

EDGEWATER RIVER OAKS

Project № 22160, v1.5
June 2024

**TRAFFIC IMPACT ANALYSIS
CITY OF EDGEWATER
FLORIDA**

Prepared by:



Traffic & Mobility Consultants

3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:

TM BTR of Florida, LLC
2600 Lake Lucien Drive, Suite 350
Maitland, Florida 32751

EXECUTIVE SUMMARY

Project Information

Name:	Edgewater River Oaks
Location:	Northeast corner of the US 1/South Ridgewood Avenue and Jones Fish Camp Road intersection
Jurisdiction:	City of Edgewater, Florida
Description:	118,800 Square Feet Boat Storage 196 Multifamily Build-to-Rent 390 Hotel Room 20 Marina Berths 10,000 Square Feet Retail 28,000 Square Feet Restaurant

Findings

Trip Generation:	6,485 New Daily Trips / 517 AM peak trips / 478 PM peak trips
Access Plan:	One (1) right-in/right-out on US 1/South Ridgewood Avenue and three (3) full access driveways on Jones Fish Camp Road
Roadway Capacity:	The study roadways currently and are projected to continue to operate adequately.
Intersection Capacity:	The intersection of US 1/South Ridgewood Avenue and Jones Fish Camp Road is projected to experience delays on the westbound approach. A signal warrant analysis is being prepared for this intersection. The intersection of US 1/South Ridgewood Avenue and Volco Road is projected to experience delays on the eastbound approach. The volume-to-capacity ratio is less than 1.0.

Recommendations

Proportionate Share:	The project's total proportionate share cost for the Build-to-Rent portion to mitigate traffic impacts is approximately \$229,762. The project's total proportionate share cost for the Mixed-Use portion to mitigate traffic impacts is approximately \$3,612,879.
----------------------	---

Turn Lane: Construct a 400-foot northbound right turn lane at the right-in/right-out access driveway on US 1/South Ridgewood Avenue, including a 50-foot taper.

Construct 195-foot eastbound left turn lanes, including a 50-foot taper, at the three (3) project access driveways along Jones Fish Camp Road. In lieu of individual eastbound left turn lanes, a continuous turn lane may be accommodated along Jones Fish Camp Road between US 1 and the terminus of the roadway.

The roadway design for Jones Fish Camp Road should also consider turn lanes for the Dollar General developments, as documented in this study. The Edgewater River Oaks project is not responsible to fund these improvements.

PROFESSIONAL ENGINEERING CERTIFICATION

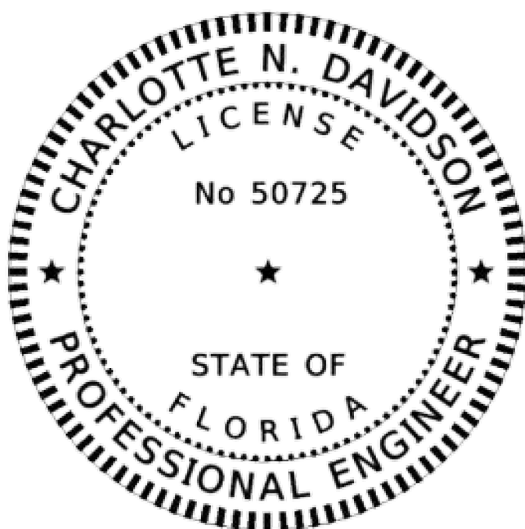
I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Edgewater River Oaks

LOCATION: City of Edgewater, Florida

CLIENT: TM BTR of Florida, LLC

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.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

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.

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803
CERTIFICATE OF AUTHORIZATION CA-30024
CHARLOTTE N. DAVIDSON, P.E. NO 50725

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION.....	1
1.1 Study Area.....	1
2.0 PROJECT TRAFFIC	6
2.1 Trip Generation.....	6
2.2 Trip Distribution/Assignment	6
3.0 CAPACITY ANALYSIS	8
3.1 Planned and Programmed Improvements.....	8
3.2 Projected Background Traffic.....	8
3.3 Roadway Segment Analysis	10
3.4 Intersection Analysis.....	11
3.5 Roadway Segment Improvements	18
3.6 Intersection Improvements.....	18
4.0 ACCESS REVIEW	24
4.1 Project Access Analysis.....	24
5.0 ALTERNATIVE TRANSPORTATION MODES	26
5.1 Pedestrian and Bicycle Facilities	26
5.2 Transit Facilities.....	26
5.3 Proximity to Nearby Schools.....	26
6.0 STUDY CONCLUSIONS.....	27

APPENDICES

Appendix A Response to Comments Letters
 Appendix B Conceptual Site Plan
 Appendix C Study Methodology & Methodology Correspondence
 Appendix D Volusia County 2021 AADT, Historical Counts, & FDOT QLOS Table
 Appendix E ITE Trip Generation Information
 Appendix F Model Output Plot
 Appendix G Historical Growth Rates & Vested Trip Information
 Appendix H Raw Counts & FDOT Seasonal Factor Report
 Appendix I Intersection Volume Projection Sheets
 Appendix J HCM Worksheets
 Appendix K FDOT Cost per Mile New 2-Lane Road
 Appendix L FDOT Cost per Mile Right Turn
 Appendix M FDOT Exhibit 212
 Appendix N FDOT Cost per Mile Left Turn
 Appendix O NCHRP Reports
 Appendix P Southeast Volusia County Bus Service Schedule

LIST OF TABLES

Table 1 Study Area	3
Table 2 Trip Generation Calculation.....	6
Table 3 Projected Background Traffic	9
Table 4 Projected Roadway Capacity Analysis	10
Table 5 Intersection Capacity Analysis.....	17
Table 6 Roadway Proportionate Share	18
Table 7 Intersection Mitigation Analysis	18
Table 8 Intersection Proportionate Share	20
Table 9 Queue Length Analysis	22
Table 10 Queue Length Proportionate Share	23
Table 11 Total Proportionate Share	23

LIST OF FIGURES

Figure 1 Site Location Map	2
Figure 2 3-Mile Critical/Near Critical Roadway Buffer.....	4
Figure 3 Project Trip Distribution	7
Figure 4 Existing AM Peak Hour Intersection Volumes	12
Figure 5 Existing PM Peak Hour Intersection Volumes	13
Figure 6 Projected Intersection Trip Distribution.....	14
Figure 7 Projected AM Peak Hour Intersection Volumes.....	15
Figure 8 Projected PM Peak Hour Intersection Volumes.....	16

1.0 INTRODUCTION

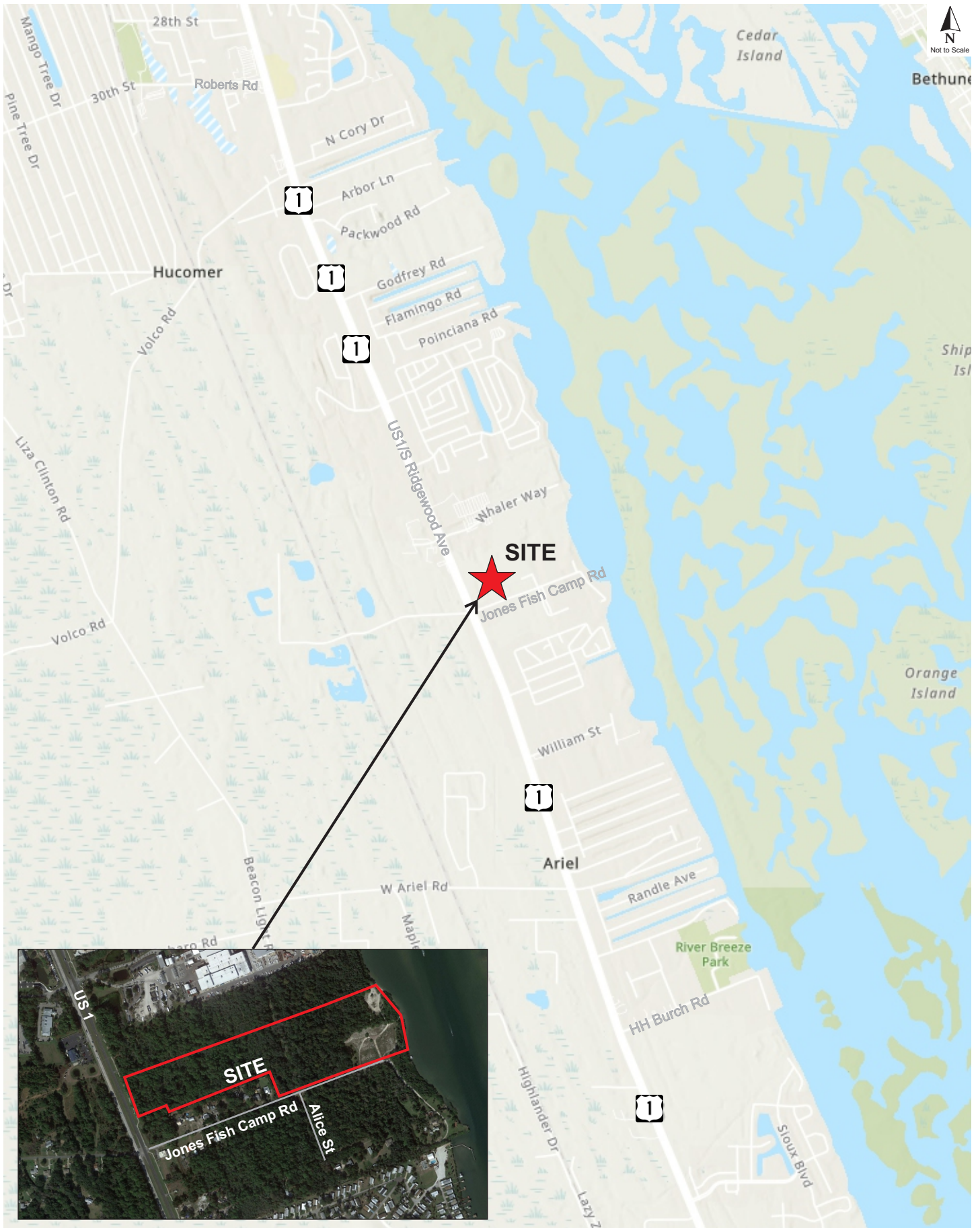
This Traffic Impact Analysis (TIA) was conducted to assess the impact of the proposed Edgewater River Oaks, a mixed-use development consisting of 118,800 square-feet boat storage warehousing, 196 multifamily build-to-rent dwelling units, 390 hotel rooms, a marina with 20 berths, 10,000 square-feet of retail, and 28,000 square-feet of restaurants. This revised TIA addresses the comments received from the City of Edgewater on June 17, 2024. The response to comments letter is provided in **Appendix A**.

The site is located at the northeast corner of the US 1/South Ridgewood Avenue and Jones Fish Camp Road intersection, in the City of Edgewater, Florida. **Figure 1** depicts the site location and the surrounding transportation network. The proposed development will have access via one (1) right-in/right-out driveway along US 1/South Ridgewood Avenue and three (3) full access driveways along Jones Fish Camp Road. The conceptual site plan is provided in **Appendix B**. This TIA report is based on the TIA Methodology, included in **Appendix C**.

The information used in this analysis was collected by Traffic & Mobility Consultants LLC (TMC), provided by the project team, or obtained from published sources, including City of Edgewater, Volusia County, River to Sea Transportation Planning Organization (R2CTPO), and Florida Department of Transportation (FDOT).

1.1 Study Area

The project study area was established based on the standard requirements of the R2CTPO. The impact area includes roadway segments where the project consumes 3% or more of the roadway's two-way capacity. Roadway segments and peak two-way capacities were obtained from the *Volusia County 2021 Annual Average Daily Traffic (AADT) & Historical Counts* and the *FDOT 2020 Quality/Level of Service Handbook, Table 4*, included in **Appendix D**. The project's study area determination is provided in **Table 1**.



**Table 1
Study Area**

Roadway Segment	Seg Num	A T	Function Class	# of Lns	PK 2W Cap	Project Trips			Signif- icant?	In Study?
						Dist	Trips	% Cap		
US 1/S Ridgewood Ave										
Putnam Grove Rd to Halifax Ave	531	R	Principal-Arterial	4	4,020	15%	72	1.79%	NO	NO
Halifax Ave to H.H Burch Rd	9929	R	Principal-Arterial	4	4,020	20%	96	2.39%	NO	NO
H.H Burch Rd to Volco Rd	9929	U	Principal-Arterial	4	3,580	70%	335	9.36%	YES	YES
Volco Rd to SR 442/Indian River Blvd	27	U	Principal-Arterial	4	3,580	67%	320	8.94%	YES	YES
SR 442/Indian River Blvd to Park Ave	5170	U	Principal-Arterial	4	3,580	30%	143	3.99%	YES	YES
Park Ave to 10th Ave	5168	U	Principal-Arterial	4	3,580	20%	96	2.68%	NO	NO
10th Ave to Canal St/Bus. SR 44	5154	U	Principal-Arterial	4	2,920	10%	48	1.64%	NO	NO
Jones Fish Camp Rd										
US 1/S Ridgewood Ave to East Terminus *	-	U	Minor-Collector	2	1,020	30%	143	14.02%	YES	YES
Volco Rd										
35th St to US 1/S Ridgewood Ave	1922	U	Minor-Collector	2	1,020	3%	14	1.37%	NO	NO
30th St/Roberts Rd										
Silver Palm Dr to Sabal Palm Dr *	-	U	Minor-Collector	2	1,020	4%	19	1.86%	NO	NO
Sabal Palm Dr to US 1/S Ridgewood Ave **	-	U	Minor-Collector	2	1,330	12%	57	4.28%	YES	YES
Sabal Palm Dr										
30th St to SR 442/Indian River Blvd *	-	U	Minor-Collector	2	1,020	4%	19	1.86%	NO	NO
Silver Palm Dr/Air Park Rd										
30th St to SR 442/Indian River Blvd *	-	U	Minor-Collector	2	1,020	4%	19	1.86%	NO	NO
SR 442/Indian River Blvd										
I-95 to Air Park Rd	170	U	Minor-Arterial	4	3,580	12%	57	1.59%	NO	NO
Air Park Rd to US 1/S Ridgewood Ave	5190	U	Minor-Arterial	4	3,580	20%	96	2.68%	NO	NO
Park Ave										
Air Park Rd. to US 1	1413	U	Major-Collector	2	1,330	5%	24	1.80%	NO	NO
10th Ave										
High School to US 1/S Ridgewood Ave ***	-	U	Major-Collector	4	2,870	4%	19	0.66%	NO	NO

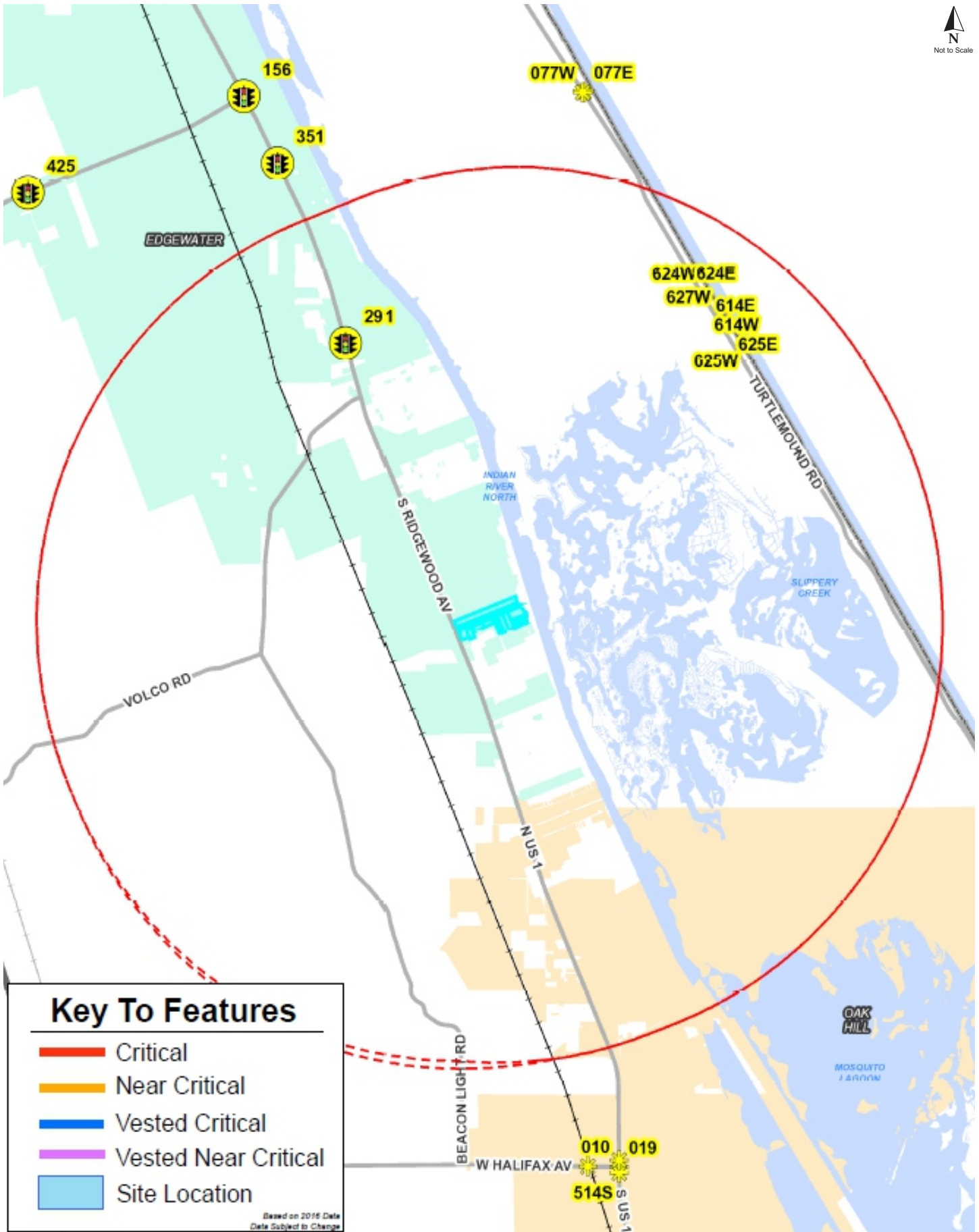
Source: 2021 Volusia County AADTs Consultants-2022-07-13 spreadsheet

* Capacities were calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 1,410 -10% Non-State Rd & -20% No turn lanes =1,020

** Capacity was calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 1,410 -10% Non State Rd + 5% Exclusive Left Turns= 1,330

*** Capacity was calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 3,040 -10% Non State Rd + 5% Exclusive Left Turns= 2,870

In addition, the study reviewed Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) roadway segments within a 3-mile radius. The map of the C/NC/VC/NVC segments with the 3-mile radius determination is included in **Figure 2**. No roadway segments within the 3-mile radius were determined to be a C/NC/VC/NVC designated facility.



The following roadway segments and intersections were determined to be in the study area of this project:

Study Segments:

- *US 1/S Ridgewood Avenue*
 - *H.H. Birch Road to Volco Road*
 - *Volco Road to SR 442 (Indian River Boulevard)*
 - *SR 442 (Indian River Boulevard) to Park Avenue*
- *Jones Fish Camp Road*
 - *US 1/S Ridgewood Avenue to East Terminus*
- *30th Street/Roberts Road*
 - *Sabal Palm Drive to US 1/S Ridgewood Avenue*

Study Intersections:

- *US 1/S Ridgewood Avenue & Halifax Avenue*
- *US 1/S Ridgewood Avenue & Jones Fish Camp Road*
- *US 1/S Ridgewood Avenue & Volco Road*
- *US 1/S Ridgewood Avenue & Roberts Road*
- *US 1/S Ridgewood Avenue & SR 442/Indian River Boulevard*
- *US 1/S Ridgewood Avenue & Park Avenue*
- *Sabal Palm Drive & 30th Street*
- *US 1/S Ridgewood Avenue & Project Access Driveway*
- *Jones Fish Camp Road & Project Access Driveways*

The latest 2024 Volusia County Master Proportionate Fair Share (PFS) Tables were reviewed to determine if further improvements should be considered. None of the improvements applied within the study area.

2.0 PROJECT TRAFFIC

2.1 Trip Generation

The traffic generation of the proposed development was calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. The trip generation calculation for the project is summarized in **Table 2**. Detailed trip generation sheets are provided in **Appendix E**.

Table 2
Trip Generation Calculation

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
151	Mini-Warehouse (Boat Storage) *	118.800 KSF	1.45	172	0.09	11	6	5	0.15	18	8	10
220	Multifamily (Townhomes) **	196 DU	6.79	1,332	0.43	84	20	64	0.53	105	66	39
310	Hotel	390 Rooms	9.75	3,804	0.48	188	105	83	0.67	261	133	128
420	Marina (Wet Boat Slips)	20 Berths	2.41	48	0.07	1	0	1	0.21	4	2	2
822	Shopping Plaza Strip Retail	10.000 KSF	65.17	652	2.36	24	14	10	6.59	66	33	33
932	Restaurant (High Turnover)	28.000 KSF	107.20	3,002	9.57	268	147	121	9.05	253	154	99
Gross Trip Generation				9,010		576	292	284		707	396	311
<i>Internal Trips (13.5% Daily, 10.2% AM, 16.8% PM)</i>				1,216		59	30	29		119	67	52
<i>Pass-by Retail 822 (34%)</i>				192		0	0	0		19	9	9
<i>Pass-by Restaurant 932 (43%)</i>				1,117		0	0	0		91	55	36
Net New External Trips				6,485		517	262	255		478	265	214

* Boat Storage is considered as Mini-Warehouse

** Build-To-Rent (BTR) units are considered as Townhomes

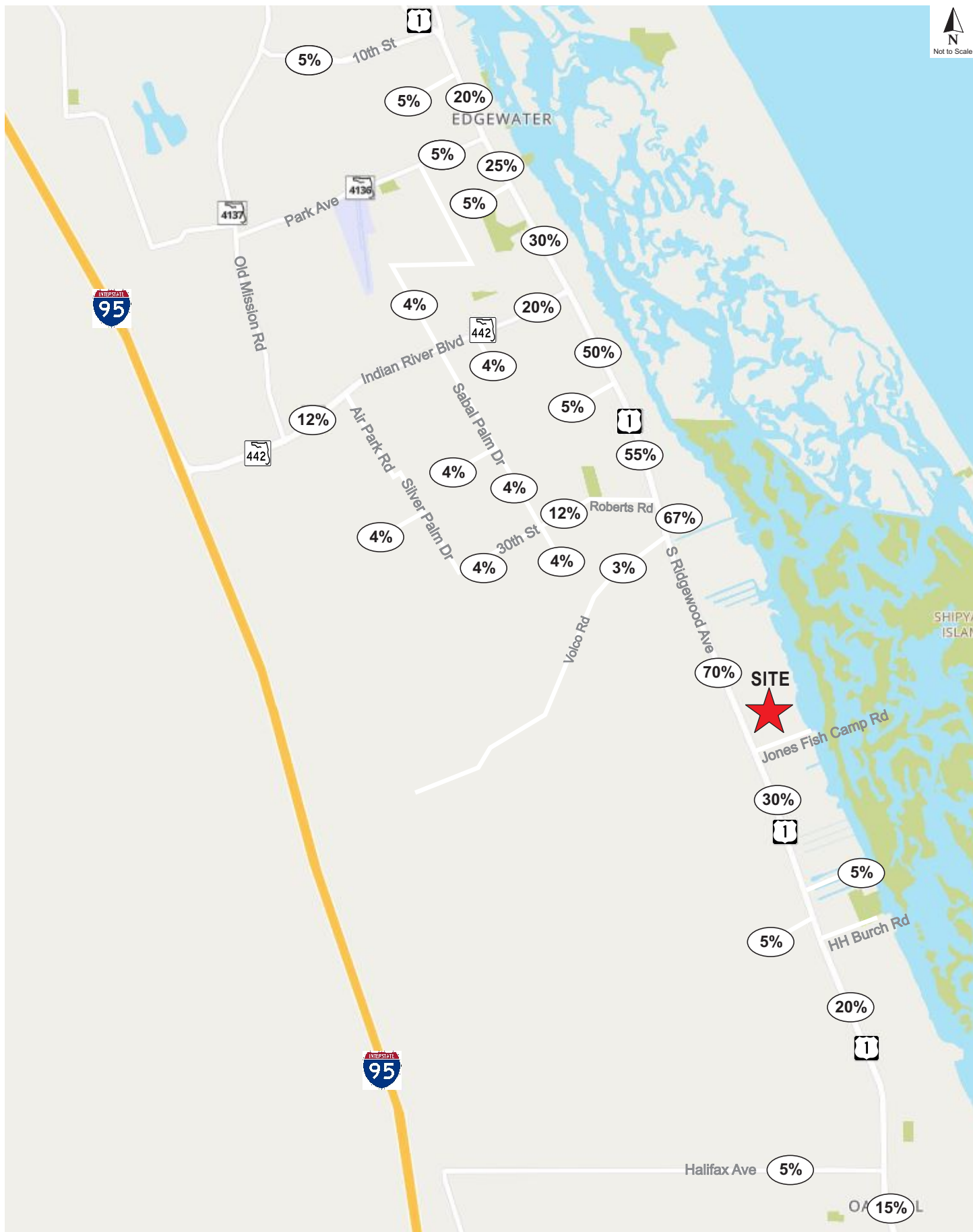
Trip generation analysis based on ITE Trip Generation Manual, 11th Edition

Pass-By rate based on ITE Trip Generation Handbook, 3rd Edition. Per R2CTPO guidelines Pass-By capture shall not exceed 14 % on US 1 (14,924 X 14%= 2,089) & Total Pass-By trips= 1,309; therefore, the pass-by trips are within the 14% threshold

The proposed development is projected to generate 6,485 new daily trips of which 517 trips occur during the AM peak hour and 478 trips occur during the PM peak hour.

2.2 Trip Distribution/Assignment

The trip distribution pattern was estimated using the *Central Florida Regional Planning Model (CFRPMv7.0)*. The model distribution was adjusted to reflect the local network as well as prevailing traffic flow patterns. The model output showing the project trip distribution and assignment is included in **Appendix F** and the adjusted trip distribution pattern is shown in **Figure 3**.



3.0 CAPACITY ANALYSIS

A capacity analysis was conducted for the roadway segments and intersections within the project's influence area. The analysis was prepared for background and buildout conditions. The project buildout is anticipated in 2027.

3.1 Planned and Programmed Improvements

The transportation improvement programs for the City of Edgewater, Volusia County, and FDOT were reviewed to determine if any roadway or intersection improvements were funded for construction within the next three (3) years. No improvements were identified within the study area of the project.

3.2 Projected Background Traffic

The historical traffic growth and vested trips were reviewed to obtain the projected 2027 background traffic volume. Growth rates were calculated based on the historical AADT obtained from the *Volusia County 2021 AADT & Historical Counts*. The developments of Dollar General and Riverfront Estates adjacent to the Edgewater River Oaks development were included in the vested trips calculations. The detailed growth rate analysis sheets, Master PFS Tables, vested trip data referenced for roadway segments and intersections, and the *Volusia County Segment Growth Rates and Vested Trips Intrusion Policy (VGVP)* are included in the **Appendix G. Table 3** summarizes growth rates and the total projected background traffic.

**Table 3
Projected Background Traffic**

Roadway Segment	Seg Num	PK 2W Volume	5 Years		10 Years		Applied GR	2027 Growth	Riverfront Estates	Dollar General	Vested Trips	Background Calculation	2027 Backg Traffic
			R ²	GR	R ²	GR							
US 1/S Ridgewood Ave													
H.H. Birch Rd to Volco Rd	9929	1,314	99.45%	0.43%	N/A	N/A	1.00%	79	78	23	101	Exist+Growth+Vested	1,494
Volco Rd to SR 442(Indian River Blvd)	27	2,025	37.36%	0.31%	80.77%	2.34%	2.34%	284	78	23	101	Exist+Growth+Vested	2,410
SR 442(Indian River Blvd) to Park Ave*	5170	2,475	33.58%	-0.75%	14.95%	0.21%	2.34%	347	78	23	101	Exist+Growth+Vested	2,923
Jones Fish Camp Rd**													
US 1/S Ridgewood Ave to East Terminus	--	6	--	--	--	--	1.00%	0	112	46	158	Exist+Growth+Vested	164
30th St/Roberts Rd**													
Sabal Palm Dr to US 1/S Ridgewood Ave	--	755	--	--	--	--	1.00%	45	0	0	0	Exist+Growth+Vested	800

Source: Volusia County 2021 Average Annual Daily Traffic & Historical Counts: PK 2W Volume=2021 AADT * 0.09

*Growth rate based on adjoining upstream/downstream segment

** Existing Volumes Based on Turning Movement Counts and Minimum GR was Applied

3.3 Roadway Segment Analysis

Roadway segment capacity was analyzed based on the adopted peak hour capacities, as obtained from the *Volusia County 2021 AADT & Historical Counts*. The analysis compares the roadway PM peak traffic to the segment capacity to determine if the segment LOS operation is adequate. The analysis was conducted for the existing, background, and buildout traffic. **Table 4** summarizes the roadway capacity analysis.

The results of the capacity analysis reveal that all study roadway segments are operating within their existing capacity and projected to continue to do so at project buildout.

Table 4
Projected Roadway Capacity Analysis

Roadway Segment	Seg	Function	# of	2Way	Existing		Background (2027)		Build-Out (2027)			
	Num	Class	Lanes	Cap	2Way	Adq't?	2Way	Adq't?	Dist	Project Trips	Total	Adq't?
US 1/S Ridgewood Ave												
H.H. Birch Rd to Volco Rd	9,929	Prin-Art	4	3,580	1,314	Y	1,494	Y	70%	362	1,856	Y
Volco Rd to SR 442(Indian River Blvd)	27	Prin-Art	4	3,580	2,025	Y	2,410	Y	67%	346	2,757	Y
SR 442(Indian River Blvd) to Park Ave	5,170	Prin-Art	4	3,580	2,475	Y	2,923	Y	30%	155	3,079	Y
Jones Fish Camp Rd												
US 1/S Ridgewood Ave to East Terminus	--	Min-Coll	4	1,020	6	Y	164	Y	90%	465	630	Y
30th St/Roberts Rd												
Sabal Palm Dr to US 1/S Ridgewood Ave	--	Min-Coll	2	1,330	755	Y	800	Y	12%	62	862	Y

Source: Volusia County 2021 Average Annual Daily Traffic & Historical Counts: PK 2W Volume=2021 AADT * 0.09

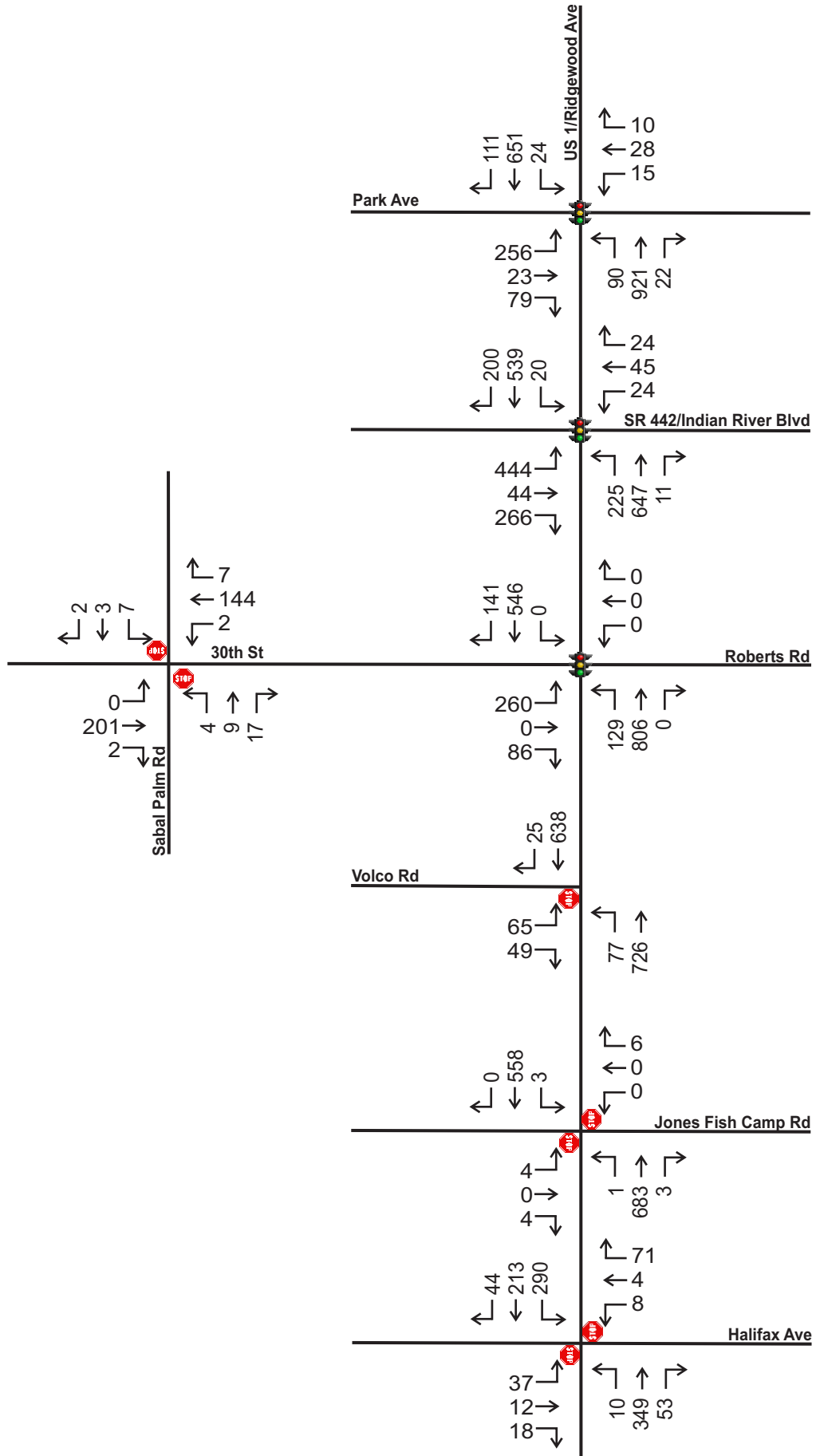
3.4 Intersection Analysis

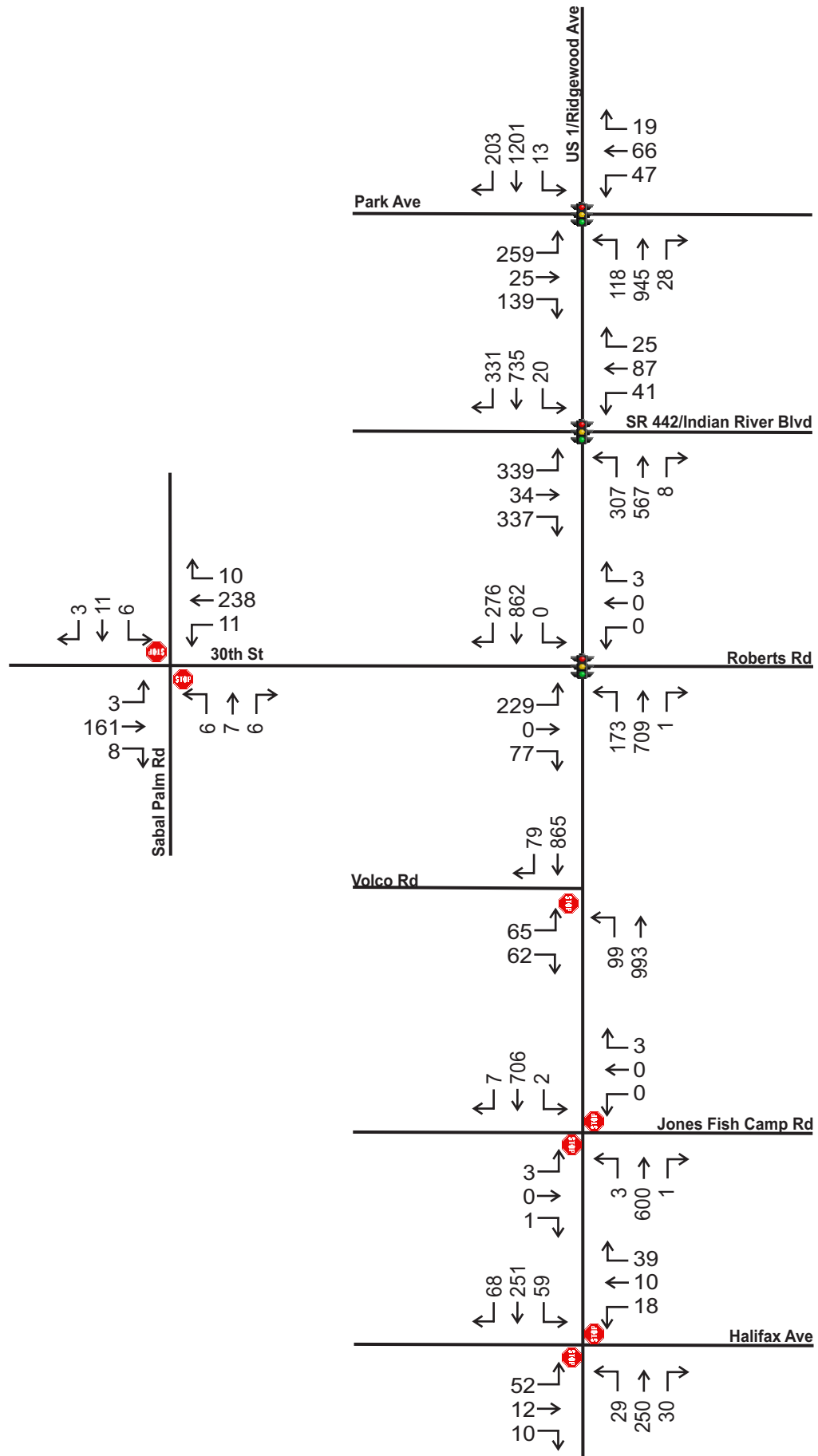
An intersection analysis was conducted using *Synchro* software and the methods of the *Highway Capacity Manual (HCM)*. The capacity analysis was performed using the existing, background, and buildout traffic volumes for the AM and PM peak hour. The intersection counts were collected on March 30, 2023, during the peak season; therefore, no seasonal adjustment factor was applied. The raw intersection turning movement counts and FDOT seasonal factor data are included in **Appendix H. Figure 4** and **Figure 5** illustrate the existing AM and PM peak hour intersection volumes, respectively. The projected background traffic was estimated using the annual growth rates and vested trips, as discussed in the previous section, then adding project generated trips. Projected intersection volume calculations are included in **Appendix I. Figure 6** illustrates the projected intersection trip distribution. **Figure 7** and **Figure 8** illustrate the projected AM and PM peak hour volumes, respectively.

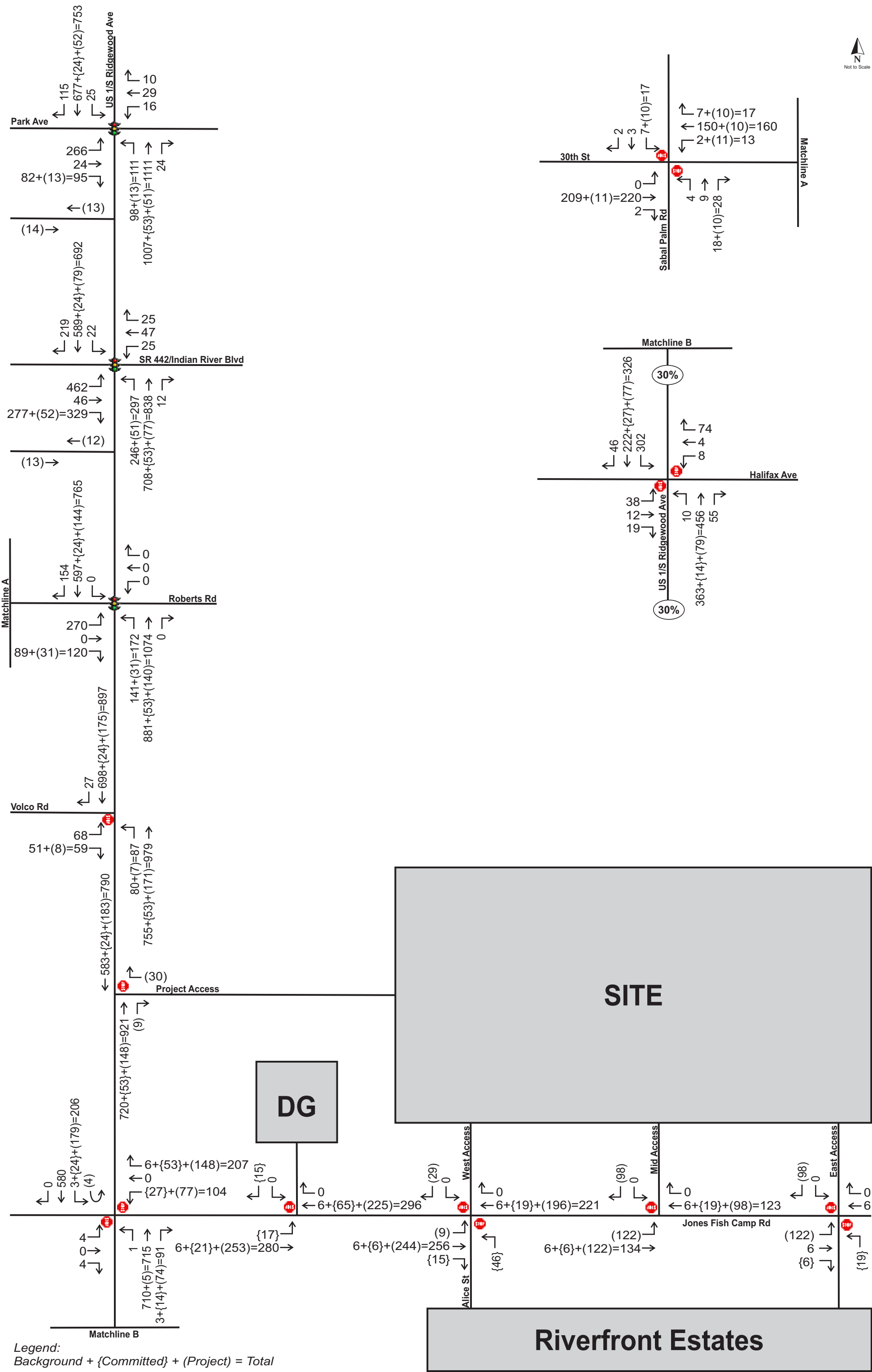
The intersection capacity analysis is summarized in **Table 5**. The results reveal the following:

- US 1/South Ridgewood Avenue and Halifax Avenue is projected to continue to experience delays at the eastbound approach during the AM peak hour and is projected to experience delays at the westbound approach during the AM peak hour. The volume to capacity ratio at the westbound approach is less than 1.0; therefore, this approach is operating within its capacity.
- US 1/South Ridgewood Avenue and Jones Fish Camp Road is projected to experience delays at the eastbound approach during the peak hours. This intersection is undergoing a separate Signal Warrant Analysis to determine if the intersection meets the criteria for signalized control.
- US 1/South Ridgewood Avenue and Volco Road is projected to experience delays at the eastbound approach during the PM peak hour. The volume to capacity ratio at this approach is less than 1.0; therefore, the approach is operating within its capacity.
- The remaining study intersections, including the project access driveways, are projected to operate adequately.

The *HCM* results are provided in **Appendix J**.







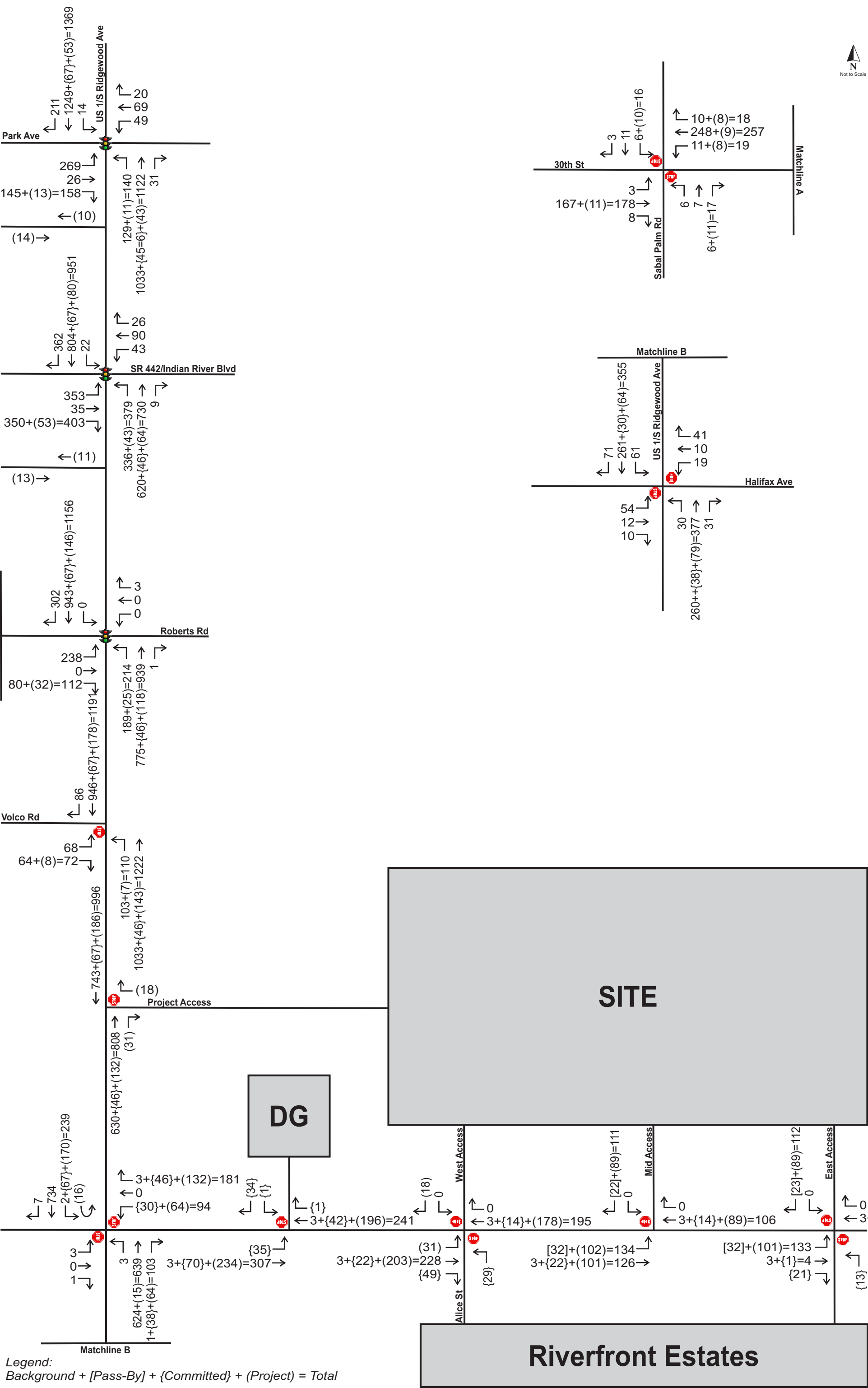


Table 5
Intersection Capacity Analysis

Intersection	Control	Time Period	Scenario	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 1/S Ridgewood Ave & Halifax Ave	TWSC	AM	Existing	220.7	F	35.3	E	8.5	A	10.4	B	--	--
			Background	>300	F	49.2	E	8.7	A	10.8	B	--	--
			Buildout	>300	F	113.2	F	9.0	A	11.8	B	--	--
		PM	Existing	20.8	C	14.1	B	8.1	A	8.1	A	--	--
			Background	24.8	C	15.5	C	8.3	A	8.2	A	--	--
			Buildout	32.4	D	18.3	C	8.6	A	8.5	A	--	--
US 1/S Ridgewood Ave & Jones Fish Camp Rd	TWSC	AM	Existing	13.1	B	11.2	B	8.9	A	9.5	A	--	--
			Background	14.2	B	16.0	C	9.0	A	9.9	A	--	--
			Buildout	37.0	E	34.2	D	9.0	A	12.8	B	--	--
		PM	Existing	16.1	C	10.7	B	9.6	A	9.1	A	--	--
			Background	20.1	C	35.3	E	9.7	A	9.8	A	--	--
			Buildout	56.2	F	48.6	E	9.7	A	12.8	B	--	--
US 1/S Ridgewood Ave & Volco Rd	TWSC	AM	Existing	16.2	C	--	--	9.4	A	--	--	--	--
			Background	18.1	C	--	--	9.8	A	--	--	--	--
			Buildout	23.1	C	--	--	10.8	B	--	--	--	--
		PM	Existing	24.6	C	--	--	11.4	B	--	--	--	--
			Background	33.4	D	--	--	12.8	B	--	--	--	--
			Buildout	54.9	F	--	--	14.9	B	--	--	--	--
US 1/S Ridgewood Ave & Roberts Rd	Signal	AM	Existing	21.5	C	0.0	A	11.1	B	16.8	B	14.8	B
			Background	21.8	C	0.0	A	11.4	B	18.0	B	15.3	B
			Buildout	24.8	C	0.0	A	12.1	B	19.8	B	16.6	B
		PM	Existing	26.4	C	21.7	C	13.0	B	20.2	C	18.2	B
			Background	30.9	C	24.5	C	13.7	B	22.7	C	20.0	B
			Buildout	35.2	D	27.5	C	15.6	B	27.1	C	23.3	C
US 1/S Ridgewood Ave & SR 442/Indian River Blvd	Signal	AM	Existing	30.3	C	39.1	D	27.1	C	28.7	C	28.9	C
			Background	34.2	C	42.5	D	29.3	C	29.8	C	31.0	C
			Buildout	36.7	D	46.3	D	30.9	C	32.3	C	33.3	C
		PM	Existing	47.6	D	41.2	D	28.7	C	32.2	C	35.7	D
			Background	37.8	D	47.8	D	27.1	C	31.6	C	32.1	C
			Buildout	42.6	D	50.9	D	29.1	C	35.4	D	35.4	D
US 1/S Ridgewood Ave & Park Ave	Signal	AM	Existing	20.6	C	16.8	B	16.7	B	16.4	B	17.2	B
			Background	23.2	C	18.7	B	18.1	B	16.7	B	18.4	B
			Buildout	24.0	C	19.5	B	19.0	B	17.1	B	19.1	B
		PM	Existing	28.2	C	24.1	C	16.6	B	22.8	C	21.3	C
			Background	30.2	C	25.5	C	18.3	B	26.3	C	23.7	C
			Buildout	31.0	C	26.4	C	18.9	B	29.1	C	25.3	C
Sabal Palm Dr & 30th St	TWSC	AM	Existing	0.0	A	7.7	A	11.0	B	12.0	B	--	--
			Background	0.0	A	7.8	A	11.1	B	12.2	B	--	--
			Buildout	0.0	A	7.8	A	11.3	B	13.6	B	--	--
		PM	Existing	7.8	A	7.6	A	12.1	B	12.8	B	--	--
			Background	7.9	A	7.7	A	12.3	B	13.0	B	--	--
			Buildout	7.9	A	7.7	A	11.7	B	14.3	B	--	--
US 1/S Ridgewood Ave & Project Access	TWSC	AM	Buildout	--	--	12.5	B	--	--	--	--	--	--
		PM	Buildout	--	--	11.6	B	--	--	--	--	--	--
Jones Fish Camp Rd & Alice St/West Project Access	TWSC	AM	Background	--	--	0.0	A	9.0	A	--	--	--	--
			Buildout	7.7	A	0.0	A	14.5	B	9.7	A	--	--
		PM	Background	--	--	0.0	A	9.0	A	--	--	--	--
			Buildout	7.7	A	0.0	A	14.2	B	9.5	A	--	--
Jones Fish Camp Rd & Mid Project Access	TWSC	AM	Buildout	7.7	A	--	--	--	--	9.5	A	--	--
		PM	Buildout	7.7	A	--	--	--	--	9.4	A	--	--
Jones Fish Camp Rd & East Project Access	TWSC	AM	Background	--	--	0.0	A	8.7	A	--	--	--	--
			Buildout	7.4	A	0.0	A	11.7	B	8.7	A	--	--
		PM	Background	--	--	0.0	A	8.7	A	--	--	--	--
			Buildout	7.4	A	0.0	A	12.1	B	8.8	A	--	--

Average delay expressed in seconds/vehicle

3.5 Roadway Segment Improvements

The study roadway segments of John Fish Camp Road, from US 1 to the east terminus will be improved to meet the City of Edgewater standards. The corresponding proportionate share for this roadway improvement is presented in **Table 6**. The roadway cost is derived from the Cost per Mile for Long Range Estimating, included in **Appendix K**. The proportionate share for the Edgewater River Oaks roadway improvement on US 1/South Ridgewood Avenue is approximately \$175,642 and \$3,088,293 for the Build-to-Rent and Mixed-Use portions, respectively.

Table 6
Roadway Proportionate Share

Roadway	Limits	Improve	Development	Access Descript	Length (Miles)				Cost of Turn	Total Length (Miles)	Segment Cost	Proportionate Share Cost
					Length (Miles)	Veh Trips	Veh-Miles	Prop Share	FDOT Cost per Mile			
Jones Fish Camp Rd	US 1 to East Terminus	New Urban 2L Construction	Build-to-Rent	Single	0.27	38	10.26	5%	\$7,552,622.58	0.50	\$ 3,776,311.29	\$ 175,642.39
			Mixed-Use	West	0.38	220	83.60	38%				\$ 3,088,293.02
				East	0.44	220	96.80	44%				\$ 16,434.38
			Dollar General	Single	0.03	32	0.96	0%				\$ 495,941.51
			Backg'd	West	0.27	61	16.47	7%				
				East	0.50	25	12.50	6%				
Total							220.59	100%	-	-	\$ 3,776,311.29	\$ 3,776,311.29

Roadway Proportionate Share based on Developments Vehicle-Mile Share and equals 100%
Backg'd traffic includes nearby Riverfront Estates trips

3.6 Intersection Improvements

The study intersection of US 1/South Ridgewood Avenue and Jones Fish Camp Road is projected to operate with delays. A separate Signal Warrant Analysis is being prepared for this intersection. A northbound right turn lane is warranted at this intersection. An analysis of the proposed signalization, shown in **Table 7**, reveals that the intersection is projected to operate adequately as a signal. The *HCM* results are provided in **Appendix J**.

Table 7
Intersection Mitigation Analysis

Intersection	Control	Time Period	Scenario	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 1/S Ridgewood Ave & Jones Fish Camp Rd	Signal	AM	Buildout	18.0	B	23.3	C	4.9	A	6.7	A	8.7	A
		PM	Buildout	19.7	B	25.0	C	4.2	A	6.3	A	8.1	A

Average delay expressed in seconds/vehicle

The corresponding proportionate share for the signalization, addition of the westbound and northbound right turn lanes, and turn lanes for adjacent developments are presented in **Table 8**. The signalization cost was determined using an estimate based on recent signal projects and FDOT cost is derived from the *Cost Per Mile Models for Long Range Estimating*, included in **Appendix L**. The proportionate share for the intersection improvements at US 1/South Ridgewood Avenue and Jones Fish Camp Road is approximately \$32,041 and \$397,487 for the Build-to-Rent and Mixed-Use portions, respectively. Based on coordination with the City of Edgewater, the proportionate shares for the eastbound left and eastbound right turn lanes serving the Dollar General and the Riverfront Estates developments have also been included in the review. The Edgewater River Oaks project contributes no vehicle trips to these movements and therefore has no associated proportionate share obligation.

Table 8
Intersection Proportionate Share

Intersection	Improve	Cost of Signalization	Cost of Turn Lane			Capacity			Development	Project Veh Trips	Prop Share	Proportionate Share Cost	
			FDOT Cost (per 300 ft)	Length	Total Estimated Cost	TWSC	Signal	Increase					
US 1/S Ridgewood Ave & Jones Fish Camp Rd	Add Signal	\$ 1,000,000.00	-	-	-	1,978	6,647	4,669	Build-to-Rent	47	1%	\$ 10,066.40	
									Mixed-Use	440	9%	\$ 94,238.59	
									Dollar General	32	1%	\$ 6,853.72	
									Backg'd	86	2%	\$ 18,419.36	
	Sub-Total										605	13%	\$ 129,578.07
	Add Westbound Right Turn Lane	-	\$ 205,980.08	145 ft	\$ 99,557.04	-	-	-	Build-to-Rent	10	5%	\$ 4,809.52	
									Mixed-Use	138	67%	\$ 66,371.36	
									Dollar General	8	4%	\$ 3,847.62	
									Backg'd	51	25%	\$ 24,528.55	
	Sub-Total										207	100%	\$ 99,557.04
	Add Northbound Right Turn Lane	-	\$ 205,980.08	455 ft	\$ 312,403.12	-	-	-	Build-to-Rent	5	5%	\$ 17,165.01	
									Mixed-Use	69	76%	\$ 236,877.09	
									Dollar General	8	9%	\$ 27,464.01	
									Backg'd	9	10%	\$ 30,897.01	
	Sub-Total										91	100%	\$ 312,403.12
Jones Fish Camp Rd & Dollar General Access	Add Eastbound Left Turn Lane	-	\$ 210,603.13	195 ft	\$ 136,892.03	-	-	-	Dollar General	35	100%	\$ 136,892.03	
	Sub-Total										35	100%	\$ 136,892.03
Total												\$ 678,430.26	

Signal Proportionate Share based on Volusia County formula [Total Project Trips/Increase in Capacity]

Turn Lane Proportionate Share based on Developments Total Turning Vehicles and equals 100%

Back'd traffic includes nearby Riverfront Estates trips

A queue analysis was conducted to determine if the existing turn lanes, projected to be utilized by the development traffic, are adequate for the buildout traffic. The required deceleration lane was taken from the *FDOT Design Manual (FDM) Exhibit 212-1*, included in **Appendix M**. The results of the queue analysis are summarized in **Table 9**. The results indicates the following turn lanes are projected to exceed the existing queueing capacity:

- US 1/South Ridgewood Avenue and Jones Fish Camp Road: Southbound left turn lane.
- US 1/South Ridgewood Avenue and Volco Road: Northbound left turn lane. The signal warrant for this intersection recommended a 430-foot northbound left turn lane, which would provide sufficient queueing capacity.
- US 1/South Ridgewood Avenue and Roberts Road: Eastbound and northbound left turn lanes. The development is not projected to contribute any turning movements to the eastbound left turn lane; therefore, the developer is not responsible for this improvement.
- US 1/South Ridgewood Avenue and SR 442: Westbound and northbound left turn lanes. The development is not projected to contribute any turning movements to the westbound left turn lane; therefore, the developer is not responsible for this improvement.
- US 1/South Ridgewood Avenue and Park Avenue: Eastbound and westbound left turn lanes. The development is not projected to contribute any turning movements to the eastbound and westbound left turn lane; therefore, the developer is not responsible for these improvements.

Table 9
Queue Length Analysis

Intersection	Turn Lane	Posted Speed Limit (mph)	Existing Lane Length (ft)	Decel-eration Length (ft)	Existing					Background (Future Yr. + Vested)					Build-out					Project Trips	
					# of Lanes	95th %'tile Queue	95th %'tile Queue (veh x 25 ft)	Total Lane Length Req'd (ft)	Lane Length Deficiency (ft)	# of Lanes	95th %'tile Queue	95th %'tile Queue (veh x 25 ft)	Total Lane Length Req'd (ft)	Lane Length Deficiency (ft)	# of Lanes	95th %'tile Queue	95th %'tile Queue (veh x 25 ft)	Total Lane Length Req'd (ft)	Lane Length Deficiency (ft)		Deficiency Difference Buildout and Backg'd (ft)
AM Peak																					
US 1/S Ridgewood Ave & Jones Fish Camp Rd*	SBL	55	470	405	1	0	0	405	N/A	1	1	25	430	N/A	1	6	150	555	85	N/A	183
US 1/S Ridgewood Ave & Volco Rd	NBL	55	315	405	1	1	25	430	115	1	1	25	430	115	1	1	25	430	115	N/A	7
	SBR	55	430	405	1	0	0	405	N/A	1	0	0	405	N/A	1	0	0	405	N/A	N/A	0
	EBL	30	250	145	1	6	150	295	45	1	6	150	295	45	1	7	175	320	70	25	0
US 1/S Ridgewood Ave & Roberts Rd	NBL	55	335	405	1	4	100	505	170	1	4	100	505	170	1	5	125	530	195	25	31
	SBL	55	415	405	1	0	0	405	N/A	1	0	0	405	N/A	1	0	0	405	N/A	N/A	0
	SBR	55	545	405	1	1	25	430	N/A	1	2	50	455	N/A	1	2	50	455	N/A	N/A	0
US 1/S Ridgewood Ave & SR 442/Indian River Blvd	EBL	35	610	155	2	8	200	355	N/A	2	9	225	380	N/A	2	10	250	405	N/A	N/A	0
	WBL	25	195	145	1	2	50	195	N/A	1	2	50	195	N/A	1	2	50	195	N/A	N/A	0
	NBL	45	455	240	2	5	125	365	N/A	2	5	125	365	N/A	2	7	175	415	N/A	N/A	51
	SBL	45	335	240	1	1	25	265	N/A	1	2	50	290	N/A	1	2	50	290	N/A	N/A	0
	SBR	45	420	240	1	4	100	340	N/A	1	4	100	340	N/A	1	4	100	340	N/A	N/A	0
US 1/S Ridgewood Ave & Park Ave	EBL	30	250	145	1	6	150	295	45	1	7	175	320	70	1	8	200	345	95	25	0
	WBL	25	150	145	1	1	25	170	20	1	1	25	170	20	1	1	25	170	20	N/A	0
	NBL	45	330	240	1	2	50	290	N/A	1	2	50	290	N/A	1	2	50	290	N/A	N/A	13
	SBL	45	370	240	1	1	25	265	N/A	1	1	25	265	N/A	1	1	25	265	N/A	N/A	0
	SBR	45	370	240	1	1	25	265	N/A	1	1	25	265	N/A	1	1	25	265	N/A	N/A	0
PM Peak																					
US 1/S Ridgewood Ave & Jones Fish Camp Rd*	SBL	55	470	405	1	0	0	405	N/A	1	1	25	430	N/A	1	7	175	580	110	N/A	186
US 1/S Ridgewood Ave & Volco Rd	NBL	55	315	405	1	1	25	430	115	1	1	25	430	115	1	1	25	430	115	N/A	7
	SBR	55	430	405	1	0	0	405	N/A	1	0	0	405	N/A	1	0	0	405	N/A	N/A	0
	EBL	30	250	145	1	7	175	320	70	1	8	200	345	95	1	9	225	370	120	25	0
US 1/S Ridgewood Ave & Roberts Rd	NBL	55	335	405	1	6	150	555	220	1	7	175	580	245	1	9	225	630	295	50	25
	SBL	55	415	405	1	0	0	405	N/A	1	0	0	405	N/A	1	0	0	405	N/A	N/A	0
	SBR	55	545	405	1	2	50	455	N/A	1	3	75	480	N/A	1	4	100	505	N/A	N/A	0
US 1/S Ridgewood Ave & SR 442/Indian River Blvd	EBL	35	610	155	2	7	175	330	N/A	2	8	200	355	N/A	2	8	200	355	N/A	N/A	0
	WBL	25	195	145	1	3	75	220	25	1	3	75	220	25	1	3	75	220	25	N/A	0
	NBL	45	455	240	2	7	175	415	N/A	2	7	175	415	N/A	2	9	225	465	10	N/A	43
	SBL	45	335	240	1	1	25	265	N/A	1	2	50	290	N/A	1	2	50	290	N/A	N/A	0
	SBR	45	420	240	1	6	150	390	N/A	1	6	150	390	N/A	1	6	150	390	N/A	N/A	0
US 1/S Ridgewood Ave & Park Ave	EBL	30	250	145	1	9	225	370	120	1	10	250	395	145	1	10	250	395	145	N/A	0
	WBL	25	150	145	1	2	50	195	45	1	2	50	195	45	1	2	50	195	45	N/A	0
	NBL	45	330	240	1	2	50	290	N/A	1	3	75	315	N/A	1	3	75	315	N/A	N/A	11
	SBL	45	370	240	1	1	25	265	N/A	1	1	25	265	N/A	1	1	25	265	N/A	N/A	0
	SBR	45	370	240	1	2	50	290	N/A	1	3	75	315	N/A	1	3	75	315	N/A	N/A	0

* Buildout 95th Percentile Queue Based on Signalized HCM Sheets

The corresponding proportionate share calculations for extending the queue lengths at the study intersections are presented in **Table 10**. The cost for extending the turn lane lengths is based on the average FDOT average construction cost of \$263,253.91 per 300 feet for left turn lanes, which includes a 25% adjustment for design and engineering. The FDOT cost is derived from the *Cost Per Mile Models for Long Range Estimating*, included in **Appendix N**. The total proportionate cost for extending the turn lanes is approximately \$22,078 and \$127,099 for the Build-to-Rent and Mixed-Use portions, respectively.

Table 10
Queue Length Proportionate Share

Intersection	Improvement	FDOT Cost (per 300 ft)	FDOT Adjusted Cost (per 300 ft) a)	Queue Length		% Share		Proportionate Share Cost (d)=(b)-(c)/300*(a)	
				Buildout (b)	Background (c)	Build-to-Rent	Mixed-Use	Build-to-Rent	Mixed-Use
US 1/S Ridgewood Ave & Jones Fish Camp Rd	Extend SB Left Turn Lane by 110'	\$ 210,603.13	\$ 263,253.91	580	470	14.8%	85.2%	\$14,285.91	\$82,240.52
US 1/S Ridgewood Ave & Roberts Rd	Extend NB Left Turn Lane by 295'	\$ 210,603.13	\$ 263,253.91	630	580	14.8%	85.2%	\$6,493.60	\$37,382.06
US 1/S Ridgewood Ave & SR 442/Indian River Blvd	Extend NB Left Turn Lane by 10'	\$ 210,603.13	\$ 263,253.91	465	455	14.8%	85.2%	\$1,298.72	\$7,476.41
Total								\$22,078.23	\$127,098.99

*Estimated Cost = FDOT Cost/Mile *125%*

Proportionate Share the Edgewater River Oaks parcels is based on the trips generation by each

The total proportionate cost, shown in **Table 11**, for the Edgewater River Oaks is approximately \$229,762 and \$3,612,879 for the Build-to-Rent and Mixed-Use portions, respectively.

Table 11
Total Proportionate Share

	Build-to-Rent	Mixed Use	Dollar General	Background
Roadway	\$ 175,642.39	\$ 3,088,293.02	\$ 16,434.38	\$ 495,941.51
Signal	\$ 10,066.40	\$ 94,238.59	\$ 6,853.72	\$ 18,419.36
Intersection Lanes*	\$ 21,974.53	\$ 303,248.45	\$ 31,311.63	\$ 55,425.56
Driveway Lanes**	-	-	\$ 136,892.03	-
Off-Site Queue***	\$22,078.23	\$127,098.99	-	-
Total	\$ 229,761.53	\$ 3,612,879.05	\$ 191,491.75	\$ 569,786.43
Total				\$ 4,603,918.77

* Added turn lanes are for the WB right and the NB right movements

** Limited to the Dollar General and Riverfront Estates (Back'g) properties; study property driveways are not impact fee creditable

***Off-site turn lane contributions were limited to the study properties' impact (nearby developments off Jones Fish Camp Rd not included)

4.0 ACCESS REVIEW

Access to the site is proposed via one (1) right-in/right-out driveway along US 1/South Ridgewood Avenue and three (3) full access driveways along Jones Fish Camp Road. US 1 is a 4-lane divided facility with a posted speed limit of 55 mph at the project access. Jones Fish Camp Road is a 2-lane undivided facility with a posted speed limit of 30 mph. The project access driveway on US 1/South Ridgewood Avenue was analyzed using the *National Cooperative Highway Research Program (NCHRP) Report 457*, while the access driveways on Jones Fish Camp Road were analyzed using the City of Edgewater *Land Development Code (LDC)*. The results of the warrant analysis and the City of Edgewater *LDC* excerpts are included in **Appendix O**.

4.1 Project Access Analysis

US 1/South Ridgewood Avenue and Project Access

The *NCHRP Report 457* results reveal a northbound right turn lane is warranted at the project access driveway on US 1/South Ridgewood Avenue. The deceleration length at a design speed of 60 mph is 405 feet; however, due to limited space between the access and the intersection of US 1/South Ridgewood Avenue and Jones Fish Camp Road the northbound right turn lane is designed to be 400 feet, including a 50-foot taper.

Jones Fish Camp Road and Project Access Driveways

The full access driveways are projected to serve zero (0) westbound right turns; therefore, no right turn lanes are warranted. The west, middle, and east access driveways are projected to serve 31, 134, and 133 eastbound left turning movements, respectively. The volumes reach the threshold for a left turn lane based on the City of Edgewater *LDC*. The turn lane lengths calculations are as follows:

Total Turn Lane Length = Deceleration Length + Queue Storage

Deceleration Length @ 35 mph design speed = 145 feet

Queue Storage = 95th Percentile Queue * 25 feet or 50-foot minimum

Total Turn Lane Length = 145 feet + 50 feet = 195 feet

A 195-foot eastbound turn lane, including a 50-foot taper, is recommended at the three (3) project access driveways along Jones Fish Camp Road. Due to the spacing of the access driveways with each other and adjacent developments further coordination is recommended with the city to determine the turn lane design. A continuous eastbound left turn lane may be considered to accommodate the turn lanes within the corridor.

Jones Fish Camp Road and Riverfront Estates Access Driveways

Per the City of Edgewater request a turn lane analysis for the project access driveways along Jones Fish Camp Road. The west and east driveways are projected to serve 49 and 21 eastbound right turning vehicles, respectively. The posted speed of 30 mph on Jones Fish Camp and the project turning movement volumes do not meet the threshold for an eastbound right turn lane.

Jones Fish Camp Road and Dollar General Project Access Driveway

A turn lane analysis of the project access driveway for the Dollar General was conducted. The access driveway is projected to serve 35 eastbound left turning vehicles and one (1) westbound right turning vehicle. The threshold for a right turn lane is not projected to be met; however, the threshold for left turning vehicles is projected to be met. The traffic study for the Dollar General development did not recommend an eastbound left turn lane. Should a turn lane be constructed, the calculations for the turn lane follow:

Total Turn Lane Length = Deceleration Length + Queue Storage

Deceleration Length @ 35 mph design speed = 145 feet

Queue Storage = 95th Percentile Queue * 25 feet or 50-foot minimum

Total Turn Lane Length = 145 feet + 50 feet = 195 feet (Including a 50-foot taper)

5.0 ALTERNATIVE TRANSPORTATION MODES

To ensure transportation network connectivity within the vicinity of the proposed development, this section evaluates alternative modes of transportation, emphasizing on the transit-network, pedestrian facilities, and bicyclist facilities. The analysis covers a ¼-mile walking distance from the proposed development.

5.1 Pedestrian and Bicycle Facilities

The field survey indicates that existing sidewalks on US 1/South Ridgewood Avenue are in generally good and serviceable condition. US 1/South Ridgewood Avenue does not contain an existing sidewalk. Jones Fish Camp Road does not contain any existing sidewalks or bike lanes.

5.2 Transit Facilities

The Southeast Volusia route map was reviewed from the *Volusia County's Public Transit System* website to determine the available transit route near the proposed development. Currently, there is a transit route on US 1/South Ridgewood Avenue west of the proposed development. Route 41 is located on US 1 and contains stops approximately 0.20-miles north and 0.43-miles south of the proposed development. The Southeast Volusia County bus service map is included in **Appendix P**.

5.3 Proximity to Nearby Schools

The closest public school, Creative Pathways Preparatory School, is located approximately 0.10-miles from the project site, with an estimated travel distance of 0.14-miles. The school is situated on the southeast corner of the intersection of US 1/South Ridgewood Avenue and Jones Fish Camo Road. No other schools are within a 2-mile radius.

6.0 STUDY CONCLUSIONS

This Traffic Impact Analysis (TIA) was conducted to assess the impact of the proposed Edgewater River Oaks, a mixed-use development consisting of a 118,800 square-foot boat storage warehouse, 196 multifamily build-to-rent dwelling units, 390 hotel rooms, a marina with 20 berths, a 10,000 square-foot shopping plaza, and 28,000 square feet of restaurants. The site is located at the northeast corner of the US 1/South Ridgewood Avenue and Jones Fish Camp Road intersection, in the City of Edgewater, Florida. The analysis included a determination of project trip generation, a review of existing and projected roadway and intersection capacity, a review of alternative modes of transportation, and an access review. Results of the traffic analysis are summarized as follows:

- The proposed development is projected to generate 6,485 new daily trips of which 517 occur during the AM peak hour and 478 trips occur during the PM peak hour.
- The study roadway segments are currently and are projected to operate adequately at project buildout.
- The intersection of US 1/South Ridgewood Avenue and Jones Fish Camp Road is projected to experience delays on the westbound approach. This intersection is undergoing a separate signal warrant analysis.
- The intersection of US 1/South Ridgewood Avenue and Volco Road is projected to experience delays on the eastbound approach. The volume-to-capacity ratio is less than 1.0.
- The remaining intersections, including the project access driveways, are projected to operate adequately.
- The project's total proportionate share cost for the Build-to-Rent portion to mitigate traffic impacts is approximately \$229,762.
- The project's total proportionate share cost for the Mixed-Use portion to mitigate traffic impacts is approximately \$3,612,879.
- Construct a 400-foot northbound right turn lane at the right-in/right-out access driveway on US 1/South Ridgewood Avenue, including a 50-foot taper.
- Construct 195-foot eastbound turn lanes, including a 50-foot taper, at the three (3) project access driveways along Jones Fish Camp Road. Alternatively, provide a continuous left turn lane.
- Recommendations have also been presented for the Dollar General and the Riverfront Estates developments. The study project is not responsible for funding these improvements.

APPENDICES

Appendix A
Response to Comments Letters



June 19, 2024

Ryan Solstice, AICP
Development Services Director
104 North Riverside Drive
Edgewater, Florida 32132
rsolstice@cityofedgewater.org

Re: Edgewater River Oaks
Response to Traffic Impact Analysis Comments
TMC Project № 22160
City of Edgewater, Florida

Dear Mr. Solstice,

Please find below our responses to the review comments prepared by the Stanley Consultants on behalf of the City of Edgewater dated June 17, 2024 regarding the above referenced Traffic Impact Analysis dated May, 2024. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Traffic Impact Analysis is provided under cover reflecting the changes resulting from these comments.

- 1. The response to comment 1, site percent distributions were to be shown in Figure 6 and 7; however, Figure 6 and 7 do not show the site percent distributions. Although the plot distributions are provided, please provide a graphic showing the site percentage distributions that supports the site trips shown in Figures 6 and 7.**

TMC Response: The AM and PM intersection trip distributions have been added to the TIA, Figures 6 and 7 respectively.

- 2. An eastbound right turn lane is not required at the Jones Fish Camp Road at Alice Road and the Jones fish Camp Road at East Access intersections. Please remove this from the proportionate fair share calculation, Table 8 and revise the buildout analysis accordingly.**

TMC Response: The eastbound turn lanes for the Riverfront Estates have been removed from the proportionate fair share calculations and revised in the buildout analysis.

- 3. The future buildout analysis for the US 1 at Jones Fish Camp Road intersection should be analyzed using the future turn lanes. This includes the proposed westbound left turn lane. In addition, the signal timing, green times, should be whole numbers, not decimals. Please revise the build mitigated analysis showing this.**

TMC Response: The proposed westbound right turn lane and northbound right turn lane has been added to the intersection of US 1 at Jones Fish Camp Road for the buildout analysis. The signal timings have been updated in the buildout mitigation analysis.

- 4. In the proportionate fair share calculation, Table 10, for the US 1 at Jones Fish Camp Road intersection it should say southbound left turn lane and not northbound left turn lane.**

TMC Response: The US 1 at Jones Fish Camp Road turn lane proportionate fair share has been corrected to southbound left turn lane.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

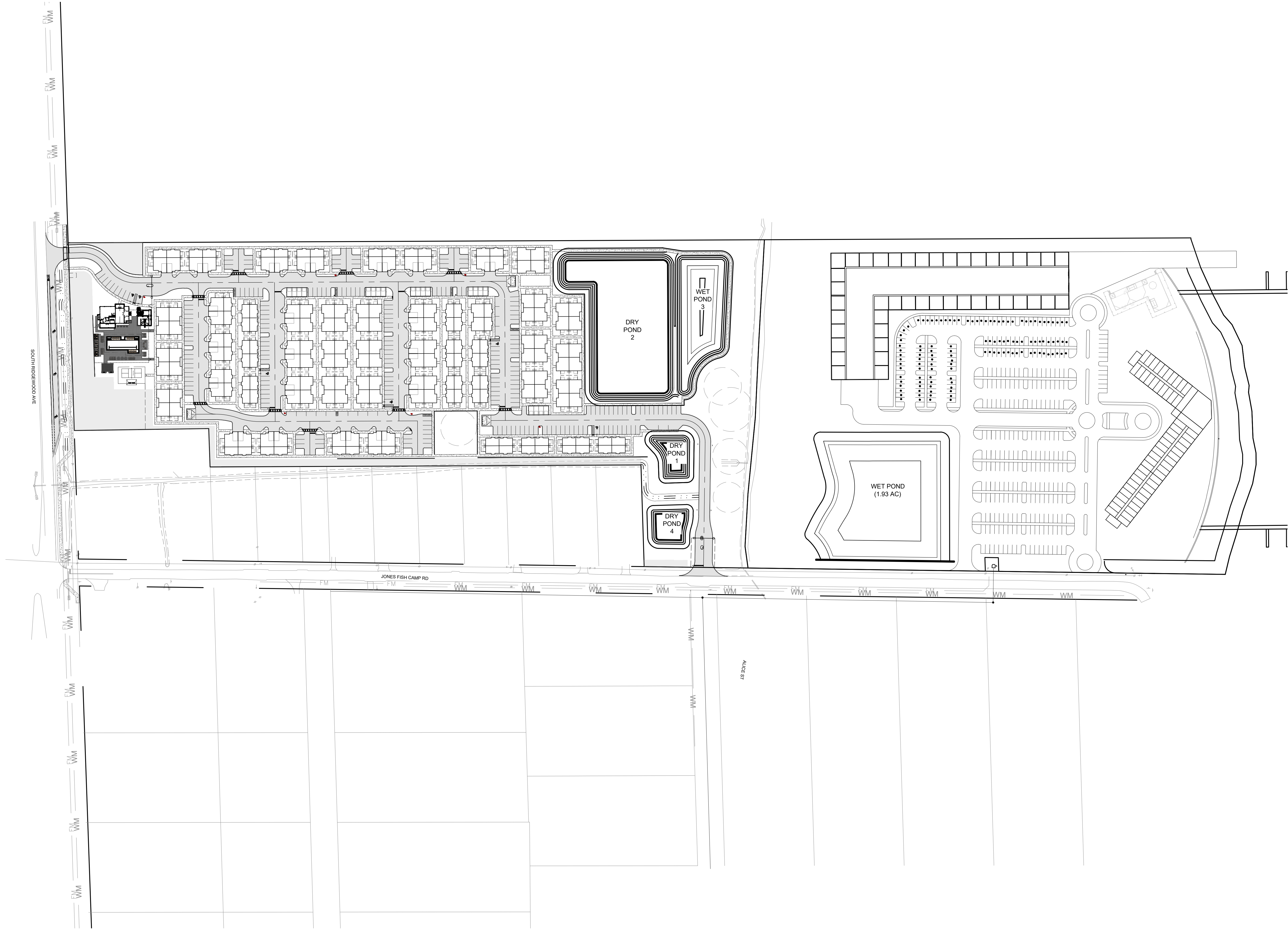
TRAFFIC & MOBILITY CONSULTANTS LLC



Charlotte N. Davidson, PE, PTP
Senior Transportation Engineer

Appendix B
Conceptual Site Plan

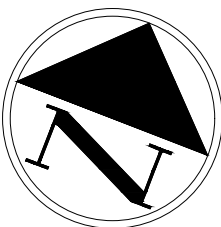
T:\Projects\199-01 Edgewater\Drawings\Conceptual\199010105_GANSP.dwg
5/22/2024 12:40:49 PM PLOTTED BY: rick.pelt



LEVELUP
CONSULTING, LLC



505 E. JACKSON STREET
SUITE 200
TAMPA, FLORIDA 33602
OFFICE: 813-375-0616
WWW.LEVELUPFLORIDA.COM



NOT TO SCALE

CONSTRUCTION PLAN REVISIONS

MASTER SITE PLAN

Engineering Business Certificate of Authorization No. 32771
Florida Certificate of Authorization No. LC26066338

PROJECT No. 199-01-01

SHEET C 5.0

Appendix C
Study Methodology & Methodology Correspondence



MEMORANDUM

October 31, 2023

Re: Edgewater River Oaks
Traffic Impact Analysis Methodology
City of Edgewater, Florida
Project № 22160, v1.3

The following revised methodology (v1.3) outlines the proposed Traffic Impact Analysis (TIA) approach for the above referenced project. The TIA will conform to the methodology requirements and guidelines documented by the River to Sea Transportation Planning Organization (R2CTPO). It also addresses City of Edgewater comments received on February 24, 2023, and October 23, 2023. The response to comments letter is included in the **Attachments**.

Project Description

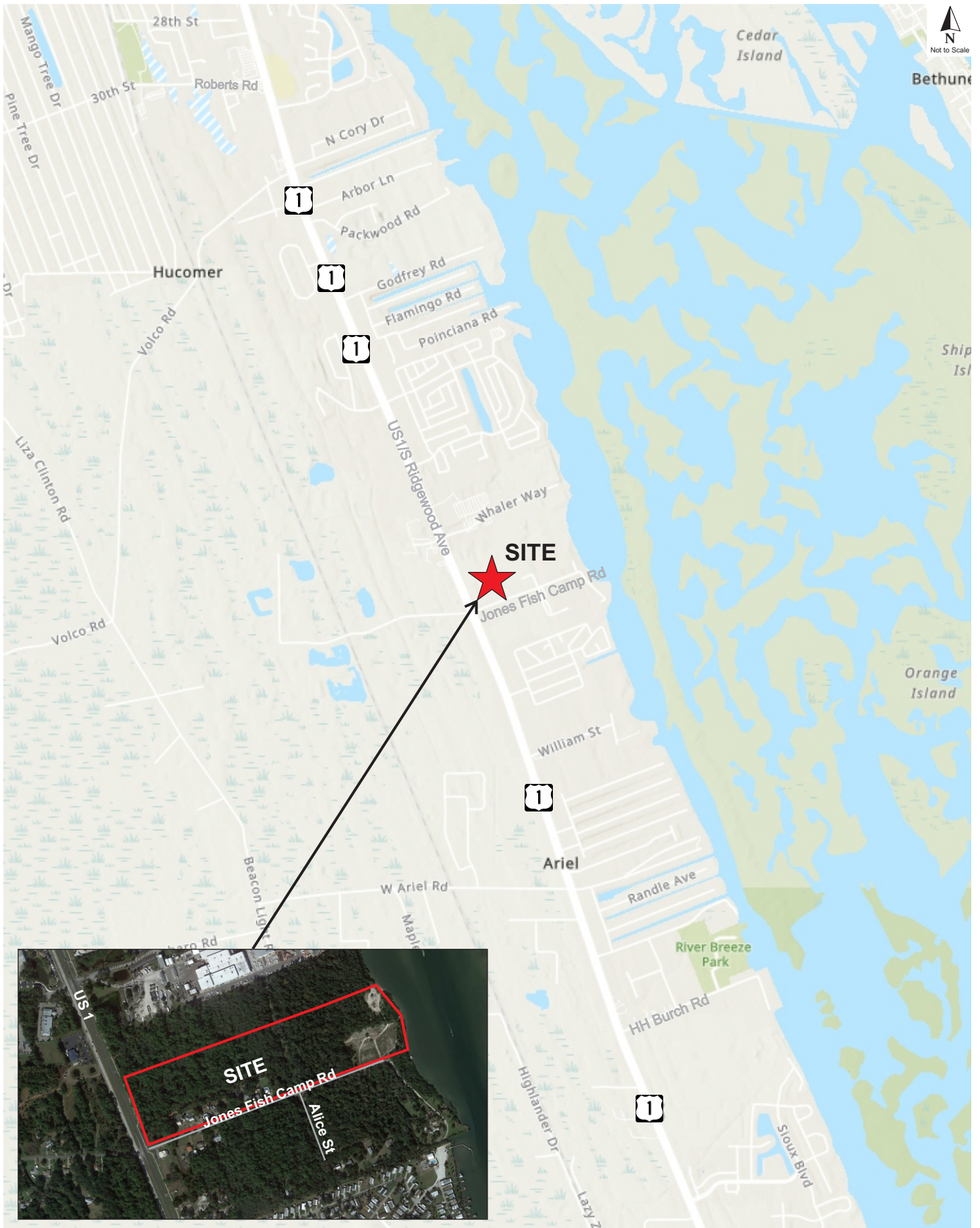
The proposed mixed-use development consists of 118,800 square feet boat storage space, 188 multifamily build-to-rent (BTR) units, 390-room hotel, 20-berth marina, 10,000 square feet retail space, and 28,000 square feet restaurant space with an anticipated buildout year of 2027. The proposed conceptual site plan is provided in the **Attachments**.

Project Location

The site is located at the northeast corner of the US 1/S Ridgewood Avenue and Jones Fish Camp Road intersection, in the City of Edgewater, Volusia County, Florida, as shown in **Figure 1**.

Project Access

Access to the site is proposed via four (4) access driveways; one (1) right-in/right-out (RI/RO) access driveway on US 1/S Ridgewood Avenue and three (3) full access driveways on Jones Fish Camp Road, as shown in the conceptual site plan.



Trip Generation

The trip generation analysis for the proposed development was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* and *Trip Generation Handbook, 3rd Edition*. The trip generation calculation for the project is summarized in **Table 1**. Detailed trip generation sheets are provided in **Attachments**.

Table 1
Trip Generation Calculation

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
151	Mini-Warehouse (Boat Storage) *	118.800 KSF	1.45	172	0.09	11	6	5	0.15	18	8	10
220	Multi-family (Townhomes) **	188 DU	6.81	1,280	0.43	80	19	61	0.54	101	64	37
310	Hotel	390 Rooms	9.75	3,804	0.48	188	105	83	0.67	261	133	128
420	Marina (Wet Boat Slips)	20 Berths	2.41	48	0.07	1	0	1	0.21	4	2	2
822	Shopping Plaza Strip Retail	10.000 KSF	65.17	652	2.36	24	14	10	6.59	66	33	33
932	Restaurant (High Turnover)	28.000 KSF	107.20	3,002	9.57	268	147	121	9.05	253	154	99
Gross Trip Generation				8,958		572	291	281		703	394	309
<i>Internal Trips (9.7% Daily, 6.0% AM, 13.3% PM)</i>				865		34	18	17		93	52	41
<i>Pass-by Retail 822 (34%)</i>				200		0	0	0		19	10	10
<i>Pass-by Restaurant 932 (43%)</i>				1,166		0	0	0		94	57	37
Net New External Trips				6,727		538	273	264		497	275	221

* Boat Storage is considered as Mini-Warehouse

** Build-To-Rent (BTR) units are considered as Townhomes

Trip generation analysis based on ITE *Trip Generation Manual, 11th Edition*

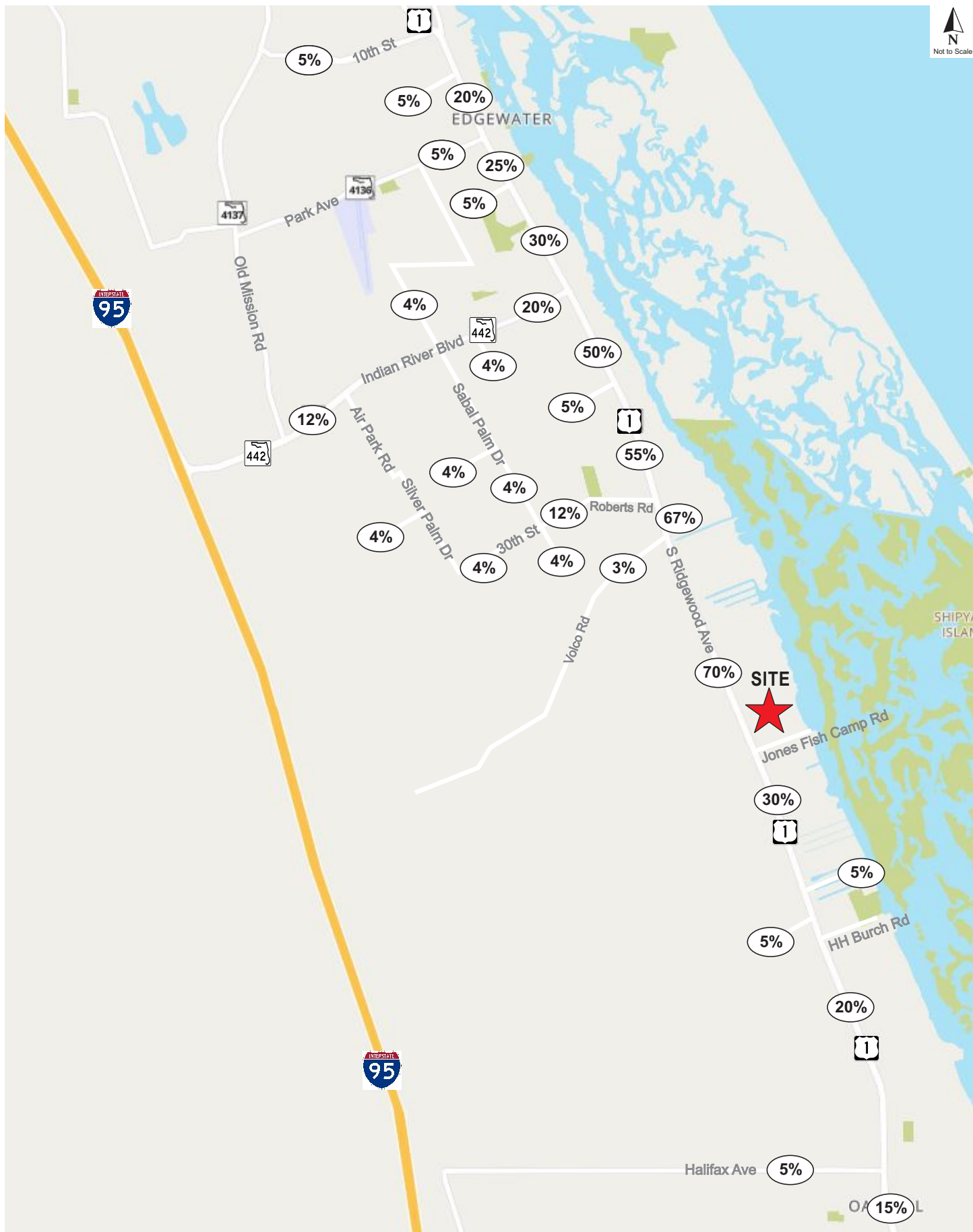
Pass-By rate based on ITE *Trip Generation Handbook, 3rd Edition*. Per R2CTPO guidelines Pass-By capture shall not exceed 14 %

on US 1 (14,924 X 14%= 2,089) & Total Pass-By trips= 1,366; therefore, the pass-by trips are within the 14% threshold

The proposed development is projected to generate 6,727 new daily trips of which 538 trips occur during the AM peak hour and 497 trips occur during the PM peak hour. Per the *R2CTPO Traffic Study Guidelines*, the proposed development is anticipated to generate more than 1,000 daily new trips; therefore, requires a TIA.

Trip Distribution

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model version 7.0 (CFRPMv7.0)*. The model distribution was manually adjusted to account for interacting local activity centers and to reflect the local network, as well as prevailing traffic flow patterns. The raw model output is included in the **Attachments** and the adjusted general distribution is shown in **Figure 2**.



Edgewater River Oaks

Traffic Impact Analysis Methodology

Project № 22160, v1.3

October 31, 2023

Page 5 of 9

Study Area

Per the TIA requirements, the study area will encompass the major roadway segment(s) to which the site has direct connections, and all roadways of the project where the project's peak hour trips consume three percent (3%) or more of a roadway's two-way peak hour generalized service volume based on the adopted level of service (LOS). In addition, the Critical/Near Critical and Vested Critical/Near Vested Critical (C/NC/VC/NVC) roadway segments within a 3-mile radius were reviewed. No roadway segments in the study area were determined to be C/NC/VC/NVC. The 3-mile C/NC/VC/NVC roadway buffer is shown in **Figure 3**. Roadway segments, daily volumes, and peak 2-way LOS capacities were obtained from the *2021 Volusia County AADTs Consultants-2022-07-13 Spreadsheet* and the *FDOT 2020 Quality/Level of Service Handbook (Q/LOS Handbook)*, Table 4, included in the **Attachments**. Findings are summarized in **Table 2**.

Table 2
Study Area Significance Test

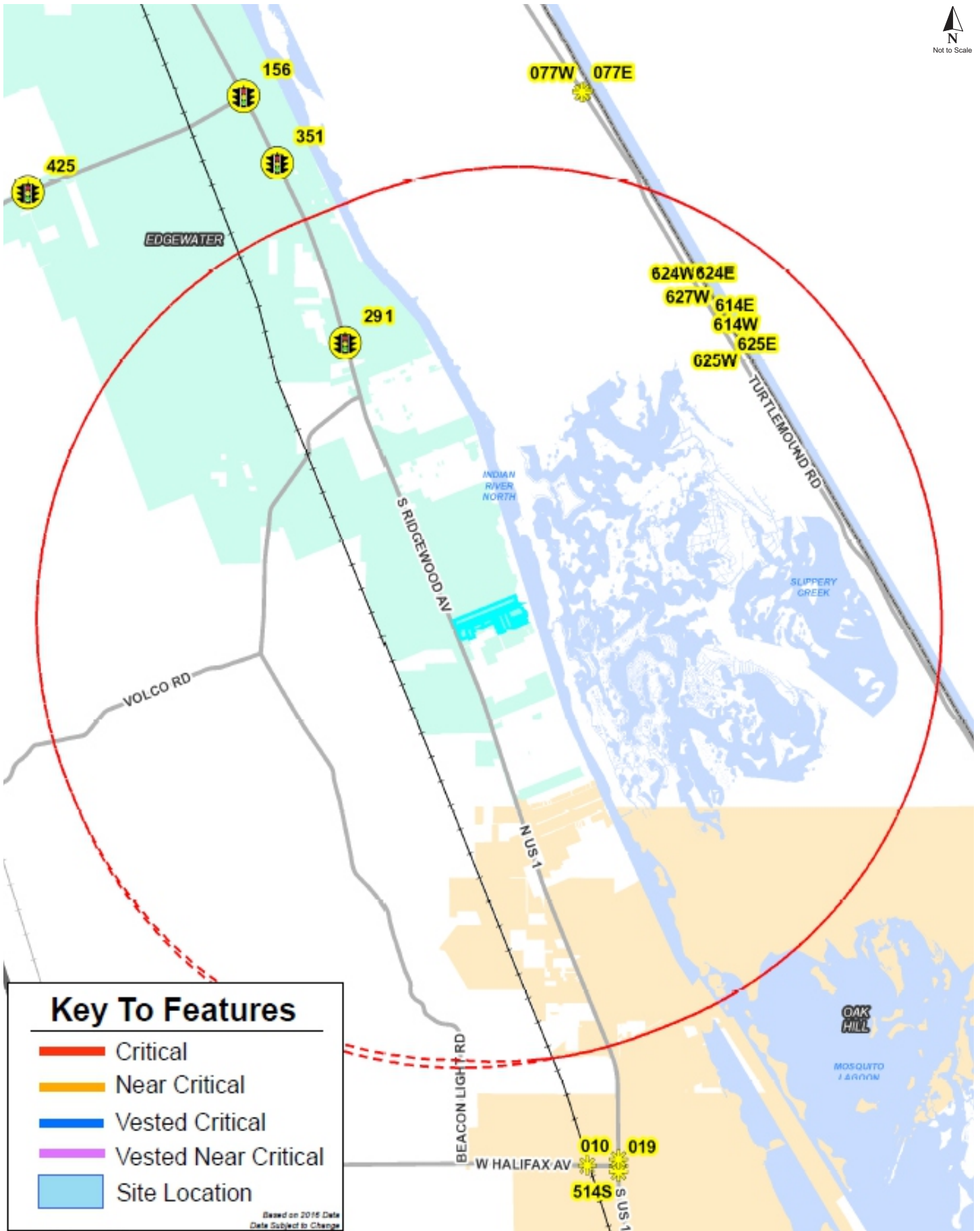
Roadway Segment	Seg Num	A T	Function Class	# Lns	PK 2W Cap	Project Trips			Signif- icant?	In Study?	
						Dist	Trips	% Cap			
US 1/S Ridgewood Ave											
Putnam Grove Rd to Halifax Ave	531	R	Principal-Arterial	4	4,020	15%	75	1.87%	NO	NO	
Halifax Ave to H.H Burch Rd	9929	R	Principal-Arterial	4	4,020	20%	99	2.46%	NO	NO	
H.H Burch Rd to Volco Rd	9929	U	Principal-Arterial	4	3,580	70%	348	9.72%	YES	YES	
Volco Rd to SR 442/Indian River Blvd	27	U	Principal-Arterial	4	3,580	67%	333	9.30%	YES	YES	
SR 442/Indian River Blvd to Park Ave	5170	U	Principal-Arterial	4	3,580	30%	149	4.16%	YES	YES	
Park Ave to 10th Ave	5168	U	Principal-Arterial	4	3,580	20%	99	2.77%	NO	NO	
10th Ave to Canal St/Bus. SR 44	5154	U	Principal-Arterial	4	2,920	10%	50	1.71%	NO	NO	
Jones Fish Camp Rd											
US 1/S Ridgewood Ave to East Terminus *	-	U	Minor-Collector	2	1,020	30%	149	14.60%	YES	YES	
Volco Rd											
35th St to US 1/S Ridgewood Ave	1922	U	Minor-Collector	2	1,020	3%	15	1.47%	NO	NO	
30th St/Roberts Rd											
Silver Palm Dr to Sabal Palm Dr *	-	U	Minor-Collector	2	1,020	4%	20	1.96%	NO	NO	
Sabal Palm Dr to US 1/S Ridgewood Ave **	-	U	Minor-Collector	2	1,330	12%	60	4.51%	YES	YES	
Sabal Palm Dr											
30th St to SR 442/Indian River Blvd *	-	U	Minor-Collector	2	1,020	4%	20	1.96%	NO	NO	
Silver Palm Dr/Air Park Rd											
30th St to SR 442/Indian River Blvd *	-	U	Minor-Collector	2	1,020	4%	20	1.96%	NO	NO	
SR 442/Indian River Blvd											
I-95 to Air Park Rd	170	U	Minor-Arterial	4	3,580	12%	60	1.68%	NO	NO	
Air Park Rd to US 1/S Ridgewood Ave	5190	U	Minor-Arterial	4	3,580	20%	99	2.77%	NO	NO	
Park Ave											
Air Park Rd. to US 1	1413	U	Mayor-Collector	2	1,330	5%	25	1.88%	NO	NO	
10th Ave											
High School to US 1/S Ridgewood Ave ***	-	U	Mayor-Collector	4	2,870	4%	20	0.70%	NO	NO	

Source: 2021 Volusia County AADTs Consultants-2022-07-13 spreadsheet

* Capacities were calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 1,410 -10% Non-State Rd & -20% No turn turn lanes =1,020

** Capacity was calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 1,410 -10% Non State Rd + 5% Exclusive Left Turns= 1,330

*** Capacity was calculated using FDOT 2020 Q/LOS Table 4: 35 MPH LOS E 3,040 -10% Non State Rd + 5% Exclusive Left Turns= 2,870



Edgewater River Oaks

Traffic Impact Analysis Methodology

Project № 22160, v1.3

October 31, 2023

Page 7 of 9

Based on the significance test included in **Table 2**, the traffic study will include the analysis of the following roadway segments and intersections:

Study Segments:

- *US 1/S Ridgewood Avenue*
 - *H.H Burch Road to Volco Road*
 - *Volco Road to SR 442/Indian River Boulevard*
 - *SR 442/Indian River Boulevard to Park Avenue*
- *Jones Fish Camp Road*
 - *US 1/S Ridgewood Avenue to East Terminus*
- *30th Street/Roberts Road*
 - *Sabal Palm Drive to US 1/S Ridgewood Avenue*

Study Intersections:

- *US 1/S Ridgewood Avenue & Jones Fish Camp Road (unsignalized)*
- *US 1/S Ridgewood Avenue & Volco Road (unsignalized)*
- *US 1/S Ridgewood Avenue & Roberts Road (signalized)*
- *US 1/S Ridgewood Avenue & SR 442/Indian River Boulevard (signalized)*
- *US 1/S Ridgewood Avenue & Park Avenue (signalized)*
- *Sabal Palm Drive & 30th Street (unsignalized)*
- *US 1/S Ridgewood Avenue & Project Access Driveway (proposed)*
- *Jones Fish Camp Road & Project Access Driveways (proposed)*

Roadway Segments and Intersections Analysis

The TIA will include existing and 2027 buildout conditions for both roadway segments and intersection capacity analyses. Roadway segments will be analyzed for the PM peak 2-way volume. The analysis will be based on service volumes obtained from *2021 Volusia County AADTs Consultants-2022-07-13 Spreadsheet* and/or service volumes in the *FDOT 2020 Quality/Level of Service (Q/LOS) Handbook, Table 4*. The intersection analysis will be conducted for both the AM and PM peak hours based on field counts, projected movements, *Synchro* software, and the methods of the *Highway Capacity Manual (HCM)*.

Edgewater River Oaks

Traffic Impact Analysis Methodology

Project № 22160, v1.3

October 31, 2023

Page 8 of 9

Background Traffic

Background traffic will be projected to the buildout year 2027 per Volusia County's *Segment Growth Rates and Vested Trips Instruction Policy*, included in the **Attachments**. Growth rates will be calculated based on the historical Annual Average Daily Traffic (AADT) obtained from the *2021 Volusia County AADTs Consultants-2022-07-13 Spreadsheet*. Vested trips from approved developments will be obtained from the County and/or City. Per the City's request, vested trips from the proposed Dollar General store to be located in the northeast quadrant of the US 1 and Jones Fish Camp Road intersection and the Riverfront Estates development located on Jones Fish Camp Road will be included in the background traffic. Necessary adjustments will be made to both the growth rate and vested trips per Volusia County and R2CTPO guidelines.

Buildout Traffic

Buildout conditions will be analyzed by comparing the total projected traffic volumes to their service volumes at the adopted LOS standard at the roadway segments and intersections. Total projected traffic volumes at buildout year 2027 will be calculated as the sum of background traffic and project trips.

Planned Improvements

Transportation improvements programs for the City of Edgewater, Volusia County, and FDOT were reviewed finding that no roadway or intersection improvements are funded for construction within the next three (3) years in the study area.

Signal Warrant Analysis (SWA) and Intersection Control Evaluation (ICE)

Per the City's request, if the intersection of US 1/Ridgewood Avenue and Jones Fish Camp Road shows unacceptable operation, a SWA will be conducted to determine if a traffic signal is warranted. If the traffic signal is warranted, an ICE analysis may need to be prepared in accordance with *FDOT's ICE Manual*.

Turn Lane Analysis

A queue analysis will be performed for existing turn lanes utilized by project traffic. The analysis will include a table that presents the existing storage (rounded to nearest 25 feet), existing 95th percentile queue, future background 95th percentile queue, and future buildout 95th percentile queue. A comparison will be made to determine if/when the queue is projected to exceed the available storage. An assessment of turn lane needs at the project driveways will also be prepared. The need for turn lanes on US 1/Ridgewood Avenue will be based on the *FDOT Access Management Guidebook*. The length of any required left-turn lane should be based on the 95th percentile queue length plus the design speed total deceleration distance. The access turn lane analysis in the TIA will provide a quantitative and a qualitative assessment on the need for turn lanes on US 1/Ridgewood Avenue.

Edgewater River Oaks

Traffic Impact Analysis Methodology

Project № 22160, v1.3

October 31, 2023

Page 9 of 9

Proportionate Share

If the development results in offsite impacts, the development will mitigate its impact to the deficient facilities by contributing a proportionate share. The proportionate share calculation will be based on costs approved by the Volusia County Engineering and Construction Division.

Alternative Mode Analysis

An alternative mode review will be included in the traffic study and will include a narrative of any transit stops within $\frac{1}{4}$ mile of the site, provisions for sidewalks adjacent to public roads within the limits of the site, sidewalk connectivity between parcels, provisions for any bicycle amenities, such as bike racks or lockers, and identification of any schools within 1-mile of the site.

Report

A report will be prepared detailing the methods, findings, and recommendations of the traffic analysis for the proposed development.

ATTACHMENTS



October 24, 2023

Ms. Tammy Watkins
Planning Technician
Development Services Department
104 North Riverside Drive
Edgewater, FL 32132
twatkins@cityofedgewater.org

Re: Edgewater River Oaks
Response to Methodology Comments
TMC Project № 22160
City of Edgewater, Florida

Dear Ms. Watkins,

Please find below our responses to the review comments prepared by Stanley Consultants Inc on behalf of the City of Edgewater Development Services Department dated September 22, 2023, regarding the above referenced Methodology dated August 9, 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology is provided under cover reflecting the changes resulting from these comments.

- 1. In Table 1: Trip Generation Calculation, please remove the pass-by trips for the restaurant and commercial uses for the AM peak hour for these uses are not usually open during the AM peak hour (7:00 a.m. to 8:00 a.m.).**

TMC Response: The pass-by trips have been removed from the trip generation calculations.

- 2. The site plan does not include the hotel use. Please provide an updated site plan that shows all of the uses proposed in the study.**

TMC Response: The site plan attached shows the hotel use in the Site Data Table.

Ms. Tammy Watkins
Edgewater River Oaks
Response to Methodology Comments
TMC Project № 22160
October 24, 2023
Page 2 of 2

END OF COMMENTS

We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Charlotte N. Davidson, PE
Senior Transportation Engineer



August 8, 2023

Mr. Ryan Solstice, AICP
LPG, LLC
Interim Community Development Director
Development Services Department
104 North Riverside Drive
Edgewater, FL 32132
rsolstice@cityofedgewater.org

Re: Edgewater River Oaks
Response to Methodology Comments
TMC Project № 22160
City of Edgewater, Florida

Dear Mr. Solstice,

Please find below our responses to the review comments on behalf of Traffic Engineering Data Solutions Inc, dated February 22, 2022, regarding the above referenced Methodology dated November 1, 2022. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a Methodology v1.2 is provided undercover reflecting the changes resulting from these comments.

- 1. An Access Analysis study was submitted for review to the City of Edgewater, for a Dollar General store with an anticipated buildout year of 2023 to be located in the northeast quadrant of the US 1 & Jones Fish Camp Road intersection. Please be sure to include the vested traffic for the Dollar General development in the background volume for the TIA.**

TMC Response: The Background Traffic section of the attached Methodology v1.2, includes this statement: "Per the City's request, vested trips from the proposed Dollar General store to be located in the northeast quadrant of the US 1 & Jones Fish Camp Road intersection will be included in the background traffic."

- 2. In the Study Area table (Table 2), the project trip distribution percentages were determined to be correct, however, we were unable to replicate the project trips for all of the segments. For example, the US 1 study segment from HH Burch Road to Volco Road shows a trip distribution percentage of 70% and should therefore show a total of 519 project trips (based on the 742 PM peak hour net new external trips shown in Table 1), however, only 466 project trips are shown along this segment. Please revise Table 2 accordingly.**

TMC Response: Table 2 has been updated to reflect the project trips as requested, please see attached Methodology v1.2.

- 3. Based on the Study Area Determination Table (Table 2), the following intersections should also be included in the Study Intersections list:**

- 1) US 1 & Park Avenue**
- 2) US 1 & 10th Street**
- 3) SR 442 (Indian River Boulevard) & Air Park Road**

Also, please note that based on Comment #2, additional intersections may be determined to be “significant” (impact of 3% or higher) and thus may have to be included in the Study Intersections list.

TMC Response: This methodology v1.2 includes an updated Trip Generation to reflect the reduction on size of development from two (2) of the proposed land uses; therefore, the following intersections will be included in the analysis:

- *US 1/S Ridgewood Avenue & Jones Fish Camp Road (unsignalized)*
- *US 1/S Ridgewood Avenue & Volco Road (unsignalized)*
- *US 1/S Ridgewood Avenue & Roberts Road (signalized)*
- *US 1/S Ridgewood Avenue & SR 442/Indian River Boulevard (signalized)*
- *US 1/S Ridgewood Avenue & Park Avenue (signalized)*
- *Sabal Palm Drive & 30th Street (unsignalized)*
- *US 1/S Ridgewood Avenue & Project Access Driveway (proposed)*
- *Jones Fish Camp Road & Project Access Driveways (proposed)*

- 4. Should the intersection of US 1 & Jones Fish Camp Road show unacceptable operation, a signal warrant analysis (SWA) should be conducted to see if a traffic signal is warranted. The 8- hour volumes for the SWA are to be estimated using hourly distribution of entering and existing vehicle trips by land use. Should a traffic signal be warranted, an ICE analysis in accordance with FDOT’s ICE manual will need to be prepared given that US 1 is an FDOT facility. Do note that the ICE analysis does require longer term volume projections.**

TMC Response: The attached Methodology v1.2 includes a new section called: “Signal Warrant Analysis (SWA) and Intersection Control Evaluation (ICE)”, where is stated that: “if the intersection of US 1/Ridgewood Avenue and Jones Fish Camp Road shows unacceptable operation, a SWA will be conducted to determine if a traffic signal is warranted. If the traffic signal is warranted, an ICE analysis may need to be prepared in accordance with FDOT’s ICE Manual.”

- 5. For the Access Turn Lane Analysis section, please identify that the need for turn lanes on US 1 will be based on the FDOT Access Management Guidebook. The length of any required left-turn lane should be based on the 95th percentile queue length plus the design speed total deceleration distance. The Access Turn Lane Analysis section in the TIA should not just provide a quantitative assessment on the need for turn lanes on US 1 but should also provide a qualitative assessment.**

Mr. Ryan Solstice, AICP
Edgewater River Oaks
Response to Methodology Comments
TMC Project № 22160
August 8, 2023
Page 3 of 3

TMC Response: Turn Lane Analysis section has been updated in the attached Methodology v1.2 to include this statement: "The need for turn lanes on US 1/Ridgewood Avenue will be based on the FDOT Access Management Guidebook. The length of any required left-turn lane should be based on the 95th percentile queue length plus the design speed total deceleration distance. The access turn lane analysis in the TIA will provide a quantitative and a qualitative assessment of the need for turn lanes on US 1/Ridgewood Avenue". "

END OF COMMENTS

We trust these responses and the Methodology v1.2 adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Charlotte N. Davidson, PE
Senior Transportation Engineer

Appendix D

Volusia County 2021 AADT, Historical Counts, & FDOT QLOS Table

Road Name	Limits (From - To)	Count Station Number	Roadway Maintaining Agency	2021 Roadway on County's Thoroughfare	Distance (in miles)	Posted Speed	2021 QLOS Facility Type	2010 Federal Functional Classification	2021 AADT	VC 2021 Allowable LOS	DAILY 2021 LOS Capacity	PEAK 2Way 2021 LOS Capacity	2021 No. of Lanes
Rd_Name	Limits	Cnt_Sta	MainRes	Tfare21	Distance	SPD2013	F_Type_21	Fun_Class_2010	AADT_21	VCA_LOS_21	Cap_21	2W_Cap_21	Lanes_20
US 1	Putnam Grove Rd. to Halifax Ave.	531	FDOT	Yes	0.57	65	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	4,000	C	42,300	4,020	4
US 1	Halifax Ave. to H.H. Burch Rd.	9929	FDOT	Yes	2.05	45	RDA_UFH_2W_4L_D_WL	Principal Arterial - Other - Rural	14,600	C	42,300	4,020	4
US 1	H.H. Burch Rd. to Volco Rd.	9929	FDOT	Yes	3.70	45	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	14,600	D	39,800	3,580	4
US 1	Volco Rd. to SR 442/Indian River Blvd.	27	FDOT	Yes	2.26	45	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	22,500	D	39,800	3,580	4
US 1	SR 442/Indian River Blvd. to Park Ave.	5170	FDOT	Yes	1.49	45	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	27,500	D	39,800	3,580	4
US 1	Park Ave. to 10th Ave.	5168	FDOT	Yes	1.00	45	UA_SSAC1_2W_4L_D_WL	Principal Arterial - Other - Urban	25,000	D	39,800	3,580	4
US 1	10th Ave. to Canal St./Bus. SR 44	5154	FDOT	Yes	1.52	35	UA_SSAC2_2W_4L_D_WL	Principal Arterial - Other - Urban	22,000	D	32,400	2,920	4
SR 442 - Indian River Blvd.	I-95 to Air Park Rd.	170	FDOT	Yes	2.09	55	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	13,700	D	39,800	3,580	4
SR 442 - Indian River Blvd.	Air Park Rd. to US 1	5190	FDOT	Yes	1.69	45	UA_SSAC1_2W_4L_D_WL	Minor Arterial - Urban	17,500	D	39,800	3,580	4
Park Ave.	Air Park Rd. to US 1	1413	County	Yes	1.40	30	UA_NSSRC2_2W_2L_D_WL	Major Collector - Urban	7,460	E	14,740	1,330	2
Volco Rd.	35th St. to US 1	1922	County	Yes	0.50	35	UA_NSSRC2_2W_2L_U_OL	Minor Collector - Urban	2,220	E	13,640	1,020	2

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's
Urbanized Areas¹

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
Non-State Signalized Roadway Adjustments						Freeway Adjustments					
(Alter corresponding state volumes by the indicated percent.)						Auxiliary Lanes					
Non-State Signalized Roadways						Present in Both Directions					
						+ 1,800					
Median & Turn Lane Adjustments						Ramp Metering					
						+ 5%					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		UNINTERRUPTED FLOW HIGHWAYS					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	1,050	1,620	2,180	2,930
Multi	Undivided	Yes	No	-5%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	No	No	-25%		6	Divided	4,910	7,090	8,950	10,180
—	—	—	Yes	+ 5%		Uninterrupted Flow Highway Adjustments					
One-Way Facility Adjustment						Lanes	Median	Exclusive left lanes	Adjustment factors		
Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE²						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
Paved						³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
Shoulder/Bicycle						* Cannot be achieved using table input value defaults.					
Lane Coverage	B	C	D	E		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
0-49%	*	260	680	1,770		Source:					
50-84%	190	600	1,770	>1,770		Florida Department of Transportation					
85-100%	830	1,700	>1,770	**		Systems Implementation Office					
PEDESTRIAN MODE²						https://www.fdot.gov/planning/systems/					
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	250	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770							
BUS MODE (Scheduled Fixed Route)³											
(Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

Appendix E
ITE Trip Generation Information

Mini-Warehouse

(151)

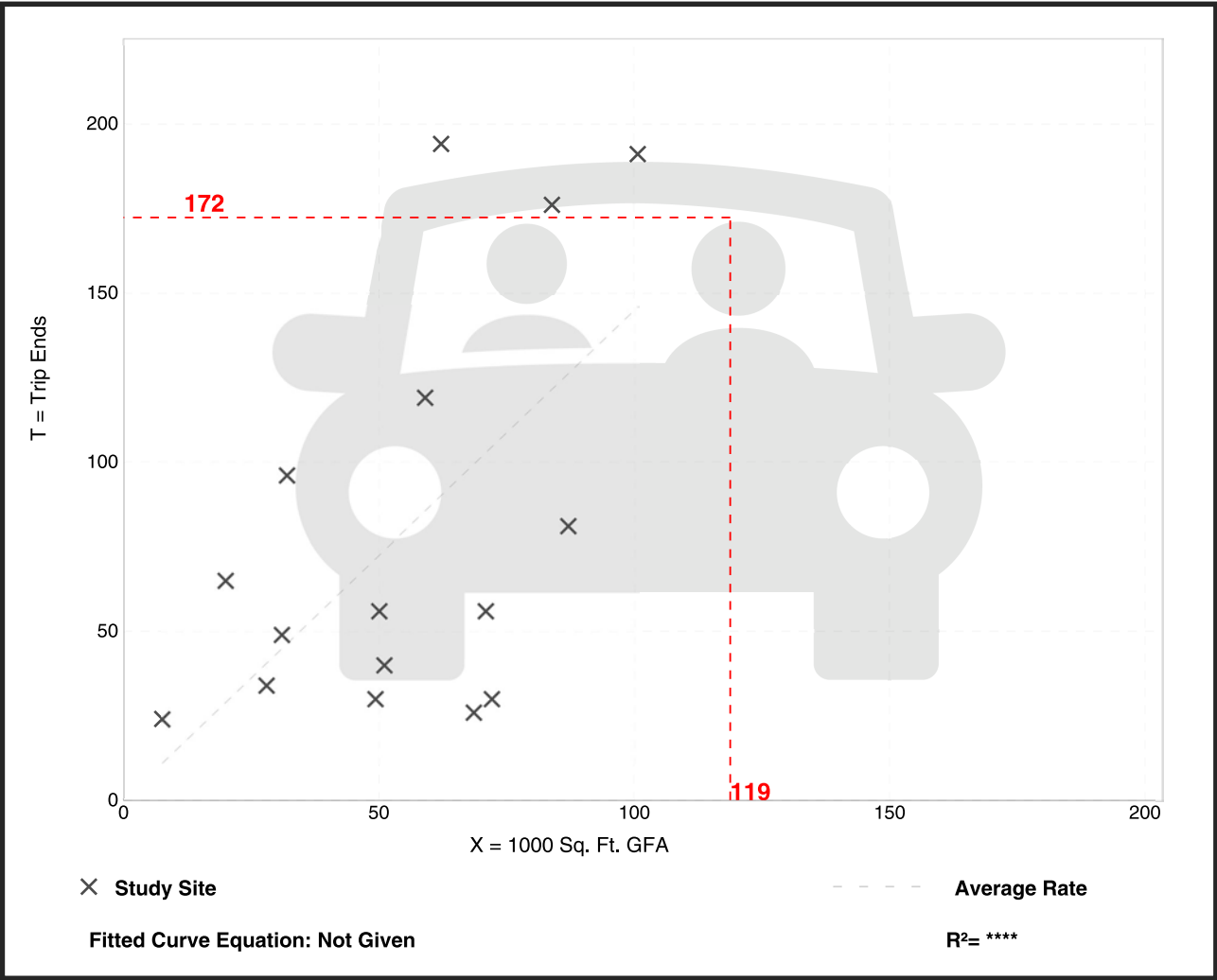
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.45	0.38 - 3.25	0.92

Data Plot and Equation



Mini-Warehouse

(151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 13

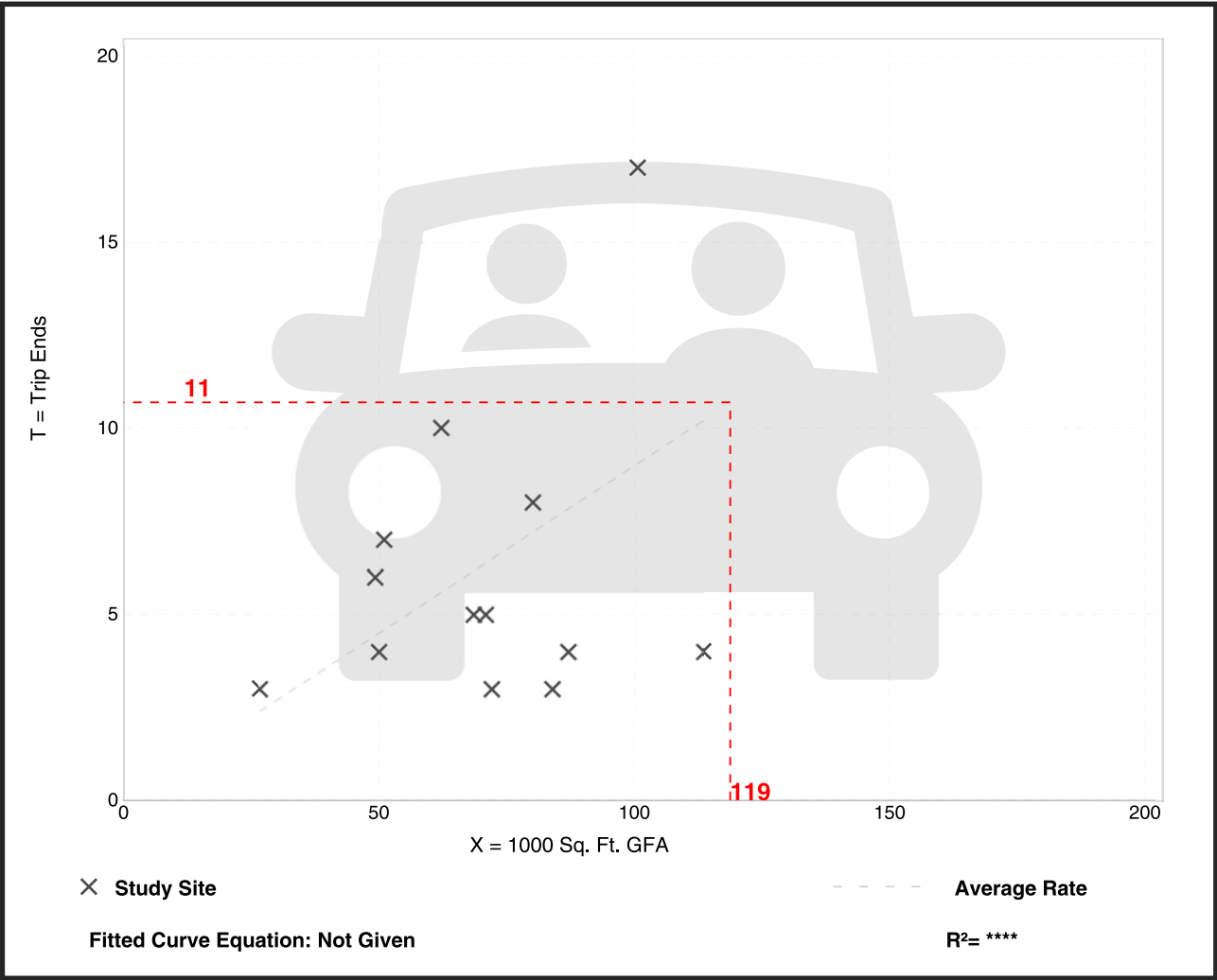
Avg. 1000 Sq. Ft. GFA: 70

Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.17	0.05

Data Plot and Equation



Mini-Warehouse

(151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 18

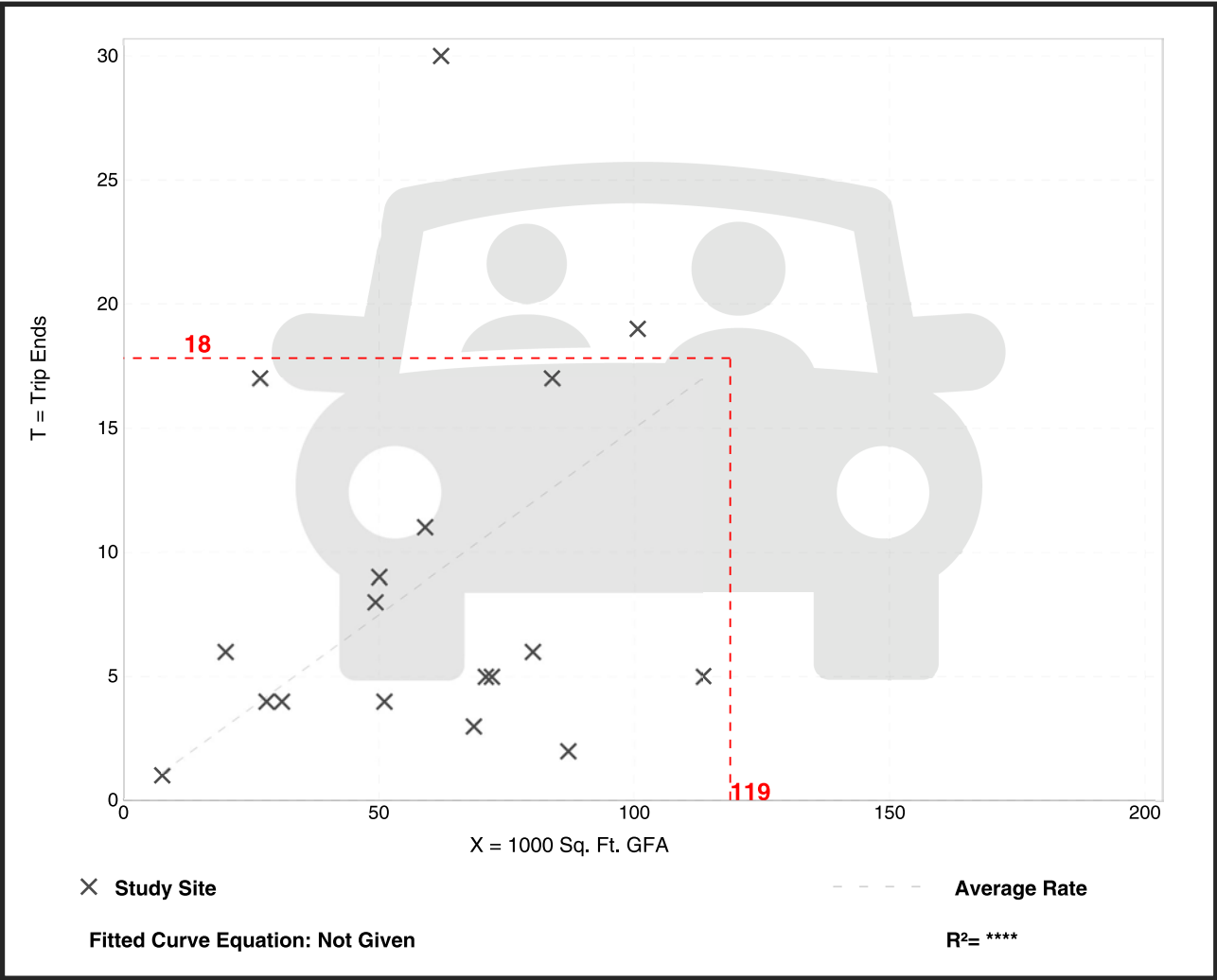
Avg. 1000 Sq. Ft. GFA: 59

Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.02 - 0.64	0.14

Data Plot and Equation



Multifamily Housing (Low-Rise) Not Close to Rail Transit (220)

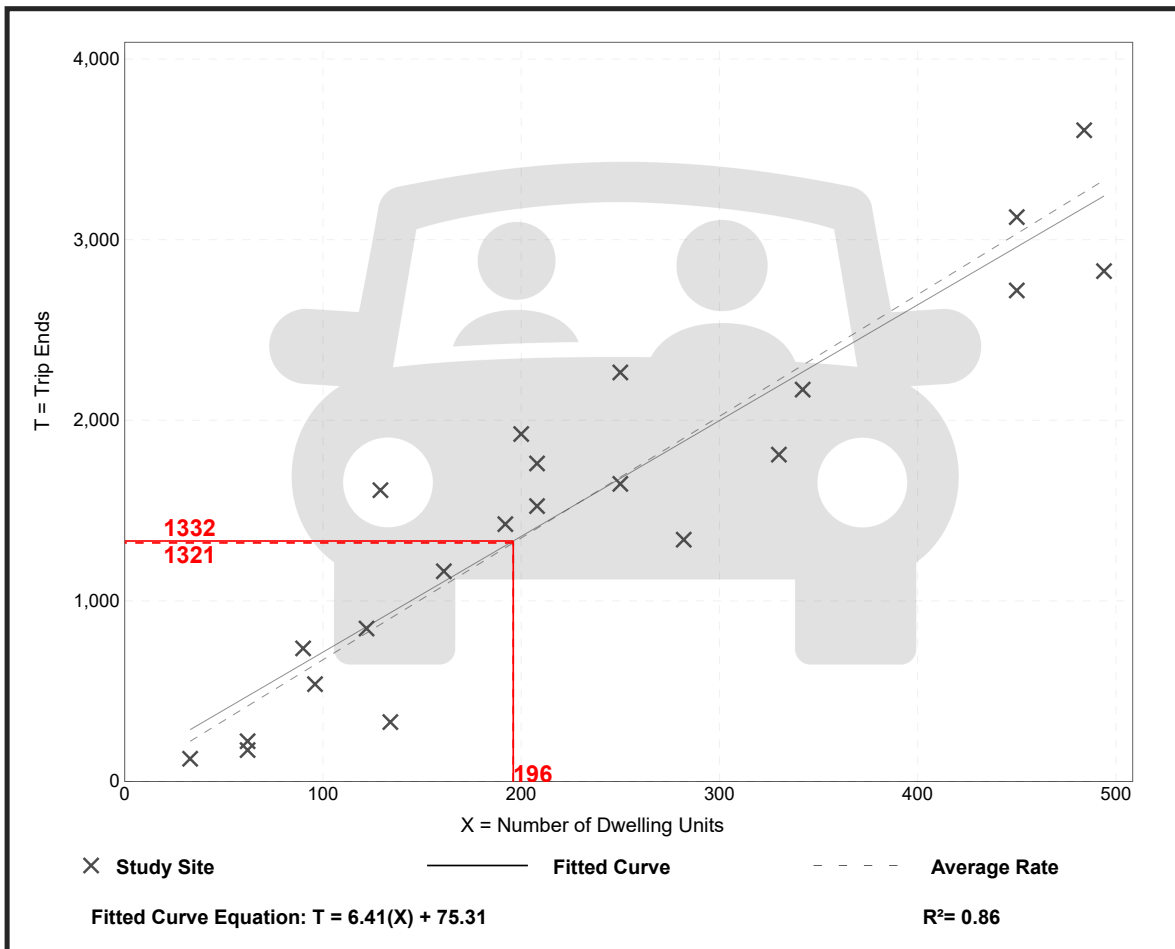
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Multifamily Housing (Low-Rise)

Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 49

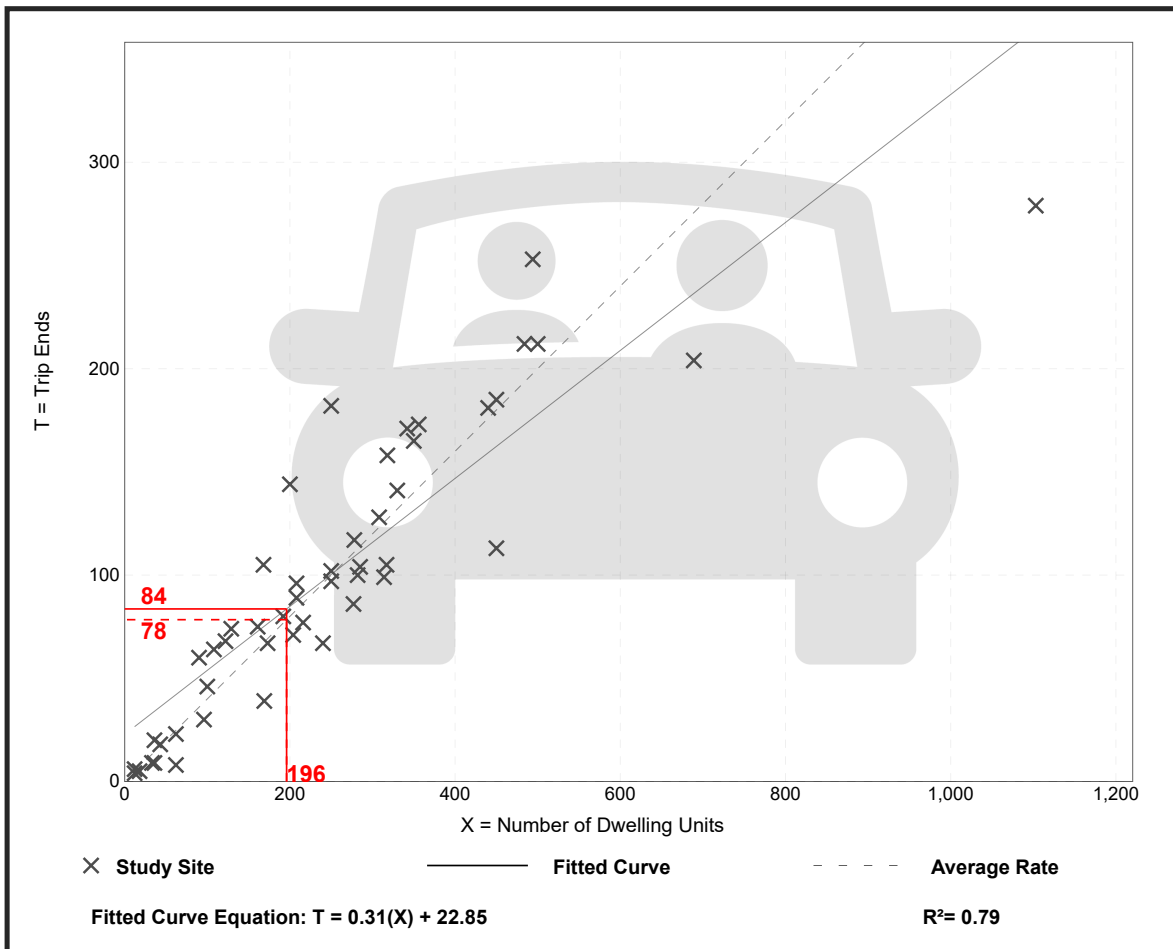
Avg. Num. of Dwelling Units: 249

Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Multifamily Housing (Low-Rise)

Not Close to Rail Transit (220)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 59

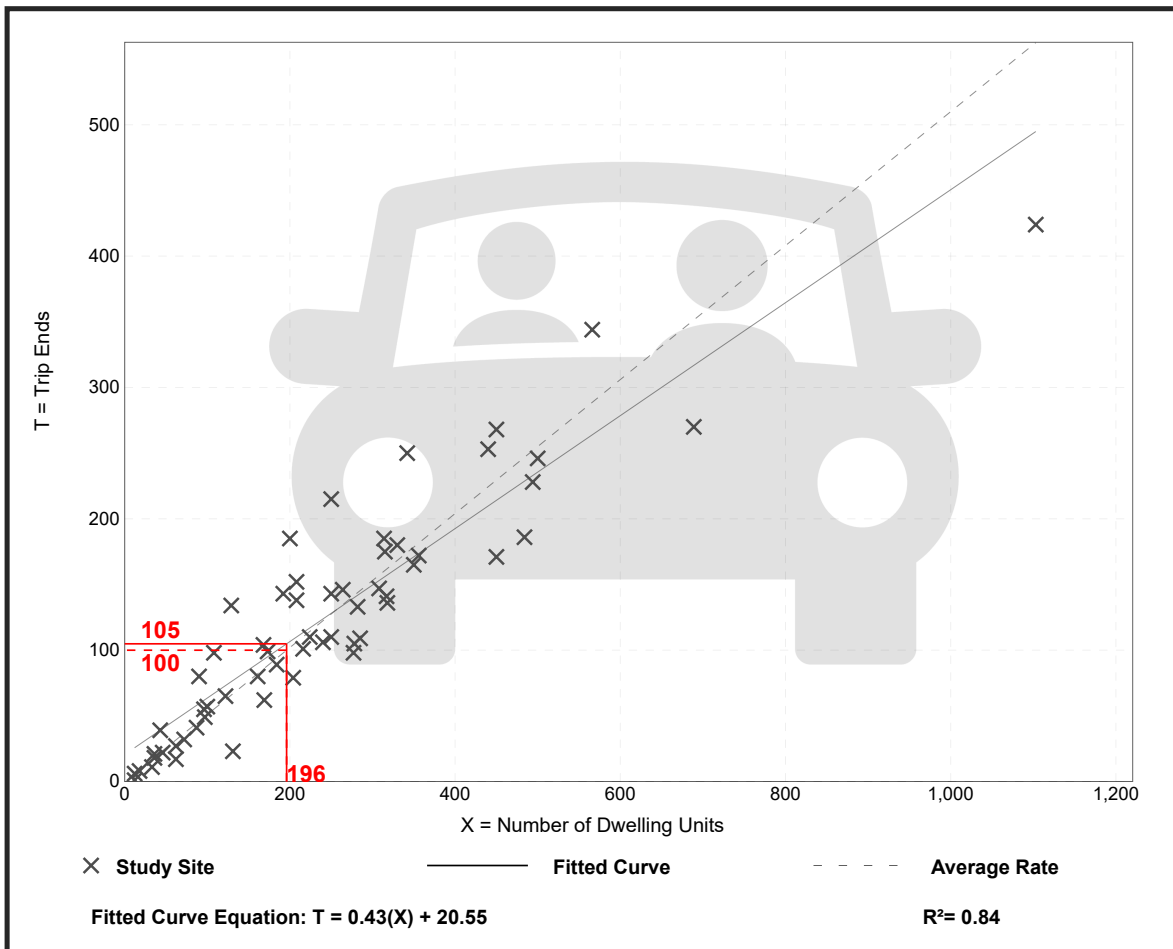
Avg. Num. of Dwelling Units: 241

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Hotel (310)

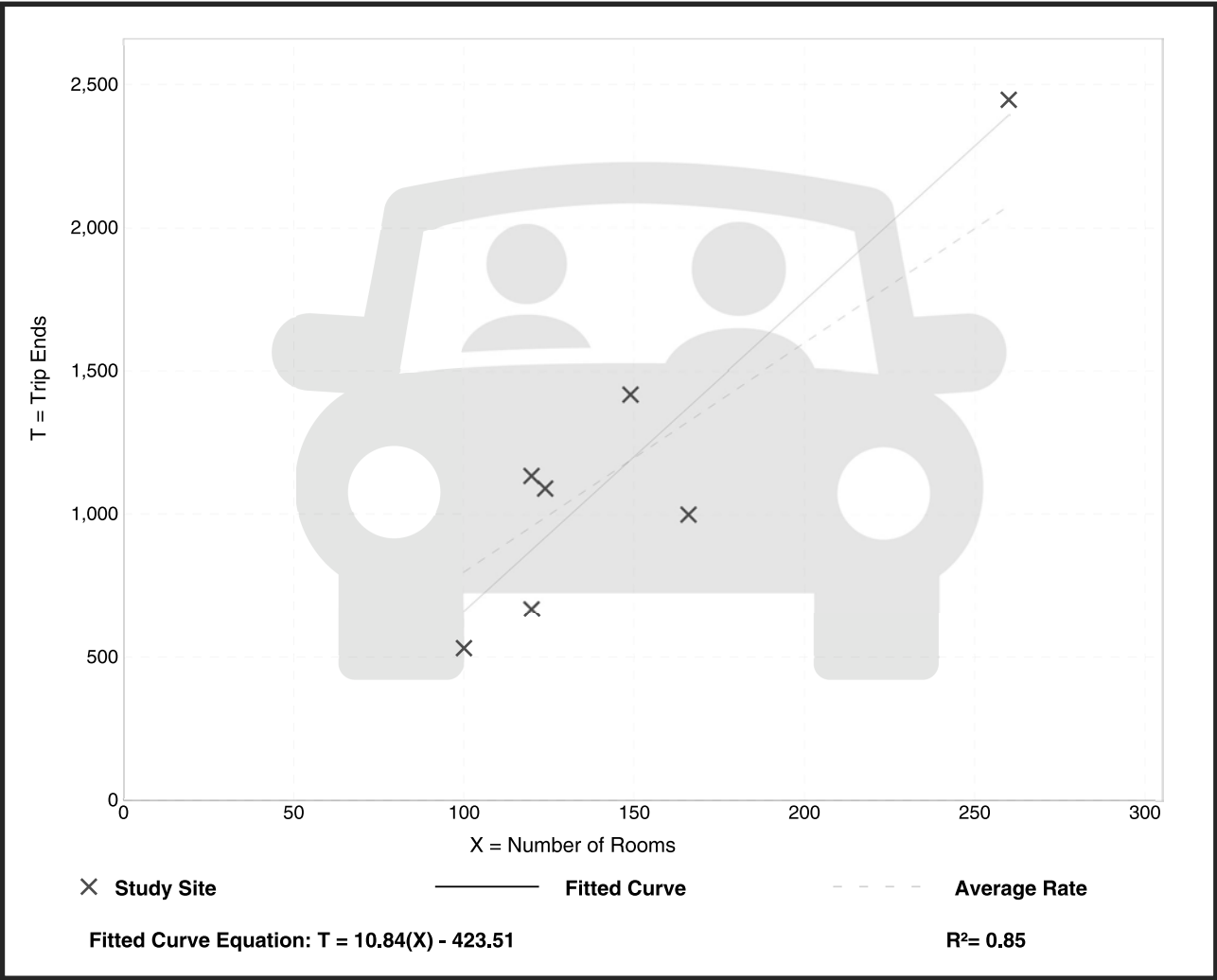
Vehicle Trip Ends vs: Rooms
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Rooms: 148
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
7.99	5.31 - 9.53	1.92

Data Plot and Equation



Hotel (310)

Vehicle Trip Ends vs: Rooms

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 28

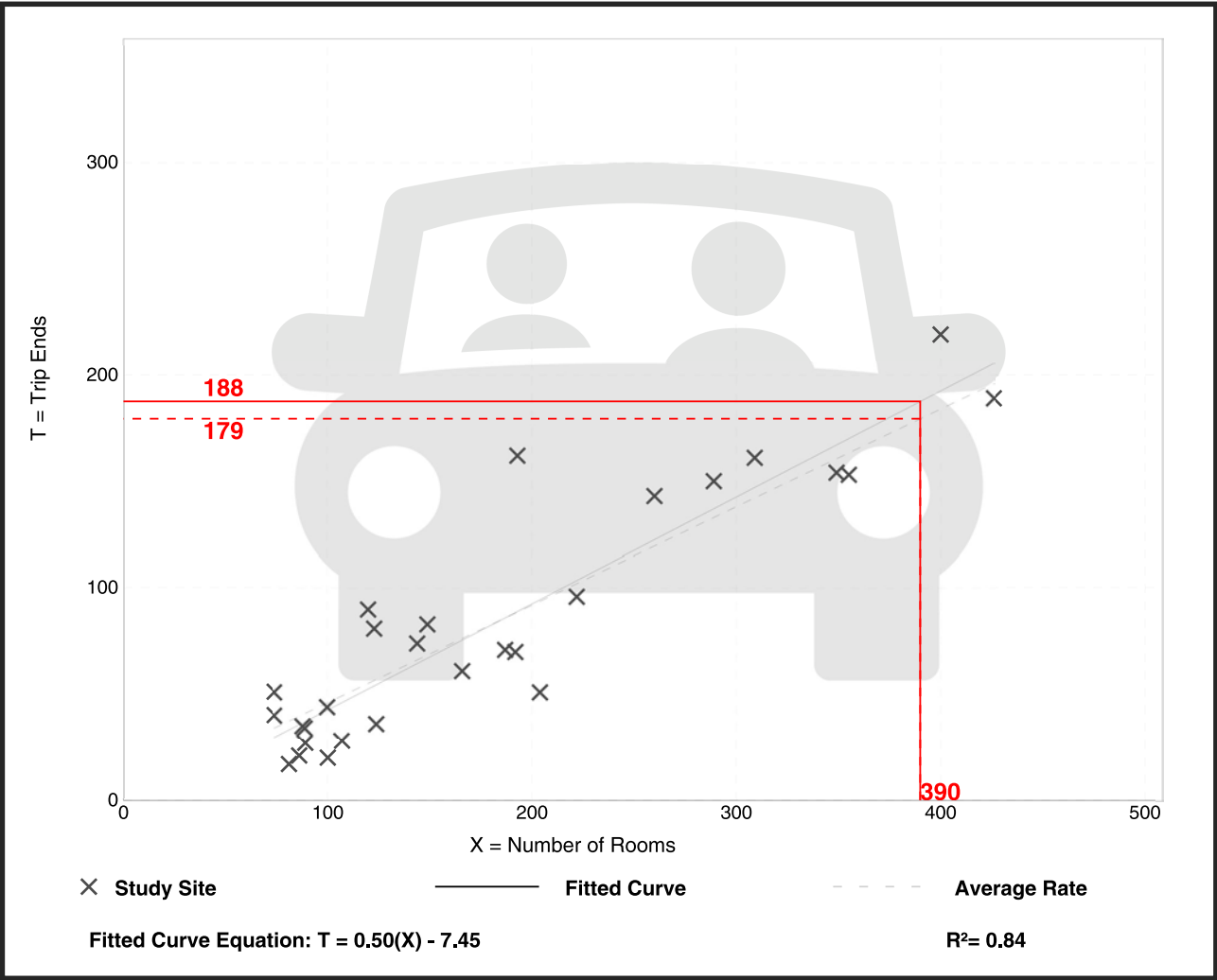
Avg. Num. of Rooms: 182

Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



Hotel (310)

Vehicle Trip Ends vs: Rooms

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 31

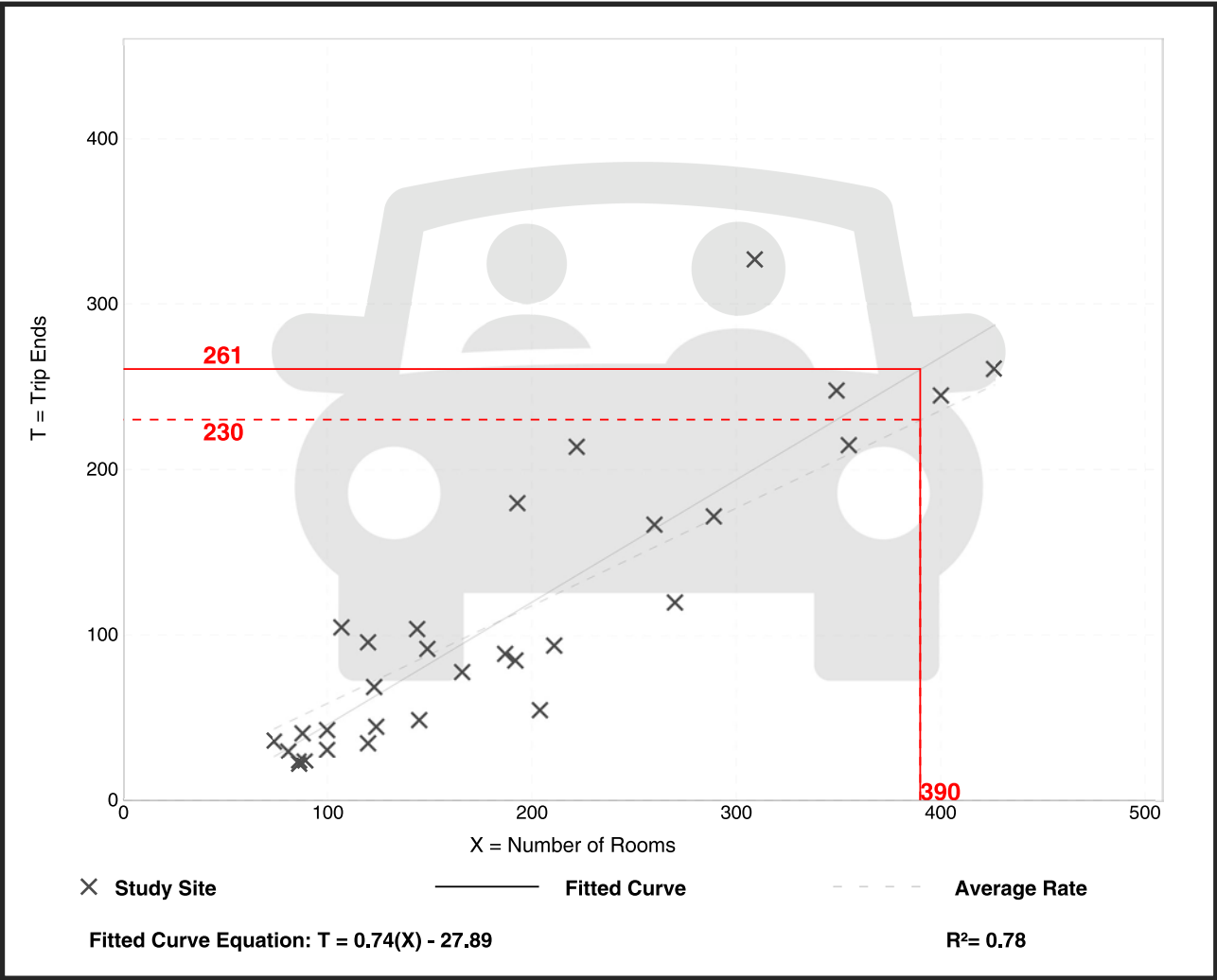
Avg. Num. of Rooms: 186

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

Data Plot and Equation



Marina

(420)

Vehicle Trip Ends vs: Berths

On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 2

Avg. Num. of Berths: 939

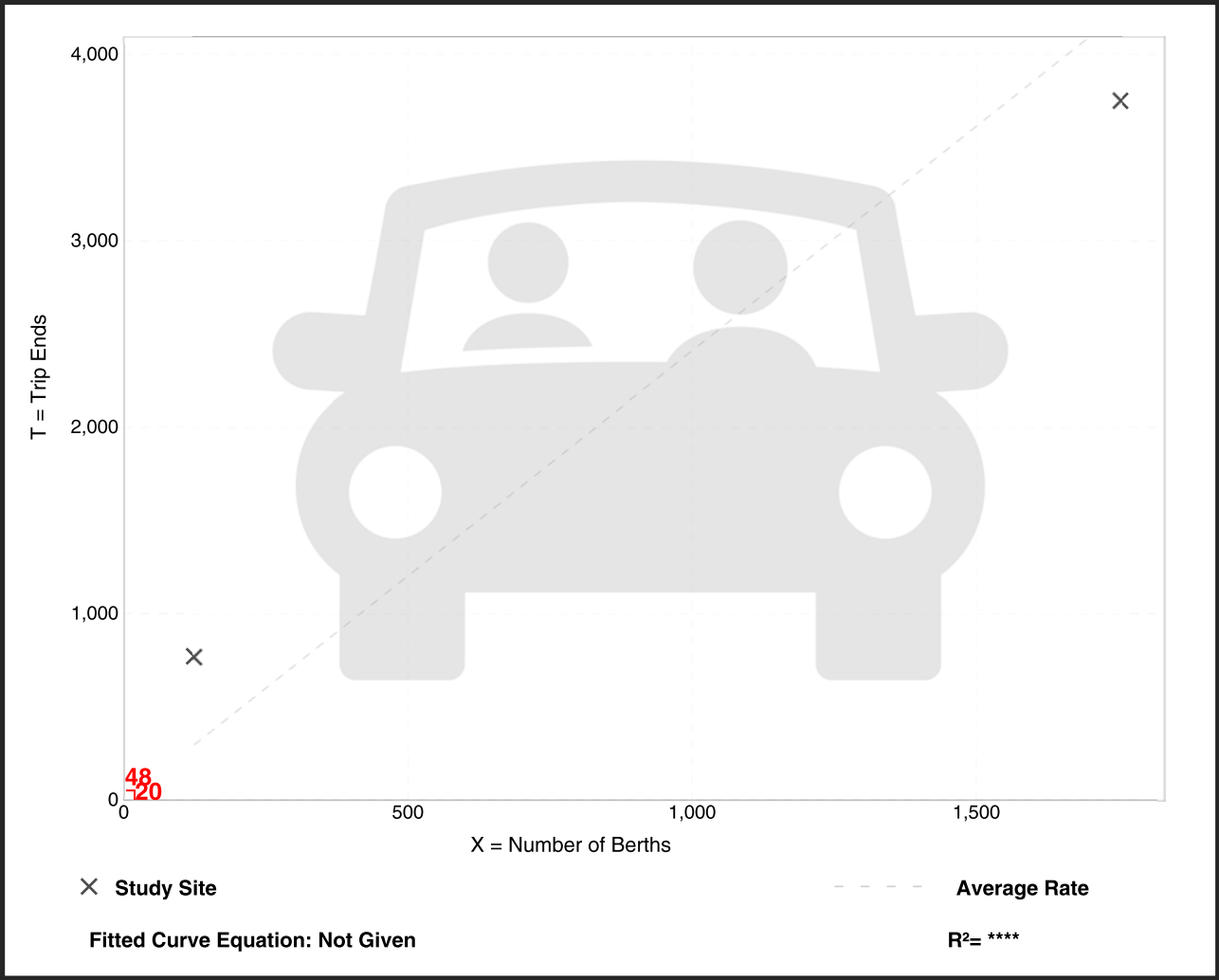
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Berth

Average Rate	Range of Rates	Standard Deviation
2.41	2.14 - 6.21	*

Data Plot and Equation

Caution – Small Sample Size



Marina (420)

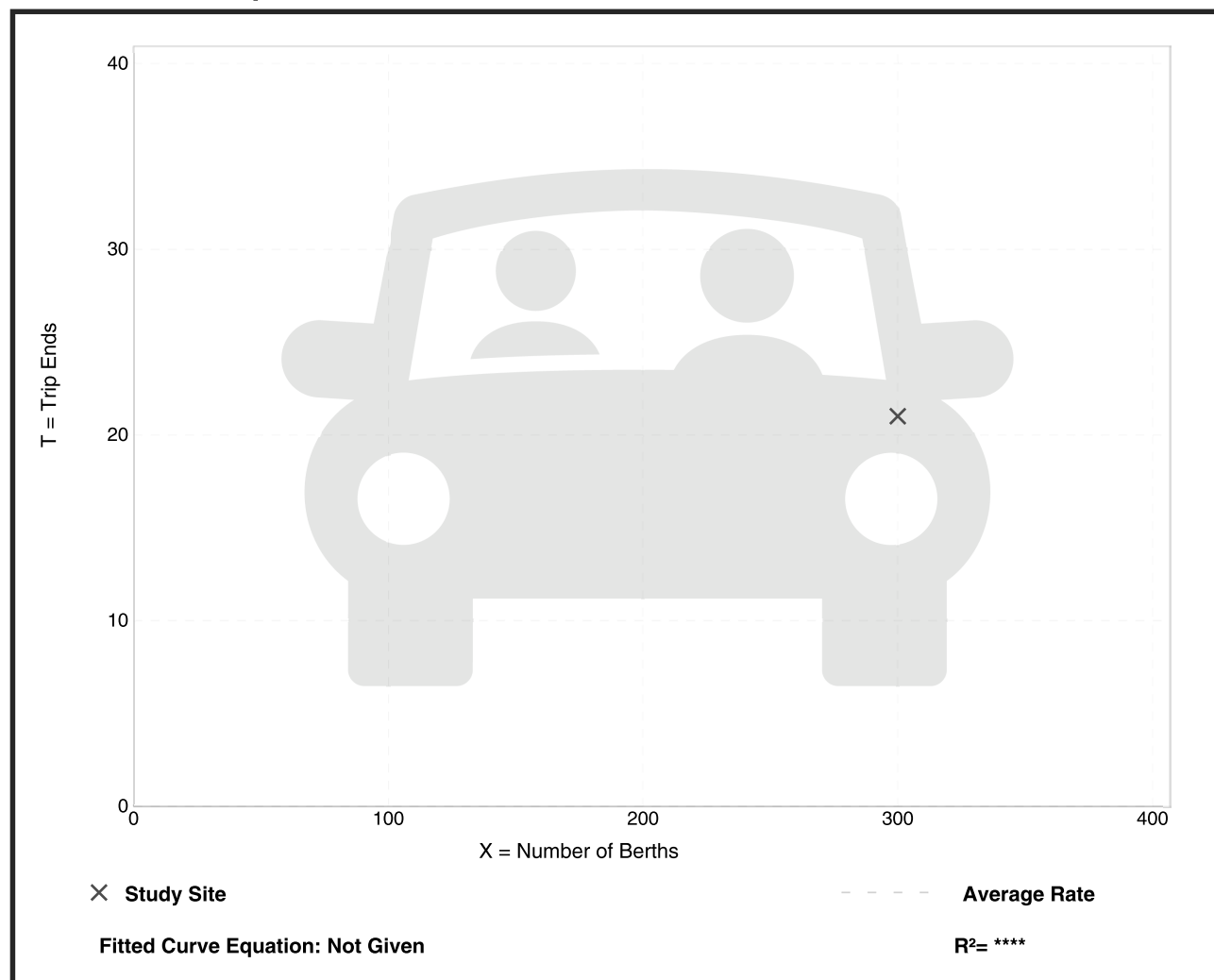
Vehicle Trip Ends vs: Berths
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 1
 Avg. Num. of Berths: 300
 Directional Distribution: 33% entering, 67% exiting

Vehicle Trip Generation per Berth

Average Rate	Range of Rates	Standard Deviation
0.07	0.07 - 0.07	*

Data Plot and Equation

Caution – Small Sample Size



Marina (420)

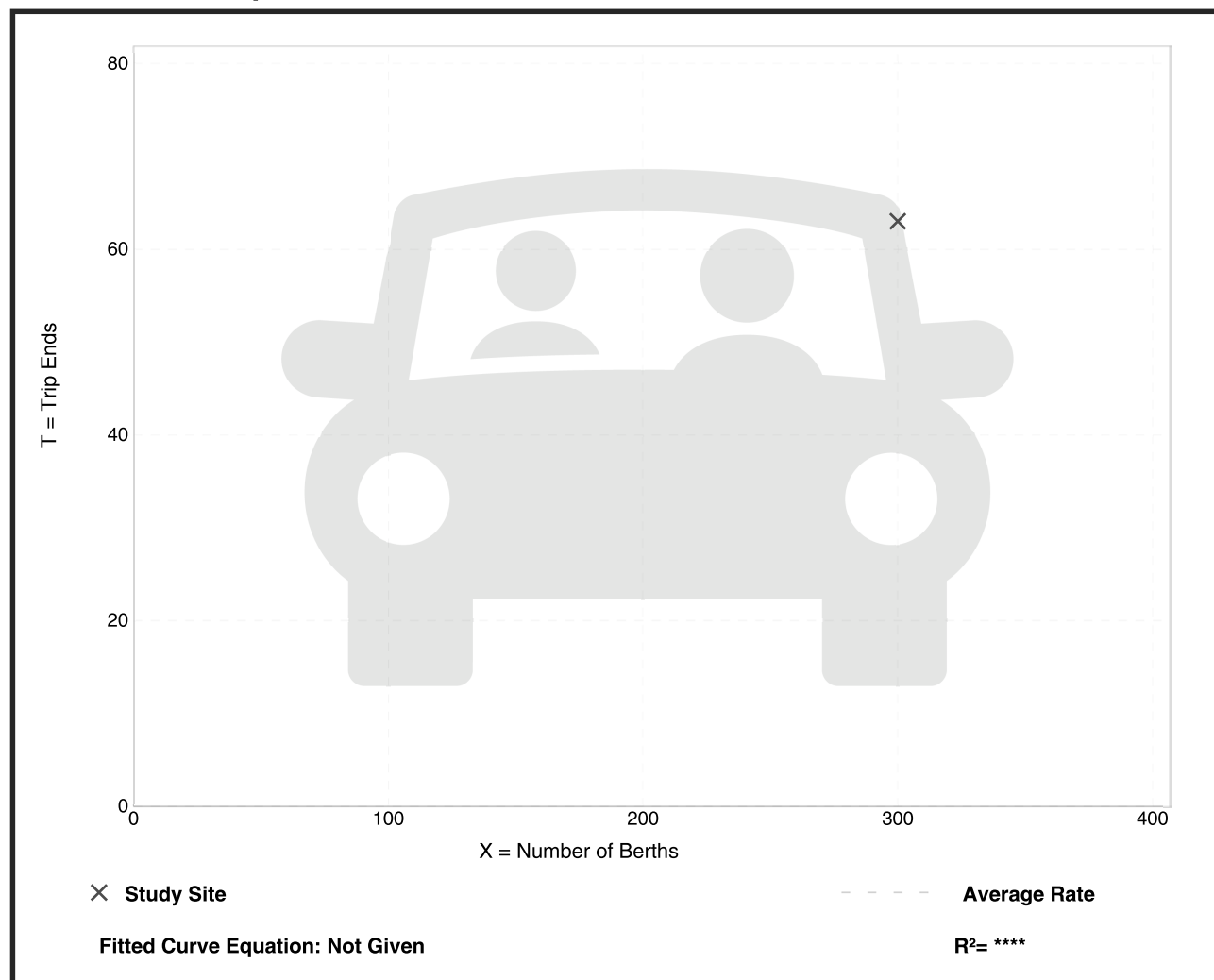
Vehicle Trip Ends vs: Berths
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 1
 Avg. Num. of Berths: 300
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Berth

Average Rate	Range of Rates	Standard Deviation
0.21	0.21 - 0.21	*

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

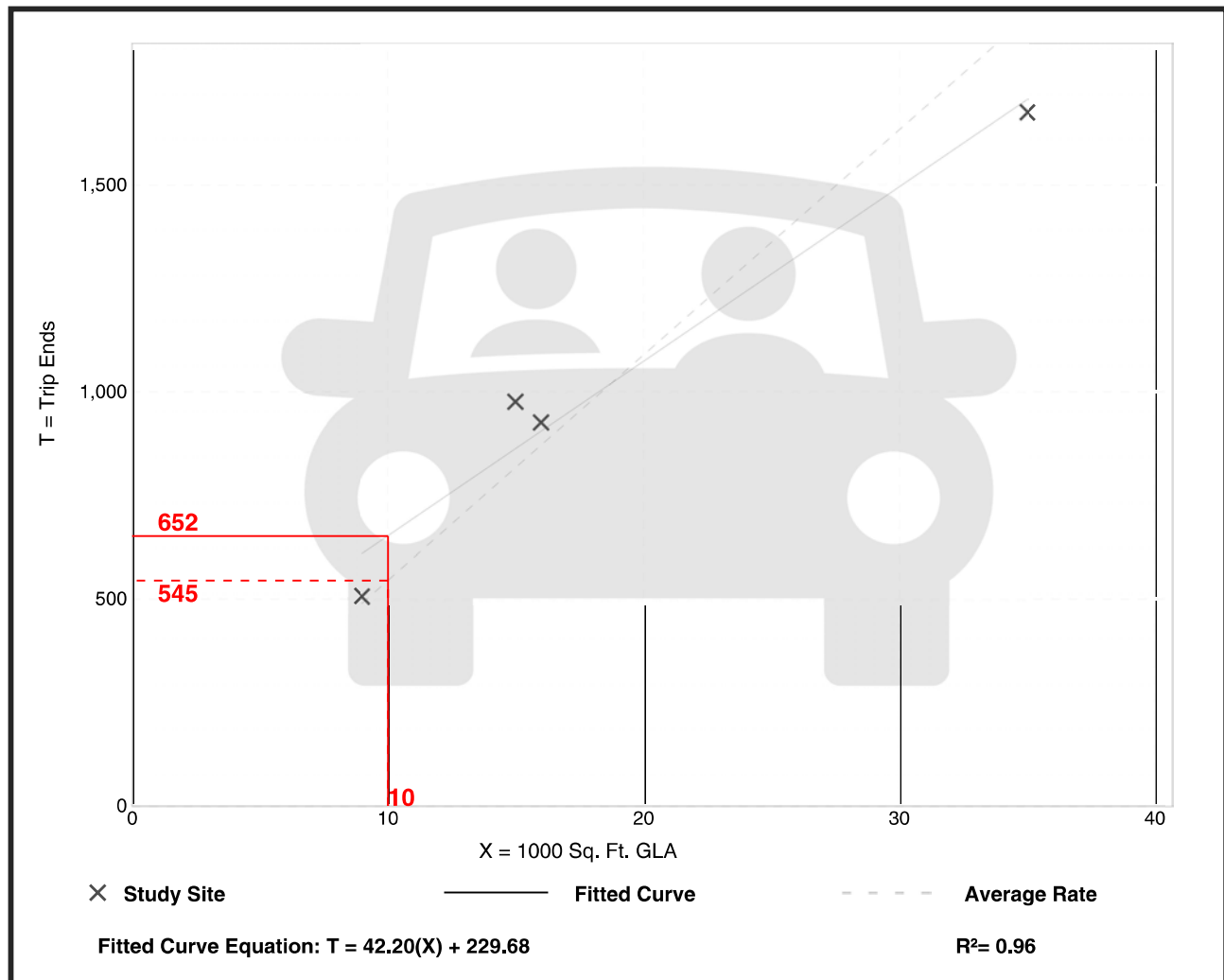
Setting/Location: General Urban/Suburban
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k) (822)

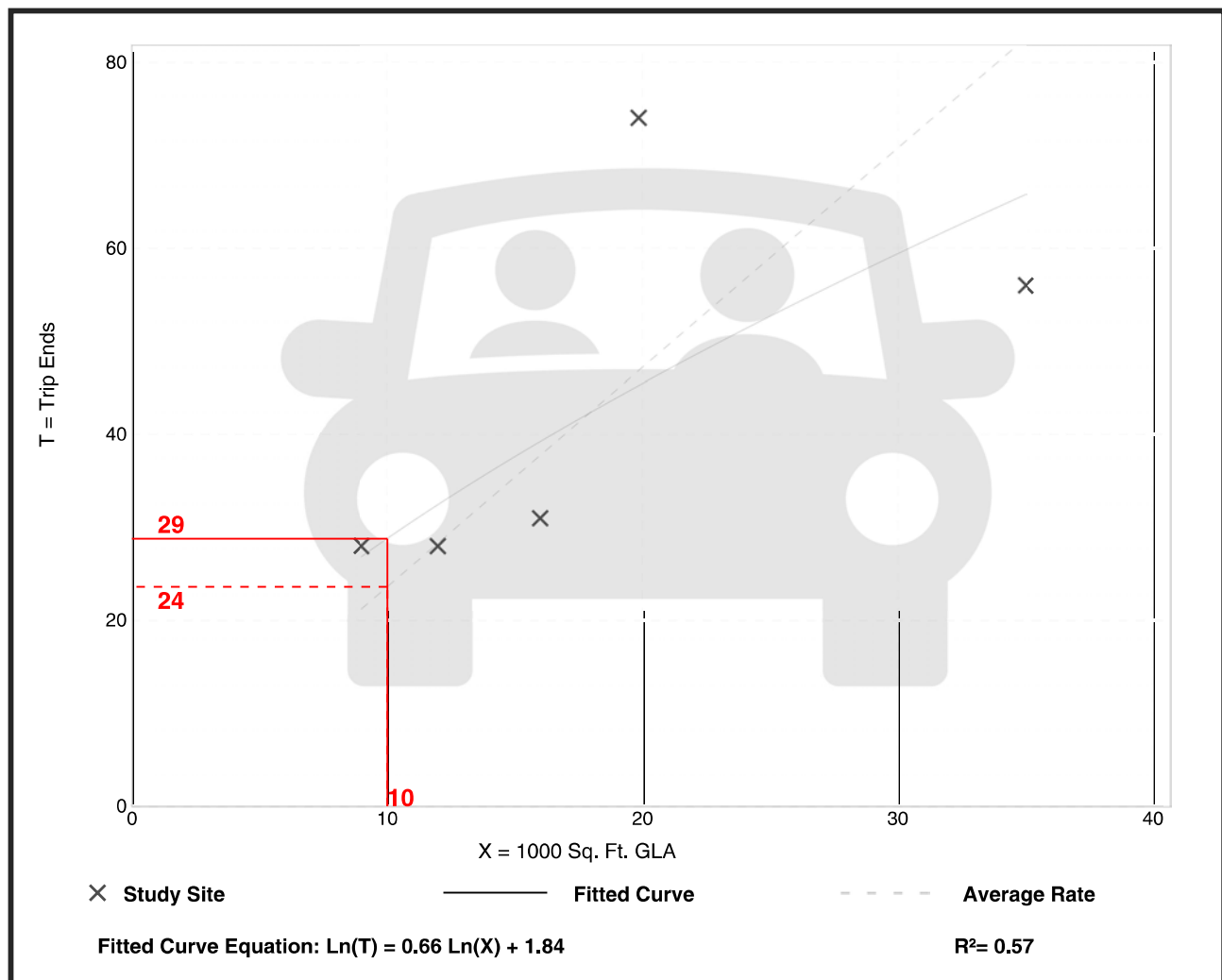
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 5
 Avg. 1000 Sq. Ft. GLA: 18
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation

Caution – Small Sample Size



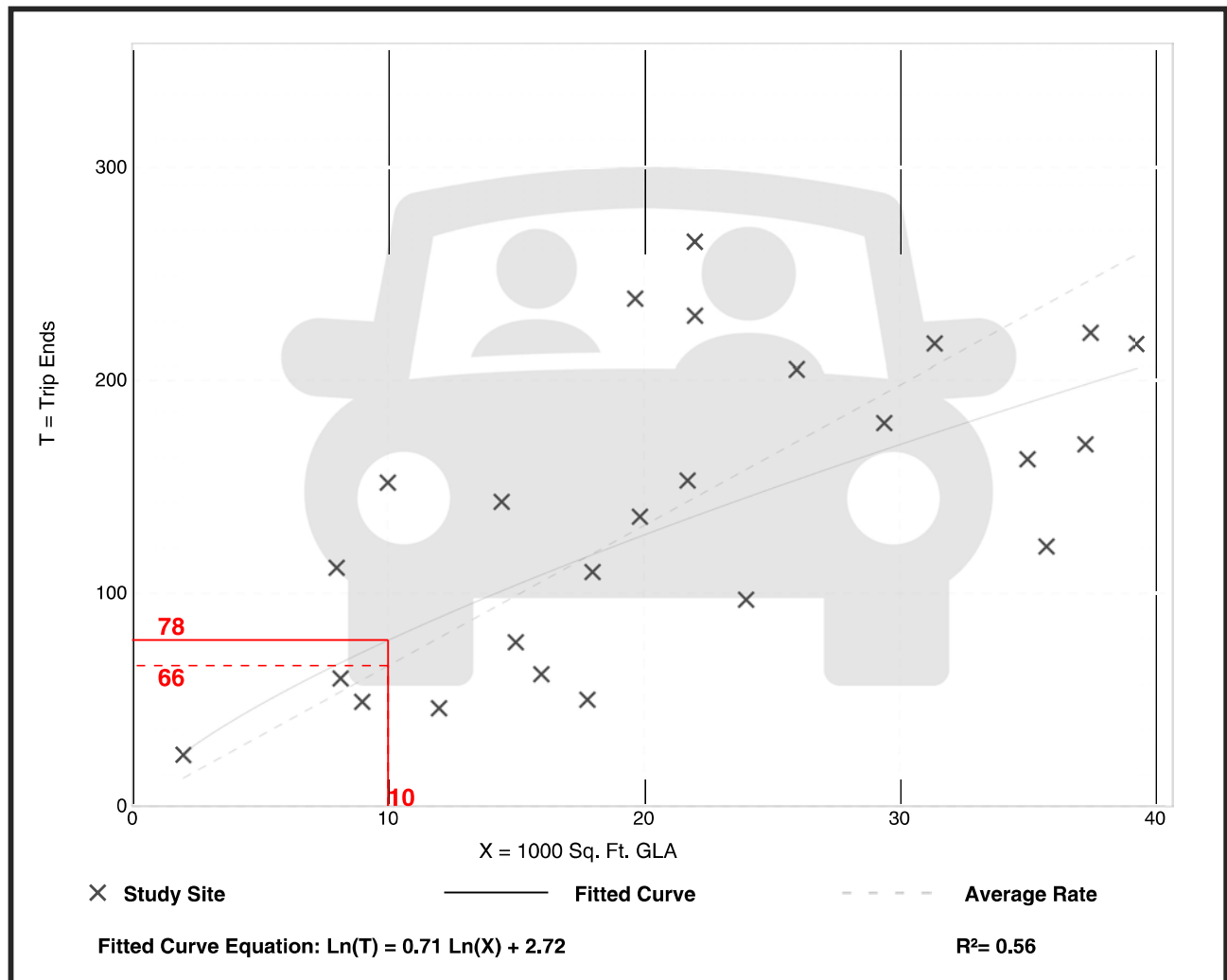
Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 25
 Avg. 1000 Sq. Ft. GLA: 21
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



High-Turnover (Sit-Down) Restaurant (932)

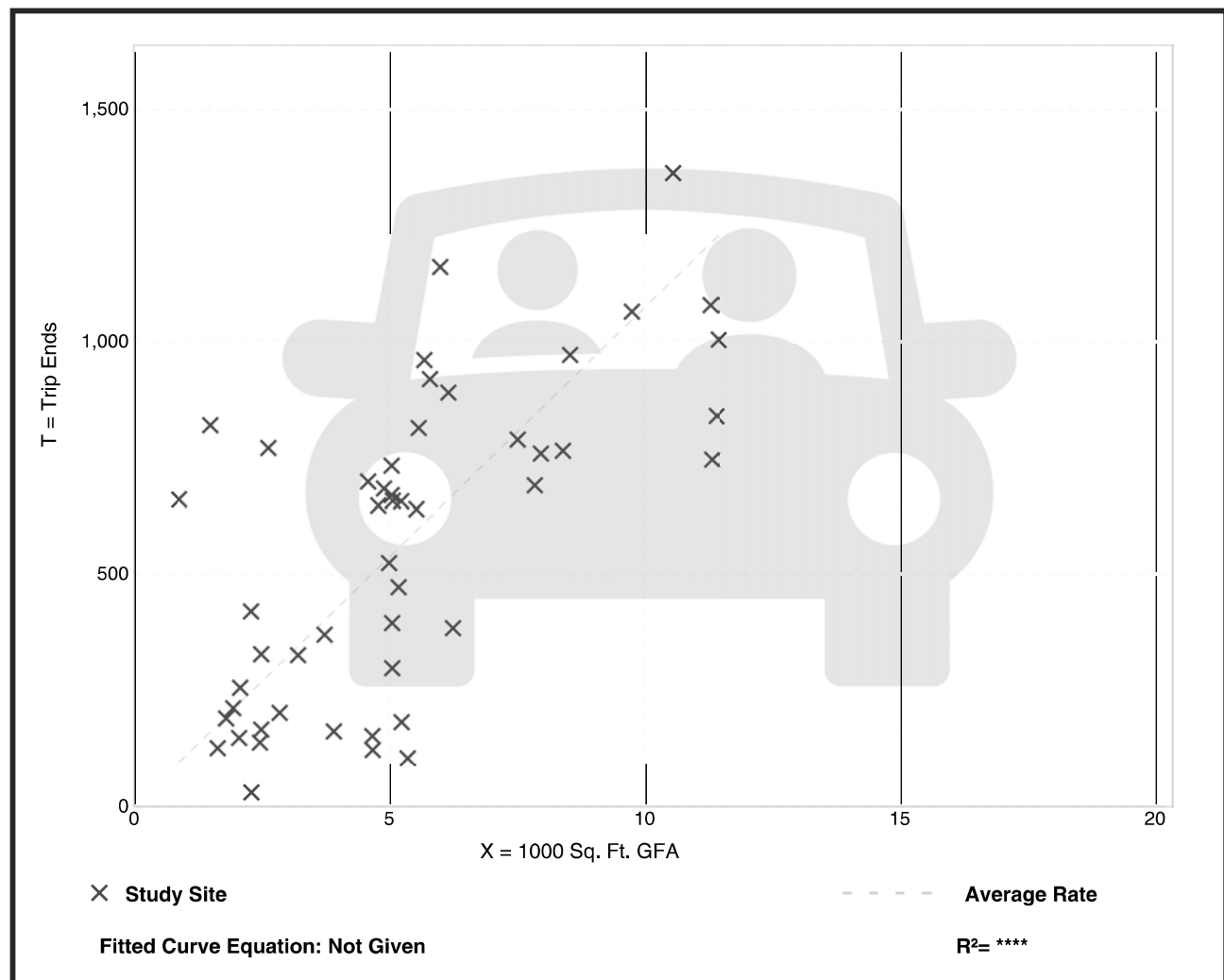
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 50
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
107.20	13.04 - 742.41	66.72

Data Plot and Equation



High-Turnover (Sit-Down) Restaurant

(932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 37

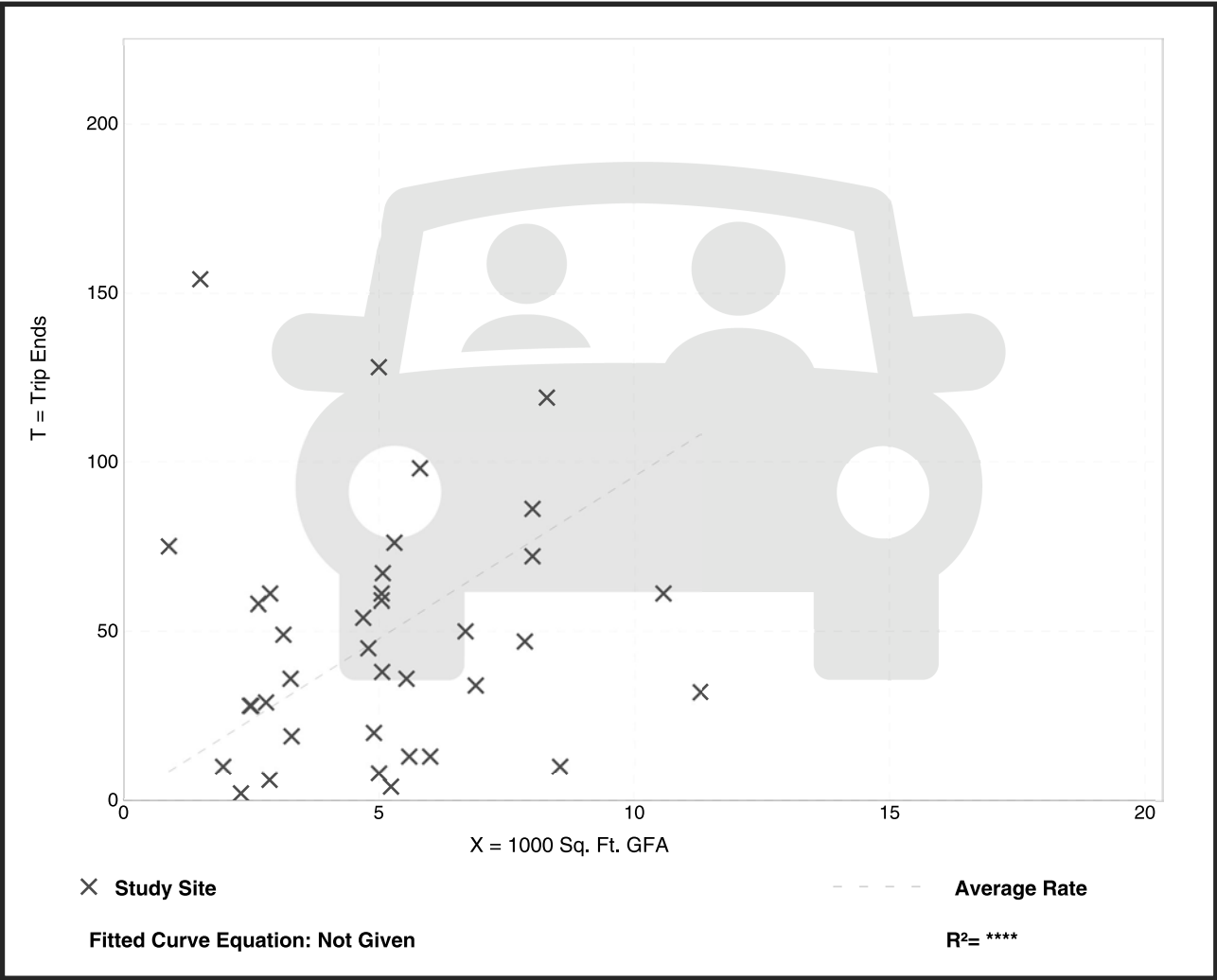
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



High-Turnover (Sit-Down) Restaurant

(932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 104

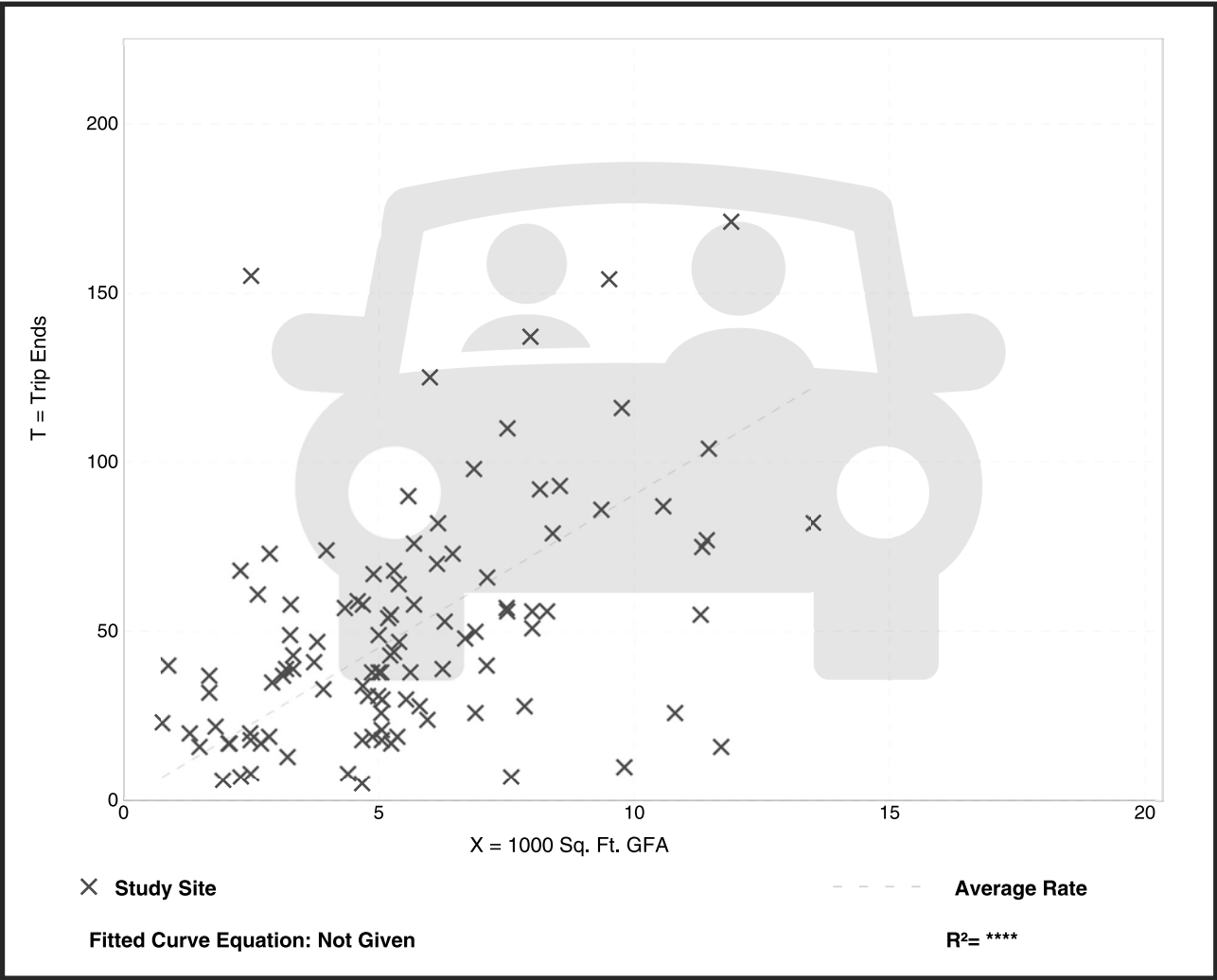
Avg. 1000 Sq. Ft. GFA: 6

Directional Distribution: 61% entering, 39% exiting

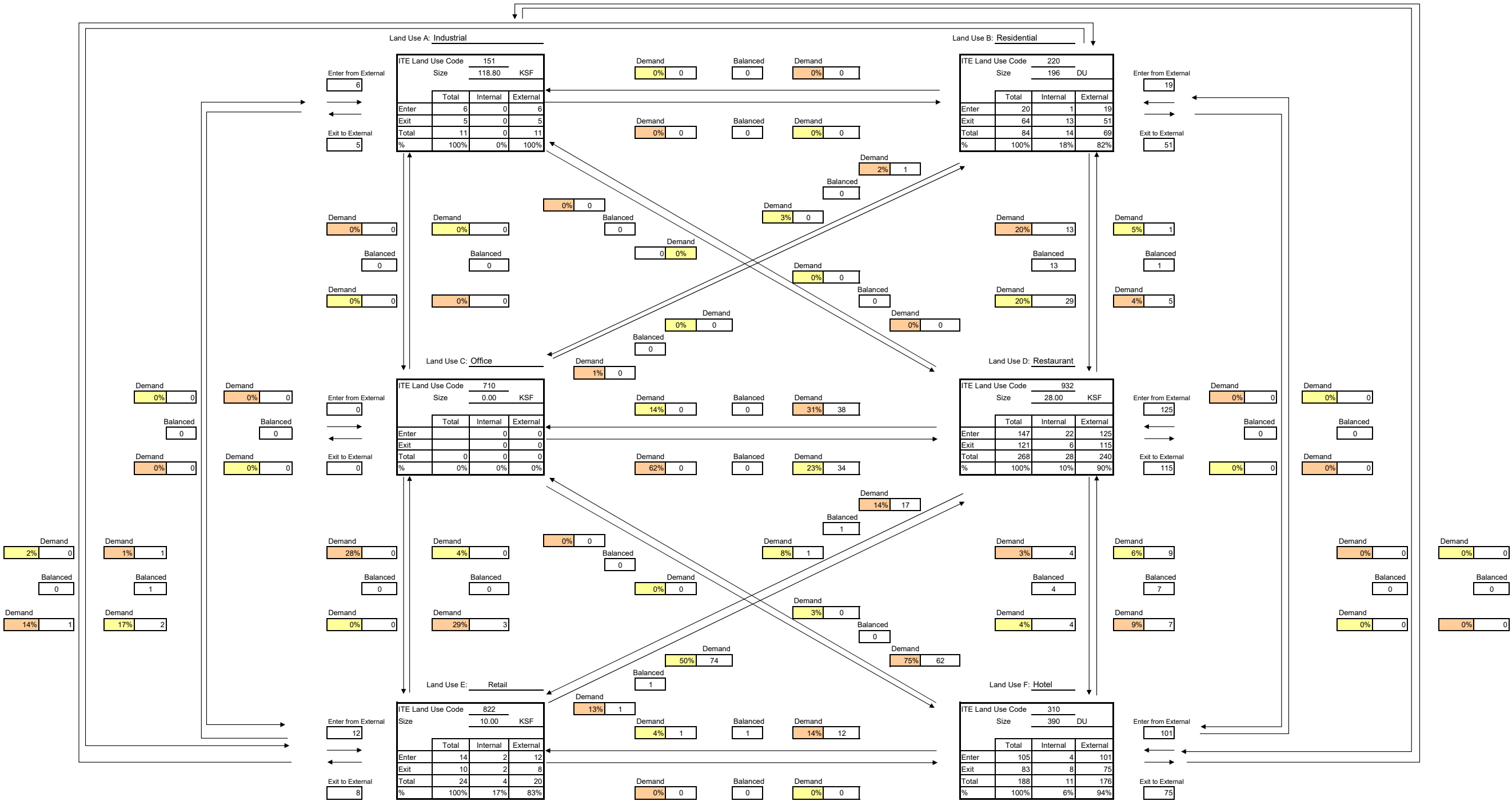
Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Multi-Use Development
Internal Capture Summary

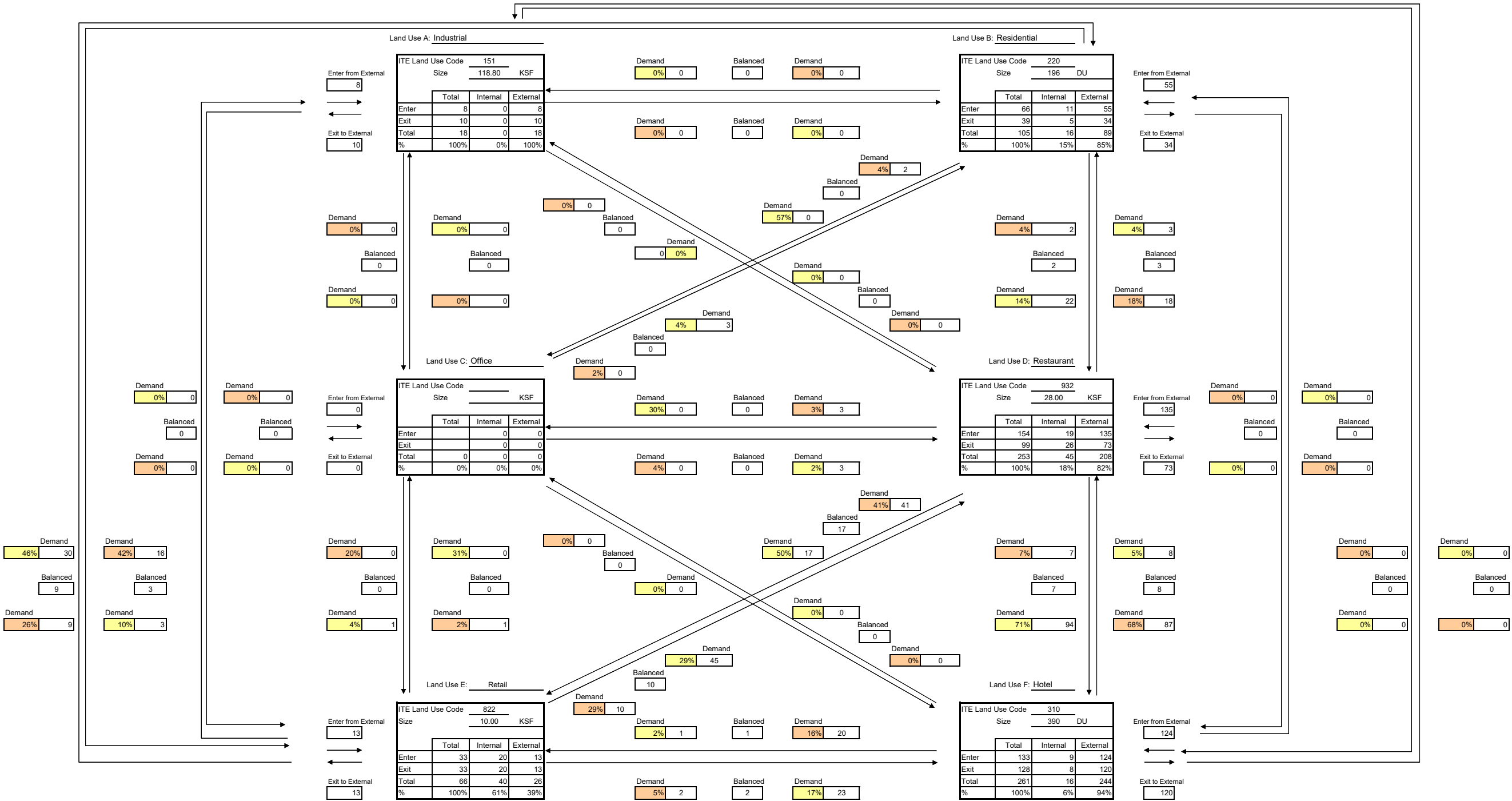


Net External Trips for Multi-Use Development									
	Land Use A Industrial	Land Use B Residential	Land Use C Office	Land Use D Restaurant	Land Use E Retail	Land Use F Hotel	Total	Passer By	Net Trips
Enter	6	19	0	125	12	101	263	4	259
Exit	5	51	0	115	8	75	254	3	251
Sub-Total	11	69	0	240	20	176	516	6	510
Passer By Trips					6		6		
Total	11	69	0	240	14	176	510		510
Single-Use Trip Gen Estimate	11	84	0	268	24	188	575		

Source: Traffic Mobility Consultants, LLC, based on procedures from the ITE Trip Generation Handbook, 3rd Edition

Internal
Capture
59
10.2%

Multi-Use Development
Internal Capture Summary



Net External Trips for Multi-Use Development									
	Land Use A Industrial	Land Use B Residential	Land Use C Office	Land Use D Restaurant	Land Use E Retail	Land Use F Hotel	Total	Passer By	Net Trips
Enter	8	55	0	135	13	124	335	7	328
Exit	10	34	0	73	13	120	250	7	243
Sub-Total	18	89	0	208	26	244	585	14	571
Passer By Trips					14		14		
Total	18	89	0	208	12	244	571		571
Single-Use Trip Gen Estimate	18	105	0	253	66	261	703		

Source: Traffic Mobility Consultants, LLC, based on procedures from the ITE Trip Generation Handbook, 3rd Edition

Internal
Capture
118
16.8%

**Table F.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM
Peak Period Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
921	Albany, NY	July & Aug. 1985	196	4:00–6:00 p.m.	23	42	35	77	—	60,950	Raymond Keyes Assoc.
108	Overland Park, KS	July 1988	111	4:30–5:30 p.m.	26	61	13	74	—	34,000	—
118	Overland Park, KS	Aug. 1988	123	4:30–5:30 p.m.	25	55	20	75	—	—	—
256	Greece, NY	June 1988	120	4:00–6:00 p.m.	38	62	—	62	—	23,410	Sear Brown
160	Greece, NY	June 1988	78	4:00–6:00 p.m.	29	71	—	71	—	57,306	Sear Brown
550	Greece, NY	June 1988	117	4:00–6:00 p.m.	48	52	—	52	—	40,763	Sear Brown
51	Boca Raton, FL	Dec. 1987	110	4:00–6:00 p.m.	33	34	33	67	—	42,225	Kimley-Horn and Assoc. Inc.
1,090	Ross Twp, PA	July 1988	411	2:00–8:00 p.m.	34	56	10	66	—	51,500	Wilbur Smith and Assoc.
97	Upper Dublin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	41	—	—	59	—	34,000	McMahon Associates
118	Tredyffrin Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	24	—	—	76	—	10,000	Booz Allen & Hamilton
122	Lawnside, NJ	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	20,000	Pennoni Associates
126	Boca Raton, FL	Winter 1988/89	—	4:00–6:00 p.m.	43	—	—	57	—	40,000	McMahon Associates
150	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	39	—	—	61	—	26,000	Booz Allen & Hamilton
153	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	50	—	—	50	—	85,000	McMahon Associates
153	Arden, DE	Winter 1988/89	—	4:00–6:00 p.m.	30	—	—	70	—	26,000	Orth-Rodgers & Assoc. Inc.
154	Doylestown, PA	Winter 1988/89	—	4:00–6:00 p.m.	32	—	—	68	—	29,000	Orth-Rodgers & Assoc. Inc.
164	Middletown Twp, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	25,000	Booz Allen & Hamilton
166	Haddon Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	20	—	—	80	—	6,000	Pennoni Associates
205	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	55	—	—	45	—	62,000	McMahon Associates

**Table F.9 (Cont'd) Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 820—Shopping Center**

SIZE (1,000 SQ. FT. GLA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	AVERAGE 24-HOUR TRAFFIC	SOURCE
						PRIMARY	DIVERTED	TOTAL			
237	W. Windsor Twp, NJ	Winter 1988/89	—	4:00–6:00 p.m.	48	—	—	52	—	46,000	Booz Allen & Hamilton
242	Willow Grove, PA	Winter 1988/89	—	4:00–6:00 p.m.	37	—	—	63	—	26,000	McMahon Associates
297	Whitehall, PA	Winter 1988/89	—	4:00–6:00 p.m.	33	—	—	67	—	26,000	Orth-Rodgers & Assoc. Inc.
360	Broward Cnty., FL	Winter 1988/89	—	4:00–6:00 p.m.	44	—	—	56	—	73,000	McMahon Associates
370	Pittsburgh, PA	Winter 1988/89	—	4:00–6:00 p.m.	19	—	—	81	—	33,000	Wilbur Smith
150	Portland, OR	—	519	4:00–6:00 p.m.	68	6	26	32	—	25,000	Kittelson and Associates
150	Portland, OR	—	655	4:00–6:00 p.m.	65	7	28	35	—	30,000	Kittelson and Associates
760	Calgary, Alberta	Oct.–Dec. 1987	15,436	4:00–6:00 p.m.	20	39	41	80	—	—	City of Calgary DOT
178	Bordentown, NJ	Apr. 1989	154	2:00–6:00 p.m.	35	—	—	65	—	37,980	Raymond Keyes Assoc.
144	Manalapan, NJ	July 1990	176	3:30–6:15 p.m.	32	44	24	68	—	69,347	Raymond Keyes Assoc.
549	Natick, MA	Feb. 1989	—	4:45–5:45 p.m.	33	26	41	67	—	48,782	Raymond Keyes Assoc.

Average Pass-By Trip Percentage: 34

“—” means no data were provided

Table F.30 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 932—High-Turnover (Sit-Down) Restaurant

SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS- BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	5.8	Orlando, FL	1992	150	2:00–6:00 p.m.	32	—	—	68	—	TPD Inc.
—	5	Casselberry, FL	1992	65	2:00–6:00 p.m.	58	—	—	42	—	TPD Inc.
168	5.3	Louisville area, KY	1993	24	4:00–6:00 p.m.	50	37	13	50	1,615	Barton- Aschman Assoc.
169	2.9	Louisville area, KY	1993	41	4:00–6:00 p.m.	37	27	36	63	3,935	Barton- Aschman Assoc.
150	3.1	Louisville area, KY	1993	21	4:00–6:00 p.m.	38	29	33	62	2,580	Barton- Aschman Assoc.
250	7.1	New Albany, IN	1993	—	4:00–6:00 p.m.	23	23	54	77	1,565	Barton- Aschman Assoc.
—	8	Kissimmee, FL	1995	664	2:00–6:00 p.m.	40	39	21	60	—	TPD Inc.
—	11	Orlando, FL	1996	267	2:00–6:00 p.m.	38	43	19	62	—	TPD Inc.
—	12	Orlando, FL	1996	317	2:00–6:00 p.m.	29	51	20	71	—	TPD Inc.
—	4.6	Orlando, FL	1992	276	2:00–6:00 p.m.	63	—	—	37	—	TPD Inc.
—	5.7	Orlando, FL	1994	308	2:00–6:00 p.m.	57	—	—	43	—	TPD Inc.
—	6.2	Orlando, FL	1995	521	2:00–6:00 p.m.	46	43	11	54	—	TPD Inc.

Average Pass-By Trip Percentage: 43

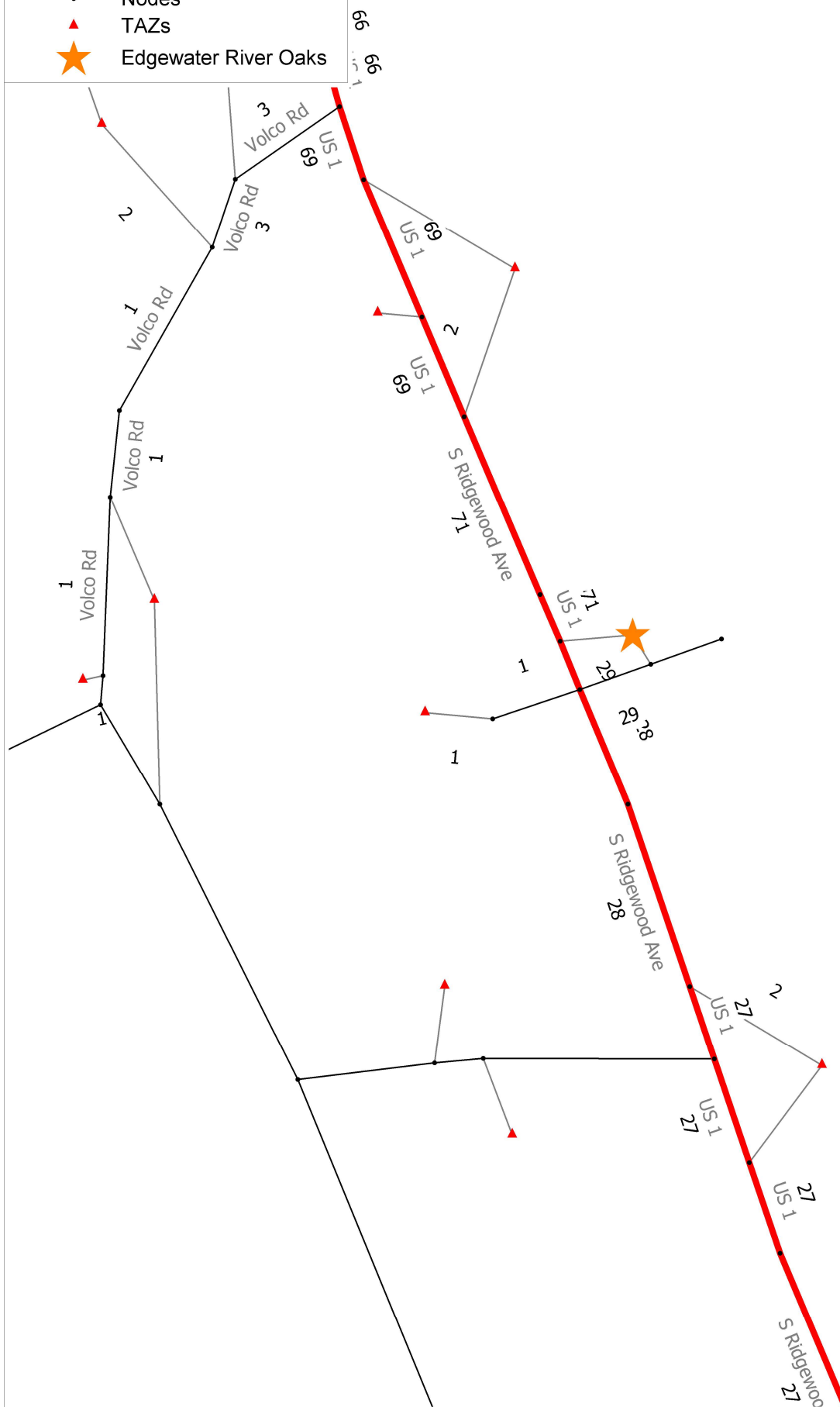
“—” means no data were provided

Appendix F
Model Output Plot

Nodes Legend

- Nodes
- ▲ TAZs
- ★ Edgewater River Oaks

North



Links Legend

- 1 Lane per Direction
- 2 Lanes per Direction
- 3 Lanes per Direction
- 4+ Lanes per Direction
- Centroid Connector

CFRPM 7 CF2030 Edgewater River Oaks - Edgewater, FL TAZ 7676

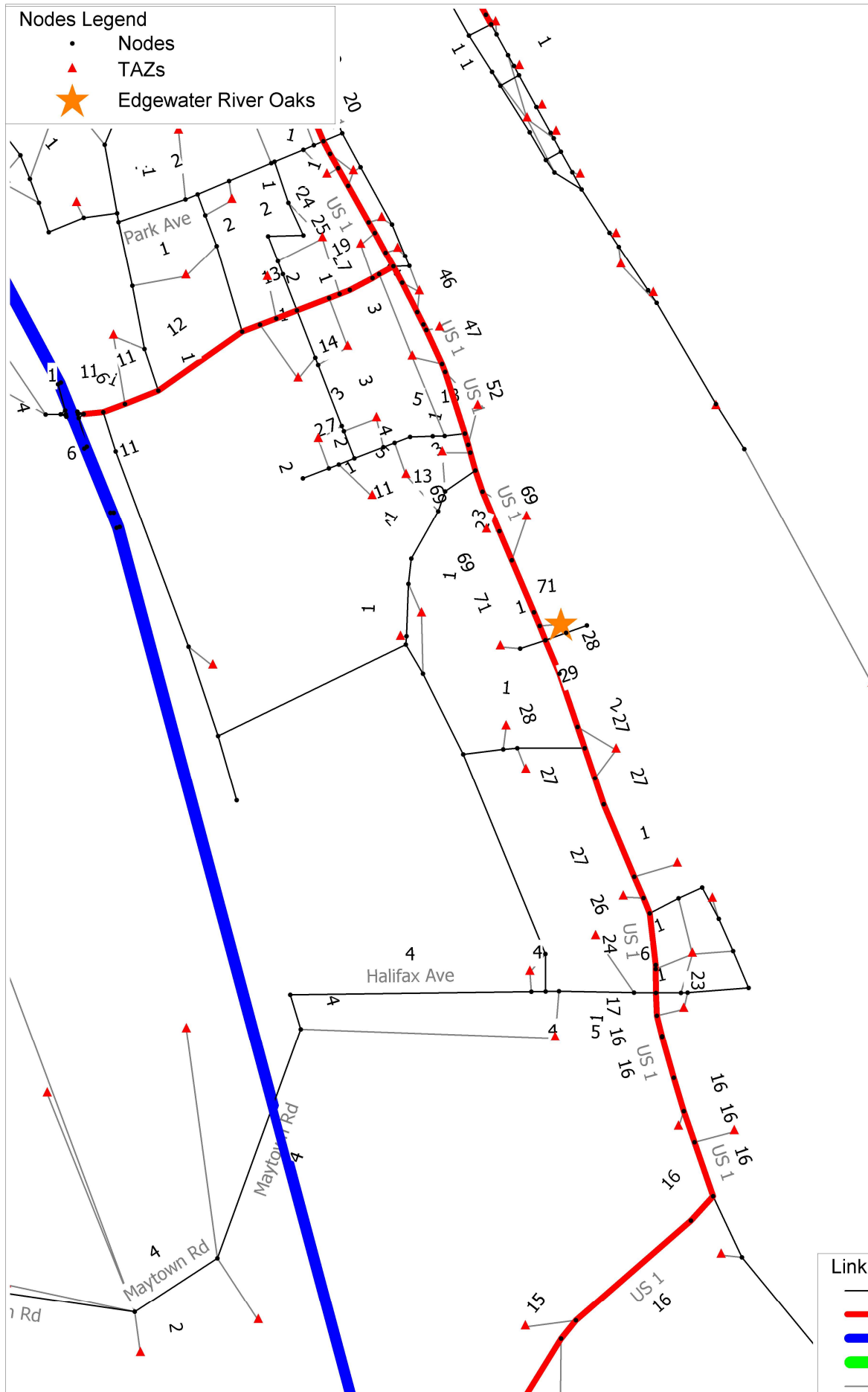
Project Trip Distribution

C:\FSUTMS\D5\CFRPM7\Base\CF_2030\P22160\OUTPUT\HWYLOAD_SL_AllDay_A30.NET Wed 26 Oct 2022

Nodes Legend

- Nodes
- ▲ TAZs
- ★ Edgewater River Oaks

North



Links Legend

- 1 Lane per Direction
- 2 Lanes per Direction
- 3 Lanes per Direction
- 4+ Lanes per Direction
- Centroid Connector

CFRPM 7 CF2030 Edgewater River Oaks - Edgewater, FL TAZ 7676

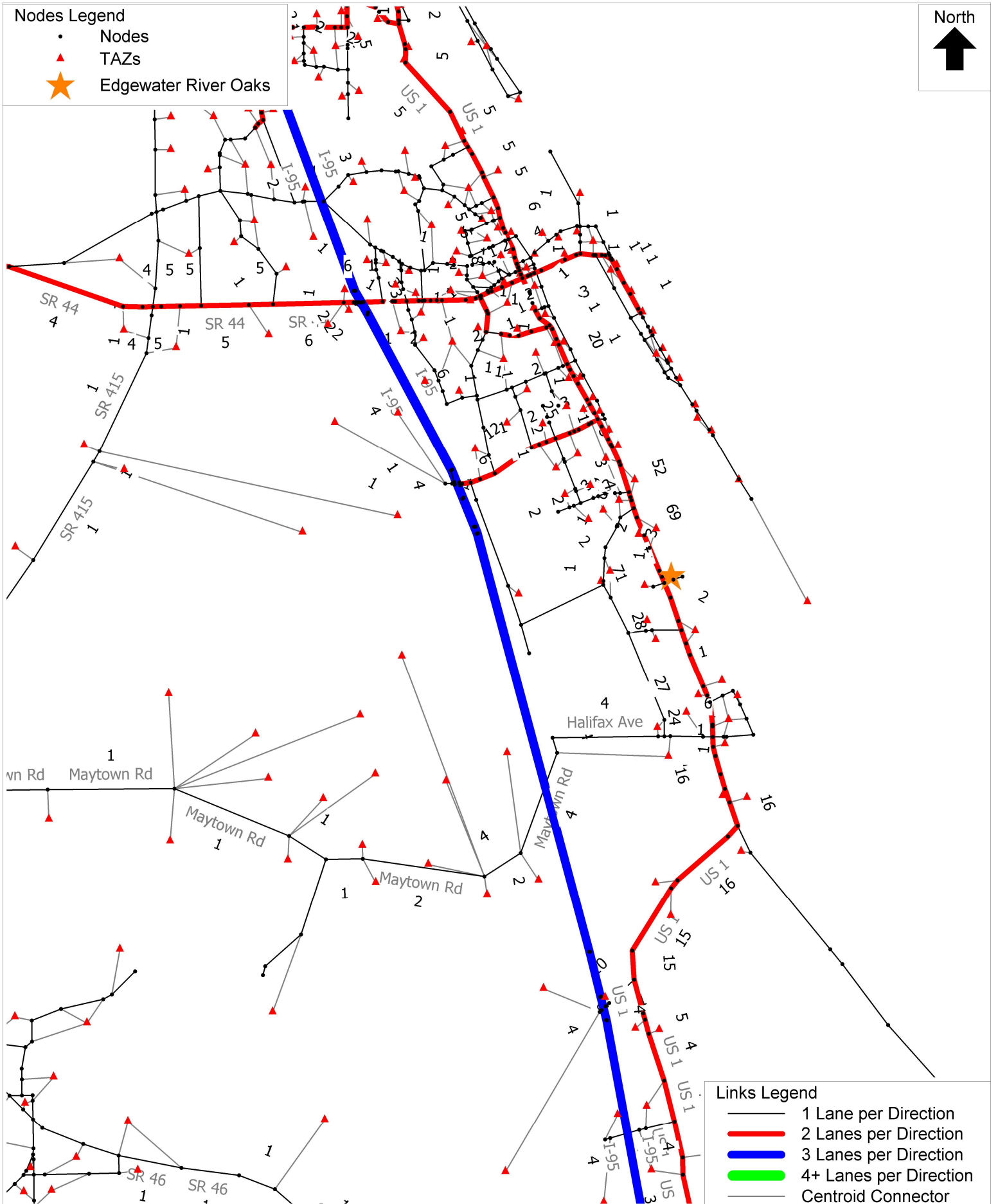
Project Trip Distribution

C:\FSUTMS\D5\CFRPM7\Base\CF_2030\P22160\OUTPUT\HWYLOAD_SL_AllDay_A30.NET Wed 26 Oct 2022

Nodes Legend

- Nodes
- ▲ TAZs
- ★ Edgewater River Oaks

North



Links Legend

- 1 Lane per Direction
- 2 Lanes per Direction
- 3 Lanes per Direction
- 4+ Lanes per Direction
- Centroid Connector

CFRPM 7 CF2030 Edgewater River Oaks - Edgewater, FL TAZ 7676

Project Trip Distribution

C:\FSUTMS\D5\CFRPM7\Base\CF_2030\P22160\OUTPUT\HWYLOAD_SL_AllDay_A30.NET Wed 26 Oct 2022

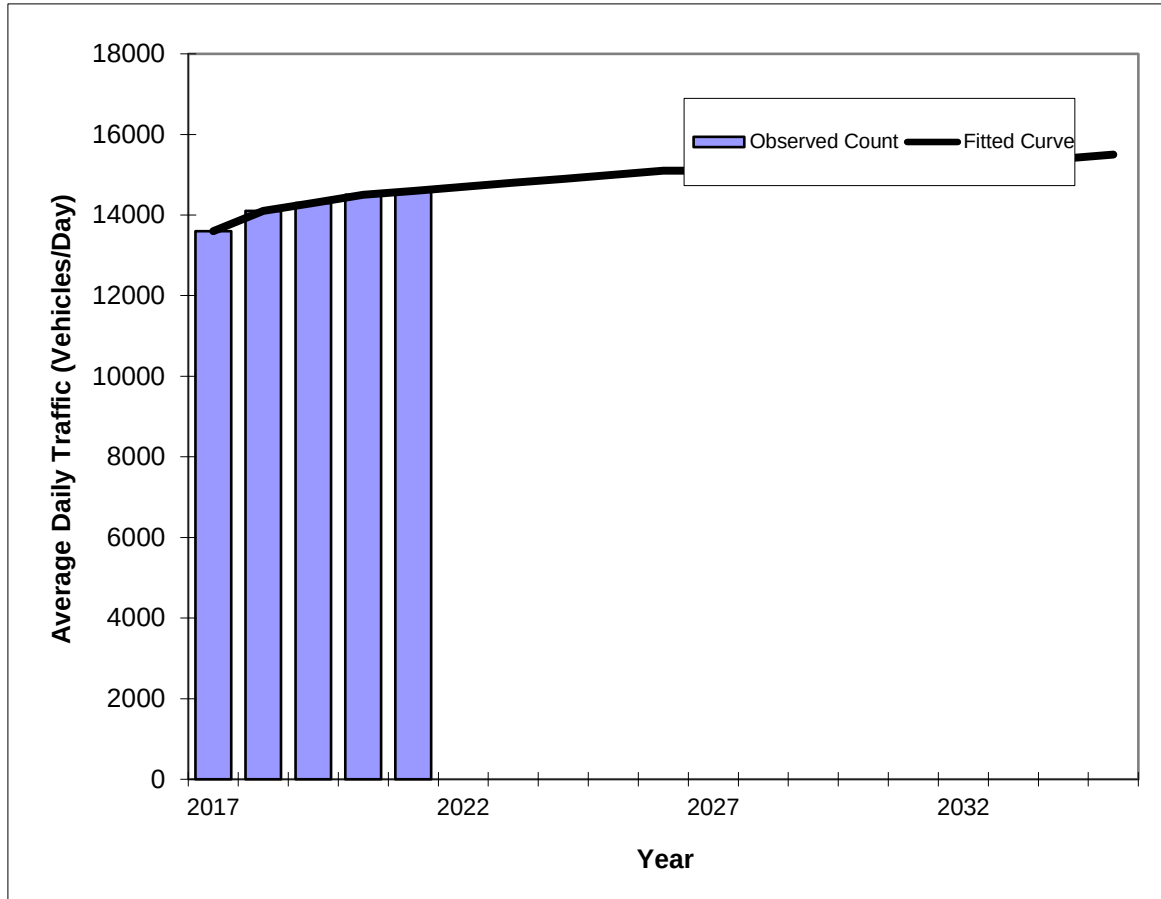
Appendix G
Historical Growth Rates & Vested Trip Information

Traffic Trends - V03.a

US 1 -- H.H. Birch Rd to Volco Rd

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	9929
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2017	13600	13600
2018	14100	14100
2019	14300	14300
2020	14500	14500
2021	14600	14600
2033 Opening Year Trend		
2033	N/A	15400
2034 Mid-Year Trend		
2034	N/A	15400
2035 Design Year Trend		
2035	N/A	15500
TRANPLAN Forecasts/Trends		

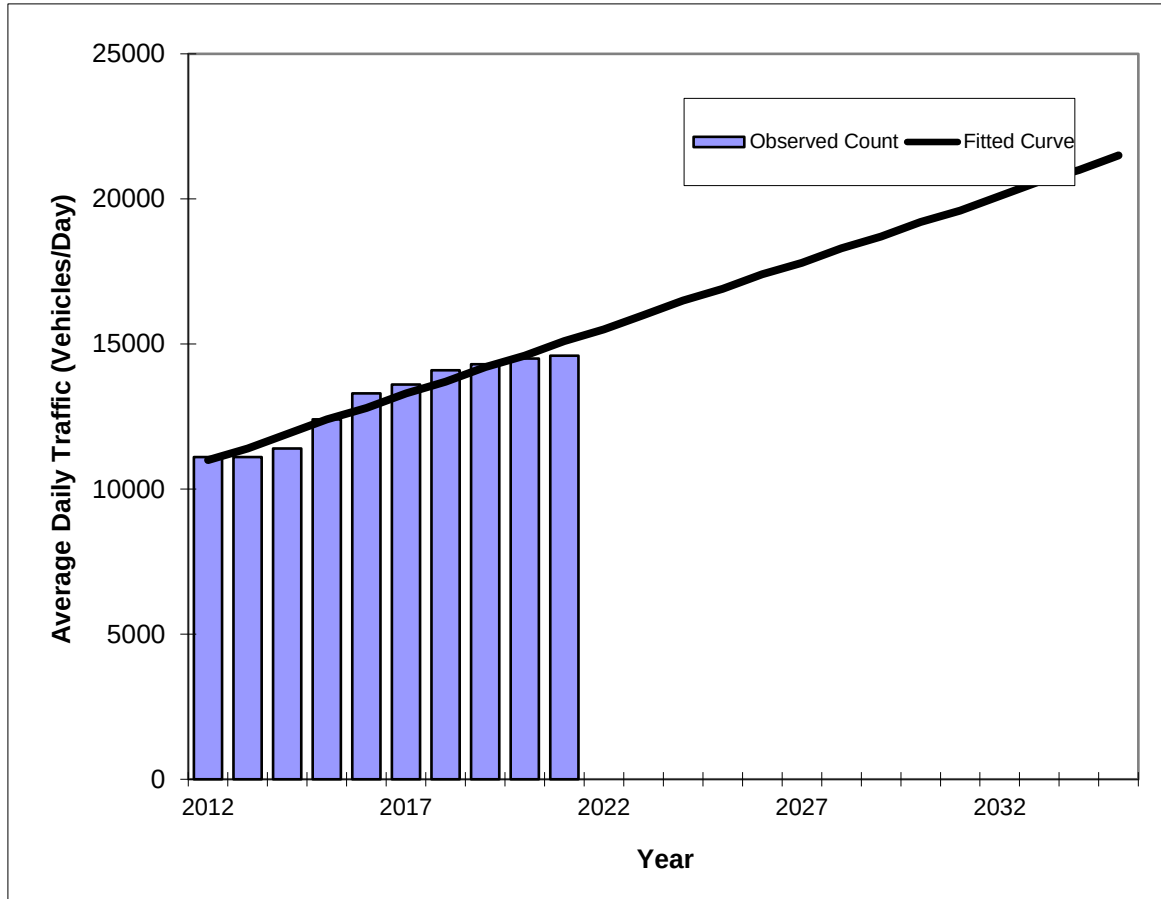
Trend R-squared:	99.45%
Compounded Annual Historic Growth Rate:	1.79%
Compounded Growth Rate (2021 to Design Year):	0.43%
Printed:	15-Nov-23
Decaying Exponential Growth Option	

*Axle-Adjusted

Traffic Trends - V03.a **US 1 -- H.H. Birch Rd to Volco Rd**

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	9929
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	11100	11000
2013	11100	11400
2014	11400	11900
2015	12400	12400
2016	13300	12800
2017	13600	13300
2018	14100	13700
2019	14300	14200
2020	14500	14600
2021	14600	15100
2033 Opening Year Trend		
2033	N/A	20600
2034 Mid-Year Trend		
2034	N/A	21000
2035 Design Year Trend		
2035	N/A	21500
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	456
Trend R-squared:	93.72%
Trend Annual Historic Growth Rate:	4.14%
Trend Growth Rate (2021 to Design Year):	3.03%
Printed:	15-Nov-23
Straight Line Growth Option	

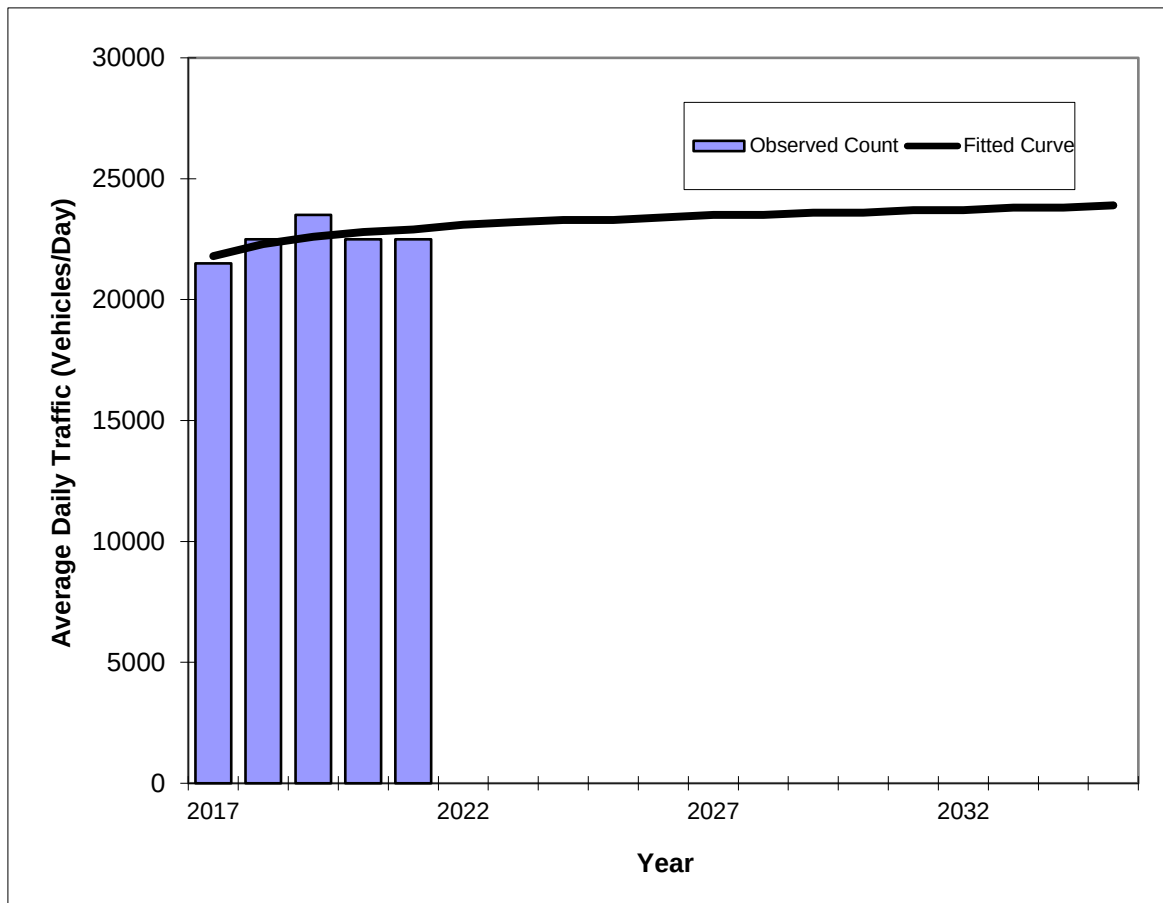
*Axle-Adjusted

Traffic Trends - V03.a

US 1 -- Volco Rd to SR 442/Indian River Blvd

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	27
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2017	21500	21800
2018	22500	22300
2019	23500	22600
2020	22500	22800
2021	22500	22900
2033 Opening Year Trend		
2033	N/A	23800
2034 Mid-Year Trend		
2034	N/A	23800
2035 Design Year Trend		
2035	N/A	23900
TRANPLAN Forecasts/Trends		

Trend R-squared:	37.36%
Compounded Annual Historic Growth Rate:	1.24%
Compounded Growth Rate (2021 to Design Year):	0.31%
Printed:	15-Nov-23
Decaying Exponential Growth Option	

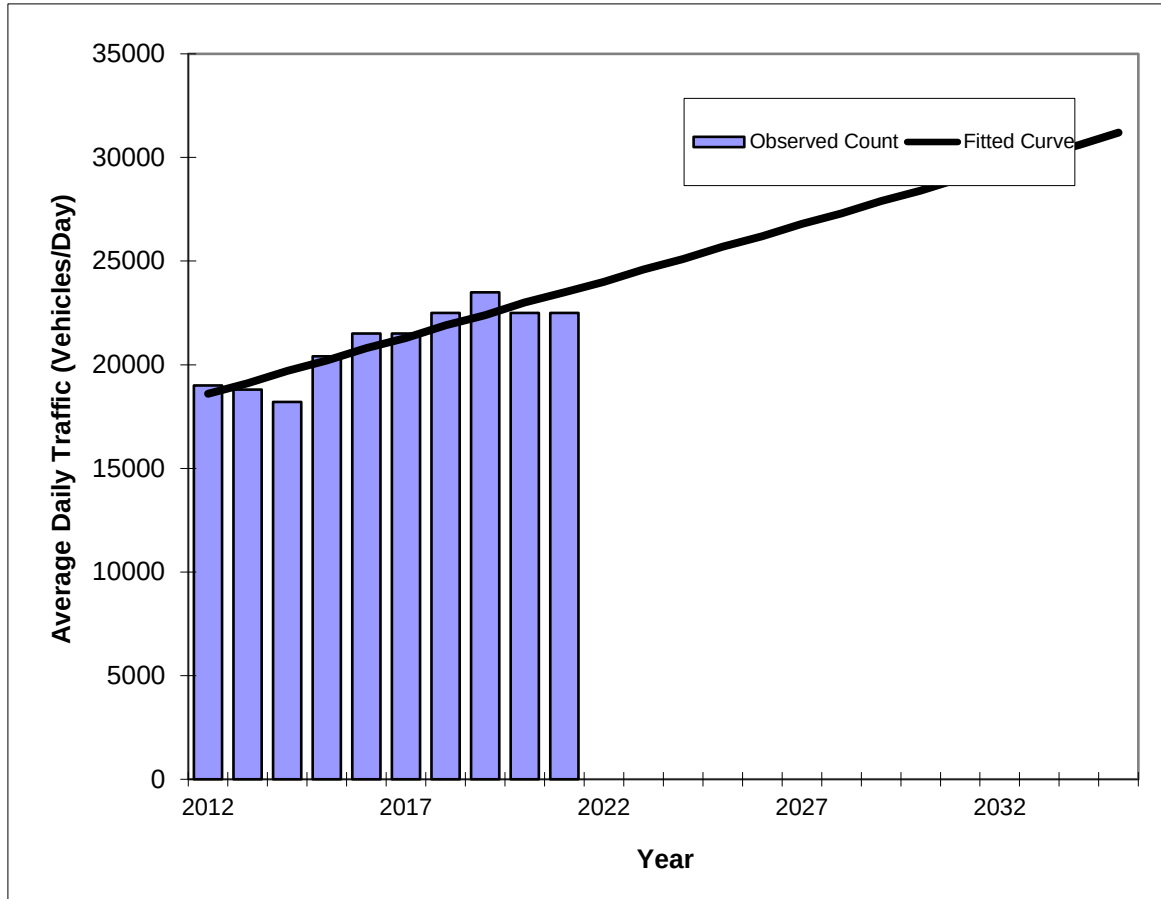
*Axle-Adjusted

Traffic Trends - V03.a

US 1 -- Volco Rd to SR 442/Indian River Blvd

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	27
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	19000	18600
2013	18800	19100
2014	18200	19700
2015	20400	20200
2016	21500	20800
2017	21500	21300
2018	22500	21900
2019	23500	22400
2020	22500	23000
2021	22500	23500
2033 Opening Year Trend		
2033	N/A	30100
2034 Mid-Year Trend		
2034	N/A	30600
2035 Design Year Trend		
2035	N/A	31200
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	547
Trend R-squared:	80.77%
Trend Annual Historic Growth Rate:	2.93%
Trend Growth Rate (2021 to Design Year):	2.34%
Printed:	15-Nov-23
Straight Line Growth Option	

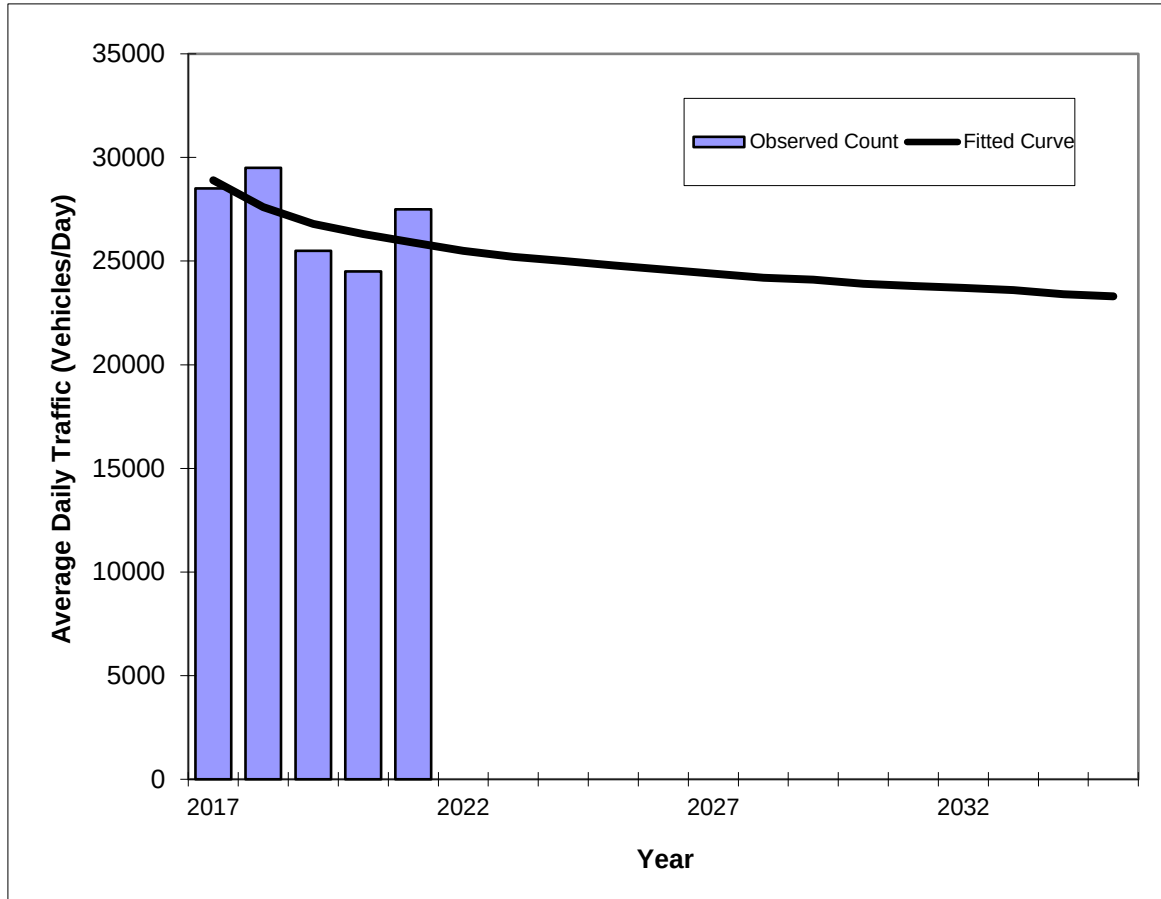
*Axle-Adjusted

Traffic Trends - V03.a

US 1 -- SR 442/Indian River Blvd to Park Ave

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	5170
Highway:	US 1



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2017	28500	28900
2018	29500	27600
2019	25500	26800
2020	24500	26300
2021	27500	25900
2033 Opening Year Trend		
2033	N/A	23600
2034 Mid-Year Trend		
2034	N/A	23400
2035 Design Year Trend		
2035	N/A	23300
TRANPLAN Forecasts/Trends		

Trend R-squared:	33.58%
Compounded Annual Historic Growth Rate:	-2.70%
Compounded Growth Rate (2021 to Design Year):	-0.75%
Printed:	15-Nov-23
Decaying Exponential Growth Option	

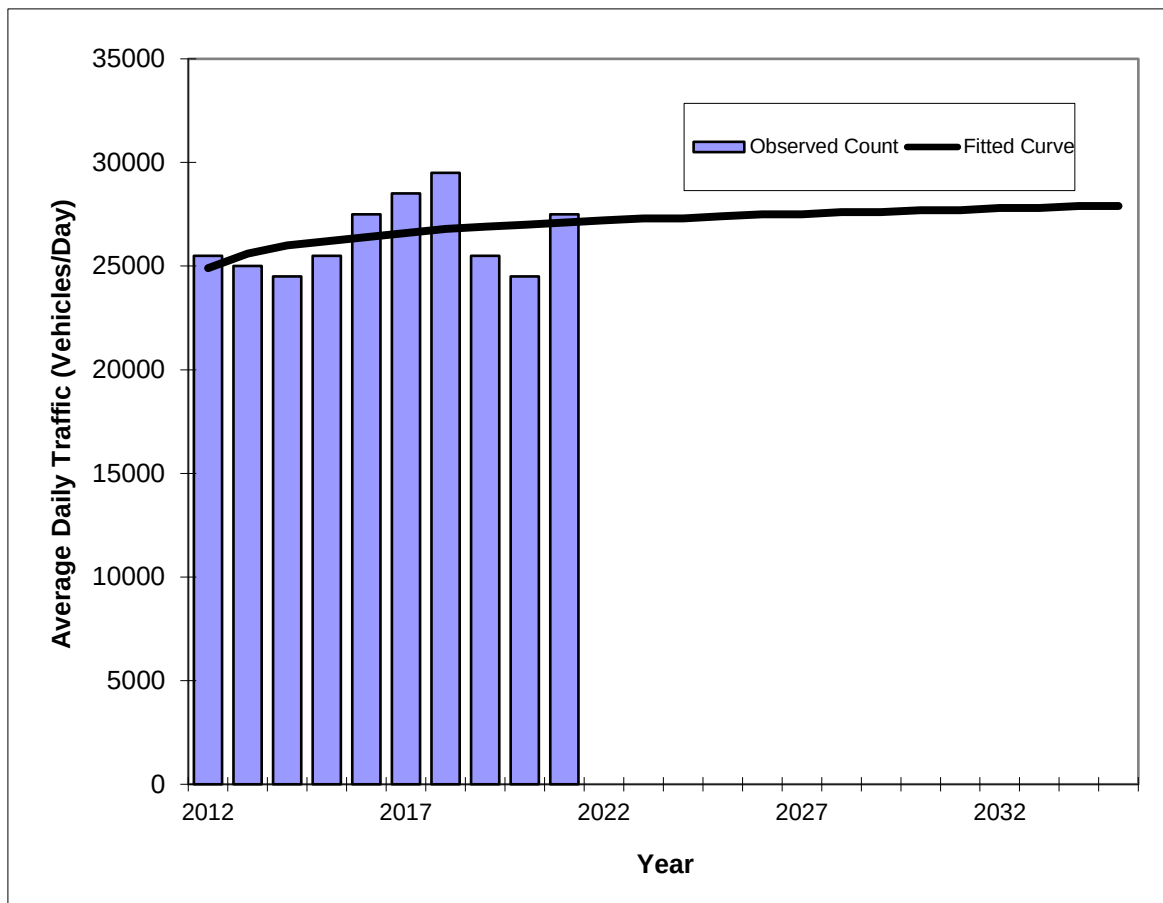
*Axle-Adjusted

Traffic Trends - V03.a

US 1 -- SR 442/Indian River Blvd to Park Ave

FIN#	1234
Location	1

County:	Volusia (79)
Station #:	5170
Highway:	US 1

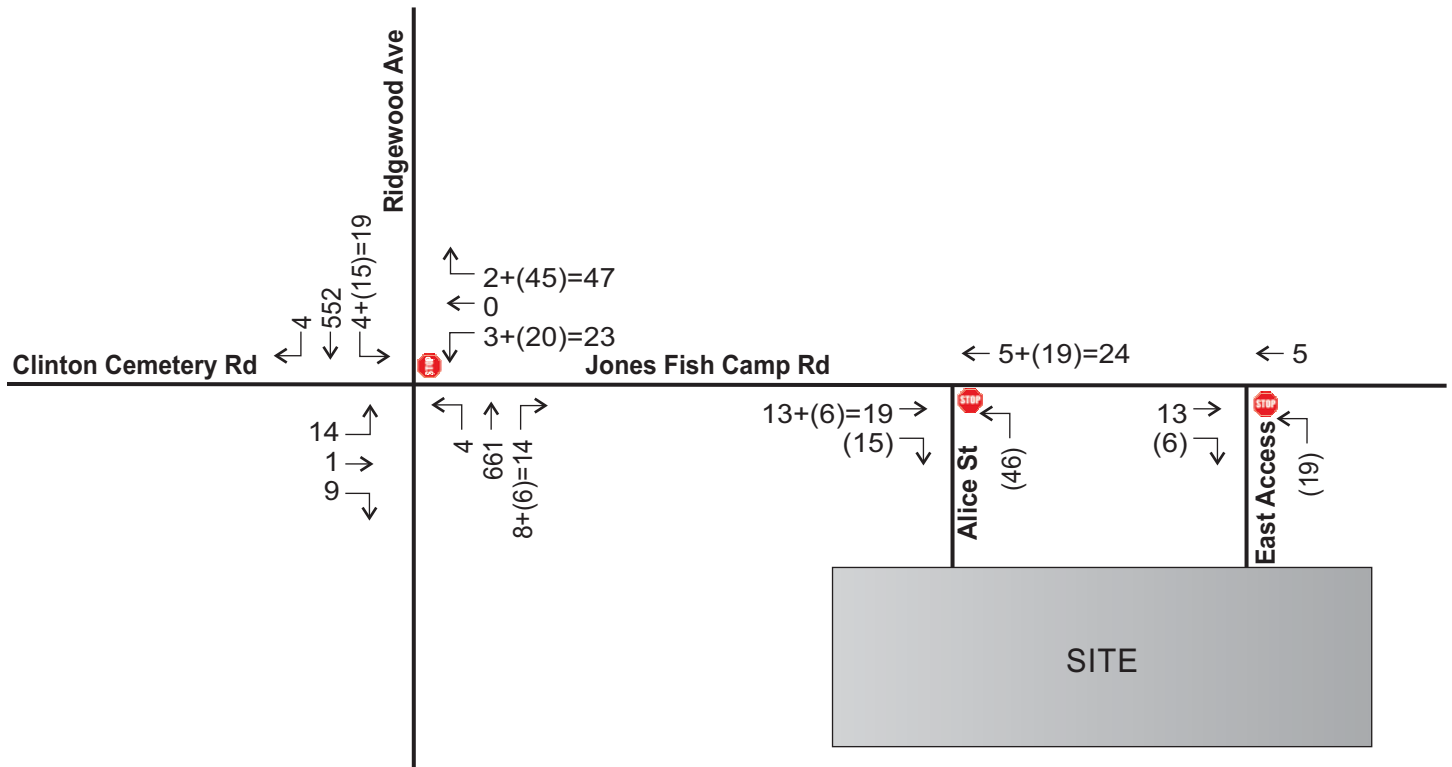


Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	25500	24900
2013	25000	25600
2014	24500	26000
2015	25500	26200
2016	27500	26400
2017	28500	26600
2018	29500	26800
2019	25500	26900
2020	24500	27000
2021	27500	27100
2033 Opening Year Trend		
2033	N/A	27800
2034 Mid-Year Trend		
2034	N/A	27900
2035 Design Year Trend		
2035	N/A	27900
TRANPLAN Forecasts/Trends		

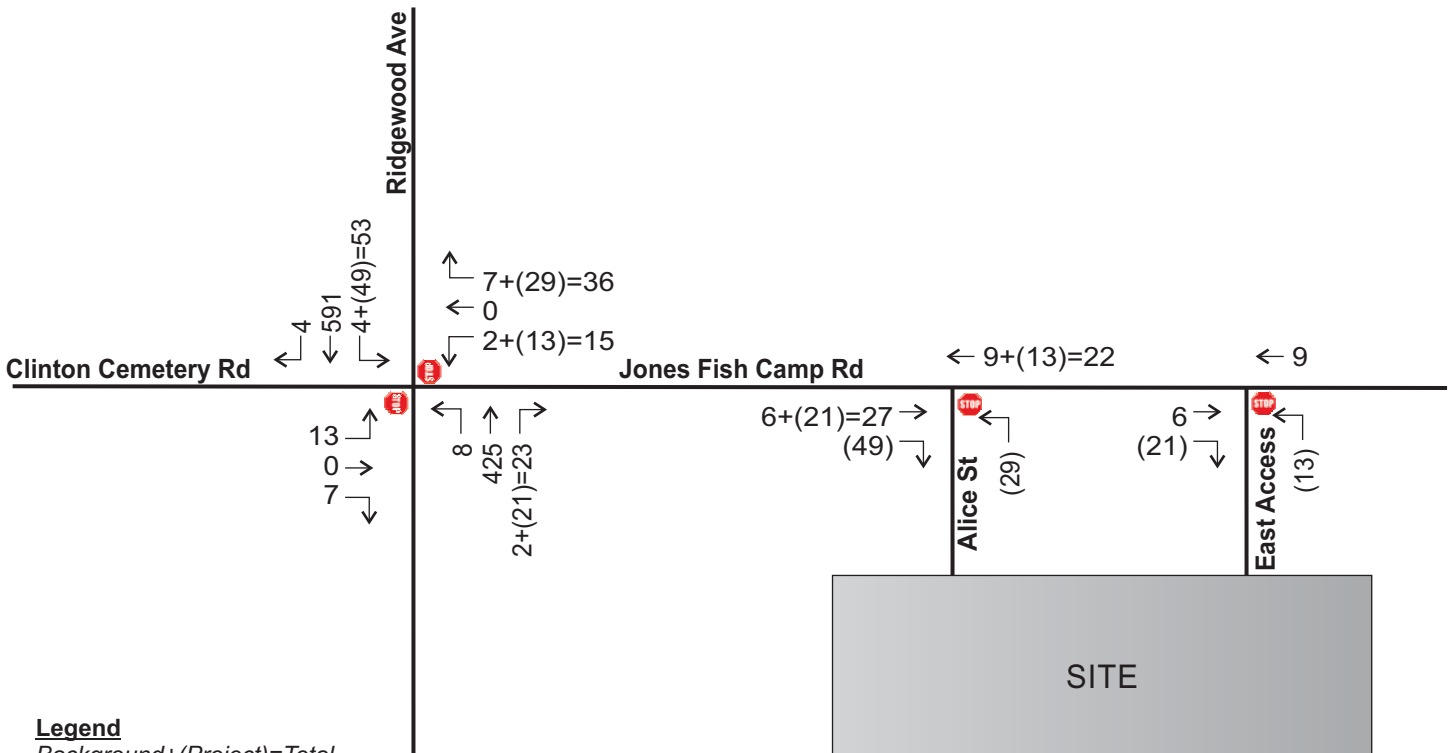
Trend R-squared:	14.95%
Compounded Annual Historic Growth Rate:	0.95%
Compounded Growth Rate (2021 to Design Year):	0.21%
Printed:	15-Nov-23
Decaying Exponential Growth Option	

*Axle-Adjusted

AM Peak



PM Peak

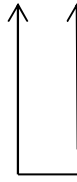


Legend
Background+(Project)=Total

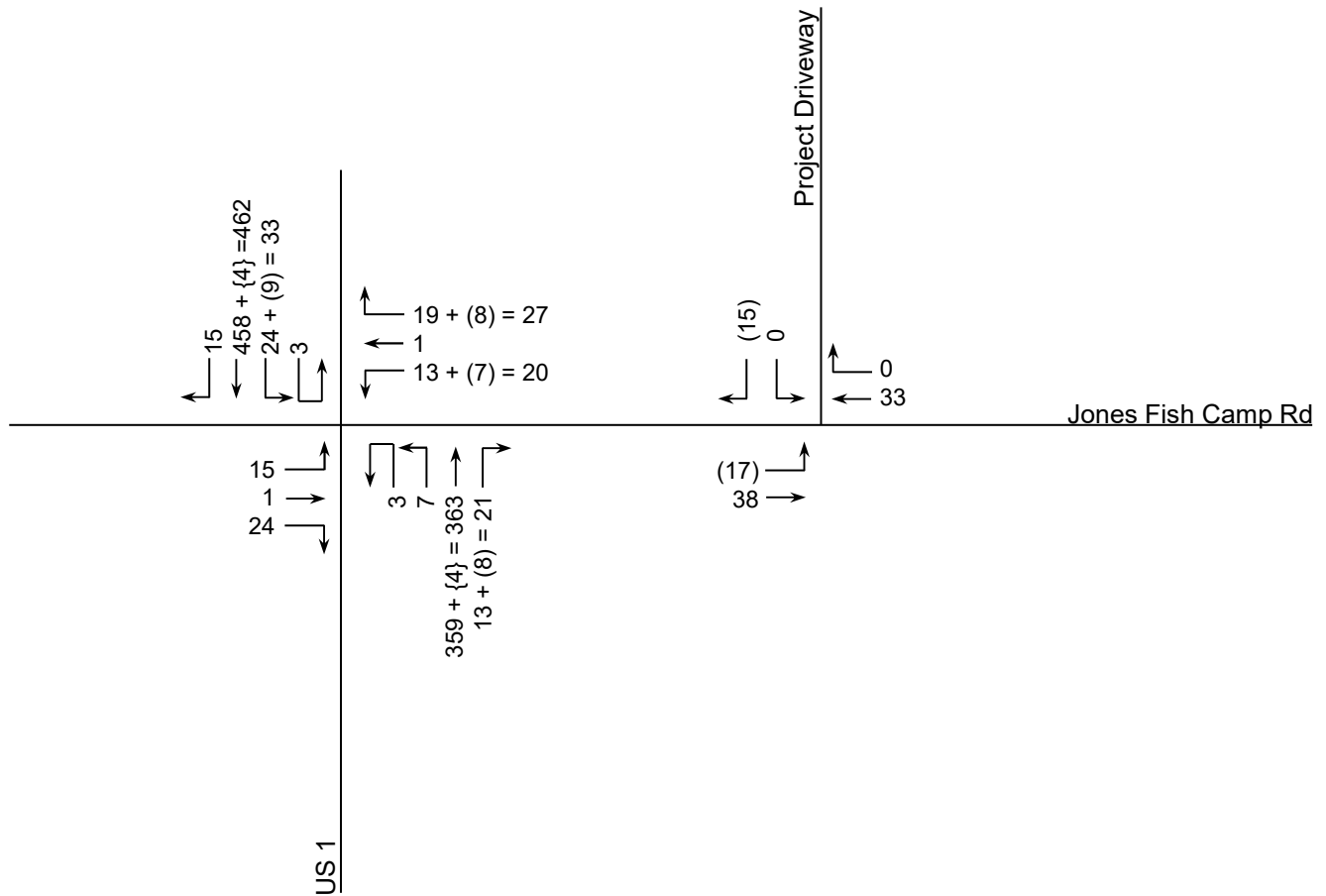
AM Peak Hour			
	Enter	Exit	Total
Project	17	15	32

Legend:

XX + {XX} + (XX) = XXX



2023 Total Build-Out Traffic
Project Trips
Background Growth
2022 Existing Trips



Edgewater
Dollar General



NTS

**Build-Out
AM Peak Hour
Traffic Volumes**

Project No.: 5450.08

Figure: 4



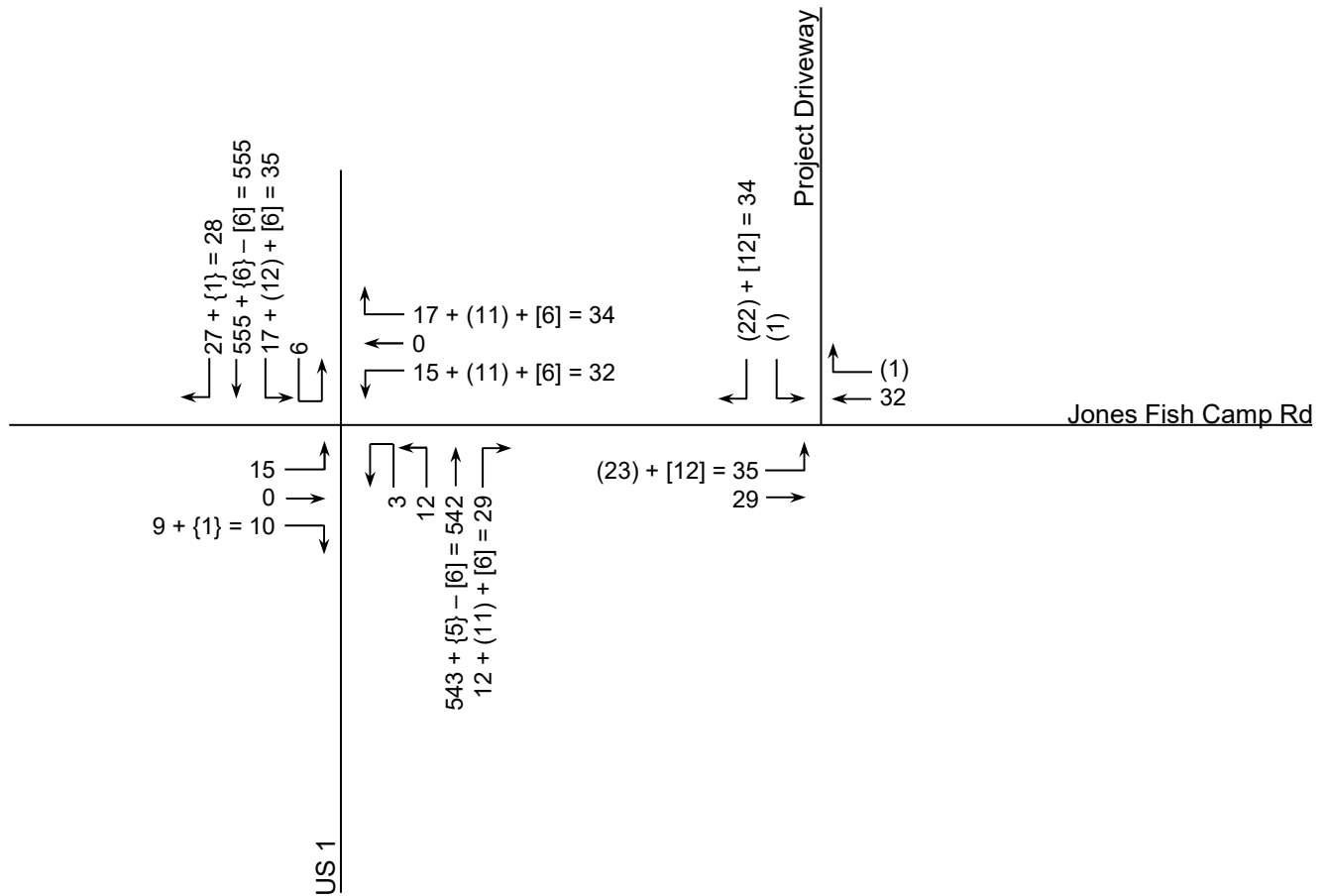
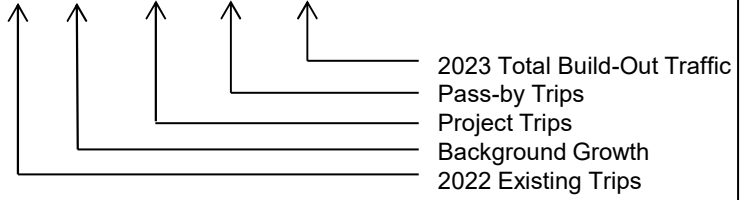
LTG *Engineering
& Planning*

1049 Eber Blvd., Suite 104, Melbourne, Florida 32904
Telephone: 321.499.4679 Fax: 321.499.4680

PM Peak Hour			
	Enter	Exit	Total
Project	24	23	47
Pass-by	12	12	24

Legend:

$XX + \{XX\} + (XX) + [XX] = XXX$



Edgewater
Dollar General



NTS

Build-Out
PM Peak Hour
Traffic Volumes

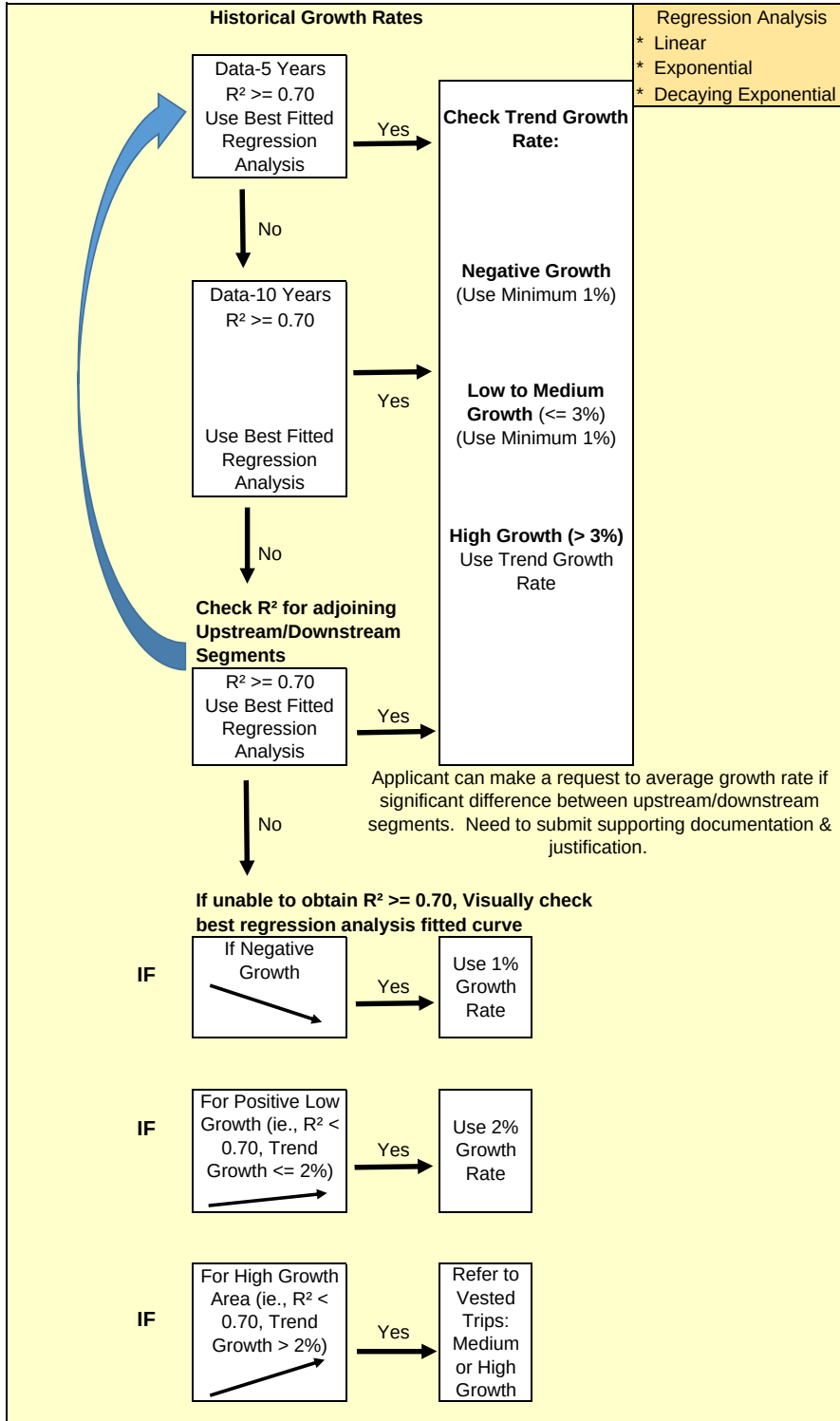
Project No.: 5450.08

Figure: 5

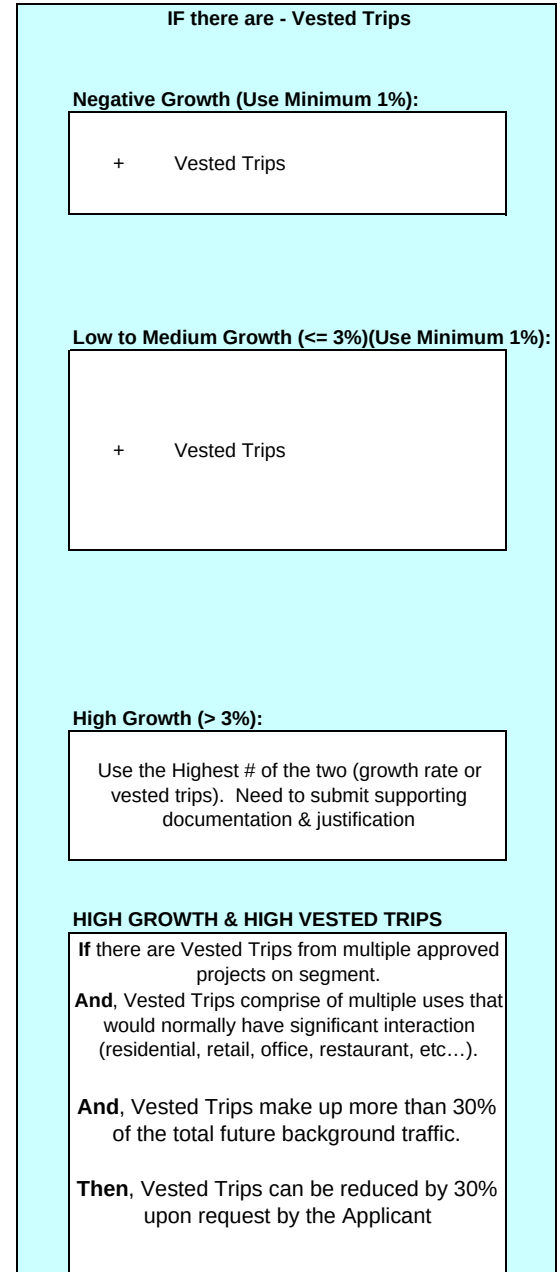


1049 Eber Blvd., Suite 104, Melbourne, Florida 32904
Telephone: 321.499.4679 Fax: 321.499.4680

Volusia County's Segment Growth Rates and Vested Trips Instructions Policy



AND



Signed: _____
 Jon E. Cheney, P.E.

Date: _____

Appendix H
Raw Counts & FDOT Seasonal Factor Report

TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

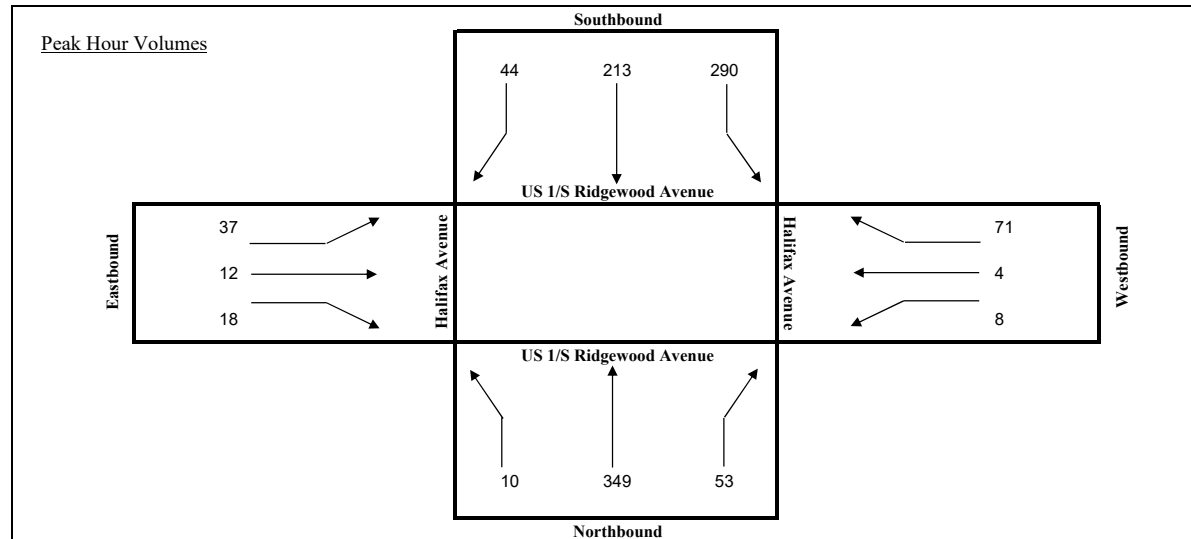
Intersection (N/S): US 1/S Ridgewood Avenue

Intersection (E/W): Halifax Avenue

Date: 3/30/2023

		US 1/S Ridgewood Avenue			US 1/S Ridgewood Avenue			Halifax Avenue			Halifax Avenue			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	3	45	9	20	52	11	9	2	6	2	1	6	166
7:15 AM	7:30 AM	1	58	6	50	46	9	12	5	2	1	3	10	203
7:30 AM	7:45 AM	4	84	16	95	53	13	5	6	8	3	0	16	303
7:45 AM	8:00 AM	3	121	20	105	62	9	6	0	2	3	1	29	361
8:00 AM	8:15 AM	2	86	11	40	52	13	14	1	6	1	0	16	242
8:15 AM	8:30 AM	1	58	3	16	40	8	11	0	3	4	0	11	155
8:30 AM	8:45 AM	1	49	2	9	44	7	7	1	5	3	3	6	137
8:45 AM	9:00 AM	2	36	3	6	35	8	11	2	2	3	1	4	113

Total for:	7:00 AM	8:00 AM	11	308	51	270	213	42	32	13	18	9	5	61	1033
Total for:	8:00 AM	9:00 AM	6	229	19	71	171	36	43	4	16	11	4	37	647
Tota Peak Hour:	7:15 AM	8:15 AM	10	349	53	290	213	44	37	12	18	8	4	71	1109
Overall PHF:	0.77														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

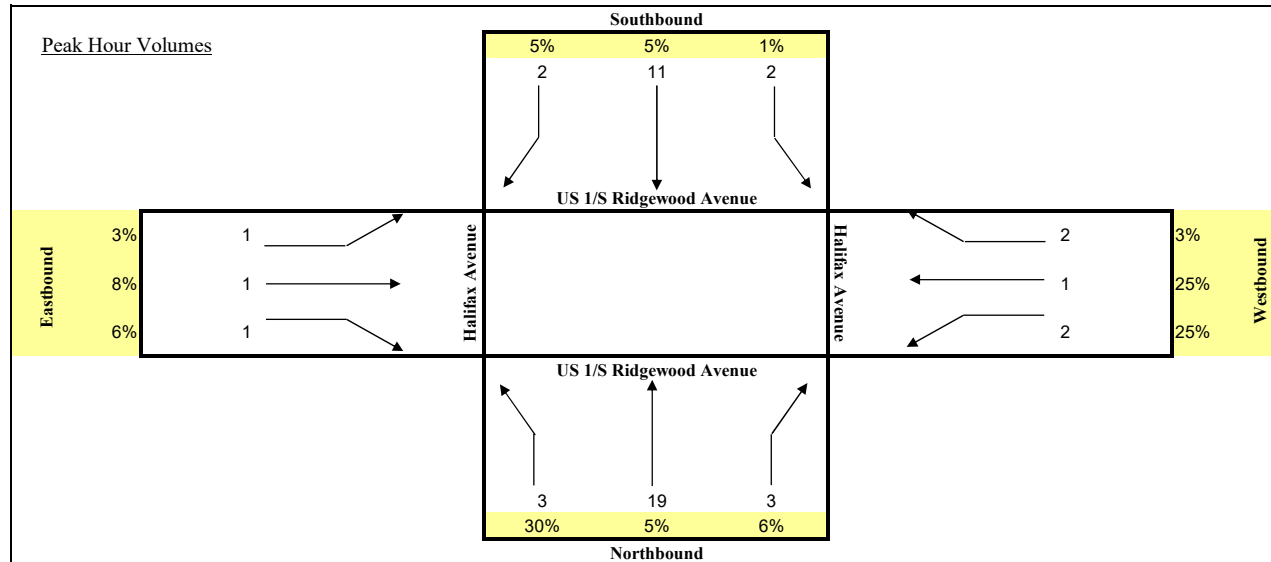
Intersection (N/S): US 1/S Ridgewood Avenue

Intersection (E/W): Halifax Avenue

Date: 3/30/2023

		US 1/S Ridgewood Avenue			US 1/S Ridgewood Avenue			Halifax Avenue			Halifax Avenue			TOTAL
Start	End	NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
7:00 AM	7:15 AM	0	5	0	2	2	0	0	0	1	0	0	0	10
7:15 AM	7:30 AM	1	2	1	1	2	1	1	0	1	1	1	1	13
7:30 AM	7:45 AM	0	4	2	1	1	1	0	1	0	0	0	1	11
7:45 AM	8:00 AM	2	6	0	0	3	0	0	0	0	1	0	0	12
8:00 AM	8:15 AM	0	7	0	0	5	0	0	0	0	0	0	0	12
8:15 AM	8:30 AM	0	5	0	1	1	0	1	0	0	0	0	1	9
8:30 AM	8:45 AM	1	2	0	0	6	1	0	1	1	0	1	0	13
8:45 AM	9:00 AM	0	6	1	0	5	0	1	0	0	1	0	0	14

Total for:	7:00 AM	8:00 AM	3	17	3	4	8	2	1	1	2	2	1	2	46
Total for:	8:00 AM	9:00 AM	1	20	1	1	17	1	2	1	1	1	1	1	48
Tota Peak Hour:	7:15 AM	8:15 AM	3	19	3	2	11	2	1	1	1	2	1	2	48
Overall PHF:	0.92														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

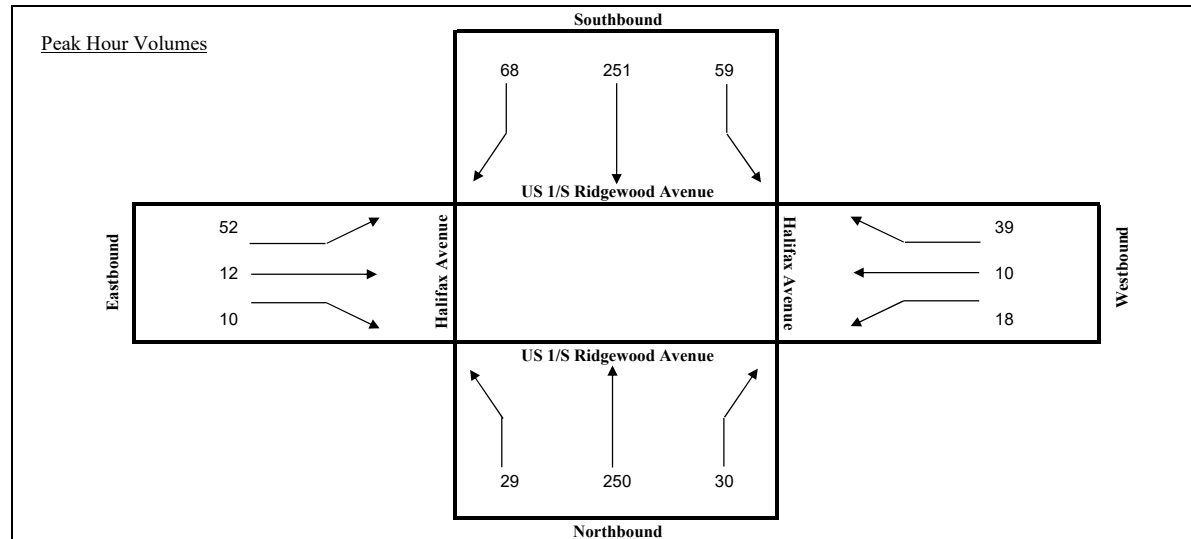
Intersection (N/S): US 1/S Ridgewood Avenue

Intersection (E/W): Halifax Avenue

Date: 3/30/2023

		US 1/S Ridgewood Avenue			US 1/S Ridgewood Avenue			Halifax Avenue			Halifax Avenue			
Start	End	NB			SB			EB			WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	6	53	9	9	60	19	6	3	2	5	2	10	184
4:15 PM	4:30 PM	3	50	9	14	51	19	9	1	8	2	5	9	180
4:30 PM	4:45 PM	9	63	10	21	72	22	13	0	4	4	4	12	234
4:45 PM	5:00 PM	5	60	6	12	71	17	15	6	4	5	1	8	210
5:00 PM	5:15 PM	9	72	8	16	54	10	12	2	0	6	3	9	201
5:15 PM	5:30 PM	6	55	6	10	54	19	12	4	2	3	2	10	183
5:30 PM	5:45 PM	5	51	6	15	45	25	16	5	0	7	5	8	188
5:45 PM	6:00 PM	5	43	7	14	48	22	10	3	1	4	1	7	165

Total for:	4:00 PM	5:00 PM	23	226	34	56	254	77	43	10	18	16	12	39	808
Total for:	5:00 PM	6:00 PM	25	221	27	55	201	76	50	14	3	20	11	34	737
Tota Peak Hour:	4:30 PM	5:30 PM	29	250	30	59	251	68	52	12	10	18	10	39	828
Overall PHF:	0.88														



TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

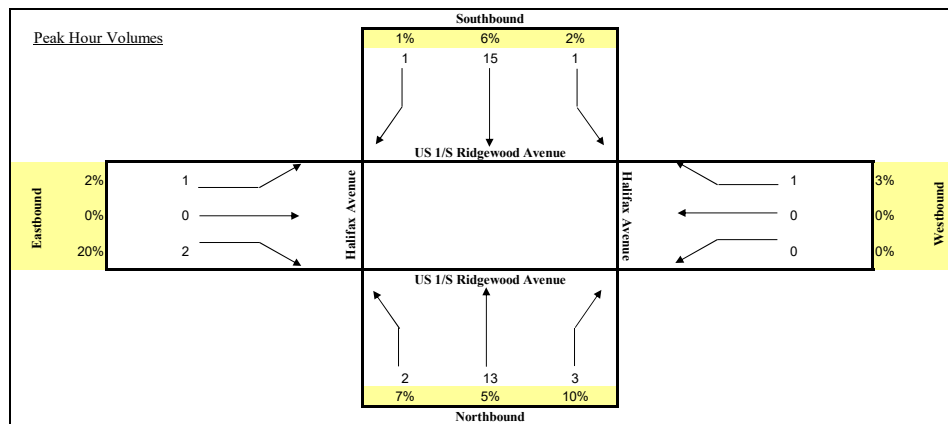
Intersection (N/S): US 1/S Ridgewood Avenue

Intersection (E/W): Halifax Avenue

Date: 3/30/2023

US 1/S Ridgewood Avenue				US 1/S Ridgewood Avenue				Halifax Avenue				Halifax Avenue				TOTAL
Start	End	NB			SB			EB			WB					
		R	T	L	R	T	L	R	T	L	R	T	L			
4:00 PM	4:15 PM	1	2	2	0	5	1	1	0	0	0	0	0	0	12	
4:15 PM	4:30 PM	1	6	0	0	3	0	0	0	1	0	0	0	11		
4:30 PM	4:45 PM	0	5	0	1	2	0	0	0	0	0	0	1	9		
4:45 PM	5:00 PM	0	0	1	0	5	0	0	0	1	0	0	0	7		
5:00 PM	5:15 PM	0	3	0	0	1	0	0	0	0	0	0	0	4		
5:15 PM	5:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	3		
5:30 PM	5:45 PM	0	1	0	0	3	0	0	0	0	0	0	0	4		
5:45 PM	6:00 PM	0	2	0	0	4	0	0	0	0	0	0	0	6		

Total for:	4:00 PM	5:00 PM	2	13	3	1	15	1	1	0	2	0	0	1	39
Total for:	5:00 PM	6:00 PM	0	9	0	0	8	0	0	0	0	0	0	0	17
Total Peak Hour:	4:00 PM	5:00 PM	2	13	3	1	15	1	1	0	2	0	0	1	39
Overall PHF:	0.81														



ADT TRAFFIC SERVICES

4807 Fiske Cir
Orlando, FL 32826

Intersection: US 1/S Ridgewood Avenue & Jones Fish Camp Road

Site ID 1

Date: March 30, 2023

Begin Time	Southbound			Westbound			Northbound			Eastbound		
	US 1/S Ridgewood Ave			Jones Fish Camp Road			US 1/S Ridgewood Ave			Jones Fish Camp Road		
	LT	T	RT	LT	T	RT	LT	T	RT	LT	T	RT
6:00 AM	0	45	0	0	0	0	0	45	0	0	0	1
6:15 AM	1	59	0	0	0	0	0	51	0	0	0	0
6:30 AM	0	68	0	0	0	0	0	75	0	3	0	0
6:45 AM	0	74	0	1	0	1	0	72	1	0	0	0
7:00 AM	0	82	0	0	0	0	0	103	1	2	0	1
7:15 AM	2	133	0	0	0	1	0	119	1	1	0	0
7:30 AM	0	180	0	0	0	1	0	189	2	2	0	3
7:45 AM	0	155	0	0	0	0	1	210	0	0	0	1
8:00 AM	1	90	0	0	0	4	0	165	0	1	0	0
8:15 AM	2	88	0	0	0	2	0	136	0	2	0	1
8:30 AM	4	81	0	0	0	3	0	99	2	1	0	0
8:45 AM	11	75	1	1	0	10	2	116	2	0	0	0
9:00 AM	2	80	3	0	0	5	0	111	1	1	0	0
9:15 AM	2	80	0	1	0	1	0	125	2	3	0	0
9:30 AM	1	88	1	1	0	1	0	100	1	0	0	0
9:45 AM	1	101	0	0	0	0	2	105	0	2	0	1
10:00 AM	1	100	3	0	0	3	0	107	1	2	0	1
10:15 AM	0	99	0	0	0	0	0	105	1	2	0	0
10:30 AM	0	95	2	0	0	2	0	111	0	0	0	0
10:45 AM	0	103	1	0	0	2	1	105	2	2	0	1
11:00 AM	0	99	1	0	0	0	0	89	0	3	0	2
11:15 AM	1	103	2	0	0	2	0	124	1	1	1	0
11:30 AM	1	106	3	0	0	1	0	110	1	1	0	0
11:45 AM	1	118	0	0	0	2	0	124	1	3	0	0
12:00 PM	3	110	1	0	0	2	0	111	0	3	0	0
12:15 PM	0	99	1	0	0	2	1	106	1	1	0	0
12:30 PM	1	128	3	1	0	0	0	114	1	3	0	0
12:45 PM	1	122	3	1	0	2	0	129	0	1	0	1
1:00 PM	2	100	1	0	0	4	0	105	0	1	0	0
1:15 PM	0	123	2	0	0	1	0	137	0	2	0	1
1:30 PM	1	115	1	0	0	0	0	109	0	3	0	2
1:45 PM	0	128	2	1	0	2	1	99	0	0	0	0
2:00 PM	2	109	3	1	0	0	0	122	0	1	0	1
2:15 PM	1	136	2	1	0	0	0	104	0	1	1	0
2:30 PM	3	160	5	1	0	0	0	130	0	3	1	0
2:45 PM	5	166	2	3	0	3	1	106	2	1	0	0
3:00 PM	3	161	2	0	0	6	0	109	0	2	0	1
3:15 PM	2	183	1	0	0	2	0	200	0	1	0	2
3:30 PM	3	179	3	1	0	2	1	191	0	0	0	0
3:45 PM	2	130	4	0	0	0	0	126	1	2	0	1
4:00 PM	1	155	3	0	0	2	1	140	0	1	0	0
4:15 PM	1	188	0	0	0	0	0	134	1	0	0	0
4:30 PM	0	193	2	0	0	1	1	196	0	1	0	1
4:45 PM	0	170	2	0	0	0	1	130	0	1	0	0
5:00 PM	0	151	1	0	0	0	1	141	1	0	0	0
5:15 PM	1	150	1	1	0	1	1	117	1	1	0	0
5:30 PM	0	155	2	0	0	1	0	125	1	2	0	1
5:45 PM	4	120	0	2	0	0	2	101	0	0	0	0
6:00 PM	1	123	1	1	0	1	0	102	0	0	0	1
6:15 PM	0	105	1	0	0	0	0	80	0	2	0	0
6:30 PM	0	109	2	0	0	1	0	93	0	3	0	0
6:45 PM	0	92	2	0	0	0	1	79	0	3	0	0

TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

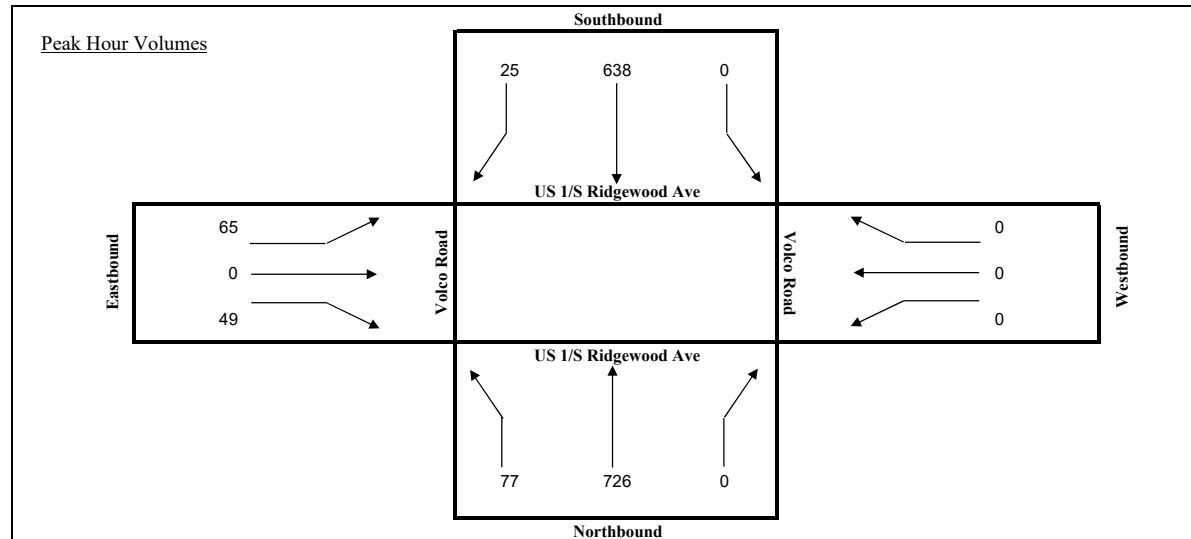
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Volco Road

Date: 3/30/2023

US 1/S Ridgewood Ave					US 1/S Ridgewood Ave			Volco Road			Volco Road			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	12	123	0	0	104	5	18	0	16	0	0	0	278
7:15 AM	7:30 AM	24	152	0	0	171	4	20	0	21	0	0	0	392
7:30 AM	7:45 AM	21	172	0	0	163	9	18	0	12	0	0	0	395
7:45 AM	8:00 AM	18	191	0	0	171	6	15	0	9	0	0	0	410
8:00 AM	8:15 AM	14	211	0	0	133	6	12	0	7	0	0	0	383
8:15 AM	8:30 AM	11	161	0	0	135	8	16	0	9	0	0	0	340
8:30 AM	8:45 AM	16	172	0	0	145	5	14	0	12	0	0	0	364
8:45 AM	9:00 AM	10	160	0	0	142	6	15	0	9	0	0	0	342

Total for:	7:00 AM	8:00 AM	75	638	0	0	609	24	71	0	58	0	0	0	1475
Total for:	8:00 AM	9:00 AM	51	704	0	0	555	25	57	0	37	0	0	0	1429
Tota Peak Hour:	7:15 AM	8:15 AM	77	726	0	0	638	25	65	0	49	0	0	0	1580
Overall PHF:	0.96														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

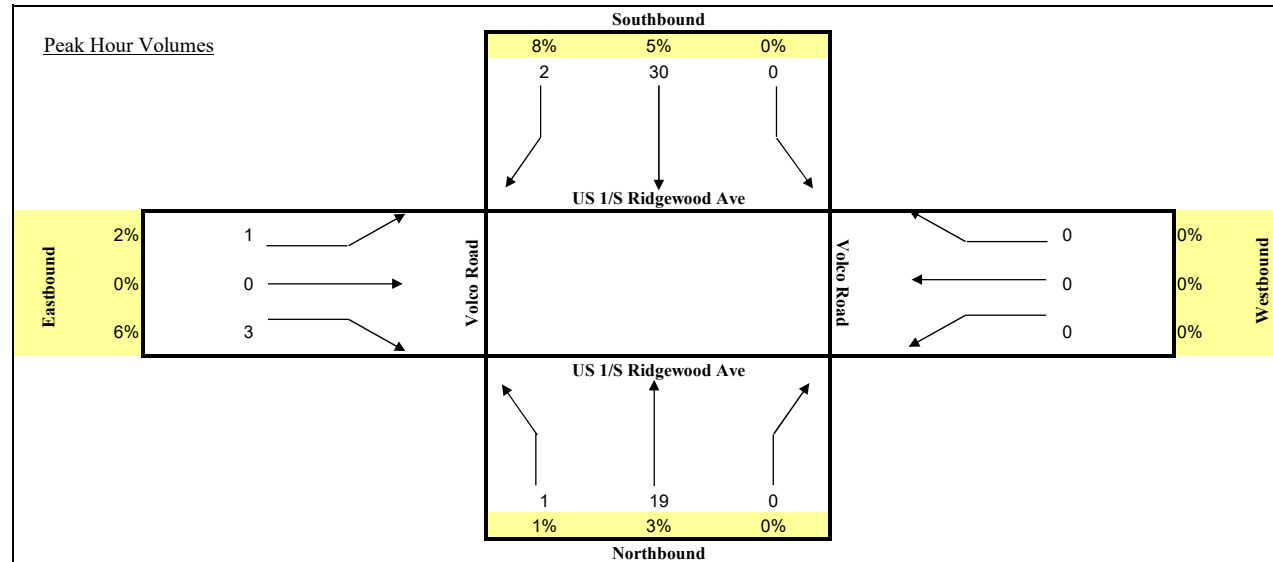
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Volco Road

Date: 3/30/2023

			US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Volco Road			Volco Road			TOTAL
Start	End	NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
7:00 AM	7:15 AM	0	3	0	0	3	0	0	0	0	2	0	0	0	8
7:15 AM	7:30 AM	0	4	0	0	1	0	0	0	0	1	0	0	0	6
7:30 AM	7:45 AM	1	3	0	0	5	1	1	0	0	1	0	0	0	12
7:45 AM	8:00 AM	0	6	0	0	9	1	0	0	0	0	0	0	0	16
8:00 AM	8:15 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	10
8:15 AM	8:30 AM	0	5	0	0	11	0	0	0	0	2	0	0	0	18
8:30 AM	8:45 AM	1	2	0	0	5	0	1	0	0	0	0	0	0	9
8:45 AM	9:00 AM	0	6	0	0	7	1	0	0	0	1	0	0	0	15

Total for:	7:00 AM	8:00 AM	1	16	0	0	18	2	1	0	4	0	0	0	42
Total for:	8:00 AM	9:00 AM	1	18	0	0	28	1	1	0	3	0	0	0	52
Tota Peak Hour:	7:30 AM	8:30 AM	1	19	0	0	30	2	1	0	3	0	0	0	56
Overall PHF:	0.78														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

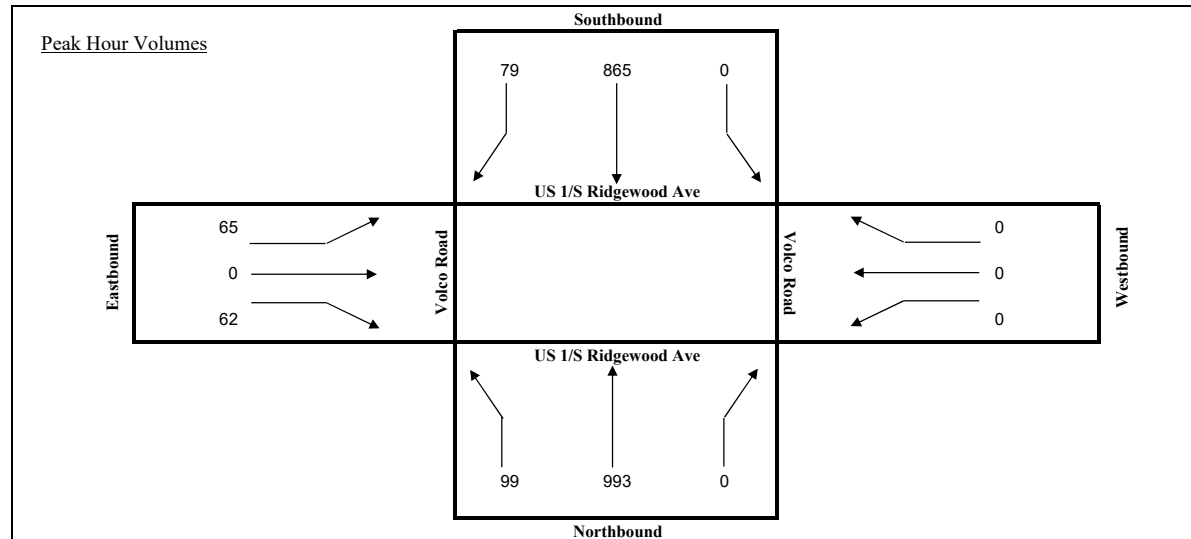
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Volco Road

Date: 3/30/2023

US 1/S Ridgewood Ave					US 1/S Ridgewood Ave			Volco Road			Volco Road			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	14	210	0	0	211	22	12	0	14	0	0	0	483
4:15 PM	4:30 PM	23	253	0	0	220	20	16	0	13	0	0	0	545
4:30 PM	4:45 PM	36	288	0	0	211	16	21	0	16	0	0	0	588
4:45 PM	5:00 PM	26	242	0	0	223	21	16	0	19	0	0	0	547
5:00 PM	5:15 PM	20	212	0	0	201	10	9	0	14	0	0	0	466
5:15 PM	5:30 PM	19	225	0	0	219	15	11	0	16	0	0	0	505
5:30 PM	5:45 PM	12	214	0	0	222	18	6	0	14	0	0	0	486
5:45 PM	6:00 PM	16	199	0	0	204	15	12	0	17	0	0	0	463

Total for:	4:00 PM	5:00 PM	99	993	0	0	865	79	65	0	62	0	0	0	2163
Total for:	5:00 PM	6:00 PM	67	850	0	0	846	58	38	0	61	0	0	0	1920
Tota Peak Hour:	4:00 PM	5:00 PM	99	993	0	0	865	79	65	0	62	0	0	0	2163
Overall PHF:	0.92														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

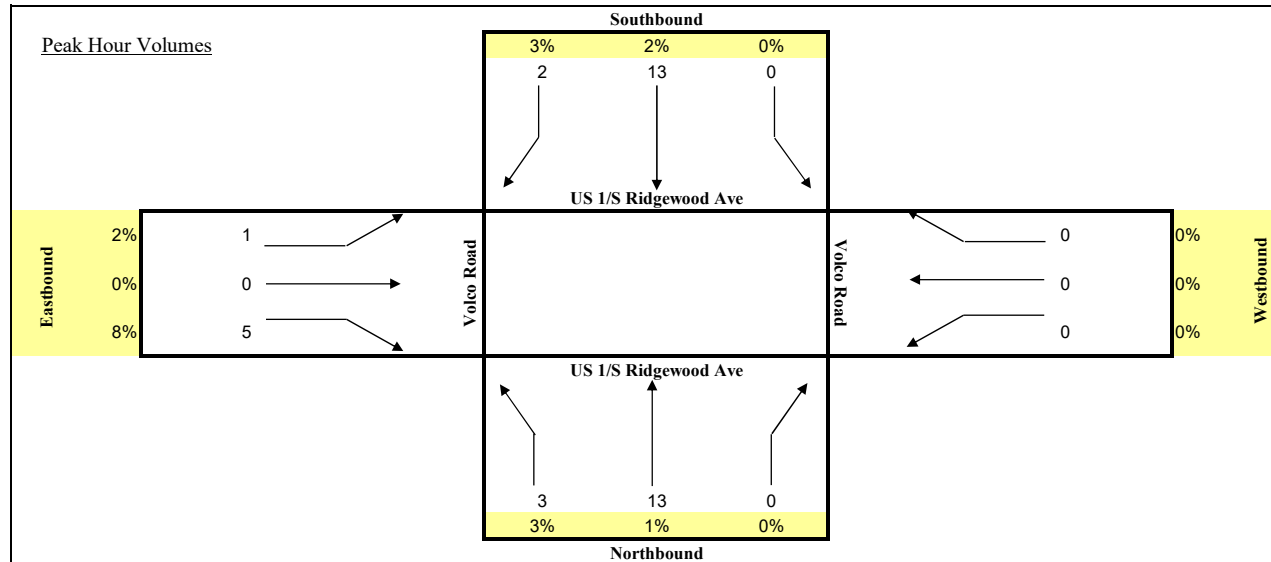
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Volco Road

Date: 3/30/2023

		US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Volco Road			Volco Road			TOTAL
Start	End	NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	0	3	0	0	2	0	0	0	0	0	0	0	5
4:15 PM	4:30 PM	1	2	0	0	5	1	1	0	1	0	0	0	11
4:30 PM	4:45 PM	2	4	0	0	4	0	0	0	1	0	0	0	11
4:45 PM	5:00 PM	0	2	0	0	2	1	0	0	2	0	0	0	7
5:00 PM	5:15 PM	0	5	0	0	2	0	0	0	1	0	0	0	8
5:15 PM	5:30 PM	1	3	0	0	3	0	0	0	0	0	0	0	7
5:30 PM	5:45 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	6:00 PM	1	1	0	0	1	0	0	0	1	0	0	0	4

Total for:	4:00 PM	5:00 PM	3	11	0	0	13	2	1	0	4	0	0	0	34
Total for:	5:00 PM	6:00 PM	2	13	0	0	6	0	0	0	2	0	0	0	23
Tota Peak Hour:	4:15 PM	5:15 PM	3	13	0	0	13	2	1	0	5	0	0	0	37
Overall PHF:	0.84														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

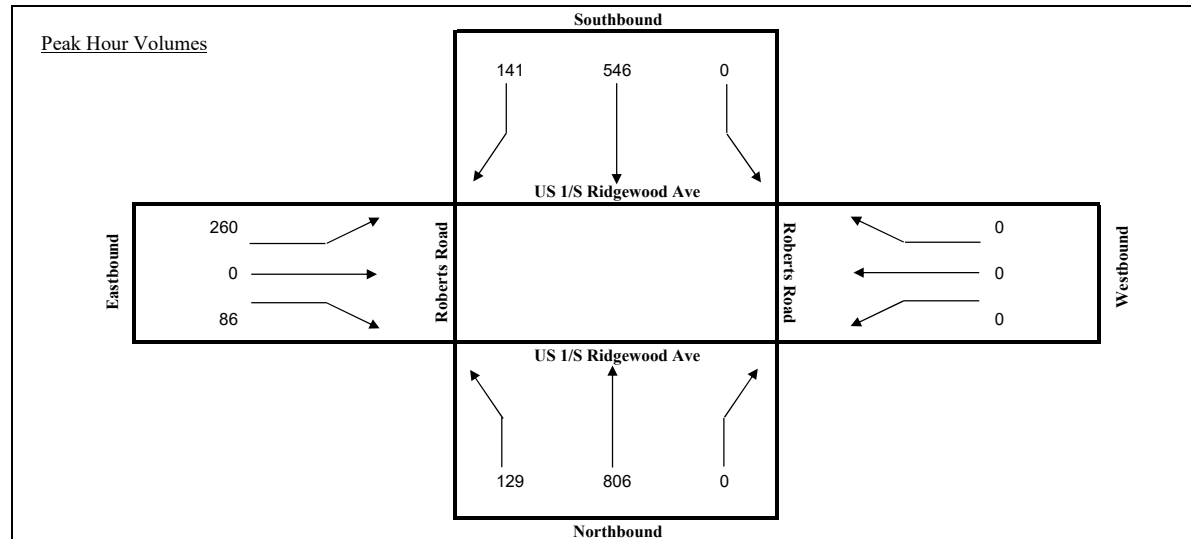
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Roberts Road

Date: 3/30/2023

US 1/S Ridgewood Ave					US 1/S Ridgewood Ave			Roberts Road			Roberts Road			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	23	135	0	0	90	26	34	0	19	0	0	0	327
7:15 AM	7:30 AM	29	178	0	0	151	47	74	0	27	0	0	0	506
7:30 AM	7:45 AM	35	202	0	0	134	33	60	0	20	0	0	0	484
7:45 AM	8:00 AM	31	206	0	0	140	36	68	0	23	0	0	0	504
8:00 AM	8:15 AM	34	220	0	0	121	25	58	0	16	0	0	0	474
8:15 AM	8:30 AM	25	167	0	0	142	25	71	0	19	0	0	0	449
8:30 AM	8:45 AM	31	188	0	0	127	30	52	0	22	0	0	0	450
8:45 AM	9:00 AM	27	161	0	0	111	26	49	0	19	0	0	0	393

Total for:	7:00 AM	8:00 AM	118	721	0	0	515	142	236	0	89	0	0	0	1821
Total for:	8:00 AM	9:00 AM	117	736	0	0	501	106	230	0	76	0	0	0	1766
Tota Peak Hour:	7:15 AM	8:15 AM	129	806	0	0	546	141	260	0	86	0	0	0	1968
Overall PHF:	0.97														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

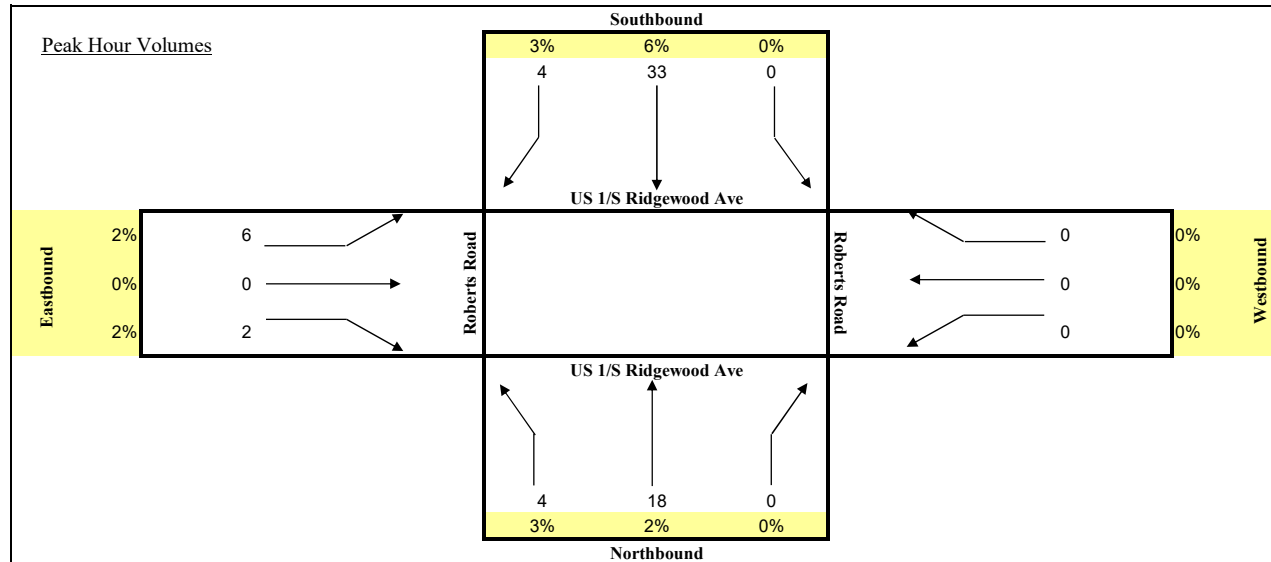
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Roberts Road

Date: 3/30/2023

			US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Roberts Road			Roberts Road			TOTAL
Start	End	NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
7:00 AM	7:15 AM	2	0	0	0	2	1	0	0	1	0	0	0	6	
7:15 AM	7:30 AM	0	4	0	0	0	1	1	0	0	0	0	0	6	
7:30 AM	7:45 AM	2	3	0	0	5	2	0	0	0	0	0	0	12	
7:45 AM	8:00 AM	1	5	0	0	7	1	2	0	1	0	0	0	17	
8:00 AM	8:15 AM	0	4	0	0	8	1	1	0	0	0	0	0	14	
8:15 AM	8:30 AM	1	5	0	0	10	1	2	0	0	0	0	0	19	
8:30 AM	8:45 AM	2	4	0	0	8	1	1	0	1	0	0	0	17	
8:45 AM	9:00 AM	1	7	0	0	6	0	0	0	0	0	0	0	14	

Total for:	7:00 AM	8:00 AM	5	12	0	0	14	5	3	0	2	0	0	0	41
Total for:	8:00 AM	9:00 AM	4	20	0	0	32	3	4	0	1	0	0	0	64
Tota Peak Hour:	7:45 AM	8:45 AM	4	18	0	0	33	4	6	0	2	0	0	0	67
Overall PHF:	0.88														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

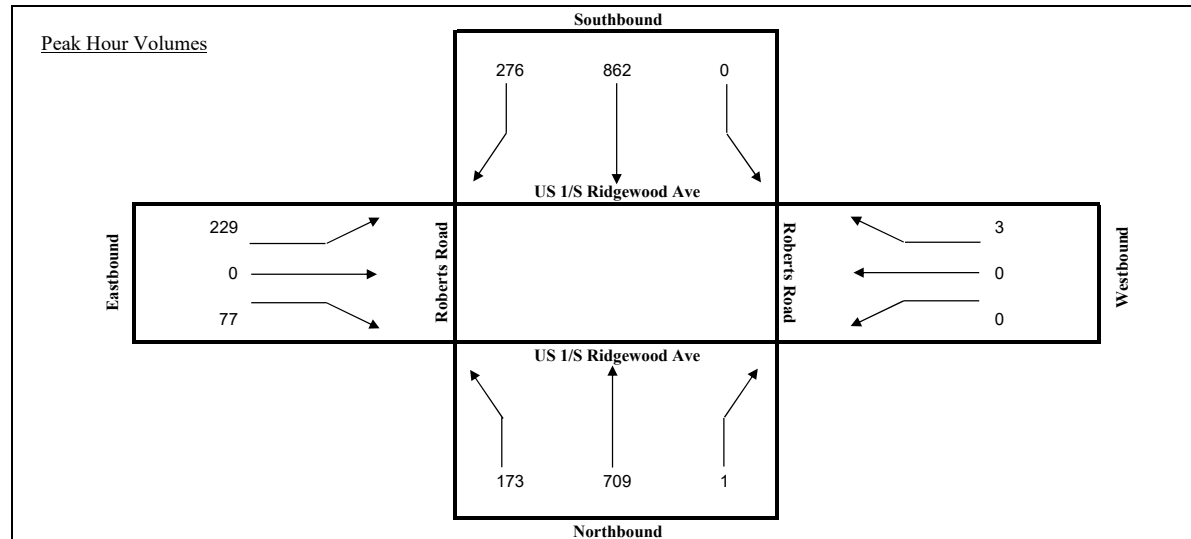
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Roberts Road

Date: 3/30/2023

US 1/S Ridgewood Ave				US 1/S Ridgewood Ave			Roberts Road			Roberts Road			TOTAL	
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T		R
4:00 PM	4:15 PM	34	180	0	0	221	69	51	0	23	0	0	0	578
4:15 PM	4:30 PM	40	188	0	0	198	62	49	0	22	0	0	1	560
4:30 PM	4:45 PM	41	169	1	0	226	76	56	0	19	0	0	0	588
4:45 PM	5:00 PM	45	179	0	0	221	66	58	0	21	0	0	0	590
5:00 PM	5:15 PM	47	173	0	0	217	72	66	0	15	0	0	2	592
5:15 PM	5:30 PM	40	162	0	0	192	68	61	0	21	0	0	1	545
5:30 PM	5:45 PM	42	165	0	0	209	61	54	0	25	0	0	0	556
5:45 PM	6:00 PM	42	151	1	0	214	72	58	0	23	0	0	1	562

Total for:	4:00 PM	5:00 PM	160	716	1	0	866	273	214	0	85	0	0	1	2316
Total for:	5:00 PM	6:00 PM	171	651	1	0	832	273	239	0	84	0	0	4	2255
Tota Peak Hour:	4:15 PM	5:15 PM	173	709	1	0	862	276	229	0	77	0	0	3	2330
Overall PHF:	0.98														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

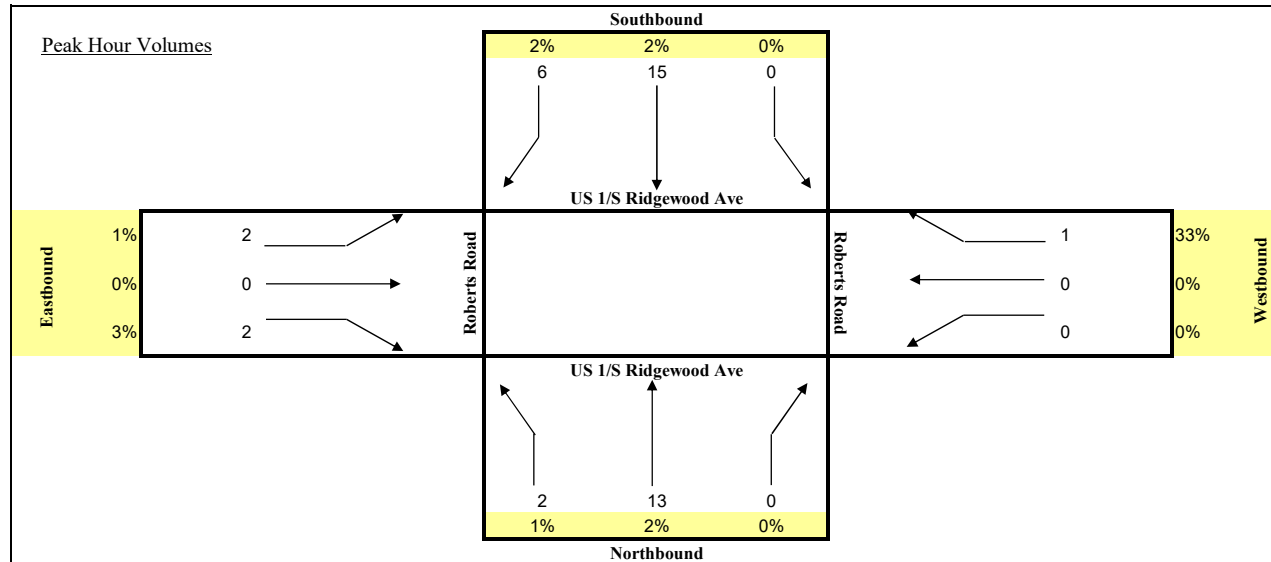
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Roberts Road

Date: 3/30/2023

			US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Roberts Road			Roberts Road			TOTAL
Start	End	NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
4:00 PM	4:15 PM	0	3	0	0	2	1	0	0	0	0	0	0	0	6
4:15 PM	4:30 PM	1	2	0	0	2	2	1	0	2	0	0	0	0	10
4:30 PM	4:45 PM	0	5	0	0	5	2	1	0	1	0	0	0	0	14
4:45 PM	5:00 PM	1	2	0	0	3	1	0	0	0	0	0	0	0	7
5:00 PM	5:15 PM	0	3	0	0	3	1	0	0	0	0	0	0	1	8
5:15 PM	5:30 PM	1	3	0	0	4	2	1	0	1	0	0	0	0	12
5:30 PM	5:45 PM	0	4	0	0	2	1	0	0	0	0	0	0	0	7
5:45 PM	6:00 PM	0	2	0	0	2	1	0	0	1	0	0	0	0	6

Total for:	4:00 PM	5:00 PM	2	12	0	0	12	6	2	0	3	0	0	0	37
Total for:	5:00 PM	6:00 PM	1	12	0	0	11	5	1	0	2	0	0	1	33
Tota Peak Hour:	4:30 PM	5:30 PM	2	13	0	0	15	6	2	0	2	0	0	1	41
Overall PHF:	0.73														



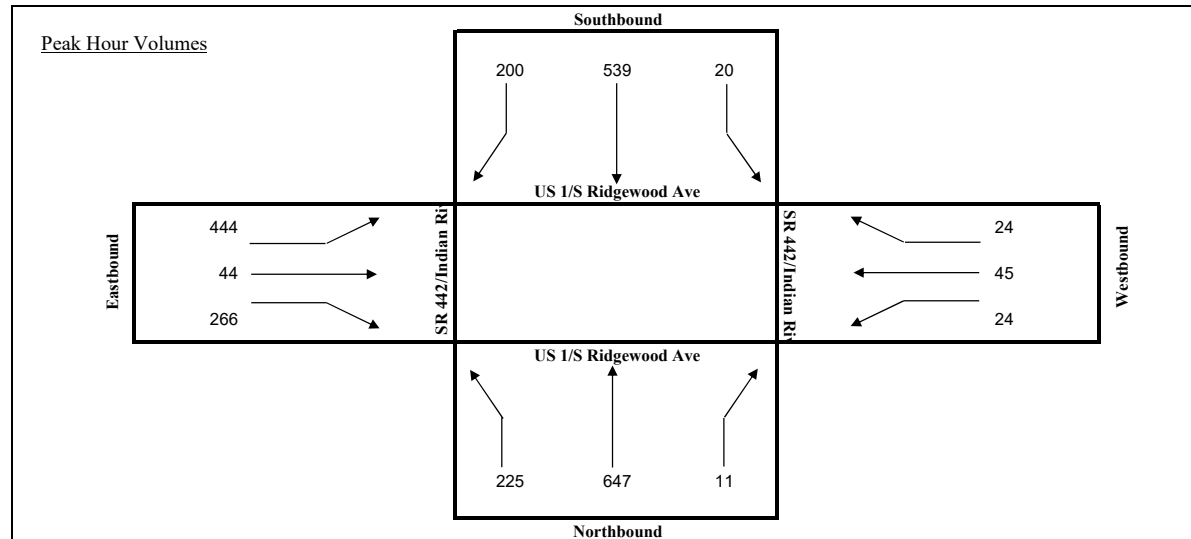
TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): US 1/S Ridgewood Ave
Intersection (E/W): SR 442/Indian River Blvd
Date: 3/30/2023

		US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			SR 442/Indian River Blvd			SR 442/Indian River Blvd			
Start	End	NB			SB			EB			WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	37	104	2	5	85	23	105	6	56	2	5	6	436
7:15 AM	7:30 AM	46	123	3	2	105	30	102	6	64	5	11	10	507
7:30 AM	7:45 AM	59	151	0	4	140	44	112	9	71	1	9	9	609
7:45 AM	8:00 AM	66	178	5	6	165	60	129	10	61	7	15	5	707
8:00 AM	8:15 AM	56	167	2	3	130	52	105	12	75	7	13	3	625
8:15 AM	8:30 AM	44	151	4	7	104	44	98	13	59	9	8	7	548
8:30 AM	8:45 AM	51	128	3	7	76	38	85	6	45	6	7	3	455
8:45 AM	9:00 AM	44	111	2	6	102	46	92	8	41	8	10	7	477

Total for:	7:00 AM	8:00 AM	208	556	10	17	495	157	448	31	252	15	40	30	2259
Total for:	8:00 AM	9:00 AM	195	557	11	23	412	180	380	39	220	30	38	20	2105
Tota Peak Hour:	7:30 AM	8:30 AM	225	647	11	20	539	200	444	44	266	24	45	24	2489
Overall PHF:	0.88														



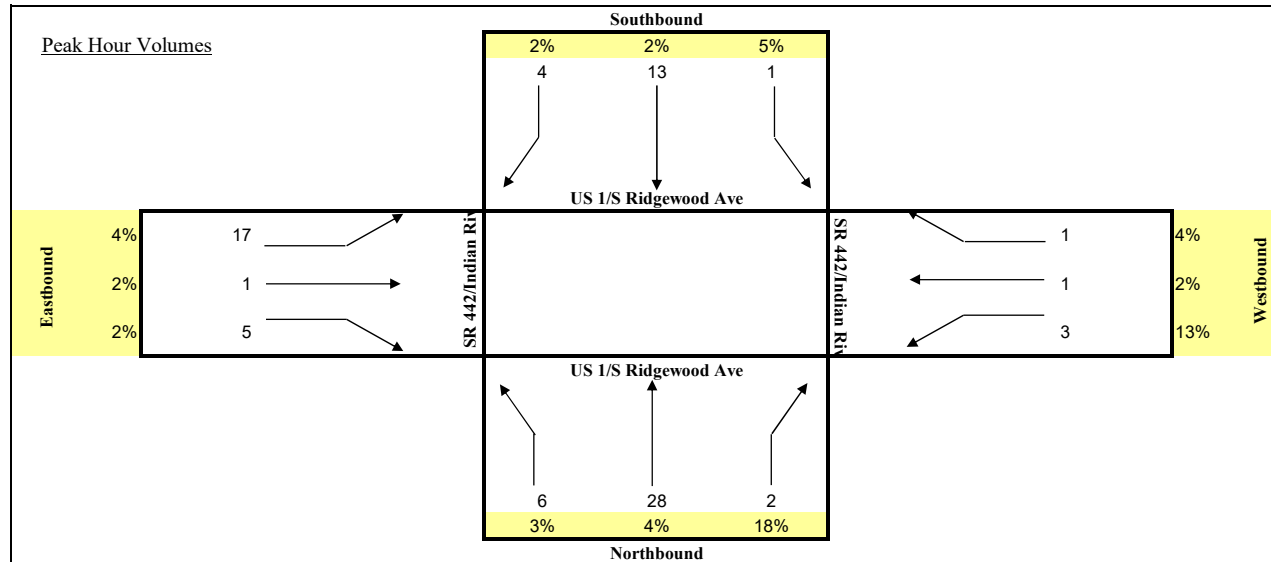
TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

Intersection (N/S): US 1/S Ridgewood Ave
Intersection (E/W): SR 442/Indian River Blvd
Date: 3/30/2023

US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			SR 442/Indian River Blvd			SR 442/Indian River Blvd			TOTAL		
Start	End	NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R		T	L
7:00 AM	7:15 AM	1	3	1	0	5	2	3	0	1	0	0	1	17
7:15 AM	7:30 AM	2	1	0	0	3	0	3	1	2	0	0	0	12
7:30 AM	7:45 AM	1	2	0	0	4	3	0	0	1	0	0	0	11
7:45 AM	8:00 AM	0	8	0	0	6	1	5	0	0	1	0	0	21
8:00 AM	8:15 AM	3	6	1	1	2	1	2	0	3	1	0	1	21
8:15 AM	8:30 AM	2	9	1	0	4	0	7	1	2	0	1	0	27
8:30 AM	8:45 AM	1	5	0	0	1	2	3	0	0	1	0	0	13
8:45 AM	9:00 AM	3	2	0	1	1	4	2	0	3	1	1	1	19

Total for:	7:00 AM	8:00 AM	4	14	1	0	18	6	11	1	4	1	0	1	61
Total for:	8:00 AM	9:00 AM	9	22	2	2	8	7	14	1	8	3	2	2	80
Tota Peak Hour:	7:45 AM	8:45 AM	6	28	2	1	13	4	17	1	5	3	1	1	82
Overall PHF:	0.76														



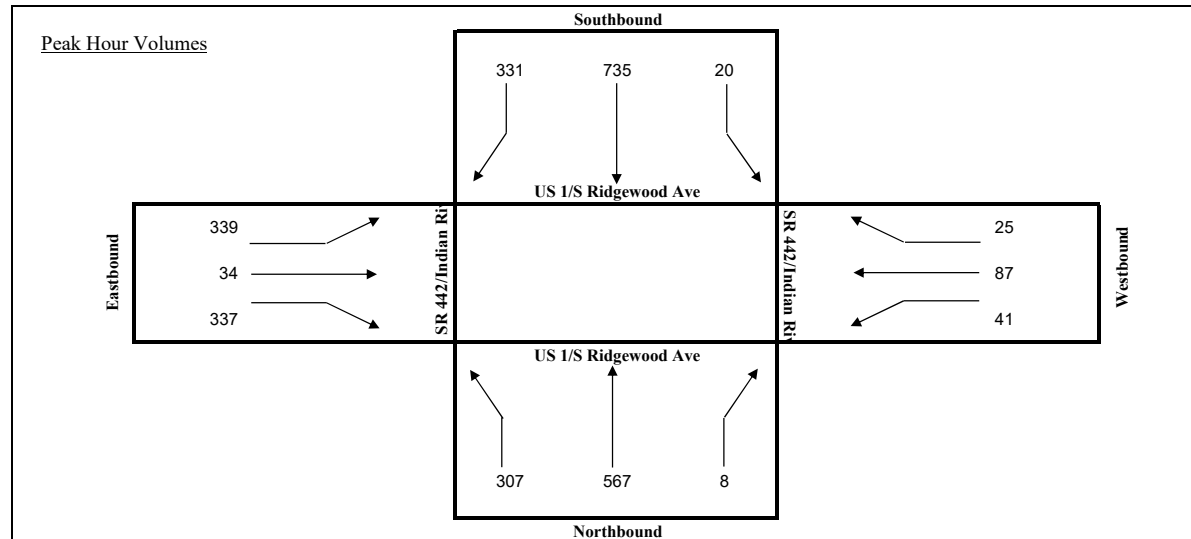
TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): US 1/S Ridgewood Ave
Intersection (E/W): SR 442/Indian River Blvd
Date: 3/30/2023

US 1/S Ridgewood Ave					US 1/S Ridgewood Ave			SR 442/Indian River Blvd			SR 442/Indian River Blvd			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	54	101	1	9	185	78	69	5	82	10	18	3	615
4:15 PM	4:30 PM	52	115	3	6	172	91	67	9	68	9	22	8	622
4:30 PM	4:45 PM	65	139	0	3	167	90	74	10	81	15	13	2	659
4:45 PM	5:00 PM	78	153	4	7	182	94	68	3	80	8	20	9	706
5:00 PM	5:15 PM	87	133	1	7	169	88	82	9	68	10	23	7	684
5:15 PM	5:30 PM	79	147	1	5	180	80	102	10	92	13	24	5	738
5:30 PM	5:45 PM	63	134	2	1	204	69	87	12	97	10	20	4	703
5:45 PM	6:00 PM	51	129	0	4	190	52	91	8	88	8	19	1	641

Total for:	4:00 PM	5:00 PM	249	508	8	25	706	353	278	27	311	42	73	22	2602
Total for:	5:00 PM	6:00 PM	280	543	4	17	743	289	362	39	345	41	86	17	2766
Tota Peak Hour:	4:45 PM	5:45 PM	307	567	8	20	735	331	339	34	337	41	87	25	2831
Overall PHF:	0.96														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

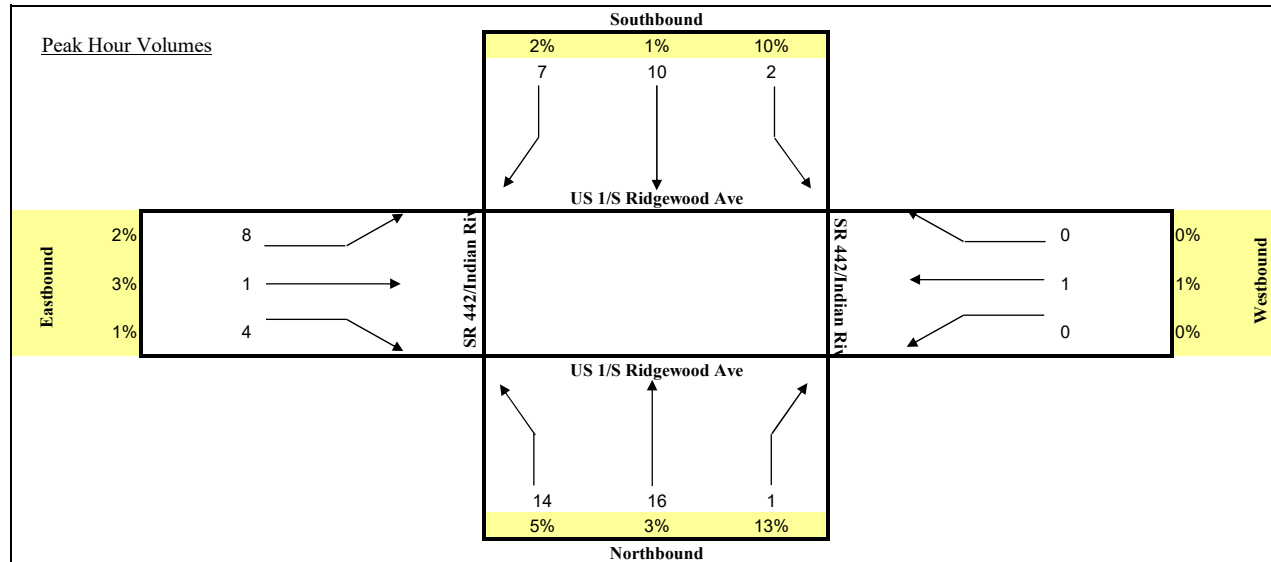
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): SR 442/Indian River Blvd

Date: 3/30/2023

US 1/S Ridgewood Ave				US 1/S Ridgewood Ave				SR 442/Indian River Blvd				SR 442/Indian River Blvd				TOTAL
Start	End	NB			SB			EB			WB					
		R	T	L	R	T	L	R	T	L	R	T	L			
4:00 PM	4:15 PM	5	7	1	1	3	0	1	0	2	0	0	0	20		
4:15 PM	4:30 PM	1	4	0	1	2	3	5	0	1	0	0	0	17		
4:30 PM	4:45 PM	1	3	0	0	4	0	0	1	0	0	0	0	9		
4:45 PM	5:00 PM	7	2	0	0	1	4	2	0	1	0	1	0	18		
5:00 PM	5:15 PM	2	5	0	0	0	0	0	0	2	0	1	0	10		
5:15 PM	5:30 PM	2	1	0	0	3	1	2	0	1	0	0	1	11		
5:30 PM	5:45 PM	0	1	0	0	4	1	0	1	1	0	0	0	8		
5:45 PM	6:00 PM	1	1	0	0	1	0	1	0	0	0	0	0	4		

Total for:	4:00 PM	5:00 PM	14	16	1	2	10	7	8	1	4	0	1	0	64
Total for:	5:00 PM	6:00 PM	5	8	0	0	8	2	3	1	4	0	1	1	33
Tota Peak Hour:	4:00 PM	5:00 PM	14	16	1	2	10	7	8	1	4	0	1	0	64
Overall PHF:	0.80														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

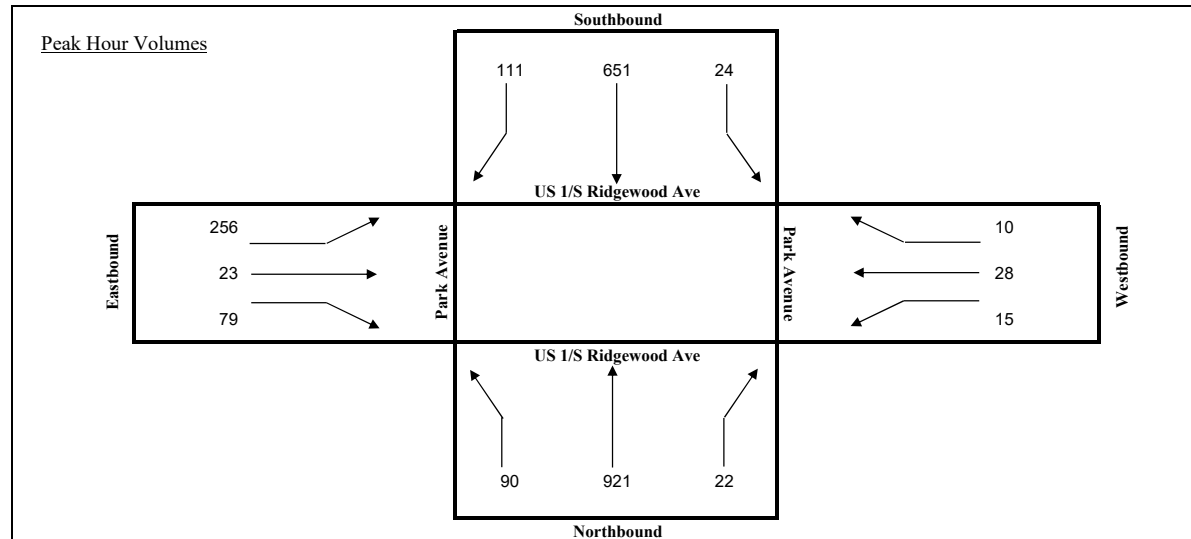
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Park Avenue

Date: 3/30/2023

		US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Park Avenue			Park Avenue			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	12	158	2	2	96	21	46	1	7	5	1	1	352
7:15 AM	7:30 AM	10	199	6	4	114	16	52	7	14	4	6	0	432
7:30 AM	7:45 AM	12	221	8	5	143	22	52	9	11	5	3	2	493
7:45 AM	8:00 AM	21	211	6	2	168	25	69	6	21	5	4	2	540
8:00 AM	8:15 AM	22	236	5	6	177	33	69	10	20	3	6	0	587
8:15 AM	8:30 AM	25	251	6	7	154	30	56	5	13	1	9	3	560
8:30 AM	8:45 AM	22	223	5	9	152	23	62	2	25	6	9	5	543
8:45 AM	9:00 AM	21	205	4	10	150	19	54	7	21	10	8	4	513

Total for:	7:00 AM	8:00 AM	55	789	22	13	521	84	219	23	53	19	14	5	1817
Total for:	8:00 AM	9:00 AM	90	915	20	32	633	105	241	24	79	20	32	12	2203
Tota Peak Hour:	7:45 AM	8:45 AM	90	921	22	24	651	111	256	23	79	15	28	10	2230
Overall PHF:	0.95														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

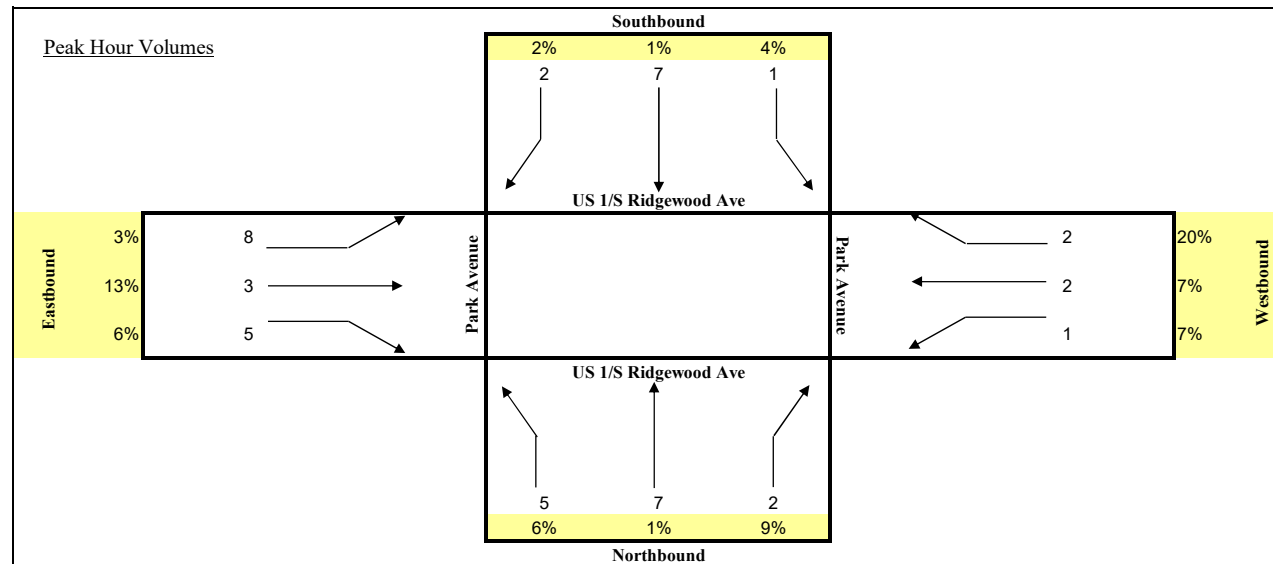
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Park Avenue

Date: 3/30/2023

			US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Park Avenue			Park Avenue			
Start	End	NB			SB			EB			WB			TOTAL	
		R	T	L	R	T	L	R	T	L	R	T	L		
7:00 AM	7:15 AM	0	4	1	1	1	1	2	0	0	0	0	0	0	10
7:15 AM	7:30 AM	1	1	1	0	3	1	1	2	2		1	1	0	14
7:30 AM	7:45 AM	2	0	0	0	1	0	2	1	1		0	1	1	9
7:45 AM	8:00 AM	2	2	0	0	2	0	3	0	2		0	0	1	12
8:00 AM	8:15 AM	0	3	0	0	3	1	0	3	0		0	0	0	10
8:15 AM	8:30 AM	1	1	1	0	1	0	2	0	0		0	0	0	6
8:30 AM	8:45 AM	2	5	0	0	2	2	0	0	3		0	1	0	15
8:45 AM	9:00 AM	0	2	0	1	1	0	1	1	3		1	0	1	11

Total for:	7:00 AM	8:00 AM	5	7	2	1	7	2	8	3	5	1	2	2	45
Total for:	8:00 AM	9:00 AM	3	11	1	1	7	3	3	4	6	1	1	1	42
Tota Peak Hour:	7:00 AM	8:00 AM	5	7	2	1	7	2	8	3	5	1	2	2	45
Overall PHF:	0.80														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

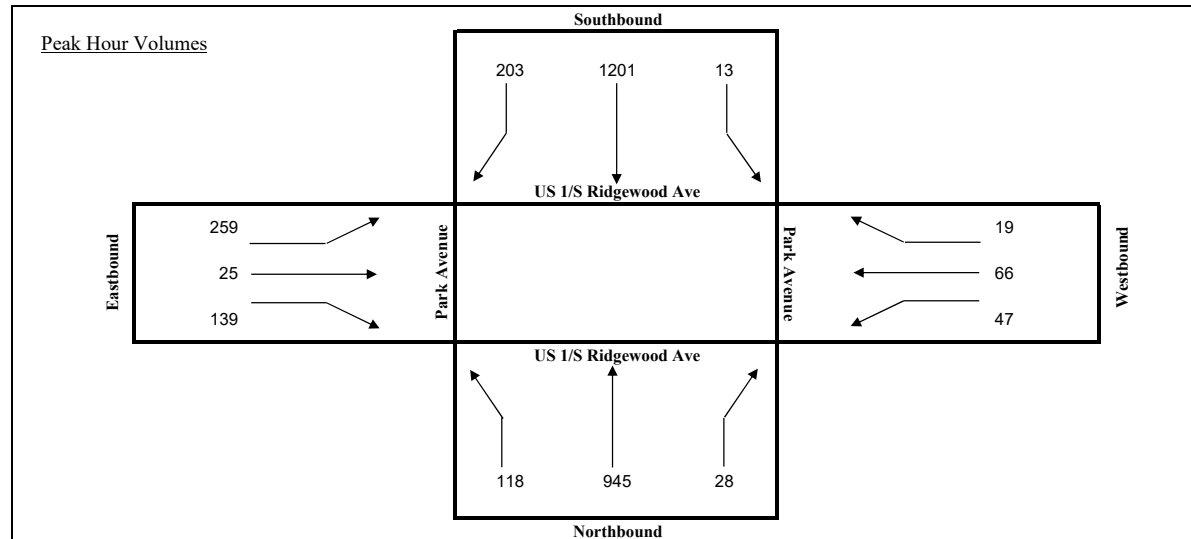
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Park Avenue

Date: 3/30/2023

		US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Park Avenue			Park Avenue			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	22	259	10	4	248	30	62	11	23	10	15	8	702
4:15 PM	4:30 PM	22	247	9	1	269	37	66	6	19	13	20	2	711
4:30 PM	4:45 PM	22	265	11	3	303	45	55	9	28	11	13	6	771
4:45 PM	5:00 PM	29	245	9	5	292	50	71	3	34	16	15	4	773
5:00 PM	5:15 PM	37	232	5	1	309	53	61	8	36	10	21	3	776
5:15 PM	5:30 PM	30	203	3	4	297	55	72	5	41	10	17	6	743
5:30 PM	5:45 PM	27	232	7	5	312	48	60	5	35	7	16	7	761
5:45 PM	6:00 PM	23	219	7	1	312	44	55	5	40	11	9	8	734

Total for:	4:00 PM	5:00 PM	95	1016	39	13	1112	162	254	29	104	50	63	20	2957
Total for:	5:00 PM	6:00 PM	117	886	22	11	1230	200	248	23	152	38	63	24	3014
Tota Peak Hour:	4:30 PM	5:30 PM	118	945	28	13	1201	203	259	25	139	47	66	19	3063
Overall PHF:	0.99														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

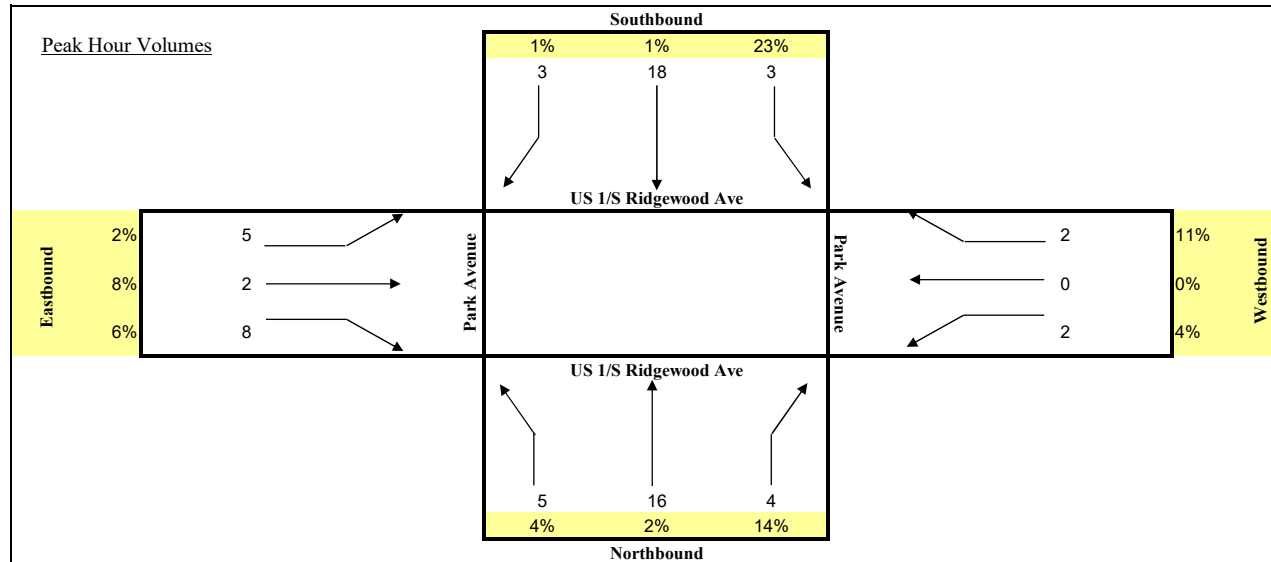
Intersection (N/S): US 1/S Ridgewood Ave

Intersection (E/W): Park Avenue

Date: 3/30/2023

		US 1/S Ridgewood Ave			US 1/S Ridgewood Ave			Park Avenue			Park Avenue			TOTAL
Start	End	NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	3	6	1	2	3	0	3	1	2	1	0	1	23
4:15 PM	4:30 PM	0	3	2	0	6	2	0	1	0	1	0	0	15
4:30 PM	4:45 PM	1	5	0	0	2	1	1	0	3	0	0	1	14
4:45 PM	5:00 PM	1	2	1	1	7	0	1	0	3	0	0	0	16
5:00 PM	5:15 PM	3	4	0	0	4	2	0	0	0	0	1	0	14
5:15 PM	5:30 PM	0	1	0	1	3	0	2	0	1	1	0	0	9
5:30 PM	5:45 PM	2	2	1	0	1	0	1	0	2	0	0	1	10
5:45 PM	6:00 PM	2	1	0	0	3	2	0	0	4	0	0	0	12

Total for:	4:00 PM	5:00 PM	5	16	4	3	18	3	5	2	8	2	0	2	68
Total for:	5:00 PM	6:00 PM	7	8	1	1	11	4	3	0	7	1	1	1	45
Tota Peak Hour:	4:00 PM	5:00 PM	5	16	4	3	18	3	5	2	8	2	0	2	68
Overall PHF:	0.74														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

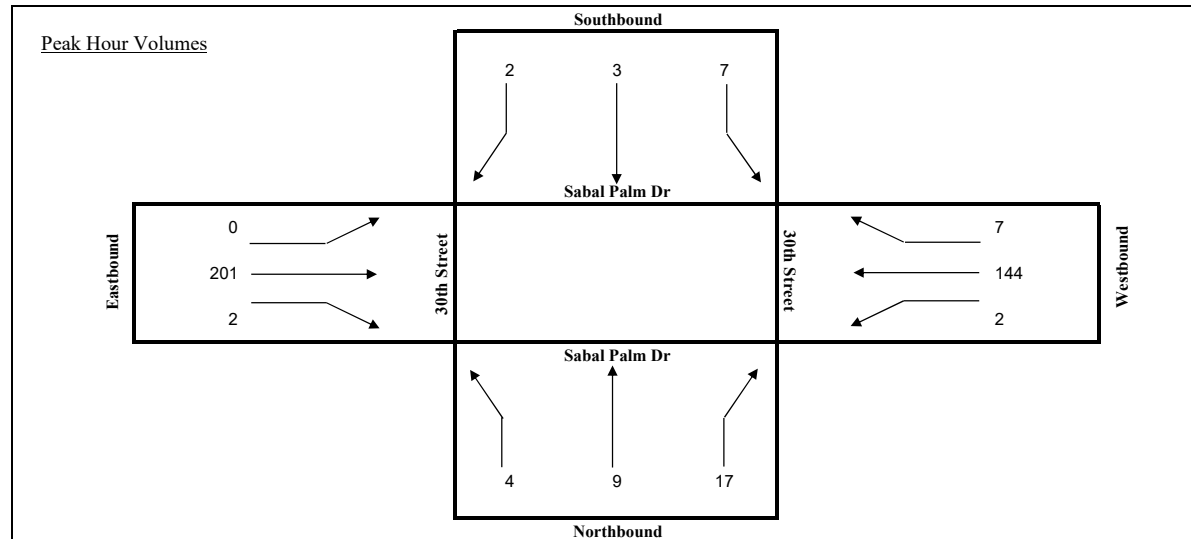
Intersection (N/S): Sabal Palm Dr

Intersection (E/W): 30th Street

Date: 3/30/2023

Sabal Palm Dr					Sabal Palm Dr			30th Street			30th Street			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	0	4	0	3	2	1	1	32	2	0	13	1	59
7:15 AM	7:30 AM	1	5	4	3	0	0	0	79	1	0	29	1	123
7:30 AM	7:45 AM	1	3	7	2	1	1	0	53	0	2	47	3	120
7:45 AM	8:00 AM	0	0	1	1	1	0	0	37	1	0	40	1	82
8:00 AM	8:15 AM	2	1	5	1	1	1	0	32	0	0	28	2	73
8:15 AM	8:30 AM	2	1	3	0	0	1	0	41	0	1	25	1	75
8:30 AM	8:45 AM	1	1	2	2	0	0	0	33	1	1	31	0	72
8:45 AM	9:00 AM	4	0	1	5	4	0	1	31	0	0	26	0	72

Total for:	7:00 AM	8:00 AM	2	12	12	9	4	2	1	201	4	2	129	6	384
Total for:	8:00 AM	9:00 AM	9	3	11	8	5	2	1	137	1	2	110	3	292
Tota Peak Hour:	7:15 AM	8:15 AM	4	9	17	7	3	2	0	201	2	2	144	7	398
Overall PHF:	0.81														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

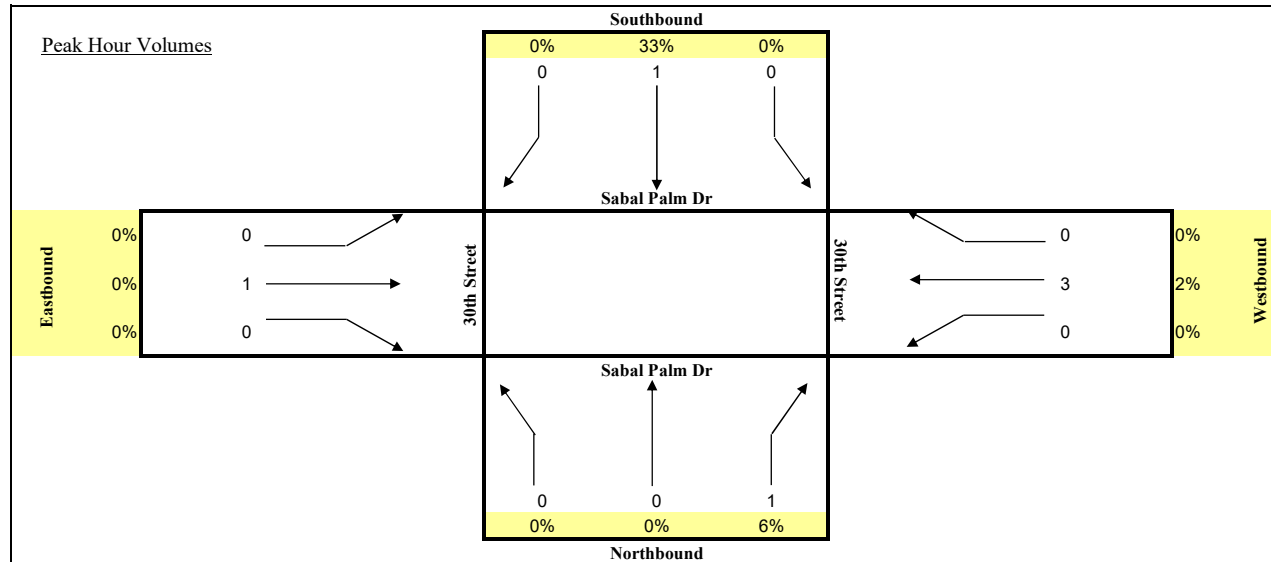
Intersection (N/S): Sabal Palm Dr

Intersection (E/W): 30th Street

Date: 3/30/2023

			Sabal Palm Dr			Sabal Palm Dr			30th Street			30th Street			TOTAL
Start	End	NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
7:00 AM	7:15 AM	0	0	0	0	1	0	0	1	0	0	0	1	0	3
7:15 AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	2
8:00 AM	8:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	0	3
8:15 AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Total for:	7:00 AM	8:00 AM	0	0	1	0	1	0	0	1	0	0	3	0	6
Total for:	8:00 AM	9:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
Tota Peak Hour:	7:00 AM	8:00 AM	0	0	1	0	1	0	0	1	0	0	3	0	6
Overall PHF:	0.50														



TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

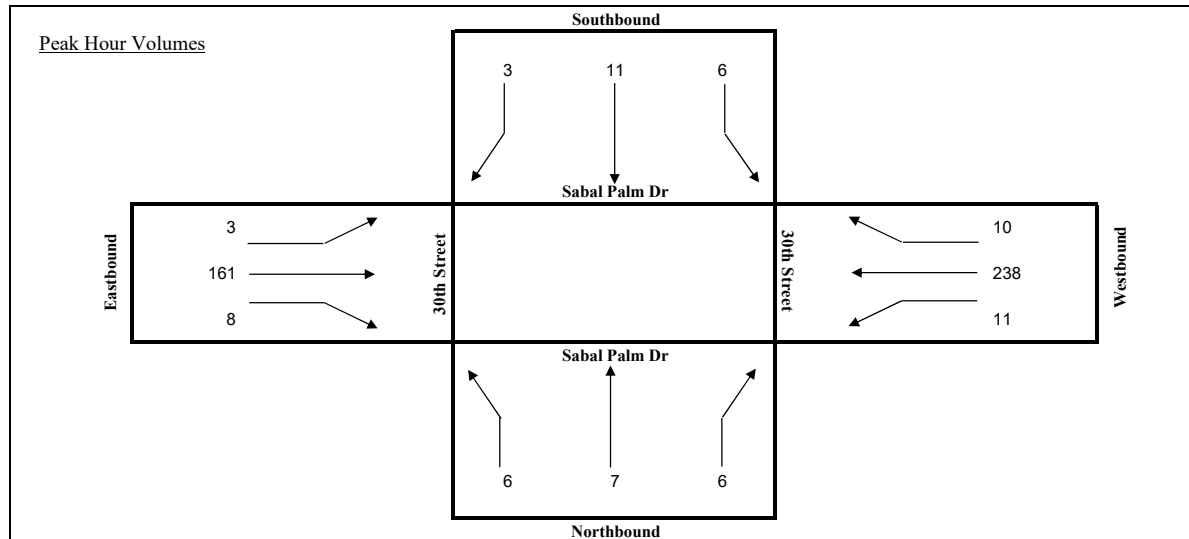
Intersection (N/S): Sabal Palm Dr

Intersection (E/W): 30th Street

Date: 3/30/2023

Sabal Palm Dr					Sabal Palm Dr			30th Street			30th Street			TOTAL
Start	End	NB			SB			EB			WB			
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	3	3	1	2	3	0	0	45	0	4	59	3	123
4:15 PM	4:30 PM	0	3	0	1	2	2	1	28	0	1	51	2	91
4:30 PM	4:45 PM	4	3	1	3	5	2	1	47	1	4	64	4	139
4:45 PM	5:00 PM	1	0	1	0	1	0	1	40	0	1	61	0	106
5:00 PM	5:15 PM	1	1	2	2	2	0	0	38	5	4	67	4	126
5:15 PM	5:30 PM	0	3	2	1	3	1	1	36	2	2	46	2	99
5:30 PM	5:45 PM	1	0	2	1	1	0	1	42	4	5	51	1	109
5:45 PM	6:00 PM	0	1	1	0	2	1	0	43	3	2	48	3	104

Total for:	4:00 PM	5:00 PM	8	9	3	6	11	4	3	160	1	10	235	9	459
Total for:	5:00 PM	6:00 PM	2	5	7	4	8	2	2	159	14	13	212	10	438
Tota Peak Hour:	4:30 PM	5:30 PM	6	7	6	6	11	3	3	161	8	11	238	10	470
Overall PHF:	0.85														



TURNING MOVEMENT COUNT ANALYSIS

TRUCKS

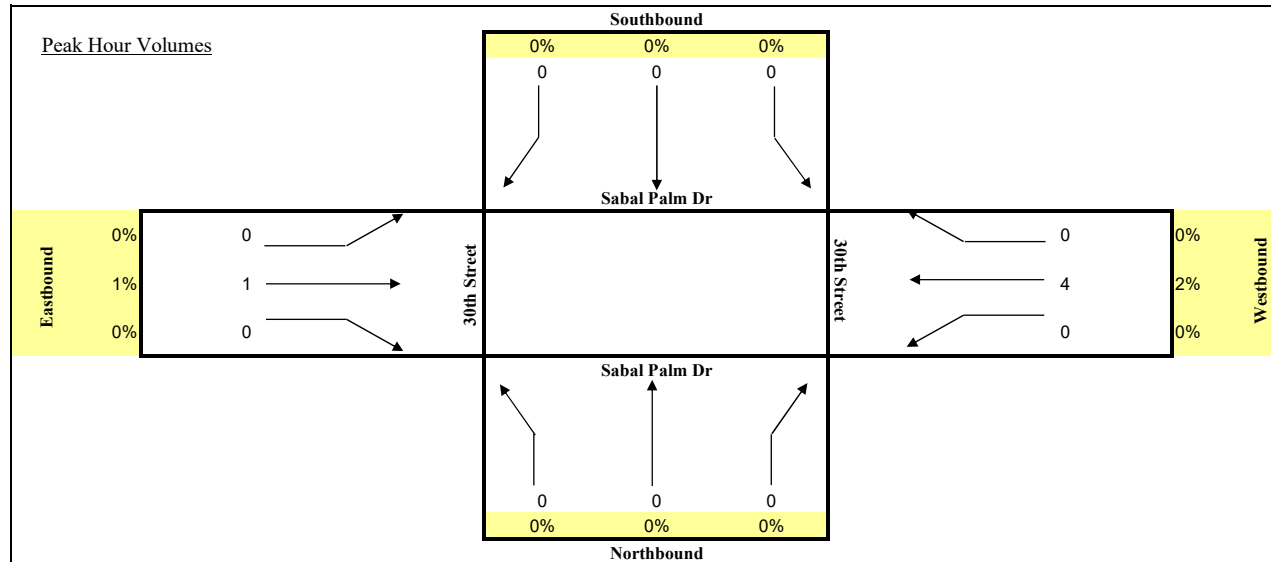
Intersection (N/S): Sabal Palm Dr

Intersection (E/W): 30th Street

Date: 3/30/2023

			Sabal Palm Dr			Sabal Palm Dr			30th Street			30th Street			TOTAL
Start	End	NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
4:00 PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	3	
4:15 PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	
4:30 PM	4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	
4:45 PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	
5:30 PM	5:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	2	
5:45 PM	6:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	

Total for:	4:00 PM	5:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	5
Total for:	5:00 PM	6:00 PM	0	0	0	0	0	0	0	1	0	1	2	0	4
Tota Peak Hour:	4:00 PM	5:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	5
Overall PHF:	0.42														



2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7900 VOLUSIA COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.94 PSCF
1	01/01/2022 - 01/01/2022	1.02	1.09
2	01/02/2022 - 01/08/2022	1.03	1.10
3	01/09/2022 - 01/15/2022	1.04	1.11
4	01/16/2022 - 01/22/2022	1.02	1.09
5	01/23/2022 - 01/29/2022	1.01	1.07
6	01/30/2022 - 02/05/2022	0.99	1.05
* 7	02/06/2022 - 02/12/2022	0.97	1.03
* 8	02/13/2022 - 02/19/2022	0.95	1.01
* 9	02/20/2022 - 02/26/2022	0.94	1.00
*10	02/27/2022 - 03/05/2022	0.93	0.99
*11	03/06/2022 - 03/12/2022	0.92	0.98
*12	03/13/2022 - 03/19/2022	0.91	0.97
*13	03/20/2022 - 03/26/2022	0.92	0.98
*14	03/27/2022 - 04/02/2022	0.93	0.99
*15	04/03/2022 - 04/09/2022	0.94	1.00
*16	04/10/2022 - 04/16/2022	0.96	1.02
*17	04/17/2022 - 04/23/2022	0.96	1.02
*18	04/24/2022 - 04/30/2022	0.97	1.03
*19	05/01/2022 - 05/07/2022	0.98	1.04
20	05/08/2022 - 05/14/2022	0.98	1.04
21	05/15/2022 - 05/21/2022	0.99	1.05
22	05/22/2022 - 05/28/2022	1.00	1.06
23	05/29/2022 - 06/04/2022	1.02	1.09
24	06/05/2022 - 06/11/2022	1.03	1.10
25	06/12/2022 - 06/18/2022	1.04	1.11
26	06/19/2022 - 06/25/2022	1.05	1.12
27	06/26/2022 - 07/02/2022	1.06	1.13
28	07/03/2022 - 07/09/2022	1.06	1.13
29	07/10/2022 - 07/16/2022	1.07	1.14
30	07/17/2022 - 07/23/2022	1.06	1.13
31	07/24/2022 - 07/30/2022	1.05	1.12
32	07/31/2022 - 08/06/2022	1.04	1.11
33	08/07/2022 - 08/13/2022	1.03	1.10
34	08/14/2022 - 08/20/2022	1.02	1.09
35	08/21/2022 - 08/27/2022	1.04	1.11
36	08/28/2022 - 09/03/2022	1.05	1.12
37	09/04/2022 - 09/10/2022	1.06	1.13
38	09/11/2022 - 09/17/2022	1.07	1.14
39	09/18/2022 - 09/24/2022	1.05	1.12
40	09/25/2022 - 10/01/2022	1.02	1.09
41	10/02/2022 - 10/08/2022	0.99	1.05
42	10/09/2022 - 10/15/2022	0.97	1.03
43	10/16/2022 - 10/22/2022	0.98	1.04
44	10/23/2022 - 10/29/2022	0.99	1.05
45	10/30/2022 - 11/05/2022	1.01	1.07
46	11/06/2022 - 11/12/2022	1.02	1.09
47	11/13/2022 - 11/19/2022	1.04	1.11
48	11/20/2022 - 11/26/2022	1.03	1.10
49	11/27/2022 - 12/03/2022	1.03	1.10
50	12/04/2022 - 12/10/2022	1.02	1.09
51	12/11/2022 - 12/17/2022	1.02	1.09
52	12/18/2022 - 12/24/2022	1.03	1.10
53	12/25/2022 - 12/31/2022	1.04	1.11

* PEAK SEASON

23-FEB-2023 09:11:23

830UPD

5_7900_PKSEASON.TXT

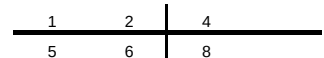
COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: US 1 & Roberts Road
Edgewater ISOLATED: ☒ DATE: 12/6/2017
 SIGNAL #: 291 CO-ORD: ☐ Design By: M Tobin- J. Stroz-FDOT (Y&R)
 System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8		
DIRECTION	SBL	NB	-	EB	NBL	SB	-	WB		
TURN TYPE	PROT	-	-	-	PROT	-	-	-		
MIN GREEN	5	16		7	5	16		7		
EXTENSION	3	4		3	3	4		3		
CLEARANCE	6	5.5		4	5.5	6		4		
ALL RED	2.5	2		2.5	2.5	2		3		
WALK	-	7		7	-	7	-	7		
FDW	-	16		34	-	17	-	36		
MAX 1	25	45		25	25	45		25		
MAX 2	-	-		-	-	-	-	-		
D MAX 3	-	60		-	-	60	-	-		
ADJUST	-	10		-	-	10	-	-		
RECALL	-	MIN		-	-	MIN	-	-		
DETECTOR	LOCK	LOCK		NON-LOCK	LOCK	LOCK		NON-LOCK		
FLASH	RED	YELLOW		RED	RED	YELLOW		RED		
SET	-			-	-		-	-		
CLEAR	-			-	-		-	-		
BASE DAY		1	2	3	4	5	6	7	Crosswalk Length	
MON #1	TIME	00:01-00:00								
	PLAN	FREE							P2	
TUES#1	TIME	00:01-00:00								
	PLAN	FREE							-	
WED #1	TIME	00:01-00:00								
	PLAN	FREE							P4	
THU #1	TIME	00:01-00:00								
	PLAN	FREE							-	
FRI #1	TIME	00:01-00:00								
	PLAN	FREE							P6	
SAT #2	TIME	00:01-00:00								
	PLAN	FREE							-	
SUN #3	TIME	00:01-00:00								
	PLAN	FREE							P8	
CONTROLLER TYPE		CONDITION OF OVERHEAD			Good		PROM NUMBER			P8
3000E		OVERHEAD STREET NAMES			YES					
PHASES:	8Φ	ILLUMINATED STREET NAMES			NO		8216 A 3.7.3		SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION			NO		IP ADDRESS		FDOT	
CABINET DATE	05/2007	PRE-EMPTION TYPE			N/A		-		LED	YES

REMARKS:



COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: US 1 & SR 442
Edgewater FREE ☒ DATE: 5/21/2015
 SIGNAL #: 156 CO-ORD: ☐ Design By: M. Tobin Y & R---J Stroz, FDOT
 System #: 7

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8	
DIRECTION	SBL	NB	WBL	EB	NBL	SB	EBL	WB	
TURN TYPE	PROT	-	PROT	-	PROT	-	PROT	-	
MIN GREEN	5	16	5	7	5	16	5	7	
EXTENSION	3	4	3	3	3	4	3	3	
CLEARANCE	5.0	5.0	3.5	4.0	5.0	5.0	4.0	3.5	
ALL RED	3.5	2.0	3.0	2.5	4.0	2.0	3.0	3.5	
WALK	-	-	-	-	-	7	-	7	
FDW	-	-	-	-	-	27	-	36	
MAX 1	25	40	25	25	25	40	30	25	
MAX 2	-	-	-	-	-	-	-	-	
MAX 3	-	60	-	60	60	60	-	-	
ADJUST	-	5	-	10	10	5	-	-	
RECALL	-	MIN	-	-	-	MIN	-	-	
DETECTOR	LOCK	LOCK	NON-LOCK	NON-LOCK	NON-LOCK	LOCK	NON-LOCK	NON-LOCK	
FLASH	RED	YELLOW	RED	RED	RED	YELLOW	RED	RED	
SET	-	2	-	-	-	2	-	-	
CLEAR	-	2	-	-	-	2	-	-	
BASE DAY		1	2	3	4	5	6	7	Crosswalk Length
MON #1	TIME	00:01-00:00							
	PLAN	FREE							P2
TUES#1	TIME	00:01-00:00							
	PLAN	FREE							-
WED #1	TIME	00:01-00:00							
	PLAN	FREE							P4
THU #1	TIME	00:01-00:00							
	PLAN	FREE							-
FRI #1	TIME	00:01-00:00							
	PLAN	FREE							P6
SAT #2	TIME	00:01-00:00							
	PLAN	FREE							126 Feet
SUN #3	TIME	00:01-00:00							
	PLAN	FREE							P8
CONTROLLER TYPE		CONDITION OF OVERHEAD			Good		PROM NUMBER		
3000E		OVERHEAD STREET NAMES			NO				94 Feet
PHASES:	8Φ	ILLUMINATED STREET NAMES			YES		8216A 3.7.3		SIGNAL OWNER
CABINET TYPE	V	PRE-EMPTION			NO		IP ADDRESS		FDOT
CABINET DATE	04/2003	PRE-EMPTION TYPE			N/A				LED YES

REMARKS:

1	2	3	4
5	6	7	8

COUNTY OF VOLUSIA TRAFFIC SIGNAL TIMING SHEET

LOCATION: US 1 & Park Avenue
Edgewater

ISOLATED: ☒ X
 DATE: 8/18/2020

SIGNAL #: 164
CO-ORD:
Design By: Sean Castello

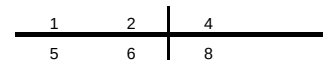
System #: -

Controller Timing Chart

PHASE	1	2	3	4	5	6	7	8		
DIRECTION	NBL	SB	-	WB	SBL	NB	-	EB		
TURN TYPE	PERM/PROT	-	-	-	PERM/PROT	-	-	-		
MIN GREEN	5	11		6	5	11		6		
EXTENSION	4	4		4	4	4		4		
CLEARANCE	5	5		4	5	5		4.0		
ALL RED	2.5	2.0		3.5	2.0	2.0		2.0		
WALK	-	7		10	-	7		-		
FDW	-	18		26	-	18		-		
MAX 1	25	45		30	25	45		40		
MAX 2	-	-		-	-	-		-		
MAX 3	-	90		-	-	90		-		
ADJUST	-	10		-	-	10		-		
RECALL	-	MIN		-	-	MIN		-		
DETECTOR	NON-LOCK	LOCK		NON-LOCK	NON-LOCK	LOCK		NON-LOCK		
FLASH	-	YELLOW		RED	-	YELLOW		RED		
SET	-	2		-	-	2		-		
CLEAR	-	2		-	-	2		-		
BASE DAY		1	2	3	4	5	6	7	Crosswalk Length	
MON #1	TIME	00:01-00:00								
	PLAN	FREE							P2	
TUES#1	TIME	00:01-00:00								
	PLAN	FREE							62 Feet	
WED #1	TIME	00:01-00:00								
	PLAN	FREE							P4	
THU #1	TIME	00:01-00:00								
	PLAN	FREE							92 Feet	
FRI #1	TIME	00:01-00:00								
	PLAN	FREE							P6	
SAT #1	TIME	00:01-00:00								
	PLAN	FREE							43 Feet	
SUN #1	TIME	00:01-00:00								
	PLAN	FREE							P4	
CONTROLLER TYPE		CONDITION OF OVERHEAD			Good		PROM NUMBER			
Econolite, Cobalt		OVERHEAD STREET NAMES			YES				91 Feet	
PHASES:	8Φ	ILLUMINATED STREET NAMES			NO				SIGNAL OWNER	
CABINET TYPE	V	PRE-EMPTION			NO		IP ADDRESS		FDOT	
CABINET DATE	08/2000	PRE-EMPTION TYPE			N/A		-		LED	-

REMARKS:

Omit Phase 1 when Phase 2 is Active
 Omit Phase 5 when Phase 6 is Active



Appendix I
Intersection Volume Projection Sheets

Project No. 22160

Intersection Volumes

Period	Tgen	Enter	Exit	Pass By	Enter	Exit	SF	AGR	Years	Legend
AM Peak		262	255		0	0	1.00	1.00%	4	Backg'd + {Vested} + (Project) = Total

Intersection= US 1/S Ridgewood Ave & Halifax Ave																				1
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	37	1.00	37	1.04		38			0	38			0			0	38	38	
	T	12	1.00	12	1.04		12			0	12			0			0	12	12	
	R	18	1.00	18	1.04		19			0	19			0			0	19	19	
WB	L	8	1.00	8	1.04		8			0	8			0			0	8	8	
	T	4	1.00	4	1.04		4			0	4			0			0	4	4	
	R	71	1.00	71	1.04		74			0	74			0			0	74	74	
NB	L	10	1.00	10	1.04		10			0	10			0			0	10	10	
	T	349	1.00	349	1.04		363	6	8	14	377			0	30%		79	456	363 + (14) + (79) = 456	
	R	53	1.00	53	1.04		55			0	55			0			0	55	55	
SB	L	290	1.00	290	1.04		302			0	302			0			0	302	302	
	T	213	1.00	213	1.04		222	20	7	27	249			0		30%	77	326	222 + (27) + (77) = 326	
	R	44	1.00	44	1.04		46			0	46			0			0	46	46	

Intersection= US 1/S Ridgewood Ave & Jones Fish Camp Rd																			2
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L	4	1.00	4	1.04		4			0	4			0			0	4	
	T	0	1.00	0	1.04		0			0	0			0			0	0	
	R	4	1.00	4	1.04		4			0	4			0			0	4	
WB	L	0	1.00	0	1.04		0	20	7	27	27			0		30%	77	104	(27) + (77) = 104
	T	0	1.00	0	1.04		0			0	0			0			0	0	
	R	6	1.00	6	1.04		6	45	8	53	59			0		60%	148	207	6 + (53) + (148) = 207
NB	L	1	1.00	1	1.04		1			0	1			0			0	1	
	T	683	1.00	683	1.04		710			0	710			0	5%		5	715	710 + (5) = 715
	R	3	1.00	3	1.04		3	6	8	14	17			0	25%		74	91	3 + (14) + (74) = 91
SB	L	3	1.00	3	1.04		3	15	9	24	27			0	70%		183	210	3 + (24) + (183) = 210
	T	558	1.00	558	1.04		580			0	580			0			0	580	580
	R	0	1.00	0	1.04		0			0	0			0			0	0	

Intersection= US 1/S Ridgewood Ave & Volco Rd																				3
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	65	1.00	65	1.04		68			0	68			0			0	68	68	
	T	0	1.00	0	1.04		0			0	0			0			0	0	0	
	R	49	1.00	49	1.04		51			0	51			0	3%		8	59	51 + (8) = 59	
WB	L	0	1.00	0	1.04		0			0	0			0			0	0	0	
	T	0	1.00	0	1.04		0			0	0			0			0	0	0	
	R	0	1.00	0	1.04		0			0	0			0			0	0	0	
NB	L	77	1.00	77	1.04		80			0	80			0		3%	7	87	80 + (7) = 87	
	T	726	1.00	726	1.04		755	45	8	53	808			0		67%	171	979	755 + (53) + (171) = 979	
	R	0	1.00	0	1.04		0			0	0			0			0	0	0	
SB	L	0	1.00	0	1.09		0			0	0			0			0	0	0	
	T	638	1.00	638	1.09		698	15	9	24	722			0	67%		175	897	698 + (24) + (175) = 897	
	R	25	1.00	25	1.09		27			0	27			0			0	27	27	

Intersection= US 1/S Ridgewood Ave & Roberts Rd																				4
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	260	1.00	260	1.04		270			0	270			0			0	270	270	
	T	0	1.00	0	1.04		0			0	0			0			0	0	0	
	R	86	1.00	86	1.04		89			0	89			0	12%		31	120	89 + (31) = 120	
WB	L	0	1.00	0	1.04		0			0	0			0			0	0	0	
	T	0	1.00	0	1.04		0			0	0			0			0	0	0	
	R	0	1.00	0	1.04		0			0	0			0			0	0	0	
NB	L	129	1.00	129	1.09		141			0	141			0		12%	31	172	141 + (31) = 172	
	T	806	1.00	806	1.09		881	45	8	53	934			0		55%	140	1074	881 + (53) + (140) = 1074	
	R	0	1.00	0	1.09		0			0	0			0			0	0	0	
SB	L	0	1.00	0	1.09		0			0	0			0			0	0	0	
	T	546	1.00	546	1.09		597	15	9	24	621			0	55%		144	765	597 + (24) + (144) = 765	
	R	141	1.00	141	1.09		154			0	154			0			0	154	154	

Intersection= US 1/S Ridgewood Ave & SR 442/Indian River Blvd																			5
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L	444	1.00	444	1.04		462			0	462			0			0	462	462
	T	44	1.00	44	1.04		46			0	46			0			0	46	46
	R	266	1.00	266	1.04		277			0	277			0	20%		52	329	277 + (52) = 329
WB	L	24	1.00	24	1.04		25			0	25			0			0	25	25
	T	45	1.00	45	1.04		47			0	47			0			0	47	47
	R	24	1.00	24	1.04		25			0	25			0			0	25	25
NB	L	225	1.00	225	1.09		246			0	246			0		20%	51	297	246 + (51) = 297
	T	647	1.00	647	1.09		708	45	8	53	761			0		30%	77	838	708 + (53) + (77) = 838
	R	11	1.00	11	1.09		12			0	12			0			0	12	12
SB	L	20	1.00	20	1.09		22			0	22			0			0	22	22
	T	539	1.00	539	1.09		589	15	9	24	613			0	30%		79	692	589 + (24) + (79) = 692
	R	200	1.00	200	1.09		219			0	219			0			0	219	219

Intersection= US 1/S Ridgewood Ave & Park Ave																				6
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	256	1.00	256	1.04		266			0	266			0			0	266	266	
	T	23	1.00	23	1.04		24			0	24			0			0	24	24	
	R	79	1.00	79	1.04		82			0	82			0	5%		13	95	82 + (13) = 95	
WB	L	15	1.00	15	1.04		16			0	16			0			0	16	16	
	T	28	1.00	28	1.04		29			0	29			0			0	29	29	
	R	10	1.00	10	1.04		10			0	10			0			0	10	10	
NB	L	90	1.00	90	1.09		98			0	98			0		5%	13	111	98 + (13) = 111	
	T	921	1.00	921	1.09		1007	45	8	53	1060			0		20%	51	1111	1007 + (53) + (51) = 1111	
	R	22	1.00	22	1.09		24			0	24			0			0	24	24	
SB	L	24	1.00	24	1.04		25			0	25			0			0	25	25	
	T	651	1.00	651	1.04		677	15	9	24	701			0	20%		52	753	677 + (24) + (52) = 753	
	R	111	1.00	111	1.04		115			0	115			0			0	115	115	

Intersection= Sabal Palm Dr & 30th St																				7
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L		0	1.00	0	1.04	0			0	0			0			0	0		
	T	201	1.00	201	1.04	209				0	209			0	4%		11	220	209 + (11) = 220	
	R	2	1.00	2	1.04	2				0	2			0			0	2		
WB	L	2	1.00	2	1.04	2				0	2			0		4%	11	13	2 + (11) = 13	
	T	144	1.00	144	1.04	150				0	150			0		4%	10	160	150 + (10) = 160	
	R	7	1.00	7	1.04	7				0	7			0		4%	10	17	7 + (10) = 17	
NB	L	4	1.00	4	1.04	4				0	4			0			0	4		
	T	9	1.00	9	1.04	9				0	9			0			0	9		
	R	17	1.00	17	1.04	18				0	18			0	4%		10	28	18 + (10) = 28	
SB	L	7	1.00	7	1.04	7				0	7			0	4%		10	17	7 + (10) = 17	
	T	3	1.00	3	1.04	3				0	3			0			0	3		
	R	2	1.00	2	1.04	2				0	2			0			0	2		

Intersection= US 1/S Ridgewood Ave & Project Access Driveway																			8
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
WB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0		100%	0		10%	30	30 (30)	
NB	L						0			0	0			0			0	0	
	T						720	45	8	53	773			0		60%	148	921	720 + (53) + (148) = 921
	R						0			0	0		100%	0	10%		9	9 (9)	
SB	L						0			0	0			0			0	0	
	T						583	15	9	24	607			0	70%		183	790	583 + (24) + (183) = 790
	R						0			0	0			0			0	0	

Intersection= Jones Fish Camp Rd & West Project Access Driveway																			9
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0			0	5%		9	9 (9)	
	T						6	6		6	12			0	85%		244	256	6 + (6) + (244) = 256
	R						0	15		15	15			0			0	15 (15)	
WB	L						0			0	0			0			0	0	
	T						6	19		19	25			0		80%	196	221	6 + (19) + (196) = 221
	R						0			0	0			0			0	0	
NB	L						0	46		46	46			0			0	46 (46)	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0		10%	29	29 (29)	

Intersection= Jones Fish Camp Rd & Mid Project Access Driveway																			10
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0			0	45%		122	122	(122)
	T						6	6		6	12			0	40%		122	134	6 + (6) + (122) = 134
	R						0			0	0			0			0	0	
WB	L						0			0	0			0			0	0	
	T						6	19		19	25			0		40%	98	123	6 + (19) + (98) = 123
	R						0			0	0			0			0	0	
NB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0		40%	98	98	(98)

Intersection= Jones Fish Camp Rd & East Project Access Driveway																			11
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0			0	40%		122	122 (122)	
	T						6			0	6			0			0	6 6	
	R						0	6		6	6			0			0	6 [6]	
WB	L						0			0	0			0			0	0	
	T						6			0	6			0			0	6 6	
	R						0			0	0			0			0	0	
NB	L						0	19		19	19			0			0	19 (19)	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0		40%	98	98 (98)	

Project No. 22160

Intersection Volumes

Period	Tgen	Enter	Exit	Pass By	Enter	Exit	SF	AGR	Years	Legend
PM Peak		265	214		64	45	1.00	1.00%	4	Backg'd + {Vested} + (Project) = Total

US 1/S Ridgewood Ave & Halifax Ave																			1
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L	52	1.00	52	1.04		54			0	54			0			0	54	54
	T	12	1.00	12	1.04		12			0	12			0			0	12	12
	R	10	1.00	10	1.04		10			0	10			0			0	10	10
WB	L	18	1.00	18	1.04		19			0	19			0			0	19	19
	T	10	1.00	10	1.04		10			0	10			0			0	10	10
	R	39	1.00	39	1.04		41			0	41			0			0	41	41
NB	L	29	1.00	29	1.04		30			0	30			0			0	30	30
	T	250	1.00	250	1.04		260	21	17	38	298			0	30%		79	377	260 + {38} + (79) = 377
	R	30	1.00	30	1.04		31			0	31			0			0	31	31
SB	L	59	1.00	59	1.04		61			0	61			0			0	61	61
	T	251	1.00	251	1.04		261	13	17	30	291			0		30%	64	355	261 + {30} + (64) = 355
	R	68	1.00	68	1.04		71			0	71			0			0	71	71

US 1/S Ridgewood Ave & Jones Fish Camp Rd																			2		
Intersection=		Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L	3	1.00		3	1.04			3			0	3			0			0	3	3
	T	0	1.00		0	1.04			0			0	0			0			0	0	0
	R	1	1.00		1	1.04			1			0	1			0			0	1	1
WB	L	0	1.00		0	1.04			0	13	17	30	30			0		30%	64	94	30 + 64 = 94
	T	0	1.00		0	1.04			0			0	0			0			0	0	0
	R	3	1.00		3	1.04			3	29	17	46	49			0		60%	132	181	3 + 46 + 132 = 181
NB	L	3	1.00		3	1.04			3			0	3			0			0	3	3
	T	600	1.00		600	1.04			624			0	624			0	5%		15	639	624 + 15 = 639
	R	1	1.00		1	1.04			1	21	17	38	39			0	25%		64	103	1 + 38 + 64 = 103
SB	L	2	1.00		2	1.04			2	49	18	67	69			0	70%		186	255	2 + 67 + 186 = 255
	T	706	1.00		706	1.04			734			0	734			0			0	734	734
	R	7	1.00		7	1.04			7			0	7			0			0	7	7

US 1/S Ridgewood Ave & Volco Rd																				3		
Intersect=		Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	65	1.00	65	1.04				68			0	68				0			0	68	68
	T	0	1.00	0	1.04				0			0	0				0			0	0	
	R	62	1.00	62	1.04				64			0	64				0	3%		8	72	64 + (8) = 72
WB	L	0	1.00	0	1.04				0			0	0				0			0	0	
	T	0	1.00	0	1.04				0			0	0				0			0	0	
	R	0	1.00	0	1.04				0			0	0				0			0	0	
NB	L	99	1.00	99	1.04				103			0	103				0		3%	7	110	103 + (7) = 110
	T	993	1.00	993	1.04				1033	29	17	46	1079				0		67%	143	1222	1033 + (46) + (143) = 1222
	R	0	1.00	0	1.04				0			0	0				0			0	0	
SB	L	0	1.00	0	1.04				0			0	0				0			0	0	
	T	865	1.00	865	1.04				946	49	18	67	1013				0	67%		178	1191	946 + (67) + (178) = 1191
	R	79	1.00	79	1.04				86			0	86				0			0	86	86

US 1/S Ridgewood Ave & Roberts Rd																				4
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	229	1.00	229	1.04		238			0	238			0			0	238	238	
	T	0	1.00	0	1.04		0			0	0			0			0	0		
	R	77	1.00	77	1.04		80			0	80			0	12%		32	112	80 + (32) = 112	
WB	L	0	1.00	0	1.04		0			0	0			0			0	0	0	
	T	0	1.00	0	1.04		0			0	0			0			0	0	0	
	R	3	1.00	3	1.04		3			0	3			0			0	3	3	
NB	L	173	1.00	173	1.04		189			0	189			0		12%	25	214	189 + (25) = 214	
	T	709	1.00	709	1.04		775	29	17	46	821			0		55%	118	939	775 + (46) + (118) = 939	
	R	1	1.00	1	1.04		1			0	1			0			0	1	1	
SB	L	0	1.00	0	1.04		0			0	0			0			0	0	0	
	T	862	1.00	862	1.04		943	49	18	67	1010			0	55%		146	1156	943 + (67) + (146) = 1156	
	R	276	1.00	276	1.04		302			0	302			0			0	302	302	

US 1/S Ridgewood Ave & SR 442/Indian River Blvd																			5		
Intersection=		Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L	339	1.00		339	1.04			353			0	353				0			0	353 353
	T	34	1.00		34	1.04			35			0	35				0			0	35 35
	R	337	1.00		337	1.04			350			0	350				20%		53	403	350 + (53) = 403
WB	L	41	1.00		41	1.04			43			0	43				0			0	43 43
	T	87	1.00		87	1.04			90			0	90				0			0	90 90
	R	25	1.00		25	1.04			26			0	26				0			0	26 26
NB	L	307	1.00		307	1.04			336			0	336				0	20%		43	379 336 + (43) = 379
	T	567	1.00		567	1.04			620	29	17	46	666				0	30%		64	730 620 + (46) + (64) = 730
	R	8	1.00		8	1.04			9			0	9				0			0	9 9
SB	L	20	1.00		20	1.04			22			0	22				0			0	22 22
	T	735	1.00		735	1.04			804	49	18	67	871				0	30%		80	951 804 + (67) + (80) = 951
	R	331	1.00		331	1.04			362			0	362				0			0	362 362

US 1/S Ridgewood Ave & Park Ave																				6
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L	259	1.00	259	1.04		269			0	269			0			0	269	269	
	T	25	1.00	25	1.04		26			0	26			0			0	26	26	
	R	139	1.00	139	1.04		145			0	145			0	5%		13	158	145 + (13) = 158	
WB	L	47	1.00	47	1.04		49			0	49			0			0	49	49	
	T	66	1.00	66	1.04		69			0	69			0			0	69	69	
	R	19	1.00	19	1.04		20			0	20			0			0	20	20	
NB	L	118	1.00	118	1.09		129			0	129			0		5%	11	140	129 + (11) = 140	
	T	945	1.00	945	1.09		1033	29	17	46	1079			0		20%	43	1122	1033 + (46) + (43) = 1122	
	R	28	1.00	28	1.09		31			0	31			0			0	31	31	
SB	L	13	1.00	13	1.04		14			0	14			0			0	14	14	
	T	1201	1.00	1,201	1.04		1249	49	18	67	1316			0	20%		53	1369	1249 + (67) + (53) = 1369	
	R	203	1.00	203	1.04		211			0	211			0			0	211	211	

Intersection= Sabal Palm Dr & 30th St																			7	
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj	Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L		3	1.00	3	1.04	0				0	3			0			0	3	
	T		161	1.00	161	1.04	167				0	167			0	4%		11	178	167 + (11) = 178
	R		8	1.00	8	1.04	8				0	8			0			0	8	8
WB	L		11	1.00	11	1.04	11				0	11			0		4%	8	19	11 + (8) = 19
	T		238	1.00	238	1.04	248				0	248			0		4%	9	257	248 + (9) = 257
	R		10	1.00	10	1.04	10				0	10			0		4%	8	18	10 + (8) = 18
NB	L		6	1.00	6	1.04	6				0	6			0			0	6	6
	T		7	1.00	7	1.04	7				0	7			0			0	7	7
	R		6	1.00	6	1.04	6				0	6			0	4%		11	17	6 + (11) = 17
SB	L		6	1.00	6	1.04	6				0	6			0	4%		10	16	6 + (10) = 16
	T		11	1.00	11	1.04	11				0	11			0			0	11	11
	R		3	1.00	3	1.04	3				0	3			0			0	3	3

Intersection= US 1/S Ridgewood Ave & Project Access Driveway																			8
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
WB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0		10%	18	18 (18)	
NB	L						0			0	0			0			0	0	
	T						630	29	17	46	676			0		60%	132	808	630 + {46} + (132) = 808
	R						0			0	0			0	10%		31	31 (31)	
SB	L						0			0	0			0			0	0	
	T						743	49	18	67	810			0	70%		186	996	743 + {67} + (186) = 996
	R						0			0	0			0			0	0	

Intersection= Jones Fish Camp Rd & West Project Access Driveway																			9
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						3	21	1	0	0			0	5%		31	31 (31)	
	T						0	49		22	25			0	85%		203	228 3 + (22) + (203) = 228	
	R						0			49	49			0			0	49 (49)	
WB	L						0			0	0			0			0	0	
	T						3	13	1	14	17			0		80%	178	195 3 + {14} + (178) = 195	
	R						0			0	0			0			0	0	
NB	L						0	29		29	29			0			0	29 (29)	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0		10%	18	18 (18)	

Intersection= Jones Fish Camp Rd & Mid Project Access Driveway																			10
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0	50%		32	45%		102	134	[32] + (102) = 134
	T						3	21	1	22	25			0	40%		101	126	3 + (22) + (101) = 126
	R						0			0	0			0			0	0	
WB	L						0			0	0			0			0	0	
	T						3	13	1	14	17			0		40%	89	106	3 + (14) + (89) = 106
	R						0			0	0			0			0	0	
NB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0		50%	22		40%	89	111	[22] + (89) = 111

Intersection= Jones Fish Camp Rd & East Project Access Driveway																			11
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	RF Estates	DG	Vested	Tot Bg'd	% PB Ent	% PB Ext	Passby	%Proj Ent	%Proj Ext	Project	Total	Formula
EB	L						0			0	0	50%		32	40%		101	133	[32] + (101) = 133
	T						3		1	1	4			0			0	4	3 + (1) = 4
	R						0	21		21	21			0			0	21	(21)
WB	L						0			0	0			0			0	0	
	T						3		1	1	4			0			0	4	3 + (1) = 4
	R						0			0	0			0			0	0	
NB	L						0	13		13	13			0			0	13	(13)
	T						0			0	0			0			0	0	
	R						0			0	0			0			0	0	
SB	L						0			0	0			0			0	0	
	T						0			0	0			0			0	0	
	R						0			0	0		50%	23		40%	89	112	[23] + (89) = 112

Appendix J
HCM Worksheets

HCM 7th TWSC
1: US 1 & Halifax Ave

Intersection												
Int Delay, s/veh	18.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	37	12	18	8	4	71	10	349	53	290	213	44
Future Vol, veh/h	37	12	18	8	4	71	10	349	53	290	213	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	320	-	-	360	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	8	6	25	25	3	30	5	6	2	5	5
Mvmt Flow	48	16	23	10	5	92	13	453	69	377	277	57

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1314	1606	167	1413	1601	261	334	0	0	522	0	0
Stage 1	1058	1058	-	514	514	-	-	-	-	-	-	-
Stage 2	255	548	-	899	1087	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.66	7.02	8	7	6.96	4.7	-	-	4.14	-	-
Critical Hdwy Stg 1	6.56	5.66	-	7	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.66	-	7	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.08	3.36	3.75	4.25	3.33	2.5	-	-	2.22	-	-
Pot Cap-1 Maneuver	115	98	836	79	84	735	1043	-	-	1040	-	-
Stage 1	238	287	-	457	480	-	-	-	-	-	-	-
Stage 2	724	500	-	257	246	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	59	62	836	40	53	735	1043	-	-	1040	-	-
Mov Cap-2 Maneuver	59	62	-	40	53	-	-	-	-	-	-	-
Stage 1	152	183	-	451	474	-	-	-	-	-	-	-
Stage 2	618	494	-	146	157	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/20.73		35.32	0.21	5.52
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1043	-	-	80 223	1040	-	-
HCM Lane V/C Ratio	0.012	-	-	1.091 0.483	0.362	-	-
HCM Control Delay (s/veh)	8.5	-	-	220.7 35.3	10.4	-	-
HCM Lane LOS	A	-	-	F E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	6.2 2.4	1.7	-	-

HCM 7th TWSC

1: US 1 & Halifax Ave

Intersection												
Int Delay, s/veh	27.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↕↵		↵	↕↵	
Traffic Vol, veh/h	38	12	19	8	4	74	10	377	55	302	249	46
Future Vol, veh/h	38	12	19	8	4	74	10	377	55	302	249	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	380	-	-	380	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	8	6	25	25	3	30	5	6	2	5	5
Mvmt Flow	49	16	25	10	5	96	13	490	71	392	323	60
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1411	1725	192	1505	1719	281	383	0	0	561	0	0
Stage 1	1138	1138	-	551	551	-	-	-	-	-	-	-
Stage 2	273	587	-	954	1168	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.66	7.02	8	7	6.96	4.7	-	-	4.14	-	-
Critical Hdwy Stg 1	6.56	5.66	-	7	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.66	-	7	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.08	3.36	3.75	4.25	3.33	2.5	-	-	2.22	-	-
Pot Cap-1 Maneuver	97	83	805	67	70	714	995	-	-	1006	-	-
Stage 1	213	263	-	432	460	-	-	-	-	-	-	-
Stage 2	706	480	-	237	223	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 47	50	805	31	42	714	995	-	-	1006	-	-
Mov Cap-2 Maneuver	~ 47	50	-	31	42	-	-	-	-	-	-	-
Stage 1	130	160	-	426	454	-	-	-	-	-	-	-
Stage 2	596	474	-	127	136	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/veh	359.71		49.16		0.2		5.49					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	995	-	-	64	187	1006	-	-				
HCM Lane V/C Ratio	0.013	-	-	1.4	0.596	0.39	-	-				
HCM Control Delay (s/veh)	8.7	-	-	\$ 359.7	49.2	10.8	-	-				
HCM Lane LOS	A	-	-	F	E	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	7.6	3.3	1.9	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

HCM 7th TWSC
1: US 1 & Halifax Ave

Intersection																
Int Delay, s/veh	44															
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Vol, veh/h	38	12	19	8	4	74	10	456	55	302	326	46				
Future Vol, veh/h	38	12	19	8	4	74	10	456	55	302	326	46				
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0				
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free				
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None				
Storage Length	-	-	-	-	-	-	390	-	-	390	-	-				
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-				
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-				
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77				
Heavy Vehicles, %	3	8	6	25	25	3	30	5	6	2	5	5				
Mvmt Flow	49	16	25	10	5	96	13	592	71	392	423	60				
Major/Minor	Minor2		Minor1			Major1			Major2							
Conflicting Flow All	1562	1927	242	1658	1921	332	483	0	0	664	0	0				
Stage 1	1238	1238	-	654	654	-	-	-	-	-	-	-				
Stage 2	325	690	-	1004	1268	-	-	-	-	-	-	-				
Critical Hdwy	7.56	6.66	7.02	8	7	6.96	4.7	-	-	4.14	-	-				
Critical Hdwy Stg 1	6.56	5.66	-	7	6	-	-	-	-	-	-	-				
Critical Hdwy Stg 2	6.56	5.66	-	7	6	-	-	-	-	-	-	-				
Follow-up Hdwy	3.53	4.08	3.36	3.75	4.25	3.33	2.5	-	-	2.22	-	-				
Pot Cap-1 Maneuver	75	61	747	51	51	661	902	-	-	921	-	-				
Stage 1	185	234	-	371	409	-	-	-	-	-	-	-				
Stage 2	659	430	-	220	198	-	-	-	-	-	-	-				
Platoon blocked, %								-	-		-	-				
Mov Cap-1 Maneuver	~ 32	35	747	19	29	661	902	-	-	921	-	-				
Mov Cap-2 Maneuver	~ 32	35	-	19	29	-	-	-	-	-	-	-				
Stage 1	106	135	-	366	403	-	-	-	-	-	-	-				
Stage 2	548	424	-	108	113	-	-	-	-	-	-	-				
Approach	EB		WB			NB			SB							
HCM Control Delay, s/veh	667.01		113.23			0.17			5.28							
HCM LOS	F		F													
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR								
Capacity (veh/h)	902	-	-	45	128	921	-	-								
HCM Lane V/C Ratio	0.014	-	-	2.012	0.872	0.426	-	-								
HCM Control Delay (s/veh)	9	-	-	\$ 667	113.2	11.8	-	-								
HCM Lane LOS	A	-	-	F	F	B	-	-								
HCM 95th %tile Q(veh)	0	-	-	9.3	5.5	2.2	-	-								
Notes																
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined								*: All major volume in platoon			

HCM 7th TWSC
1: US 1 & Halifax Ave

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	52	12	10	18	10	39	29	250	30	59	251	68
Future Vol, veh/h	52	12	10	18	10	39	29	250	30	59	251	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	320	-	-	360	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	14	11	20	11	44	33	284	34	67	285	77
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	672	842	181	651	864	159	363	0	0	318	0	0
Stage 1	458	458	-	367	367	-	-	-	-	-	-	-
Stage 2	214	384	-	284	497	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	342	299	830	354	291	858	1193	-	-	1239	-	-
Stage 1	552	565	-	625	620	-	-	-	-	-	-	-
Stage 2	769	610	-	700	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	286	275	830	306	267	858	1193	-	-	1239	-	-
Mov Cap-2 Maneuver	286	275	-	306	267	-	-	-	-	-	-	-
Stage 1	522	535	-	608	603	-	-	-	-	-	-	-
Stage 2	696	593	-	636	514	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v20.75			14.06		0.76		1.26					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1193	-	-	312 473	1239	-	-					
HCM Lane V/C Ratio	0.028	-	-	0.27 0.161	0.054	-	-					
HCM Control Delay (s/veh)	8.1	-	-	20.7 14.1	8.1	-	-					
HCM Lane LOS	A	-	-	C B	A	-	-					
HCM 95th %tile Q(veh)	0.1	-	-	1.1 0.6	0.2	-	-					

HCM 7th TWSC
1: US 1 & Halifax Ave

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	54	12	10	19	10	41	30	298	31	61	291	71
Future Vol, veh/h	54	12	10	19	10	41	30	298	31	61	291	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	380	-	-	380	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	20	2	2	3	7	5	10	2	6	2
Mvmt Flow	61	14	11	22	11	47	34	339	35	69	331	81

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	753	952	206	735	974	187	411	0	0	374	0	0
Stage 1	510	510	-	424	424	-	-	-	-	-	-	-
Stage 2	243	442	-	311	550	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	7.3	7.54	6.54	6.96	4.24	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.5	3.52	4.02	3.33	2.27	-	-	2.22	-	-
Pot Cap-1 Maneuver	299	258	748	307	250	820	1109	-	-	1181	-	-
Stage 1	514	536	-	578	585	-	-	-	-	-	-	-
Stage 2	739	575	-	674	514	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	245	235	748	262	228	820	1109	-	-	1181	-	-
Mov Cap-2 Maneuver	245	235	-	262	228	-	-	-	-	-	-	-
Stage 1	484	505	-	560	567	-	-	-	-	-	-	-
Stage 2	662	557	-	608	484	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v24.79			15.54		0.7		1.19	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	267 421	1181	-	-
HCM Lane V/C Ratio	0.031	-	-	0.323 0.189	0.059	-	-
HCM Control Delay (s/veh)	8.3	-	-	24.8 15.5	8.2	-	-
HCM Lane LOS	A	-	-	C C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4 0.7	0.2	-	-

HCM 7th TWSC
1: US 1 & Halifax Ave

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	54	12	10	19	10	41	30	377	31	61	355	71
Future Vol, veh/h	54	12	10	19	10	41	30	377	31	61	355	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	390	-	-	390	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	20	2	2	3	7	5	10	2	6	2
Mvmt Flow	61	14	11	22	11	47	34	428	35	69	403	81
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	870	1114	242	861	1137	232	484	0	0	464	0	0
Stage 1	582	582	-	514	514	-	-	-	-	-	-	-
Stage 2	288	532	-	347	623	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	7.3	7.54	6.54	6.96	4.24	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.5	3.52	4.02	3.33	2.27	-	-	2.22	-	-
Pot Cap-1 Maneuver	245	207	707	249	200	767	1041	-	-	1094	-	-
Stage 1	466	497	-	511	534	-	-	-	-	-	-	-
Stage 2	695	524	-	642	477	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	197	187	707	207	182	767	1041	-	-	1094	-	-
Mov Cap-2 Maneuver	197	187	-	207	182	-	-	-	-	-	-	-
Stage 1	436	466	-	495	516	-	-	-	-	-	-	-
Stage 2	618	507	-	574	446	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v32.43			18.3		0.59		1.07					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1041	-	-	216	350	1094	-	-				
HCM Lane V/C Ratio	0.033	-	-	0.401	0.227	0.063	-	-				
HCM Control Delay (s/veh)	8.6	-	-	32.4	18.3	8.5	-	-				
HCM Lane LOS	A	-	-	D	C	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	1.8	0.9	0.2	-	-				

HCM 7th TWSC 2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	4	0	4	0	0	6	1	683	3	3	558	0
Future Vol, veh/h	4	0	4	0	0	6	1	683	3	3	558	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	470	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	0	0	7	1	813	4	4	664	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1080	1490	332	1157	1489	408	664	0	0	817	0	0
Stage 1	671	671	-	817	817	-	-	-	-	-	-	-
Stage 2	409	819	-	339	671	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	172	123	664	152	123	592	921	-	-	807	-	-
Stage 1	412	453	-	337	388	-	-	-	-	-	-	-
Stage 2	590	387	-	649	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	169	122	664	149	122	592	921	-	-	807	-	-
Mov Cap-2 Maneuver	348	299	-	302	301	-	-	-	-	-	-	-
Stage 1	410	451	-	336	388	-	-	-	-	-	-	-
Stage 2	582	387	-	641	451	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v13.05			11.15		0.03		0.05					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	5	-	-	457	592	807	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.021	0.012	0.004	-	-				
HCM Control Delay (s/veh)	8.9	0	-	13	11.2	9.5	-	-				
HCM Lane LOS	A	A	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-				

HCM 7th TWSC

2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	4	27	0	59	1	710	17	27	580	0
Future Vol, veh/h	4	0	4	27	0	59	1	710	17	27	580	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	470	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	32	0	70	1	845	20	32	690	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1180	1623	345	1267	1613	433	690	0	0	865	0	0
Stage 1	755	755	-	858	858	-	-	-	-	-	-	-
Stage 2	425	868	-	410	755	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	146	102	651	126	103	571	900	-	-	773	-	-
Stage 1	367	415	-	318	372	-	-	-	-	-	-	-
Stage 2	578	368	-	590	415	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	122	97	651	119	99	571	900	-	-	773	-	-
Mov Cap-2 Maneuver	289	260	-	278	274	-	-	-	-	-	-	-
Stage 1	352	398	-	317	371	-	-	-	-	-	-	-
Stage 2	506	367	-	561	398	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v14.21			15.99		0.03		0.44					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	5	-	-	400	429	773	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.024	0.239	0.042	-	-				
HCM Control Delay (s/veh)	9	0	-	14.2	16	9.9	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0.1	-	-				

HCM 7th TWSC

2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	4	104	0	207	1	715	91	210	580	0
Future Vol, veh/h	4	0	4	104	0	207	1	715	91	210	580	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	455	470	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	124	0	246	1	851	108	250	690	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1618	2152	345	1699	2044	426	690	0	0	960	0	0
Stage 1	1190	1190	-	854	854	-	-	-	-	-	-	-
Stage 2	428	962	-	845	1190	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	69	47	651	~ 60	56	577	900	-	-	713	-	-
Stage 1	199	259	-	320	373	-	-	-	-	-	-	-
Stage 2	575	332	-	324	259	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	26	31	651	~ 38	36	577	900	-	-	713	-	-
Mov Cap-2 Maneuver	67	73	-	167	146	-	-	-	-	-	-	-
Stage 1	129	168	-	319	373	-	-	-	-	-	-	-
Stage 2	329	332	-	209	168	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v36.95			34.24		0.03		3.39					
HCM LOS	E		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	5	-	-	122	167	577	713	-	-			
HCM Lane V/C Ratio	0.001	-	-	0.078	0.74	0.427	0.351	-	-			
HCM Control Delay (s/veh)	9	0	-	37	70.9	15.8	12.8	-	-			
HCM Lane LOS	A	A	-	E	F	C	B	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.2	4.6	2.1	1.6	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

HCM 7th TWSC

2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	3	0	1	0	0	3	3	600	1	2	706	7
Future Vol, veh/h	3	0	1	0	0	3	3	600	1	2	706	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	470	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	1	0	0	4	4	714	1	2	840	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1214	1572	424	1147	1576	358	849	0	0	715	0	0
Stage 1	849	849	-	722	722	-	-	-	-	-	-	-
Stage 2	364	723	-	425	854	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	137	109	578	154	109	639	785	-	-	881	-	-
Stage 1	322	375	-	384	429	-	-	-	-	-	-	-
Stage 2	627	429	-	578	373	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	136	108	578	152	108	639	785	-	-	881	-	-
Mov Cap-2 Maneuver	288	285	-	327	283	-	-	-	-	-	-	-
Stage 1	321	374	-	382	427	-	-	-	-	-	-	-
Stage 2	620	427	-	575	372	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v16.11			10.67		0.1		0.03					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	18	-	-	329	639	881	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.014	0.006	0.003	-	-				
HCM Control Delay (s/veh)	9.6	0.1	-	16.1	10.7	9.1	-	-				
HCM Lane LOS	A	A	-	C	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

HCM 7th TWSC

2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	3	0	1	30	0	49	3	624	39	69	734	7
Future Vol, veh/h	3	0	1	30	0	49	3	624	39	69	734	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	470	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	92	84	92	92	92	84	84	92	92	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	1	33	0	53	4	743	42	75	874	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1407	1820	441	1358	1803	393	882	0	0	785	0	0
Stage 1	1028	1028	-	771	771	-	-	-	-	-	-	-
Stage 2	379	792	-	587	1032	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	99	77	564	107	79	606	762	-	-	829	-	-
Stage 1	251	310	-	359	408	-	-	-	-	-	-	-
Stage 2	615	399	-	463	308	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	82	69	564	97	71	606	762	-	-	829	-	-
Mov Cap-2 Maneuver	204	211	-	97	71	-	-	-	-	-	-	-
Stage 1	228	282	-	357	405	-	-	-	-	-	-	-
Stage 2	558	396	-	420	280	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v20.13			35.28		0.1		0.77					
HCM LOS	C		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	15	-	-	243	202	829	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.02	0.424	0.09	-	-				
HCM Control Delay (s/veh)	9.7	0.1	-	20.1	35.3	9.8	-	-				
HCM Lane LOS	A	A	-	C	E	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	1.9	0.3	-	-				

HCM 7th TWSC

2: US 1 & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	1	94	0	181	3	639	103	255	734	7
Future Vol, veh/h	3	0	1	94	0	181	3	639	103	255	734	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	150	-	-	455	470	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	1	112	0	215	4	761	123	304	874	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1873	2376	441	1812	2257	380	882	0	0	883	0	0
Stage 1	1485	1485	-	768	768	-	-	-	-	-	-	-
Stage 2	388	890	-	1044	1489	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	44	34	564	~ 49	41	618	762	-	-	762	-	-
Stage 1	131	187	-	360	409	-	-	-	-	-	-	-
Stage 2	608	359	-	245	186	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	17	20	564	~ 29	24	618	762	-	-	762	-	-
Mov Cap-2 Maneuver	58	48	-	127	100	-	-	-	-	-	-	-
Stage 1	79	112	-	358	407	-	-	-	-	-	-	-
Stage 2	393	357	-	147	112	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v56.17			48.63		0.09		3.28					
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	17	-	-	75 127 618	762	-	-					
HCM Lane V/C Ratio	0.005	-	-	0.063 0.88 0.349	0.399	-	-					
HCM Control Delay (s/veh)	9.7	0.1	-	56.2 115.5 13.9	12.8	-	-					
HCM Lane LOS	A	A	-	F F B	B	-	-					
HCM 95th %tile Q(veh)	0	-	-	0.2 5.6 1.6	1.9	-	-					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

HCM 7th TWSC 3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	49	77	726	638	25
Future Vol, veh/h	65	49	77	726	638	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	6	2	3	5	8
Mvmt Flow	68	51	80	756	665	26

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1203	332	691
Stage 1	665	-	-
Stage 2	539	-	-
Critical Hdwy	6.84	7.02	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.36	2.22
Pot Cap-1 Maneuver	177	652	900
Stage 1	473	-	-
Stage 2	549	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	161	652	900
Mov Cap-2 Maneuver	352	-	-
Stage 1	431	-	-
Stage 2	549	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v16.22		0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	439	-	-
HCM Lane V/C Ratio	0.089	-	0.271	-	-
HCM Control Delay (s/veh)	9.4	-	16.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-

HCM 7th TWSC

3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	51	80	808	722	27
Future Vol, veh/h	68	51	80	808	722	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	6	2	3	5	8
Mvmt Flow	71	53	83	842	752	28

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1340	376	780
Stage 1	752	-	-
Stage 2	588	-	-
Critical Hdwy	6.84	7.02	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.36	2.22
Pot Cap-1 Maneuver	144	610	833
Stage 1	426	-	-
Stage 2	518	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	130	610	833
Mov Cap-2 Maneuver	315	-	-
Stage 1	384	-	-
Stage 2	518	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v18.13		0.88	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	833	-	397	-	-
HCM Lane V/C Ratio	0.1	-	0.312	-	-
HCM Control Delay (s/veh)	9.8	-	18.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

HCM 7th TWSC

3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	59	87	979	897	27
Future Vol, veh/h	68	59	87	979	897	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	6	2	3	5	8
Mvmt Flow	71	61	91	1020	934	28

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1626	467	963
Stage 1	934	-	-
Stage 2	691	-	-
Critical Hdwy	6.84	7.02	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.36	2.22
Pot Cap-1 Maneuver	93	532	711
Stage 1	343	-	-
Stage 2	459	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	81	532	711
Mov Cap-2 Maneuver	248	-	-
Stage 1	299	-	-
Stage 2	459	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v23.07		0.88	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	711	-	329	-	-
HCM Lane V/C Ratio	0.127	-	0.402	-	-
HCM Control Delay (s/veh)	10.8	-	23.1	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.9	-	-

HCM 7th TWSC

3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	62	99	993	865	79
Future Vol, veh/h	65	62	99	993	865	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	8	3	2	2	3
Mvmt Flow	71	67	108	1079	940	86

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1695	470	1026
Stage 1	940	-	-
Stage 2	755	-	-
Critical Hdwy	6.84	7.06	4.16
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.38	2.23
Pot Cap-1 Maneuver	84	524	666
Stage 1	340	-	-
Stage 2	425	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 70	524	666
Mov Cap-2 Maneuver	233	-	-
Stage 1	285	-	-
Stage 2	425	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v24.58		1.04	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	666	-	319	-	-
HCM Lane V/C Ratio	0.161	-	0.432	-	-
HCM Control Delay (s/veh)	11.4	-	24.6	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.6	-	2.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th TWSC

3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	64	103	1079	1013	86
Future Vol, veh/h	68	64	103	1079	1013	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	8	3	2	2	3
Mvmt Flow	74	70	112	1173	1101	93

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1911	551	1195
Stage 1	1101	-	-
Stage 2	810	-	-
Critical Hdwy	6.84	7.06	4.16
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.38	2.23
Pot Cap-1 Maneuver	~ 60	463	575
Stage 1	280	-	-
Stage 2	398	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 48	463	575
Mov Cap-2 Maneuver	189	-	-
Stage 1	225	-	-
Stage 2	398	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v33.43		1.11	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	575	-	266	-	-
HCM Lane V/C Ratio	0.195	-	0.54	-	-
HCM Control Delay (s/veh)	12.8	-	33.4	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th TWSC

3: US 1 & Volco Rd

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	72	110	1222	1191	86
Future Vol, veh/h	68	72	110	1222	1191	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	315	-	-	430
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	8	3	2	2	3
Mvmt Flow	74	78	120	1328	1295	93

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2198	647	1388
Stage 1	1295	-	-
Stage 2	903	-	-
Critical Hdwy	6.84	7.06	4.16
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.38	2.23
Pot Cap-1 Maneuver	~ 38	399	484
Stage 1	221	-	-
Stage 2	356	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 29	399	484
Mov Cap-2 Maneuver	143	-	-
Stage 1	166	-	-
Stage 2	356	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	54.93	1.23	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	484	-	214	-	-
HCM Lane V/C Ratio	0.247	-	0.712	-	-
HCM Control Delay (s/veh)	14.9	-	54.9	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	1	-	4.6	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Timings

4: US 1 & Roberts Rd

								
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø1	Ø8
Lane Configurations								
Traffic Volume (vph)	260	0	129	806	546	141		
Future Volume (vph)	260	0	129	806	546	141		
Turn Type	Perm	NA	Prot	NA	NA	Perm		
Protected Phases		4	5	2	6		1	8
Permitted Phases	4					6		
Detector Phase	4	4	5	2	6	6		
Switch Phase								
Minimum Initial (s)	7.0	7.0	5.0	16.0	16.0	16.0	5.0	7.0
Minimum Split (s)	24.5	24.5	13.0	25.5	26.0	26.0	13.5	25.0
Total Split (s)	25.0	25.0	25.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%	26%
Yellow Time (s)	4.0	4.0	5.5	5.5	6.0	6.0	6.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.0	2.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.5	8.0	7.5	8.0	8.0		
Lead/Lag			Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	None
Act Effect Green (s)	19.0	19.0	10.7	34.3	19.1	19.1		
Actuated g/C Ratio	0.28	0.28	0.16	0.51	0.28	0.28		
v/c Ratio	0.68	0.12	0.48	0.46	0.59	0.27		
Control Delay (s/veh)	36.1	0.3	34.5	11.0	25.1	5.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	36.1	0.3	34.5	11.0	25.1	5.6		
LOS	D	A	C	B	C	A		
Approach Delay (s/veh)		27.2		14.2	21.1			
Approach LOS		C		B	C			

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 67.8

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 18.9

Intersection LOS: B

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd



HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	0	86	0	0	0	129	806	0	0	546	141
Future Volume (veh/h)	260	0	86	0	0	0	129	806	0	0	546	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1811	1856
Adj Flow Rate, veh/h	268	0	71	0	0	0	133	831	0	0	563	73
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	2	2	2	6	3
Cap, veh/h	474	0	305	0	360	0	174	1901	0	3	1001	457
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.00	0.10	0.53	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1781	0	1585	0	1870	0	1767	3647	0	1781	3441	1572
Grp Volume(v), veh/h	268	0	71	0	0	0	133	831	0	0	563	73
Grp Sat Flow(s),veh/h/ln	1781	0	1585	0	1870	0	1767	1777	0	1781	1721	1572
Q Serve(g_s), s	7.9	0.0	2.1	0.0	0.0	0.0	4.0	7.8	0.0	0.0	7.6	1.9
Cycle Q Clear(g_c), s	7.9	0.0	2.1	0.0	0.0	0.0	4.0	7.8	0.0	0.0	7.6	1.9
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	474	0	305	0	360	0	174	1901	0	3	1001	457
V/C Ratio(X)	0.57	0.00	0.23	0.00	0.00	0.00	0.76	0.44	0.00	0.00	0.56	0.16
Avail Cap(c_a), veh/h	730	0	533	0	612	0	546	2422	0	534	2314	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	18.8	0.0	0.0	0.0	24.2	7.8	0.0	0.0	16.5	14.5
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.0	0.0	0.0	6.7	0.2	0.0	0.0	0.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	0.0	1.3	0.0	0.0	0.0	3.1	3.1	0.0	0.0	4.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.2	0.0	19.2	0.0	0.0	0.0	30.9	7.9	0.0	0.0	17.0	14.7
LnGrp LOS	C		B				C	A			B	B
Approach Vol, veh/h	339			0			964			636		
Approach Delay, s/veh	21.5			0.0			11.1			16.8		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	37.4		17.6	13.4	24.0		17.6				
Change Period (Y+Rc), s	8.5	* 8		* 7	8.0	8.0		7.0				
Max Green Setting (Gmax), s	16.5	* 38		* 19	17.0	37.0		18.0				
Max Q Clear Time (g_c+I1), s	0.0	9.8		9.9	6.0	9.6		0.0				
Green Ext Time (p_c), s	0.0	5.3		0.8	0.2	3.6		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	14.8											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

4: US 1 & Roberts Rd

								
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø1	Ø8
Lane Configurations								
Traffic Volume (vph)	270	0	141	934	621	154		
Future Volume (vph)	270	0	141	934	621	154		
Turn Type	Perm	NA	Prot	NA	NA	Perm		
Protected Phases		4	5	2	6		1	8
Permitted Phases	4					6		
Detector Phase	4	4	5	2	6	6		
Switch Phase								
Minimum Initial (s)	7.0	7.0	5.0	16.0	16.0	16.0	5.0	7.0
Minimum Split (s)	24.5	24.5	13.0	25.5	26.0	26.0	13.5	25.0
Total Split (s)	25.0	25.0	25.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%	26%
Yellow Time (s)	4.0	4.0	5.5	5.5	6.0	6.0	6.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.0	2.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.5	8.0	7.5	8.0	8.0		
Lead/Lag			Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	None
Act Effct Green (s)	18.7	18.7	11.4	40.5	20.6	20.6		
Actuated g/C Ratio	0.25	0.25	0.16	0.55	0.28	0.28		
v/c Ratio	0.77	0.13	0.54	0.49	0.67	0.29		
Control Delay (s/veh)	44.7	0.4	37.0	10.8	27.4	5.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	44.7	0.4	37.0	10.8	27.4	5.3		
LOS	D	A	D	B	C	A		
Approach Delay (s/veh)		33.7		14.2	23.0			
Approach LOS		C		B	C			

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 73.4

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 20.5

Intersection LOS: C

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd



HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	0	89	0	0	0	141	934	0	0	621	154
Future Volume (veh/h)	270	0	89	0	0	0	141	934	0	0	621	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1811	1856
Adj Flow Rate, veh/h	278	0	73	0	0	0	145	963	0	0	640	80
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	2	2	2	6	3
Cap, veh/h	480	0	313	0	369	0	189	1902	0	3	982	449
Arrive On Green	0.20	0.00	0.20	0.00	0.00	0.00	0.11	0.54	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1781	0	1585	0	1870	0	1767	3647	0	1781	3441	1572
Grp Volume(v), veh/h	278	0	73	0	0	0	145	963	0	0	640	80
Grp Sat Flow(s),veh/h/ln	1781	0	1585	0	1870	0	1767	1777	0	1781	1721	1572
Q Serve(g_s), s	8.3	0.0	2.2	0.0	0.0	0.0	4.5	9.7	0.0	0.0	9.2	2.1
Cycle Q Clear(g_c), s	8.3	0.0	2.2	0.0	0.0	0.0	4.5	9.7	0.0	0.0	9.2	2.1
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	313	0	369	0	189	1902	0	3	982	449
V/C Ratio(X)	0.58	0.00	0.23	0.00	0.00	0.00	0.77	0.51	0.00	0.00	0.65	0.18
Avail Cap(c_a), veh/h	716	0	523	0	600	0	536	2376	0	524	2270	1037
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	18.9	0.0	0.0	0.0	24.4	8.3	0.0	0.0	17.6	15.1
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.0	0.0	0.0	6.3	0.2	0.0	0.0	0.7	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	0.0	1.4	0.0	0.0	0.0	3.4	3.9	0.0	0.0	5.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.5	0.0	19.3	0.0	0.0	0.0	30.7	8.5	0.0	0.0	18.3	15.3
LnGrp LOS	C		B				C	A			B	B
Approach Vol, veh/h	351			0			1108			720		
Approach Delay, s/veh	21.8			0.0			11.4			18.0		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	38.0		18.1	14.0	24.0		18.1				
Change Period (Y+Rc), s	8.5	* 8		* 7	8.0	8.0		7.0				
Max Green Setting (Gmax), s	16.5	* 38		* 19	17.0	37.0		18.0				
Max Q Clear Time (g_c+I1), s	0.0	11.7		10.3	6.5	11.2		0.0				
Green Ext Time (p_c), s	0.0	6.3		0.8	0.2	4.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	15.3											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

4: US 1 & Roberts Rd

							Ø1	Ø8
Lane Group	EBL	EBT	NBL	NBT	SBT	SBR	Ø1	Ø8
Lane Configurations								
Traffic Volume (vph)	270	0	172	1074	765	154		
Future Volume (vph)	270	0	172	1074	765	154		
Turn Type	Perm	NA	Prot	NA	NA	Perm		
Protected Phases		4	5	2	6		1	8
Permitted Phases	4					6		
Detector Phase	4	4	5	2	6	6		
Switch Phase								
Minimum Initial (s)	7.0	7.0	5.0	16.0	16.0	16.0	5.0	7.0
Minimum Split (s)	24.5	24.5	13.0	25.5	26.0	26.0	13.5	25.0
Total Split (s)	25.0	25.0	25.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%	26%
Yellow Time (s)	4.0	4.0	5.5	5.5	6.0	6.0	6.0	4.0
All-Red Time (s)	2.5	2.5	2.5	2.0	2.0	2.0	2.5	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.5	8.0	7.5	8.0	8.0		
Lead/Lag			Lead	Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	None
Act Effect Green (s)	18.8	18.8	12.8	46.7	25.2	25.2		
Actuated g/C Ratio	0.24	0.24	0.16	0.59	0.32	0.32		
v/c Ratio	0.84	0.19	0.63	0.53	0.73	0.26		
Control Delay (s/veh)	55.6	0.6	42.9	10.6	28.6	4.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	55.6	0.6	42.9	10.6	28.6	4.7		
LOS	E	A	D	B	C	A		
Approach Delay (s/veh)		38.6		15.1	24.6			
Approach LOS		D		B	C			

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 79.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 22.1

Intersection LOS: C

Intersection Capacity Utilization 67.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd



HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	0	120	0	0	0	172	1074	0	0	765	154
Future Volume (veh/h)	270	0	120	0	0	0	172	1074	0	0	765	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1856	1870	1870	1870	1811	1856
Adj Flow Rate, veh/h	278	0	99	0	0	0	177	1107	0	0	789	80
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	3	2	2	2	6	3
Cap, veh/h	459	0	307	0	362	0	225	2022	0	3	1084	496
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.00	0.13	0.57	0.00	0.00	0.32	0.32
Sat Flow, veh/h	1781	0	1585	0	1870	0	1767	3647	0	1781	3441	1572
Grp Volume(v), veh/h	278	0	99	0	0	0	177	1107	0	0	789	80
Grp Sat Flow(s),veh/h/ln	1781	0	1585	0	1870	0	1767	1777	0	1781	1721	1572
Q Serve(g_s), s	9.4	0.0	3.4	0.0	0.0	0.0	6.1	12.3	0.0	0.0	12.9	2.3
Cycle Q Clear(g_c), s	9.4	0.0	3.4	0.0	0.0	0.0	6.1	12.3	0.0	0.0	12.9	2.3
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	459	0	307	0	362	0	225	2022	0	3	1084	496
V/C Ratio(X)	0.61	0.00	0.32	0.00	0.00	0.00	0.79	0.55	0.00	0.00	0.73	0.16
Avail Cap(c_a), veh/h	636	0	464	0	533	0	475	2109	0	465	2015	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	21.9	0.0	0.0	0.0	26.7	8.5	0.0	0.0	19.2	15.6
Incr Delay (d2), s/veh	1.3	0.0	0.6	0.0	0.0	0.0	6.0	0.3	0.0	0.0	1.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.0	0.0	2.2	0.0	0.0	0.0	4.7	5.3	0.0	0.0	7.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.6	0.0	22.5	0.0	0.0	0.0	32.8	8.8	0.0	0.0	20.2	15.8
LnGrp LOS	C		C				C	A			C	B
Approach Vol, veh/h	377			0			1284			869		
Approach Delay, s/veh	24.8			0.0			12.1			19.8		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	43.9		19.2	16.0	27.9		19.2				
Change Period (Y+Rc), s	8.5	* 8		* 7	8.0	8.0		7.0				
Max Green Setting (Gmax), s	16.5	* 38		* 19	17.0	37.0		18.0				
Max Q Clear Time (g_c+I1), s	0.0	14.3		11.4	8.1	14.9		0.0				
Green Ext Time (p_c), s	0.0	7.3		0.8	0.3	5.0		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	16.6											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

4: US 1 & Roberts Rd

								
Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR	Ø1
Lane Configurations								
Traffic Volume (vph)	229	0	0	173	709	862	276	
Future Volume (vph)	229	0	0	173	709	862	276	
Turn Type	Perm	NA	NA	Prot	NA	NA	Perm	
Protected Phases		4	8	5	2	6		1
Permitted Phases	4						6	
Detector Phase	4	4	8	5	2	6	6	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	5.0	16.0	16.0	16.0	5.0
Minimum Split (s)	24.5	24.5	25.0	13.0	25.5	26.0	26.0	13.5
Total Split (s)	25.0	25.0	25.0	25.0	45.0	45.0	45.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	6.0	6.0	6.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.0	2.0	2.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	7.0	8.0	7.5	8.0	8.0	
Lead/Lag				Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min	None
Act Effct Green (s)	17.1	17.1	16.6	13.0	49.4	27.7	27.7	
Actuated g/C Ratio	0.21	0.21	0.21	0.16	0.61	0.34	0.34	
v/c Ratio	0.79	0.13	0.01	0.62	0.33	0.73	0.39	
Control Delay (s/veh)	53.0	0.4	0.0	43.9	8.0	27.4	4.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	53.0	0.4	0.0	43.9	8.0	27.4	4.2	
LOS	D	A	A	D	A	C	A	
Approach Delay (s/veh)		39.7			15.0	21.8		
Approach LOS		D			B	C		

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 80.9

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 21.6

Intersection LOS: C

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd

 Ø1	 Ø2	 Ø4
25 s	45 s	25 s
 Ø5	 Ø6	 Ø8
25 s	45 s	25 s

HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	0	77	0	0	3	173	709	1	0	862	276
Future Volume (veh/h)	229	0	77	0	0	3	173	709	1	0	862	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1856	1870	1870	1411	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	234	0	79	0	0	3	177	723	1	0	880	141
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	3	2	2	33	2	2	2	2	2	2
Cap, veh/h	385	0	315	0	0	315	223	2107	3	3	1188	530
Arrive On Green	0.20	0.00	0.20	0.00	0.00	0.20	0.13	0.58	0.58	0.00	0.33	0.33
Sat Flow, veh/h	1414	0	1585	0	0	1585	1781	3641	5	1781	3554	1585
Grp Volume(v), veh/h	234	0	79	0	0	3	177	353	371	0	880	141
Grp Sat Flow(s),veh/h/ln	1414	0	1585	0	0	1585	1781	1777	1869	1781	1777	1585
Q Serve(g_s), s	10.7	0.0	2.8	0.0	0.0	0.1	6.5	7.0	7.0	0.0	14.7	4.4
Cycle Q Clear(g_c), s	10.8	0.0	2.8	0.0	0.0	0.1	6.5	7.0	7.0	0.0	14.7	4.4
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	0	315	0	0	315	223	1028	1082	3	1188	530
V/C Ratio(X)	0.61	0.00	0.25	0.00	0.00	0.01	0.79	0.34	0.34	0.00	0.74	0.27
Avail Cap(c_a), veh/h	494	0	436	0	0	424	450	1028	1082	437	1954	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	0.0	22.7	0.0	0.0	21.7	28.6	7.5	7.5	0.0	19.8	16.4
Incr Delay (d2), s/veh	1.5	0.0	0.4	0.0	0.0	0.0	6.2	0.2	0.2	0.0	0.9	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	1.9	0.0	0.0	0.1	5.1	3.2	3.3	0.0	8.8	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.5	0.0	23.2	0.0	0.0	21.7	34.8	7.7	7.6	0.0	20.7	16.6
LnGrp LOS	C		C			C	C	A	A		C	B
Approach Vol, veh/h	313			3			901			1021		
Approach Delay, s/veh	26.4			21.7			13.0			20.2		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	46.9		20.4	16.4	30.5		20.4				
Change Period (Y+Rc), s	8.5	* 8		* 7	8.0	8.0		7.0				
Max Green Setting (Gmax), s	16.5	* 38		* 19	17.0	37.0		18.0				
Max Q Clear Time (g_c+I1), s	0.0	9.0		12.8	8.5	16.7		2.1				
Green Ext Time (p_c), s	0.0	3.9		0.6	0.3	5.7		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	18.2											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

4: US 1 & Roberts Rd

								
Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR	Ø1
Lane Configurations								
Traffic Volume (vph)	238	0	0	189	821	1010	302	
Future Volume (vph)	238	0	0	189	821	1010	302	
Turn Type	Perm	NA	NA	Prot	NA	NA	Perm	
Protected Phases		4	8	5	2	6		1
Permitted Phases	4						6	
Detector Phase	4	4	8	5	2	6	6	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	5.0	16.0	16.0	16.0	5.0
Minimum Split (s)	24.5	24.5	25.0	13.0	25.5	26.0	26.0	13.5
Total Split (s)	25.0	25.0	25.0	25.0	45.0	45.0	45.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	6.0	6.0	6.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.0	2.0	2.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	7.0	8.0	7.5	8.0	8.0	
Lead/Lag				Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min	None
Act Effct Green (s)	17.6	17.6	17.1	13.8	54.1	31.7	31.7	
Actuated g/C Ratio	0.20	0.20	0.20	0.16	0.63	0.37	0.37	
v/c Ratio	0.84	0.14	0.01	0.68	0.38	0.79	0.40	
Control Delay (s/veh)	61.4	0.5	0.0	48.3	8.2	29.6	4.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	61.4	0.5	0.0	48.3	8.2	29.6	4.0	
LOS	E	A	A	D	A	C	A	
Approach Delay (s/veh)		46.0			15.7	23.8		
Approach LOS		D			B	C		

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 86

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 23.3

Intersection LOS: C

Intersection Capacity Utilization 77.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd

	Ø1		Ø2		Ø4
25 s		45 s		25 s	
	Ø5		Ø6		Ø8
25 s		45 s		25 s	

HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	0	80	0	0	3	189	821	1	0	1010	302
Future Volume (veh/h)	238	0	80	0	0	3	189	821	1	0	1010	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1856	1870	1870	1411	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	0	66	0	0	3	193	838	1	0	1031	154
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	3	2	2	33	2	2	2	2	2	2
Cap, veh/h	374	0	316	0	0	316	237	2198	3	2	1299	580
Arrive On Green	0.20	0.00	0.20	0.00	0.00	0.20	0.13	0.60	0.60	0.00	0.37	0.37
Sat Flow, veh/h	1414	0	1585	0	0	1585	1781	3642	4	1781	3554	1585
Grp Volume(v), veh/h	243	0	66	0	0	3	193	409	430	0	1031	154
Grp Sat Flow(s),veh/h/ln	1414	0	1585	0	0	1585	1781	1777	1870	1781	1777	1585
Q Serve(g_s), s	12.7	0.0	2.6	0.0	0.0	0.1	8.0	9.0	9.0	0.0	19.7	5.2
Cycle Q Clear(g_c), s	12.8	0.0	2.6	0.0	0.0	0.1	8.0	9.0	9.0	0.0	19.7	5.2
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	0	316	0	0	316	237	1073	1129	2	1299	580
V/C Ratio(X)	0.65	0.00	0.21	0.00	0.00	0.01	0.82	0.38	0.38	0.00	0.79	0.27
Avail Cap(c_a), veh/h	436	0	385	0	0	375	398	1073	1129	386	1728	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	25.5	0.0	0.0	24.4	32.1	7.8	7.8	0.0	21.6	17.0
Incr Delay (d2), s/veh	2.7	0.0	0.3	0.0	0.0	0.0	6.7	0.2	0.2	0.0	1.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	0.0	1.8	0.0	0.0	0.1	6.4	4.3	4.5	0.0	11.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.2	0.0	25.8	0.0	0.0	24.5	38.8	8.0	8.0	0.0	23.5	17.2
LnGrp LOS	C		C			C	D	A	A		C	B
Approach Vol, veh/h	309			3			1032			1185		
Approach Delay, s/veh	30.9			24.5			13.7			22.7		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	53.9		22.2	18.1	35.8		22.2				
Change Period (Y+Rc), s	8.5	* 8		* 7	8.0	8.0		7.0				
Max Green Setting (Gmax), s	16.5	* 38		* 19	17.0	37.0		18.0				
Max Q Clear Time (g_c+I1), s	0.0	11.0		14.8	10.0	21.7		2.1				
Green Ext Time (p_c), s	0.0	4.7		0.4	0.3	6.1		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	20.0											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

4: US 1 & Roberts Rd

								
Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR	Ø1
Lane Configurations								
Traffic Volume (vph)	238	0	0	214	939	1156	302	
Future Volume (vph)	238	0	0	214	939	1156	302	
Turn Type	Perm	NA	NA	Prot	NA	NA	Perm	
Protected Phases		4	8	5	2	6		1
Permitted Phases	4						6	
Detector Phase	4	4	8	5	2	6	6	
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	5.0	16.0	16.0	16.0	5.0
Minimum Split (s)	24.5	24.5	25.0	13.0	25.5	26.0	26.0	13.5
Total Split (s)	25.0	25.0	25.0	25.0	45.0	45.0	45.0	25.0
Total Split (%)	26.3%	26.3%	26.3%	26.3%	47.4%	47.4%	47.4%	26%
Yellow Time (s)	4.0	4.0	4.0	5.5	5.5	6.0	6.0	6.0
All-Red Time (s)	2.5	2.5	3.0	2.5	2.0	2.0	2.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	7.0	8.0	7.5	8.0	8.0	
Lead/Lag				Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min	None
Act Effct Green (s)	17.7	17.7	17.2	14.9	58.3	34.7	34.7	
Actuated g/C Ratio	0.20	0.20	0.19	0.17	0.65	0.39	0.39	
v/c Ratio	0.88	0.19	0.01	0.74	0.42	0.87	0.39	
Control Delay (s/veh)	68.6	0.7	0.0	53.0	8.3	33.9	3.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	68.6	0.7	0.0	53.0	8.3	33.9	3.9	
LOS	E	A	A	D	A	C	A	
Approach Delay (s/veh)		46.9			16.6	27.7		
Approach LOS		D			B	C		

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 90.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 25.6

Intersection LOS: C

Intersection Capacity Utilization 82.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 4: US 1 & Roberts Rd

 Ø1	 Ø2	 Ø4
25 s	45 s	25 s
 Ø5	 Ø6	 Ø8
25 s	45 s	25 s

HCM 7th Signalized Intersection Summary

4: US 1 & Roberts Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	0	112	0	0	3	214	939	1	0	1156	302
Future Volume (veh/h)	238	0	112	0	0	3	214	939	1	0	1156	302
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1856	1870	1870	1411	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	0	98	0	0	3	218	958	1	0	1180	154
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	3	2	2	33	2	2	2	2	2	2
Cap, veh/h	360	0	310	0	0	310	258	2284	2	2	1378	615
Arrive On Green	0.20	0.00	0.20	0.00	0.00	0.20	0.14	0.63	0.63	0.00	0.39	0.39
Sat Flow, veh/h	1414	0	1585	0	0	1585	1781	3643	4	1781	3554	1585
Grp Volume(v), veh/h	243	0	98	0	0	3	218	467	492	0	1180	154
Grp Sat Flow(s),veh/h/ln	1414	0	1585	0	0	1585	1781	1777	1870	1781	1777	1585
Q Serve(g_s), s	14.2	0.0	4.5	0.0	0.0	0.1	10.1	11.3	11.3	0.0	25.8	5.6
Cycle Q Clear(g_c), s	14.3	0.0	4.5	0.0	0.0	0.1	10.1	11.3	11.3	0.0	25.8	5.6
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	310	0	0	310	258	1114	1173	2	1378	615
V/C Ratio(X)	0.68	0.00	0.32	0.00	0.00	0.01	0.84	0.42	0.42	0.00	0.86	0.25
Avail Cap(c_a), veh/h	391	0	346	0	0	337	357	1114	1173	347	1552	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	29.2	0.0	0.0	27.5	35.3	8.0	8.0	0.0	23.8	17.6
Incr Delay (d2), s/veh	4.1	0.0	0.6	0.0	0.0	0.0	12.5	0.3	0.2	0.0	4.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	0.0	3.1	0.0	0.0	0.1	8.5	5.6	5.8	0.0	15.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	0.0	29.8	0.0	0.0	27.5	47.8	8.2	8.2	0.0	28.3	17.8
LnGrp LOS	D		C			C	D	A	A		C	B
Approach Vol, veh/h	341				3		1177				1334	
Approach Delay, s/veh	35.2				27.5		15.6				27.1	
Approach LOS	D				C		B				C	
Timer - Assigned Phs	1	2			4	5	6	8				
Phs Duration (G+Y+Rc), s	0.0	61.1			23.6	20.3	40.9	23.6				
Change Period (Y+Rc), s	8.5	* 8			* 7	8.0	8.0	7.0				
Max Green Setting (Gmax), s	16.5	* 38			* 19	17.0	37.0	18.0				
Max Q Clear Time (g_c+I1), s	0.0	13.3			16.3	12.1	27.8	2.1				
Green Ext Time (p_c), s	0.0	5.4			0.3	0.2	5.1	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh	23.3											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	444	44	266	24	45	225	647	20	539	200
Future Volume (vph)	444	44	266	24	45	225	647	20	539	200
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	18.9	24.1	24.1	7.4	9.4	12.5	40.4	7.1	24.0	24.0
Actuated g/C Ratio	0.20	0.26	0.26	0.08	0.10	0.14	0.44	0.08	0.26	0.26
v/c Ratio	0.73	0.10	0.47	0.21	0.40	0.56	0.49	0.17	0.66	0.39
Control Delay (s/veh)	43.4	31.3	6.8	50.3	41.7	45.4	23.8	49.9	36.0	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.4	31.3	6.8	50.3	41.7	45.4	23.8	49.9	36.0	6.4
LOS	D	C	A	D	D	D	C	D	D	A
Approach Delay (s/veh)		29.8			43.9		29.3		28.6	
Approach LOS		C			D		C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 92.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 29.8

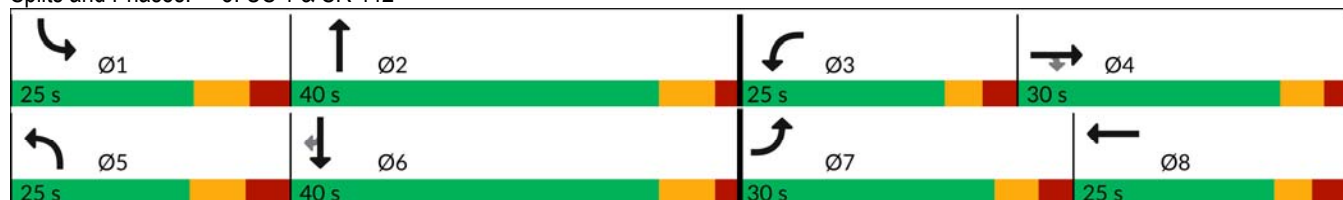
Intersection LOS: C

Intersection Capacity Utilization 60.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442



HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	444	44	266	24	45	24	225	647	11	20	539	200
Future Volume (veh/h)	444	44	266	24	45	24	225	647	11	20	539	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1870	1870	1707	1870	1841	1856	1841	1633	1826	1870	1870
Adj Flow Rate, veh/h	505	50	151	27	51	21	256	735	10	23	612	113
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	2	2	13	2	4	3	4	18	5	2	2
Cap, veh/h	631	474	401	46	113	47	357	1133	15	44	836	373
Arrive On Green	0.19	0.25	0.25	0.03	0.09	0.09	0.10	0.32	0.32	0.03	0.24	0.24
Sat Flow, veh/h	3401	1870	1585	1626	1259	518	3428	3533	48	1739	3554	1585
Grp Volume(v), veh/h	505	50	151	27	0	72	256	364	381	23	612	113
Grp Sat Flow(s),veh/h/ln	1700	1870	1585	1626	0	1777	1714	1749	1832	1739	1777	1585
Q Serve(g_s), s	11.1	1.6	6.1	1.3	0.0	3.0	5.6	13.9	13.9	1.0	12.4	4.6
Cycle Q Clear(g_c), s	11.1	1.6	6.1	1.3	0.0	3.0	5.6	13.9	13.9	1.0	12.4	4.6
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	631	474	401	46	0	160	357	561	588	44	836	373
V/C Ratio(X)	0.80	0.11	0.38	0.58	0.00	0.45	0.72	0.65	0.65	0.53	0.73	0.30
Avail Cap(c_a), veh/h	1005	564	478	386	0	411	704	741	776	368	1506	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	22.3	24.0	37.4	0.0	33.6	33.8	22.7	22.7	37.5	27.5	24.5
Incr Delay (d2), s/veh	2.5	0.1	0.6	11.2	0.0	2.0	2.7	1.3	1.2	9.4	1.3	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	1.2	4.2	1.2	0.0	2.5	4.2	9.1	9.4	0.9	8.6	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	22.4	24.6	48.6	0.0	35.6	36.4	23.9	23.9	46.9	28.8	25.0
LnGrp LOS	C	C	C	D		D	D	C	C	D	C	C
Approach Vol, veh/h	706			99			1001			748		
Approach Delay, s/veh	30.3			39.1			27.1			28.7		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	32.0	8.7	26.7	17.1	25.3	21.4	14.0				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+I1), s	3.0	15.9	3.3	8.1	7.6	14.4	13.1	5.0				
Green Ext Time (p_c), s	0.0	3.9	0.0	0.6	0.5	3.9	1.4	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh				28.9								
HCM 7th LOS				C								
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	462	46	277	25	47	246	761	22	613	219
Future Volume (vph)	462	46	277	25	47	246	761	22	613	219
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	19.9	25.2	25.2	7.5	9.7	13.3	40.5	7.3	26.4	26.4
Actuated g/C Ratio	0.21	0.26	0.26	0.08	0.10	0.14	0.42	0.08	0.27	0.27
v/c Ratio	0.76	0.11	0.49	0.23	0.42	0.60	0.61	0.19	0.72	0.41
Control Delay (s/veh)	46.2	32.7	6.9	52.5	44.0	47.9	27.9	52.0	38.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.2	32.7	6.9	52.5	44.0	47.9	27.9	52.0	38.0	6.2
LOS	D	C	A	D	D	D	C	D	D	A
Approach Delay (s/veh)		31.5			46.2		32.8		30.2	
Approach LOS		C			D		C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 96.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 32.1

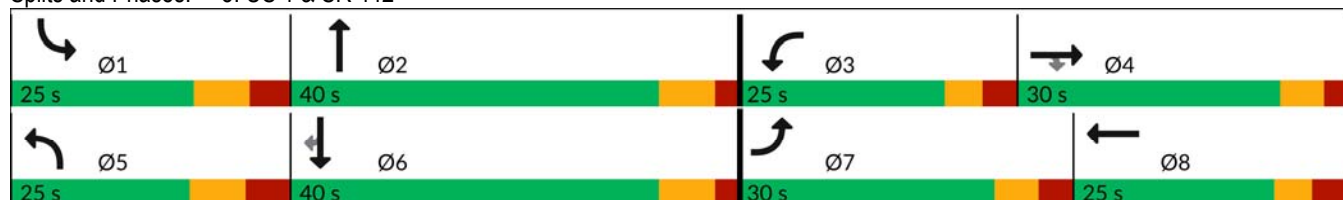
Intersection LOS: C

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442



HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	462	46	277	25	47	25	246	761	12	22	613	219
Future Volume (veh/h)	462	46	277	25	47	25	246	761	12	22	613	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1870	1870	1707	1870	1841	1856	1841	1633	1826	1870	1870
Adj Flow Rate, veh/h	525	52	43	28	53	22	280	865	12	25	697	124
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	2	2	13	2	4	3	4	18	5	2	2
Cap, veh/h	641	466	395	47	105	43	376	1223	17	46	913	407
Arrive On Green	0.19	0.25	0.25	0.03	0.08	0.08	0.11	0.35	0.35	0.03	0.26	0.26
Sat Flow, veh/h	3401	1870	1585	1626	1255	521	3428	3532	49	1739	3554	1585
Grp Volume(v), veh/h	525	52	43	28	0	75	280	428	449	25	697	124
Grp Sat Flow(s),veh/h/ln	1700	1870	1585	1626	0	1777	1714	1749	1832	1739	1777	1585
Q Serve(g_s), s	12.3	1.8	1.7	1.4	0.0	3.4	6.6	17.6	17.6	1.2	15.0	5.2
Cycle Q Clear(g_c), s	12.3	1.8	1.7	1.4	0.0	3.4	6.6	17.6	17.6	1.2	15.0	5.2
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	641	466	395	47	0	148	376	606	634	46	913	407
V/C Ratio(X)	0.82	0.11	0.11	0.60	0.00	0.51	0.74	0.71	0.71	0.54	0.76	0.30
Avail Cap(c_a), veh/h	942	530	449	362	0	385	661	695	728	346	1413	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	24.1	24.0	39.8	0.0	36.4	35.8	23.5	23.5	39.9	28.5	24.9
Incr Delay (d2), s/veh	3.7	0.1	0.1	11.8	0.0	2.7	2.9	2.8	2.7	9.7	1.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	1.4	1.2	1.3	0.0	2.8	4.9	11.3	11.7	1.1	10.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.0	24.2	24.2	51.6	0.0	39.1	38.8	26.3	26.2	49.6	29.9	25.3
LnGrp LOS	D	C	C	D		D	D	C	C	D	C	C
Approach Vol, veh/h	620			103			1157			846		
Approach Delay, s/veh	34.2			42.5			29.3			29.8		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	35.7	8.9	27.7	18.1	28.3	22.6	13.9				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+I1), s	3.2	19.6	3.4	3.8	8.6	17.0	14.3	5.4				
Green Ext Time (p_c), s	0.0	4.2	0.0	0.3	0.5	4.3	1.3	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh				31.0								
HCM 7th LOS				C								
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	462	46	329	25	47	297	838	22	692	219
Future Volume (vph)	462	46	329	25	47	297	838	22	692	219
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	20.3	25.5	25.5	7.6	9.7	14.5	43.4	7.3	28.3	28.3
Actuated g/C Ratio	0.20	0.26	0.26	0.08	0.10	0.15	0.43	0.07	0.28	0.28
v/c Ratio	0.77	0.11	0.55	0.23	0.43	0.69	0.64	0.20	0.78	0.40
Control Delay (s/veh)	48.0	33.5	7.1	53.7	45.4	51.2	28.7	53.2	40.8	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.0	33.5	7.1	53.7	45.4	51.2	28.7	53.2	40.8	6.1
LOS	D	C	A	D	D	D	C	D	D	A
Approach Delay (s/veh)		31.1			47.5		34.5		32.9	
Approach LOS		C			D		C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 33.5

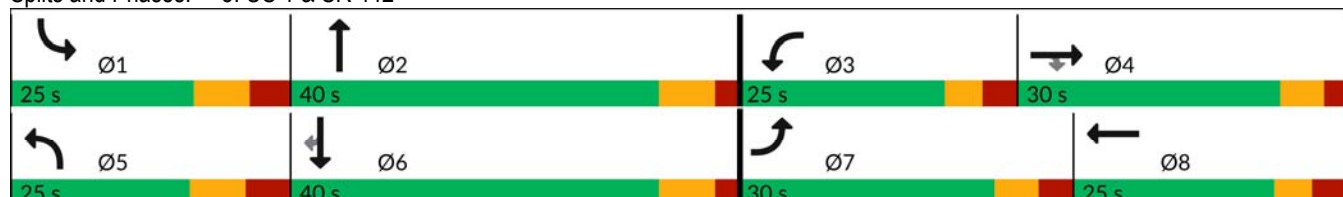
Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442



HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	462	46	329	25	47	25	297	838	12	22	692	219
Future Volume (veh/h)	462	46	329	25	47	25	297	838	12	22	692	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1870	1870	1707	1870	1841	1856	1841	1633	1826	1870	1870
Adj Flow Rate, veh/h	525	52	185	28	53	22	338	952	12	25	786	124
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	2	2	13	2	4	3	4	18	5	2	2
Cap, veh/h	630	451	382	46	98	41	427	1346	17	45	982	438
Arrive On Green	0.19	0.24	0.24	0.03	0.08	0.08	0.12	0.38	0.38	0.03	0.28	0.28
Sat Flow, veh/h	3401	1870	1585	1626	1255	521	3428	3537	45	1739	3554	1585
Grp Volume(v), veh/h	525	52	185	28	0	75	338	471	493	25	786	124
Grp Sat Flow(s),veh/h/ln	1700	1870	1585	1626	0	1777	1714	1749	1833	1739	1777	1585
Q Serve(g_s), s	13.3	1.9	9.0	1.5	0.0	3.6	8.6	20.4	20.4	1.3	18.4	5.5
Cycle Q Clear(g_c), s	13.3	1.9	9.0	1.5	0.0	3.6	8.6	20.4	20.4	1.3	18.4	5.5
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	630	451	382	46	0	139	427	665	697	45	982	438
V/C Ratio(X)	0.83	0.12	0.48	0.61	0.00	0.54	0.79	0.71	0.71	0.56	0.80	0.28
Avail Cap(c_a), veh/h	875	492	417	337	0	358	614	665	697	321	1312	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	26.5	29.1	43.0	0.0	39.6	38.0	23.5	23.5	43.0	30.0	25.4
Incr Delay (d2), s/veh	5.0	0.1	1.0	12.7	0.0	3.2	4.5	3.4	3.3	10.3	2.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.7	1.5	6.3	1.4	0.0	3.1	6.6	13.0	13.4	1.2	12.2	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.1	26.6	30.1	55.6	0.0	42.9	42.5	26.9	26.8	53.3	32.7	25.7
LnGrp LOS	D	C	C	E		D	D	C	C	D	C	C
Approach Vol, veh/h	762			103			1302			935		
Approach Delay, s/veh	36.7			46.3			30.9			32.3		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	41.0	9.0	28.5	20.1	31.7	23.6	14.0				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+I1), s	3.3	22.4	3.5	11.0	10.6	20.4	15.3	5.6				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.7	0.6	4.3	1.3	0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh	33.3											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	339	34	337	41	87	307	567	20	735	331
Future Volume (vph)	339	34	337	41	87	307	567	20	735	331
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	15.9	26.5	26.5	8.1	11.6	14.1	45.7	7.0	28.3	28.3
Actuated g/C Ratio	0.16	0.26	0.26	0.08	0.12	0.14	0.45	0.07	0.28	0.28
v/c Ratio	0.65	0.07	0.52	0.30	0.54	0.69	0.38	0.18	0.77	0.50
Control Delay (s/veh)	47.1	34.0	7.0	53.4	50.4	51.3	21.7	52.9	40.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.1	34.0	7.0	53.4	50.4	51.3	21.7	52.9	40.0	6.2
LOS	D	C	A	D	D	D	C	D	D	A
Approach Delay (s/veh)		27.4			51.2		32.0		29.9	
Approach LOS		C			D		C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 100.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 31.1

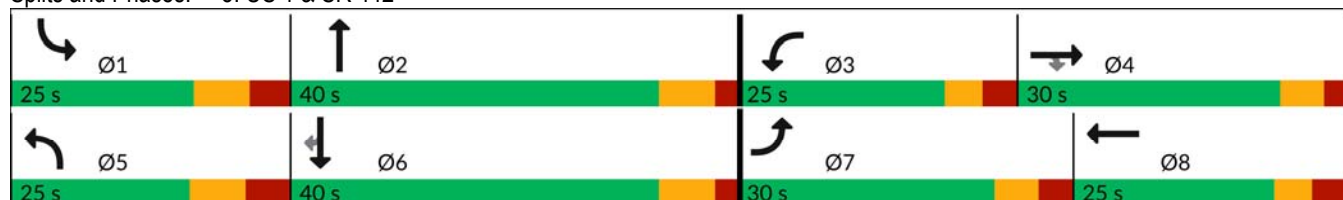
Intersection LOS: C

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442



HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	34	337	41	87	25	307	567	8	20	735	331
Future Volume (veh/h)	339	34	337	41	87	25	307	567	8	20	735	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870	1826	1856	1707	1752	1870	1870
Adj Flow Rate, veh/h	353	35	351	43	91	26	320	591	8	21	766	173
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	3	2	2	2	2	5	3	13	10	2	2
Cap, veh/h	456	449	383	65	197	56	407	1337	18	38	967	431
Arrive On Green	0.13	0.24	0.24	0.04	0.14	0.14	0.12	0.38	0.38	0.02	0.27	0.27
Sat Flow, veh/h	3456	1856	1585	1781	1399	400	3374	3561	48	1668	3554	1585
Grp Volume(v), veh/h	353	35	351	43	0	117	320	292	307	21	766	173
Grp Sat Flow(s),veh/h/ln	1728	1856	1585	1781	0	1798	1687	1763	1847	1668	1777	1585
Q Serve(g_s), s	8.9	1.3	19.3	2.1	0.0	5.4	8.3	11.1	11.1	1.1	17.9	8.0
Cycle Q Clear(g_c), s	8.9	1.3	19.3	2.1	0.0	5.4	8.3	11.1	11.1	1.1	17.9	8.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	456	449	383	65	0	253	407	662	693	38	967	431
V/C Ratio(X)	0.77	0.08	0.92	0.66	0.00	0.46	0.79	0.44	0.44	0.55	0.79	0.40
Avail Cap(c_a), veh/h	887	486	416	368	0	361	602	662	693	307	1308	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	26.3	33.1	42.6	0.0	35.4	38.3	21.0	21.0	43.4	30.3	26.7
Incr Delay (d2), s/veh	2.8	0.1	23.8	10.7	0.0	1.3	4.2	0.5	0.4	12.0	2.4	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	1.0	15.0	2.0	0.0	4.4	6.3	7.7	8.0	1.0	11.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.4	26.3	56.9	53.4	0.0	36.7	42.5	21.4	21.4	55.4	32.7	27.3
LnGrp LOS	D	C	E	D		D	D	C	C	E	C	C
Approach Vol, veh/h	739			160			919			960		
Approach Delay, s/veh	47.6			41.2			28.7			32.2		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	40.6	9.8	28.7	19.8	31.4	18.8	19.6				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+I1), s	3.1	13.1	4.1	21.3	10.3	19.9	10.9	7.4				
Green Ext Time (p_c), s	0.0	3.1	0.1	0.3	0.5	4.4	1.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	35.7											
HCM 7th LOS	D											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	353	35	350	43	90	336	666	22	871	362
Future Volume (vph)	353	35	350	43	90	336	666	22	871	362
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	16.7	24.4	24.4	8.2	12.0	14.9	49.6	7.1	31.9	31.9
Actuated g/C Ratio	0.16	0.23	0.23	0.08	0.11	0.14	0.47	0.07	0.30	0.30
v/c Ratio	0.68	0.08	0.57	0.33	0.57	0.75	0.43	0.21	0.85	0.51
Control Delay (s/veh)	49.6	35.4	7.5	55.5	52.9	55.6	22.8	54.5	44.7	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.6	35.4	7.5	55.5	52.9	55.6	22.8	54.5	44.7	6.0
LOS	D	D	A	E	D	E	C	D	D	A
Approach Delay (s/veh)		29.0			53.6		33.7		33.7	
Approach LOS		C			D		C		C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 105.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay (s/veh): 33.6

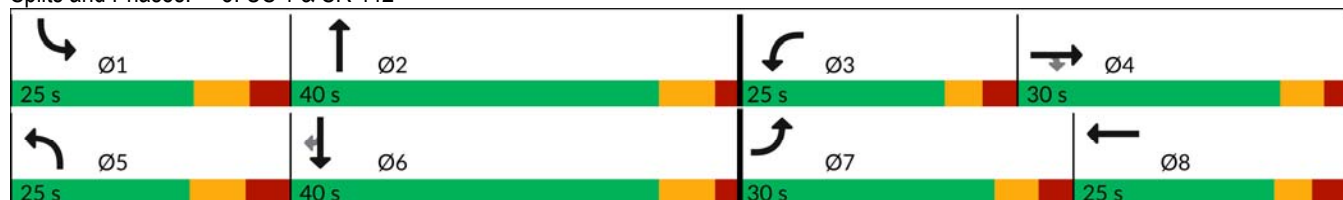
Intersection LOS: C

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442



HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	35	350	43	90	26	336	666	9	22	871	362
Future Volume (veh/h)	353	35	350	43	90	26	336	666	9	22	871	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870	1826	1856	1707	1752	1870	1870
Adj Flow Rate, veh/h	368	36	183	45	94	22	350	694	7	23	907	188
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	3	2	2	2	2	5	3	13	10	2	2
Cap, veh/h	472	359	307	67	130	31	436	1501	15	41	1098	490
Arrive On Green	0.14	0.19	0.19	0.04	0.09	0.09	0.13	0.42	0.42	0.02	0.31	0.31
Sat Flow, veh/h	3456	1856	1585	1781	1466	343	3374	3576	36	1668	3554	1585
Grp Volume(v), veh/h	368	36	183	45	0	116	350	342	359	23	907	188
Grp Sat Flow(s),veh/h/ln	1728	1856	1585	1781	0	1809	1687	1763	1849	1668	1777	1585
Q Serve(g_s), s	9.2	1.4	9.4	2.2	0.0	5.6	9.0	12.5	12.5	1.2	21.1	8.3
Cycle Q Clear(g_c), s	9.2	1.4	9.4	2.2	0.0	5.6	9.0	12.5	12.5	1.2	21.1	8.3
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	472	359	307	67	0	161	436	740	776	41	1098	490
V/C Ratio(X)	0.78	0.10	0.60	0.67	0.00	0.72	0.80	0.46	0.46	0.57	0.83	0.38
Avail Cap(c_a), veh/h	890	488	417	369	0	364	604	740	776	308	1313	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	29.6	32.8	42.4	0.0	39.6	37.8	18.7	18.7	43.1	28.6	24.2
Incr Delay (d2), s/veh	2.8	0.1	1.9	11.0	0.0	6.0	5.4	0.5	0.4	11.8	3.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	1.1	6.7	2.1	0.0	4.9	6.9	8.2	8.6	1.1	13.7	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.1	29.7	34.7	53.4	0.0	45.6	43.1	19.1	19.1	54.9	32.4	24.7
LnGrp LOS	D	C	C	D		D	D	B	B	D	C	C
Approach Vol, veh/h	587			161			1051			1118		
Approach Delay, s/veh	37.8			47.8			27.1			31.6		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	44.5	9.9	24.3	20.6	34.6	19.2	14.9				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+l1), s	3.2	14.5	4.2	11.4	11.0	23.1	11.2	7.6				
Green Ext Time (p_c), s	0.0	3.7	0.1	0.6	0.6	4.5	1.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh				32.1								
HCM 7th LOS				C								
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

5: US 1 & SR 442

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	353	35	403	43	90	379	730	22	951	362
Future Volume (vph)	353	35	403	43	90	379	730	22	951	362
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	7.0	7.0	5.0	7.0	5.0	16.0	5.0	16.0	16.0
Minimum Split (s)	12.0	22.5	22.5	11.5	22.5	14.0	23.0	13.5	23.0	23.0
Total Split (s)	30.0	30.0	30.0	25.0	25.0	25.0	40.0	25.0	40.0	40.0
Total Split (%)	25.0%	25.0%	25.0%	20.8%	20.8%	20.8%	33.3%	20.8%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.0	2.5	2.5	3.0	3.5	4.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	6.5	6.5	6.5	7.0	9.0	7.0	8.5	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	16.8	24.3	24.3	8.2	12.0	15.6	51.4	7.1	33.2	33.2
Actuated g/C Ratio	0.16	0.23	0.23	0.08	0.11	0.14	0.48	0.07	0.31	0.31
v/c Ratio	0.69	0.09	0.62	0.34	0.58	0.82	0.46	0.21	0.91	0.50
Control Delay (s/veh)	50.6	35.5	7.8	55.8	53.6	60.4	23.2	54.7	50.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.6	35.5	7.8	55.8	53.6	60.4	23.2	54.7	50.0	5.9
LOS	D	D	A	E	D	E	C	D	D	A
Approach Delay (s/veh)		28.1			54.2		35.8		38.1	
Approach LOS		C			D		D		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 107.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 35.8

Intersection LOS: D

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: US 1 & SR 442

 Ø1	 Ø2	 Ø3	 Ø4
25 s	40 s	25 s	30 s
 Ø5	 Ø6	 Ø7	 Ø8
25 s	40 s	30 s	25 s

HCM 7th Signalized Intersection Summary

5: US 1 & SR 442

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	35	403	43	90	26	379	730	9	22	951	362
Future Volume (veh/h)	353	35	403	43	90	26	379	730	9	22	951	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870	1826	1856	1707	1752	1870	1870
Adj Flow Rate, veh/h	368	36	238	45	94	22	395	760	7	23	991	188
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	3	2	2	2	2	5	3	13	10	2	2
Cap, veh/h	466	354	303	65	128	30	473	1581	15	40	1138	508
Arrive On Green	0.13	0.19	0.19	0.04	0.09	0.09	0.14	0.44	0.44	0.02	0.32	0.32
Sat Flow, veh/h	3456	1856	1585	1781	1466	343	3374	3579	33	1668	3554	1585
Grp Volume(v), veh/h	368	36	238	45	0	116	395	374	393	23	991	188
Grp Sat Flow(s),veh/h/ln	1728	1856	1585	1781	0	1809	1687	1763	1850	1668	1777	1585
Q Serve(g_s), s	9.7	1.5	13.5	2.4	0.0	5.9	10.8	14.2	14.2	1.3	24.9	8.6
Cycle Q Clear(g_c), s	9.7	1.5	13.5	2.4	0.0	5.9	10.8	14.2	14.2	1.3	24.9	8.6
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	466	354	303	65	0	158	473	779	817	40	1138	508
V/C Ratio(X)	0.79	0.10	0.79	0.69	0.00	0.73	0.84	0.48	0.48	0.57	0.87	0.37
Avail Cap(c_a), veh/h	841	461	394	349	0	344	571	779	817	291	1240	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	31.6	36.4	45.0	0.0	42.1	39.6	18.7	18.7	45.7	30.3	24.8
Incr Delay (d2), s/veh	3.0	0.1	7.7	12.1	0.0	6.4	8.9	0.5	0.4	12.4	6.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.6	1.2	9.8	2.3	0.0	5.3	8.4	9.2	9.5	1.2	16.3	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.6	31.7	44.1	57.1	0.0	48.4	48.5	19.2	19.2	58.0	36.8	25.2
LnGrp LOS	D	C	D	E		D	D	B	B	E	D	C
Approach Vol, veh/h	642			161			1162			1202		
Approach Delay, s/veh	42.6			50.9			29.1			35.4		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	48.8	10.0	25.1	22.2	37.3	19.7	15.3				
Change Period (Y+Rc), s	8.5	7.0	6.5	* 7	9.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	16.5	33.0	18.5	* 24	16.0	33.0	23.0	18.0				
Max Q Clear Time (g_c+l1), s	3.3	16.2	4.4	15.5	12.8	26.9	11.7	7.9				
Green Ext Time (p_c), s	0.0	4.0	0.1	0.6	0.5	3.4	1.0	0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	35.4											
HCM 7th LOS	D											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	256	23	15	28	90	921	24	651	111
Future Volume (vph)	256	23	15	28	90	921	24	651	111
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	20.4	20.4	18.7	18.7	33.5	31.2	28.8	24.0	24.0
Actuated g/C Ratio	0.30	0.30	0.27	0.27	0.49	0.45	0.42	0.35	0.35
v/c Ratio	0.68	0.21	0.05	0.09	0.25	0.62	0.08	0.55	0.19
Control Delay (s/veh)	33.2	9.0	22.2	17.6	11.4	18.5	10.5	21.8	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.2	9.0	22.2	17.6	11.4	18.5	10.5	21.8	5.1
LOS	C	A	C	B	B	B	B	C	A
Approach Delay (s/veh)		26.3		18.9		17.8		19.1	
Approach LOS		C		B		B		B	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 68.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 19.7

Intersection LOS: B

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	23	79	15	28	10	90	921	22	24	651	111
Future Volume (veh/h)	256	23	79	15	28	10	90	921	22	24	651	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1707	1811	1796	1796	1604	1811	1870	1767	1841	1870	1870
Adj Flow Rate, veh/h	269	24	66	16	29	9	95	969	19	25	685	59
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	13	6	7	7	20	6	2	9	4	2	2
Cap, veh/h	455	105	287	392	342	106	356	1332	26	253	1158	516
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.37	0.37	0.03	0.33	0.33
Sat Flow, veh/h	1359	402	1106	1255	1315	408	1725	3565	70	1753	3554	1585
Grp Volume(v), veh/h	269	0	90	16	0	38	95	483	505	25	685	59
Grp Sat Flow(s),veh/h/ln	1359	0	1508	1255	0	1723	1725	1777	1858	1753	1777	1585
Q Serve(g_s), s	10.8	0.0	2.7	0.6	0.0	1.0	2.0	13.5	13.5	0.5	9.3	1.5
Cycle Q Clear(g_c), s	11.7	0.0	2.7	3.3	0.0	1.0	2.0	13.5	13.5	0.5	9.3	1.5
Prop In Lane	1.00		0.73	1.00		0.24	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	455	0	392	392	0	448	356	664	694	253	1158	516
V/C Ratio(X)	0.59	0.00	0.23	0.04	0.00	0.08	0.27	0.73	0.73	0.10	0.59	0.11
Avail Cap(c_a), veh/h	903	0	889	773	0	970	792	1201	1256	780	2402	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	16.8	18.1	0.0	16.2	12.1	15.5	15.5	13.2	16.2	13.6
Incr Delay (d2), s/veh	1.2	0.0	0.3	0.0	0.0	0.1	0.4	1.5	1.5	0.2	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	1.6	0.3	0.0	0.6	1.2	8.1	8.4	0.3	5.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.8	0.0	17.1	18.1	0.0	16.2	12.5	17.1	17.0	13.4	16.7	13.7
LnGrp LOS	C		B	B		B	B	B	B	B	B	B
Approach Vol, veh/h	359			54			1083			769		
Approach Delay, s/veh	20.6			16.8			16.7			16.4		
Approach LOS	C			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	24.8		22.5	7.7	27.6		22.5				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	4.0	11.3		5.3	2.5	15.5		13.7				
Green Ext Time (p_c), s	0.2	4.7		0.2	0.0	6.1		1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh				17.2								
HCM 7th LOS				B								
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	266	24	16	29	98	1060	25	701	115
Future Volume (vph)	266	24	16	29	98	1060	25	701	115
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	21.4	21.4	19.8	19.8	36.1	33.6	31.1	26.3	26.3
Actuated g/C Ratio	0.30	0.30	0.27	0.27	0.50	0.47	0.43	0.36	0.36
v/c Ratio	0.70	0.21	0.05	0.09	0.28	0.69	0.10	0.57	0.19
Control Delay (s/veh)	35.0	9.1	22.8	18.2	11.9	20.2	10.9	22.4	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.0	9.1	22.8	18.2	11.9	20.2	10.9	22.4	5.0
LOS	D	A	C	B	B	C	B	C	A
Approach Delay (s/veh)		27.7		19.5		19.5		19.7	
Approach LOS		C		B		B		B	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 72.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 20.8

Intersection LOS: C

Intersection Capacity Utilization 70.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	24	82	16	29	10	98	1060	24	25	701	115
Future Volume (veh/h)	266	24	82	16	29	10	98	1060	24	25	701	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1707	1811	1796	1796	1604	1811	1870	1767	1841	1870	1870
Adj Flow Rate, veh/h	280	25	67	17	31	9	103	1116	20	26	738	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	13	6	7	7	20	6	2	9	4	2	2
Cap, veh/h	446	108	290	382	353	103	352	1450	26	228	1287	574
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.41	0.41	0.03	0.36	0.36
Sat Flow, veh/h	1356	410	1099	1253	1338	388	1725	3572	64	1753	3554	1585
Grp Volume(v), veh/h	280	0	92	17	0	40	103	555	581	26	738	61
Grp Sat Flow(s),veh/h/ln	1356	0	1509	1253	0	1726	1725	1777	1859	1753	1777	1585
Q Serve(g_s), s	12.7	0.0	3.1	0.7	0.0	1.1	2.4	17.5	17.5	0.6	10.8	1.7
Cycle Q Clear(g_c), s	13.8	0.0	3.1	3.8	0.0	1.1	2.4	17.5	17.5	0.6	10.8	1.7
Prop In Lane	1.00		0.73	1.00		0.22	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	446	0	399	382	0	456	352	721	755	228	1287	574
V/C Ratio(X)	0.63	0.00	0.23	0.04	0.00	0.09	0.29	0.77	0.77	0.11	0.57	0.11
Avail Cap(c_a), veh/h	800	0	792	680	0	866	732	1070	1119	692	2140	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	18.7	20.2	0.0	18.0	12.4	16.6	16.6	13.9	16.6	13.7
Incr Delay (d2), s/veh	1.5	0.0	0.3	0.0	0.0	0.1	0.5	2.0	1.9	0.2	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	0.0	1.8	0.3	0.0	0.8	1.4	10.2	10.6	0.4	6.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.6	0.0	19.0	20.2	0.0	18.0	12.8	18.6	18.5	14.2	17.0	13.8
LnGrp LOS	C		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h	372		57			1239			825			
Approach Delay, s/veh	23.2		18.7			18.1			16.7			
Approach LOS	C		B			B			B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	29.4		24.6	7.9	32.3		24.6				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	4.4	12.8		5.8	2.6	19.5		15.8				
Green Ext Time (p_c), s	0.2	5.1		0.2	0.0	6.8		1.3				
Intersection Summary												
HCM 7th Control Delay, s/veh	18.4											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	266	24	16	29	111	1111	25	753	115
Future Volume (vph)	266	24	16	29	111	1111	25	753	115
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	21.7	21.7	20.1	20.1	38.7	36.0	33.1	28.3	28.3
Actuated g/C Ratio	0.29	0.29	0.27	0.27	0.52	0.48	0.44	0.38	0.38
v/c Ratio	0.72	0.24	0.05	0.09	0.33	0.70	0.10	0.59	0.18
Control Delay (s/veh)	36.8	8.9	23.4	18.8	12.3	20.3	10.9	22.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.8	8.9	23.4	18.8	12.3	20.3	10.9	22.8	4.9
LOS	D	A	C	B	B	C	B	C	A
Approach Delay (s/veh)		28.2		20.1		19.6		20.1	
Approach LOS		C		C		B		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 74.6

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 21.1

Intersection LOS: C

Intersection Capacity Utilization 72.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	24	95	16	29	10	111	1111	24	25	753	115
Future Volume (veh/h)	266	24	95	16	29	10	111	1111	24	25	753	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1707	1811	1796	1796	1604	1811	1870	1767	1841	1870	1870
Adj Flow Rate, veh/h	280	25	80	17	31	9	117	1169	20	26	793	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	13	6	7	7	20	6	2	9	4	2	2
Cap, veh/h	441	94	301	365	353	102	341	1491	26	220	1322	590
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.42	0.42	0.03	0.37	0.37
Sat Flow, veh/h	1356	357	1144	1238	1338	388	1725	3575	61	1753	3554	1585
Grp Volume(v), veh/h	280	0	105	17	0	40	117	581	608	26	793	61
Grp Sat Flow(s),veh/h/ln	1356	0	1501	1238	0	1726	1725	1777	1859	1753	1777	1585
Q Serve(g_s), s	13.2	0.0	3.7	0.7	0.0	1.2	2.7	19.0	19.0	0.6	12.1	1.7
Cycle Q Clear(g_c), s	14.3	0.0	3.7	4.5	0.0	1.2	2.7	19.0	19.0	0.6	12.1	1.7
Prop In Lane	1.00		0.76	1.00		0.22	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	441	0	396	365	0	455	341	741	775	220	1322	590
V/C Ratio(X)	0.63	0.00	0.27	0.05	0.00	0.09	0.34	0.78	0.78	0.12	0.60	0.10
Avail Cap(c_a), veh/h	771	0	761	639	0	837	703	1033	1081	666	2067	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	0.0	19.6	21.3	0.0	18.6	12.7	16.9	16.9	14.2	17.0	13.7
Incr Delay (d2), s/veh	1.5	0.0	0.4	0.1	0.0	0.1	0.6	2.7	2.6	0.2	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	0.0	2.2	0.4	0.0	0.8	1.7	11.1	11.5	0.4	7.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.5	0.0	19.9	21.4	0.0	18.7	13.3	19.6	19.5	14.5	17.5	13.8
LnGrp LOS	C		B	C		B	B	B	B	B	B	B
Approach Vol, veh/h	385		57			1306			880			
Approach Delay, s/veh	24.0		19.5			19.0			17.1			
Approach LOS	C		B			B			B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	30.9		25.2	7.9	34.0		25.2				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	4.7	14.1		6.5	2.6	21.0		16.3				
Green Ext Time (p_c), s	0.2	5.5		0.2	0.0	7.0		1.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	19.1											
HCM 7th LOS	B											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	259	25	47	66	118	945	13	1201	203
Future Volume (vph)	259	25	47	66	118	945	13	1201	203
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	22.9	22.9	21.4	21.4	51.7	50.2	43.2	37.2	37.2
Actuated g/C Ratio	0.26	0.26	0.24	0.24	0.59	0.57	0.49	0.43	0.43
v/c Ratio	0.77	0.32	0.17	0.20	0.46	0.49	0.05	0.81	0.26
Control Delay (s/veh)	45.8	8.4	27.9	24.1	16.4	14.1	10.2	28.8	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.8	8.4	27.9	24.1	16.4	14.1	10.2	28.8	4.0
LOS	D	A	C	C	B	B	B	C	A
Approach Delay (s/veh)		31.4		25.4		14.3		25.0	
Approach LOS		C		C		B		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 87.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay (s/veh): 22.1

Intersection LOS: C

Intersection Capacity Utilization 80.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	25	139	47	66	19	118	945	28	13	1201	203
Future Volume (veh/h)	259	25	139	47	66	19	118	945	28	13	1201	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1781	1811	1841	1870	1737	1841	1870	1693	1559	1870	1870
Adj Flow Rate, veh/h	262	25	140	47	67	19	119	955	28	13	1213	103
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	8	6	4	2	11	4	2	14	23	2	2
Cap, veh/h	400	64	357	314	382	108	244	1642	48	242	1471	656
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.06	0.47	0.47	0.02	0.41	0.41
Sat Flow, veh/h	1311	234	1311	1201	1401	397	1753	3525	103	1485	3554	1585
Grp Volume(v), veh/h	262	0	165	47	0	86	119	481	502	13	1213	103
Grp Sat Flow(s),veh/h/ln	1311	0	1545	1201	0	1799	1753	1777	1852	1485	1777	1585
Q Serve(g_s), s	15.1	0.0	6.9	2.6	0.0	2.9	3.0	15.7	15.7	0.4	24.1	3.2
Cycle Q Clear(g_c), s	18.0	0.0	6.9	9.5	0.0	2.9	3.0	15.7	15.7	0.4	24.1	3.2
Prop In Lane	1.00		0.85	1.00		0.22	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	400	0	421	314	0	490	244	828	863	242	1471	656
V/C Ratio(X)	0.65	0.00	0.39	0.15	0.00	0.18	0.49	0.58	0.58	0.05	0.82	0.16
Avail Cap(c_a), veh/h	606	0	663	479	0	738	546	875	912	575	1750	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	23.5	27.4	0.0	22.0	16.8	15.5	15.5	13.9	20.7	14.6
Incr Delay (d2), s/veh	1.8	0.0	0.6	0.2	0.0	0.2	1.5	0.9	0.9	0.1	2.9	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	0.0	4.4	1.3	0.0	2.1	2.0	9.5	9.8	0.2	14.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.7	0.0	24.1	27.6	0.0	22.2	18.3	16.4	16.4	14.0	23.5	14.7
LnGrp LOS	C		C	C		C	B	B	B	B	C	B
Approach Vol, veh/h	427		133			1102			1329			
Approach Delay, s/veh	28.2		24.1			16.6			22.8			
Approach LOS	C		C			B			C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	38.8		29.1	7.2	42.9		29.1				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	5.0	26.1		11.5	2.4	17.7		20.0				
Green Ext Time (p_c), s	0.2	6.7		0.5	0.0	5.8		1.6				
Intersection Summary												
HCM 7th Control Delay, s/veh	21.3											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	269	26	49	69	129	1079	14	1316	211
Future Volume (vph)	269	26	49	69	129	1079	14	1316	211
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	23.8	23.8	22.2	22.2	54.4	52.7	45.4	39.4	39.4
Actuated g/C Ratio	0.26	0.26	0.24	0.24	0.60	0.58	0.50	0.43	0.43
v/c Ratio	0.80	0.33	0.18	0.20	0.54	0.55	0.06	0.87	0.26
Control Delay (s/veh)	49.3	8.4	28.3	24.1	22.9	15.2	10.6	32.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.3	8.4	28.3	24.1	22.9	15.2	10.6	32.5	4.0
LOS	D	A	C	C	C	B	B	C	A
Approach Delay (s/veh)		33.4		25.6		16.0		28.4	
Approach LOS		C		C		B		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 90.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 24.4

Intersection LOS: C

Intersection Capacity Utilization 85.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	26	145	49	69	20	129	1079	31	14	1316	211
Future Volume (veh/h)	269	26	145	49	69	20	129	1079	31	14	1316	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1781	1811	1841	1870	1737	1841	1870	1693	1559	1870	1870
Adj Flow Rate, veh/h	272	26	117	49	70	10	130	1090	25	14	1329	107
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	8	6	4	2	11	4	2	14	23	2	2
Cap, veh/h	399	77	345	327	435	62	229	1708	39	216	1520	678
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.06	0.48	0.48	0.02	0.43	0.43
Sat Flow, veh/h	1319	282	1270	1226	1601	229	1753	3551	81	1485	3554	1585
Grp Volume(v), veh/h	272	0	143	49	0	80	130	545	570	14	1329	107
Grp Sat Flow(s),veh/h/ln	1319	0	1553	1226	0	1829	1753	1777	1856	1485	1777	1585
Q Serve(g_s), s	16.7	0.0	6.2	2.8	0.0	2.8	3.4	19.4	19.4	0.4	28.9	3.5
Cycle Q Clear(g_c), s	19.5	0.0	6.2	9.1	0.0	2.8	3.4	19.4	19.4	0.4	28.9	3.5
Prop In Lane	1.00		0.82	1.00		0.13	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	399	0	422	327	0	497	229	855	892	216	1520	678
V/C Ratio(X)	0.68	0.00	0.34	0.15	0.00	0.16	0.57	0.64	0.64	0.06	0.87	0.16
Avail Cap(c_a), veh/h	572	0	625	466	0	704	501	855	892	525	1641	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	0.0	24.7	28.3	0.0	23.4	18.6	16.4	16.4	14.5	22.1	14.8
Incr Delay (d2), s/veh	2.1	0.0	0.5	0.2	0.0	0.2	2.2	1.6	1.5	0.1	5.3	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	0.0	4.1	1.5	0.0	2.1	2.4	11.5	11.9	0.3	17.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.9	0.0	25.1	28.5	0.0	23.6	20.8	18.0	17.9	14.7	27.4	14.9
LnGrp LOS	C		C	C		C	C	B	B	B	C	B
Approach Vol, veh/h	415			129			1245			1450		
Approach Delay, s/veh	30.2			25.5			18.3			26.3		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	42.1		30.4	7.4	46.6		30.4				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	5.4	30.9		11.1	2.4	21.4		21.5				
Green Ext Time (p_c), s	0.2	5.2		0.5	0.0	6.4		1.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	23.7											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

6: US 1 & Park Ave

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	269	26	49	69	140	1122	14	1369	211
Future Volume (vph)	269	26	49	69	140	1122	14	1369	211
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases		8		4	1	6	5	2	
Permitted Phases	8		4		6		2		2
Detector Phase	8	8	4	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	11.0	5.0	11.0	11.0
Minimum Split (s)	22.5	22.5	22.5	22.5	11.5	22.5	11.0	22.5	22.5
Total Split (s)	40.0	40.0	40.0	40.0	25.0	45.0	25.0	45.0	45.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	22.7%	40.9%	22.7%	40.9%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.5	3.5	2.5	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	7.5	7.5	6.5	6.0	6.0	6.0	6.0
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min	Min
Act Effect Green (s)	23.8	23.8	22.3	22.3	54.8	53.1	45.4	39.4	39.4
Actuated g/C Ratio	0.26	0.26	0.24	0.24	0.60	0.58	0.50	0.43	0.43
v/c Ratio	0.80	0.35	0.19	0.20	0.57	0.57	0.06	0.90	0.26
Control Delay (s/veh)	49.7	8.2	28.8	24.3	24.6	15.5	10.6	35.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.7	8.2	28.8	24.3	24.6	15.5	10.6	35.9	4.0
LOS	D	A	C	C	C	B	B	D	A
Approach Delay (s/veh)		32.9		25.9		16.5		31.4	
Approach LOS		C		C		B		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 91.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 25.8

Intersection LOS: C

Intersection Capacity Utilization 87.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: US 1 & Park Ave



HCM 7th Signalized Intersection Summary

6: US 1 & Park Ave

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	26	158	49	69	20	140	1122	31	14	1369	211
Future Volume (veh/h)	269	26	158	49	69	20	140	1122	31	14	1369	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1781	1811	1841	1870	1737	1841	1870	1693	1559	1870	1870
Adj Flow Rate, veh/h	272	26	131	49	70	10	141	1133	25	14	1383	107
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	8	6	4	2	11	4	2	14	23	2	2
Cap, veh/h	397	70	350	312	434	62	225	1733	38	208	1532	683
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.07	0.49	0.49	0.02	0.43	0.43
Sat Flow, veh/h	1319	256	1292	1210	1601	229	1753	3555	78	1485	3554	1585
Grp Volume(v), veh/h	272	0	157	49	0	80	141	566	592	14	1383	107
Grp Sat Flow(s),veh/h/ln	1319	0	1549	1210	0	1829	1753	1777	1856	1485	1777	1585
Q Serve(g_s), s	17.2	0.0	7.1	3.0	0.0	2.9	3.8	20.8	20.8	0.5	31.4	3.6
Cycle Q Clear(g_c), s	20.1	0.0	7.1	10.1	0.0	2.9	3.8	20.8	20.8	0.5	31.4	3.6
Prop In Lane	1.00		0.83	1.00		0.13	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	397	0	420	312	0	496	225	866	905	208	1532	683
V/C Ratio(X)	0.69	0.00	0.37	0.16	0.00	0.16	0.63	0.65	0.65	0.07	0.90	0.16
Avail Cap(c_a), veh/h	556	0	607	437	0	686	481	866	905	509	1598	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	25.6	29.7	0.0	24.1	19.4	16.7	16.7	14.9	23.0	15.1
Incr Delay (d2), s/veh	2.1	0.0	0.6	0.2	0.0	0.2	2.9	1.8	1.7	0.1	7.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.3	0.0	4.7	1.5	0.0	2.2	2.6	12.3	12.7	0.3	19.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.8	0.0	26.2	30.0	0.0	24.2	22.2	18.5	18.4	15.0	30.4	15.2
LnGrp LOS	C		C	C		C	C	B	B	B	C	B
Approach Vol, veh/h	429		129			1299			1504			
Approach Delay, s/veh	31.0		26.4			18.9			29.1			
Approach LOS	C		C			B			C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.3	43.4		31.0	7.4	48.3		31.0				
Change Period (Y+Rc), s	6.5	6.0		7.5	6.0	6.0		* 7.5				
Max Green Setting (Gmax), s	18.5	39.0		32.5	19.0	39.0		* 34				
Max Q Clear Time (g_c+I1), s	5.8	33.4		12.1	2.5	22.8		22.1				
Green Ext Time (p_c), s	0.3	3.9		0.5	0.0	6.4		1.4				
Intersection Summary												
HCM 7th Control Delay, s/veh	25.3											
HCM 7th LOS	C											
Notes												
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	201	2	2	144	7	4	9	17	7	3	2
Future Vol, veh/h	0	201	2	2	144	7	4	9	17	7	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	6	2	33	2
Mvmt Flow	0	248	2	2	178	9	5	11	21	9	4	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	186	0	0	251	0	0	434	441	249	441	438	182
Stage 1	-	-	-	-	-	-	249	249	-	187	187	-
Stage 2	-	-	-	-	-	-	185	191	-	254	251	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.83	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.297	3.318
Pot Cap-1 Maneuver	1388	-	-	1315	-	-	532	511	780	527	469	860
Stage 1	-	-	-	-	-	-	755	700	-	815	691	-
Stage 2	-	-	-	-	-	-	817	742	-	751	646	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1388	-	-	1315	-	-	525	510	780	500	468	860
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	510	-	500	468	-
Stage 1	-	-	-	-	-	-	755	700	-	813	689	-
Stage 2	-	-	-	-	-	-	809	740	-	719	646	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			11			12.01		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	637	1388	-	-	23	-	-	528				
HCM Lane V/C Ratio	0.058	-	-	-	0.002	-	-	0.028				
HCM Control Delay (s/veh)	11	0	-	-	7.7	0	-	12				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1				

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	209	2	2	150	7	4	9	18	7	3	2
Future Vol, veh/h	0	209	2	2	150	7	4	9	18	7	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	6	2	33	2
Mvmt Flow	0	258	2	2	185	9	5	11	22	9	4	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	260	0	0	451	458	259	458	455	190
Stage 1	-	-	-	-	-	-	259	259	-	194	194	-
Stage 2	-	-	-	-	-	-	192	199	-	264	260	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.83	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.297	3.318
Pot Cap-1 Maneuver	1379	-	-	1304	-	-	518	499	770	513	458	852
Stage 1	-	-	-	-	-	-	746	693	-	807	685	-
Stage 2	-	-	-	-	-	-	810	737	-	742	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1379	-	-	1304	-	-	512	498	770	486	457	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	498	-	486	457	-
Stage 1	-	-	-	-	-	-	746	693	-	806	684	-
Stage 2	-	-	-	-	-	-	801	735	-	709	639	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.1			11.09			12.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	629	1379	-	-	22	-	-	515				
HCM Lane V/C Ratio	0.061	-	-	-	0.002	-	-	0.029				
HCM Control Delay (s/veh)	11.1	0	-	-	7.8	0	-	12.2				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1				

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	220	2	13	160	17	4	9	28	17	3	2
Future Vol, veh/h	0	220	2	13	160	17	4	9	28	17	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	6	2	33	2
Mvmt Flow	0	272	2	16	198	21	5	11	35	21	4	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	274	0	0	504	523	273	517	514	208
Stage 1	-	-	-	-	-	-	273	273	-	240	240	-
Stage 2	-	-	-	-	-	-	231	251	-	277	274	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.26	7.12	6.83	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.83	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.354	3.518	4.297	3.318
Pot Cap-1 Maneuver	1351	-	-	1289	-	-	478	458	756	469	423	832
Stage 1	-	-	-	-	-	-	733	684	-	763	653	-
Stage 2	-	-	-	-	-	-	771	699	-	729	630	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1351	-	-	1289	-	-	466	452	756	430	417	832
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	452	-	430	417	-
Stage 1	-	-	-	-	-	-	733	684	-	752	644	-
Stage 2	-	-	-	-	-	-	754	689	-	685	630	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0			0.54			11.26			13.56		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	626	1351	-	-	121	-	-	448				
HCM Lane V/C Ratio	0.081	-	-	-	0.012	-	-	0.061				
HCM Control Delay (s/veh)	11.3	0	-	-	7.8	0	-	13.6				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2				

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	161	8	11	238	10	6	7	6	6	11	3
Future Vol, veh/h	3	161	8	11	238	10	6	7	6	6	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	189	9	13	280	12	7	8	7	7	13	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	199	0	0	514	519	194	512	518	286
Stage 1	-	-	-	-	-	-	201	201	-	312	312	-
Stage 2	-	-	-	-	-	-	312	318	-	201	206	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1270	-	-	1374	-	-	471	461	847	472	462	753
Stage 1	-	-	-	-	-	-	801	735	-	699	658	-
Stage 2	-	-	-	-	-	-	698	654	-	801	731	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1374	-	-	449	455	847	453	455	753
Mov Cap-2 Maneuver	-	-	-	-	-	-	449	455	-	453	455	-
Stage 1	-	-	-	-	-	-	798	733	-	691	650	-
Stage 2	-	-	-	-	-	-	673	646	-	783	729	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.14			0.32			12.09			12.83		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	530	31	-	-	76	-	-	483				
HCM Lane V/C Ratio	0.042	0.003	-	-	0.009	-	-	0.049				
HCM Control Delay (s/veh)	12.1	7.8	0	-	7.6	0	-	12.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	167	8	11	248	10	6	7	6	6	11	3
Future Vol, veh/h	3	167	8	11	248	10	6	7	6	6	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	196	9	13	292	12	7	8	7	7	13	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	304	0	0	206	0	0	532	538	201	531	536	298
Stage 1	-	-	-	-	-	-	208	208	-	324	324	-
Stage 2	-	-	-	-	-	-	324	329	-	208	213	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1257	-	-	1365	-	-	458	450	840	459	451	742
Stage 1	-	-	-	-	-	-	794	730	-	689	650	-
Stage 2	-	-	-	-	-	-	688	646	-	794	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1257	-	-	1365	-	-	436	443	840	440	444	742
Mov Cap-2 Maneuver	-	-	-	-	-	-	436	443	-	440	444	-
Stage 1	-	-	-	-	-	-	791	727	-	681	643	-
Stage 2	-	-	-	-	-	-	663	639	-	776	724	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.13			0.31			12.26			13.04		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	518	30	-	-	73	-	-	471				
HCM Lane V/C Ratio	0.043	0.003	-	-	0.009	-	-	0.05				
HCM Control Delay (s/veh)	12.3	7.9	0	-	7.7	0	-	13				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

HCM 7th TWSC
7: Sabal Palm St & 30th St

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	178	8	19	257	18	6	7	17	16	11	3
Future Vol, veh/h	3	178	8	19	257	18	6	7	17	16	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	209	9	22	302	21	7	8	20	19	13	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	324	0	0	219	0	0	575	589	214	578	584	313
Stage 1	-	-	-	-	-	-	221	221	-	358	358	-
Stage 2	-	-	-	-	-	-	354	368	-	221	226	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1236	-	-	1351	-	-	429	420	826	427	424	727
Stage 1	-	-	-	-	-	-	781	720	-	660	628	-
Stage 2	-	-	-	-	-	-	664	621	-	782	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1236	-	-	1351	-	-	404	411	826	399	414	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	404	411	-	399	414	-
Stage 1	-	-	-	-	-	-	779	718	-	647	615	-
Stage 2	-	-	-	-	-	-	633	609	-	752	715	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.13			0.5			11.71			14.27		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	572	28	-	-	115	-	-	424				
HCM Lane V/C Ratio	0.062	0.003	-	-	0.017	-	-	0.083				
HCM Control Delay (s/veh)	11.7	7.9	0	-	7.7	0	-	14.3				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.3				

HCM 7th TWSC 8: US 1 & Project Access Driveway

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	30	921	9	0	790
Future Vol, veh/h	0	30	921	9	0	790
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	400	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	33	1001	10	0	859
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	501	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	516	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	516	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v12.45			0		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBT	
Capacity (veh/h)	-		-		516	
HCM Lane V/C Ratio	-		-		0.063	
HCM Control Delay (s/veh)	-		-		12.4	
HCM Lane LOS	-		-		B	
HCM 95th %tile Q(veh)	-		-		0.2	

HCM 7th TWSC 8: US 1 & Project Access Driveway

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↰	↰↰	↰		↰↰
Traffic Vol, veh/h	0	18	808	31	0	996
Future Vol, veh/h	0	18	808	31	0	996
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	400	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	20	878	34	0	1083
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	439	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	566	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	566	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v11.59		0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	-		566		
HCM Lane V/C Ratio	-	-		0.035		
HCM Control Delay (s/veh)	-	-		11.6		
HCM Lane LOS	-	-		B		
HCM 95th %tile Q(veh)	-	-		0.1		

HCM 7th TWSC

9: Alice St & Jones Fish Camp Rd

Intersection

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	15	0	25	46	0
Future Vol, veh/h	12	15	0	25	46	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	16	0	27	50	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	29
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1584
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1584
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	8.95
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	961	-	-	1584	-
HCM Lane V/C Ratio	0.052	-	-	-	-
HCM Control Delay (s/veh)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 7th TWSC

9: Alice St/West Access & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	256	15	0	221	0	46	0	0	0	0	29
Future Vol, veh/h	9	256	15	0	221	0	46	0	0	0	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	195	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	278	16	0	240	0	50	0	0	0	0	32
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	240	0	0	295	0	0	546	546	286	538	554	240
Stage 1	-	-	-	-	-	-	306	306	-	240	240	-
Stage 2	-	-	-	-	-	-	240	240	-	298	314	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1326	-	-	1267	-	-	448	445	753	454	440	799
Stage 1	-	-	-	-	-	-	704	662	-	763	707	-
Stage 2	-	-	-	-	-	-	763	707	-	711	656	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1326	-	-	1267	-	-	427	442	753	451	437	799
Mov Cap-2 Maneuver	-	-	-	-	-	-	427	442	-	451	437	-
Stage 1	-	-	-	-	-	-	699	657	-	763	707	-
Stage 2	-	-	-	-	-	-	733	707	-	706	651	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.25			0			14.53			9.69		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	427	1326	-	-	1267	-	-	799				
HCM Lane V/C Ratio	0.117	0.007	-	-	-	-	-	0.039				
HCM Control Delay (s/veh)	14.5	7.7	-	-	0	-	-	9.7				
HCM Lane LOS	B	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1				

HCM 7th TWSC

9: Alice St & Jones Fish Camp Rd

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	49	0	17	29	0
Future Vol, veh/h	25	49	0	17	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	53	0	18	32	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	80
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1517
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1517
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	932	-	-	1517	-
HCM Lane V/C Ratio	0.034	-	-	-	-
HCM Control Delay (s/veh)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

9: Alice St/West Access & Jones Fish Camp Rd

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	228	49	0	195	0	29	0	0	0	0	18
Future Vol, veh/h	31	228	49	0	195	0	29	0	0	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	195	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	248	53	0	212	0	32	0	0	0	0	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	301	0	0	554	554	274	527	580	212
Stage 1	-	-	-	-	-	-	342	342	-	212	212	-
Stage 2	-	-	-	-	-	-	212	212	-	315	368	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1358	-	-	1260	-	-	443	441	764	462	425	828
Stage 1	-	-	-	-	-	-	673	638	-	790	727	-
Stage 2	-	-	-	-	-	-	790	727	-	696	621	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1260	-	-	422	430	764	450	415	828
Mov Cap-2 Maneuver	-	-	-	-	-	-	422	430	-	450	415	-
Stage 1	-	-	-	-	-	-	657	622	-	790	727	-
Stage 2	-	-	-	-	-	-	772	727	-	678	606	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.78			0			14.22			9.45		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	422	1358	-	-	1260	-	-	828				
HCM Lane V/C Ratio	0.075	0.025	-	-	-	-	-	0.024				
HCM Control Delay (s/veh)	14.2	7.7	-	-	0	-	-	9.5				
HCM Lane LOS	B	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.1				

HCM 7th TWSC

10: Jones Fish Camp Rd & Mid Access

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	122	134	123	0	0	98
Future Vol, veh/h	122	134	123	0	0	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	195	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	146	134	0	0	107
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	134	0	-	0	545	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1451	-	-	-	500	915
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1451	-	-	-	454	915
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	669	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	3.68	0		9.45		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1451	-	-	-	915	
HCM Lane V/C Ratio	0.091	-	-	-	0.116	
HCM Control Delay (s/veh)	7.7	-	-	-	9.5	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4	

HCM 7th TWSC 10: Jones Fish Camp Rd & Mid Access

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	134	126	106	0	0	111
Future Vol, veh/h	134	126	106	0	0	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	195	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	146	137	115	0	0	121
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	115	0	-	0	543	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1474	-	-	-	500	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	657	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1474	-	-	-	451	937
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	657	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	3.97	0		9.41		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1474	-	-	-	937	
HCM Lane V/C Ratio	0.099	-	-	-	0.129	
HCM Control Delay (s/veh)	7.7	-	-	-	9.4	
HCM Lane LOS	A	-	-	-	A	
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4	

HCM 7th TWSC

11: East Access & Jones Fish Camp Rd

Intersection

Int Delay, s/veh 4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	6	0	6	19	0
Future Vol, veh/h	6	6	0	6	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	7	0	7	21	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	13
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1605
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1605
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	8.67
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1605	-
HCM Lane V/C Ratio	0.021	-	-	-	-
HCM Control Delay (s/veh)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

11: Jones Fish Camp Rd & East Access

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	6	6	0	6	0	19	0	0	0	0	98
Future Vol, veh/h	122	6	6	0	6	0	19	0	0	0	0	98
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	195	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	133	7	7	0	7	0	21	0	0	0	0	107
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	7	0	0	13	0	0	282	282	10	278	285	7
Stage 1	-	-	-	-	-	-	275	275	-	7	7	-
Stage 2	-	-	-	-	-	-	7	7	-	272	278	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1614	-	-	1605	-	-	671	627	1072	674	624	1076
Stage 1	-	-	-	-	-	-	731	683	-	1015	890	-
Stage 2	-	-	-	-	-	-	1015	890	-	734	680	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1605	-	-	555	576	1072	619	573	1076
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	576	-	619	573	-
Stage 1	-	-	-	-	-	-	671	626	-	1015	890	-
Stage 2	-	-	-	-	-	-	915	890	-	674	624	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	6.76			0			11.74			8.71		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	555	1614	-	-	1605	-	-	1076				
HCM Lane V/C Ratio	0.037	0.082	-	-	-	-	-	0.099				
HCM Control Delay (s/veh)	11.7	7.4	-	-	0	-	-	8.7				
HCM Lane LOS	B	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.3				

HCM 7th TWSC

11: East Access & Jones Fish Camp Rd

Intersection

Int Delay, s/veh 4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	6	0	6	19	0
Future Vol, veh/h	6	6	0	6	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	7	0	7	21	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	13
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1605
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1605
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	8.67
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1605	-
HCM Lane V/C Ratio	0.021	-	-	-	-
HCM Control Delay (s/veh)	8.7	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 7th TWSC

11: Jones Fish Camp Rd & East Access

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	133	4	21	0	4	0	13	0	0	0	0	112
Future Vol, veh/h	133	4	21	0	4	0	13	0	0	0	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	195	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	145	4	23	0	4	0	14	0	0	0	0	122
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	27	0	0	309	309	16	298	321	4
Stage 1	-	-	-	-	-	-	305	305	-	4	4	-
Stage 2	-	-	-	-	-	-	4	4	-	293	316	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1617	-	-	1587	-	-	643	605	1064	654	596	1079
Stage 1	-	-	-	-	-	-	705	662	-	1018	892	-
Stage 2	-	-	-	-	-	-	1018	892	-	715	655	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1617	-	-	1587	-	-	520	551	1064	596	543	1079
Mov Cap-2 Maneuver	-	-	-	-	-	-	520	551	-	596	543	-
Stage 1	-	-	-	-	-	-	642	603	-	1018	892	-
Stage 2	-	-	-	-	-	-	903	892	-	651	596	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	6.27			0			12.12			8.76		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	520	1617	-	-	1587	-	-	1079				
HCM Lane V/C Ratio	0.027	0.089	-	-	-	-	-	0.113				
HCM Control Delay (s/veh)	12.1	7.4	-	-	0	-	-	8.8				
HCM Lane LOS	B	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.4				

Timings

1: US 1 & Jones Fish Camp Rd

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	0	104	0	207	1	715	91	210	580
Future Volume (vph)	4	0	104	0	207	1	715	91	210	580
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4		8			2			6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	23.0	57.0	57.0	57.0	57.0	57.0
Total Split (%)	28.8%	28.8%	28.8%	28.8%	28.8%	71.3%	71.3%	71.3%	71.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	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	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		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	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)		10.8		10.8	10.8		30.3	30.3	30.3	30.3
Actuated g/C Ratio		0.21		0.21	0.21		0.59	0.59	0.59	0.59
v/c Ratio		0.03		0.42	0.50		0.43	0.11	0.73	0.33
Control Delay (s/veh)		6.8		26.0	10.4		6.2	1.4	22.6	5.6
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)		6.8		26.0	10.4		6.2	1.4	22.6	5.6
LOS		A		C	B		A	A	C	A
Approach Delay (s/veh)		6.8		15.6			5.7			10.1
Approach LOS		A		B			A			B
Intersection Summary										
Cycle Length: 80										
Actuated Cycle Length: 51.1										
Natural Cycle: 65										
Control Type: Actuated-Uncoordinated										
Maximum v/c Ratio: 0.73										
Intersection Signal Delay (s/veh): 9.1					Intersection LOS: A					
Intersection Capacity Utilization 57.2%					ICU Level of Service B					
Analysis Period (min) 15										

Splits and Phases: 1: US 1 & Jones Fish Camp Rd



HCM 7th Signalized Intersection Summary

1: US 1 & Jones Fish Camp Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	4	104	0	207	1	715	91	210	580	0
Future Volume (veh/h)	4	0	4	104	0	207	1	715	91	210	580	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	5	124	0	246	1	851	108	250	690	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	190	30	123	434	0	317	65	2225	1012	434	2268	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.20	0.64	0.64	0.64	0.64	0.64	0.00
Sat Flow, veh/h	463	151	614	1522	0	1585	0	3486	1585	586	3647	0
Grp Volume(v), veh/h	10	0	0	124	0	246	457	395	108	250	690	0
Grp Sat Flow(s),veh/h/ln	1228	0	0	1522	0	1585	1870	1617	1585	586	1777	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	8.2	0.0	6.5	1.5	19.9	4.9	0.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.3	0.0	8.2	6.5	6.5	1.5	26.4	4.9	0.0
Prop In Lane	0.50		0.50	1.00		1.00	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	343	0	0	434	0	317	1258	1032	1012	434	2268	0
V/C Ratio(X)	0.03	0.00	0.00	0.29	0.00	0.78	0.36	0.38	0.11	0.58	0.30	0.00
Avail Cap(c_a), veh/h	518	0	0	620	0	527	1826	1525	1495	613	3351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.9	0.0	0.0	19.1	0.0	21.1	4.8	4.8	3.9	11.1	4.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	4.1	0.2	0.2	0.0	1.2	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.0	2.4	0.0	5.6	1.8	1.6	0.4	2.9	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.0	0.0	0.0	19.5	0.0	25.1	5.0	5.1	4.0	12.3	4.6	0.0
LnGrp LOS	B			B		C	A	A	A	B	A	
Approach Vol, veh/h	10				370				960			
Approach Delay, s/veh	18.0				23.3				4.9			
Approach LOS	B				C				A			
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	40.0			15.6			40.0			15.6		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	52.5			18.5			52.5			18.5		
Max Q Clear Time (g_c+I1), s	8.5			5.3			28.4			10.2		
Green Ext Time (p_c), s	5.5			0.0			7.2			1.0		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.7											
HCM 7th LOS	A											

Timings

1: US 1 & Jones Fish Camp Rd

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	3	0	94	0	181	3	639	103	255	734
Future Volume (vph)	3	0	94	0	181	3	639	103	255	734
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		4		8			2			6
Permitted Phases	4		8		8	2		2	6	
Detector Phase	4	4	8	8	8	2	2	2	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	23.0	57.0	57.0	57.0	57.0	57.0
Total Split (%)	28.8%	28.8%	28.8%	28.8%	28.8%	71.3%	71.3%	71.3%	71.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	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	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		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	4.5
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)		10.6		10.6	10.6		36.0	36.0	36.0	36.0
Actuated g/C Ratio		0.19		0.19	0.19		0.64	0.64	0.64	0.64
v/c Ratio		0.02		0.43	0.46		0.35	0.12	0.73	0.39
Control Delay (s/veh)		2.5		28.7	7.8		5.3	1.3	19.9	5.4
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)		2.5		28.7	7.8		5.3	1.3	19.9	5.4
LOS		A		C	A		A	A	B	A
Approach Delay (s/veh)		2.5		14.9			4.7			9.1
Approach LOS		A		B			A			A
Intersection Summary										
Cycle Length: 80										
Actuated Cycle Length: 56.3										
Natural Cycle: 70										
Control Type: Actuated-Uncoordinated										
Maximum v/c Ratio: 0.73										
Intersection Signal Delay (s/veh): 8.3					Intersection LOS: A					
Intersection Capacity Utilization 55.9%					ICU Level of Service B					
Analysis Period (min) 15										

Splits and Phases: 1: US 1 & Jones Fish Camp Rd



HCM 7th Signalized Intersection Summary

1: US 1 & Jones Fish Camp Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	1	94	0	181	3	639	103	255	734	7
Future Volume (veh/h)	3	0	1	94	0	181	3	639	103	255	734	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	1	112	0	215	4	761	123	304	874	8
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	233	12	33	397	0	282	65	2319	1057	484	2406	22
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	680	70	188	1530	0	1585	3	3478	1585	628	3608	33
Grp Volume(v), veh/h	5	0	0	112	0	215	410	355	123	304	430	452
Grp Sat Flow(s),veh/h/ln	938	0	0	1530	0	1585	1864	1617	1585	628	1777	1864
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.5	0.0	5.4	1.6	23.2	6.2	6.2
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.2	0.0	7.5	5.4	5.4	1.6	28.7	6.2	6.2
Prop In Lane	0.80		0.20	1.00		1.00	0.01		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	279	0	0	397	0	282	1306	1078	1057	484	1185	1243
V/C Ratio(X)	0.02	0.00	0.00	0.28	0.00	0.76	0.31	0.33	0.12	0.63	0.36	0.36
Avail Cap(c_a), veh/h	452	0	0	596	0	506	1744	1464	1435	634	1609	1688
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	0.0	20.9	0.0	22.7	4.1	4.1	3.5	10.2	4.3	4.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	4.2	0.1	0.2	0.0	1.3	0.2	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.0	2.3	0.0	5.2	1.4	1.2	0.4	3.4	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.7	0.0	0.0	21.3	0.0	26.9	4.3	4.3	3.5	11.6	4.4	4.4
LnGrp LOS	B			C		C	A	A	A	B	A	A
Approach Vol, veh/h	5			327			888			1186		
Approach Delay, s/veh	19.7			25.0			4.2			6.3		
Approach LOS	B			C			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	43.2			14.8			43.2			14.8		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	52.5			18.5			52.5			18.5		
Max Q Clear Time (g_c+I1), s	7.4			5.2			30.7			9.5		
Green Ext Time (p_c), s	4.9			0.0			8.0			0.9		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.1											
HCM 7th LOS	A											

Appendix K
FDOT Cost per Mile New 2-Lane Road

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NUU2LN-U-01-BB			Letting Date: 01/2099		
Description: New Construction 2 Lane Undivided Urban Arterial with 4' Bike Lanes					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18 Project Grand Total				\$7,552,622.58	
Description: December 2023 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
102-1	MAINTENANCE OF TRAFFIC	7.00			\$444,731.60
101-1	MOBILIZATION	10.00			\$679,804.01
104-10-3	SEDIMENT BARRIER	10,560.00	LF	\$2.50	\$26,400.00
104-11	FLOATING TURBIDITY BARRIER	250.00	LF	\$16.00	\$4,000.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	250.00	LF	\$9.90	\$2,475.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,800.00	\$3,800.00
104-18	INLET PROTECTION SYSTEM	53.00	EA	\$190.00	\$10,070.00
107-1	LITTER REMOVAL	1.20	AC	\$45.00	\$54.00
107-2	MOWING	1.20	AC	\$64.00	\$76.80
110-1-1	CLEARING & GRUBBING	14.12	AC	\$33,000.00	\$465,960.00
120-1	REGULAR EXCAVATION	19,360.00	CY	\$9.50	\$183,920.00
120-6	EMBANKMENT	86,920.53	CY	\$14.00	\$1,216,887.42
160-4	TYPE B STABILIZATION	21,800.53	SY	\$8.40	\$183,124.45
285-709	OPTIONAL BASE,BASE GROUP 09	18,773.33	SY	\$28.00	\$525,653.24
334-1-53	SUPERPAVE ASPH CONC, TRAF C, PG76-22	2,065.07	TN	\$150.00	\$309,760.50
337-7-80	ASPH CONC FC,TRAFFIC B,FC-9.5,PG 76-22	1,501.87	TN	\$180.00	\$270,336.60
425-1-351	INLETS, CURB, TYPE P-5,	36.00	EA	\$8,400.00	\$302,400.00
425-1-451	INLETS, CURB, TYPE J-5,	10.00	EA	\$16,000.00	\$160,000.00
425-1-521	INLETS, DT BOT, TYPE C,	5.00	EA	\$7,300.00	\$36,500.00
425-1-541	INLETS, DT BOT, TYPE D,	1.00	EA	\$8,500.00	\$8,500.00
425-2-41	MANHOLES, P-7,	5.00	EA	\$8,200.00	\$41,000.00
425-2-71	MANHOLES, J-7,	1.00	EA	\$14,000.00	\$14,000.00
430-175-112	PIPE CULV, OPT MATL, ROUND, 12"S/CD	2,328.00	LF	\$360.00	\$838,080.00
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	208.00	LF	\$240.00	\$49,920.00
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	\$330.00	\$18,480.00
430-175-154	PIPE CULV, OPT MATL, ROUND, 54"S/CD	200.00	LF	\$550.00	\$110,000.00

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NUU2LN-U-01-BB			Letting Date: 01/2099		
Description: New Construction 2 Lane Undivided Urban Arterial with 4' Bike Lanes					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18 Project Grand Total				\$7,552,622.58	
Description: December 2023 Update					
430-515-100	STRAIGHT CONC ENDW 15", SINGLE, 0 ROUND	2.00	EA	\$6,400.00	\$12,800.00
430-530-100	STRAIGHT CONC ENDW 30", SINGLE, 0 ROUND	2.00	EA	\$9,100.00	\$18,200.00
430-542-100	STRAIGHT CONC ENDW 42", SINGLE, 0 ROUND	2.00	EA	\$11,000.00	\$22,000.00
430-554-100	STRAIGHT CONC ENDW 54", SINGLE, 0 ROUND	2.00	EA	\$13,000.00	\$26,000.00
520-1-10	CONCRETE CURB & GUTTER, TYPE F	10,560.00	LF	\$42.00	\$443,520.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,866.67	SY	\$70.00	\$410,666.90
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	\$30.00	\$35,400.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	\$4,900.00	\$4,900.00
570-1-1	PERFORMANCE TURF	23,467.00	SY	\$1.80	\$42,240.60
570-1-2	PERFORMANCE TURF, SOD	18,197.33	SY	\$4.30	\$78,248.52
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,280.00	LF	\$16.00	\$84,480.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	689.00	LF	\$34.00	\$23,426.00
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24"	21.00	EA	\$1,400.00	\$29,400.00
700-1-11	SINGLE POST SIGN, F&I GM,	20.00	AS	\$500.00	\$10,000.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,700.00	\$3,400.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	\$8,000.00	\$16,000.00
706-1-3	RAISED PAVMT MARK, TYPE B	135.00	EA	\$4.40	\$594.00
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.00	GM	\$1,300.00	\$5,200.00
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.00	GM	\$620.00	\$1,240.00
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.00	GM	\$6,100.00	\$12,200.00
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.00	GM	\$2,100.00	\$2,100.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL. NO.4-2	17,907.00	LF	\$3.50	\$62,674.50

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: NUU2LN-U-01-BB			Letting Date: 01/2099		
Description: New Construction 2 Lane Undivided Urban Arterial with 4' Bike Lanes					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost-Per-Mile Model					
Version 18 Project Grand Total				\$7,552,622.58	
Description: December 2023 Update					
715-61-342	LIGHT POLE CMPLT,STD,F&I, 40'MH,12'ARM L	21.00	EA	\$10,000.00	\$210,000.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	21.00	EA	\$820.00	\$17,220.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	1.00	LS	\$74,778.44	\$74,778.44
Project Unknowns			0.00 %	\$0.00	
Design/Build			0.00 %	\$0.00	
Version 18 Project Grand Total				\$7,552,622.58	

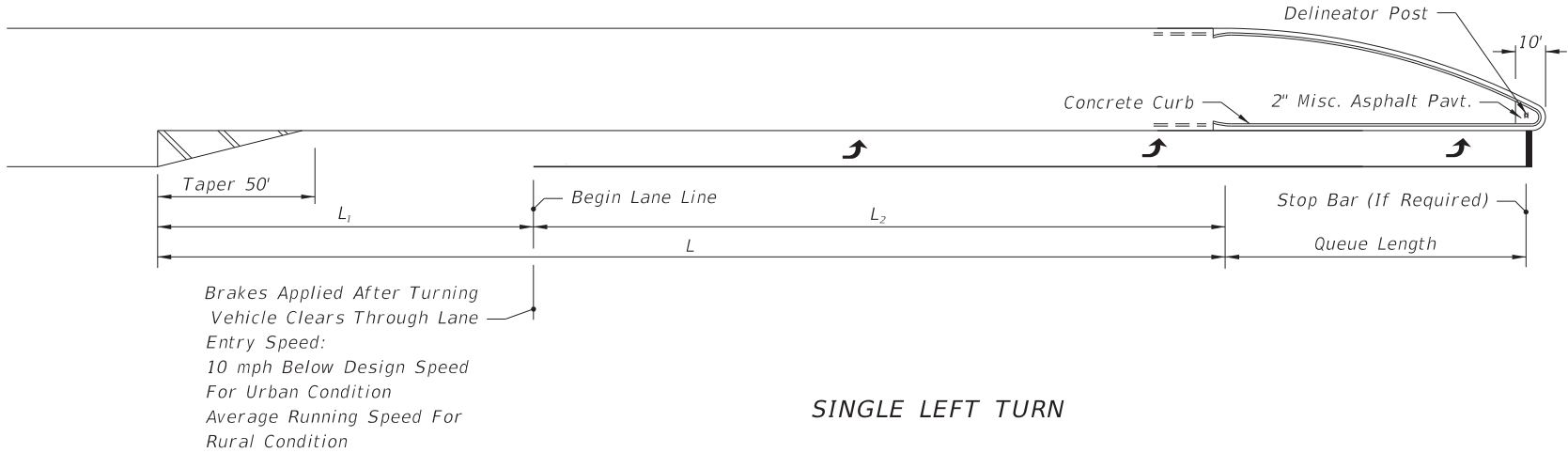
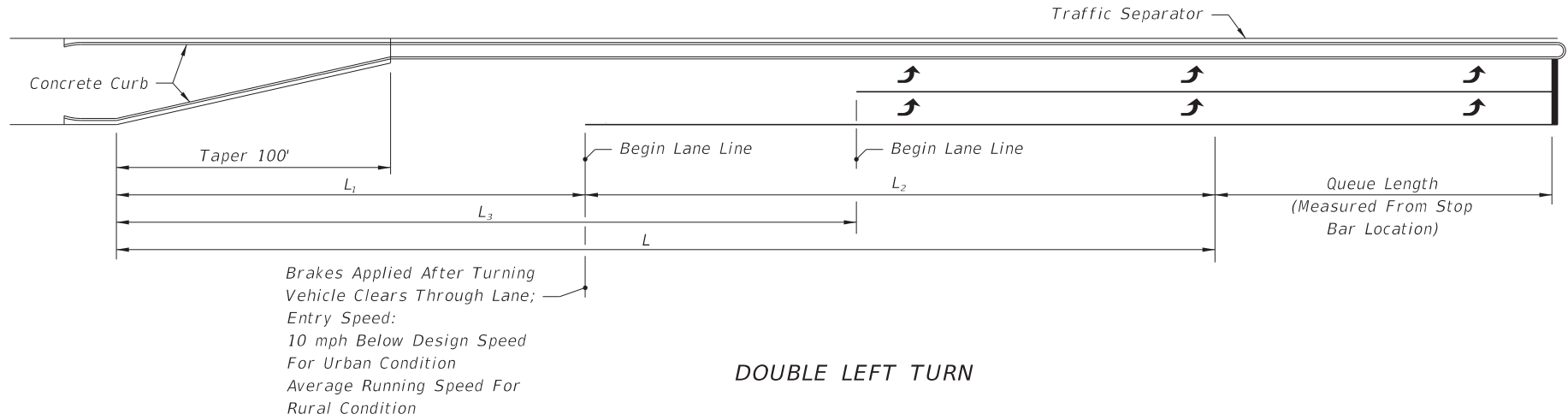
Appendix L
FDOT Cost per Mile Right Turn

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: TRNLRT-R-29-BB			Letting Date: 01/2099		
Description: Widen Divided Rural 4-Lane to Allow for Right Turn Lane (300')					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost Model					
Version 17-P Project Grand Total				\$205,980.08	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
102-1	MAINTENANCE OF TRAFFIC	25.00			\$32,695.25
101-1	MOBILIZATION	20.00			\$32,695.25
104-10-3	SEDIMENT BARRIER	695.00	LF	\$1.70	\$1,181.50
104-11	FLOATING TURBIDITY BARRIER	5.70	LF	\$12.00	\$68.40
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	5.70	LF	\$6.70	\$38.19
107-1	LITTER REMOVAL	0.19	AC	\$30.00	\$5.70
107-2	MOWING	0.19	AC	\$46.00	\$8.74
110-1-1	CLEARING & GRUBBING	0.21	AC	\$23,000.00	\$4,830.00
120-1	REGULAR EXCAVATION	200.00	CY	\$9.50	\$1,900.00
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	406.74	CY	\$22.00	\$8,948.28
160-4	TYPE B STABILIZATION	1,605.12	SY	\$5.90	\$9,470.21
285-701	OPTIONAL BASE,BASE GROUP 01	356.47	SY	\$18.00	\$6,416.46
285-709	OPTIONAL BASE,BASE GROUP 09	412.32	SY	\$20.00	\$8,246.40
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	334.40	SY	\$2.70	\$902.88
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	1,605.12	SY	\$2.70	\$4,333.82
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	261.16	TN	\$120.00	\$31,339.20
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	93.63	TN	\$160.00	\$14,980.80
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	48.00	LF	\$130.00	\$6,240.00
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	8.00	LF	\$180.00	\$1,440.00
430-524-100	STRAIGHT CONC ENDW 24", SINGLE, 0 ROUND	1.00	EA	\$4,700.00	\$4,700.00
430-530-100	STRAIGHT CONC ENDW 30", SINGLE, 0 ROUND	1.00	EA	\$6,400.00	\$6,400.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$2,500.00	\$7,500.00
570-1-2	PERFORMANCE TURF, SOD	357.14	SY	\$2.30	\$821.42

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: TRNLRT-R-29-BB			Letting Date: 01/2099		
Description: Widen Divided Rural 4-Lane to Allow for Right Turn Lane (300')					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost Model					
Version 17-P Project Grand Total				\$205,980.08	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
700-1-11	SINGLE POST SIGN, F&I GM,	1.00	AS	\$440.00	\$440.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,400.00	\$2,800.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	\$260.00	\$260.00
700-1-60	SINGLE POST SIGN, REMOVE	2.00	AS	\$43.00	\$86.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,800.00	\$5,800.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	\$910.00	\$910.00
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.80	\$87.40
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,100.00	\$506.00
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$520.00	\$119.60
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	1.00	LS	\$9,808.58	\$9,808.58
Project Unknowns			0.00	%	\$0.00
Design/Build			0.00	%	\$0.00
Version 17-P Project Grand Total		\$205,980.08			

Appendix M
FDOT Exhibit 212

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



MEDIAN TURN LANES								
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1 (ft.)	URBAN CONDITIONS			RURAL CONDITIONS		
			Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)
35	25	70	75	145	110	—	—	—
40	30	80	75	155	120	—	—	—
45	35	85	100	185	135	—	—	—
50	40/44	105	135	240	160	185	290	160
55	48	125	—	—	—	225	350	195
60	52	145	—	—	—	260	405	230
65	55	170	—	—	—	290	460	270

NOT TO SCALE

Appendix N
FDOT Cost per Mile Left Turn

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: TRNLLT-R-28-01			Letting Date: 01/2099		
Description: Widen Divided Rural 4-Lane to Allow for Left Turn Lane (300')					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost Model					
Version 9-P Project Grand Total				\$210,603.13	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
102-1	MAINTENANCE OF TRAFFIC	25.00			\$33,429.07
101-1	MOBILIZATION	20.00			\$33,429.07
104-10-3	SEDIMENT BARRIER	694.92	LF	\$1.70	\$1,181.36
104-11	FLOATING TURBIDITY BARRIER	5.70	LF	\$12.00	\$68.40
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	5.70	LF	\$6.70	\$38.19
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,600.00	\$2,600.00
107-2	MOWING	0.19	AC	\$46.00	\$8.74
110-1-1	CLEARING & GRUBBING	0.21	AC	\$23,000.00	\$4,830.00
120-1	REGULAR EXCAVATION	200.00	CY	\$9.50	\$1,900.00
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	663.23	CY	\$22.00	\$14,591.06
120-6	EMBANKMENT	300.00	CY	\$14.00	\$4,200.00
160-4	TYPE B STABILIZATION	1,605.12	SY	\$5.90	\$9,470.21
285-709	OPTIONAL BASE,BASE GROUP 09	590.56	SY	\$20.00	\$11,811.20
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	167.20	SY	\$2.70	\$451.44
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	1,605.12	SY	\$2.70	\$4,333.82
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	251.97	TN	\$120.00	\$30,236.40
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	86.94	TN	\$160.00	\$13,910.40
430-173-130	PIPE CULV OPT MATL, ROUND, 30", GD	8.00	LF	\$170.00	\$1,360.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$150.00	\$7,200.00
430-530-100	STRAIGHT CONC ENDW 30", SINGLE, 0 ROUND	1.00	EA	\$6,400.00	\$6,400.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$2,500.00	\$7,500.00
570-1-2	PERFORMANCE TURF, SOD	267.85	SY	\$2.30	\$616.06
700-1-11	SINGLE POST SIGN, F&I GM,	1.00	AS	\$440.00	\$440.00

FDOT Long Range Estimating System - Production					
R4: Project Details Composite Report					
By Version					
Project: TRNLLT-R-28-01				Letting Date: 01/2099	
Description: Widen Divided Rural 4-Lane to Allow for Left Turn Lane (300')					
District: 09	County: 99 DISTRICT/STATE WIDE				
Project Manager: Cost Model					
Version 9-P Project Grand Total				\$210,603.13	
Description: October 2022 Update					
Pay Items					
Pay Item	Description	Total Quantity	Unit	Weighted Avg. Unit Price	Total Amount
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,400.00	\$2,800.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	\$260.00	\$260.00
700-1-60	SINGLE POST SIGN, REMOVE	2.00	AS	\$43.00	\$86.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,800.00	\$5,800.00
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	\$910.00	\$910.00
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.80	\$87.40
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,100.00	\$506.00
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$520.00	\$119.60
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	1.00	LS	\$10,028.72	\$10,028.72
Project Unknowns			0.00	%	\$0.00
Design/Build			0.00	%	\$0.00
Version 9-P Project Grand Total				\$210,603.13	

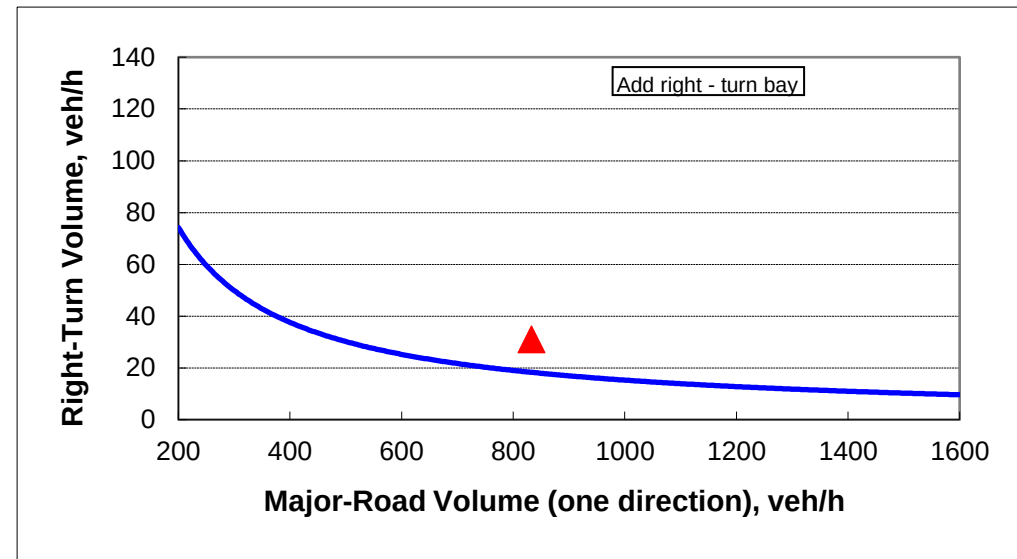
Appendix O
NCHRP Reports

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.**INPUT**

Roadway geometry:	4-lane roadway
Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	833
Right-turn volume, veh/h:	31

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	18
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:	
Add right-turn bay.	



21-52.04 - Sidewalks

A system of sidewalks shall be provided by the developer to provide safe movement of pedestrians separately from motor vehicles.

- a. Sidewalks shall be required on both sides of streets in all new development projects and redevelopment projects. In lieu of sidewalk installation, funds may be paid to the Pedestrian System Development Fund. Installation of the sidewalk or payment into the above referenced Fund shall be at the discretion of the TRC.
- b. The sidewalk shall be constructed in the dedicated right-of-way.
- c. All sidewalks shall have a minimum width of four feet (4') and be separated by at least four feet (4') from the road edge and comply with the City's Standard Construction Details.
- d. As an alternative in residential areas, sidewalks may be provided within rear lot easements or common open space areas as part of an approved development plan.
- e. Sidewalks shall connect to existing pedestrian circulation facilities for all projects within a distance and/or radius of 1,000-feet.

21-52.05 - Street Design Standards

- a. The arrangement, character, extent, width, grade and location of all new and improved streets shall conform to the adopted Comprehensive Plan now in existence or as may hereafter be adopted and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety and in their appropriate relation to the proposed uses of the land to be served by such streets.

Where such is not shown in the Comprehensive Plan now in existence or as may hereafter be adopted, the arrangement of streets in a subdivision shall either:

1. Provide for the continuation or appropriate projection of existing major streets in surrounding areas, or
 2. Conform to a plan for the neighborhood or be aligned to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.
- b. All new streets to be established within a subdivision shall meet the following minimum design standards.
 1. *Local streets.* Local streets shall be laid out so that use by through traffic will be discouraged.
 2. *Subdivisions on arterial streets.* Where a subdivision abuts or contains an existing or proposed arterial street, the subdivider shall provide reverse frontage lots with a planting screen contained in a non-access reservation along the rear property lines or such other treatment as may be necessary for adequate protection of

residential properties and to afford separation of through and local traffic.

3. *Intersection designs.* Streets shall be laid out and aligned to intersect as nearly as possible at right angles and no street shall intersect at less than sixty (60) degrees. Street jogs and intersections with centerline offsets of less than one hundred fifty feet (150') shall be prohibited. Multiple intersections involving the juncture of more than two (2) streets shall be prohibited. A minimum sight distance of two hundred feet (200') from any intersection shall be maintained on intersecting streets; however, this requirement shall not be construed as requiring an increase in the minimum allowable intersection separation of one hundred fifty feet (150').
4. Proposed streets shall be designed to provide access to adjoining unsubdivided tracts at logical locations for future subdivisions.
5. A minimum of two points of access shall be provided into each subdivision of twenty-five (25) lots or more. Where adjoining existing development and code requirements preclude the development of two public street access points, an unobstructed driveable access way may be substituted.
6. Right-of-way line intersections shall be rounded with a minimum radius of twenty-five feet (25'). A greater radius may be required on collector or arterial roads, or where road construction details require.
7. *Minimum street design specifications.* All streets to be established in a subdivision shall be graded to their full required right-of-way width and designed in accordance with the following minimum right-of-way specifications:

Arterial	150 ft.
Collector	100 ft.
Local	60 ft. (open drainage) 50 ft. (curb and gutter)

8. *Cul-de-sac.* All cul-de-sacs shall comply with the requirements contained in the Standard Construction Details.
9. *Street access to adjoining property.* Street stubs to adjoining unplatted areas shall be provided when required to give access to such areas or to provide for proper traffic circulation. Street stubs in excess of two hundred fifty feet (250') shall be provided with a temporary cul-de-sac turnaround. The developer of the adjoining area shall pay the cost of restoring the street to its original design cross-section and extending the street.
10. *Street names.* Street names shall not be used which will duplicate, be phonetically similar or be confused with the names of existing or other proposed streets, except that new streets which are an extension or in alignment with existing streets shall bear the same name as that borne by such existing streets. All courts and circles shall have one name only. All street names shall be submitted with the preliminary plat to the County of Volusia prior to final plat approval for 911 verification.
11. *Street name signs, pavement markings and regulatory signs.* Required signs shall be in place prior to acceptance by the City. All signing and pavement markings shall be in accordance with "USDOT Manual on Uniform Traffic Control

Devices". All pavement markings shall be thermoplast. Street name signs shall be a minimum of six inches (6") in height with letters four inches (4") in height. At cross-section intersections, two (2) street signposts shall be located diagonally across the intersection from each other. Only one street signpost shall be required at T-street intersections. Thirty inch (30") "STOP" signs shall be required at each street intersection unless otherwise approved or required by the TRC.

c. *Construction*

Basic construction requirements for roads are as follows:

1. Residential roadway pavement shall consist of 1-1/4 inches of compacted Type S-I asphalt over an eight inch (8") soil cement or limerock base, over an eight inch (8") compacted subbase. Alternative concrete pavements may be approved.
2. Commercial roadway pavement shall consist of two inches (2") of compacted Type S-I or S-III asphalt, over an eight (8") compacted limerock or six inch (6") compacted soil cement base over a twelve inch (12") compacted shellrock stabilized subbase.
3. All new roads shall have concrete curbs. Miami curbs are required on local streets with vertical curbs for enclosed drainage on major collector and arterial roads.
4. The remainder of the right-of-way shall be cleared, graded and sodded.
5. Signs for street identification and traffic control shall be installed by the City at the developer's expense. Signs shall be based on the requirements of the Federal Highway Administration Manual of Uniform Traffic Control Devices, current edition or other City specifications.

- d. *Alleys*. In single-family residential districts alleys shall be discouraged, but may be required in other than residential districts to provide for proper traffic circulation. When provided in any district, alleys shall have a minimum right-of-way width of thirty feet (30').

- e. *Easements*. Easements for utilities, including water, wastewater, electric, cable, telephone and gas and drainage easements, shall be provided as follows:

1. *Utilities*. Utility easements centered on side or rear lot lines shall be provided where deemed necessary and shall be at least fifteen feet (15') in width. Additional width may be required for wastewater and/or drainage easements. Side lot line easements may be decreased to ten feet (10') in width when serving a single electric or telephone utility.
2. *Drainage*. Where a proposed subdivision is transversed (traversed) by or abuts a watercourse, drainage way or stream, a conservation and stormwater easement or drainage way, canal or stream and such further width or construction or both as will be adequate for the purpose shall be provided. Where a drainage way or canal exists or is proposed, a maintenance easement approved by the City shall be provided.
3. *Access waterways*. Waterways which are constructed or improved for the purpose of providing access by the water to lots within a subdivision shall have a minimum easement or right-of-way width of one hundred feet (100'), except

where adequate shoreline protection is provided, the minimum right-of-way may be reduced to sixty feet (60').

- f. **Turn lanes** - A left turn lane shall be provided at each access point with an average daily trip end of 1,000 vehicles and/or more than 25 peak hour left turn movements. A right turn/deceleration lane shall be provided when the posted speed limit equals or exceeds 35 miles per hour or if the proposed development will generate 100 or more peak hour right turn movements. Turn lane requirements shall be provided on all immediately adjacent roadways affected by any development/redevelopment project unless deemed unfeasible/impractical by the TRC.

21-52.06 - Public Recreation

- a. *Requirements.* If a proposed development exceeds the required Level of Service standards for Public Recreation, as set forth in Section 21-46 and 21-135, the developer shall deed said land to the City or Homeowner's Association, pay a fee in lieu thereof or provide a combination of the above at the option of the City Council. This condition shall be met prior to final plan approval.
- b. *General Standard*
Recreation impacts of proposed development shall be based on the anticipated population within said development and is calculated by the following formula:

Unit Type	Pop./Unit
Single Family Residential	2.5
Duplex	2.3
Multi-Family Residential	2.0
Mobile/Manufactured Home	2.0

- c. *Formula for fees in (lieu of) land conveyance.*
 - 1. If it is determined that the proposed development does not include any land designated by the Edgewater Comprehensive Plan as Recreation, to serve the immediate and future needs of the city residents and the developers are unable to provide Recreation lands outside the proposed development that are so designated and is required by Section 21-135, then the developer shall, in lieu of conveying land, pay a fee to the city equal to the value of land acreage as provided by the current Volusia County Property Appraiser's assessed value for the nearest park or land deemed open space.
- d. *Use of Fees.* The fees collected hereunder shall be paid to the City of Edgewater. All such fees shall be placed in a reserve account in trust with the general fund and shall be known as the reserve trust for lands for parks and open space. Moneys within the reserve account shall be used and expended solely for the acquisition, improvement, expansion of city parks and open space land and to provide recreational equipment, facilities and land improvements as determined by the City Council. (Ord. No. 84-O-37, FS, 1-7-85).
- e. *Criteria for requiring both conveyance and fee.* In any development of over twenty-five (25)

Appendix P
Southeast Volusia County Bus Service Schedule



Fares - exact fare only

(Subject to change without notice)

Votran does not issue transfers. We recommend that you purchase an all day pass.

ADULT	\$1.75
SENIOR CITIZENS (65 OR OLDER)	\$0.85
DISABLED	\$0.85
YOUTHS (AGES 7-18)	\$0.85
CHILDREN (under age 7)	FREE

Children must be accompanied by a fare-paying adult passenger. Limited to three children.

Tarifa - Exacta Solamente

(Conforme a cambio sin aviso)

Votran no emite traslados. Le recomendamos que compre un pase de día entero.

ADULTOS	\$1.75
CIUDADANOS MAYORES (DE 65 AÑOS)	\$0.85
PERSONAS INCAPACITADAS	\$0.85
JOVENES (ENTRE LAS EDADES DE 7 A 18 AÑOS)	\$0.85
NIÑOS (menores de 7 años de edad)	GRATIS

Todo niño debe de ser acompañado por un pasajero adulto con tarifa pagada. Limitado a tres (3) niños.



Southeast Volusia Bus Service

- All times shown in **bold** are p.m. trips.
- All trips shown in do not operate on Saturdays.
- All trips shown in operate on Saturdays only.
- All trips shown in do not operate on Holidays.

SCHEDULE IS SUBJECT TO CHANGE WITHOUT NOTICE

40 Port Orange

MON-SAT: Northbound towards Nova/Dunlawton

Julia St/ Sams Ave	U.S. 1/ Industrial Park	U.S. 1/ Nova	Nova/ Dunlawton	Swallowtail Dr/ Village Trail
--:--	--:--	--:--	--:--	--:--
6:46	6:53	7:00	7:09	7:11
7:46	7:53	8:00	8:09	8:11
8:46	8:53	9:00	9:09	9:11
9:46	9:53	10:00	10:09	10:11
10:46	10:53	11:00	11:09	11:11
11:46	11:53	12:00	12:09	12:11
12:46	12:53	1:00	1:09	1:11
1:46	1:53	2:00	2:09	2:11
2:46	2:53	3:00	3:09	3:11
3:46	3:53	4:00	4:09	4:11
4:46	4:53	5:00	5:09	5:11
5:46	5:52	5:58	6:05	--:--
6:46	6:52	6:58	7:05	--:--

MON-SAT: Southbound towards New Smyrna Beach

Swallowtail Dr/ Village Trail	U.S. 1/ Dunlawton	U.S. 1/ Nova	U.S. 1/ Industrial Park	Julia St/ Sams Ave
--:--	--:--	--:--	--:--	--:--
7:18	7:24	7:31	7:38	7:45
8:18	8:24	8:31	8:38	8:45
9:18	9:24	9:31	9:38	9:45
10:18	10:24	10:31	10:38	10:45
11:18	11:24	11:31	11:38	11:45
12:18	12:24	12:31	12:38	12:45
1:18	1:24	1:31	1:38	1:45
2:18	2:24	2:31	2:38	2:45
3:18	3:24	3:31	3:38	3:45
4:18	4:24	4:31	4:38	4:45
5:18	5:24	5:31	5:38	5:45

Bus departs Votran Office at 6:22 a.m. via Big Tree to U.S. 1/Dunlawton.

Autobús sale Votran oficina a las 6:22 via Big Tree a U.S. 1/Dunlawton.

On holidays, departs Swallowtail Dr. at :15. Serves Herbert St. between Orange & U.S. 1 at :22.

Los días festivos, sale de Swallowtail Dr. en :15 y sirve a Herbert St. entre Orange y U.S. 1 a las :22.

TRIPS SHADED IN YELLOW DO NOT OPERATE ON HOLIDAYS.

PASEOS SOMBRADOS EN AMARILLO NO FUNCIONAN EN DÍAS FESTIVOS.

41 Edgewater

MON-SAT: Southbound from New Smyrna Beach to Edgewater via U.S. 1

Julia St/ Sams Ave	Daytona State College	U.S. 1/ Park Ave.	Florida Shores Plaza	U.S. 1/ Roberts	U.S. 1/ Halifax
6:46	--:--	6:55	6:59	7:03	--:--
7:46	7:57	8:02	8:07	8:11	--:--
8:46	8:57	9:02	9:07	9:11	--:--
*9:46	--:--	9:55	9:58	10:01	10:11
10:46	10:57	11:02	11:07	11:11	--:--
11:46	11:57	12:02	12:07	12:11	--:--
12:46	12:57	1:02	1:07	1:11	--:--
1:46	1:57	2:02	2:07	2:11	--:--
*2:46	--:--	2:55	2:58	3:01	3:11
3:46	3:57	4:02	4:07	4:11	--:--
4:46	4:57	5:02	5:07	5:11	--:--
*5:46	--:--	5:55	5:58	6:01	6:11

MON-SAT: Northbound from U.S. 1/Roberts to New Smyrna Beach via U.S. 1

U.S. 1/ Halifax	U.S. 1/ Roberts	30th St/ Willow Oak	Indian River/ U.S. 1	U.S. 1/ Park Ave.	Daytona State College	Julia St/ Sams Ave
--:--	7:03	7:07	7:16	7:21	7:27	7:39
--:--	8:11	8:15	8:23	8:28	8:33	8:45
--:--	9:11	9:15	9:24	9:29	--:--	9:39
10:11	10:22	10:26	10:35	10:38	--:--	10:45
--:--	11:11	11:15	11:24	11:29	--:--	11:39
--:--	12:11	12:15	12:24	12:29	--:--	12:39
--:--	1:11	1:15	1:24	1:29	--:--	1:39
--:--	2:11	2:15	2:24	2:29	--:--	2:39
3:11	3:22	3:26	3:35	3:38	--:--	3:45
--:--	4:11	4:15	4:24	4:29	--:--	4:39
--:--	5:11	5:15	5:24	5:29	--:--	5:39
6:11	6:22	6:26	6:35	6:38	--:--	6:45

On Saturday Daytona State College is closed. Bus will turn around at the entrance on 10th St.

El sábado Daytona State College está cerrado. Bus girará en torno a la entrada en la 10th St.

* Trips serving Oak Hill will not serve Daytona State College.

* Los viajes sirven Oak Hill no servirá a Daytona State College.

TRIPS SHADED IN YELLOW DO NOT OPERATE ON HOLIDAYS.

PASEOS SOMBRADOS EN AMARILLO NO FUNCIONAN EN DÍAS FESTIVOS.

Flex 42, Flex 43 and Flex 44

Service is available in New Smyrna Beach on the beachside and mainland. It connects with Votran fixed routes 40 and 41 at the Julia and Sams Connection Point in downtown New Smyrna Beach.

Reservations are required for trips and will be scheduled "first come, first served". For more information on FLEX Service contact Votran at **386-424-6800** or on the web at **votran.org**.

42 FLEX Beachside

MON-SAT: Eastbound from Downtown to Beachside

Julia/ Sams Ave	U.S. 1/Canal	Beachside Turnaround
--:--	6:50	6:55
7:47	7:50	7:55
8:47	8:50	8:55
9:47	9:50	9:55
10:47	10:50	10:55
11:47	11:50	11:55
12:47	12:50	12:55
1:47	1:50	1:55
2:47	2:50	2:55
3:47	3:50	3:55
4:47	4:50	4:55
5:47	5:50	5:55

MON-SAT: Westbound from Beachside to Downtown

Beachside Turnaround	U.S. 1/Canal	Julia/ Sams Ave
7:30	7:40	7:43
8:30	8:40	8:43
9:30	9:40	9:43
10:30	10:40	10:43
11:30	11:40	11:43
12:30	12:40	12:43
1:30	1:40	1:43
2:30	2:40	2:43
3:30	3:40	3:43
4:30	4:40	4:43
5:30	5:40	5:43
6:30	6:38	--:--

DOES NOT OPERATE ON HOLIDAYS.

43 FLEX Mainland

MON-SAT: Westbound from Downtown to NSB Reg. Shop. Ctr.

Julia/ Sams Ave	U.S. 1/ Canal	NSB Regional Shopping Center
--:--	6:50	7:13
7:47	7:50	8:13
8:47	8:50	9:13
9:47	9:50	10:13
10:47	10:50	11:13
11:47	11:50	12:13
12:47	12:50	1:13
1:47	1:50	2:13
2:47	2:50	3:13
3:47	3:50	4:13
4:47	4:50	5:13
5:47	5:50	6:13

MON-SAT: Eastbound from NSB Reg. Shop. Ctr. to Downtown

NSB Regional Shopping Center	U.S. 1/ Canal	Julia/ Sams Ave
7:13	7:40	7:43
8:13	8:40	8:43
9:13	9:40	9:43
10:13	10:40	10:43
11:13	11:40	11:43
12:13	12:40	12:43
1:13	1:40	1:43
2:13	2:40	2:43
3:13	3:40	3:43
4:13	4:40	4:43
5:13	5:40	5:43
6:13	6:38	--:--

DOES NOT OPERATE ON HOLIDAYS.

44 FLEX West New Smyrna Beach

MON-SAT: Julia & Sams to NSB Walmart

Julia St/ Sams Ave	NSB - Walmart	Julia St/ Sams Ave
6:47	7:11	7:36
7:47	8:11	8:36
8:47	9:11	9:36
9:47	10:11	10:36
10:47	11:11	11:36
11:47	12:11	12:36
12:47	1:11	1:36
1:47	2:11	2:36
2:47	3:11	3:36
3:47	4:11	4:36
4:47	5:11	5:36
5:47	6:11	6:36