Fax: 386.257.6996

2

EXISTING ROADWAY ANALYSIS

Turning movement counts (TMCs) were conducted during the a.m. and p.m. peak-hours on February 2, 2022 and February 15, 2022 at the study area intersections. The raw count data is attached as Appendix C. The FDOT's Seasonal Factor (SF) for the week the TMCs were collected equates to 0.92. the FDOT SF was less than 1.0, a minimum SF of 1.0 was applied to the counts.

Unsignalized Intersection Analysis

The existing operating conditions at the unsignalized intersections were analyzed using *Highway Capacity Software 2010, Version 2022* (HCS). This software utilizes the procedures outlined in Chapter 20 of the Highway Capacity Manual (6th Edition) titled, "Two-Way Stop-Controlled Intersections". Table 1 shows the existing AM and PM peak-hour level of service (LOS) at the study area intersections. The HCS summary sheets are attached as Appendix D. As indicated, the unsignalized intersections are currently operating within acceptable LOS.

Table 1
Existing AM and PM Peak-Hour LOS - Unsignalized Intersection
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	AM Peak-Hour			PM Peak-Hour		
		Critical Approach	Delay	LOS	Critical Approach	Delay	LOS
Citation Boulevard at Belle Terre Boulevard	E	WB	12.5	B	WB	12.6	B
Seminole Woods Boulevard at Grand Landings Parkway	E	EB	12.7	B	EB	13.5	B
Seminole Woods Boulevard at Sesame Boulevard North	E	WB	13.1	B	WB	14.3	B
Seminole Woods Boulevard at Sesame Boulevard South	E	NB	13.3	B	NB	16.4	C

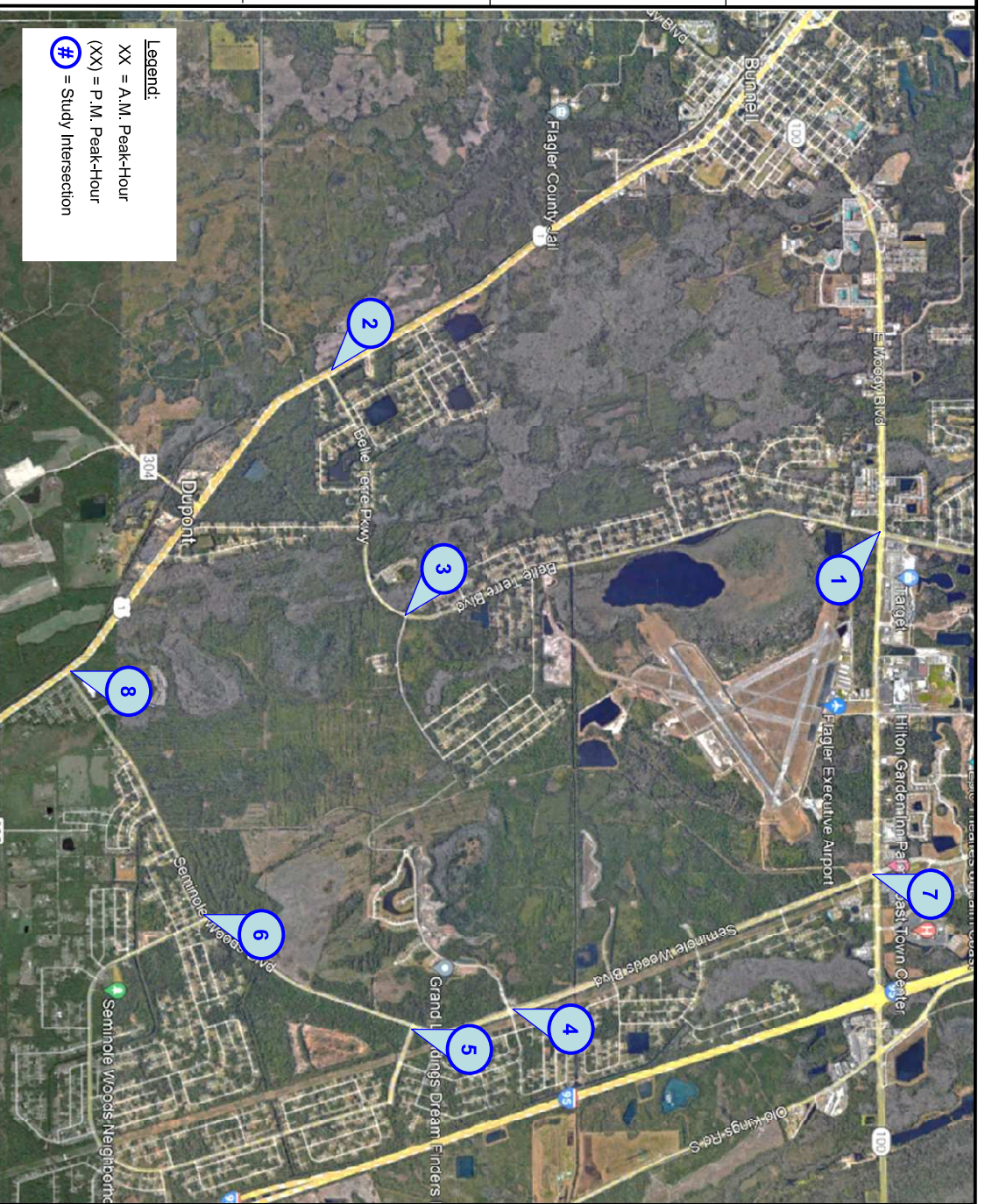
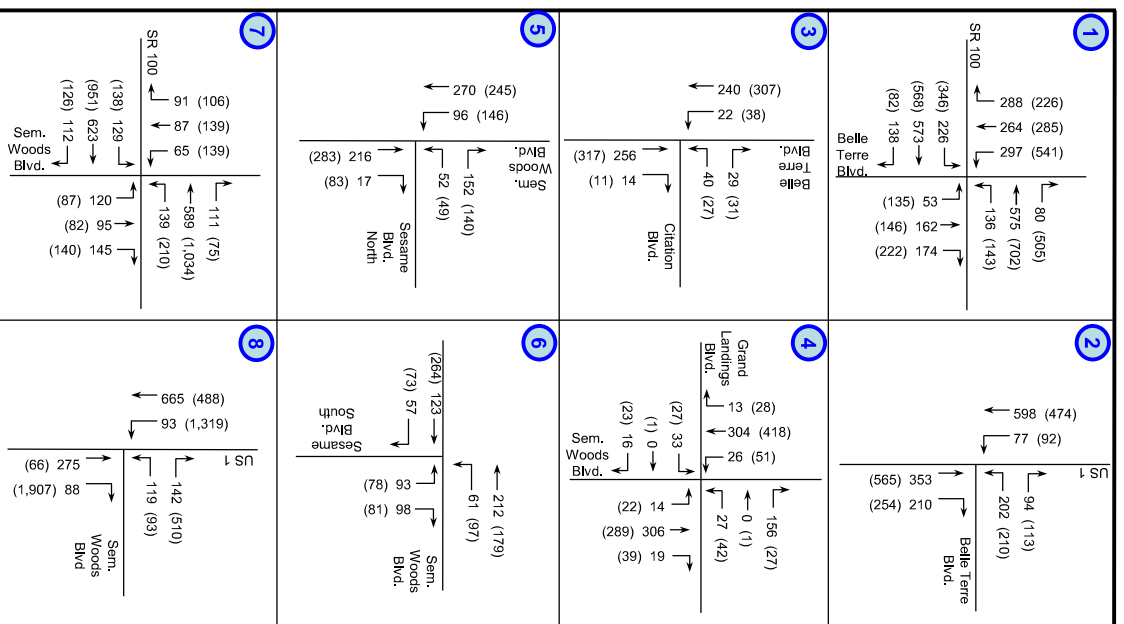
Signalized Intersection Analysis

The existing operating conditions at the signalized intersections were analyzed using HCS, which utilizes the procedures outlined in Chapter 19 of the *Highway Capacity Manual 6th Edition*, titled "Signalized Intersections". Table 2 shows the existing LOS and volume to capacity ratios (v/c) at the study area intersections. The signal timings are provided in Appendix E and the HCS summary sheets are provided in Appendix F.

Table 2
Existing AM and PM Peak-Hour LOS - Signalized Intersections
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	AM Peak-Hour			PM Peak-Hour		
		Delay (sec.)	LOS	V/C greater than 1.0?	Delay (sec.)	LOS	V/C greater than 1.0?
SR 100 at Belle Terre Boulevard	D	50.3	D	No	53.0	D	No
US 1 at Belle Terre Boulevard	D	12.4	B	No	13.8	B	No
SR 100 at Seminole Woods Boulevard	D	37.0	C	No	41.5	D	No
US 1 at Seminole Woods Boulevard	D	11.6	B	No	13.6	B	No

As indicated in the table, the signalized study area intersections are currently operating within the adopted LOS.



Grand Landings Phase 5 & 6



**2022 Existing A.M. & P.M. Turning
Movement Counts**

Project Number: 5516.02

Figure 2

Roadway Segment Analysis

Roadway level of service describes the operating condition determined from the number of vehicles passing over a given section of roadway during a specified time period. It is a qualitative measurement of several factors, which include speed, travel time, traffic interruptions, freedom to maneuver, driver comfort, convenience, safety and vehicle operating costs. Six service levels have been established as standards by which to gauge roadway performance, designated by the letters A through F. The LOS categories are defined as follows:

<i>Level of Service A:</i>	<i>Free flow, individual users virtually unaffected by the presence of others</i>
<i>Level of Service B:</i>	<i>Stable flow with a high degree of freedom to select operating conditions</i>
<i>Level of Service C:</i>	<i>Flow remains stable, but with significant interactions with others</i>
<i>Level of Service D:</i>	<i>High-density stable flow in which the freedom to maneuver is severely restricted</i>
<i>Level of Service E:</i>	<i>This condition represents the capacity level of the road</i>
<i>Level of Service F:</i>	<i>Forced flow in which the traffic exceeds the amount that can be served</i>

The 2018 Average Annual Daily Traffic (AADT) for the study roadway segments was obtained from FDOT Traffic Online. The existing levels of service for the study area road segments are shown in Table 3.

Table 3
Existing PM Peak-Hour LOS – Roadway Segments
Grand Landings Phase 5 & 6

Roadway	Segment		No. of Lanes	Adopted LOS	Peak-Hour Two-Way Capacity*	2019 AADT	K-Factor	Existing Peak-Hour Two-Way Volume	V/C Ratio	Existing Volume Exceed Adopted LOS?
	From:	To:								
Belle Terre Boulevard	SR 100	Zebulas Trail	2	D	1,120	7,200	0.090	648	0.58	No
	Zebulas Trail	Zuan Trail	2	D	1,120	6,900	0.090	621	0.55	No
	Zuan Trail	Citation Boulevard	2	D	1,120	6,200	0.090	558	0.50	No
	Citation Boulevard	US 1	2	D	1,120	4,500	0.090	405	0.36	No
Citation Boulevard	Belle Terre Boulevard	Laguna Forest Lane	2	D	931	600	0.090	54	0.06	No
US 1	Kankakee Trail	0.4 miles S of Seminole Woods Blvd	4	D	3,580	14,000	0.090	1,260	0.35	No
Seminole Woods Boulevard	SR 100	Ulaturn Place	4	D	3,222	10,900	0.090	981	0.30	No
	Ulaturn Place	Citation Parkway	4	D	3,222	7,900	0.090	711	0.22	No
	Citation Parkway	Sesame Boulevard	2	D	1,120	6,000	0.090	540	0.48	No
	Sesame Boulevard	US 1	2	D	1,120	5,600	0.090	504	0.45	No
Sesame Boulevard	Seminole Woods Boulevard	Terminus	2	D	1,120	1,500	0.090	135	0.12	No
Citation Parkway	Seminole Woods Boulevard	Sesame Boulevard	4	D	3,222	2,900	0.090	261	0.08	No

*Capacities obtained from 2020 FDOT Quality/Level of Service Tables: [Table 4: Generalized Peak-Hour Two-Way Volumes for Florida's Urbanized Areas](#).

**Existing AADT provided by the City of Palm Coast AADT Data

As indicated in Table 3, all study area roadway segments currently operate within an acceptable level of service during the PM peak-hour.

3

2027 FUTURE TRAFFIC CONDITIONS

Traffic in the area is expected to grow due to local development approvals and population growth. The following section documents the methods used to project future 2027 background traffic.

Background Traffic

Traffic growth rates from historic City of Palm Coast's 2019 Average Annual Daily Traffic (AADT) counts from the past five years were determined for each study area roadway segment using FDOT's *Traffic Trends* software. Table 3 presents the average annual growth rates and the growth rate applied to the factored existing traffic volumes to project background traffic the year 2024. As agreed in the methodology phase of the analysis, the minimum growth rate to be used is two percent (2%). The FDOT *Traffic Trends* analysis worksheets are attached as Appendix G.

Table 4
Annual Growth Rates
Grand Landings Phase 5 & 6

Roadway	Segment		Average Annual Growth Rate	Applied Growth Rate
Belle Terre Boulevard	SR 100	Zebulas Trail	1.44%	2.00%
	Zebulas Trail	Zuan Trail	4.58%	4.58%
	Zuan Trail	Citation Boulevard	4.55%	4.55%
	Citation Boulevard	US 1	5.40%	5.40%
Citation Boulevard	Belle Terre Boulevard	Laguna Forest Lane	4.17%	4.17%
US 1	Kankakee Trail	0.4 miles S of Seminole Woods Blvd	1.25%	2.00%
Seminole Woods Boulevard	SR 100	Ulaturn Place	4.55%	4.55%
	Ulaturn Place	Sesame Boulevard North	1.52%	2.00%
	Sesame Boulevard North	Sesame Boulevard South	6.04%	6.04%
	Sesame Boulevard South	US 1	2.63%	2.63%
Sesame Boulevard South	Seminole Woods Boulevard	Sesame Boulevard North	8.33%	8.33%
Sesame Boulevard North	Seminole Woods Boulevard	Sesame Boulevard South	3.33%	3.33%

4

2027 BACKGROUND FUTURE ROADWAY ANALYSIS

The study area intersections and roadway segments were analyzed based on the future roadway conditions to determine potential impacts and to investigate mitigation requirements. The results of the analysis are presented below. Figures 3A-3B depict the total 2027 background volumes.

2027 Background – Unsignalized Intersection Analysis

The unsignalized intersections were analyzed to determine the operating conditions under 2027 background conditions and the results are presented in Table 5. The HCS summary sheets are included in Appendix H. As indicated, under background conditions, the unsignalized intersections are anticipated to operate within an acceptable LOS.

Table 5
2027 Background AM and PM Peak-Hour LOS - Unsignalized Intersection
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	AM Peak-Hour			PM Peak-Hour		
		Critical Approach	Delay	LOS	Critical Approach	Delay	LOS
Citation Boulevard at Belle Terre Boulevard	E	WB	20.4	C	WB	26.0	D
Seminole Woods Boulevard at Grand Landings Parkway	E	WB	13.3	B	WB	14.4	B
Seminole Woods Boulevard at Sesame Boulevard North	E	WB	15.5	C	WB	17.9	C
Seminole Woods Boulevard at Sesame Boulevard South	E	NB	16.7	C	NB	23.5	C

2027 Background – Signalized Intersection Analysis

The signalized intersections were analyzed to determine the operating conditions under 2027 background conditions and the results are presented in Table 6. The HCS summary sheets are included in Appendix I.

Table 6
2027 Background AM and PM Peak-Hour LOS - Signalized Intersections
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	AM Peak-Hour			PM Peak-Hour		
		Delay (sec.)	LOS	V/C greater than 1.0?	Delay (sec.)	LOS	V/C greater than 1.0?
SR 100 at Belle Terre Boulevard	D	53.1	D	No	64.7	E	Yes
US 1 at Belle Terre Boulevard	D	14.6	B	No	19.1	B	No
SR 100 at Seminole Woods Boulevard	D	39.1	D	No	45.4	D	No
US 1 at Seminole Woods Boulevard	D	12.2	B	No	16.0	B	No

As indicated in the table above, the signalized study area intersection of SR 100 at Belle Terre Boulevard is anticipated to operate outside the adopted LOS and with v/c ratios greater than 1.0. The intersection was analyzed with the following improvements:

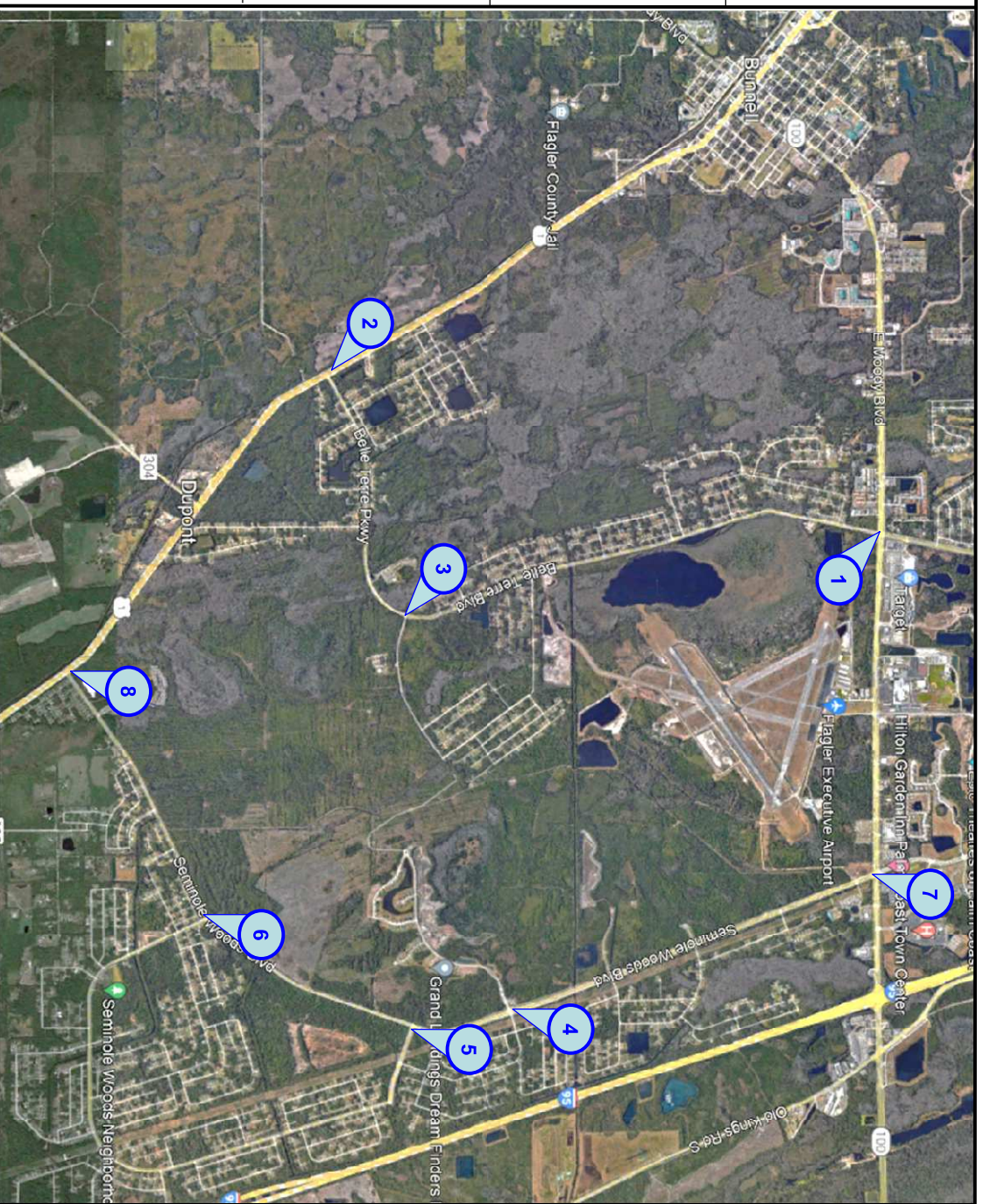
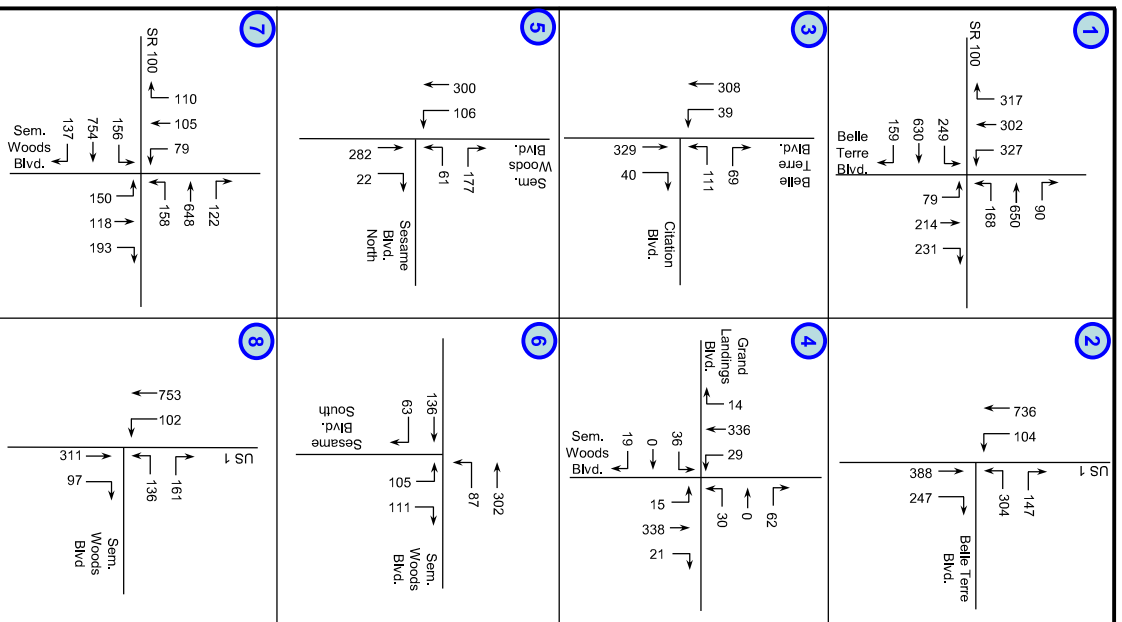
SR 100 Belle Terre Boulevard:

- Add westbound right-turn overlap phase
- Optimize signal timing splits

The analysis of the intersection with the improvements listed above are provided in Table 7. The HCS summary sheets are located in Appendix J.

Table 7
2027 Build-Out PM Peak-Hour LOS - Signalized Intersections Improved
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	PM Peak-Hour		
		Delay (sec.)	LOS	V/C greater than 1.0?
SR 100 at Belle Terre Boulevard	D	53.2	D	No



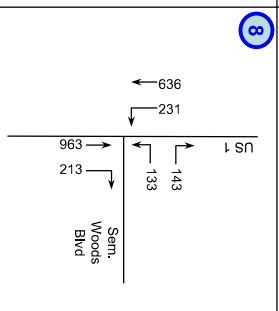
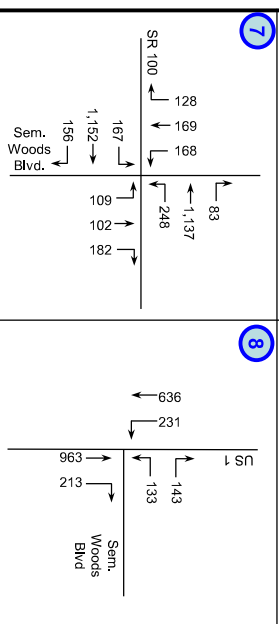
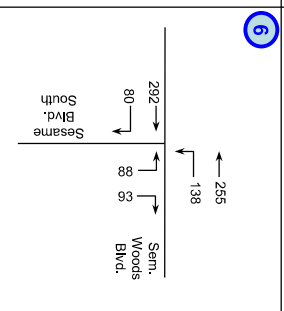
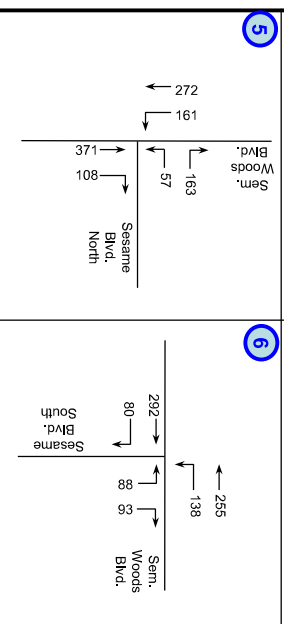
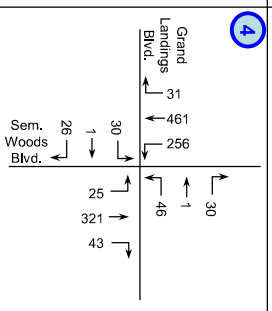
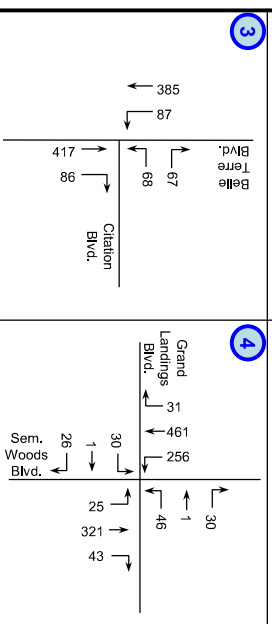
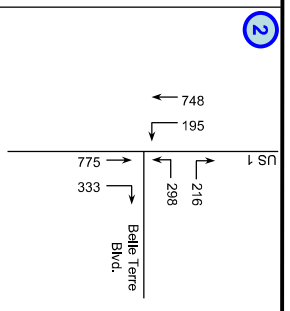
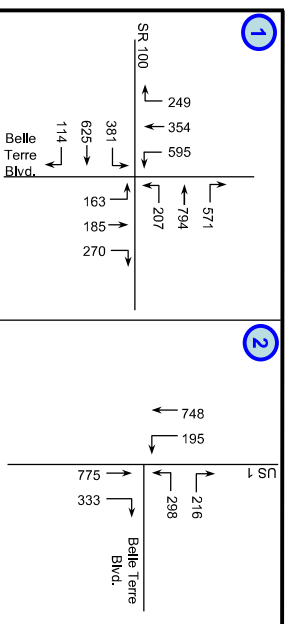
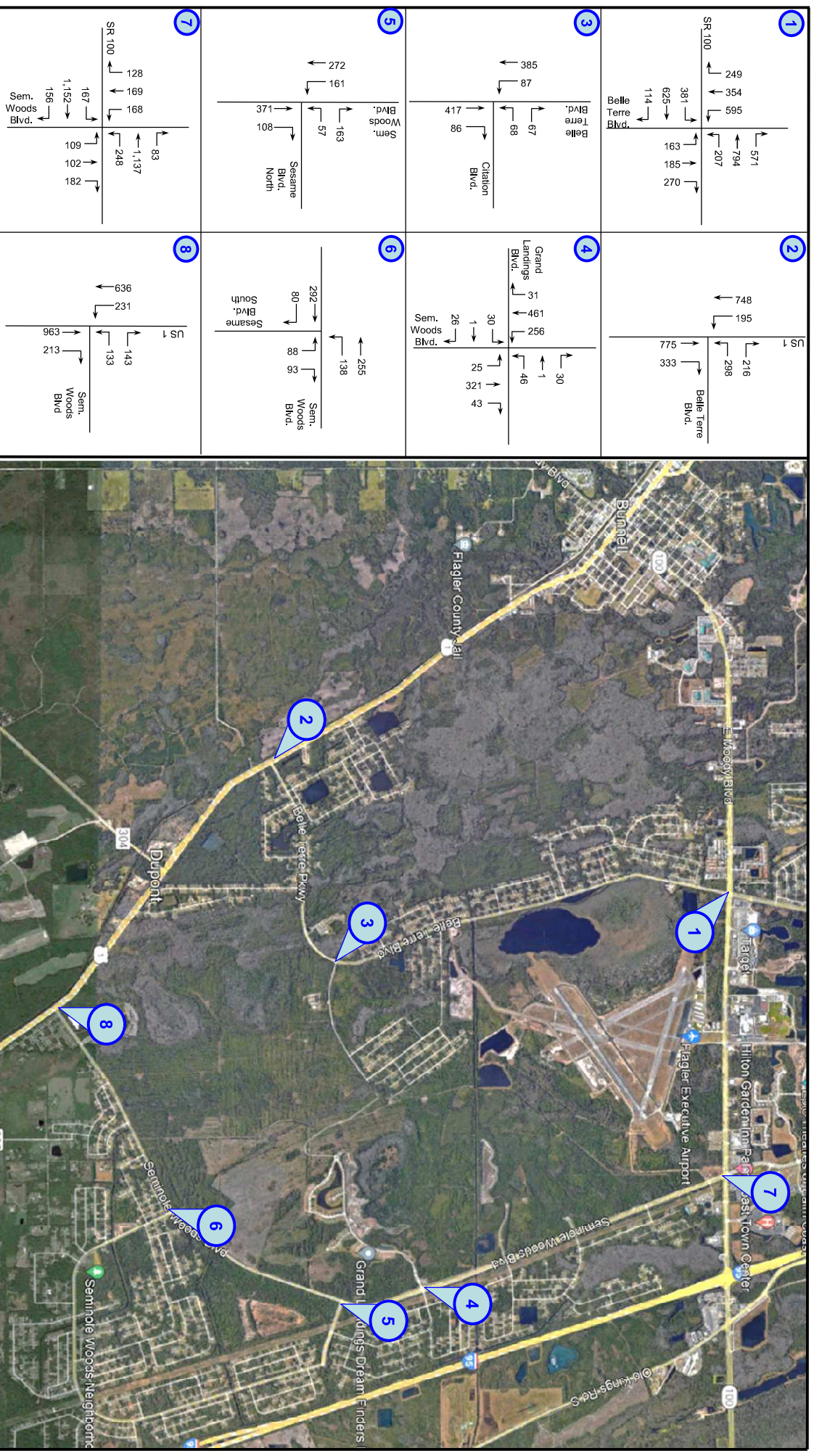
Grand Landings Phase 5 & 6



2027 Background A.M. Peak-Hour Volumes

Project Number: 5516.02

Figure 3A



Grand Landings Phase 5 & 6



2027 Background P.M. Peak-Hour Volumes

Project Number: 5516.02

Figure 3B

2027 Background – Roadway Segment Analysis

The study area roadway segments were analyzed under 2027 background conditions to determine the anticipated two-way peak-hour LOS. The results are provided in Table 8. The two-way capacity of the roadway and the projected future 2027 background traffic volumes are included in Table 8. The future background traffic includes a growth factor and the vested trips on each segment. The Grand Landings Phase 4 trips were included as vested trips and distributed in following with the model trip distribution illustrated on Figure 4. As indicated, the study area roadway segments are anticipated to operate within the adopted LOS under background conditions.

Table 8
2027 Background PM Peak-Hour LOS - Roadway Segments
Grand Landings Phase 5 & 6

Roadway	Segment		No. of Lanes	Adopted LOS	Peak-Hour Two-Way Capacity	Existing PM Peak-Hour Two-Way Volume	Applied Growth (%)	Vested Traffic	2027 Background Traffic	Background PM Volume Exceed Adopted LOS?
Belle Terre Boulevard	SR 100	Zebulas Trail	2	D	1,120	648	2.00%	172	924	No
		Zebulas Trail	2	D	1,120	621	4.58%	160	1,009	No
		Zuan Trail	2	D	1,120	558	4.55%	160	921	No
		Citation Boulevard	2	D	1,120	405	5.40%	177	757	No
Citation Boulevard		Belle Terre Boulevard	2	D	931	54	4.17%	0	72	No
US 1		Kankakee Trail	4	D	3,580	1,260	2.00%	544	2,006	No
		SR 100	4	D	3,222	981	4.55%	300	1,638	No
Seminole Woods Boulevard		Ulatum Place	4	D	3,222	711	2.00%	267	1,092	No
		Citation Parkway	2	D	1,120	540	6.04%	231	1,032	No
		Sesame Boulevard	2	D	1,120	504	2.63%	234	844	No
Sesame Boulevard		Seminole Woods Boulevard	2	D	1,120	135	8.33%	2	227	No
Citation Parkway		Seminole Woods Boulevard	4	D	3,222	261	3.33%	1	331	No

5

2027 BUILD-OUT ROADWAY ANALYSIS

The study area intersections and roadway segments were analyzed based on the roadway conditions at the time of project build-out to determine potential impacts of project-generated trips and investigate mitigation requirements.

Project Trip Generation

The daily, AM and PM peak-hour trip generation for the development was determined using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The daily, a.m. and p.m. peak-hour total project trip generation is provided in Table 9.

Table 9
Project Trip Generation
Grand Landings Phase 5 & 6

Time Period	Land Use	ITE LUC	Trip Rate Equation	Quantity (X)	Total Trips (T)	Percent Entering	Percent Exiting	Entering Trips	Exiting Trips
Daily	Single Family Residential	210	$\text{Ln}(T) = 0.92 \text{ Ln}(X) + 2.68$	399 DU	3,604	50%	50%	1,802	1,802
A.M. Peak-Hour			$\text{Ln}(T) = 0.91 \text{ Ln}(X) + 0.12$		262	26%	74%	68	194
P.M. Peak-Hour			$\text{Ln}(T) = 0.94 \text{ Ln}(X) + 0.27$		365	63%	37%	230	135

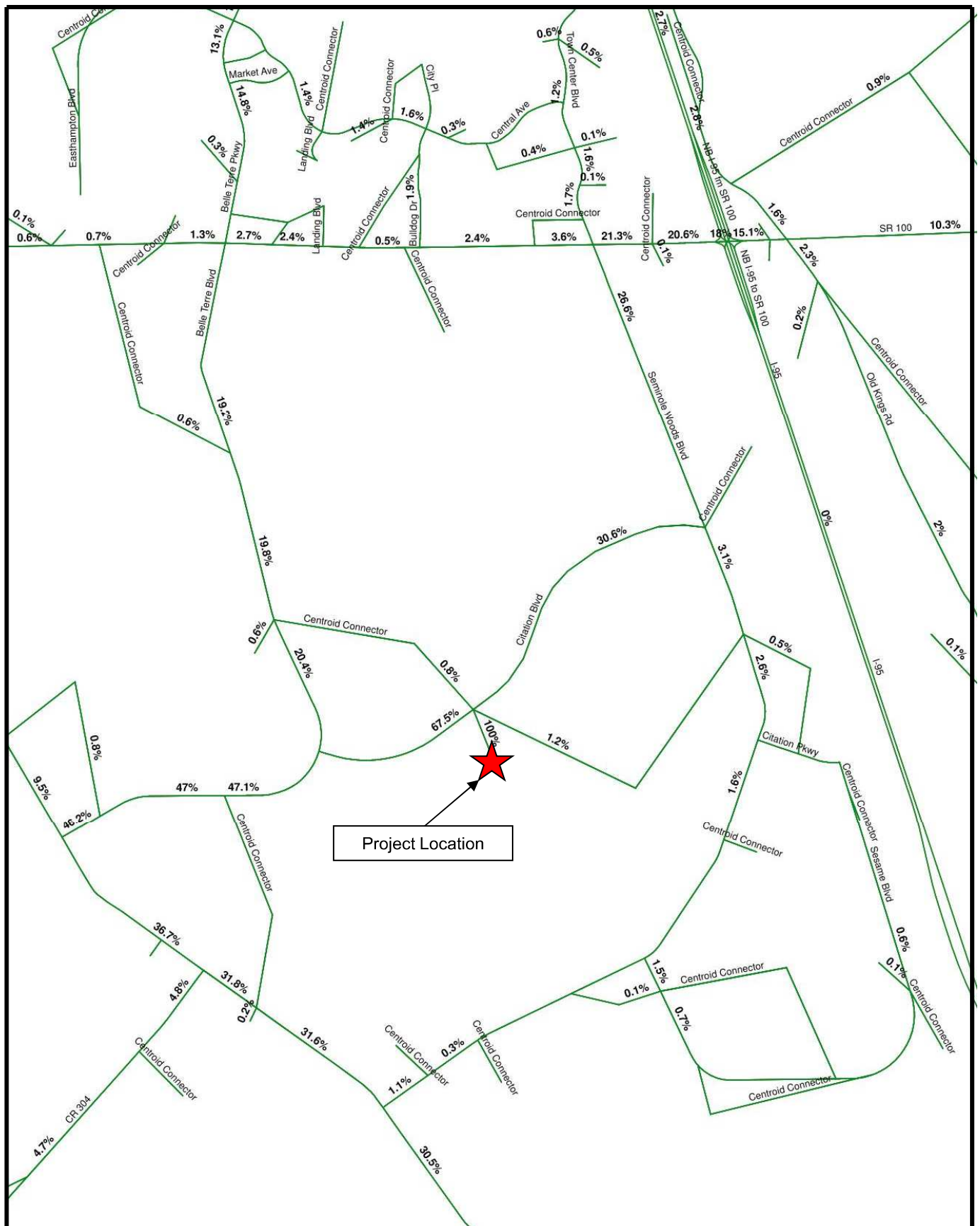
DU = Dwelling Units

Project Trip Distribution

In following with the City of Palm Coast, the development trip distribution will follow the percent volume distribution of the existing traffic on the adjacent roadways. The resulting project trip distribution is shown in Figure 4.

Project Trip Assignment

Using the trip distribution, the a.m. and p.m. peak-hour project trips were assigned to the study area roadway network. The 2024 background turning movements at the intersections were determined using the applied growth rates provided in Table 3. Figures 5A, and 5B graphically depict the total 2024 build-out traffic.



Grand Landings Phase 5 & 6



NTS

Project Trip Distribution

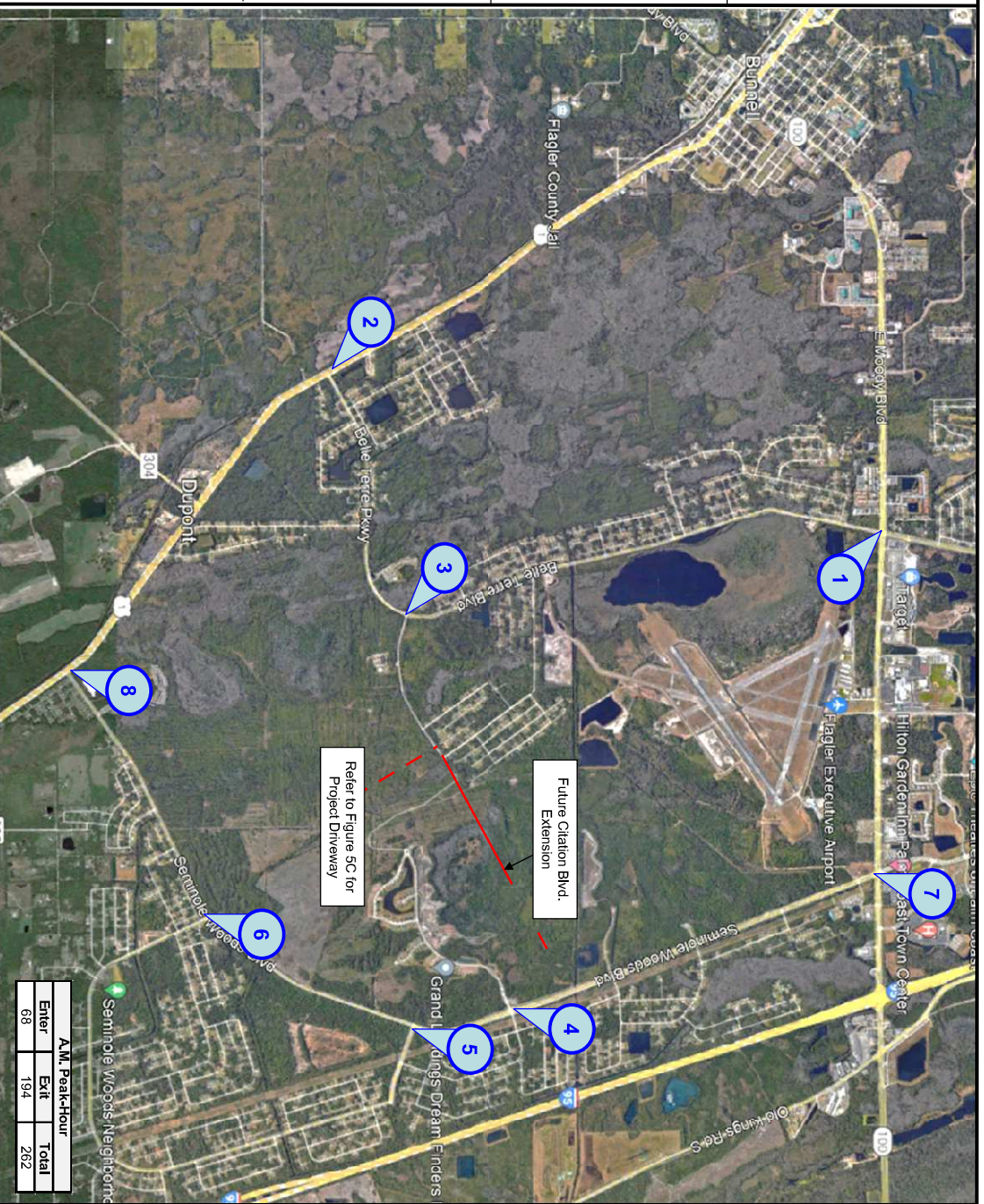
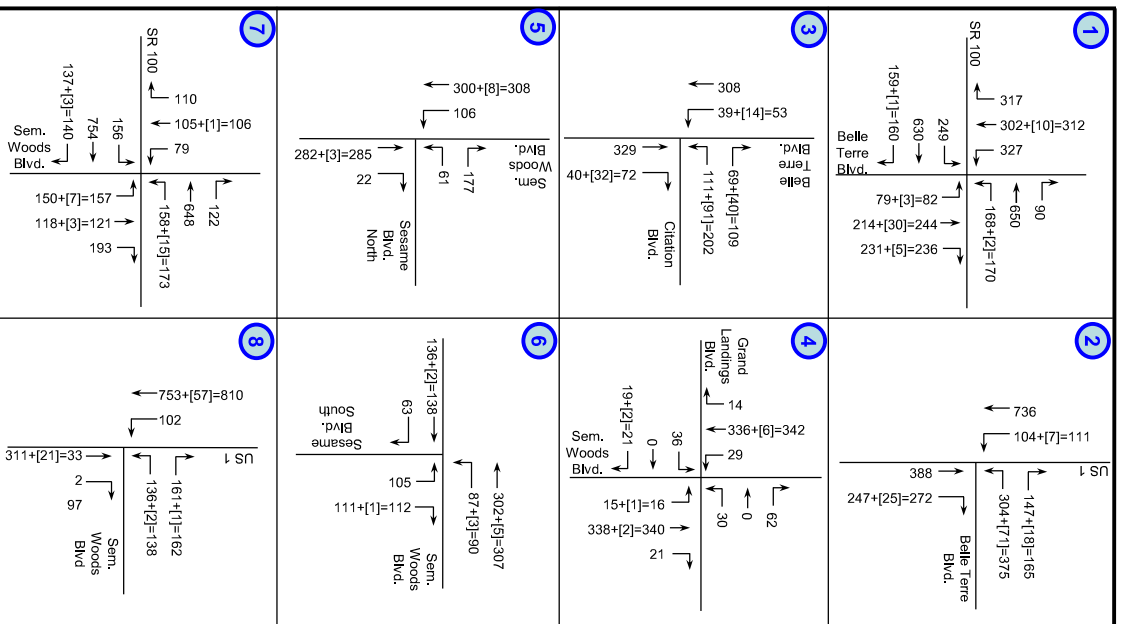
Project No.: 5516.02

Figure: 4



LTG Engineering
& Planning

1450 W. Granada Blvd, Suite 2 – Ormond Beach, Florida 32174
Telephone: 386.257.2571 Fax: 386.257.6996 EB# 0009227



Grand Landings Phase 5 & 6

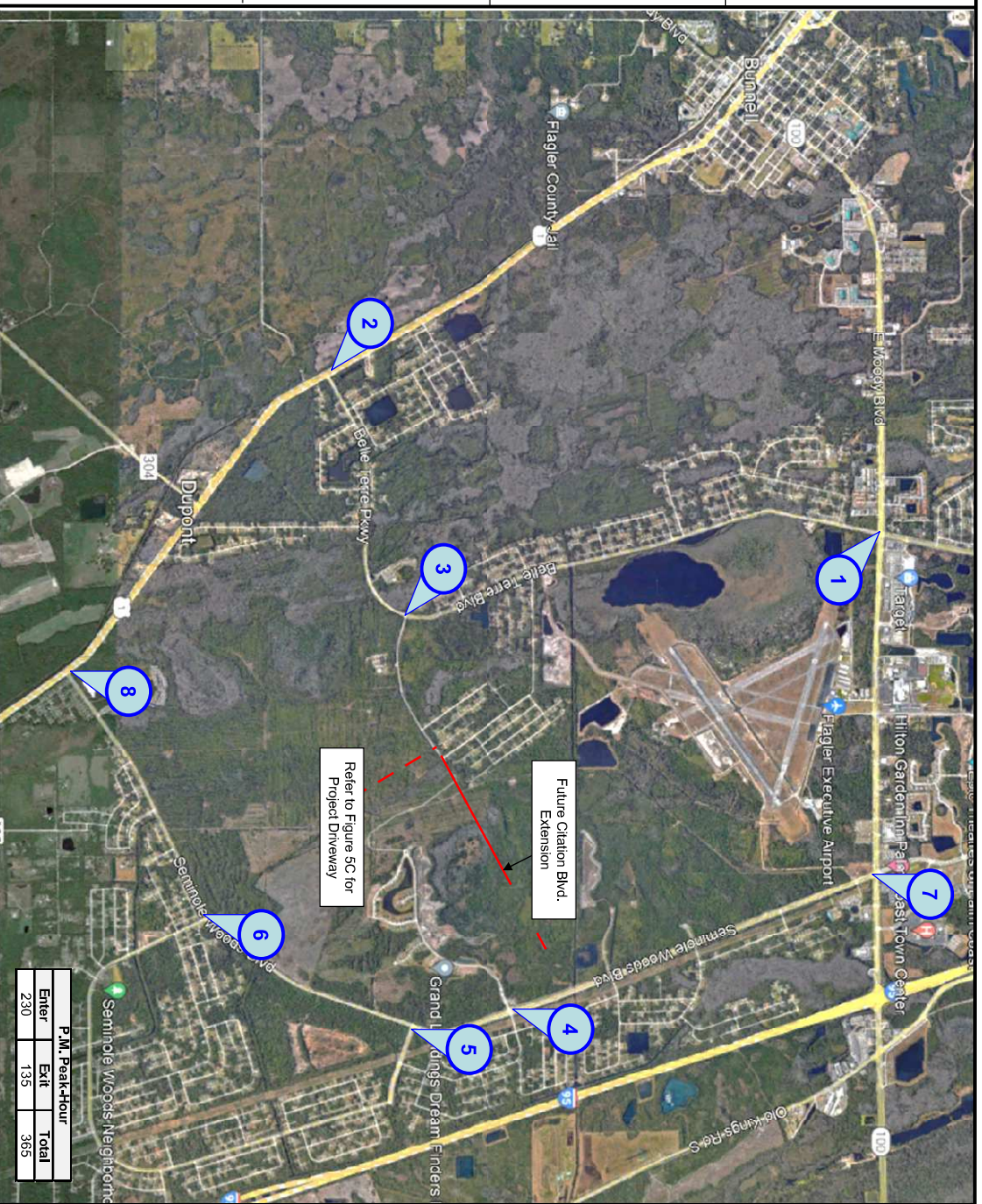
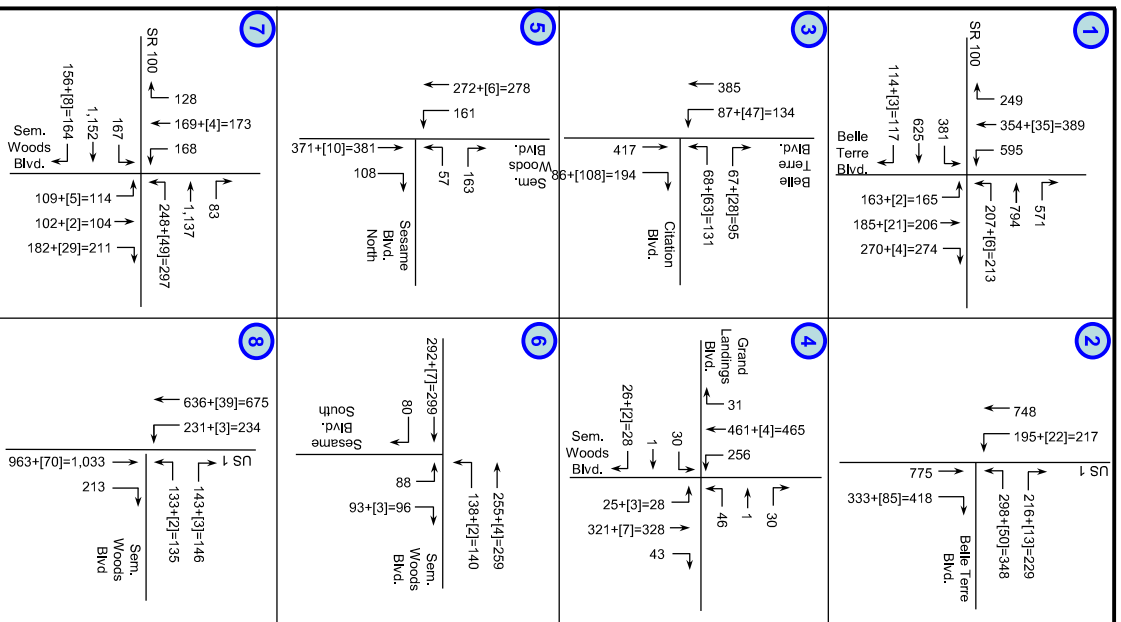
N
NTS

2027 Build-Out A.M. Peak-Hour Volumes

Project Number: 5516.02 Figure 5A

1450 W. Granada Blvd. Suite 2 - Ormond Beach, Florida 32174
Telephone: 386.257.2571 Fax: 386.257.8996 E# 0009227

A.M. Peak-Hour		
Enter	Exit	Total
68	194	262



Grand Landings Phase 5 & 6

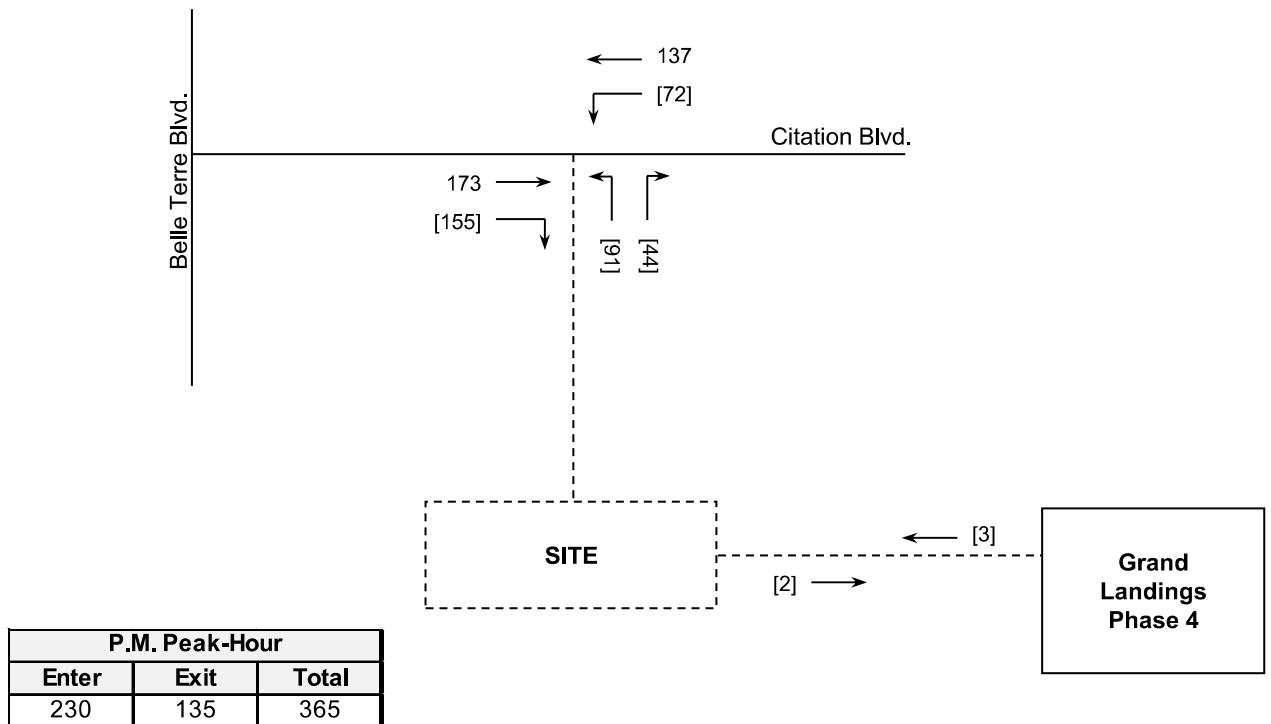
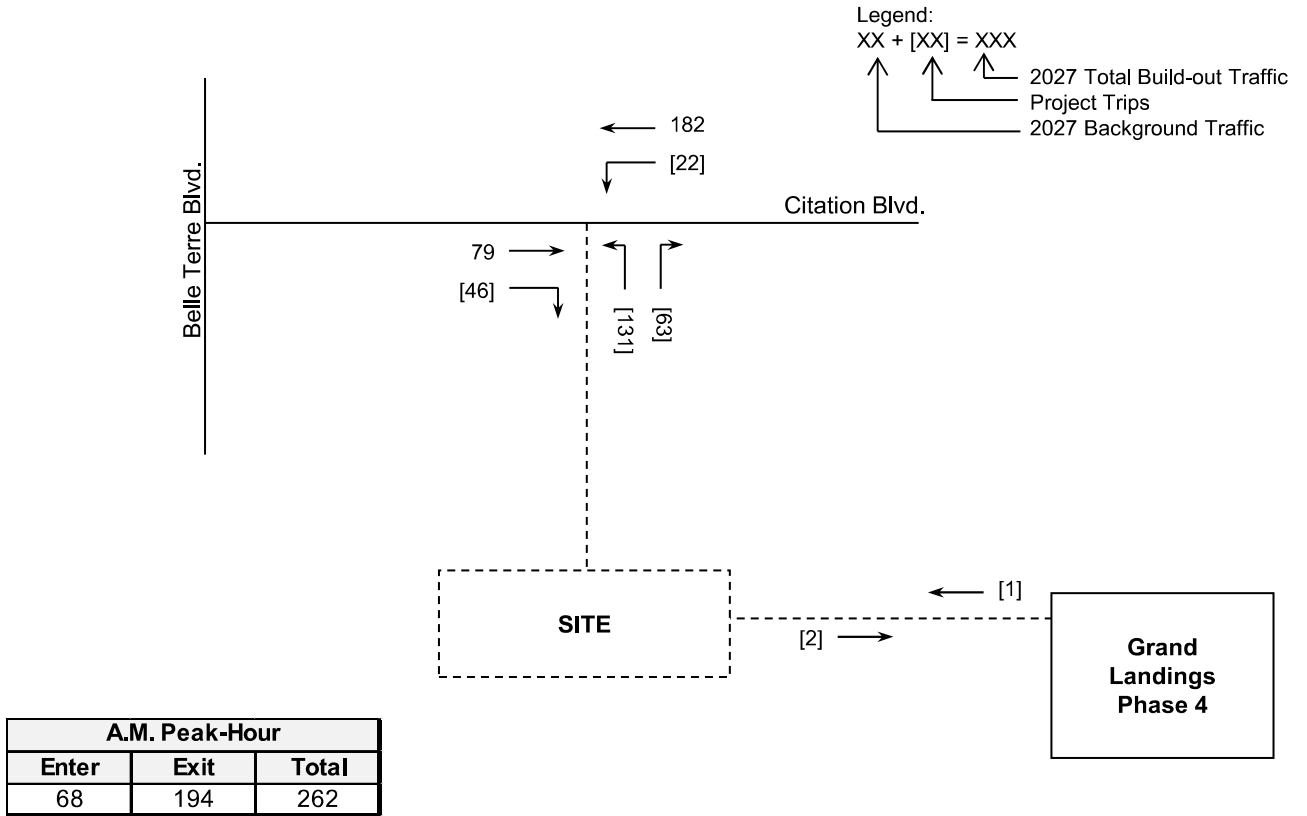
N
NTS

2027 Build-Out P.M. Peak-Hour Volumes

Project Number: 5516.02 Figure 5B

1450 W. Granada Blvd. Suite 2 - Ormond Beach, Florida 32174
Telephone: 386.257.2571 Fax: 386.257.6996 E# 0009227

P.M. Peak-Hour		
Enter	Exit	Total
230	135	365



Grand Landings
Phase 5 & 6



NTS

**2027 Build-Out
A.M. & P.M.
Peak-Hour Volumes**

Project No.: 5516.02

Figure: 5C



1450 W. Granada Blvd, Suite 2 – Ormond Beach, Florida 32174
 Telephone: 386.257.2571 Fax: 386.257.6996 EB# 0009227

Unsignalized Intersections Analysis

The unsignalized intersections and project driveways were analyzed to determine the operating conditions under 2027 build-out conditions, and the results are presented in Table 10. The HCS summary sheets are included in Appendix K.

Table 10
2027 Build-Out A.M. and P.M. Peak-Hour LOS – Unsignalized Intersections
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	A.M. Peak-Hour			P.M. Peak-Hour		
		Critical Approach	Delay (sec.)	LOS	Critical Approach	Delay (sec.)	LOS
Citation Boulevard at Belle Terre Boulevard	E	WB	49.9	E	WB	126.6	F
Seminole Woods Boulevard at Grand Landings Parkway	E	WB	13.4	B	WB	14.7	B
Seminole Woods Boulevard at Sesame Boulevard North	E	WB	15.7	C	WB	18.2	C
Seminole Woods Boulevard at Sesame Boulevard South	E	NB	17.0	C	NB	24.3	C
Citation Boulevard at Project Driveway	E	NB	11.7	B	NB	13.1	B

As indicated in Table 10, the unsignalized intersection of Citation Boulevard at Belle Terre Boulevard is anticipated to operate outside of the adopted LOS during the p.m. peak-hour. The intersection was re-evaluated with the following improvement:

Citation Boulevard at Belle Terre Boulevard

- Add exclusive westbound right-turn lane

Table 11 depicts the a.m. and p.m. peak-hour level of service under build-out conditions with an exclusive westbound right-turn lane. The HCS summary sheets are contained in Appendix L.

Table 11
2027 Build-Out P.M. Peak-Hour LOS – Intersection Improvements
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	PM Peak-Hour		
		Critical Approach	Delay (sec.)	LOS
Citation Boulevard at Belle Terre Boulevard	E	WB	63.6	F

It is common that unsignalized intersections operate at higher levels of service with higher delay on the minor street approaches during peak-hour when conflicted with high major street volumes. While the westbound approach is expected to experience a delay of 80.0 seconds in the p.m. peak-hour, the v/c ratios are less than 1.0; therefore, this is considered acceptable.

Signalized Intersections Analysis

The signalized intersections were analyzed under 2027 build-out conditions to determine the operational LOS upon completion of the proposed project and to investigate potential mitigation requirements to be fulfilled by the applicant. The results of the analysis are provided in Table 12. The HCS summary sheets are included in Appendix M.

Table 12
2027 Build-Out AM and PM Peak-Hour LOS - Signalized Intersections
Grand Landings Phase 5 & 6

Intersection	Adopted LOS	A.M. Peak-Hour			P.M. Peak-Hour		
		Delay (sec.)	LOS	V/C greater than 1.0?	Delay (sec.)	LOS	V/C greater than 1.0?
SR 100 at Belle Terre Boulevard	D	53.6	D	No	53.9	D	No
US 1 at Belle Terre Boulevard	D	18.1	B	No	22.4	C	No
SR 100 at Seminole Woods Boulevard	D	40.2	D	No	48.1	D	No
US 1 at Seminole Woods Boulevard	D	12.2	B	No	16.4	B	No

As indicated in Table 12, all study area intersections are expected to operate within acceptable levels of service under 2027 build-out conditions.

Roadway Segment Analysis

The study area roadway segments were analyzed under 2027 build-out conditions based on two-way peak-hour capacity. The 2027 build-out volume includes background and project traffic along each segment. The results of the analysis are provided in Table 13. As indicated, the study area roadway segments are anticipated to operate within the adopted LOS.

Table 13
2027 Build-Out PM Peak-Hour LOS – Roadway Segments
Grand Landings Phase 5 & 6

Roadway	Segment		No. of Adopted Lanes	Adopted LOS	Peak-Hour Two-Way Capacity at Adopted LOS	Existing PM Peak-Hour Two-Way Volume	2027 Background Traffic	Project Distribution	Project Trips	2027 Build-Out Traffic	2027 Build-Out Traffic Exceed Adopted LOS?
Belle Terre Boulevard	SR 100	Zebulas Trail	2	D	1,120	648	924	19.2%	62	986	No
	Zebulas Trail	Zuan Trail	2	D	1,120	621	1,009	19.8%	64	1,073	No
	Zuan Trail	Citation Boulevard	2	D	1,120	558	921	20.4%	66	987	No
Citation Boulevard	Citation Boulevard	US 1	2	D	1,120	405	757	47.1%	153	910	No
Citation Boulevard	Belle Terre Boulevard	Laguna Forest Lane	2	D	931	54	72	67.5%	219	291	No
US 1	Kankakee Trail	0.4 miles S of Seminole Woods Blvd	4	D	3,580	1,260	2,006	36.7%	119	2,125	No
	SR 100	Ulatum Place	4	D	3,222	981	1,638	26.6%	97	1,735	No
	Ulatum Place	Citation Parkway	4	D	3,222	711	1,092	3.1%	11	1,103	No
Seminole Woods Boulevard	Citation Parkway	Sesame Boulevard	2	D	1,120	540	1,032	1.6%	6	1,038	No
	Sesame Boulevard	US 1	2	D	1,120	504	844	1.1%	4	848	No
Sesame Boulevard	Seminole Woods Boulevard	Terminus	2	D	1,120	135	227	1.5%	5	232	No
Citation Parkway	Seminole Woods Boulevard	Sesame Boulevard	4	D	3,222	261	331	0.5%	2	333	No

Site Access Analysis

Access to the development is proposed via a full access driveway to Citation Boulevard. The turn lane storage and taper lengths were determined using guidance provided by the November 2020 Palm Coast Turn Lane Technical Guidelines (Guidelines). Deceleration lanes will be provided at all intersections and/or access points adjacent to the proposed development as required by the Guidelines.

Per these guidelines with a posted limit of 30 miles per-hour (mph), AADT of 600 along Citation Boulevard, the anticipated left-turn volumes exceed the threshold and therefore meets the requirements for a left-turn lane at the project driveway. Based on the guidelines set for the storage length and the length of the turn lane taper, a Citation Boulevard westbound left-turn lane 75-feet in storage length plus a 75-foot taper will be required at the site driveway. A Citation Boulevard eastbound right turn lane 75-foot taper at the site driveway.

Alternative Mode Analysis

Per the R2CTPO TIA guidelines, present and programmed bike, pedestrian, and transit mobility options in the immediate area have been evaluated. At this time, there is no sidewalk connectivity near the proposed development.

Flagler County offers public transportation services, Flagler County Public Transportation (FCPT), that provides specialized transportation throughout Flagler County. FCPT is a demand response, shared ride, and door-to-door service with normal operating hours from 6 AM to 6 PM Monday through Friday, 8 AM to 6 PM on Saturdays, and restricted services on Sundays. However, same day services are not available. FCPT operates within the border of Flagler County with a few medical exceptions. FCPT offers services to Volusia County, St. Augustine, Jacksonville and Gainesville on select days and times. Riders are required to provide advanced notice, or reservations, to use the service. Although there are no fixed routes or schedules provided, the proposed site would be eligible to utilize this public transportation system.

6

CONCLUSION & RECOMMENDATIONS

This study was conducted to evaluate the impact the proposed Grand Landings Phase 5 & 6 development would have on the surrounding roadway network in the City of Palm Coast. The development will generate 262 AM peak-hour and 365 PM peak-hour trips. The results of the study are summarized in Table 15, below.

Table 14
Intersection Improvements to Restore Adopted Standards
Grand Landings Phase 5 & 6

Intersection	When Improvement Required	
	2027 Background	2027 Build-Out
SR 100 at Belle Terre Boulevard	• Add westbound overlap phase • Optimize signal timing splits	
Citation Boulevard at Belle Terre Boulevard		• Add exclusive westbound right-turn lane 155 feet in length including the 50-foot taper

Based on the Palm Coast Turn Lane Technical Guidelines (November 2020) guidelines for a 2-lane roadway with an AADT less than 5,000 and a speed limit of 30 mph, the anticipated volumes exceed the thresholds and therefore meets the requirements for a right-turn lane and a left-turn at the project driveway. Turn lanes will be required at the project driveway in following with the Turn Lane Guidelines. The Citation Boulevard westbound approach will require a westbound left turn lane with a 150-foot deceleration/storage length plus a 75-foot taper. The Citation Boulevard eastbound approach will require a 75-foot eastbound right turn lane taper and no deceleration lane.

If deemed necessary by the agencies, the recommended improvements eligible for proportionate share (PS), the estimated improvement cost, and PS calculations are to be negotiated once the TIA results are accepted by agencies. Based on the results of the TIA and identified improvements, the planned Grand Landings Phase 5 and 6 development is recommended for approval.

Appendix H

Synchro Printouts - Background Traffic Conditions

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	140	898	455	89	341	203
Future Volume (vph)	140	898	455	89	341	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.369				0.950	
Satd. Flow (perm)	687	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				97		221
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	976	495	97	371	221
Shared Lane Traffic (%)						
Lane Group Flow (vph)	152	976	495	97	371	221
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.5	32.5	23.0	23.0	22.5	22.5
Total Split (%)	17.3%	59.1%	41.8%	41.8%	40.9%	40.9%
Maximum Green (s)	5.0	28.0	18.5	18.5	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	28.1	28.1	20.7	20.7	14.8	14.8
Actuated g/C Ratio	0.54	0.54	0.40	0.40	0.28	0.28
v/c Ratio	0.32	0.51	0.35	0.14	0.74	0.36
Control Delay (s/veh)	8.8	9.3	13.5	4.2	26.2	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.8	9.3	13.5	4.2	26.2	4.4
LOS	A	A	B	A	C	A
Approach Delay (s/veh)		9.2	12.0		18.1	
Approach LOS		A	B		B	

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 52

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 12.2

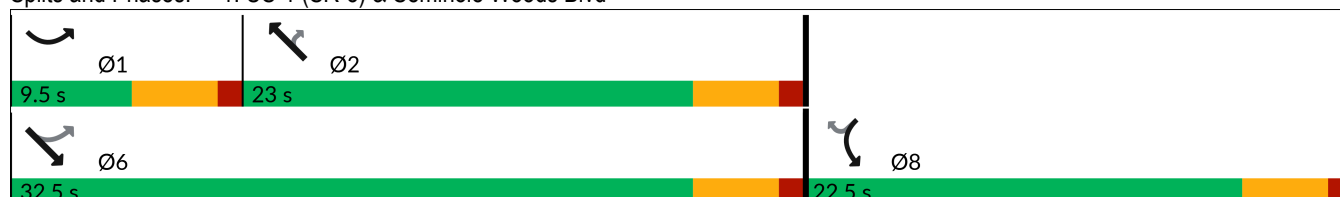
Intersection LOS: B

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026

						
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	140	898	455	89	341	203
Future Volume (veh/h)	140	898	455	89	341	203
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	976	495	97	371	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	557	1994	1361	607	460	410
Arrive On Green	0.09	0.56	0.38	0.38	0.26	0.26
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	152	976	495	97	371	221
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	2.3	8.3	5.0	2.0	9.7	6.0
Cycle Q Clear(g_c), s	2.3	8.3	5.0	2.0	9.7	6.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	557	1994	1361	607	460	410
V/C Ratio(X)	0.27	0.49	0.36	0.16	0.81	0.54
Avail Cap(c_a), veh/h	578	1994	1361	607	643	572
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	7.1	6.6	11.0	10.1	17.3	15.9
Incr Delay (d2), s/veh	0.3	0.9	0.8	0.6	5.2	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.4	1.8	0.7	4.1	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.4	7.5	11.8	10.7	22.5	17.0
LnGrp LOS	A	A	B	B	C	B
Approach Vol, veh/h		1128	592		592	
Approach Delay, s/veh		7.5	11.6		20.5	
Approach LOS		A	B		C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.9	23.6			32.5	17.4
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5			28.0	18.0
Max Q Clear Time (g_c+I1), s	4.3	7.0			10.3	11.7
Green Ext Time (p_c), s	0.0	2.8			6.7	1.2
Intersection Summary						
HCM 7th Control Delay, s/veh			11.9			
HCM 7th LOS			B			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	252	9	4	516	0	26	0	15	0	0	1
Future Volume (vph)	0	252	9	4	516	0	26	0	15	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		0	0		165	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.951				0.850
Flt Protected								0.969				
Satd. Flow (prot)	1863	1853	0	0	1863	1863	0	1717	0	0	1863	1583
Flt Permitted								0.969				
Satd. Flow (perm)	1863	1853	0	0	1863	1863	0	1717	0	0	1863	1583
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		2822			2497			302			828	
Travel Time (s)		35.0			31.0			6.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	274	10	4	561	0	28	0	16	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	284	0	0	565	0	0	44	0	0	0	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		60	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.0%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

3: Slipper Trail & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	289	6	4	466	16	8
Future Volume (vph)	289	6	4	466	16	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.953	
Flt Protected					0.968	
Satd. Flow (prot)	1857	0	0	1863	1718	0
Flt Permitted					0.968	
Satd. Flow (perm)	1857	0	0	1863	1718	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	2497			1960	501	
Travel Time (s)	31.0			24.3	11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	314	7	4	507	17	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	321	0	0	511	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.7%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗	
Traffic Volume (vph)	232	73	55	177	232	148
Future Volume (vph)	232	73	55	177	232	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.968				0.947	
Flt Protected				0.988	0.970	
Satd. Flow (prot)	1803	0	0	1840	1711	0
Flt Permitted				0.988	0.970	
Satd. Flow (perm)	1803	0	0	1840	1711	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	24.3			3.7	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	252	79	60	192	252	161
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	0	252	413	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	60.9%			ICU Level of Service B		
Analysis Period (min)	15					

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	70	235	399	13	89	197
Future Volume (vph)	70	235	399	13	89	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		55			55
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		36.6			12.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	255	434	14	97	214
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	255	434	14	97	214
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	42.2%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	151	30	30	818	303	87
Future Volume (vph)	151	30	30	818	303	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	164	33	33	889	329	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	164	33	33	889	329	95
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.6%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	226	666	804	312	173	156
Future Volume (vph)	226	666	804	312	173	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.182				0.950	
Satd. Flow (perm)	339	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				339		170
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	724	874	339	188	170
Shared Lane Traffic (%)						
Lane Group Flow (vph)	246	724	874	339	188	170
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	13.0	37.5	24.5	24.5	22.5	22.5
Total Split (%)	21.7%	62.5%	40.8%	40.8%	37.5%	37.5%
Maximum Green (s)	8.5	33.0	20.0	20.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	33.1	33.1	20.6	20.6	10.8	10.8
Actuated g/C Ratio	0.63	0.63	0.39	0.39	0.20	0.20
v/c Ratio	0.58	0.33	0.63	0.41	0.52	0.37
Control Delay (s/veh)	11.7	5.6	16.4	3.7	24.1	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.7	5.6	16.4	3.7	24.1	6.1
LOS	B	A	B	A	C	A
Approach Delay (s/veh)		7.2	12.9		15.5	
Approach LOS		A	B		B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 11.1

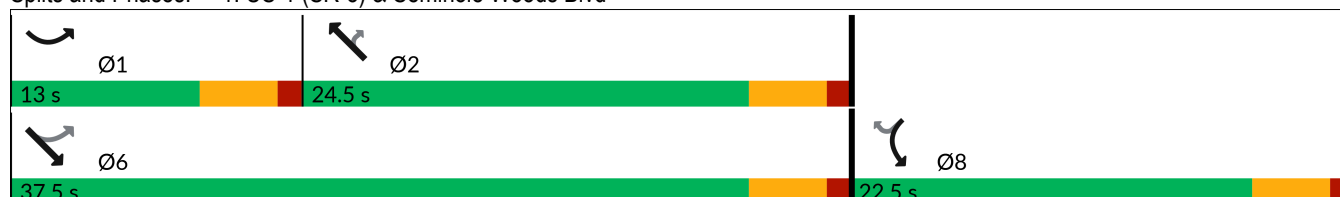
Intersection LOS: B

Intersection Capacity Utilization 55.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	226	666	804	312	173	156
Future Volume (veh/h)	226	666	804	312	173	156
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	246	724	874	339	188	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	516	2352	1664	742	281	250
Arrive On Green	0.10	0.66	0.47	0.47	0.16	0.16
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	246	724	874	339	188	170
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	3.1	4.3	8.6	7.2	5.0	5.0
Cycle Q Clear(g_c), s	3.1	4.3	8.6	7.2	5.0	5.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	516	2352	1664	742	281	250
V/C Ratio(X)	0.48	0.31	0.53	0.46	0.67	0.68
Avail Cap(c_a), veh/h	635	2352	1664	742	643	572
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	6.2	3.6	9.3	9.0	19.8	19.8
Incr Delay (d2), s/veh	0.7	0.3	1.2	2.0	2.8	3.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	2.9	2.4	2.1	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.9	3.9	10.5	11.0	22.5	23.1
LnGrp LOS	A	A	B	B	C	C
Approach Vol, veh/h		970	1213		358	
Approach Delay, s/veh		4.7	10.7		22.8	
Approach LOS		A	B		C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.7	27.8			37.5	12.4
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	20.0			33.0	18.0
Max Q Clear Time (g_c+I1), s	5.1	10.6			6.3	7.0
Green Ext Time (p_c), s	0.2	4.9			5.5	0.9
Intersection Summary						
HCM 7th Control Delay, s/veh			10.1			
HCM 7th LOS			B			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	554	23	16	318	0	10	1	19	0	1	0
Future Volume (vph)	0	554	23	16	318	0	10	1	19	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		0	0		165	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.914				
Flt Protected					0.998			0.984				
Satd. Flow (prot)	1863	1852	0	0	1859	1863	0	1675	0	0	1863	1863
Flt Permitted					0.998			0.984				
Satd. Flow (perm)	1863	1852	0	0	1859	1863	0	1675	0	0	1863	1863
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		2822			2497			302			828	
Travel Time (s)		35.0			31.0			6.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	602	25	17	346	0	11	1	21	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	627	0	0	363	0	0	33	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		60	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 45.7%				ICU Level of Service A								
Analysis Period (min) 15												

Lanes, Volumes, Timings

3: Slipper Trail & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	590	12	3	358	3	2
Future Volume (vph)	590	12	3	358	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.946	
Flt Protected					0.971	
Satd. Flow (prot)	1857	0	0	1863	1711	0
Flt Permitted					0.971	
Satd. Flow (perm)	1857	0	0	1863	1711	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	2497			1960	501	
Travel Time (s)	31.0			24.3	11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	641	13	3	389	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	654	0	0	392	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↱	
Traffic Volume (vph)	272	247	160	209	125	93
Future Volume (vph)	272	247	160	209	125	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.942	
Flt Protected				0.979	0.972	
Satd. Flow (prot)	1744	0	0	1824	1706	0
Flt Permitted				0.979	0.972	
Satd. Flow (perm)	1744	0	0	1824	1706	0
Link Speed (mph)	55			55	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	24.3			3.7	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	296	268	174	227	136	101
Shared Lane Traffic (%)						
Lane Group Flow (vph)	564	0	0	401	237	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 71.9%				ICU Level of Service C		
Analysis Period (min) 15						

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	153	319	70	245	375
Future Volume (vph)	15	153	319	70	245	375
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		55			55
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		36.6			12.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	166	347	76	266	408
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	166	347	76	266	408
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.7%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	
Traffic Volume (vph)	109	45	52	571	727	157
Future Volume (vph)	109	45	52	571	727	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	49	57	621	790	171
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	49	57	621	790	171
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.5%			ICU Level of Service A		
Analysis Period (min)	15					

Appendix I

Synchro Printouts - Total Traffic Conditions

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	155	898	455	143	492	245
Future Volume (vph)	155	898	455	143	492	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.352				0.950	
Satd. Flow (perm)	656	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				155		266
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	976	495	155	535	266
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	976	495	155	535	266
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

2033 Total AM Peak Hour Traffic 11:43 am 03/02/2026

Synchro 12 Report
Page 1

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	32.7	23.1	23.1	27.3	27.3
Total Split (%)	16.0%	54.5%	38.5%	38.5%	45.5%	45.5%
Maximum Green (s)	5.1	28.2	18.6	18.6	22.8	22.8
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	28.3	28.3	20.8	20.8	20.5	20.5
Actuated g/C Ratio	0.49	0.49	0.36	0.36	0.35	0.35
v/c Ratio	0.40	0.56	0.39	0.23	0.85	0.36
Control Delay (s/veh)	12.2	12.5	16.5	4.3	32.7	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.2	12.5	16.5	4.3	32.7	3.6
LOS	B	B	B	A	C	A
Approach Delay (s/veh)		12.4	13.6		23.1	
Approach LOS		B	B		C	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay (s/veh): 16.0

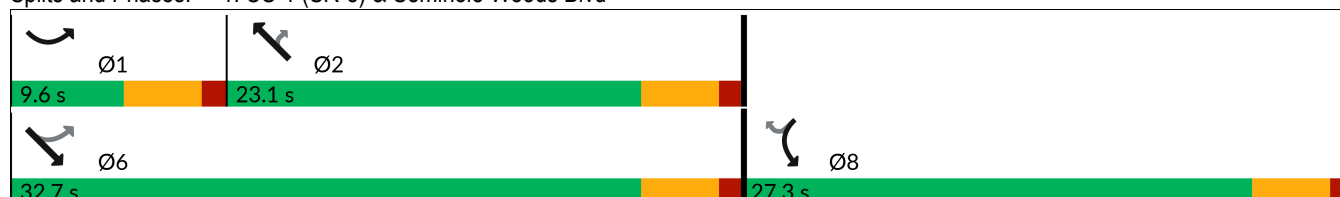
Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026

						
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	155	898	455	143	492	245
Future Volume (veh/h)	155	898	455	143	492	245
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	168	976	495	155	535	266
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	483	1772	1185	528	610	543
Arrive On Green	0.09	0.50	0.33	0.33	0.34	0.34
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	168	976	495	155	535	266
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	3.2	10.7	6.1	4.1	16.0	7.5
Cycle Q Clear(g_c), s	3.2	10.7	6.1	4.1	16.0	7.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	483	1772	1185	528	610	543
V/C Ratio(X)	0.35	0.55	0.42	0.29	0.88	0.49
Avail Cap(c_a), veh/h	491	1772	1185	528	718	639
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	10.0	9.8	14.6	13.9	17.5	14.7
Incr Delay (d2), s/veh	0.4	1.2	1.1	1.4	10.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.7	2.4	1.5	7.5	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.4	11.0	15.7	15.3	28.1	15.4
LnGrp LOS	B	B	B	B	C	B
Approach Vol, veh/h		1144	650		801	
Approach Delay, s/veh		11.0	15.6		23.9	
Approach LOS		B	B		C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	23.4			32.7	23.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	5.1	18.6			28.2	22.8
Max Q Clear Time (g_c+I1), s	5.2	8.1			12.7	18.0
Green Ext Time (p_c), s	0.0	2.8			6.3	1.4
Intersection Summary						
HCM 7th Control Delay, s/veh			16.1			
HCM 7th LOS			B			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	276	8	4	582	20	26	0	15	56	0	130
Future Volume (vph)	46	276	8	4	582	20	26	0	15	56	0	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.951				0.850
Flt Protected	0.950							0.969			0.950	
Satd. Flow (prot)	1770	1855	0	0	1863	1583	0	1717	0	0	1770	1583
Flt Permitted	0.950							0.969			0.950	
Satd. Flow (perm)	1770	1855	0	0	1863	1583	0	1717	0	0	1770	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2822			2497			302			554	
Travel Time (s)		64.1			56.8			6.9			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	300	9	4	633	22	28	0	16	61	0	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	309	0	0	637	22	0	44	0	0	61	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		60	60		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	53.9%											
Analysis Period (min)	15											
ICU Level of Service A												

Lanes, Volumes, Timings

3: Slipper Trail/East Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	345	6	4	486	10	16	0	9	29	0	66
Future Volume (vph)	24	345	6	4	486	10	16	0	9	29	0	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.997			0.950			0.907	
Flt Protected	0.950							0.969			0.985	
Satd. Flow (prot)	1770	1857	0	0	1857	0	0	1715	0	0	1664	0
Flt Permitted	0.950							0.969			0.985	
Satd. Flow (perm)	1770	1857	0	0	1857	0	0	1715	0	0	1664	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2497			1960			501			428	
Travel Time (s)		56.8			44.5			11.4			9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	375	7	4	528	11	17	0	10	32	0	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	382	0	0	543	0	0	27	0	0	104	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.8%											
Analysis Period (min)	15											
ICU Level of Service A												

Lanes, Volumes, Timings

4: Sesame Blvd & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	309	80	55	204	235	148
Future Volume (vph)	309	80	55	204	235	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972				0.948	
Flt Protected				0.989	0.970	
Satd. Flow (prot)	1811	0	0	1842	1713	0
Flt Permitted				0.989	0.970	
Satd. Flow (perm)	1811	0	0	1842	1713	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	44.5			6.9	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	336	87	60	222	255	161
Shared Lane Traffic (%)						
Lane Group Flow (vph)	423	0	0	282	416	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.0%			ICU Level of Service C		
Analysis Period (min)	15					

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	71	235	473	16	89	223
Future Volume (vph)	71	235	473	16	89	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		67.1			23.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	255	514	17	97	242
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	255	514	17	97	242
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.1%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	151	30	30	892	377	87
Future Volume (vph)	151	30	30	892	377	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	164	33	33	970	410	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	164	33	33	970	410	95
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.7%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	270	666	804	473	271	183
Future Volume (vph)	270	666	804	473	271	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	330			330	0	440
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.167				0.950	
Satd. Flow (perm)	311	3539	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				514		199
Link Speed (mph)		30	30		30	
Link Distance (ft)		1284	3295		2822	
Travel Time (s)		29.2	74.9		64.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	293	724	874	514	295	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	293	724	874	514	295	199
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		8	
Permitted Phases	6			2		8

2033 Total PM Peak Hour Traffic 1:02 pm 03/02/2026

Synchro 12 Report
Page 1

Lanes, Volumes, Timings

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Detector Phase	1	6	2	2	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	14.4	37.5	23.1	23.1	22.5	22.5
Total Split (%)	24.0%	62.5%	38.5%	38.5%	37.5%	37.5%
Maximum Green (s)	9.9	33.0	18.6	18.6	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	Max	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
Act Effect Green (s)	33.1	33.1	19.5	19.5	13.9	13.9
Actuated g/C Ratio	0.59	0.59	0.35	0.35	0.25	0.25
v/c Ratio	0.70	0.35	0.71	0.58	0.67	0.37
Control Delay (s/veh)	19.4	7.0	21.2	4.9	27.2	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.4	7.0	21.2	4.9	27.2	5.2
LOS	B	A	C	A	C	A
Approach Delay (s/veh)		10.6	15.2		18.3	
Approach LOS		B	B		B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 14.1

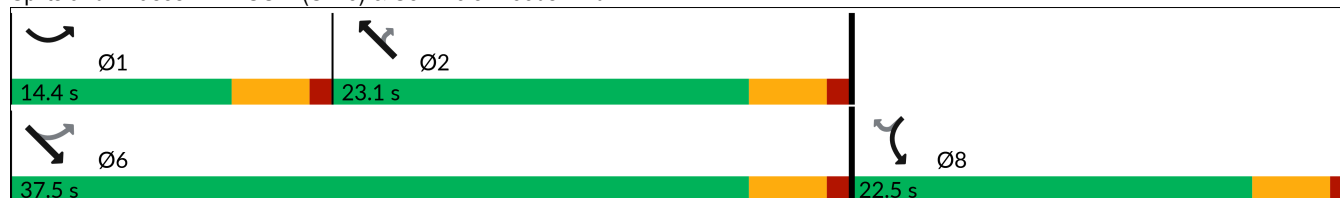
Intersection LOS: B

Intersection Capacity Utilization 63.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: US-1 (SR-5) & Seminole Woods Blvd



HCM 7th Signalized Intersection Summary

1: US-1 (SR-5) & Seminole Woods Blvd

03/10/2026



Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	270	666	804	473	271	183
Future Volume (veh/h)	270	666	804	473	271	183
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	724	874	514	295	199
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	495	2197	1450	647	380	338
Arrive On Green	0.13	0.62	0.41	0.41	0.21	0.21
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	293	724	874	514	295	199
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	4.5	5.2	10.3	15.2	8.3	6.0
Cycle Q Clear(g_c), s	4.5	5.2	10.3	15.2	8.3	6.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	495	2197	1450	647	380	338
V/C Ratio(X)	0.59	0.33	0.60	0.79	0.78	0.59
Avail Cap(c_a), veh/h	602	2197	1450	647	601	534
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	8.5	4.9	12.4	13.8	19.8	18.9
Incr Delay (d2), s/veh	1.1	0.4	1.9	9.7	3.4	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	1.4	1.4	3.8	6.2	3.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.6	5.3	14.3	23.6	23.2	20.5
LnGrp LOS	A	A	B	C	C	C
Approach Vol, veh/h		1017	1388		494	
Approach Delay, s/veh		6.5	17.7		22.1	
Approach LOS		A	B		C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.2	26.3			37.5	15.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	9.9	18.6			33.0	18.0
Max Q Clear Time (g_c+I1), s	6.5	17.2			7.2	10.3
Green Ext Time (p_c), s	0.3	1.1			5.4	1.1
Intersection Summary						
HCM 7th Control Delay, s/veh			14.6			
HCM 7th LOS			B			

Lanes, Volumes, Timings

2: Sloganeer Trail/West Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	624	23	16	361	59	11	1	19	36	1	84
Future Volume (vph)	137	624	23	16	361	59	11	1	19	36	1	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995				0.850		0.917				0.850
Flt Protected	0.950				0.998			0.983			0.954	
Satd. Flow (prot)	1770	1853	0	0	1859	1583	0	1679	0	0	1777	1583
Flt Permitted	0.950				0.998			0.983			0.954	
Satd. Flow (perm)	1770	1853	0	0	1859	1583	0	1679	0	0	1777	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2822			2497			302			554	
Travel Time (s)		64.1			56.8			6.9			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	149	678	25	17	392	64	12	1	21	39	1	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	703	0	0	409	64	0	34	0	0	40	91
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		60	60		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 72.6%												
ICU Level of Service C												
Analysis Period (min) 15												

Lanes, Volumes, Timings

3: Slipper Trail/East Project Driveway & Seminole Woods Blvd

03/10/2026

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	626	12	3	417	30	3	0	2	18	0	43
Future Volume (vph)	70	626	12	3	417	30	3	0	2	18	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.991			0.946			0.905	
Flt Protected	0.950							0.971			0.985	
Satd. Flow (prot)	1770	1857	0	0	1846	0	0	1711	0	0	1660	0
Flt Permitted	0.950							0.971			0.985	
Satd. Flow (perm)	1770	1857	0	0	1846	0	0	1711	0	0	1660	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2497			1960			501			428	
Travel Time (s)		56.8			44.5			11.4			9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	680	13	3	453	33	3	0	2	20	0	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	693	0	0	489	0	0	5	0	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	63.3%				ICU Level of Service B							
Analysis Period (min)	15											

Lanes, Volumes, Timings

4: Sesame Blvd & Seminole Woods Blvd

03/10/2026

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	322	252	160	290	133	93
Future Volume (vph)	322	252	160	290	133	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941				0.945	
Flt Protected				0.983	0.971	
Satd. Flow (prot)	1753	0	0	1831	1709	0
Flt Permitted				0.983	0.971	
Satd. Flow (perm)	1753	0	0	1831	1709	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1960			302	1059	
Travel Time (s)	44.5			6.9	24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	350	274	174	315	145	101
Shared Lane Traffic (%)						
Lane Group Flow (vph)	624	0	0	489	246	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	79.5%			ICU Level of Service D		
Analysis Period (min)	15					

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	153	367	72	245	453
Future Volume (vph)	18	153	367	72	245	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	270	0		400	380	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1583	1863	1583	1770	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1503		2954			1014
Travel Time (s)	34.2		67.1			23.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	166	399	78	266	492
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	166	399	78	266	492
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.2%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

6: Seminole Woods Blvd & Citation Blvd

03/10/2026

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	109	45	52	619	775	157
Future Volume (vph)	109	45	52	619	775	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	325	445			400
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1770	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	3539	3539	1583
Link Speed (mph)	30			55	55	
Link Distance (ft)	3339			1714	1134	
Travel Time (s)	75.9			21.2	14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	49	57	673	842	171
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	49	57	673	842	171
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.8%			ICU Level of Service A		
Analysis Period (min)	15					

Appendix J

Volume Calculation Spreadsheet

AM Peak
Seminole Trace
Volume Calculations

Dates	SF	AM Trip Gen
2/11/2024 - 2/17/2024	0.98	Entering 112
2/25/2024 - 3/2/2024	0.95	Exiting 314

CITATION BLVD & SEMINOLE WOODS BLVD

1	CITATION BLVD				N/A				SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:30 AM - 08:30 AM	0	90	0	22	0	0	0	0	1	20	627	0	0	0	246	54	1,060
w/ SF	0	88	0	22	0	0	0	0	1	20	614	0	0	0	241	53	1,039
w/ GF	0	94	0	24	0	0	0	0	1	27	818	0	0	0	303	67	1,334
Grand Landings		57		6						2						20	85
Background	0	151	0	30	0	0	0	0	1	29	818	0	0	0	303	87	1,419
% Ent		0.00%		0.00%													0
% Exit										0.00%	23.56%				23.56%	0.00%	0
Proj Ent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Exit	0	0	0	0	0	0	0	0	0	0	74	0	0	0	74	0	148
Project Traffic	0	0	0	0	0	0	0	0	0	0	74	0	0	0	74	0	148
Total	0	151	0	30	0	0	0	0	1	29	892	0	0	0	377	87	1,567

GF EB	1.072
GF WB	1.000
GF NB	1.333
GF SB	1.257

SEMINOLE WOODS BLVD & US-1 (SR-5)

2	N/A				SEMINOLE WOODS BLVD				US-1 (SR-5)				US-1 (SR-5)				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:15 AM - 08:15 AM	0	0	0	0	0	265	0	158	0	0	411	81	1	113	733	0	1,762
w/ SF	0	0	0	0	0	260	0	155	0	0	403	79	1	111	718	0	1,727
w/ GF	0	0	0	0	0	341	0	203	0	0	455	89	1	139	898	0	2,126
% Ent																	1
% Exit						48.21%		13.36%							13.36%		1
Proj Ent	0	0	0	0	0	0	0	0	0	0	0	54	0	15	0	0	69
Proj Exit	0	0	0	0	0	151	0	42	0	0	0	0	0	0	0	0	193
Project Traffic	0	0	0	0	0	151	0	42	0	0	0	54	0	15	0	0	262
Total	0	0	0	0	0	492	0	245	0	0	455	143	1	154	898	0	2,388

GF EB	1.000
GF WB	1.312
GF NB	1.128
GF SB	1.250

SEMINOLE WOODS BLVD & PROJECT DRIVEWAY/SLOGANEER TRAIL

3	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Sloganeer Trail				West Project Driveway				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:00 AM - 08:00 AM	0	0	196	8	0	4	401	0	0	24	0	14	0	0	0	1	648
w/ SF	0	0	192	8	0	4	393	0	0	24	0	14	0	0	0	1	636
w/ GF	0	0	252	9	0	4	516	0	0	26	0	15	0	0	0	1	823
% Ent		41.12%	21.00%					17.85%			0.00%						1
% Exit							21.02%							17.84%	0.00%	41.18%	1
Proj Ent	0	46	24	0	0	0	0	20	0	0	0	0	0	0	0	0	90
Proj Exit	0	0	0	0	0	0	66	0	0	0	0	0	0	56	0	129	251
Project Traffic	0	46	24	0	0	0	66	20	0	0	0	0	0	56	0	129	341
Total	0	46	276	9	0	4	582	20	0	26	0	15	0	56	0	130	1,164

GF EB	1.312
GF WB	1.312
GF NB	1.072
GF SB	1.072

SEMINOLE WOODS BLVD & PROJECT DRIVEWAY/SLIPPER TRAIL

4	Seminole Woods Blvd				Seminole Woods Blvd				Slipper Trail				East Project Driveway				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:00 AM - 08:00 AM	0	0	224	6	0	4	362	0	0	15	0	8	0	0	0	0	619
w/ SF	0	0	220	6	0	4	355	0	0	15	0	8	0	0	0	0	608
w/ GF	0	0	289	6	0	4	466	0	0	16	0	9	0	0	0	0	790
% Ent		21.00%					17.85%	9.09%									0
% Exit			17.84%											9.10%		21.02%	0
Proj Ent	0	24	0	0	0	0	20	10	0	0	0	0	0	0	0	0	54
Proj Exit	0	0	56	0	0	0	0	0	0	0	0	0	0	29	0	66	151
Project Traffic	0	24	56	0	0	0	20	10	0	0	0	0	0	29	0	66	205
Total	0	24	345	6	0	4	486	10	0	16	0	9	0	29	0	66	995

GF EB	1.312
GF WB	1.312
GF NB	1.072
GF SB	1.072

SEMINOLE WOODS BLVD & SESAME BLVD

5	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SESAME BLVD (SOUTH)				N/A				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:15 AM - 08:15 AM	0	0	181	69	0	52	136	0	0	220	0	141	0	0	0	0	799
w/ SF	0	0	177	68	0	51	133	0	0	216	0	138	0	0	0	0	783
w/ GF	0	0	232	73	0	55	177	0	0	232	0	148	0	0	0	0	917
% Ent							24.47%			2.38%							0
% Exit			24.47%	2.38%													0
Proj Ent	0	0	0	0	0	0	27	0	0	3	0	0	0	0	0	0	30
Proj Exit	0	0	77	7	0	0	0	0	0	0	0	0	0	0	0	0	84
Project Traffic	0	0	77	7	0	0	27	0	0	3	0	0	0	0	0	0	114
Total	0	0	309	80	0	55	204	0	0	235	0	148	0	0	0	0	1,031

GF EB	1.312
GF WB	1.333
GF NB	1.072
GF SB	1.000

SEMINOLE WOODS BLVD & CITATION PKWY (SESAME BLVD)

6	N/A				SESAME BLVD (CITATION BLVD)				SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Total
2/26/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
07:30 AM - 08:30 AM	0	0	0	0	0	68	0	231	0	0	315	13	0	87	156	0	870
w/ SF	0	0	0	0	0	65	0	219	0	0	299	12	0	83	148	0	826
w/ GF	0	0	0	0	0	70	0	235	0	0	399	13	0	89	197	0	1,003
% Ent						0.86%									23.56%		0
% Exit											23.56%	0.86%					0
Proj Ent	0	0	0	0	0	1	0	0	0	0	0	0	0	0	26	0	27
Proj Exit	0	0	0	0	0	0	0	0	0	0	74	3	0	0	0	0	77
Project Traffic	0	0	0	0	0	1	0	0	0	0	74	3	0	0	26	0	104
Total	0	0	0	0	0	71	0	235	0	0	473	16	0	89	223	0	1,107

GF EB	1.000
GF WB	1.072
GF NB	1.333
GF SB	1.333

PM Peak
Seminole Trace
Volume Calculations

Dates	SF
2/11/2024 - 2/17/2024	0.98
2/25/2024 - 3/2/2024	0.95

PM Trip Gen	
Entering	333
Exiting	203

CITATION BLVD & SEMINOLE WOODS BLVD

1	CITATION BLVD				N/A				SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
04:15 PM - 05:15 PM	0	65	0	39	0	0	0	0	0	35	437	0	0	0	590	74	1,240
w/ SF	0	64	0	38	0	0	0	0	0	34	428	0	0	0	578	73	1,215
w/ GF	0	69	0	41	0	0	0	0	0	45	571	0	0	0	727	92	1,545
Grand Landings		40		4						7						65	116
Background	0	109	0	45	0	0	0	0	0	52	571	0	0	0	727	157	1,661
% Ent		0.00%		0.00%													0
% Exit										0.00%	23.56%				23.56%	0.00%	0
Proj Ent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proj Exit	0	0	0	0	0	0	0	0	0	0	48	0	0	0	48	0	96
Project Traffic	0	0	0	0	0	0	0	0	0	0	48	0	0	0	48	0	96
Total	0	109	0	45	0	0	0	0	0	52	619	0	0	0	775	157	1,757

GF EB	1.072
GF WB	1.000
GF NB	1.333
GF SB	1.257

SEMINOLE WOODS BLVD & US-1 (SR-5)

2		N/A				SEMINOLE WOODS BLVD				US-1 (SR-5)				US-1 (SR-5)				Total
2/11/2026		Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
04:30 PM - 05:30 PM	0	0	0	0	0	135	0	121	0	0	728	283	0	185	544	0	1,996	
w/ SF	0	0	0	0	0	132	0	119	0	0	713	277	0	181	533	0	1,955	
w/ GF	0	0	0	0	0	173	0	156	0	0	804	312	0	226	666	0	2,337	
% Ent														48.21%	13.36%		1	
% Exit						48.21%		13.36%									1	
Proj Ent	0	0	0	0	0	0	0	0	0	0	0	161	0	44	0	0	205	
Proj Exit	0	0	0	0	0	98	0	27	0	0	0	0	0	0	0	0	125	
Project Traffic	0	0	0	0	0	98	0	27	0	0	0	161	0	44	0	0	330	
Total	0	0	0	0	0	271	0	183	0	0	804	473	0	270	666	0	2,667	

GF EB	1.000
GF WB	1.312
GF NB	1.128
GF SB	1.250

SEMINOLE WOODS BLVD & PROJECT DRIVEWAY/SLOGANEER TRAIL

3	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Sloganeer Trail				West Project Driveway				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
04:30 PM - 05:30 PM	0	0	431	21	0	15	247	0	0	10	1	18	0	0	1	0	744
w/ SF	0	0	422	21	0	15	242	0	0	10	1	18	0	0	1	0	730
w/ GF	0	0	554	23	0	16	318	0	0	11	1	19	0	0	1	0	943
% Ent		41.12%	21.00%					17.85%				0.00%					1
% Exit							21.02%							17.84%	0.00%	41.18%	1
Proj Ent	0	137	70	0	0	0	0	59	0	0	0	0	0	0	0	0	266
Proj Exit	0	0	0	0	0	0	43	0	0	0	0	0	0	36	0	84	163
Project Traffic	0	137	70	0	0	0	43	59	0	0	0	0	0	36	0	84	429
Total	0	137	624	23	0	16	361	59	0	11	1	19	0	36	1	84	1,372

GF EB	1.312
GF WB	1.312
GF NB	1.072
GF SB	1.072

SEMINOLE WOODS BLVD & PROJECT DRIVEWAY/SLIPPER TRAIL

4	Seminole Woods Blvd				Seminole Woods Blvd				Slipper Trail				East Project Driveway				
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
04:30 PM - 05:30 PM	0	0	459	11	0	3	279	0	0	3	0	2	0	0	0	0	757
w/ SF	0	0	450	11	0	3	273	0	0	3	0	2	0	0	0	0	742
w/ GF	0	0	590	12	0	3	358	0	0	3	0	2	0	0	0	0	968
% Ent		21.00%					17.85%	9.09%									0
% Exit			17.84%											9.10%		21.02%	0
Proj Ent	0	70	0	0	0	0	59	30	0	0	0	0	0	0	0	0	159
Proj Exit	0	0	36	0	0	0	0	0	0	0	0	0	0	18	0	43	97
Project Traffic	0	70	36	0	0	0	59	30	0	0	0	0	0	18	0	43	256
Total	0	70	626	12	0	3	417	30	0	3	0	2	0	18	0	43	1,224

GF EB	1.312
GF WB	1.312
GF NB	1.072
GF SB	1.072

SEMINOLE WOODS BLVD & SESAME BLVD

5	SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				SESAME BLVD (SOUTH)				N/A				Total
2/11/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
04:30 PM - 05:30 PM	0	0	211	235	0	152	160	0	0	119	0	89	0	0	0	0	966
w/ SF	0	0	207	230	0	149	157	0	0	117	0	87	0	0	0	0	947
w/ GF	0	0	272	247	0	160	209	0	0	125	0	93	0	0	0	0	1,106
% Ent							24.47%			2.38%							0
% Exit			24.47%	2.38%													0
Proj Ent	0	0	0	0	0	0	81	0	0	8	0	0	0	0	0	0	89
Proj Exit	0	0	50	5	0	0	0	0	0	0	0	0	0	0	0	0	55
Project Traffic	0	0	50	5	0	0	81	0	0	8	0	0	0	0	0	0	144
Total	0	0	322	252	0	160	290	0	0	133	0	93	0	0	0	0	1,250

GF EB	1.312
GF WB	1.333
GF NB	1.072
GF SB	1.000

SEMINOLE WOODS BLVD & CITATION PKWY (SESAME BLVD)

6	N/A				SESAME BLVD (CITATION BLVD)				SEMINOLE WOODS BLVD				SEMINOLE WOODS BLVD				Total
2/26/2026	Eastbound				Westbound				Northbound				Southbound				
Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
04:15 PM - 05:15 PM	0	0	0	0	1	14	0	150	0	0	252	68	1	240	296	0	
w/ SF	0	0	0	0	1	13	0	143	0	0	239	65	1	228	281	0	
w/ GF	0	0	0	0	1	14	0	153	0	0	319	70	1	244	375	0	
% Ent						0.86%									23.56%	0	
% Exit											23.56%	0.86%				0	
Proj Ent	0	0	0	0	0	3	0	0	0	0	0	0	0	0	78	0	
Proj Exit	0	0	0	0	0	0	0	0	0	0	48	2	0	0	0	50	
Project Traffic	0	0	0	0	0	3	0	0	0	0	48	2	0	0	78	0	
Total	0	0	0	0	1	17	0	153	0	0	367	72	1	244	453	0	

GF EB	1.000
GF WB	1.072
GF NB	1.333
GF SB	1.333

Appendix K
City of Palm Coast Turn Lane Technical Guidelines
November 10, 2020

Palm Coast Draft Turn Lane Technical Guidelines on November 10, 2020

The purpose of this document is to assist the City and design professionals regarding turn lane design as part of a development for a property accessing a City street. It determines:

- a) when a turn lane is required to be built as a condition of access to the City street, and
- b) the required dimensions of the turn lane.

These guidelines provide guidance for developers on what to expect for design and construction requirements on a roadway connecting to their driveway (entrance) when developing a property.

Turn lanes for left-turning and right-turning traffic are desirable for the safe execution of speed change maneuvers. Turn lanes also allow for the storage and protection of left-turning or right-turning vehicles while allowing through traffic to pass safely with minimal induced delay.

Deceleration lanes shall be provided at all intersection and/or access points adjacent to the project on all City-maintained and privately-maintained roadways as required by these guidelines. (Turn lanes along Flagler County owned roadways will be determined by Flagler County after receiving input from the City.) However, these guidelines shall not be construed in any manner to allow a left-turn lane and/or a right-turn lane into a project where such turning movement is not approved by the City.

All table values referenced in this document presume design of a single turn lane. The City will use the latest edition of the Florida Department of Transportation's (FDOT's) publication: "Standard Plans and Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways" (commonly referred to as the "Florida Greenbook") as a design reference. The City will be the sole judge, when backed by engineering analysis, to define whether a multi-lane turn lane design is adequate in dimension.

Turn Volume Thresholds that Require the Addition of a Dedicated Left Turn Lane from the City Street

A left turn lane shall be provided at each access driveway of the project when a Left-Turning Vehicle (LTV) count during a Peak Hour (Weekday AM, Weekday PM, Weekend Mid-Day) from the City roadway entering that driveway meets or exceeds the criteria below. The roadway column in the table below shall be utilized for the type and volume of traffic on the roadway from where the turn would originate and shall be based on the Average Annual Daily Traffic (AADT) from the City's bi-annual traffic counts and projected forward including background traffic from other projects, as determined by the City, until the time when the project and its driveway are reasonably expected to finish construction and be open.

Left Turn Lane Thresholds

Posted Speed	2 Lane Roadways	2 Lane Roadways	4+ Lane Roadways	4+ Lane Roadways
Limit	AADT of 5,000 or less	AADT over 5,000	AADT of 10,000 or less	AADT over 10,000
Up to 25 mph	40 LTV/Peak Hour	35 LTV/Peak Hour	50 LTV/Peak Hour	40 LTV/Peak Hour
30 - 35 mph	30 LTV/Peak Hour	25 LTV/Peak Hour	35 LTV/Peak Hour	25 LTV/Peak Hour
40 + mph	20 LTV/Peak Hour	15 LTV/Peak Hour	25 LTV/Peak Hour	20 LTV/Peak Hour

Turn Volume Thresholds that Require the Addition of a Dedicated Right Turn Lane from the City Street

A right turn lane shall be provided at each access driveway of the project when a Right-Turning Vehicle (RTV) count during a Peak Hour (Weekday AM, Weekday PM, Weekend Mid-Day) from the City roadway entering that driveway meets or exceeds the criteria below. The roadway column in the table below shall be utilized for the type and volume of traffic on the roadway from where the turn would originate and shall be based on the AADT from the City's bi-annual traffic counts and projected forward including background

traffic from other projects, as determined by the City, until the time when the project and its driveway are reasonably expected to finish construction and be open.

Right Turn Lane Thresholds

Posted Speed	2 Lane Roadways	2 Lane Roadways	4+ Lane Roadways	4+ Lane Roadways
Limit	AADT of 5,000 or less	AADT over 5,000	AADT of 10,000 or less	AADT over 10,000
Up to 25 mph	175 RTV/Peak Hour	150 RTV/Peak Hour	155 RTV/Peak Hour	120 RTV/Peak Hour
30 - 35 mph	120 RTV/Peak Hour	100 RTV/Peak Hour	100 RTV/Peak Hour	70 RTV/Peak Hour
40 + mph	70 RTV/Peak Hour	60 RTV/Peak Hour	60 RTV/Peak Hour	40 RTV/Peak Hour

Other Criteria

When a project's driveway meets at least 75% of the above thresholds for Peak Hour (Weekday AM, Weekday PM or Weekend Mid-Day) left or right turns and at least one of the following criteria is also present, the City, in its sole judgment, may require the developer to provide the turn lane.

1. Sight distance is limited due to curves or hills or other unalterable object.
2. The intersection or driveway is just after a signalized intersection where acceleration or driver expectancy would make a separate right turn desirable (this would also be the case downstream soon after a dual left-turn lane onto a four-lane roadway).
3. At least 50% higher than normal crash experience (or 33% above normal rear-end collisions) or the City has determined that this roadway section has a Level of Service (LOS) of D or lower.
4. Severe skewed angle of the intersection so that right-turn traffic has to slow more than would be expected for a 90-degree turn.
5. The turn-lane into the project occurs at an existing or proposed signalized intersection where adequate right-of-way exists or is available from the development.

Construction Timing

Turn lanes shall be constructed with the infrastructure and prior to the vertical construction of any buildings unless the City allows some of the vertical building construction prior to completion of the turn lanes. When a project is phased, the turn lanes shall be constructed with the earliest phase that the turn lane meets at least 50% of the criteria for requiring the turn lane.

Turn Lane Design Standards

A turn lane shall consist of the following components: A taper and a full width lane length of a turn lane. The total length of the turn lane shall be the taper length plus the full width lane length.

A taper shall be the longitudinal length of a development of a lane from zero width to full width. Find the length of taper required in the tables below (See Sections *Left turn Lane Table* and *Right Turn Lane Table*).

Turn lane widths shall be a minimum of 11 feet on roadways where the posted speed is 40 mph or less (see exceptions in next sentence).

Turn lane widths, when turn lanes are required, shall be a minimum of 12 feet on roadways where at least one condition below is present:

1. Where the posted speed is 45 mph or greater.
2. With more than two lanes of opposing traffic.
3. With medians at least 16 feet wide separating opposing traffic lanes.

Turn lane length shall be measured along the lane segment constructed at full lane width. The required turn lane length of right turn lanes and left turn lanes exiting the City street shall be determined by choosing the greater of:

1. The minimum full width turn lane length. The minimum full width turn lane length shall be 75 feet.
2. The calculation of full width turn lane length based on conditions in the following tables. Total required full width turn lane length shall be the sum of the deceleration length dimension (See Left Turn Lane Table; See Right Turn Lane Table) plus the storage length dimension (see Storage Length Dimension Table - SLDT).

Shorter turn lanes will not be allowed except under special circumstances as approved by the City.

Storage Length Dimension Table For Unsignalized Intersections*

Largest Peak Hour Volume in Vehicles Per Hour (vph)	Storage Length (feet)*
Up to 25	30
26 to 50	50
51 to 75	75
76 to 100	100
Every additional increment, or partial increment, of 50 vph	75

**Per FDOT Greenbook*

Dimensions in the SLDT presume the traffic in the turn lane consists of less than 5% heavy vehicles (where a heavy vehicle is any vehicle longer than 34 feet including a trailer). If heavy vehicle percentage will be between 5% and 20% of turning vehicles, increase storage length by 20%. If heavy vehicle percentage will be greater than 20% of turning vehicles, increase storage length by 100%.

Left Turn Lane Length

The requirements for lengths of tapers, deceleration and storage for left turn lanes are based on the speed limit of the road and are shown in the following table:

Left Turn Lane Table For Unsignalized Intersections*

Posted Speed Limit Of Roadway (mph)	Length of Taper (feet)	Length of Deceleration (feet)	Length of Storage (feet)*
Up to 25	50	0	100% of SLDT Value
30	75	0	100% of SLDT Value
35	75	75	100% of SLDT Value
40	90	75	100% of SLDT Value
45	100	100	100% of SLDT Value
50	100	135	100% of SLDT Value

**For 2 Lane Roadways less than 5,000 ADT and for 4-Lane Roadways less than 10,000 ADT, reduce the 100% qualification to 70%. Per FDOT Greenbook*

Total required full width turn lane length shall be the sum of the deceleration length dimension plus the storage length dimension. The taper is not considered part of the full width turn lane length.

Right Turn Lane Length

The requirements for lengths of tapers, deceleration and storage for right turn lanes are based on the speed limit of the road and are shown in the following table:

Right Turn Lane Table For Unsignalized Intersections*

Posted Speed Limit Of Roadway (mph)	Length of Taper (feet)	Length of Deceleration (feet)	Length of Storage (feet) Stop Condition	Length of Storage (feet) Free Flow
Up to 25	50	0	50% of SLDT Value	0
30	75	0	50% of SLDT Value	0
35	100	75	50% of SLDT Value	25% of SLDT Value
40	100	75	60% of SLDT Value	30% of SLDT Value
45	100	100	75% of SLDT Value	35% of SLDT Value
50 +	100	135	80% of SLDT Value	45% of SLDT Value

**Per FDOT Greenbook*

Total required full width turn lane length shall be the sum of the deceleration length dimension plus the storage length dimension. The taper is not considered part of the full width turn lane length. Right turn lane lengths at traffic signal controlled intersections shall be based on queue lengths determined through an engineering traffic study.

Deviations

The City may grant a deviation from these guidelines in part or in whole after determining that any of the following conditions make compliance infeasible:

1. Right-of-way constraints do not permit the installation of the turn lane or to its full dimensions. This does not include cases where the developer is unwilling to provide the developer's own property from the development under consideration for additional right-of-way to construct or compensate for the turn lane.
2. Existing topographic or roadway geometric features would cause construction of the turn lane to be prohibitively expensive if constructed to standards.
3. Unusual roadway features would cause a turn lane to be detrimental to the health, safety and general welfare of the public. This could include a case where a right-turn lane could negatively impact bicyclists or pedestrians.
4. Such turn lane or in its full dimension would require removal of a specimen or historic tree as described in Section 11.02.04.A of the Land Development Code or significantly impact a high quality wetland.

Calculation Examples

Example 1

A 30 mph 2 lane 2-way road. AADT of 4,000. Heavy Truck percentage into property: 15%. Largest Peak Hour projected left turns: 32 vph. Largest Peak Hour Projected Right Turns 62 vph.

Compare to Turn Volumes Threshold Tables

Is Left Turn lane required? 32 vph > 30 LTV threshold Yes. Left turn lane is required.

Is Right Turn lane required? 62 vph < 120 RTV threshold. No. Right turn lane is not required.

Calculate Left turn Length

See Left Turn Lane Table

For 30 mph,

Taper = 75 feet

Deceleration Length = 0 feet

SLDT for 32 vph = 50 feet

Truck factor for 5 to 20% trucks = 1.2

Full width length = $0 + (1.2 * 50) = 60$ feet round up to nearest 10 feet → 60 feet

Final answer: Left turn lane length = 50 foot taper plus 60 feet full width lane = 110 feet.

Full width lane = 11 feet for 30 mph road with no special conditions.

Note: The transition from the typical two-lane width to the beginning of taper is covered in the FDOT Greenbook, which is referenced as the design guidelines for the transition.

Example 2

A 45 mph 4 lane road with divided median. AADT of 12,800. Heavy Truck percentage into property: 2 to 4%. Largest Peak Hour projected Left turns: 44 vph. Largest Peak Hour Projected Right Turns 164 vph.

Compare to Turn Volumes Threshold Tables

Is Left Turn lane required? 44 vph > 20 LTV threshold Yes. Left turn lane is required.

Is Right Turn lane required? 164 vph > 40 RTV threshold Yes. Right turn lane is required.

Calculate Left turn Length

See Left Turn Lane Table

For 45 mph

Taper = 100 feet

Deceleration Length = 100 feet (deceleration occurs in taper)

SLDT for 44 vph = 50 feet

Truck factor for 2-4% trucks = 1.0

Full width length = $100 + (1.0 * 50) = 150$ feet round up to nearest 10 feet → 150 feet

Final answer: Left turn lane length = 100 foot taper plus 150 feet full width lane = 250 feet.

Full width lane = 12 feet for 45 mph road

Calculate Right Turn Length

See Right Turn Lane Table

For 45 mph

Taper = 100 feet

Deceleration Length = 100 feet (deceleration occurs in taper)

SLDT for 164 vph = 100 feet plus two units of 50 vph = $100 + (2.0 * 75) = 250$ feet

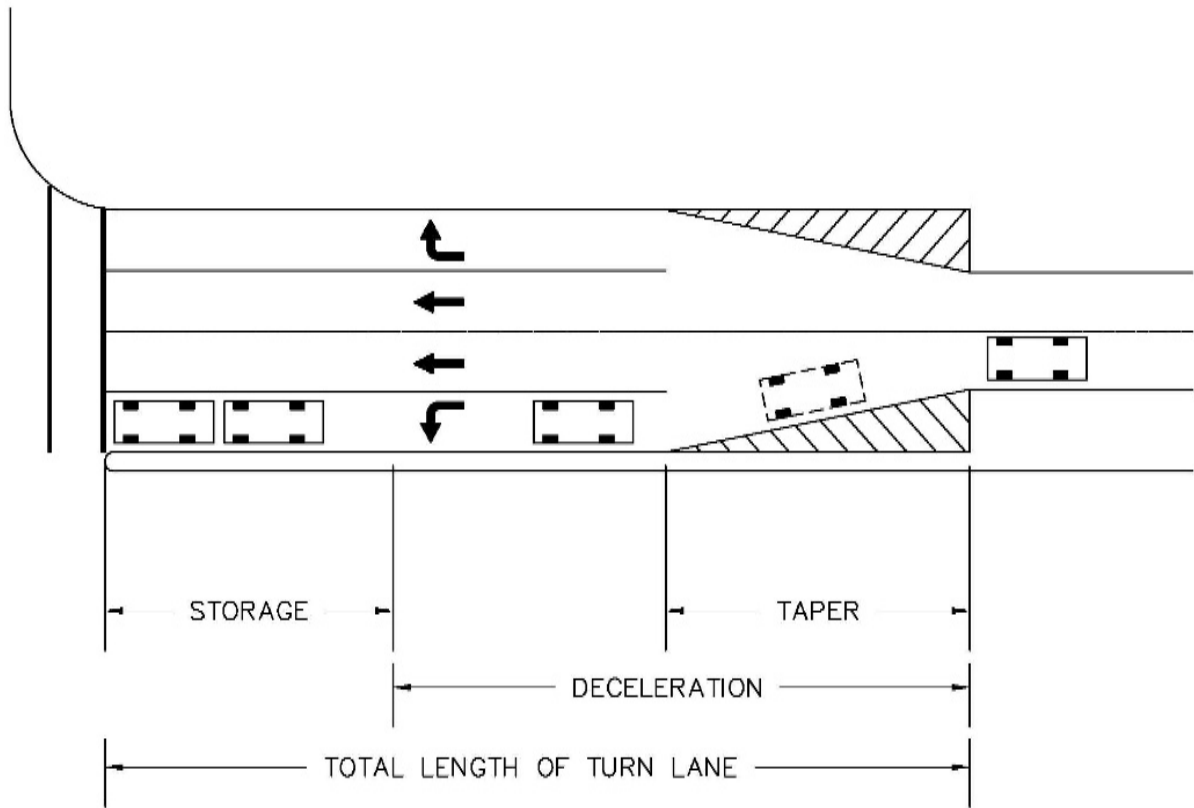
Truck factor for 2-4% trucks = 1.0

Full width length = $100 + (1.0 * ((0.75) * 250)) = 100 + 187.5$ feet = 287.5 feet round up to nearest 10 feet → 290 feet

Final answer: Right turn lane length = 100 foot taper plus 290 feet full width lane = 390 feet.

Full width lane = 12 feet for 45 mph road.

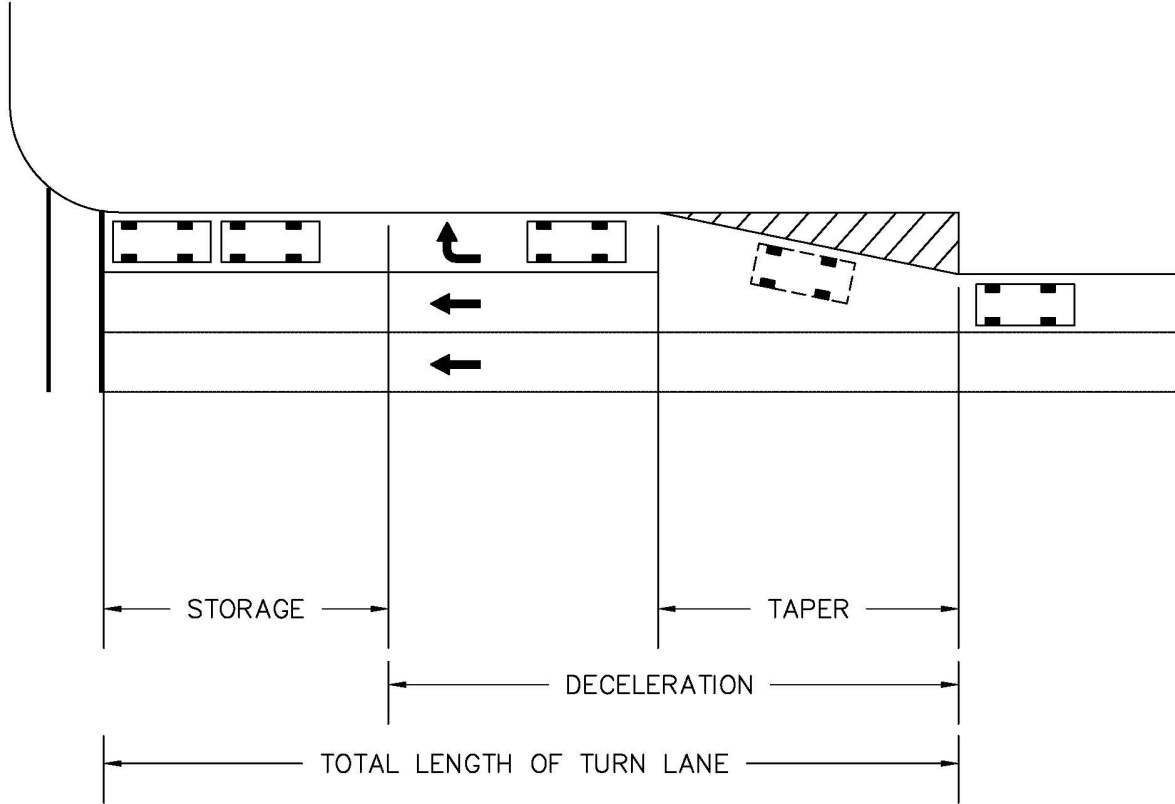
Left Turn Lane Detail



LEFT TURN LANE DETAIL

11/10/20

Right Turn Lane Detail



RIGHT TURN LANE DETAIL

11/10/20