

TRAFFIC IMPACT STUDY

For

Bridge Asset Management

Proposed Mixed Use Development

Property Located at:

**Malabar Road
City of Palm Bay
Brevard County, Florida**

Prepared by:



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INTRODUCTION

It is proposed to construct a mixed-use development on a parcel of vacant land in Palm Bay, Brevard County, Florida. The site location is shown on Figure 1 in Appendix A. Specifically, the property is located on the southerly side of Malabar Road, opposite Thunderbird Avenue. The development includes the construction of the following:

- 101,620 Square Foot Self-Storage Facility
- 57,805 Square Feet of Retail Space
- 424 Multi-Family Residential Dwelling Units

Access is proposed via two (2) driveways along Malabar Road with the easterly driveway intersecting Malabar Road opposite Thunderbird Avenue. The Site Plan depicting the proposal is contained in Appendix B.

Dynamic Traffic LLC has been retained to prepare this study to assess the traffic impact associated with the construction of the proposed development on the adjacent roadway network. This study has been prepared in accordance with the approved Methodology Letter which is contained in Appendix C. Note that the size of the self-storage facility was modified slightly subsequent to the methodology approval, however, no changes in the peak hour trip generation and/or study area resulted. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday morning and weekday afternoon peak periods at the intersections of:
 - Malabar Road & Thunderbird Avenue
 - Malabar Road & St. Johns Heritage Parkway
 - St. Johns Heritage Parkway & Pace Drive
 - St. Johns Heritage Parkway & Emerson Drive
 - Malabar Road & Krassner Drive/Bending Branch Way
 - Malabar Road & Hurley Boulevard
 - Malabar Road & Jupiter Boulevard
 - Malabar Road & Garvey Road
 - Jupiter Boulevard & Garvey Road
- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution pursuant to the approved methodology letter.
- Capacity analyses were conducted for the Existing, No Build, Build and Build with Improvements conditions for the study intersections.
- Roadway segment analyses were performed for the following segments:

- Malabar Road from St. Johns Heritage Parkway to Thunderbird Ave.
 - Malabar Road from Thunderbird Ave. to Hurley Blvd.
 - Malabar Road from Hurley Blvd. to Jupiter Blvd.
 - Malabar Road from Jupiter Blvd. to Garvey Road
 - Malabar Road from Garvey Road to Minton Road
 - St. Johns Heritage Parkway from Malabar Road to Pace Drive
 - St. Johns Heritage Parkway from Pace Drive to Emerson Drive
 - St. Johns Heritage Parkway from Emerson Drive to US 192
 - Jupiter Blvd. from Degroodt Rd. to Malabar Road
 - Jupiter Blvd. from Malabar Road to Americana Blvd.
 - Jupiter Blvd. from Americana Blvd. to Pace Drive
 - Jupiter Blvd. from Pace Drive to Emerson Drive
- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
 - A turn lane assessment was prepared.

EXISTING CONDITIONS

A review of the existing roadway conditions near the subject site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Traffic Volumes

Manual turning movement (MTM) traffic counts were conducted on Tuesday, January 16, 2024 between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM at the following intersections:

- Malabar Road & Thunderbird Avenue
- Malabar Road & St. Johns Heritage Parkway
- St. Johns Heritage Parkway & Pace Drive
- St. Johns Heritage Parkway & Emerson Drive
- Malabar Road & Krassner Drive/Bending Branch Way
- Malabar Road & Hurley Boulevard
- Malabar Road & Jupiter Boulevard
- Malabar Road & Garvey Road
- Jupiter Boulevard & Garvey Road

Pursuant to the FDOT Peak Season Category Report, the traffic volumes were adjusted by the Peak Season Conversion Factor (PSCF) of 1.06. Figure 2, located in Appendix A, illustrates the existing peak hour traffic volumes at the study intersections. All MTM counts and PSCF data are contained in Appendix D.

Existing Intersection Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a “qualitative” evaluation of capacity based upon certain “quantitative” calculations related to empirical values, such as traffic volume and intersection control.

At the signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal “green time”, turning percentages, truck volumes, etc. However, delays cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the Level of Service “F” range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle lengths; a particular traffic movement experiences a long red time; or progressive movement for a particular lane group is poor. Table 1 describes the level of service ranges for signalized intersections.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially

processing these impeded movements. Table 2 describes the level of service ranges for unsignalized (stop controlled) intersections.

**Table 1
Level of Service Criteria
for Signalized Intersections**

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	greater than 80.0

**Table 2
Level of Service Criteria
for Unsignalized Intersections**

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

All capacity analyses were performed utilizing the SYNCHRO software package (Synchro 12). Tables 3 and 4 summarize the existing levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues. All capacity analysis calculation worksheets and signal timing information are contained in Appendix H.

**Table 3
Existing Levels of Service – Signalized Intersections**

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Existing							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	5.8	0.07	13	A	3.7	0.07	12
		T		B	13.6	0.36	192	B	14.7	0.54	253
		R	200	A	0.0	0.02	0	A	1.7	0.05	10
	WB	L	340	A	5.4	0.09	26	A	4.4	0.19	25
		TR		C	22.2	0.79	745	B	12.3	0.46	208
	NB	LTR		C	30.9	0.60	124	B	11.2	0.30	38
	SB	LTR		D	38.8	0.63	124	A	8.4	0.25	26
	Overall			C	21.6			B	11.7		
Malabar Road & Jupiter Boulevard	EB	L	120	C	22.5	0.48	111	B	18.3	0.30	61
		TR		C	34.1	0.59	474	D	38.5	0.75	653
	WB	L	220	B	17.6	0.13	46	B	16.9	0.20	47
		TR		E	56.9	0.88	694	D	48.2	0.85	722
	NB	L	225	D	46.4	0.68	288	D	46.8	0.63	192
		T		E	70.7	0.72	461	E	72.8	0.72	365
		R	225	A	0.5	0.10	0	A	0.5	0.10	0
	SB	L	230	D	41.4	0.59	260	D	40.4	0.52	219
		TR		E	78.1	0.86	479	F	87.5	0.92	518
	Overall			D	49.6			D	49.6		

Table 4
Existing Levels of Service – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Existing							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage	WB	L	10	E	39.0	0.168	0.6	F	215.0	0.675	2.2
		R	10	F	322.0	1.603	26.1	B	10.2	0.144	0.5
	SB	L		B	12.0	0.136	0.5	A	9.1	0.325	1.4
Pace Drive & St. Johns Heritage Parkway	WB	L	16	E	40.5	0.578	3.2	E	48.6	0.090	1.4
		R	16	D	26.5	0.665	4.8	A	9.7	0.184	0.3
	SB	L		A	9.4	0.073	0.2	A	8.3	0.339	0.7
Malabar Road & St. Johns Heritage Pkwy.	EB	L	14	B	14.2	0.359	1.6	A	8.0	0.049	0.2
	SB	L	14	F	269.5	1.301	9.1	E	43.5	0.910	11.4
		R	14	D	27.4	0.679	5.0	A	9.1	0.060	0.2
Malabar Road & Thunderbird	EB	L	8	B	10.4	0.012	0.0	A	8.0	0.010	0.0
	SB	LTR		C	24.5	0.128	0.4	C	19.7	0.040	0.1
Malabar Road & Hurley Blvd.	WB	L		A	8.9	0.060	0.2	A	9.2	0.098	0.3
	NB	LR		F	130.0	1.044	9.1	D	31.1	0.422	2.0
Malabar Road & Garvey Road	WB	L		A	9.9	0.015	0.5	A	9.6	0.213	0.8
	NB	L	5	F	68.4	0.449	1.9	F	59.8	0.103	0.3
		R	5	C	21.0	0.493	2.7	B	13.9	0.212	0.8
Garvey Road & Jupiter Boulevard	EB	LTR		C	17.8	0.582	3.7	C	20.1	0.655	4.8
	WB	LTR		C	22.2	0.699	5.6	C	19.0	0.637	4.5
	NB	LTR		C	15.5	0.473	2.5	B	13.4	0.355	1.6
	SB	LTR		B	13.2	0.320	1.4	B	13.7	0.364	1.6

The existing percentage of trucks and peak hour factors were used in the existing analysis. Note that cells highlighted in red indicate v/c ratios greater than 1.0 and 95th percentile queue lengths that exceed the available queue storage.

As indicated in the above tables, the intersections of St. Johns Heritage Parkway with Malabar Road and with Emerson Drive as well as the intersection of Malabar Road and Hurley Boulevard have movements operating with volumes exceeding the available capacity. Additionally, although the volume does not exceed the capacity, delays result in a Level of Service “F” at multiple study locations.

Existing Road Segment Analysis

Roadway segment analyses were prepared for the roadway segments identified above and the results are detailed in Table 5 below. As shown, Malabar Road from Jupiter Boulevard to Garvey Road and from Garvey Road to Minton Road both exceed capacity based on daily volumes. Utilizing peak hour volumes, St. Johns Heritage Parkway from Emerson Drive to US 192 exceeds capacity.

Table 5
Existing Roadway Segment Analysis

Roadway	Segment		Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	Daily Adopted Capacity	2022 Existing Volume - SCTPO	Existing v/c Ratio	Existing Exceed Capacity?
Malabar Road	SHJP	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	17,700	10,213	0.58	N
Malabar Road	Thunderbird Ave.	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	17,700	10,213	0.58	N
Malabar Road	Hurley Blvd.	Jupiter Blvd.	589	Urban Minor Arterial	2	45	D	17,700	10,213	0.58	N
Malabar Road	Jupiter Blvd.	Garvey Road	371	Urban Principal Arterial	2	45	D	17,700	18,399	1.04	Y
Malabar Road	Garvey Road	Minton Road	371	Urban Principal Arterial	2	45	D	17,700	18,399	1.04	Y
SJHP	Malabar Road	Pace Drive	609	Urban Minor Arterial	2	40	E	15,600	6,656	0.43	N
SJHP	Pace Drive	Emerson Drive	610	Urban Minor Arterial	2	40	E	15,600	8,829	0.57	N
SJHP	Emerson Drive	US 192	629	Urban Minor Arterial	2	40	E	15,600	13,899	0.89	N
Jupiter Blvd.	Degroodt Rd.	Malabar Road	573	Urban Minor Arterial	2	40	D	17,700	8,023	0.45	N
Jupiter Blvd.	Malabar Road	Americana Blvd.	620	Urban Minor Arterial	2	40	D	17,700	11,262	0.64	N
Jupiter Blvd.	Americana Blvd.	Pace Drive	574	Urban Minor Arterial	2	40	D	17,700	12,189	0.69	N
Jupiter Blvd.	Pace Drive	Emerson Drive	621	Urban Minor Arterial	2	40	D	17,700	11,635	0.66	N
Roadway	Segment		Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	2-Way PM Peak Adopted Capacity	2024 Existing Volume	Existing v/c Ratio	Existing Exceed Capacity?
Malabar Road	SHJP	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	1,600	942	0.59	N
Malabar Road	Thunderbird Ave.	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	1,600	1,139	0.71	N
Malabar Road	Hurley Blvd.	Jupiter Blvd.	589	Urban Minor Arterial	2	45	D	1,600	1,229	0.77	N
Malabar Road	Jupiter Blvd.	Garvey Road	371	Urban Principal Arterial	2	45	D	1,600	1,203	0.75	N
Malabar Road	Garvey Road	Minton Road	371	Urban Principal Arterial	2	45	D	1,600	1,535	0.96	N
SJHP	Malabar Road	Pace Drive	609	Urban Minor Arterial	2	40	E	1,410	794	0.56	N
SJHP	Pace Drive	Emerson Drive	610	Urban Minor Arterial	2	40	E	1,410	1,064	0.75	N
SJHP	Emerson Drive	US 192	629	Urban Minor Arterial	2	40	E	1,410	1,534	1.09	Y
Jupiter Blvd.	Degroodt Rd.	Malabar Road	573	Urban Minor Arterial	2	40	D	1,600	798	0.5	N
Jupiter Blvd.	Malabar Road	Americana Blvd.	620	Urban Minor Arterial	2	40	D	1,600	955	0.6	N
Jupiter Blvd.	Americana Blvd.	Pace Drive	574	Urban Minor Arterial	2	40	D	1,600	955	0.6	N
Jupiter Blvd.	Pace Drive	Emerson Drive	621	Urban Minor Arterial	2	40	D	1,600	955	0.6	N

FUTURE NO BUILD CONDITIONS

Traffic volumes and operational analyses were developed for both the Future No Build and Build conditions. The No Build conditions provide a baseline of traffic volumes in the future should the subject property not be developed further. The process of developing the No Build traffic volumes and the subsequent analyses is outlined below.

Background Traffic Growth

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways may increase as a result of developments throughout the region. As shown in Appendix E, historical data from nearby count stations published by the Space Coast Transportation Planning Organization (SCTPO) was utilized along with an FDOT trends analysis. Where the growth rate was calculated to be less than 2.0%, a minimum growth rate of 2.0% was utilized. Table 6 details the growth rate data:

**Table 6
Growth Rate Calculations**

Roadway	Segment		Segment ID	Calculated Rate	Applied Rate
	From	To			
SJHP	Emerson Drive	Pace Drive	610	5.29%	5%
SJHP	Pace Drive	Malabar Road	609	2.78%	3%
Malabar Road	Garvey Road	Minton Road	371	-3.77%	2%
Malabar Road	SJHP	Garvey Road	589	-3.95%	2%
Jupiter Boulevard	Malabar Road	Garvey Road	573	0.64%	2%
Jupiter Boulevard	Pace Drive	Malabar Road	620	1.08%	2%

Vested Traffic

In addition to the background growth rate, several developments in the vicinity of the study area have also been considered as vested trips. The Adjacent Development Traffic Volumes within the study area are shown on Figures 3 through 9 as obtained from the respective Traffic Impact Studies associated with each as excerpted in Appendix F. It should be noted that the Brentwood project identified in the methodology letter has been constructed and therefore its volumes are included in the counted traffic volumes.

- Figure 3 – Chapparal
- Figure 4 – SJHP Commercial (Malabar @ Heritage Publix)
- Figure 5 – Circle K
- Figure 6 – Palm Vista
- Figure 7 – Everlands Riverwood
- Figure 8 – St. Johns Preserve
- Figure 9 – Avery Springs

Figure 10 in Appendix A displays the summation of all adjacent development traffic volumes.

Future No Build traffic volumes were developed by applying the background growth rates identified in Table 6 for two (2) years to the study area roadways existing traffic volumes. Additionally, site

generated traffic associated with the adjacent developments was added to develop the Future No Build Traffic Volumes as shown on Figure 11 in Appendix A.

Future No Build Intersection Capacity Analysis

Tables 7 and 8 summarize the Future No Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues. All capacity analysis calculation worksheets are contained in Appendix H.

Table 7
Future No Build Levels of Service – Signalized Intersections

Signalized Intersection	Direction/Movement		Queue Storage (ft)	Future No Build							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.6	0.11	13	A	3.9	0.14	12
		T		C	23.3	0.76	627	C	22.0	0.82	694
		R	200	A	0.0	0.02	0	A	1.5	0.05	10
	WB	L	340	A	6.4	0.18	28	A	5.7	0.34	25
		TR		E	57.6	1.03	1148	C	21.7	0.82	763
	NB	LTR		C	33.6	0.62	131	B	16.4	0.41	47
	SB	LTR		D	43.2	0.67	131	B	10.7	0.31	29
	Overall			D	41.5			B	19.7		
Malabar Road & Jupiter Boulevard	EB	L	120	D	51.1	0.73	255	D	52.5	0.68	162
		TR		D	46.3	0.84	1012	E	77.5	1.03	1369
	WB	L	220	B	19.5	0.24	46	C	31.9	0.44	64
		TR		E	73.2	0.96	1161	F	144.2	1.20	1583
	NB	L	225	F	147.0	1.14	587	F	130.3	1.10	541
		T		F	123.3	0.98	544	F	93.5	0.86	487
		R	225	A	0.7	0.12	0	A	0.6	0.11	0
	SB	L	230	E	69.6	0.83	328	D	50.3	0.65	257
		TR		F	169.7	1.19	680	F	223.8	1.35	765
	Overall			F	85.1			F	116.8		

Table 8
Future No Build Levels of Service – Unsignalized Intersections

Unsignalized Intersection	Direction/Movement		Queue Storage (veh)	Future No Build							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage	WB	L	10	F	1074.1	3.032	17.5	F	Error	Error	Error
		R	10	F	1020.2	3.127	43.8	B	12.9	0.218	0.8
	SB	L		C	16.7	0.226	0.9	B	11.6	0.461	2.5
Pace Drive & St. Johns Heritage Parkway	WB	L	16	F	489.6	1.841	14.7	F	1478.3	3.589	11.4
		R	16	F	113.5	1.095	13.8	B	12.4	0.169	0.6
	SB	L		B	11.0	0.121	0.4	B	10.0	0.288	1.2
Malabar Road & St. Johns Heritage Pkwy.	EB	L	14	D	25.9	0.587	3.6	A	9.6	0.087	0.3
	SB	L	14	F	4374.8	10.266	46.5	F	702.6	2.492	72.0
		R	14	F	82.8	0.997	11.3	B	10.5	0.091	0.3
Malabar Road & Thunderbird	EB	L	8	B	12.5	0.017	0.1	A	9.3	0.015	0.0
	SB	LTR		F	58.7	0.299	1.1	F	66.3	0.015	0.5
Malabar Road & Hurley Blvd.	WB	L		B	10.9	0.094	0.3	B	11.1	0.144	0.5
	NB	LR		F	1214.6	3.378	21.3	F	492.1	1.711	9.4
Malabar Road & Garvey Road	WB	L		B	11.6	0.197	0.7	B	11.0	0.266	1.1
	NB	L	5	F	236.7	0.933	4.0	F	151.7	0.239	0.8
		R	5	E	43.5	0.736	5.4	C	18.1	0.292	1.2
Garvey Road & Jupiter Boulevard	EB	LTR		F	64.4	0.980	13.2	F	61.3	0.971	12.9
	WB	LTR		F	68.5	0.990	13.9	F	66.2	1.000	14.1
	NB	LTR		C	22.5	0.596	3.8	C	17.9	0.451	2.3
	SB	LTR		C	17.6	0.414	2.0	C	18.2	0.463	2.4

As shown in Tables 7 and 8, each intersection analyzed with the addition of background traffic and vested traffic will experience v/c ratios over 1.0 and/or violations of the adopted Level of Service Standard and/or 95th percentile queues that exceed the available queue storage. **Pursuant to Florida Statute 163.3180, The Project is not responsible for mitigating deficiencies created by background conditions and vested trips.**

Future No Build Road Segment Analysis

Roadway segment analyses were prepared for the subject roadway segments for Future No Build conditions and the results are detailed in Table 9 below. As shown, Malabar Road from Jupiter Boulevard to Garvey Road and from Garvey Road to Minton Road continues to exceed capacity based on daily volumes, as does St Johns Heritage Parkway from Emerson Drive to US 192. Utilizing peak hour volumes, all segments of Malabar Road and St. Johns Heritage Parkway will exceed capacity under Future No Build Conditions. **Pursuant to Florida Statute 163.3180, The Project is not responsible for mitigating deficiencies created by background conditions and vested trips.**

Table 9
Future No Build Roadway Segment Analysis

Roadway	Segment	Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	Daily Adopted Capacity	2022 Existing Volume - SCTPO	Bkgrd. Growth	Vested Trips	No Build Volume	No Build v/c Ratio	No Build Exceed Capacity?
Malabar Road	SHJP	589	Urban Minor Arterial	2	45	D	17,700	10,213	842	0	11,055	0.62	N
Malabar Road	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	17,700	10,213	842	0	11,055	0.62	N
Malabar Road	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	17,700	10,213	842	0	11,055	0.62	N
Malabar Road	Jupiter Blvd.	371	Urban Principal Arterial	2	45	D	17,700	18,399	1,517	0	19,916	1.13	Y
Malabar Road	Garvey Road	371	Urban Principal Arterial	2	45	D	17,700	18,399	1,517	0	19,916	1.13	Y
Malabar Road	Minton Road	609	Urban Minor Arterial	2	40	E	15,600	6,656	835	0	7,491	0.48	N
SHJP	Pace Drive	610	Urban Minor Arterial	2	40	E	15,600	8,829	1,108	0	9,937	0.64	N
SHJP	Emerson Drive	629	Urban Minor Arterial	2	40	E	15,600	13,899	2,995	0	16,894	1.08	Y
Jupiter Blvd.	Degroodt Rd.	573	Urban Minor Arterial	2	40	D	17,700	8,023	661	0	8,684	0.49	N
Jupiter Blvd.	Malabar Road	620	Urban Minor Arterial	2	40	D	17,700	11,262	928	0	12,190	0.69	N
Jupiter Blvd.	Americana Blvd.	574	Urban Minor Arterial	2	40	D	17,700	12,189	1,005	0	13,194	0.75	N
Jupiter Blvd.	Pace Drive	621	Urban Minor Arterial	2	40	D	17,700	11,635	959	0	12,594	0.71	N
Roadway	Segment	Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	2-Way PM Peak Adopted Capacity	2024 Existing Volume	Bkgrd. Growth	Vested Trips	No Build Volume	No Build v/c Ratio	No Build Exceed Capacity?
Malabar Road	SHJP	589	Urban Minor Arterial	2	45	D	1,600	942	38	720	1,700	1.06	Y
Malabar Road	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	1,600	1,139	46	816	2,001	1.25	Y
Malabar Road	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	1,600	1,229	50	754	2,033	1.27	Y
Malabar Road	Jupiter Blvd.	371	Urban Principal Arterial	2	45	D	1,600	1,203	49	434	1,686	1.05	Y
Malabar Road	Garvey Road	371	Urban Principal Arterial	2	45	D	1,600	1,535	62	431	2,028	1.27	Y
SHJP	Minton Road	609	Urban Minor Arterial	2	40	E	1,410	794	48	579	1,421	1.01	Y
SHJP	Pace Drive	610	Urban Minor Arterial	2	40	E	1,410	1,064	65	560	1,689	1.2	Y
SHJP	Emerson Drive	629	Urban Minor Arterial	2	40	E	1,410	1,534	157	460	2,151	1.53	Y
Jupiter Blvd.	Degroodt Rd.	573	Urban Minor Arterial	2	40	D	1,600	798	32	209	1,039	0.65	N
Jupiter Blvd.	Malabar Road	620	Urban Minor Arterial	2	40	D	1,600	955	39	180	1,174	0.73	N
Jupiter Blvd.	Americana Blvd.	574	Urban Minor Arterial	2	40	D	1,600	955	39	180	1,174	0.73	N
Jupiter Blvd.	Pace Drive	621	Urban Minor Arterial	2	40	D	1,600	955	39	180	1,174	0.73	N

TRAFFIC GENERATION

Trip Generation

Trip generation projections for the project were prepared utilizing trip generation research data as published in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition*. Internally Captured traffic within the development was calculated for the weekday AM and PM peak hours based on the NCHRP 684 *Internal Trip Capture Estimation Tool*. For the weekday daily internal capture, the procedures outlined in the 2nd and 3rd Editions of the ITE's *Trip Generation Handbook* were utilized. Pass-by traffic was calculated based on data published by ITE that accompanies the *Trip Generation Manual, 11th Edition*. Appendix C contains the approved methodology letter that included the Trip Generation Calculations. As previously mentioned, subsequent to that assessment, the size of the self-storage facility was modified slightly which did not impact the peak hour trip generation calculations but did slightly alter the daily trip generation calculations. The applicable updated trip generation calculations are contained in Appendix G and are shown below in Table 10.

Table 10
Trip Generation

Time Period	Land Use Code	Land Use	Equation	Size	Units	% Enter	% Exit	Enter	Exit	Total
AM Peak Hour	151	Self Storage	$T=0.09(X/1000)$	101,620	SF	59%	41%	5	4	9
	821	Shopping Plaza	$T=1.73(X/1000)$	57,805	SF	62%	38%	62	38	100
	220	Multi-Family Housing (Low Rise)	$T=0.31(X)+22.85$	424	DU	24%	76%	37	117	154
	Totals:							104	159	263
	Internal Capture Trips									
	151	Self Storage	Internal	101,620	SF	1%	2%	0	0	0
	821	Shopping Plaza	Internal	57,805	SF	1%	2%	1	1	2
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	3%	1%	1	1	2
	Total Internal Capture Percentage:		1%	Total Internal Trips:		1	0	1		
	External Trips:							103	159	262
PM Peak Hour	151	Self Storage	$T=0.15(X/1000)$	101,620	SF	47%	53%	7	8	15
	821	Shopping Plaza	$T=5.19(X/1000)$	57,805	SF	49%	51%	147	153	300
	220	Multi-Family Housing (Low Rise)	$T=0.43(X)+20.55$	424	DU	63%	37%	128	75	203
	Totals:							282	236	518
	Internal Capture Trips									
	151	Self Storage	Internal	101,620	SF	10%	26%	1	2	3
	821	Shopping Plaza	Internal	57,805	SF	10%	26%	15	40	55
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	32%	20%	41	15	56
	Total Internal Capture Percentage:		24%	Total Internal Trips:		57	57	114		
	External Trips:							225	179	407
	Pass-By Trips (External x Pass-By Rate)									
	821	Shopping Plaza	40%	57,805	SF	50%	50%	46	46	92
	Pass-By Trips:							46	46	92
Primary External Trips:							179	133	315	
Daily	151	Self Storage	$T=1.45(X/1000)$	101,620	SF	50%	50%	74	73	147
	821	Shopping Plaza	$T=67.52(X/1000)$	57,805	SF	50%	50%	1952	1951	3903
	220	Multi-Family Housing (Low Rise)	$T=6.41(X)+75.31$	424	DU	50%	50%	1397	1396	2793
	Totals:							3423	3420	6843
	Internal Capture Trips									
	151	Self Storage	Internal	101,620	SF	37%	42%	28	30	58
	821	Shopping Plaza	Internal	57,805	SF	10%	12%	198	236	434
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	16%	13%	223	183	406
	Total Internal Capture Percentage:		13%	Total Internal Trips:		449	449	898		
	External Trips:							2974	2971	5945

Traffic Distribution

The distribution of site generated traffic is consistent with that which was approved in the Methodology Letter. The following figures in Appendix A are used to illustrate the site generated traffic distribution and the site generated traffic volumes.

- Figure 12 – Primary (“new”) Site Traffic Distribution
- Figure 13 – Pass-by Site Traffic Distribution
- Figure 14 – Primary Site Generated Trips
- Figure 15 – Pass-by Site Generated Trips
- Figure 16 – Total Site Generated Trips

FUTURE BUILD CONDITIONS

Future Build traffic volumes were established by adding the site generated traffic volumes shown in Figure 16 to the Future No Build traffic volumes shown in Figure 11 to generate the Future Build traffic volumes which are illustrated on Figure 17 in Appendix A.

Future Build Intersection Capacity Analysis

Tables 11 and 12 summarize the Future Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues. All capacity analysis calculation worksheets are contained in Appendix H.

**Table 11
Future Build Levels of Service – Signalized Intersections**

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future Build							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.7	0.11	13	A	5.0	0.19	12
		T		C	29.7	0.86	762	C	28.2	0.90	790
		R	200	A	0.0	0.02	0	A	1.5	0.05	10
	WB	L	340	A	7.2	0.23	28	B	12.1	0.42	49
		TR		E	77.7	1.09	1235	C	30.8	0.92	894
		NB LTR		C	33.6	0.62	131	B	16.4	0.41	47
	SB	LTR		D	43.2	0.67	131	B	10.7	0.31	29
		Overall		D	53.1			C	26.7		
Malabar Road & Jupiter Boulevard	EB	L	120	E	72.9	0.82	324	E	57.3	0.72	194
		TR		D	53.8	0.91	1242	F	94.3	1.08	1525
	WB	L	220	C	22.3	0.31	46	C	33.2	0.44	67
		TR		F	87.7	1.02	1242	F	180.9	1.29	1768
	NB	L	225	F	170.4	1.21	624	F	165.1	1.20	615
		T		F	128.8	1.00	544	F	97.3	0.88	500
		R	225	A	0.7	0.12	0	A	0.6	0.11	0
	SB	L	230	E	72.9	0.84	332	D	52.0	0.66	264
		TR		F	193.4	1.26	721	F	265.1	1.45	850
		Overall		F	97.6			F	141.7		

Table 12
Future Build Levels of Service – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Future Build							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage	WB	L	10	F	1324.1	3.549	18.6	F	Error	Error	Error
		R	10	F	1118.5	3.339	44.9	B	13.4	0.230	0.9
	SB	L		C	17.5	0.237	0.9	B	12.0	0.478	2.6
Pace Drive & St. Johns Heritage Parkway	WB	L	16	F	644.6	2.169	16.4	F	2322.4	5.245	12.8
		R	16	F	144.9	1.178	15.6	B	12.9	0.179	0.6
	SB	L		B	11.4	0.013	0.4	B	10.3	0.299	1.3
Malabar Road & St. Johns Heritage Pkwy.	EB	L	14	D	29.6	0.630	4.1	A	9.9	0.091	0.3
	SB	L	14	F	5665.9	13.077	52.6	F	822.2	2.758	81.6
		R	14	F	87.0	1.011	11.6	B	10.6	0.092	0.3
Malabar Road & West Dwy.	WB	L	4	A	41.3	0.037	1.8	B	11.8	0.112	0.4
	NB	LR		E	9.2	0.401	0.1	E	48.4	0.469	2.2
Malabar Road & Thunderbird Avenue	EB	L	8	B	12.7	0.017	0.1	A	9.5	0.015	0.0
	WB	L	8	A	9.5	0.044	0.1	B	12.1	0.124	0.4
	NB	LTR		F	1106.4	2.973	13.0	F	966.9	2.734	13.8
	SB	LTR		F	111.3	0.497	2.0	F	183.3	0.425	1.4
Malabar Road & Hurley Blvd.	WB	L		B	11.5	0.103	0.3	B	11.7	0.155	0.5
	NB	LR		F	1821.1	4.636	23.3	F	958.0	2.647	11.8
Malabar Road & Garvey Road	WB	L		B	12.0	0.206	0.8	B	11.3	0.276	1.1
	NB	L	5	F	323.5	1.126	4.6	F	216.7	0.437	1.4
		R	5	F	52.6	0.792	6.2	C	19.1	0.308	1.3
Garvey Road & Jupiter Boulevard	EB	LTR		F	70.7	1.020	14.1	F	67.7	1.020	13.7
	WB	LTR		F	71.4	1.030	14.2	F	79.7	1.052	16.0
	NB	LTR		C	22.9	0.613	3.8	C	18.2	0.467	2.3
	SB	LTR		C	17.9	0.426	2.0	C	18.5	0.478	2.4

As identified in Tables 11 and 12, each intersection analyzed with the addition of background traffic, vested traffic and Project traffic will experience v/c ratios over 1.0 and/or violations of the adopted Level of Service Standard and/or 95th percentile queues that exceed the available queue storage. However, notably, Project traffic results in minimal impacts to those off-site intersection turning movements that operate within acceptable Levels of Service under Future No Build Conditions.

Future Build Road Segment Analysis

Roadway segment analyses were prepared for the subject roadway segments for Future Build conditions and the results are detailed in Table 13 below. As shown, all segments of Malabar Road and St. Johns Heritage Parkway will continue to exceed capacity under Future Build Conditions. Project traffic does not result in any additional roadway segments exceeding capacity as compared to Future No Build conditions.

Table 13
Future Build Roadway Segment Analysis

Roadway	Segment		Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	Daily Adopted Capacity	No Build Volume	Project Trips	Build Volumes	Build v/c Ratio	Build Exceed Capacity?
Malabar Road	SHJP	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	17,700	11,055	2,338	13,393	0.76	N
Malabar Road	Thunderbird Ave.	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	17,700	11,055	3,538	14,593	0.82	N
Malabar Road	Hurley Blvd.	Jupiter Blvd.	589	Urban Minor Arterial	2	45	D	17,700	11,055	3,418	14,473	0.82	N
Malabar Road	Jupiter Blvd.	Garvey Road	371	Urban Principal Arterial	2	45	D	17,700	19,916	1,799	21,715	1.23	Y
Malabar Road	Garvey Road	Minton Road	371	Urban Principal Arterial	2	45	D	17,700	19,916	1,679	21,595	1.22	Y
SHHP	Malabar Road	Pace Drive	609	Urban Minor Arterial	2	40	E	15,600	7,491	2,099	9,590	0.61	N
SHHP	Pace Drive	Emerson Drive	610	Urban Minor Arterial	2	40	E	15,600	9,937	1,859	11,796	0.76	N
SHHP	Emerson Drive	US 192	629	Urban Minor Arterial	2	40	E	15,600	16,894	1,679	18,573	1.19	Y
Jupiter Blvd.	Degroot Rd.	Malabar Road	573	Urban Minor Arterial	2	40	D	17,700	8,684	839	9,523	0.54	N
Jupiter Blvd.	Malabar Road	Americana Blvd.	620	Urban Minor Arterial	2	40	D	17,700	12,190	899	13,089	0.74	N
Jupiter Blvd.	Americana Blvd.	Pace Drive	574	Urban Minor Arterial	2	40	D	17,700	13,194	899	14,093	0.8	N
Jupiter Blvd.	Pace Drive	Emerson Drive	621	Urban Minor Arterial	2	40	D	17,700	12,594	899	13,493	0.76	N
Roadway	Segment		Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	2-Way PM Peak Adopted Capacity	No Build Volume	Project Trips	Build Volumes	Build v/c Ratio	Build Exceed Capacity?
Malabar Road	SHJP	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	1,600	1,700	122	1,822	1.14	Y
Malabar Road	Thunderbird Ave.	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	1,600	2,001	185	2,186	1.37	Y
Malabar Road	Hurley Blvd.	Jupiter Blvd.	589	Urban Minor Arterial	2	45	D	1,600	2,033	178	2,211	1.38	Y
Malabar Road	Jupiter Blvd.	Garvey Road	371	Urban Principal Arterial	2	45	D	1,600	1,686	94	1,780	1.11	Y
Malabar Road	Garvey Road	Minton Road	371	Urban Principal Arterial	2	45	D	1,600	2,028	87	2,115	1.32	Y
SHHP	Malabar Road	Pace Drive	609	Urban Minor Arterial	2	40	E	1,410	1,421	106	1,527	1.08	Y
SHHP	Pace Drive	Emerson Drive	610	Urban Minor Arterial	2	40	E	1,410	1,689	97	1,786	1.27	Y
SHHP	Emerson Drive	US 192	629	Urban Minor Arterial	2	40	E	1,410	2,151	88	2,239	1.59	Y
Jupiter Blvd.	Degroot Rd.	Malabar Road	573	Urban Minor Arterial	2	40	D	1,600	1,039	37	1,076	0.67	N
Jupiter Blvd.	Malabar Road	Americana Blvd.	620	Urban Minor Arterial	2	40	D	1,600	1,174	47	1,221	0.76	N
Jupiter Blvd.	Americana Blvd.	Pace Drive	574	Urban Minor Arterial	2	40	D	1,600	1,174	47	1,221	0.76	N
Jupiter Blvd.	Pace Drive	Emerson Drive	621	Urban Minor Arterial	2	40	D	1,600	1,174	47	1,221	0.76	N

FUTURE CONDITIONS WITH BACKGROUND IMPROVEMENTS

The Florida Department of Transportation (FDOT) Five Year Work Program, the SCTPO Transportation Improvement Program and Brevard County Capital Improvement Program do not indicated that funding is in place for any planned roadway improvement construction projects. However, it is understood that design plans are being advanced for widening Malabar Road from St. Johns Heritage Parkway to Minton Road and for widening St. Johns Heritage Parkway from Malabar Road to US 192 from two-lane roadways to four-lane roadways. Additionally, either signalization or roundabout implementation is being considered for the intersection of Malabar Road and St. Johns Heritage Parkway. Accordingly, analysis of the Future Build traffic volumes was undertaken with consideration of these potential background improvement projects.

Future No Build Intersection Capacity Analysis with Background Improvements

Tables 14 and 15 summarize the Future No Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues with consideration of these background improvements. All capacity analysis calculation worksheets for this scenario are contained in Appendix I.

Table 14

Future No Build Levels of Service with Background Improvements – Signalized Intersections

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future No Build with Background Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.2	0.07	13	A	4.1	0.10	12
		T		B	13.5	0.48	187	B	12.3	0.49	184
		R	200	A	0.0	0.02	0	A	0.7	0.05	5
	WB	L	340	A	6.5	0.15	28	A	4.6	0.23	24
		TR		B	14.7	0.67	325	B	10.3	0.50	182
	NB	LTR		C	22.5	0.50	116	A	7.4	0.29	28
	SB	LTR		C	27.8	0.51	120	A	4.5	0.24	14
	Overall			B	15.3			B	10.3		
Malabar Road & Jupiter Boulevard	EB	L	120	D	51.5	0.84	187	C	34.6	0.65	104
		TR		C	31.6	0.71	310	D	36.0	0.84	356
	WB	L	220	B	18.8	0.21	40	C	20.1	0.30	43
		TR		D	42.5	0.85	289	E	62.2	1.00	45
	NB	L	225	D	45.8	0.60	226	E	74.5	0.98	273
		T		D	38.5	0.60	204	D	37.7	0.58	193
		R	225	A	0.3	0.08	0	A	0.2	0.07	0
	SB	L	230	C	24.2	0.59	146	C	22.7	0.49	130
		TR		D	52.5	0.86	318	E	77.8	1.00	395
	Overall			D	38.9			D	50.9		
Malabar Road & St. Johns Heritage Pkwy.	EB	L	330	C	25.0	0.68	62	C	22.9	0.25	59
		T		B	10.5	0.23	58	C	22.5	0.26	89
	WB	T		C	31.0	0.76	215	D	36.6	0.56	118
		R	230	A	6.8	0.71	0	B	10.8	0.72	91
	SB	L		D	40.7	0.79	188	D	39.6	0.93	770
		R		B	14.0	0.44	103	A	1.7	0.06	13
	Overall			C	21.1			C	28.7		

Table 15
Future No Build Levels of Service with Background Improvements – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Future No Build with Background Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage	WB	L	10	F	1095.6	3.075	17.5	F	4447.3	9.833	20.3
		R	10	F	193.0	1.320	22.1	B	10.7	0.168	0.6
	SB	L		C	17.3	0.235	0.9	B	11.6	0.462	2.5
Pace Drive & St. Johns Heritage Parkway	WB	L	16	F	311.2	1.459	12.4	F	444.4	1.583	8.4
		R	16	C	23.3	0.659	4.8	B	10.4	0.130	0.4
	SB	L		B	11.1	0.123	0.4	B	10.0	0.288	1.2
Malabar Road & Thunderbird	EB	L	8	B	12.5	0.017	0.1	A	9.3	0.015	0.0
	SB	LTR		E	37.7	0.205	0.7	D	31.8	0.071	0.2
Malabar Road & Hurley Blvd.	WB	L		B	11.0	0.096	0.3	B	11.0	0.145	0.5
	NB	LR		F	408.6	1.693	15.3	F	135.5	0.919	5.7
Malabar Road & Garvey Road	WB	L		B	11.7	0.200	0.7	B	11.0	0.267	1.1
	NB	L	5	F	118.4	0.642	2.9	F	78.8	0.134	0.4
		R	5	C	17.3	0.437	2.2	B	12.5	0.191	0.7
Garvey Road & Jupiter Boulevard	EB	LTR		F	64.4	0.980	13.2	F	61.3	0.971	12.9
	WB	LTR		F	68.5	0.990	13.9	F	66.2	1.000	14.1
	NB	LTR		C	22.5	0.596	3.8	C	17.9	0.451	2.3
	SB	LTR		C	17.6	0.414	2.0	C	18.2	0.463	2.4

Future Build Intersection Capacity Analysis with Background Improvements

Tables 16 and 17 summarize the Future Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues with consideration of background improvements.

Table 16
Future Build Levels of Service with Background Improvements – Signalized Intersections

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future Build with Background Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.3	0.08	13	A	4.0	0.11	12
		T		B	13.9	0.53	218	B	12.1	0.51	205
		R	200	A	0.0	0.02	0	A	0.6	0.05	4
	WB	L	340	A	6.7	0.16	28	A	4.6	0.25	24
		TR		B	15.1	0.69	353	B	10.4	0.54	214
	NB	LTR		C	23.3	0.51	116	A	7.7	0.30	29
	SB	LTR		C	29.0	0.52	120	A	4.5	0.23	15
	Overall			B	15.7			B	10.3		
Malabar Road & Jupiter Boulevard	EB	L	120	F	80.7	0.98	239	D	44.6	0.76	136
		TR		C	34.3	0.77	360	D	41.2	0.90	398
	WB	L	220	B	19.4	0.24	40	C	20.1	0.30	43
		TR		D	45.7	0.89	313	F	82.0	1.07	448
	NB	L	225	E	60.5	0.94	261	F	95.7	1.06	305
		T		D	38.4	0.60	204	D	37.7	0.58	193
		R	225	A	0.3	0.08	0	A	0.2	0.07	0
	SB	L	230	C	24.2	0.59	146	C	22.7	0.49	130
		TR		E	56.7	0.89	339	F	92.7	1.06	429
	Overall			D	44.7			E	62.6		
Malabar Road & St. Johns Heritage Pkwy.	EB	L	330	C	28.1	0.71	121	C	22.9	0.25	59
		T		B	11.1	0.23	83	C	22.8	0.27	92
	WB	T		C	32.6	0.78	261	D	37.1	0.57	122
		R	230	A	7.4	0.75	27	B	11.3	0.75	98
	SB	L		D	44.0	0.83	273	D	54.1	1.00	856
		R		B	13.8	0.43	138	A	1.7	0.06	13
	Overall			C	22.4			D	35.2		

Table 17
Future Build Levels of Service with Background Improvements – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Future Build with Background Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage	WB	L	10	F	1313.4	3.526	18.6	F	5975.4	12.958	21.3
		R	10	F	214.1	1.369	23.3	B	10.9	0.173	0.6
	SB	L		C	18.1	0.246	1.0	B	12.1	0.479	2.7
Pace Drive & St. Johns Heritage Parkway	WB	L	16	F	411.3	1.679	14.0	F	621.9	1.954	9.7
		R	16	D	25.4	0.686	5.2	B	10.6	0.134	0.5
	SB	L		B	11.5	0.130	0.4	B	10.3	0.300	1.3
Malabar Road & West Dwy.	WB	L	4	A	9.2	0.037	0.1	B	25.4	0.113	0.4
	NB	LR		C	19.2	0.205	0.8	D	11.9	0.287	1.1
Malabar Road & Thunderbird Avenue	EB	L	8	B	12.7	0.017	0.1	A	9.5	0.015	0.0
	WB	L	8	A	9.5	0.044	0.1	B	12.1	0.124	0.4
	NB	LTR		F	195.2	1.105	7.3	F	449.5	1.685	11.0
	SB	LTR		F	71.7	0.368	1.4	F	80.5	0.224	0.8
Malabar Road & Hurley Blvd.	WB	L		B	11.7	0.105	0.4	B	11.7	0.155	0.5
	NB	LR		F	618.2	2.139	17.9	F	258.3	1.231	7.7
Malabar Road & Garvey Road	WB	L		B	12.2	0.210	0.8	B	11.3	0.277	1.1
	NB	L	5	F	156.1	0.761	3.4	F	98.3	0.237	0.8
		R	5	C	18.2	0.456	2.4	B	12.8	0.197	0.7
Garvey Road & Jupiter Boulevard	EB	LTR		F	70.7	1.020	14.1	F	67.7	1.020	67.7
	WB	LTR		F	71.4	1.020	14.2	F	79.7	1.052	79.7
	NB	LTR		C	22.9	0.613	3.8	C	18.2	0.467	18.2
	SB	LTR		C	17.9	0.426	2.0	C	18.5	0.478	18.5

As identified in Tables 14 through 17, each intersection analyzed inclusive of background improvements with the addition of background traffic, vested traffic and Project traffic will experience some improvement. However, many instances of v/c ratios over 1.0 and/or violations of the adopted Level of Service Standard and/or 95th percentile queues that exceed the available queue storage will still remain.

Future Build Road Segment Analysis with Background Improvements

Roadway segment analyses were prepared for the subject roadway segments for Future conditions with consideration of the anticipated background improvements and the results are detailed in Table 18 below. As shown, all segments will operate within capacity with the background improvement program that is currently being assessed and designed and no further roadway segment analysis is necessary.

Table 18
Future Build Roadway Segment Analysis with Background Improvements

Roadway	Segment	Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	Daily Adopted Capacity	2022 Existing Volume - SCTPO	No Build Volume	No Build v/c Ratio	No Build Exceed Capacity?	Project Trips	Build Volumes	Build v/c Ratio	Build Exceed Capacity?
Malabar Road	SHJP	589	Urban Minor Arterial	2	45	D	33,800	10,213	11,055	0.33	N	2,338	13,393	0.4	N
Malabar Road	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	33,800	10,213	11,055	0.33	N	3,538	14,593	0.43	N
Malabar Road	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	37,900	10,213	11,055	0.29	N	3,418	14,473	0.38	N
Malabar Road	Jupiter Blvd.	371	Urban Principal Arterial	2	45	D	37,900	18,399	19,916	0.53	N	1,799	21,715	0.57	N
Malabar Road	Garvey Road	371	Urban Principal Arterial	2	45	D	37,900	18,399	19,916	0.53	N	1,679	21,595	0.57	N
SIHP	Malabar Road	609	Urban Minor Arterial	2	40	E	37,900	6,656	7,491	0.2	N	2,099	9,590	0.25	N
SIHP	Pace Drive	610	Urban Minor Arterial	2	40	E	37,900	8,829	9,937	0.26	N	1,859	11,796	0.31	N
SIHP	Emerson Drive	629	Urban Minor Arterial	2	40	E	39,800	13,899	16,894	0.42	N	1,679	18,573	0.47	N
Jupiter Blvd.	Degroot Rd.	573	Urban Minor Arterial	2	40	D	17,700	8,023	8,684	0.49	N	839	9,523	0.54	N
Jupiter Blvd.	Malabar Road	620	Urban Minor Arterial	2	40	D	17,700	11,262	12,190	0.69	N	899	13,089	0.74	N
Jupiter Blvd.	Americana Blvd.	574	Urban Minor Arterial	2	40	D	17,700	12,189	13,194	0.75	N	899	14,093	0.8	N
Jupiter Blvd.	Pace Drive	621	Urban Minor Arterial	2	40	D	17,700	11,635	12,594	0.71	N	899	13,493	0.76	N
Roadway	Segment	Segment ID	Classification	Number of Lanes	Speed Limit	Adopted LOS	2-Way PM Peak Adopted Capacity	2024 Existing Volume	No Build Volume	No Build v/c Ratio	No Build Exceed Capacity?	Project Trips	Build Volumes	Build v/c Ratio	Build Exceed Capacity?
Malabar Road	SHJP	589	Urban Minor Arterial	2	45	D	3,040	942	1,700	0.56	N	122	1,822	0.6	N
Malabar Road	Thunderbird Ave.	589	Urban Minor Arterial	2	45	D	3,040	1,139	2,001	0.66	N	185	2,186	0.72	N
Malabar Road	Hurley Blvd.	589	Urban Minor Arterial	2	45	D	3,420	1,229	2,033	0.59	N	178	2,211	0.65	N
Malabar Road	Jupiter Blvd.	371	Urban Principal Arterial	2	45	D	3,420	1,203	1,686	0.49	N	94	1,780	0.52	N
Malabar Road	Garvey Road	371	Urban Principal Arterial	2	45	D	3,420	1,535	2,028	0.59	N	87	2,115	0.62	N
SIHP	Malabar Road	609	Urban Minor Arterial	2	40	E	3,420	794	1,421	0.42	N	106	1,527	0.45	N
SIHP	Pace Drive	610	Urban Minor Arterial	2	40	E	3,420	1,064	1,689	0.49	N	97	1,786	0.52	N
SIHP	Emerson Drive	629	Urban Minor Arterial	2	40	E	3,580	1,534	2,151	0.6	N	88	2,239	0.63	N
Jupiter Blvd.	Degroot Rd.	573	Urban Minor Arterial	2	40	D	1,600	798	1,039	0.65	N	37	1,076	0.67	N
Jupiter Blvd.	Malabar Road	620	Urban Minor Arterial	2	40	D	1,600	955	1,174	0.73	N	47	1,221	0.76	N
Jupiter Blvd.	Americana Blvd.	574	Urban Minor Arterial	2	40	D	1,600	955	1,174	0.73	N	47	1,221	0.76	N
Jupiter Blvd.	Pace Drive	621	Urban Minor Arterial	2	40	D	1,600	955	1,174	0.73	N	47	1,221	0.76	N

FUTURE CONDITIONS WITH ADDITIONAL IMPROVEMENTS

An assessment was made of the additional improvements necessary to mitigate the Future No Build scenario such that overall intersection operations improve to Level of Service “C” or better and no intersection turning movements operate at a v/c ratio of greater than 1.0. Analyses of this scenario were prepared for both Future No Build and Future Build traffic volumes.

Future No Build Intersection Capacity Analysis with Additional Improvements

The following additional improvements are required to mitigate Future No Build Traffic Volumes:

- Malabar Road & Thunderbird Avenue – The only mitigation to improve the southbound approach to Level of Service “C” would be signalization of the intersection. However, it is unlikely that the traffic volumes along Thunderbird Avenue would warrant a traffic signal at this location. Notably, movements from Thunderbird Avenue would operate at Level of Service “E” or better with 95th percentile queues of less than 1 vehicle during both peak hours analyzed.
- Malabar Road & St. Johns Heritage Parkway – Restripe the southbound approach to an exclusive left-turn lane and a shared right-turn/left-turn lane.
- St. Johns Heritage Parkway & Pace Drive – Signalize the intersection with a southbound permitted/protected operation and a westbound right-turn overlap phase.
- St. Johns Heritage Parkway & Emerson Drive – Signalize the intersection and add an exclusive southbound left-turn lane with permitted/protected operation and a westbound right-turn overlap phase.
- Malabar Road & Krassner Drive/Bending Branch Way – No additional improvements required.
- Malabar Road & Hurley Boulevard – Signalize the intersection.
- Malabar Road & Jupiter Boulevard – Add eastbound and westbound right-turn lanes, add a southbound right-turn lane and extend the eastbound and westbound left-turn lane storage.
- Malabar Road & Garvey Road – Signalize the intersection.
- Jupiter Boulevard & Garvey Road – Signalize the intersection.

Tables 19 and 20 summarize the Future No Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues with consideration of these additional improvements. All capacity analysis calculation worksheets for this scenario are contained in Appendix I.

Table 19
Future No Build Levels of Service with Additional Improvements – Signalized Intersections

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future No Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.2	0.07	13	A	3.9	0.10	12
		T		B	13.5	0.48	187	B	11.4	0.48	170
		R	200	A	0.0	0.02	0	A	0.7	0.05	5
	WB	L	340	A	6.5	0.15	28	A	5.0	0.25	24
		TR		B	14.7	0.67	325	B	10.5	0.50	183
	NB	LTR		C	22.5	0.50	116	A	7.3	0.29	28
	SB	LTR		C	27.8	0.51	120	A	4.5	0.24	14
	Overall			B	15.3			A	10.0		
Malabar Road & Jupiter Boulevard	EB	L	200	C	23.8	0.60	124	C	21.1	0.46	78
		T		C	28.2	0.54	205	C	27.7	0.53	200
		R	200	A	2.3	0.19	30	A	2.1	0.30	36
	WB	L	220	B	16.3	0.16	37	B	15.7	0.18	40
		T		D	36.6	0.72	212	C	32.6	0.71	232
		R	220	A	3.3	0.18	32	A	2.6	0.30	38
	NB	L	250	C	28.0	0.67	185	C	28.1	0.66	186
		T		D	38.5	0.61	204	D	38.8	0.61	196
		R	225	A	0.1	0.06	0	A	0.1	0.06	0
	SB	L	240	C	24.5	0.58	148	C	23.2	0.52	131
		T		D	47.8	0.68	183	D	51.1	0.70	198
		R	240	A	7.0	0.22	50	B	13.8	0.37	103
	Overall			C	26.9			C	24.2		
Malabar Road & St. Johns Heritage Pkwy.	EB	L	330	B	17.0	0.60	91	B	14.4	0.18	49
		T		A	8.2	0.21	71	B	13.6	0.20	73
	WB	T		C	26.3	0.69	239	C	24.7	0.41	102
		R	230	A	6.0	0.70	26	A	8.0	0.66	76
	SB	LR		C	26.7	0.79	151	C	22.3	0.75	279
	Overall			B	18.2			B	18.1		
Emerson Drive & St. Johns Heritage Parkway	WB	L		D	35.7	0.56	126	C	24.3	0.43	103
		R	325	C	34.5	0.82	307	A	3.1	0.17	26
	NB	T		C	31.9	0.93	531	B	17.8	0.50	113
		R	300	A	3.7	0.11	24	A	5.0	0.16	25
	SB	L	220	A	9.3	0.34	34	C	32.3	0.87	273
		T		A	5.5	0.11	37	A	8.7	0.51	197
	Overall			C	28.4			B	15.5		
Pace Drive & St. Johns Heritage Parkway	WB	L		B	17.8	0.34	107	C	31.3	0.36	90
		R	400	C	20.1	0.68	186	A	9.4	0.28	41
	NB	T		B	14.3	0.61	214	A	5.2	0.20	66
		R	300	A	3.5	0.11	22	A	14.0	0.08	14
	SB	TL		B	15.3	0.60	153	B	10.2	0.67	261
	Overall			B	15.5			A	9.6		

Table 19 (Continued)

Future No Build Levels of Service with Additional Improvements – Signalized Intersections

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future No Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Hurley Blvd.	EB	TR		A	7.9	0.48	162	A	4.7	0.39	126
	WB	TL		B	10.7	0.66	231	A	7.0	0.57	185
	NB	LR		C	24.8	0.55	133	B	19.5	0.38	63
	Overall			B	10.8			A	6.6		
Malabar Road & Garvey Road	EB	TR		A	9.6	0.58	152	A	6.2	0.41	93
	WB	L	250	C	20.3	0.58	75	B	14.5	0.60	93
		T		A	8.5	0.46	117	A	7.4	0.54	135
	NB	L		C	20.8	0.14	43	C	24.8	0.03	15
		R	115	B	14.1	0.54	84	B	10.2	0.35	43
	Overall			B	10.6			A	7.9		
Garvey Road & Jupiter Boulevard	EB	LTR		B	18.1	0.69	243	B	14.3	0.62	218
	WB	LTR		B	18.6	0.70	250	B	18.5	0.73	258
	NB	LTR		C	22.2	0.60	158	C	20.9	0.52	120
	SB	LTR		B	18.2	0.40	104	C	21.2	0.48	127
	Overall			B	19.0			B	17.7		

Table 20

Future No Build Levels of Service with Additional Improvements – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Future No Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Rd. & Thunderbird Ave.	EB	L	8	B	12.5	0.017	0.1	A	9.3	0.015	0.0
	SB	LTR		E	37.7	0.205	0.7	D	31.8	0.071	0.2

Future Build Intersection Capacity Analysis with Additional Improvements

Tables 21 and 22 summarize the Future Build levels of service (LOS), volume-to-capacity (v/c) ratios, delays and 95th percentile queues with consideration of additional improvements.

**Table 21
Future Build Levels of Service with Additional Improvements – Signalized Intersections**

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & Krassner Drive/Bending Branch Way	EB	L	200	A	6.3	0.08	13	A	3.8	0.11	12
		T		B	13.9	0.53	218	B	11.0	0.49	187
		R	200	A	0.0	0.02	0	A	0.5	0.05	4
	WB	L	340	A	6.7	0.16	28	A	4.9	0.26	23
		TR		B	15.1	0.69	353	B	10.5	0.54	213
	NB	LTR		C	23.3	0.51	116	A	7.7	0.30	29
	SB	LTR		C	29.0	0.52	120	A	4.5	0.24	15
	Overall			B	15.7			A	9.9		
Malabar Road & Jupiter Boulevard	EB	L	200	C	28.4	0.69	143	C	25.5	0.58	89
		T		C	29.0	0.58	225	C	28.0	0.56	216
		R	200	A	2.3	0.21	31	A	2.1	0.31	37
	WB	L	220	B	16.5	0.17	37	B	15.8	0.19	40
		T		D	37.9	0.75	225	C	33.7	0.74	255
		R	220	A	3.3	0.18	32	A	2.5	0.30	38
	NB	L	250	C	29.9	0.70	196	C	32.0	0.72	215
		T		D	38.8	0.62	204	D	39.4	0.62	196
		R	225	A	0.1	0.06	0	A	0.1	0.06	0
	SB	L	240	C	24.7	0.58	148	C	23.8	0.53	131
		T		D	48.2	0.68	183	D	52.5	0.71	198
		R	240	A	8.1	0.25	59	B	15.8	0.43	124
	Overall			C	27.8			C	25.3		
Malabar Road & St. Johns Heritage Pkwy.	EB	L	330	B	18.4	0.62	95	B	14.8	0.19	48
		T		A	8.6	0.21	72	B	14.1	0.21	75
	WB	T		C	27.0	0.70	242	C	25.2	0.42	104
		R	230	A	6.6	0.73	25	A	8.3	0.69	79
	SB	LR		C	29.7	0.82	173	C	23.5	0.78	325
	Overall			B	19.4			B	18.7		

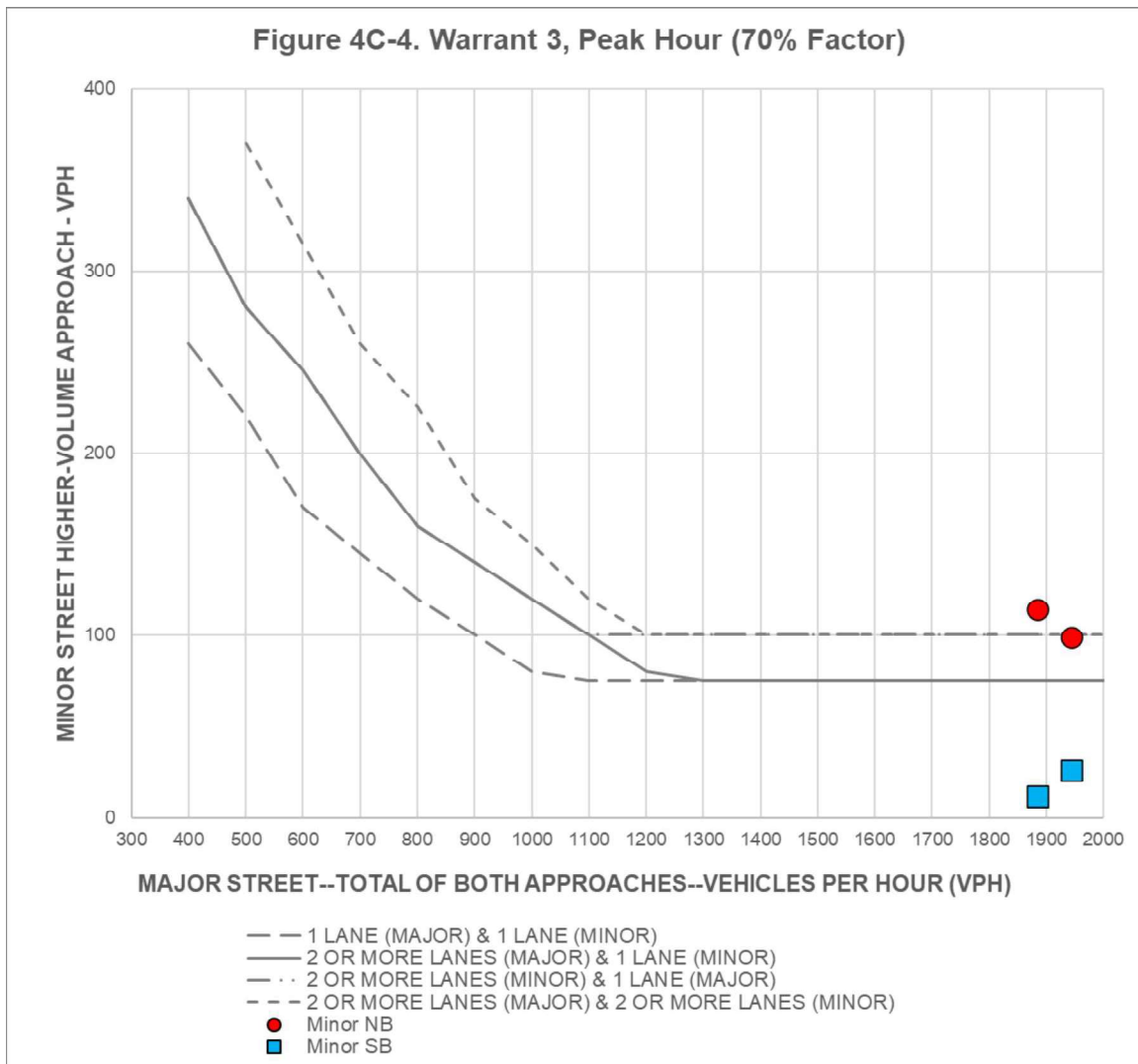
Table 21 (Continued)
Future Build Levels of Service with Additional Improvements – Signalized Intersections

Signalized Intersection	Direction/ Movement		Queue Storage (ft)	Future Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Emerson Drive & St. Johns Heritage Parkway	WB	L		D	35.9	0.57	128	C	25.3	0.45	110
		R	325	C	34.4	0.81	305	A	3.2	0.17	27
	NB	T		D	36.6	0.96	560	B	17.8	0.51	124
		R	300	A	3.7	0.11	25	A	4.7	0.16	26
	SB	L	220	A	9.4	0.34	34	C	33.2	0.88	281
		T		A	5.6	0.12	42	A	8.9	0.52	214
	Overall			C	30.9			B	15.7		
Pace Drive & St. Johns Heritage Parkway	WB	L		B	18.7	0.35	115	C	33.6	0.40	95
		R	400	C	21.9	0.69	204	A	9.7	0.29	41
	NB	T		B	14.8	0.63	240	A	5.2	0.22	74
		R	300	A	3.4	0.12	23	A	1.4	0.08	14
	SB	TL		B	16.1	0.63	172	B	10.9	0.70	298
	Overall			B	16.3			B	10.1		
Malabar Road & Thunderbird Avenue	EB	L	220	A	5.5	0.04	6	A	6.0	0.03	8
		T		A	5.5	0.31	98	A	7.8	0.49	181
		R	300	A	0.6	0.02	3	A	2.1	0.05	12
	WB	L	220	A	5.3	0.07	15	B	10.2	0.27	37
		TR		A	7.9	0.58	232	A	7.1	0.40	122
	NB	LTR		C	22.8	0.44	71	B	19.7	0.44	69
	SB	LTR		B	14.7	0.13	23	B	18.0	0.05	16
	Overall			A	7.9			A	8.3		
Malabar Road & Hurley Blvd.	EB	TR		A	8.2	0.51	195	A	4.7	0.41	141
	WB	TL		B	11.2	0.68	269	A	7.6	0.62	222
	NB	LR		C	27.4	0.57	149	C	23.2	0.41	74
	Overall			B	11.3			A	7.0		
Malabar Road & Garvey Road	EB	TR		A	9.8	0.59	89	A	6.1	0.42	98
	WB	L	250	C	23.3	0.62	22	B	14.8	0.61	95
		T		A	8.6	0.47	65	A	7.4	0.56	143
	NB	L		C	22.9	0.14	10	C	26.7	0.04	21
		R	115	B	16.7	0.56	20	B	10.7	0.36	45
	Overall			B	11.1			A	7.9		
Garvey Road & Jupiter Boulevard	EB	LTR		B	18.7	0.71	264	B	14.5	0.63	229
	WB	LTR		B	18.8	0.71	267	B	18.9	0.74	275
	NB	LTR		C	23.2	0.61	170	C	21.7	0.52	127
	SB	LTR		B	18.9	0.41	111	C	22.0	0.48	134
	Overall			B	19.6			B	18.2		

Table 22
Future Build Levels of Service with Additional Improvements – Unsignalized Intersections

Unsignalized Intersection	Direction/ Movement		Queue Storage (veh)	Future Build with Additional Improvements							
				AM PSH				PM PSH			
				LOS	Delay (s/v)	v/c Ratio	95% Queue	LOS	Delay (s/v)	v/c Ratio	95% Queue
Malabar Road & West Dwy.	WB	L	4	A	9.2	0.037	0.1	B	11.9	0.113	0.4
	NB	LR		C	19.2	0.205	0.8	D	25.4	0.287	1.1

As identified in Tables 21 through 22, each off site intersection analyzed inclusive of additional improvements to mitigate Future No Build traffic volumes will operate within the adopted Level of Service standard and with v/c ratios of less than 1.0 with consideration of the addition of site generated traffic. The only necessary improvement to specifically mitigate The Project site generated traffic would be signalization of the easterly driveway and Thunderbird Avenue. As shown below, a preliminary assessment indicates that the peak hour signal warrant will be satisfied at this intersection under Future Build conditions.



TURN LANE ANALYSIS

Access is proposed via two (2) driveways along Malabar Road with the easterly driveway aligned as the fourth leg of the intersection of Thunderbird Avenue. The driveways were assessed for the need for exclusive turn lanes based on NCHRP Report 457 and the summary sheets are provided in Appendix J. The following summarizes the assessment:

- Malabar Road & West Driveway – Both a right-turn lane and a left-turn lane are warranted at this unsignalized driveway intersection.
- Malabar Road & East Driveway/Thunderbird Avenue – Although it is recommended to signalize the intersection, right-turn lane warrants were assessed and it was found that an eastbound right-turn lane into the driveway is warranted but a westbound right-turn lane into Thunderbird Avenue is not necessary.

Pursuant to FDOT Design Manual Exhibit 212-1, the right-turn lanes should be at least 180 feet in length inclusive of a 50' taper and 25' vehicle queue. The eastbound left-turn lane for Thunderbird Avenue should be at least 180' in length inclusive of a 50' taper and a 25' vehicle queue. The westbound left-turn lane should be at least 205' in length inclusive of a 50' taper and 50' vehicle queue. The westbound left-turn lane into the westerly site driveway should be at least 180' inclusive of a 50' taper and 25' vehicle queue.

CONCLUSIONS

The analyses contained herein were prepared to evaluate the impact of The Project on the surrounding roadway network. The following improvements are recommended to mitigate Future No Build (background growth plus vested trips) conditions and will also adequately accommodate Project site generated traffic:

- Malabar Road & St. Johns Heritage Parkway – Restripe the southbound approach to an exclusive left-turn lane and a shared right-turn/left-turn lane.
- St. Johns Heritage Parkway & Pace Drive – Signalize the intersection with a southbound permitted/protected operation and a westbound right-turn overlap phase.
- St. Johns Heritage Parkway & Emerson Drive – Signalize the intersection and add an exclusive southbound left-turn lane with permitted/protected operation and a westbound right-turn overlap phase.
- Malabar Road & Hurley Boulevard – Signalize the intersection.
- Malabar Road & Jupiter Boulevard – Add eastbound and westbound right-turn lanes, add a southbound right-turn lane and extend the eastbound and westbound left-turn lane storage.
- Malabar Road & Garvey Road – Signalize the intersection.
- Jupiter Boulevard & Garvey Road – Signalize the intersection.

Pursuant to Florida Statute 163.3180, The Project is not responsible for mitigating deficiencies created by background conditions and vested trips.

The following improvements are recommended in connection with the development of The Project:

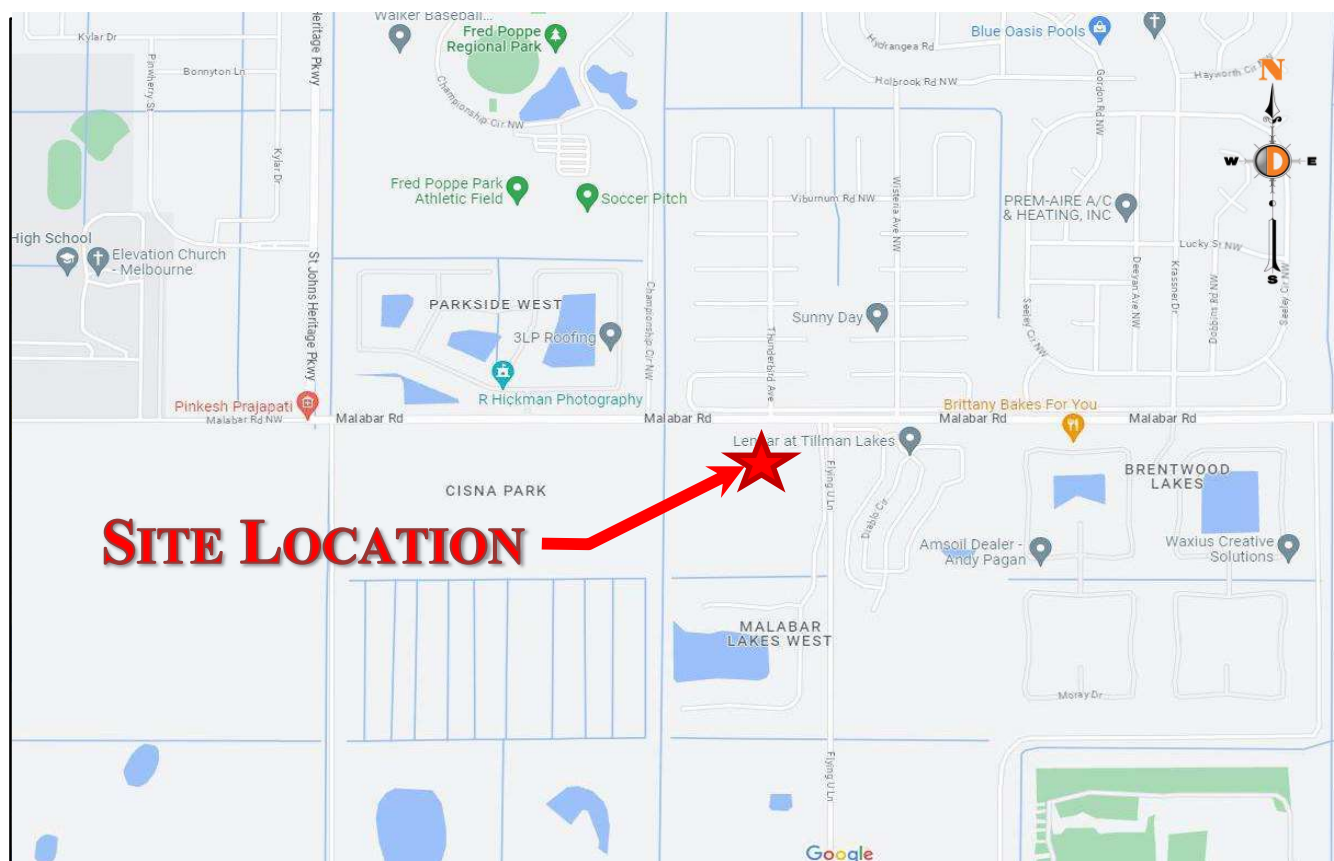
- Signalize the intersection Malabar Road with the easterly site driveway and Thunderbird Avenue.
- Provide an eastbound right-turn lane along Malabar Road at the easterly site driveway
- Provide an eastbound left-turn lane along Malabar Road to serve Thunderbird Avenue
- Provide a westbound left-turn lane along Malabar Road to serve the easterly site driveway.
- Provide an eastbound right-turn lane along Malabar Road at the westerly driveway.
- Provide a westbound left-turn lane along Malabar Road to serve the westerly driveway.

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic LLC that the adjacent street system will not experience any significant degradation in operating conditions with the construction of The Project based on the recommendations provided herein. The site driveways are located to provide safe and efficient access to the adjacent roadway system.

Technical Appendix

Appendix A

Traffic Volume Figures



Proposed Mixed-Use Development
Traffic Impact Study
5131-23-01643

Figure 1

Site Location Map

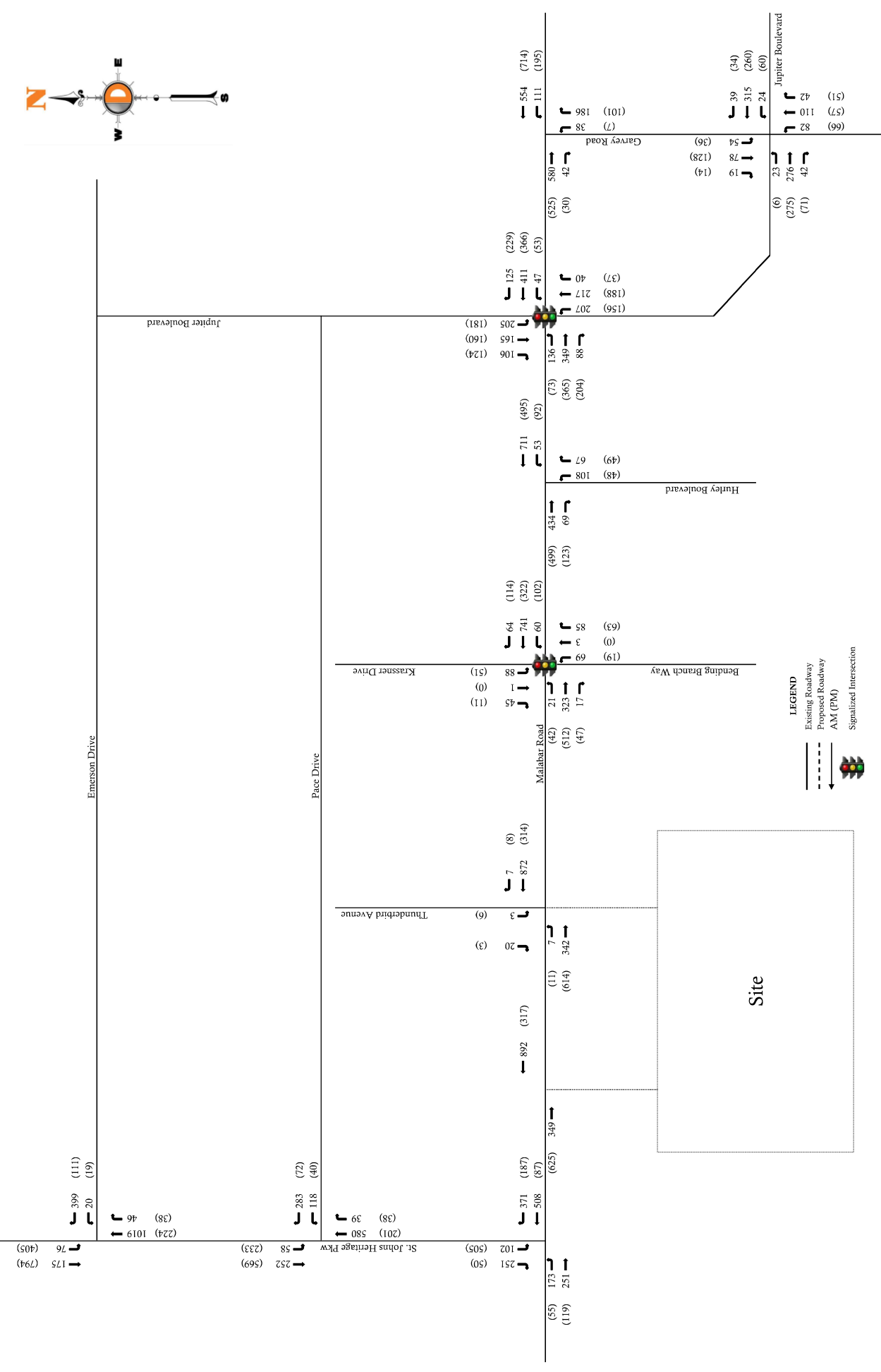
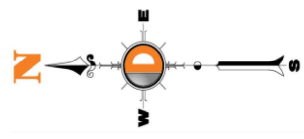
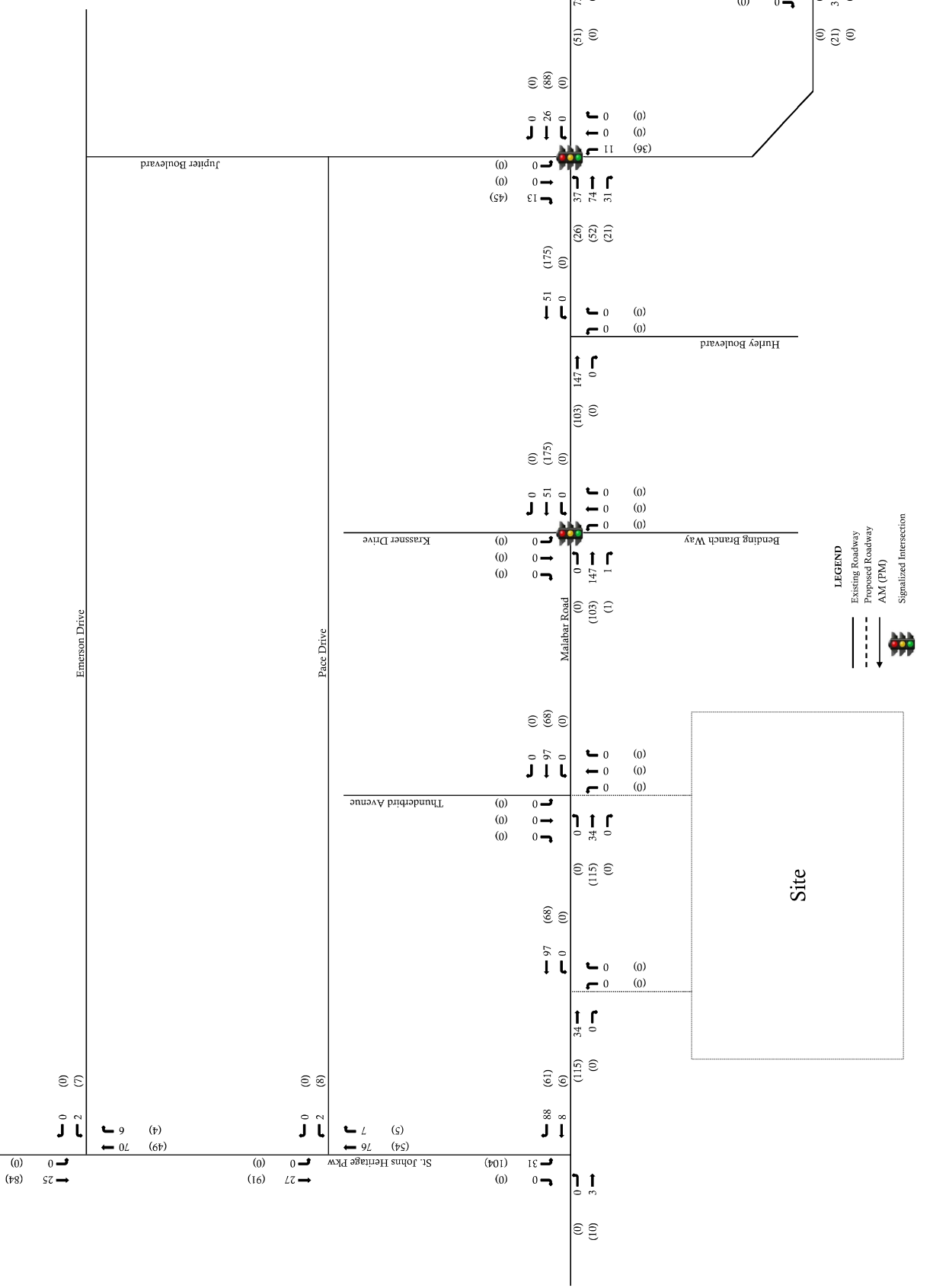
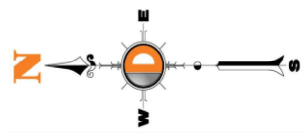


Figure 2
Existing Traffic Volumes

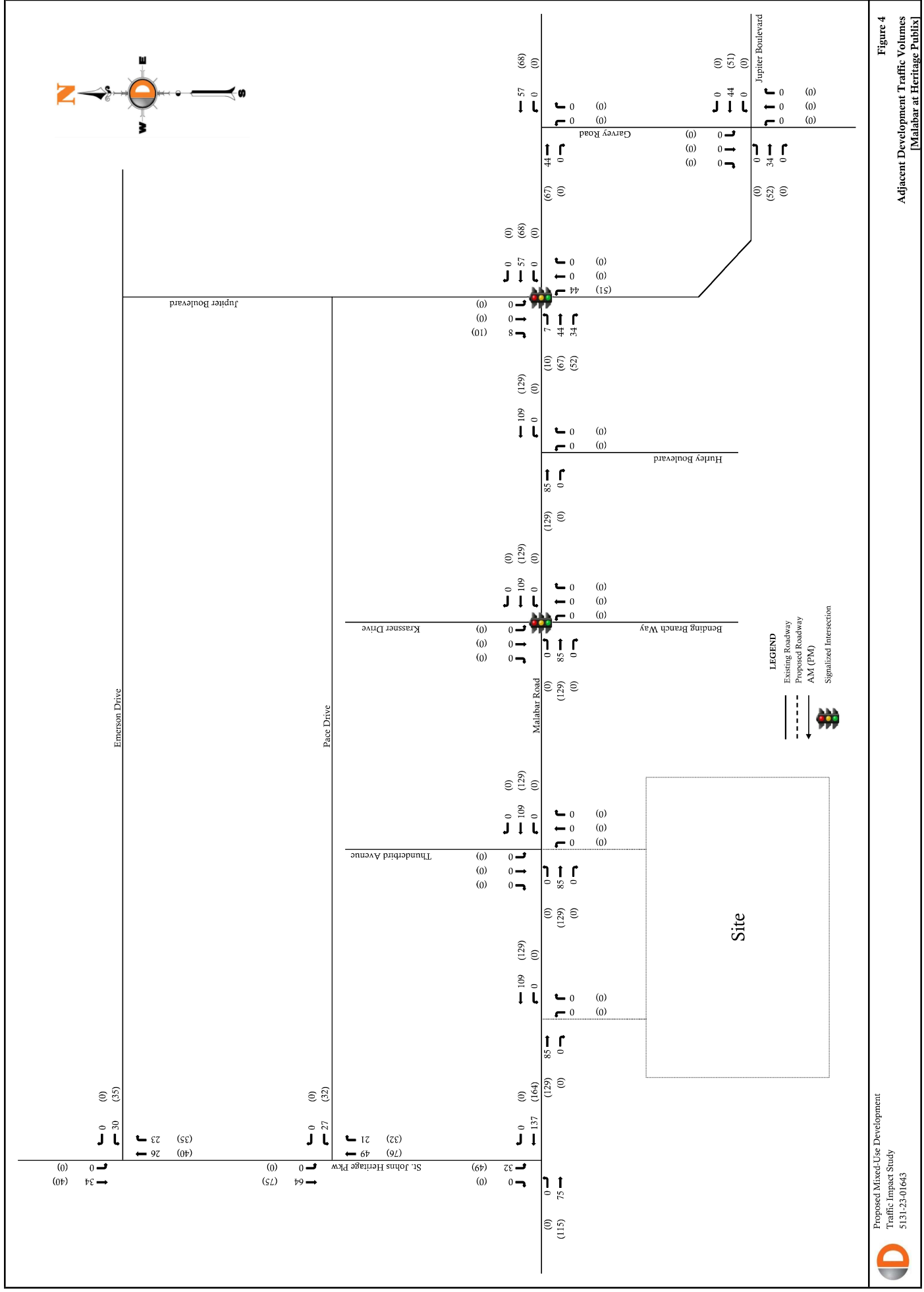


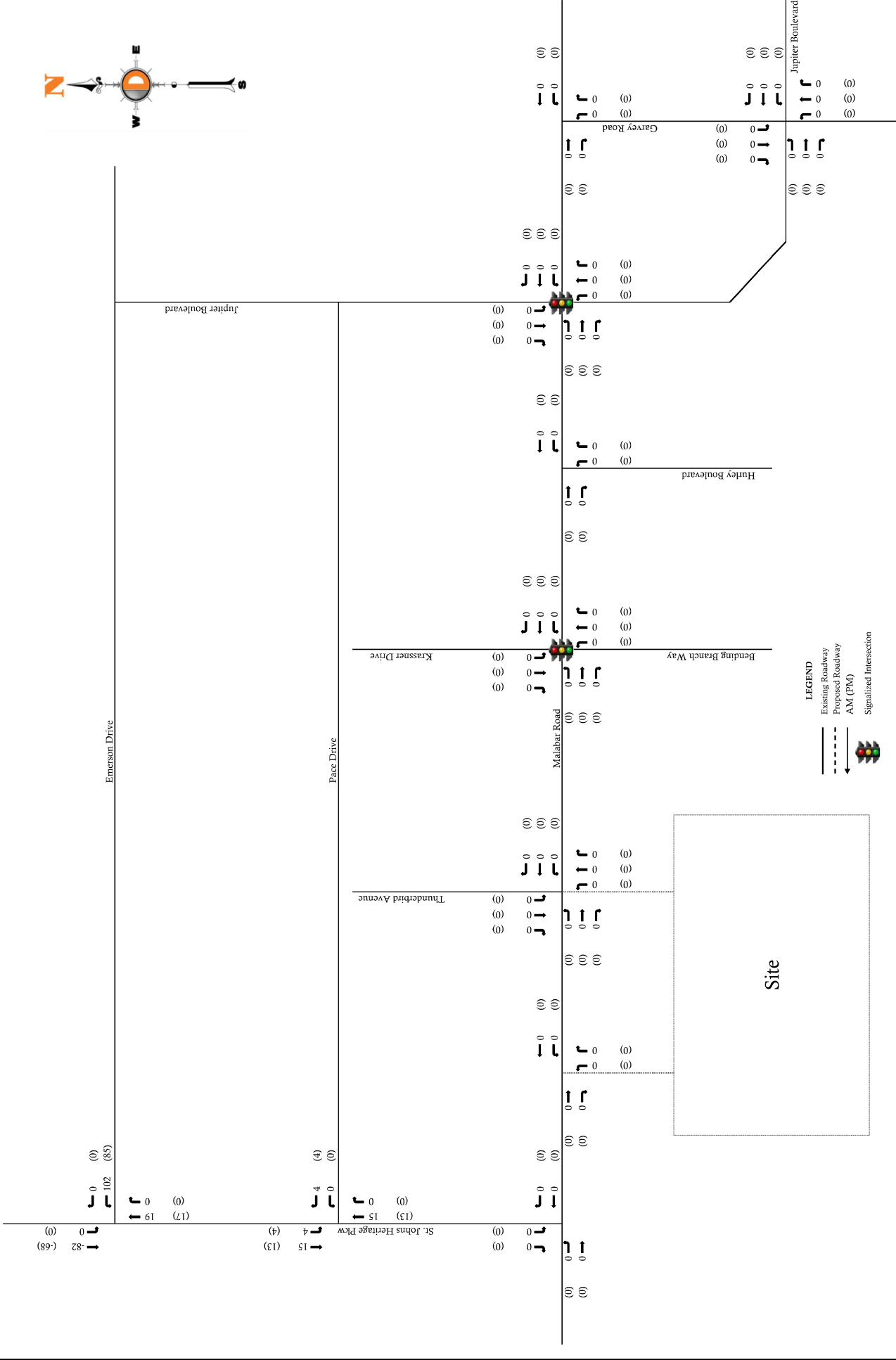
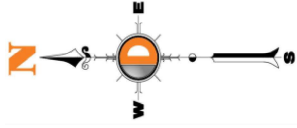


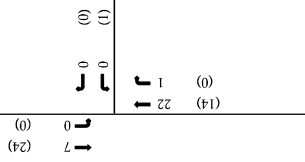
Site

LEGEND

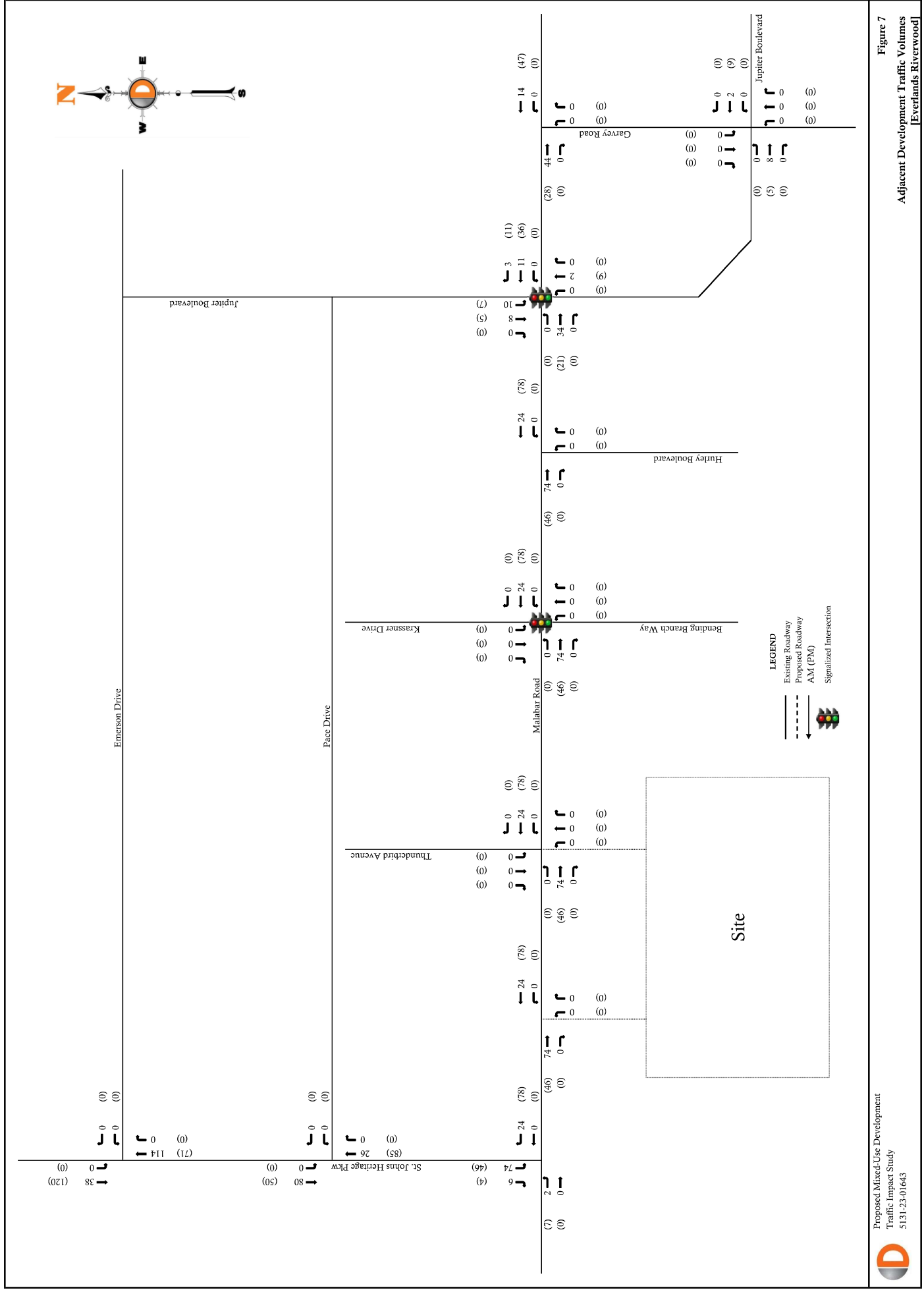
- Existing Roadway
- Proposed Roadway
- AM (PM)
- Signalized Intersection







Proposed Mixed-Use Development
Traffic Impact Study
5131-23-01643



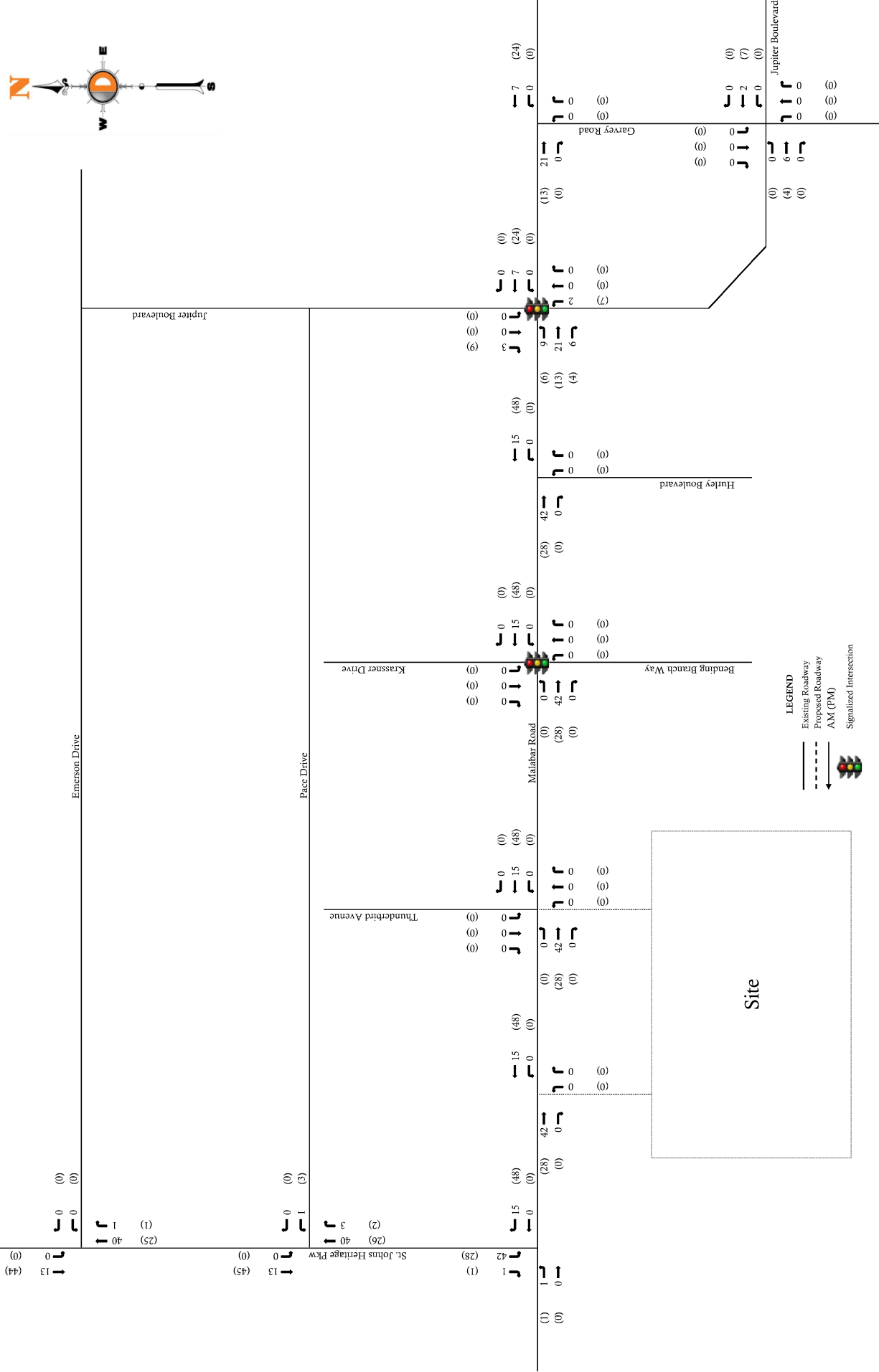
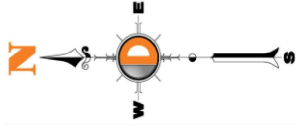


Figure 8
Adjacent Development Traffic Volumes
[St. Johns Preserve]



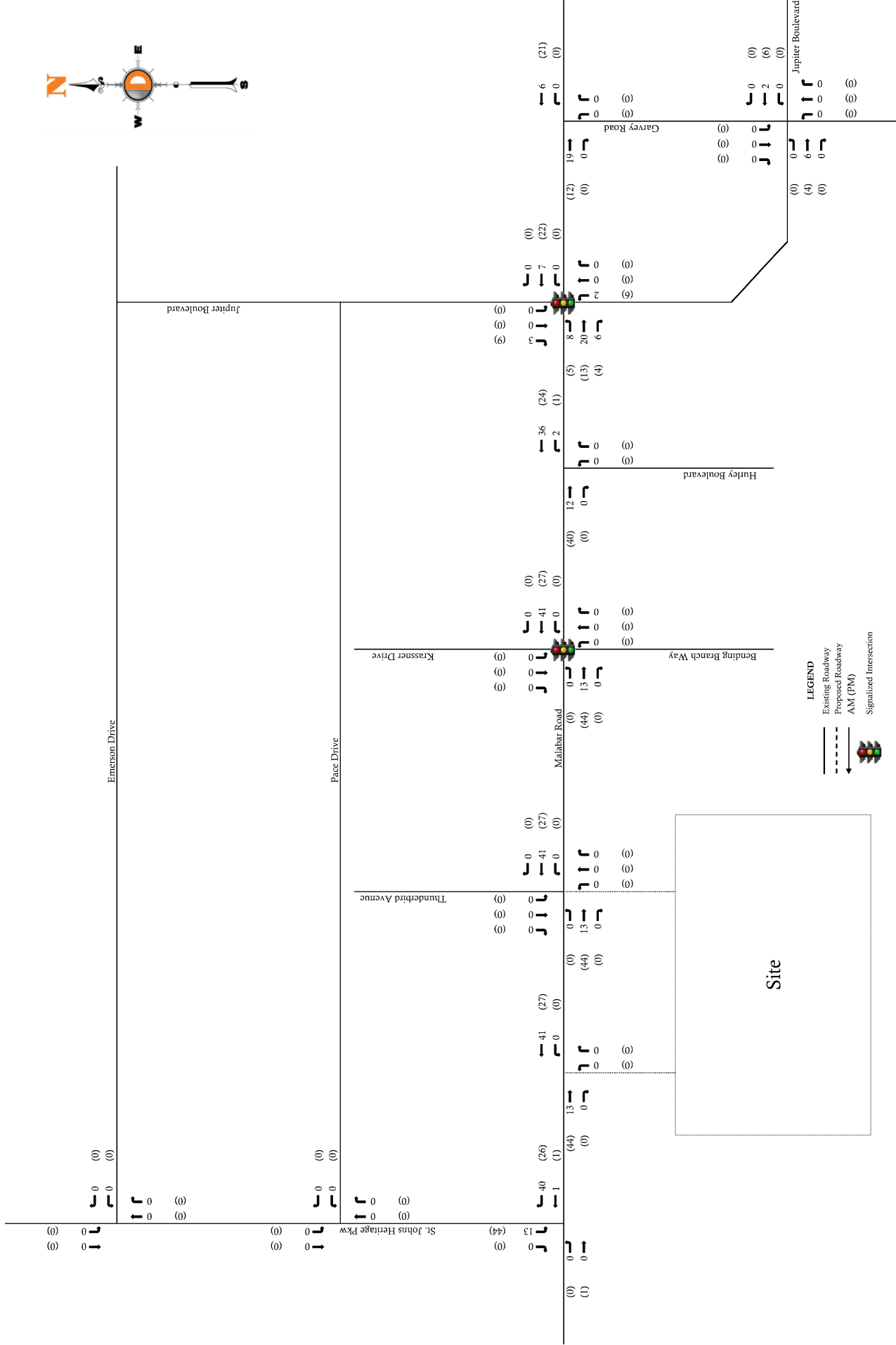
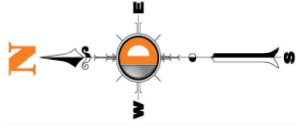
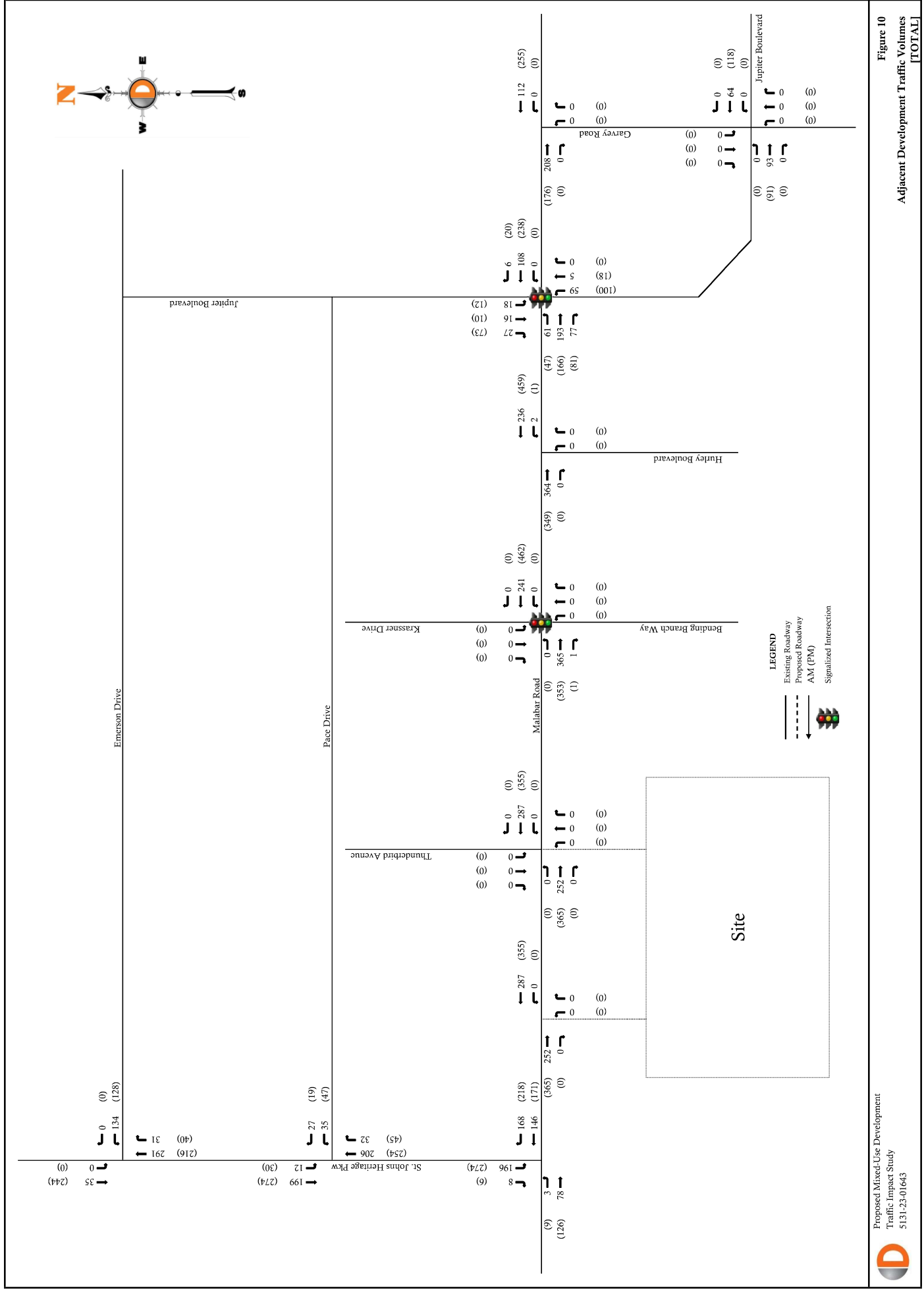
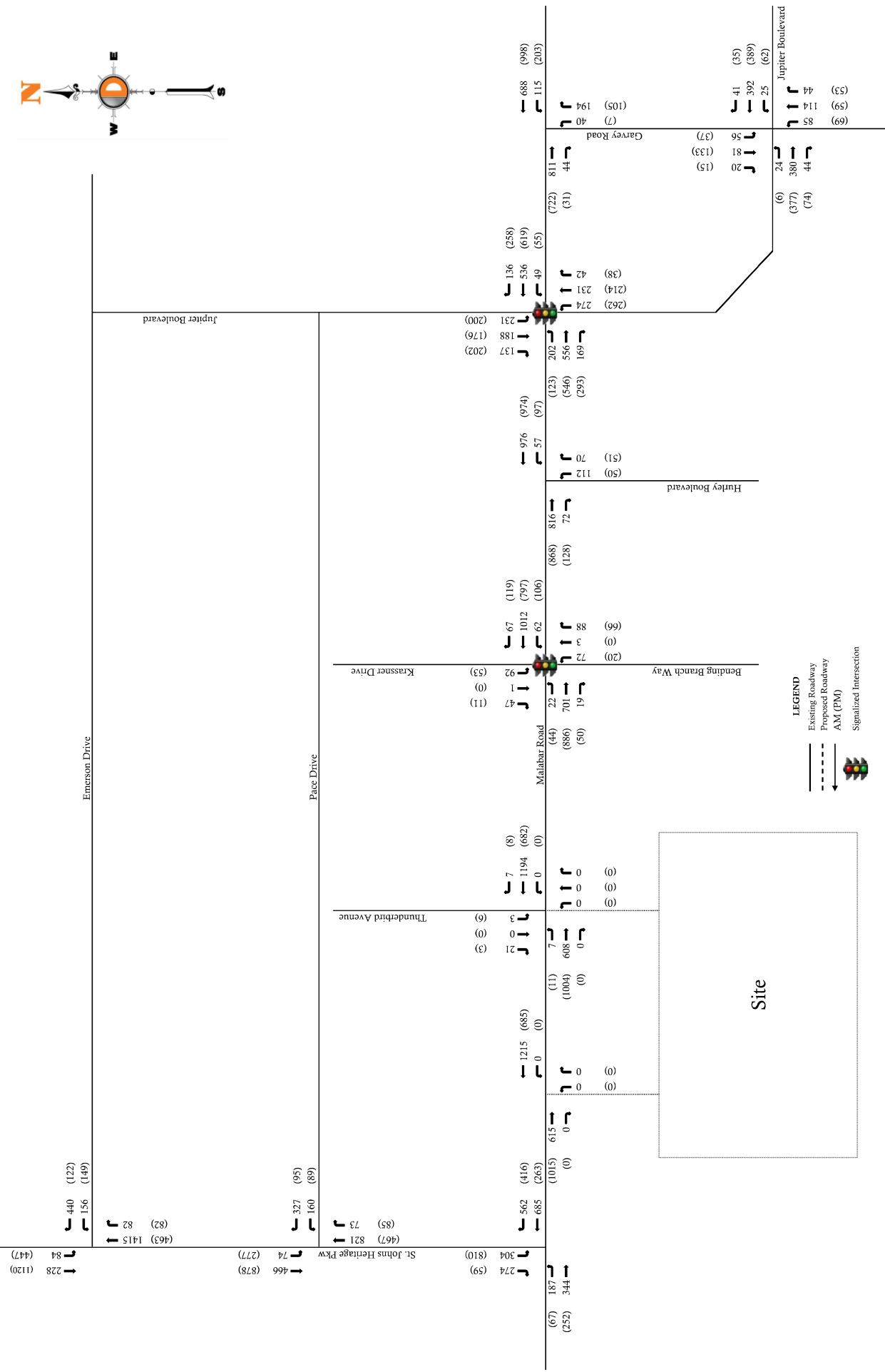
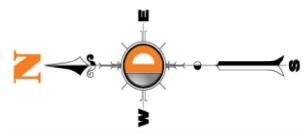
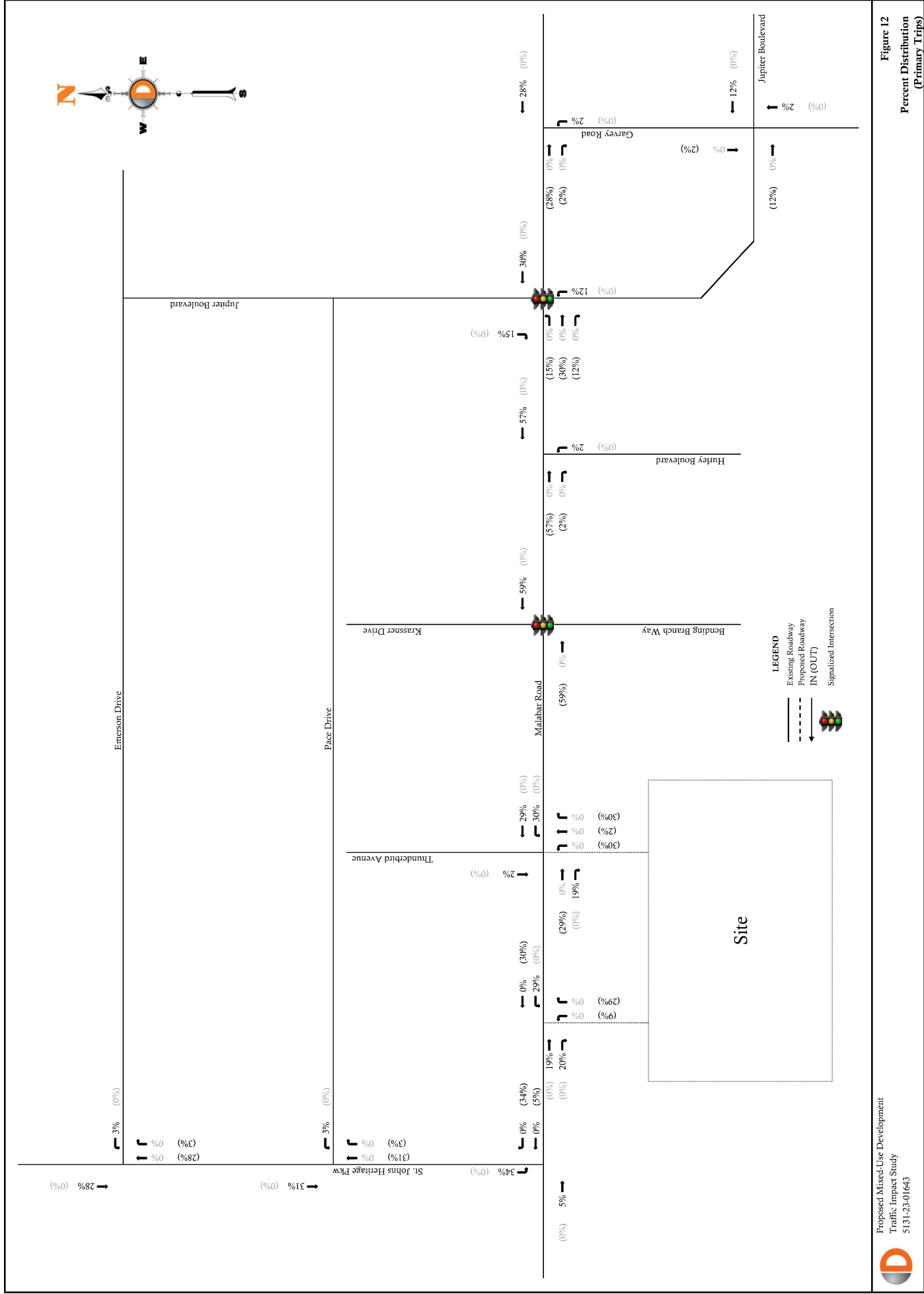


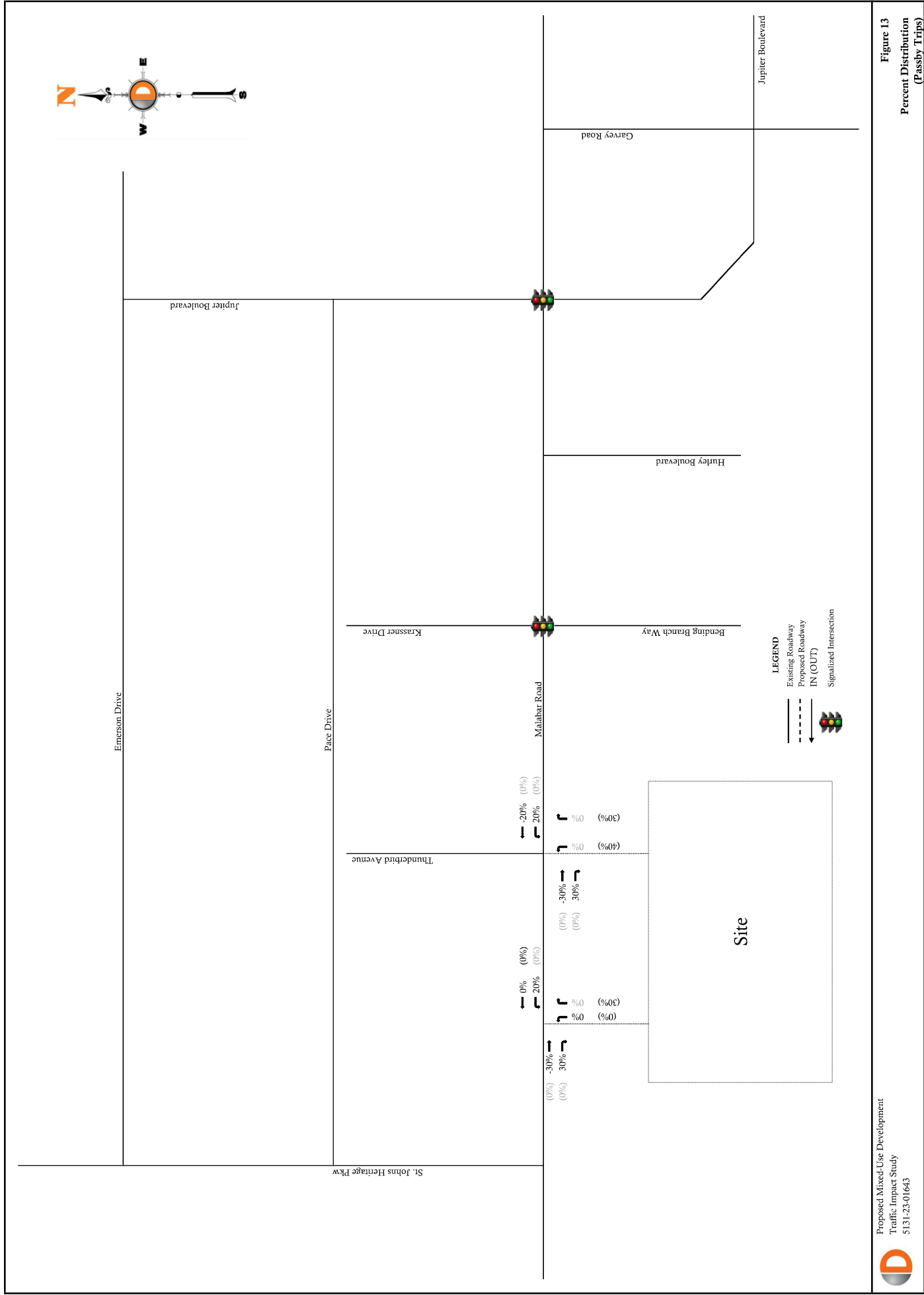
Figure 9
 Adjacent Development Traffic Volumes
 [Avery Springs]











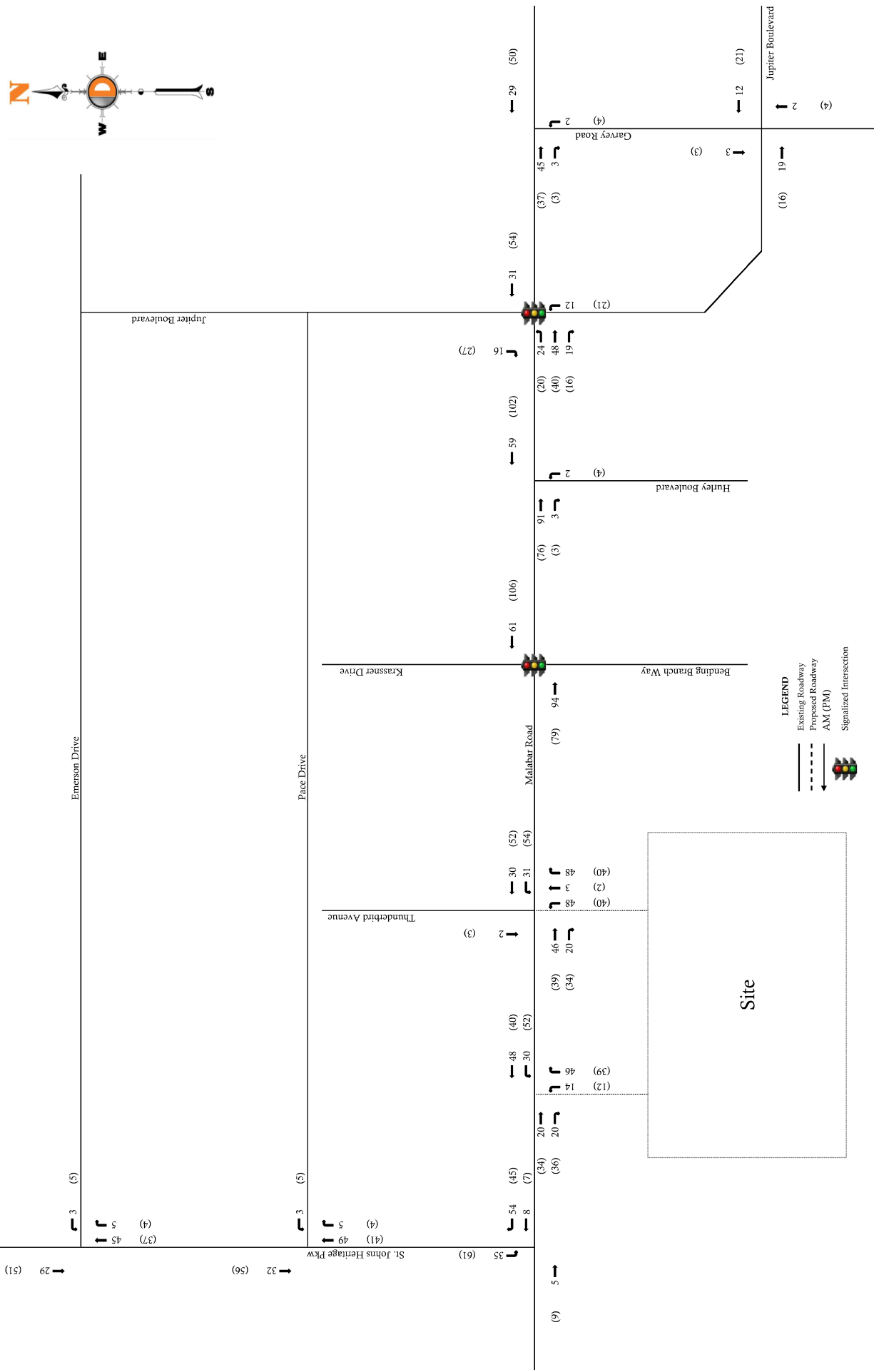
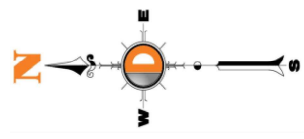
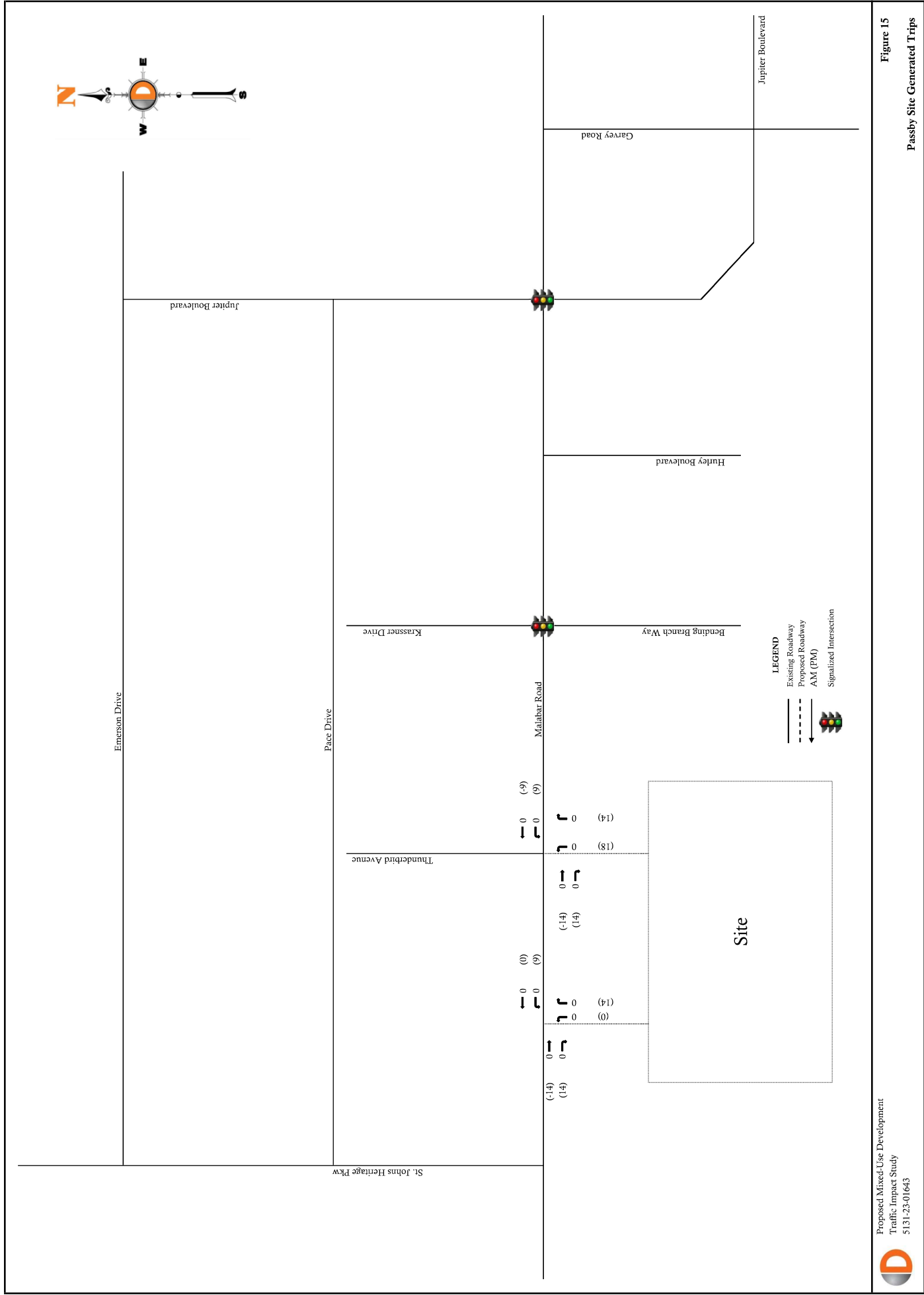


Figure 14
Primary Site Generated Trips

Proposed Mixed-Use Development
Traffic Impact Study
5131-23-01643



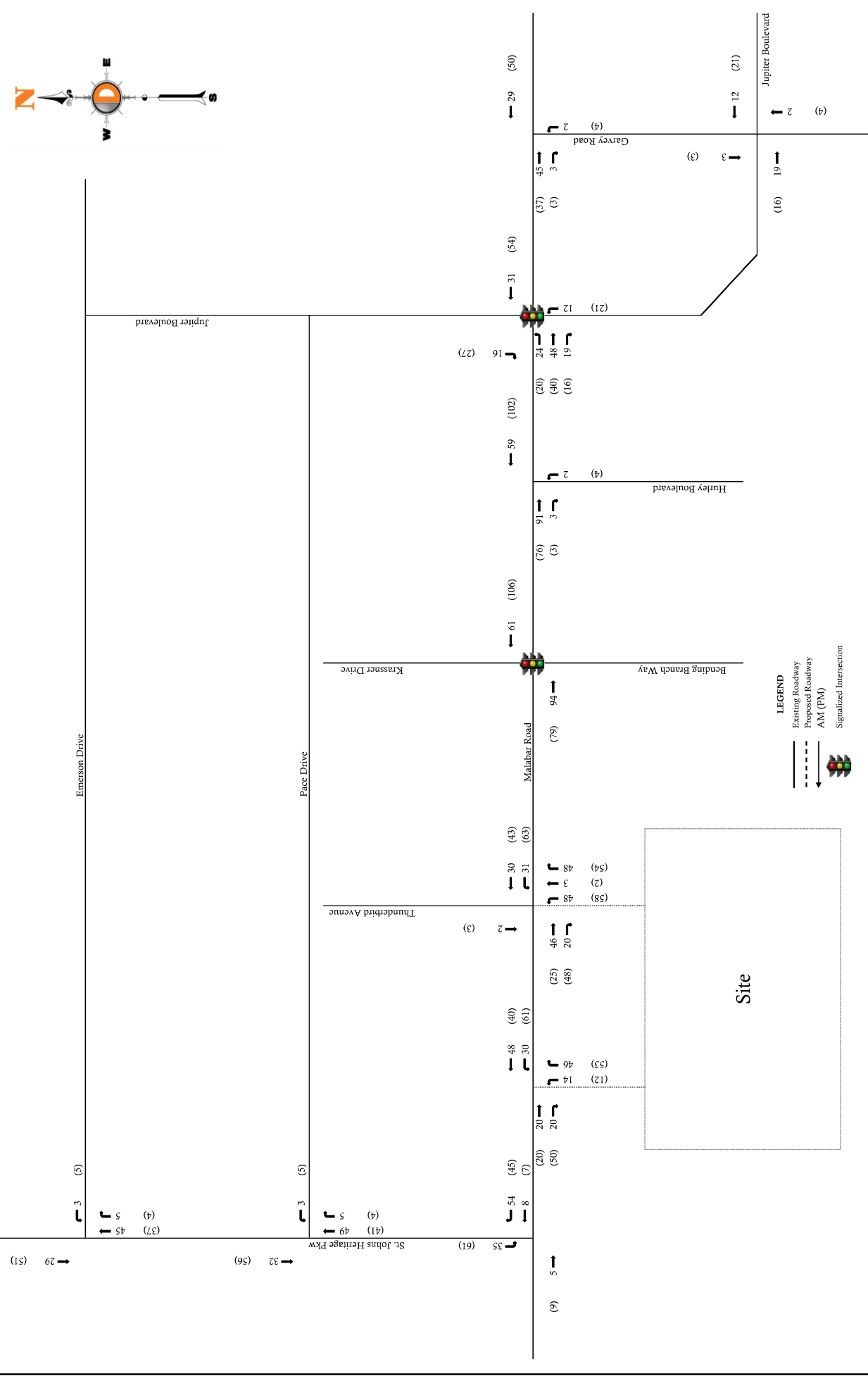
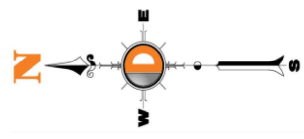
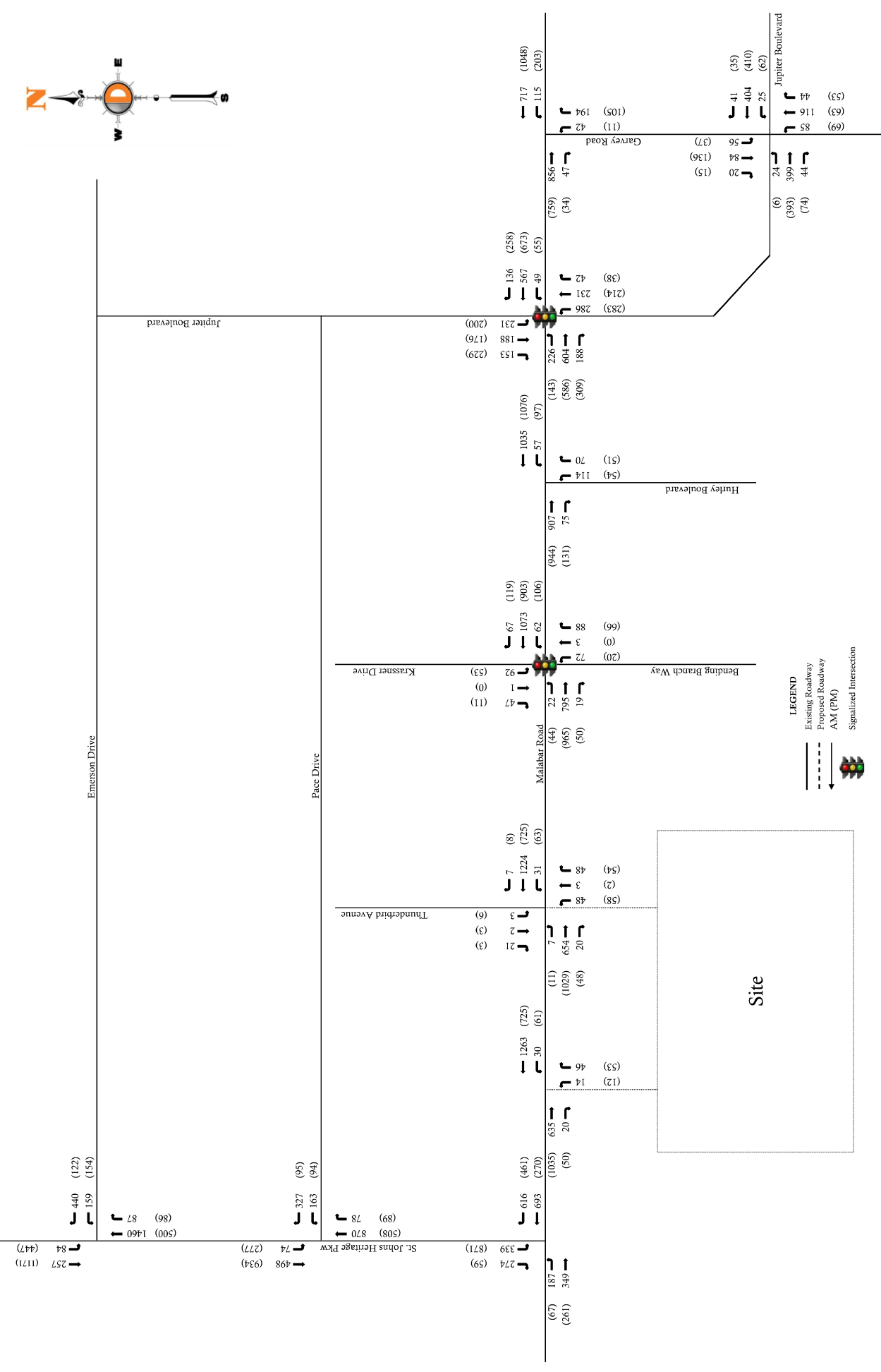
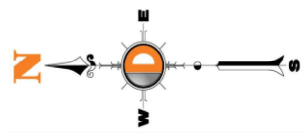


Figure 16
Total Site Generated Trips

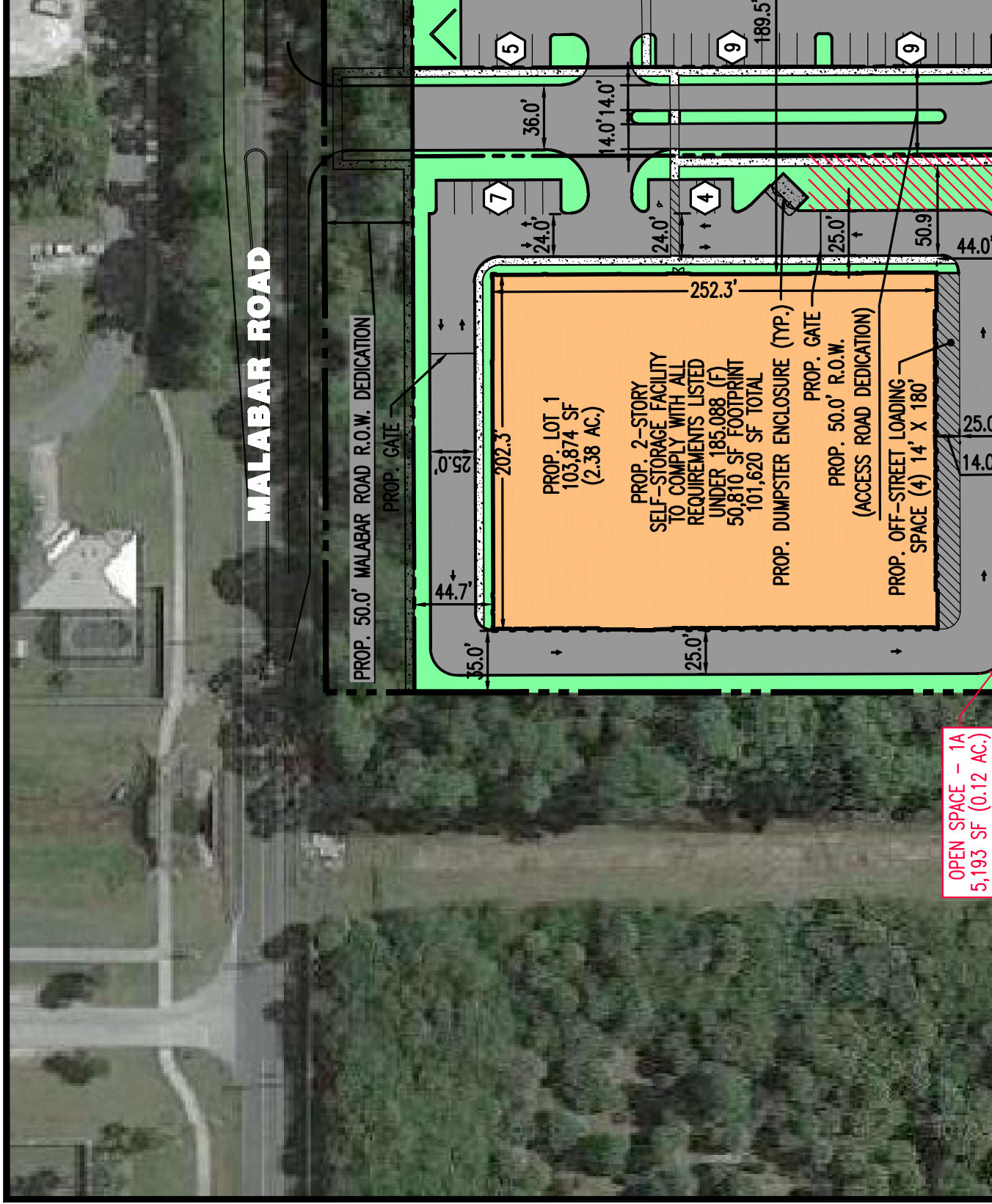
Proposed Mixed-Use Development
Traffic Impact Study
5131-23-01643



LEGEND

- Existing Roadway
- Proposed Roadway
- AM (PM)
- Signalized Intersection

Appendix B
Site Plan



OPEN SPACE - 1A
5,193 SF (0.12 AC.)

Appendix C

Methodology Statement

TRAFFIC METHODOLOGY LETTER

To: City of Palm Bay, Brevard County, FL

From: Craig W. Peregoy, PE

Date: **Revised: January 4, 2024**
December 14, 2023
August 18, 2023
June 23, 2023

Re: **PD23-00006**
Bridge Asset Management
Proposed Mixed Use Development
Malabar Road & Thunderbird Avenue
4179-23-01643

**Craig W
Peregoy**
Digitally signed
by Craig W
Peregoy
Date: 2024.01.04
16:09:28 -05'00'

Dynamic Traffic, LLC is pleased to submit this methodology letter for a mixed-use development proposed along eastbound Malabar Avenue, opposite its intersection with Thunderbird Avenue. Specifically, the project consists of the following land uses:

- 100,000 Square Foot Self-Storage Facility
- 57,805 Square Feet of Retail Space
- 424 Multi-Family Residential Dwelling Units

Access to the project is proposed via two (2) driveways along Malabar Road. The easterly driveway will be located opposite Thunderbird Avenue and a second driveway is proposed to the west of Thunderbird Avenue. The anticipated build-out year is 2026. A preliminary Site Plan is contained in Appendix A along with a Site Location Map.

Analysis Period

Intersection analyses will be conducted for the 2024 existing conditions and 2026 build conditions during the weekday morning and weekday evening peak hours. Roadway segment analyses will be conducted for existing and build conditions based on the weekday evening peak hour based on the latest concurrency information available from FDOT, the Space Coast Transportation Planning Organization (SPCTO), Brevard County and the City of Palm Bay.

Trip Distribution

Trip Distribution will replicate that which was utilized for the recently completed Traffic Impact Study for the adjacent Chaparral Residential Development in order to maintain consistency. Specifically, reference is made to Figure 4 from the September 2022 Traffic Impact Study for Chaparral Phase IV prepared by LTG Engineering & Planning. This distribution was derived from the Central Florida Regional Planning Model (CFRPM) and is contained in Appendix A.

Trip Generation

Trip generation projections for the project were prepared utilizing trip generation research data as published in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition*. Internally Captured traffic within the development was calculated for the weekday AM and PM peak hours based on the NCHRP 684 *Internal Trip Capture Estimation Tool*. For the weekday daily internal capture, the procedures outlined in the 2nd and 3rd Editions of the ITE's *Trip Generation Handbook* were utilized. Pass-by traffic was calculated based on data published by ITE that accompanies the *Trip Generation Manual, 11th Edition*. Internal capture calculations are contained in Appendix B. Table 1 below details the trip generation projections.

Table 1
Trip Generation Projections

Trip Generation & Projections										
Time Period	Land Use Code	Land Use	Equation	Size	Units	% Enter	% Exit	Enter	Exit	Total
AM Peak Hour	151	Self Storage	$T=0.09(X/1000)$	100,000	SF	59%	41%	5	4	9
	821	Shopping Plaza	$T=1.73(X/1000)$	57,805	SF	62%	38%	62	38	100
	220	Multi-Family Housing (Low Rise)	$T=0.31(X)+22.85$	424	DU	24%	76%	37	117	154
	Totals:							104	159	263
	Internal Capture Trips									
	151	Self Storage	Internal	100,000	SF	1%	2%	0	0	0
	821	Shopping Plaza	Internal	57,805	SF	1%	2%	1	1	2
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	3%	1%	1	1	2
	Total Internal Capture Percentage:		1%	Total Internal Trips:		1	0	1		
	External Trips:							103	159	262
PM Peak Hour	151	Self Storage	$T=0.15(X/1000)$	100,000	SF	47%	53%	7	8	15
	821	Shopping Plaza	$T=5.19(X/1000)$	57,805	SF	49%	51%	147	153	300
	220	Multi-Family Housing (Low Rise)	$T=0.43(X)+20.55$	424	DU	63%	37%	128	75	203
	Totals:							282	236	518
	Internal Capture Trips									
	151	Self Storage	Internal	100,000	SF	10%	26%	1	2	3
	821	Shopping Plaza	Internal	57,805	SF	10%	26%	15	40	55
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	32%	20%	41	15	56
	Total Internal Capture Percentage:		24%	Total Internal Trips:		57	57	114		
	External Trips:							225	179	407
	Pass-By Trips (External x Pass-By Rate)									
	821	Shopping Plaza	40%	57,805	SF	50%	50%	46	46	92
	Pass-By Trips:							46	46	92
	Primary External Trips:							179	133	315
Daily	151	Self Storage	$T=1.45(X/1000)$	100,000	SF	50%	50%	73	72	145
	821	Shopping Plaza	$T=67.52(X/1000)$	57,805	SF	50%	50%	1952	1951	3903
	220	Multi-Family Housing (Low Rise)	$T=6.41(X)+75.31$	424	DU	50%	50%	1397	1396	2793
	Totals:							3422	3419	6841
	Internal Capture Trips									
	151	Self Storage	Internal	100,000	SF	37%	42%	27	30	57
	821	Shopping Plaza	Internal	57,805	SF	10%	12%	198	235	433
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	16%	13%	223	183	406
	Total Internal Capture Percentage:		13%	Total Internal Trips:		423	422	845		
	External Trips:							2999	2997	5996

Study Area

Pursuant to the City of Palm Bay Standardized Traffic Impact Study Guidance Manual, the area of influence as measured from the site access point is three (3) miles. Appended Figure 2 identifies the 3-mile radius and anticipated study locations which are as follows:

Intersections:

- Malabar Road/Thunderbird Avenue & Site Driveway
- Malabar Road & Western Site Driveway
- Malabar Road & St. Johns Heritage Parkway
- St. Johns Heritage Parkway & Pace Drive
- St. Johns Heritage Parkway & Emerson Drive
- Malabar Road & Krassner Drive
- Malabar Road & Hurley Boulevard
- Malabar Road & Jupiter Boulevard
- Malabar Road & Garvey Road
- Jupiter Boulevard & Garvey Road

Roadway Segments:

Segment	MAV	% Site Traffic	Site Traffic Volume	% of MAV	Analyze ?
Malabar Rd. from SJHP to Thunderbird Ave.	17,700	39%	2338	13%	Y
Malabar Rd. from Thunderbird Ave. to Hurley Bly	17,700	59%	3538	20%	Y
Malabar Rd. from Hurley Blvd. to Jupiter Blvd.	17,700	57%	3418	19%	Y
Malabar Rd. from Hurley Blvd. to Juptier Blvd.	17,700	57%	3418	19%	Y
Malabar Rd. from Jupiter Blvd. to Garvey Rd.	17,700	30%	1799	10%	Y
Malabar Rd. from Garvey Rd.. to Minton Rd.	17,700	28%	1679	9%	Y
SJHP from Malabar Rd. to Pace Dr.	15,600	35%	2099	13%	Y
SJHP from Pace Dr. to Emerson Dr.	15,600	31%	1859	12%	Y
SJHP from Emerson Dr. to US 192	15,600	28%	1679	11%	Y
Emerson Dr. from Jupiter Blvd. to SJHP	17,700	3%	180	1%	N
Jupiter Blvd. from Degroodt to Malabar Rd.	17,700	14%	839	5%	Y
Jupiter Blvd. from Malabar Rd. to Americana	17,700	15%	899	5%	Y
Jupiter Blvd. from Americana to Pace	17,700	15%	899	5%	Y
Jupiter Blvd. from Pace to Emerson Drive	17,700	15%	899	5%	Y

Traffic Counts

Manual Turning Movement (MTM) traffic counts will be conducted at the study intersections identified above on a Tuesday, Wednesday or Thursday from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. The peak hour will be isolated for each time period and the FDOT Peak Seasonal Factor will be applied to develop baseline traffic volumes.

Future Traffic Volumes

Future traffic volumes will be established by applying a growth rate to the baseline traffic volumes, vested traffic from nearby developments as directed by the City (Palm Vista, Everlands Riverwood, St Johns Preserve, Chaparral, Brentwood, Avery Springs and SJHP Commercial), and project site generated traffic. The growth rate will be established based on the FDOT Traffic Trends spreadsheet.

A minimum 2% annual growth rate will be applied where the calculated rate is lower than 2% or negative.

Intersection Analyses

Intersection analyses will be performed with the latest version of the Synchro software package. If warranted, appropriate improvement measures will be identified and analyzed with the necessary mitigation measures. Future roadway improvements identified as cost-feasible will be considered in the analysis of future traffic volumes.

Road Segment Analyses

Road Segment analyses will be based on the published Maximum Allowable Volumes (MAV) as published by the appropriate jurisdictional agency. If warranted, improvement measures will be identified and analyzed with the necessary mitigation measures. Future roadway improvements identified as cost-feasible will be considered in the analysis of future traffic volumes.

Site Access Analysis

Although turn lanes are shown on the preliminary improvement plan, the need for these lanes will be verified and the storage lengths assessed for compliance with applicable standards and sufficiency based on the calculated 95th percentile queue lengths. Additionally, the available sight distance at each access point will be assessed. The need for auxiliary lanes will be assessed using the methodology provided by NCHRP Report 457, HCS, and the latest version of the FDOT Design Standards.

Methodology Review Comments

The following are responses to the comments presented in the August 17, 2023 Memorandum from Daniela Jurado, PE:

1. Please revise the trip generation based on the following comments:
 - a. When trip generation is available based on both, fitted curve and average rate, please use the highest trip generation available or specify the reasons why the lower trip generation is used. – **Fitted Curves are not provided for LUC 151 or LUC 821. For LUC 220, fitted curves were utilized based on ITE's standard practice which suggests utilization of fitted curves when there are 20 or more data points available.**
 - b. There is a typo on the Exit% for LU 151 during the AM, it should be 41% instead of 51%. – **This typographical error has been corrected.**
 - c. Although the morning and evening internal trips are correct, please include both enter and exit percentages on the trip generation summary table. – **The summary table has been updated accordingly with percentages.**
 - d. Regarding the daily trip generation, we do not agree with the use of self-storage as retail on the internal capture spreadsheet, however 13% does not seem unreasonable for the daily internal capture percentage, therefore the use of this percentage will be allowed. – **We concur that the overall internal capture rate is reasonable.**
2. Update the study area radius based on the updated trip generation, if needed. – **Not required.**
3. If within the radius of impact, please include the intersection of Malabar Rd and Krassner Dr. – **This intersection was added as a study location.**
4. Include in the segment analysis all roadway segments in which the assigned project trips account for 5% of the segments MAV. Provide these calculations in the methodology statement. – **The calculations are tabulated above and the road segment study locations have been updated accordingly.**

5. Attach a copy of the study referenced for the trip distribution. Please note, the use of the CFRPM for conducting the trip distribution is preferred. – **The CFRPM distribution utilized from the adjacent development has been appended.**
6. Please specify the standards that will be used for the turn lane warrant analysis. – **The turn lane warrant standards to be examined have been added above.**

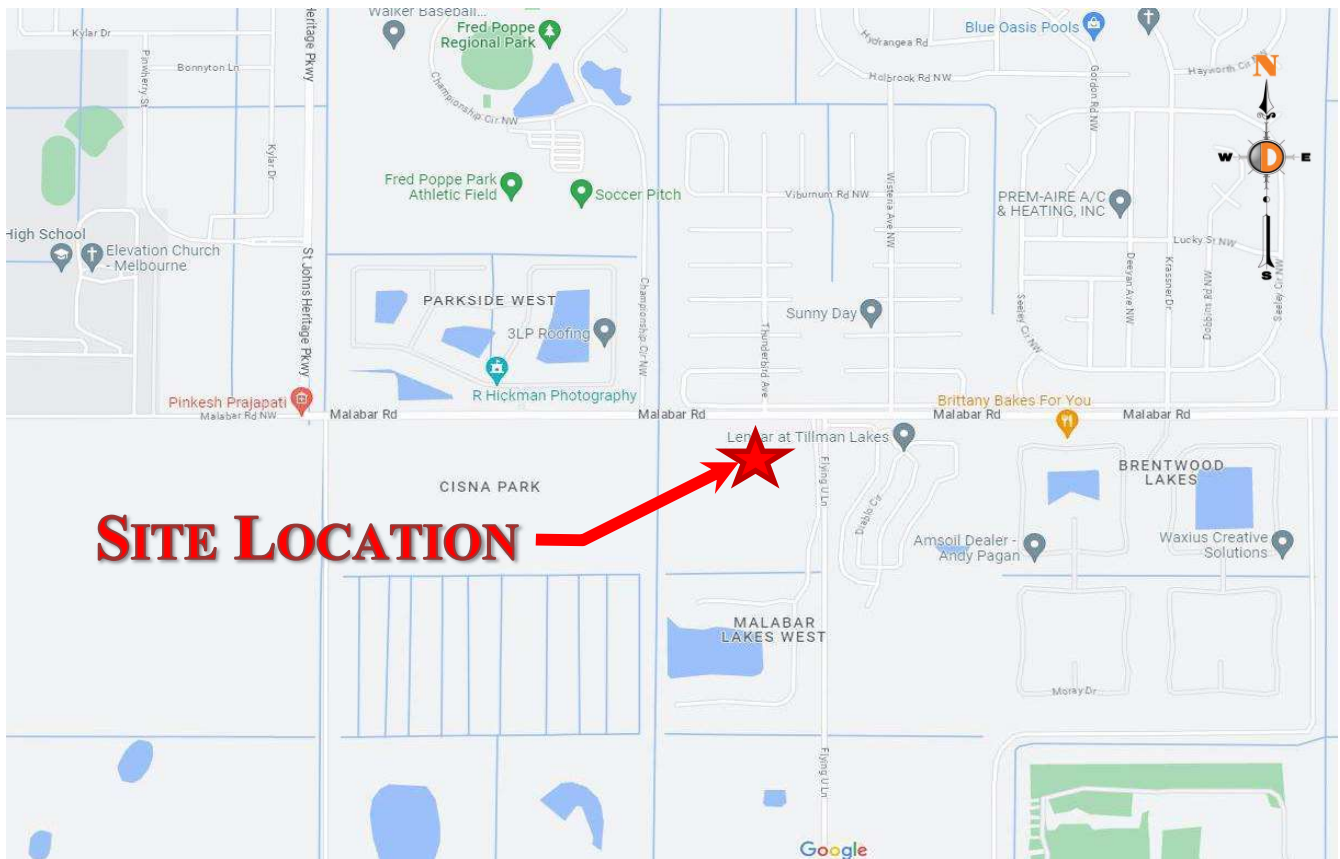
The following is a response to a comment from Frank Watanabe, PE:

1. A traffic study is required for this project and note change in the approved 6-23-23 Methodology to add the intersection of Jupiter at Garvey to the LOS analysis and the segment of Jupiter from Malabar to Garvey in the street segment analysis and background condition will include the vested trips from approved projects in the NW area of Palm Bay (Palm Vista, Everlands Riverwood, St Johns Preserve, Chaparral, Brentwood, Avery Springs and SJHP Commercial). – **The intersection of Jupiter Boulevard and Garvey Road was added above. The segment from Malabar Road to Garvey Road is inclusive in the previously identified segment of Malabar Road to DeGroodt Road. The vested trips from the approved projects identified will be included in the Traffic Impact Study.**

We look forward to receipt of your concurrence on the above and the preparation of our Traffic Impact Study for the proposed development. Please do not hesitate to contact me with any comments, questions or concerns.

Appendix A

Project Maps



Proposed Mixed-Use Development
 Traffic Impact Study
 4179-23-01643

Figure 1

Site Location Map

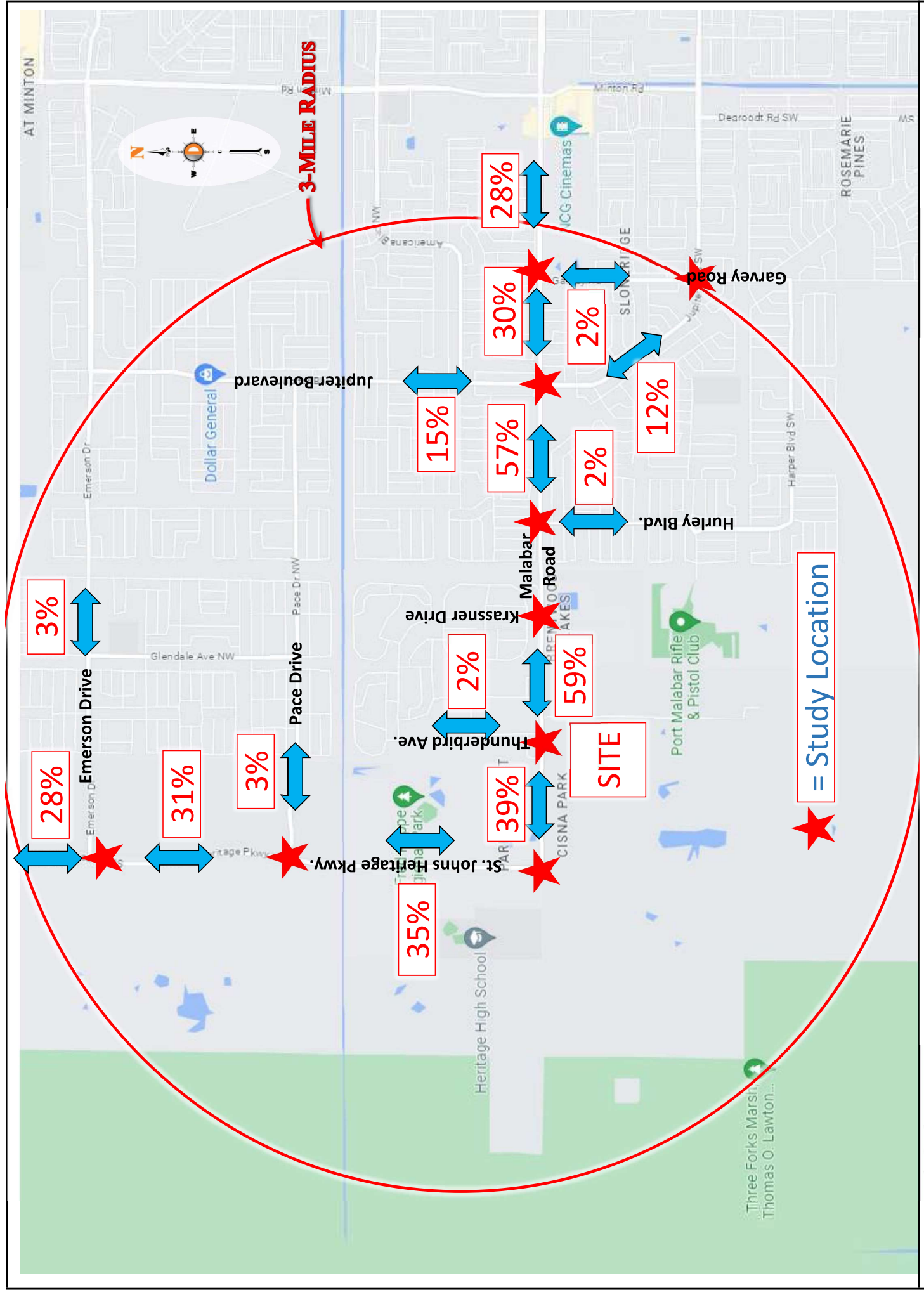
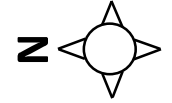
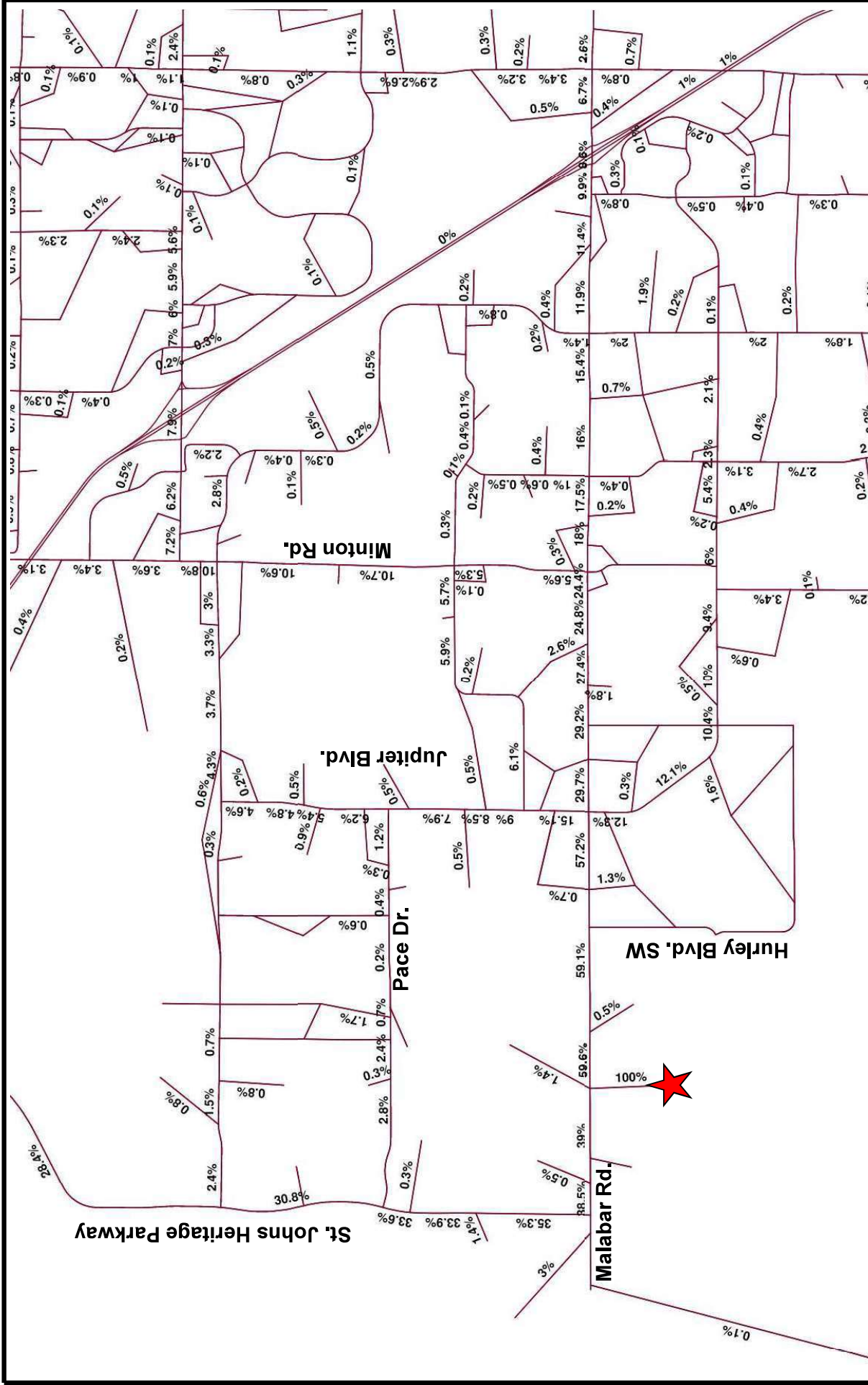


Figure 2 - Trip Distribution



Chaparral Phase IV

Project Distribution

Project Number: 5227.12

Figure 4



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

Appendix B
Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Proposed Mixed Use - Malabar Road	Organization:	Dynamic Traffic, LLC		
Project Location:	Malabar Road & Thunderbird Avenue	Performed By:	CWP		
Scenario Description:	Traffic Methodology Statement	Date:	6/21/2023		
Analysis Year:	2027	Checked By:	CWP		
Analysis Period:	AM Street Peak Hour	Date:	6/21/2023		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	151, 821	157,805	SF	109	67	42
Restaurant				0		
Cinema/Entertainment				0		
Residential	220	424	DU	154	37	117
Hotel				0		
All Other Land Uses ²				0		
				263	104	159

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	263	104	159
Internal Capture Percentage	2%	2%	1%
External Vehicle-Trips ⁵	259	102	157
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	2%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	3%	1%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in <i>ITE Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed Use - Malabar Road
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	67	67	1.00	42	42
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	37	37	1.00	117	117
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	12		5	0	6	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	23	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		21	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	5		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	11	0	0		0
Hotel	0	3	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	1	66	67	66	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	36	37	36	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	1	41	42	41	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	116	117	116	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Proposed Mixed Use - Malabar Road	Organization:	Dynamic Traffic, LLC		
Project Location:	Malabar Road & Thunderbird Avenue	Performed By:	CWP		
Scenario Description:	Traffic Methodology Statement	Date:	6/21/2023		
Analysis Year:	2027	Checked By:	CWP		
Analysis Period:	PM Street Peak Hour	Date:	6/21/2023		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	151, 821	157,805	SF	315	154	161
Restaurant				0		
Cinema/Entertainment				0		
Residential	220	424	DU	203	128	75
Hotel				0		
All Other Land Uses ²				0		
				518	282	236

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	42	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	15	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	518	282	236
Internal Capture Percentage	22%	20%	24%
External Vehicle-Trips ⁵	404	225	179
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	26%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	33%	20%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed Use - Malabar Road
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	154	154	1.00	161	161
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	128	128	1.00	75	75
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	3		47	6	42	8
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	32	16	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		12	0	0	5	0
Retail	0		0	0	59	0
Restaurant	0	77		0	20	0
Cinema/Entertainment	0	6	0		5	0
Residential	0	15	0	0		0
Hotel	0	3	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	15	139	154	139	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	42	86	128	86	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	42	119	161	119	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	60	75	60	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

MULTI-USE DEVELOPMENT TRIP GENERATION AND INTERNAL CAPTURE SUMMARY

Analyst: CWP
Date: 12/14/2023

Name of Development: Mixed Use - Malabar Rd.
Time Period: Daily

LAND USE A: Retail	
ITE LU Code	151
Size	100,000 DG
Total	73
Enter	27
Exit	30
Total	145
%	100.0%
Internal	39.3%
External	60.7%

LAND USE B: Residential	
ITE LU Code	220
Size	424 Units
Total	1397
Enter	223
Exit	183
Total	2793
%	100.0%
Internal	14.5%
External	85.5%

9%	7	Balanced	38%	530	Demand
	7				Demand

Exit to External
42
Enter from External
46

0%	0	Demand	0	Balanced	0%	0	Demand	
28%	20	Demand	20	Balanced	30%	585	Demand	
22	Balanced	28%	547	Demand	22	Balanced	0	Demand

0%	0	Demand	0	Balanced	0%	0	Demand		
33%	461	Demand	215	Balanced	11%	215	Demand		
0	Balanced	0%	0	Demand	0	Balanced	0%	0	Demand

0%	0	Demand	0	Balanced	0%	0	Demand					
0	Balanced	0%	0	Demand	0	Balanced	0%	0	Demand			
0%	0	Demand	0	Balanced	0%	0	Demand	0	Balanced	0%	0	Demand

LAND USE C: Retail	
ITE LU Code	821
Size	57805 SF
Total	1952
Enter	198
Exit	235
Total	3903
%	100.0%
Internal	11.1%
External	88.9%

LAND USE D: ITE LU Code	
Size	
Total	
Enter	
Exit	
Total	
%	

Exit to External
1716
Enter from External
1754

		0				
		0%	0	Balanced	0%	0
		0%	0	Demand	0%	0
		0%	0	Demand	0	Demand
		0%	0	Demand	0%	0

Size		Enter from		Exit to F	
	Total	Internal	External		
Enter		0	0		
Exit		0	0		
Total	0	0	0		
%					

Enter from External
0
Exit to External
0

Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Total
Enter	46	1174	1754	0	2974
Exit	42	1213	1716	0	2971
Total	88	2387	3470	0	5945
Single Use Trip Gen Est.	145	2793	3903	0	6841
					13.1%

Note: Internal capture rates obtained from ITE publications Trip Generation Handbook, 3rd Edition and Trip Generation Handbook, 2nd Edition

Appendix D

Traffic Counts

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7000 BREVARD COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.93
			PSCF
1	01/01/2022 - 01/01/2022	1.03	1.11
2	01/02/2022 - 01/08/2022	1.02	1.10
3	01/09/2022 - 01/15/2022	1.01	1.09
4	01/16/2022 - 01/22/2022	0.99	1.06
5	01/23/2022 - 01/29/2022	0.98	1.05
* 6	01/30/2022 - 02/05/2022	0.96	1.03
* 7	02/06/2022 - 02/12/2022	0.94	1.01
* 8	02/13/2022 - 02/19/2022	0.92	0.99
* 9	02/20/2022 - 02/26/2022	0.92	0.99
*10	02/27/2022 - 03/05/2022	0.91	0.98
*11	03/06/2022 - 03/12/2022	0.91	0.98
*12	03/13/2022 - 03/19/2022	0.90	0.97
*13	03/20/2022 - 03/26/2022	0.91	0.98
*14	03/27/2022 - 04/02/2022	0.92	0.99
*15	04/03/2022 - 04/09/2022	0.93	1.00
*16	04/10/2022 - 04/16/2022	0.94	1.01
*17	04/17/2022 - 04/23/2022	0.95	1.02
*18	04/24/2022 - 04/30/2022	0.96	1.03
19	05/01/2022 - 05/07/2022	0.97	1.04
20	05/08/2022 - 05/14/2022	0.98	1.05
21	05/15/2022 - 05/21/2022	0.99	1.06
22	05/22/2022 - 05/28/2022	1.00	1.08
23	05/29/2022 - 06/04/2022	1.02	1.10
24	06/05/2022 - 06/11/2022	1.04	1.12
25	06/12/2022 - 06/18/2022	1.05	1.13
26	06/19/2022 - 06/25/2022	1.05	1.13
27	06/26/2022 - 07/02/2022	1.05	1.13
28	07/03/2022 - 07/09/2022	1.05	1.13
29	07/10/2022 - 07/16/2022	1.05	1.13
30	07/17/2022 - 07/23/2022	1.04	1.12
31	07/24/2022 - 07/30/2022	1.04	1.12
32	07/31/2022 - 08/06/2022	1.04	1.12
33	08/07/2022 - 08/13/2022	1.04	1.12
34	08/14/2022 - 08/20/2022	1.04	1.12
35	08/21/2022 - 08/27/2022	1.05	1.13
36	08/28/2022 - 09/03/2022	1.06	1.14
37	09/04/2022 - 09/10/2022	1.07	1.15
38	09/11/2022 - 09/17/2022	1.08	1.16
39	09/18/2022 - 09/24/2022	1.06	1.14
40	09/25/2022 - 10/01/2022	1.04	1.12
41	10/02/2022 - 10/08/2022	1.02	1.10
42	10/09/2022 - 10/15/2022	1.00	1.08
43	10/16/2022 - 10/22/2022	1.02	1.10
44	10/23/2022 - 10/29/2022	1.03	1.11
45	10/30/2022 - 11/05/2022	1.04	1.12
46	11/06/2022 - 11/12/2022	1.05	1.13
47	11/13/2022 - 11/19/2022	1.06	1.14
48	11/20/2022 - 11/26/2022	1.05	1.13
49	11/27/2022 - 12/03/2022	1.05	1.13
50	12/04/2022 - 12/10/2022	1.04	1.12
51	12/11/2022 - 12/17/2022	1.03	1.11
52	12/18/2022 - 12/24/2022	1.02	1.10
53	12/25/2022 - 12/31/2022	1.01	1.09

* PEAK SEASON

23-FEB-2023 09:11:22

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2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7095 BREVARD I95

WEEK	DATES	SF	MOCF: 0.97 PSCF
1	01/01/2022 - 01/01/2022	0.93	0.96
2	01/02/2022 - 01/08/2022	1.01	1.04
3	01/09/2022 - 01/15/2022	1.09	1.12
4	01/16/2022 - 01/22/2022	1.07	1.10
5	01/23/2022 - 01/29/2022	1.05	1.08
6	01/30/2022 - 02/05/2022	1.03	1.06
7	02/06/2022 - 02/12/2022	1.01	1.04
* 8	02/13/2022 - 02/19/2022	1.00	1.03
* 9	02/20/2022 - 02/26/2022	0.98	1.01
*10	02/27/2022 - 03/05/2022	0.97	1.00
*11	03/06/2022 - 03/12/2022	0.95	0.98
*12	03/13/2022 - 03/19/2022	0.94	0.97
*13	03/20/2022 - 03/26/2022	0.94	0.97
*14	03/27/2022 - 04/02/2022	0.95	0.98
*15	04/03/2022 - 04/09/2022	0.95	0.98
*16	04/10/2022 - 04/16/2022	0.96	0.99
*17	04/17/2022 - 04/23/2022	0.97	1.00
*18	04/24/2022 - 04/30/2022	0.98	1.01
*19	05/01/2022 - 05/07/2022	0.99	1.02
*20	05/08/2022 - 05/14/2022	1.00	1.03
21	05/15/2022 - 05/21/2022	1.02	1.05
22	05/22/2022 - 05/28/2022	1.02	1.05
23	05/29/2022 - 06/04/2022	1.03	1.06
24	06/05/2022 - 06/11/2022	1.04	1.07
25	06/12/2022 - 06/18/2022	1.05	1.08
26	06/19/2022 - 06/25/2022	1.04	1.07
27	06/26/2022 - 07/02/2022	1.03	1.06
28	07/03/2022 - 07/09/2022	1.02	1.05
29	07/10/2022 - 07/16/2022	1.01	1.04
30	07/17/2022 - 07/23/2022	1.02	1.05
31	07/24/2022 - 07/30/2022	1.02	1.05
32	07/31/2022 - 08/06/2022	1.03	1.06
33	08/07/2022 - 08/13/2022	1.03	1.06
34	08/14/2022 - 08/20/2022	1.04	1.07
35	08/21/2022 - 08/27/2022	1.06	1.09
36	08/28/2022 - 09/03/2022	1.09	1.12
37	09/04/2022 - 09/10/2022	1.11	1.14
38	09/11/2022 - 09/17/2022	1.14	1.18
39	09/18/2022 - 09/24/2022	1.10	1.13
40	09/25/2022 - 10/01/2022	1.07	1.10
41	10/02/2022 - 10/08/2022	1.04	1.07
42	10/09/2022 - 10/15/2022	1.01	1.04
43	10/16/2022 - 10/22/2022	0.99	1.02
44	10/23/2022 - 10/29/2022	0.98	1.01
45	10/30/2022 - 11/05/2022	0.97	1.00
46	11/06/2022 - 11/12/2022	0.96	0.99
47	11/13/2022 - 11/19/2022	0.95	0.98
48	11/20/2022 - 11/26/2022	0.94	0.97
49	11/27/2022 - 12/03/2022	0.94	0.97
50	12/04/2022 - 12/10/2022	0.93	0.96
51	12/11/2022 - 12/17/2022	0.93	0.96
52	12/18/2022 - 12/24/2022	1.01	1.04
53	12/25/2022 - 12/31/2022	1.09	1.12

* PEAK SEASON

23-FEB-2023 09:11:22

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ALL TRAFFIC DATA SERVICES

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www.alltrafficdata.net

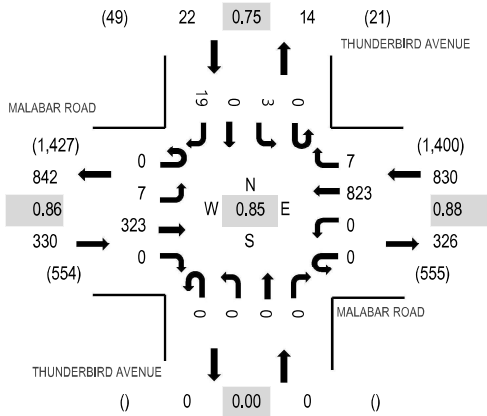
Location: 1 THUNDERBIRD AVENUE & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

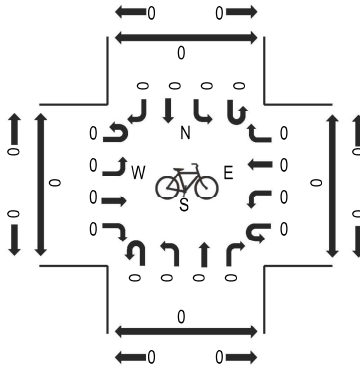
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

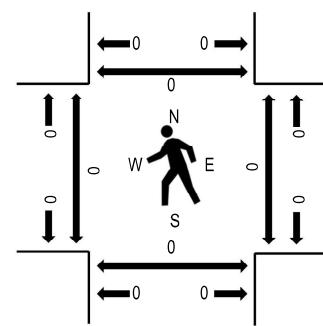
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				THUNDERBIRD AVENUE Northbound				THUNDERBIRD AVENUE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	36	0	0	0	146	0	0	0	0	0	0	1	0	8	193	869	0	0	0	0
7:15 AM	0	0	47	0	0	0	175	1	0	0	0	0	0	3	0	6	232	953	0	0	0	0
7:30 AM	0	0	46	0	0	0	164	1	0	0	0	0	0	3	0	3	217	1,068	0	0	0	0
7:45 AM	0	2	45	0	0	0	175	2	0	0	0	0	0	0	0	3	227	1,182	0	0	0	0
8:00 AM	0	1	65	0	0	0	200	2	0	0	0	0	0	3	0	6	277	1,134	0	0	0	0
8:15 AM	0	1	107	0	0	0	234	1	0	0	0	0	0	0	0	4	347		0	0	0	0
8:30 AM	0	3	106	0	0	0	214	2	0	0	0	0	0	0	0	6	331		0	0	0	0
8:45 AM	0	1	92	0	0	0	81	2	0	0	0	0	0	1	0	2	179		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Lights	0	7	309	0	0	0	800	6	0	0	0	0	0	1	0	19	1,142
Mediums	0	0	13	0	0	0	21	1	0	0	0	0	0	2	0	0	37
Total	0	7	323	0	0	0	823	7	0	0	0	0	0	3	0	19	1,182

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.2%				2.9%				0.0%				9.1%			3.4%
Heavy Vehicle %	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	2.8%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	3.4%
Peak Hour Factor		0.86				0.88				0.00				0.75			0.85
Peak Hour Factor	0.00	0.58	0.86	0.00	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.63	0.85



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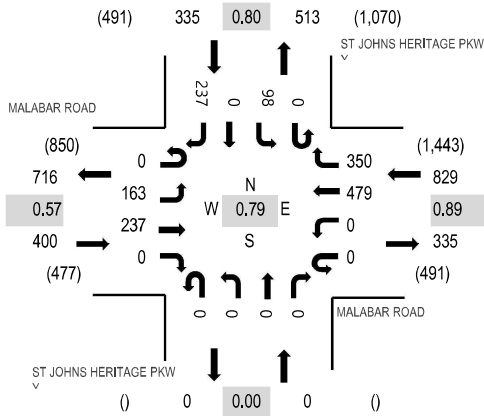
Location: 2 ST JOHNS HERITAGE PKWY & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

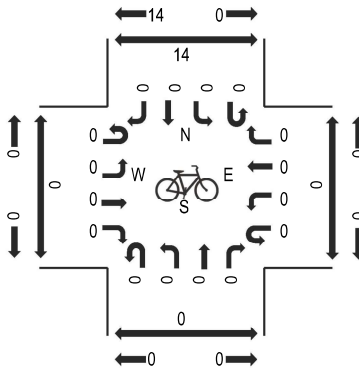
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

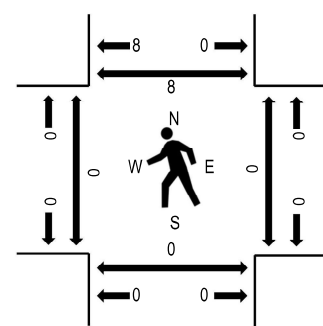
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				ST JOHNS HERITAGE PKWY Northbound				ST JOHNS HERITAGE PKWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	6	5	0	0	0	11	163	0	0	0	0	0	27	0	9	221	932	0	0	0	0
7:15 AM	0	7	5	0	0	0	28	157	0	0	0	0	0	30	0	9	236	1,066	0	0	0	0
7:30 AM	0	4	9	0	0	0	26	149	0	0	0	0	0	26	0	19	233	1,300	0	0	0	0
7:45 AM	0	10	18	0	0	0	57	110	0	0	0	0	0	28	0	19	242	1,564	0	0	0	6
8:00 AM	0	23	37	0	0	0	104	102	0	0	0	0	0	22	0	67	355	1,479	0	0	0	0
8:15 AM	0	51	80	0	0	0	164	70	0	0	0	0	0	24	0	81	470		0	0	0	2
8:30 AM	0	79	102	0	0	0	154	68	0	0	0	0	0	24	0	70	497		0	0	0	0
8:45 AM	0	12	29	0	0	0	21	59	0	0	0	0	0	25	0	11	157		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3
Lights	0	152	224	0	0	0	465	340	0	0	0	0	0	96	0	225	1,502
Mediums	0	11	13	0	0	0	14	8	0	0	0	0	0	1	0	12	59
Total	0	163	237	0	0	0	479	350	0	0	0	0	0	98	0	237	1,564

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		6.0%				2.9%				0.0%				4.2%			4.0%
Heavy Vehicle %	0.0%	6.7%	5.5%	0.0%	0.0%	0.0%	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	5.1%	4.0%
Peak Hour Factor		0.57				0.89				0.00				0.80			0.79
Peak Hour Factor	0.00	0.52	0.61	0.00	0.00	0.00	0.73	0.89	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.73	0.79



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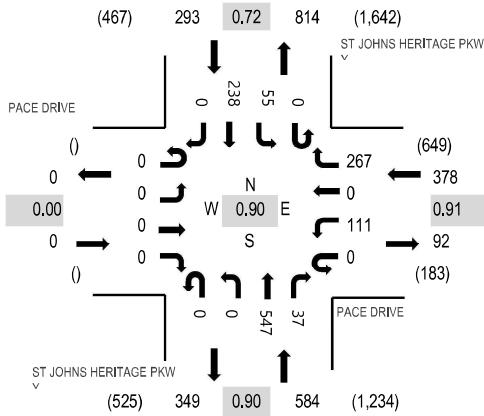
Location: 3 ST JOHNS HERITAGE PKWY & PACE DRIVE AM

Date: Tuesday, January 16, 2024

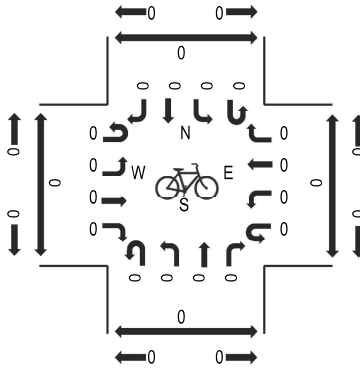
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

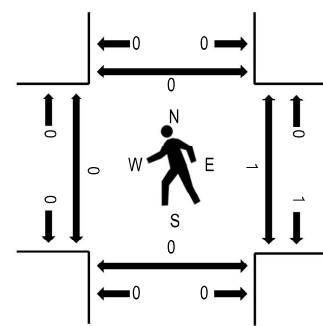
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PACE DRIVE Eastbound				PACE DRIVE Westbound				ST JOHNS HERITAGE PKW Northbound				ST JOHNS HERITAGE PKW Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	6	0	64	0	0	190	7	0	9	28	0	304	1,247	0	0	0	0
7:15 AM	0	0	0	0	0	5	0	101	0	0	185	8	0	9	30	0	338	1,244	0	0	0	0
7:30 AM	0	0	0	0	0	11	0	92	0	0	164	4	0	16	44	0	331	1,255	0	0	0	0
7:45 AM	0	0	0	0	0	11	0	68	0	0	140	9	0	12	34	0	274	1,197	0	1	0	0
8:00 AM	0	0	0	0	0	29	0	67	0	0	115	5	0	15	70	0	301	1,103	0	0	0	0
8:15 AM	0	0	0	0	0	60	0	40	0	0	128	19	0	12	90	0	349		0	0	0	0
8:30 AM	0	0	0	0	0	19	0	41	0	0	130	28	0	7	48	0	273		0	0	0	0
8:45 AM	0	0	0	0	0	8	0	27	0	0	90	12	0	11	32	0	180		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	2	1	0	0	1	0	5
Lights	0	0	0	0	0	107	0	263	0	0	535	35	0	52	228	0	1,220
Mediums	0	0	0	0	0	4	0	3	0	0	10	1	0	3	9	0	30
Total	0	0	0	0	0	111	0	267	0	0	547	37	0	55	238	0	1,255

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	1.5%	0.0%	0.0%	2.2%	5.4%	0.0%	5.5%	4.2%	0.0%	2.8%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%	0.0%	1.5%	0.0%	0.0%	2.2%	5.4%	0.0%	5.5%	4.2%	0.0%	2.8%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.81	0.00	0.90	0.89	0.57	0.00	0.86	0.67	0.00	0.90
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.81	0.00	0.00	0.89	0.57	0.00	0.86	0.67	0.00	0.90

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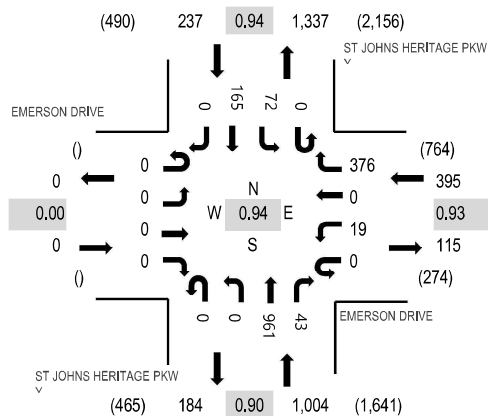
Location: 4 ST JOHNS HERITAGE PKWY & EMERSON DRIVE AM

Date: Tuesday, January 16, 2024

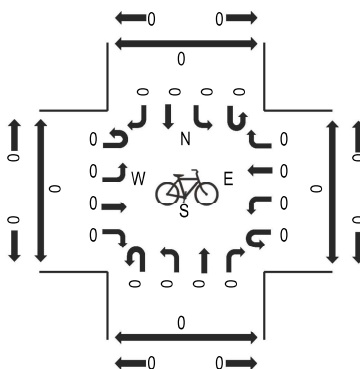
Peak Hour: 07:00 AM - 08:00 AM

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

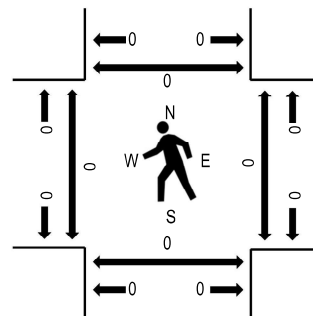
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	EMERSON DRIVE				EMERSON DRIVE				ST JOHNS HERITAGE PKWY				JOHNS HERITAGE PKWY				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	0	0	0	2	0	91	0	0	237	8	0	20	34	0	392	1,636	0	0	0	0
7:15 AM	0	0	0	0	0	2	0	89	0	0	265	15	0	12	36	0	419	1,613	0	0	0	0
7:30 AM	0	0	0	0	0	7	0	91	0	0	251	12	0	20	56	0	437	1,550	0	0	0	0
7:45 AM	0	0	0	0	0	8	0	105	0	0	208	8	0	20	39	0	388	1,437	0	0	0	0
8:00 AM	0	0	0	0	0	31	0	87	0	0	163	12	0	19	57	0	369	1,259	0	0	0	0
8:15 AM	0	0	0	0	0	43	0	65	0	0	148	25	0	20	55	0	356		0	0	0	0
8:30 AM	0	0	0	0	0	17	0	77	0	0	143	32	0	19	36	0	324		0	0	0	0
8:45 AM	0	0	0	0	0	8	0	41	0	0	95	19	0	13	34	0	210		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	5
Lights	0	0	0	0	0	19	0	371	0	0	951	43	0	66	155	0	1,605
Mediums	0	0	0	0	0	0	0	5	0	0	9	0	0	5	7	0	26
Total	0	0	0	0	0	19	0	376	0	0	961	43	0	72	165	0	1,636

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
Heavy Vehicle %		0.0%				1.3%				1.0%				6.8%			1.9%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	1.0%	0.0%	0.0%	8.3%	6.1%	0.0%	1.9%
Peak Hour Factor		0.00				0.93				0.90				0.94			0.94
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.90	0.00	0.00	0.91	0.69	0.00	0.99	0.91	0.00	0.94



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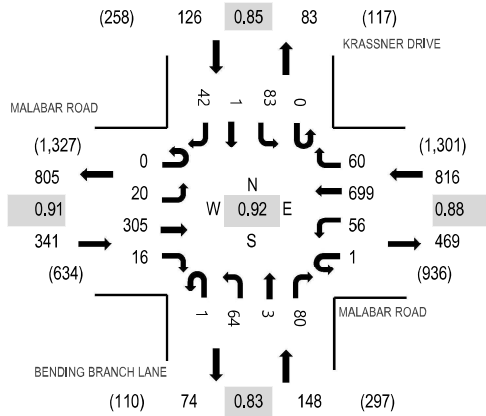
Location: 5 BENDING BRANCH LANE & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

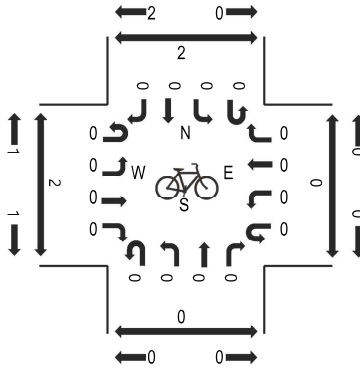
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

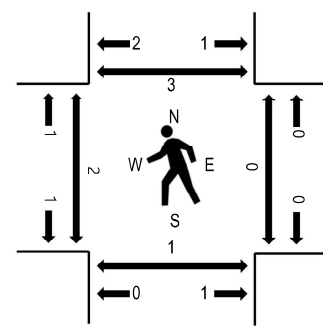
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				BENDING BRANCH LANE Northbound				KRASSNER DRIVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	45	3	0	3	113	1	0	10	1	34	0	13	0	9	233	1,104	0	0	0	0
7:15 AM	0	3	69	2	0	5	120	1	0	15	0	30	0	27	0	16	288	1,236	0	0	0	0
7:30 AM	0	1	61	0	0	7	132	11	0	12	0	27	0	25	0	14	290	1,331	0	0	0	0
7:45 AM	0	2	53	1	0	16	151	7	0	10	0	22	0	25	0	6	293	1,431	2	0	1	0
8:00 AM	0	6	69	3	0	13	171	19	1	19	3	27	0	20	1	13	365	1,386	0	0	0	0
8:15 AM	0	5	96	4	0	10	186	12	0	22	0	13	0	20	0	15	383		0	0	0	2
8:30 AM	0	7	87	8	1	17	191	22	0	13	0	18	0	18	0	8	390		0	0	0	1
8:45 AM	0	5	99	4	0	12	70	10	0	5	0	15	0	22	0	6	248		0	0	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Lights	0	19	290	14	1	54	675	60	1	62	2	79	0	82	0	42	1,381
Mediums	0	1	14	2	0	2	22	0	0	2	1	1	0	1	1	0	47
Total	0	20	305	16	1	56	699	60	1	64	3	80	0	83	1	42	1,431

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		5.3%				3.2%				2.7%				1.6%			3.5%
Heavy Vehicle %	0.0%	5.0%	4.9%	12.5%	0.0%	3.6%	3.4%	0.0%	0.0%	3.1%	33.3%	1.3%	0.0%	1.2%	100.0%	0.0%	3.5%
Peak Hour Factor		0.91				0.88				0.83				0.85			0.92
Peak Hour Factor	0.00	0.82	0.89	0.59	0.25	0.82	0.91	0.72	0.25	0.73	0.25	0.83	0.00	0.90	0.25	0.77	0.92



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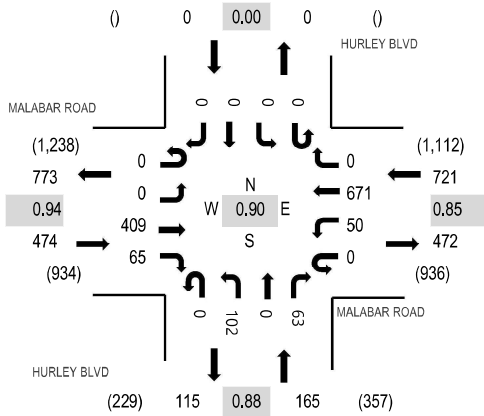
Location: 6 HURLEY BLVD & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

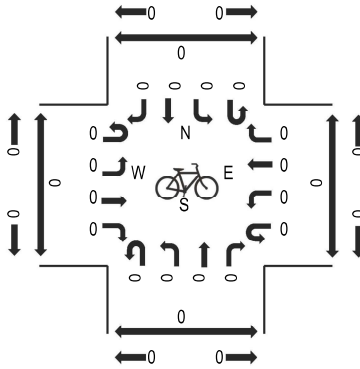
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

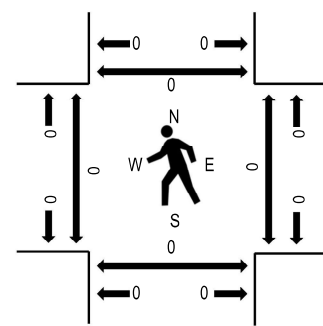
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				HURLEY BLVD Northbound				HURLEY BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	78	10	0	11	77	0	0	31	0	17	0	0	0	0	224	1,102	0	0	0	0
7:15 AM	0	0	104	18	0	9	85	0	0	35	0	18	0	0	0	0	269	1,217	0	0	0	0
7:30 AM	0	0	91	25	0	15	108	0	0	39	0	21	0	0	0	0	299	1,327	0	0	0	0
7:45 AM	0	0	80	23	0	19	140	0	0	30	0	18	0	0	0	0	310	1,360	0	0	0	0
8:00 AM	0	0	97	11	0	10	171	0	0	33	0	17	0	0	0	0	339	1,301	0	0	0	0
8:15 AM	0	0	123	10	0	6	205	0	0	24	0	11	0	0	0	0	379		0	0	0	0
8:30 AM	0	0	109	21	0	15	155	0	0	15	0	17	0	0	0	0	332		0	0	0	0
8:45 AM	0	0	121	13	0	13	73	0	0	17	0	14	0	0	0	0	251		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	2	1	0	0	1	0	0	0	0	0	0	5
Lights	0	0	395	62	0	46	649	0	0	99	0	60	0	0	0	0	1,311
Mediums	0	0	13	3	0	2	21	0	0	2	0	3	0	0	0	0	44
Total	0	0	409	65	0	50	671	0	0	102	0	63	0	0	0	0	1,360

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		3.6%				3.6%				3.6%				0.0%			3.6%
Heavy Vehicle %	0.0%	0.0%	3.4%	4.6%	0.0%	8.0%	3.3%	0.0%	0.0%	2.9%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	3.6%
Peak Hour Factor		0.94				0.85				0.88				0.00			0.90
Peak Hour Factor	0.00	0.00	0.91	0.77	0.00	0.71	0.82	0.00	0.00	0.88	0.00	0.88	0.00	0.00	0.00	0.00	0.90



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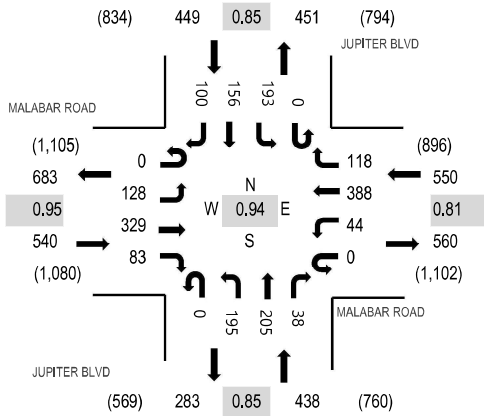
Location: 7 JUPITER BLVD & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

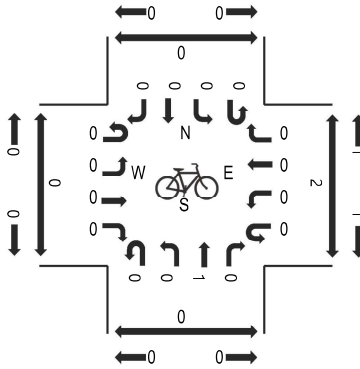
Peak Hour: 07:30 AM - 08:30 AM

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

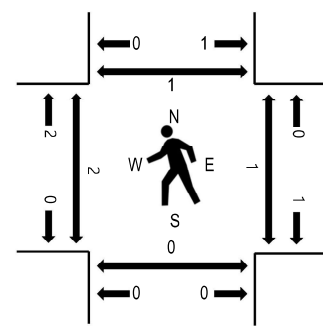
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				JUPITER BLVD Northbound				JUPITER BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	30	74	15	0	18	31	11	0	37	34	17	0	37	43	10	357	1,688	0	0	0	0
7:15 AM	0	41	73	32	0	19	42	13	0	46	39	11	0	38	40	11	405	1,857	0	0	0	0
7:30 AM	0	47	74	13	0	18	57	30	0	52	53	12	0	39	41	10	446	1,977	0	0	0	0
7:45 AM	0	34	61	17	0	10	72	19	0	51	66	13	0	62	50	25	480	1,959	1	1	0	1
8:00 AM	0	26	99	19	0	7	130	32	0	40	50	10	0	48	36	29	526	1,882	1	0	0	0
8:15 AM	0	21	95	34	0	9	129	37	0	52	36	3	0	44	29	36	525		0	0	0	0
8:30 AM	0	33	82	17	0	10	89	23	0	29	32	7	0	47	37	22	428		1	0	0	0
8:45 AM	0	31	96	16	0	4	59	27	0	32	29	9	0	51	35	14	403		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	1	0	0	1	0	0	1	0	0	6
Lights	0	128	320	78	0	43	370	114	0	190	199	38	0	184	151	96	1,911
Mediums	0	0	8	5	0	1	16	3	0	5	5	0	0	8	5	4	60
Total	0	128	329	83	0	44	388	118	0	195	205	38	0	193	156	100	1,977

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	2.6%				4.2%				2.5%				4.0%				3.3%
Heavy Vehicle %	0.0%	0.0%	2.7%	6.0%	0.0%	2.3%	4.6%	3.4%	0.0%	2.6%	2.9%	0.0%	0.0%	4.7%	3.2%	4.0%	3.3%
Peak Hour Factor	0.95				0.81				0.85				0.85				0.94
Peak Hour Factor	0.00	0.81	0.94	0.64	0.00	0.86	0.81	0.80	0.00	0.94	0.79	0.78	0.00	0.81	0.87	0.78	0.94



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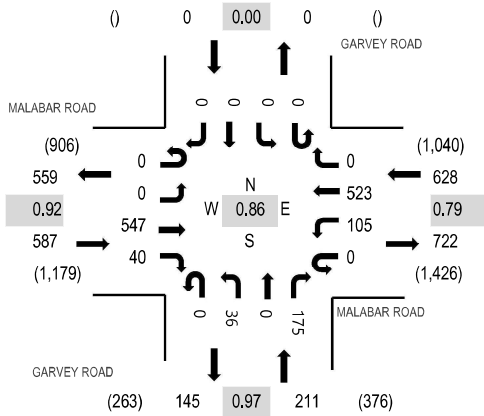
Location: 8 GARVEY ROAD & MALABAR ROAD AM

Date: Tuesday, January 16, 2024

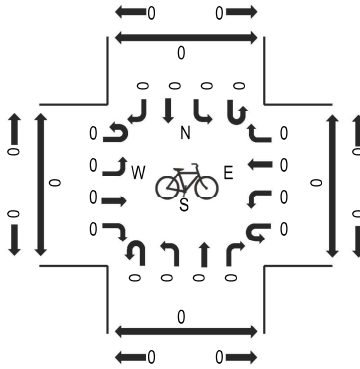
Peak Hour: 07:30 AM - 08:30 AM

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

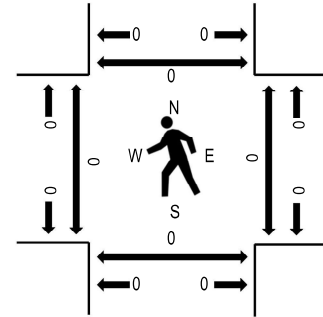
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				GARVEY ROAD Northbound				GARVEY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	140	4	0	15	60	0	0	2	0	49	0	0	0	0	270	1,189	0	0	0	0
7:15 AM	0	0	129	13	0	27	67	0	0	8	0	44	0	0	0	0	288	1,332	0	0	0	0
7:30 AM	0	0	131	10	0	25	96	0	0	9	0	46	0	0	0	0	317	1,426	0	0	0	0
7:45 AM	0	0	128	8	0	27	95	0	0	13	0	43	0	0	0	0	314	1,412	0	0	0	0
8:00 AM	0	0	145	11	0	27	175	0	0	9	0	46	0	0	0	0	413	1,406	0	0	0	0
8:15 AM	0	0	143	11	0	26	157	0	0	5	0	40	0	0	0	0	382		0	0	0	0
8:30 AM	0	0	131	8	0	23	107	0	0	7	0	27	0	0	0	0	303		0	0	1	0
8:45 AM	0	0	161	6	0	22	91	0	0	5	0	23	0	0	0	0	308		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	1	0	1	3	0	0	0	0	0	0	0	0	0	6
Lights	0	0	526	38	0	99	502	0	0	35	0	170	0	0	0	0	1,370
Mediums	0	0	20	1	0	5	18	0	0	1	0	5	0	0	0	0	50
Total	0	0	547	40	0	105	523	0	0	36	0	175	0	0	0	0	1,426

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		3.9%				4.3%				2.8%				0.0%			3.9%
Heavy Vehicle %	0.0%	0.0%	3.8%	5.0%	0.0%	5.7%	4.0%	0.0%	0.0%	2.8%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	3.9%
Peak Hour Factor		0.92				0.79				0.97				0.00			0.86
Peak Hour Factor	0.00	0.00	0.90	0.81	0.00	0.98	0.76	0.00	0.00	0.75	0.00	0.93	0.00	0.00	0.00	0.00	0.86



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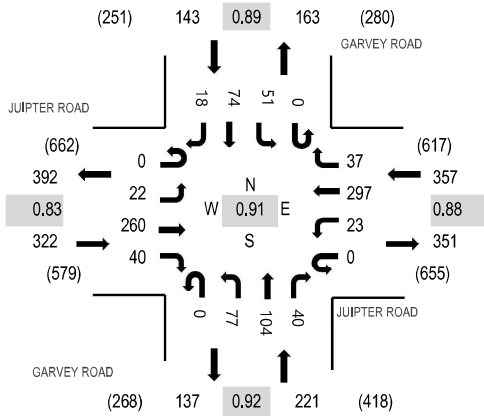
Location: 9 GARVEY ROAD & JUIPTER ROAD AM

Date: Tuesday, January 16, 2024

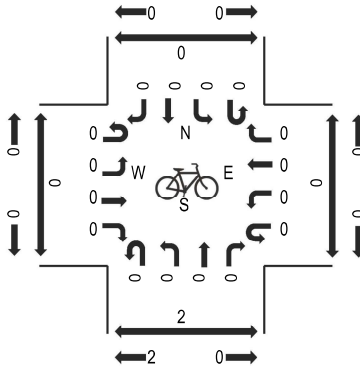
Peak Hour: 07:15 AM - 08:15 AM

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

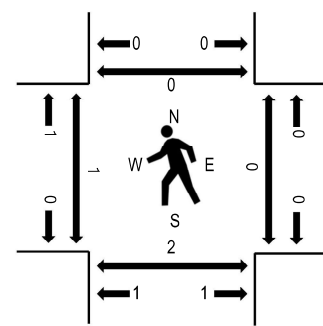
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	JUIPTER ROAD Eastbound				JUIPTER ROAD Westbound				GARVEY ROAD Northbound				GARVEY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	55	6	0	2	54	3	0	22	27	15	0	8	11	3	206	1,005	0	0	1	0
7:15 AM	0	0	51	9	0	2	68	7	0	25	24	11	0	12	17	11	237	1,043	0	0	1	0
7:30 AM	0	8	63	14	0	8	86	8	0	16	26	10	0	13	19	4	275	1,033	0	0	0	0
7:45 AM	0	11	80	8	0	6	79	10	0	24	26	9	0	13	19	2	287	957	0	0	0	0
8:00 AM	0	3	66	9	0	7	64	12	0	12	28	10	0	13	19	1	244	860	1	0	1	0
8:15 AM	0	2	52	13	0	11	57	8	0	12	27	16	0	10	16	3	227		0	0	0	0
8:30 AM	0	2	56	12	0	13	45	8	0	12	15	9	0	7	17	3	199		0	0	0	0
8:45 AM	0	2	48	9	0	7	48	4	0	9	19	14	0	14	14	2	190		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	21	249	36	0	22	284	35	0	76	103	37	0	51	69	18	1,001
Mediums	0	1	11	4	0	1	13	2	0	1	1	3	0	0	5	0	42
Total	0	22	260	40	0	23	297	37	0	77	104	40	0	51	74	18	1,043

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		5.0%				4.5%				2.3%				3.5%			4.0%
Heavy Vehicle %	0.0%	4.5%	4.2%	10.0%	0.0%	4.3%	4.4%	5.4%	0.0%	1.3%	1.0%	7.5%	0.0%	0.0%	6.8%	0.0%	4.0%
Peak Hour Factor		0.83				0.88				0.92				0.89			0.91
Peak Hour Factor	0.00	0.55	0.82	0.79	0.00	0.73	0.86	0.79	0.00	0.87	0.96	0.77	0.00	0.98	0.97	0.45	0.91



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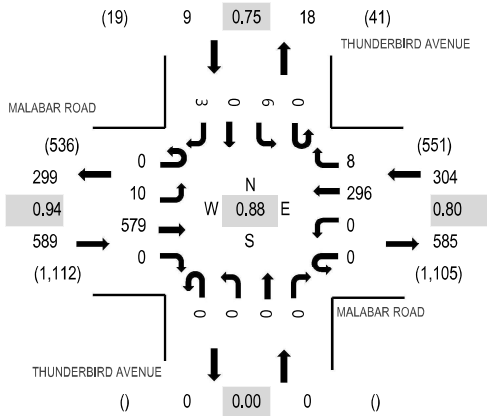
Location: 1 THUNDERBIRD AVENUE & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

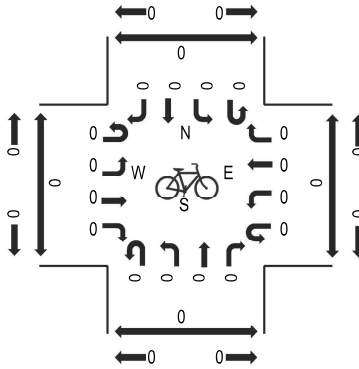
Peak Hour: 04:45 PM - 05:45 PM

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

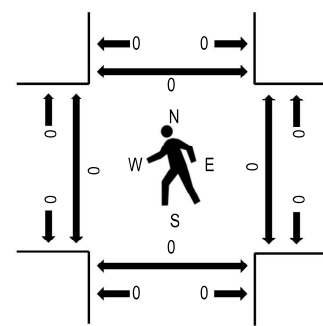
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				THUNDERBIRD AVENUE Northbound				THUNDERBIRD AVENUE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	3	152	0	0	0	60	5	0	0	0	0	0	2	0	1	223	810	0	0	0	0
4:15 PM	0	2	135	0	0	0	60	4	0	0	0	0	0	1	0	1	203	842	0	0	0	0
4:30 PM	0	1	115	0	0	0	52	4	0	0	0	0	0	1	0	3	176	858	0	0	0	0
4:45 PM	0	2	129	0	0	0	71	3	0	0	0	0	0	3	0	0	208	902	0	0	0	0
5:00 PM	0	5	152	0	0	0	93	2	0	0	0	0	0	1	0	2	255	872	0	0	0	0
5:15 PM	0	1	147	0	0	0	70	1	0	0	0	0	0	0	0	0	219		0	0	0	0
5:30 PM	0	2	151	0	0	0	62	2	0	0	0	0	0	2	0	1	220		0	0	0	0
5:45 PM	0	2	113	0	0	0	60	2	0	0	0	0	0	1	0	0	178		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4
Lights	0	10	571	0	0	0	256	8	0	0	0	0	0	6	0	3	854
Mediums	0	0	7	0	0	0	37	0	0	0	0	0	0	0	0	0	44
Total	0	10	579	0	0	0	296	8	0	0	0	0	0	6	0	3	902

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.4%				13.2%				0.0%				0.0%			5.3%
Heavy Vehicle %	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	13.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%
Peak Hour Factor		0.94				0.80				0.00				0.75			0.88
Peak Hour Factor	0.00	0.50	0.95	0.00	0.00	0.00	0.80	0.80	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.50	0.88



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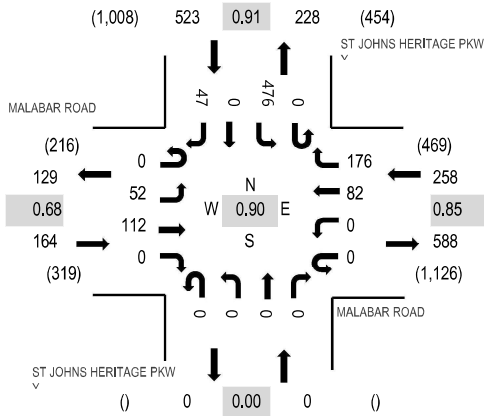
Location: 2 ST JOHNS HERITAGE PKWY & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

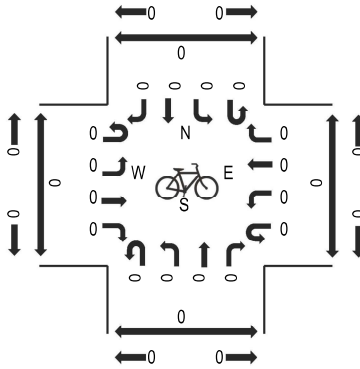
Peak Hour: 04:45 PM - 05:45 PM

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

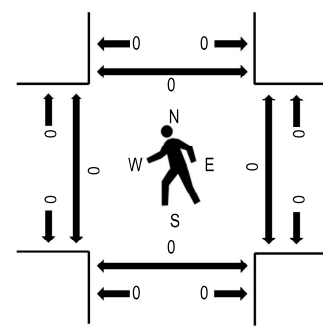
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				ST JOHNS HERITAGE PKWY Northbound				ST JOHNS HERITAGE PKWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	27	43	0	0	0	16	38	0	0	0	0	0	116	0	15	255	890	0	0	0	0
4:15 PM	0	13	17	0	0	0	17	36	0	0	0	0	0	121	0	10	214	897	0	0	0	0
4:30 PM	0	17	23	0	0	0	7	41	0	0	0	0	0	98	0	9	195	916	0	0	0	0
4:45 PM	0	20	31	0	0	0	23	36	0	0	0	0	0	108	0	8	226	945	0	0	0	0
5:00 PM	0	13	29	0	0	0	26	50	0	0	0	0	0	125	0	19	262	906	0	0	0	0
5:15 PM	0	12	32	0	0	0	19	47	0	0	0	0	0	112	0	11	233		0	0	0	0
5:30 PM	0	7	20	0	0	0	14	43	0	0	0	0	0	131	0	9	224		0	0	0	0
5:45 PM	0	5	10	0	0	0	7	49	0	0	0	0	0	110	0	6	187		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	4
Lights	0	51	110	0	0	0	64	155	0	0	0	0	0	470	0	40	890
Mediums	0	1	2	0	0	0	18	18	0	0	0	0	0	5	0	7	51
Total	0	52	112	0	0	0	82	176	0	0	0	0	0	476	0	47	945

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.8%				15.1%				0.0%				2.5%			5.8%
Heavy Vehicle %	0.0%	1.9%	1.8%	0.0%	0.0%	0.0%	22.0%	11.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	14.9%	5.8%
Peak Hour Factor		0.68				0.85				0.00				0.91			0.90
Peak Hour Factor	0.00	0.71	0.90	0.00	0.00	0.00	0.79	0.95	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.62	0.90



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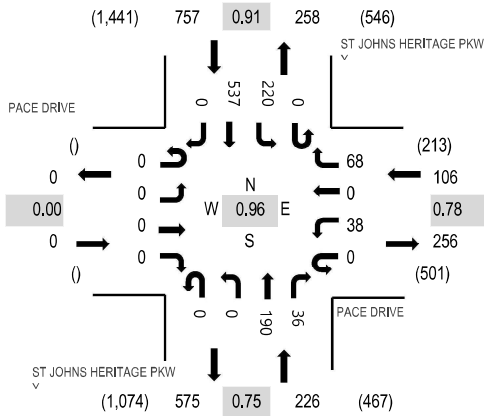
Location: 3 ST JOHNS HERITAGE PKWY & PACE DRIVE PM

Date: Tuesday, January 16, 2024

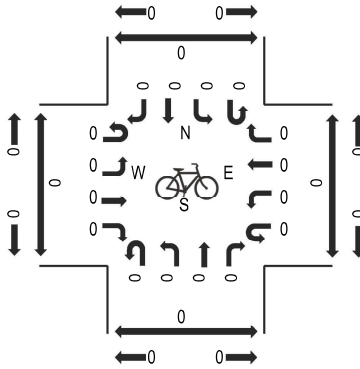
Peak Hour: 04:45 PM - 05:45 PM

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

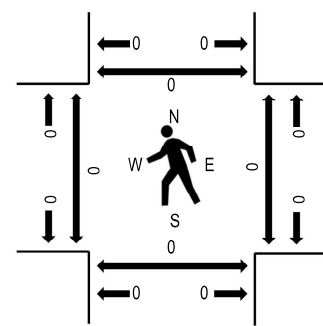
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PACE DRIVE Eastbound				PACE DRIVE Westbound				ST JOHNS HERITAGE PKWY Northbound				ST JOHNS HERITAGE PKWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	9	0	22	0	0	69	16	0	46	120	0	282	1,032	0	0	0	0
4:15 PM	0	0	0	0	0	3	0	17	0	0	39	4	0	55	106	0	224	1,027	0	0	0	0
4:30 PM	0	0	0	0	0	10	0	28	0	0	57	8	0	44	120	0	267	1,073	0	0	0	0
4:45 PM	0	0	0	0	0	7	0	12	0	0	54	9	0	48	129	0	259	1,089	0	0	0	0
5:00 PM	0	0	0	0	0	16	0	23	0	0	45	10	0	58	125	0	277	1,089	0	0	0	0
5:15 PM	0	0	0	0	0	7	0	18	0	0	55	6	0	52	132	0	270		0	0	0	0
5:30 PM	0	0	0	0	0	8	0	15	0	0	36	11	0	62	151	0	283		0	0	0	0
5:45 PM	0	0	0	0	0	5	0	13	0	0	43	5	0	67	126	0	259		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4
Lights	0	0	0	0	0	32	0	68	0	0	173	32	0	218	533	0	1,056
Mediums	0	0	0	0	0	6	0	0	0	0	14	4	0	2	3	0	29
Total	0	0	0	0	0	38	0	68	0	0	190	36	0	220	537	0	1,089

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	15.8%	0.0%	0.0%	0.0%	0.0%	8.9%	11.1%	0.0%	0.9%	0.7%	0.0%	3.0%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.72	0.00	0.00	0.79	0.58	0.00	0.89	0.89	0.00	0.96



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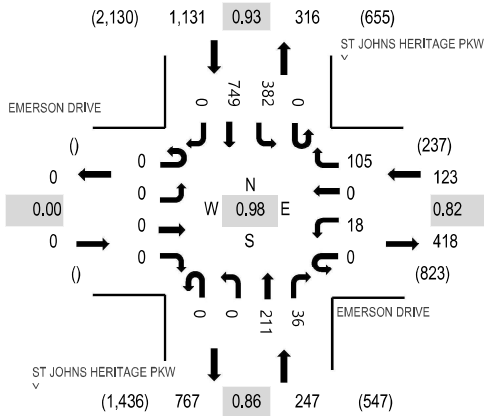
Location: 4 ST JOHNS HERITAGE PKWY & EMERSON DRIVE PM

Date: Tuesday, January 16, 2024

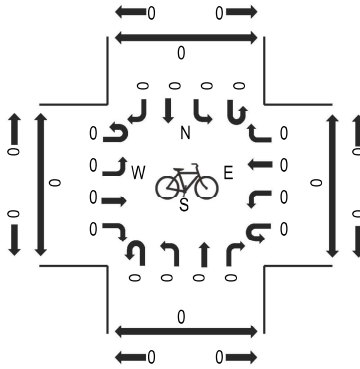
Peak Hour: 05:00 PM - 06:00 PM

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

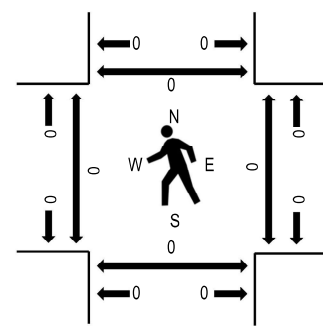
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	EMERSON DRIVE Eastbound				EMERSON DRIVE Westbound				ST JOHNS HERITAGE PKWY Northbound				ST JOHNS HERITAGE PKWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	4	0	25	0	0	66	21	0	80	157	0	353	1,413	0	0	0	0
4:15 PM	0	0	0	0	0	5	0	20	0	0	50	13	0	91	158	0	337	1,438	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	28	0	0	70	13	0	90	160	0	363	1,470	0	0	0	0
4:45 PM	0	0	0	0	0	6	0	24	0	0	56	11	0	86	177	0	360	1,490	0	0	0	0
5:00 PM	0	0	0	0	0	5	0	33	0	0	60	7	0	101	172	0	378	1,501	0	0	0	0
5:15 PM	0	0	0	0	0	3	0	23	0	0	58	15	0	88	182	0	369		0	0	0	0
5:30 PM	0	0	0	0	0	5	0	23	0	0	43	8	0	97	207	0	383		0	0	0	0
5:45 PM	0	0	0	0	0	5	0	26	0	0	50	6	0	96	188	0	371		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Lights	0	0	0	0	0	17	0	102	0	0	194	36	0	380	746	0	1,475
Mediums	0	0	0	0	0	1	0	3	0	0	15	0	0	2	3	0	24
Total	0	0	0	0	0	18	0	105	0	0	211	36	0	382	749	0	1,501

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	2.9%	0.0%	0.0%	8.1%	0.0%	0.0%	0.5%	0.4%	0.0%	1.7%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.82	0.00	0.00	0.87	0.69	0.00	0.95	0.90	0.00	0.98



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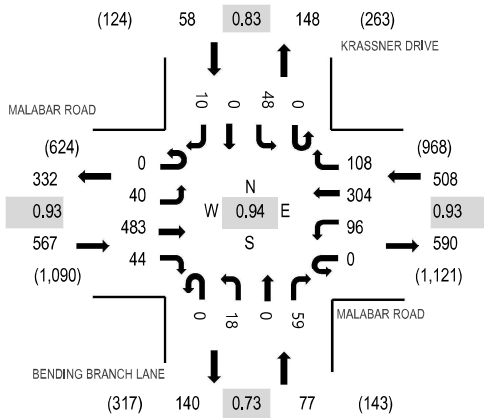
Location: 5 BENDING BRANCH LANE & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

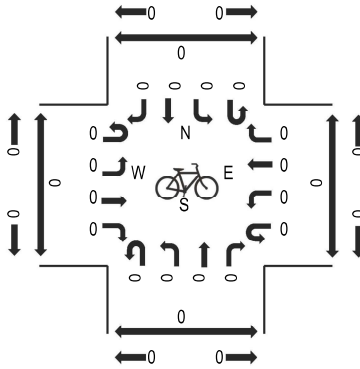
Peak Hour: 04:45 PM - 05:45 PM

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

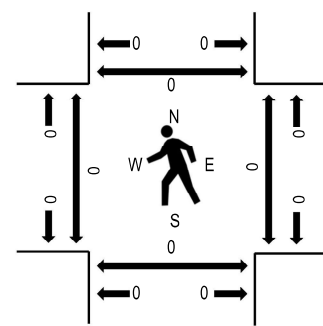
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				BENDING BRANCH LANE Northbound				KRASSNER DRIVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	10	134	15	0	26	66	13	0	6	2	10	0	13	0	3	298	1,130	0	0	0	0
4:15 PM	0	14	112	15	0	28	71	21	0	3	0	12	0	16	0	4	296	1,153	0	0	0	0
4:30 PM	0	6	96	9	0	29	59	21	0	6	1	12	0	8	0	3	250	1,162	0	0	0	0
4:45 PM	0	8	109	10	0	26	74	36	0	2	0	7	0	9	0	5	286	1,210	0	0	0	0
5:00 PM	0	12	124	16	0	17	90	25	0	7	0	16	0	13	0	1	321	1,195	0	0	0	0
5:15 PM	0	11	128	7	0	24	73	21	0	4	0	24	0	11	0	2	305		0	0	0	0
5:30 PM	0	9	122	11	0	29	67	26	0	5	0	12	0	15	0	2	298		0	0	0	0
5:45 PM	0	8	92	12	0	43	64	19	0	3	0	11	0	15	0	4	271		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Lights	0	38	474	44	0	95	268	106	0	16	0	58	0	47	0	10	1,156
Mediums	0	2	8	0	0	1	34	2	0	2	0	1	0	1	0	0	51
Total	0	40	483	44	0	96	304	108	0	18	0	59	0	48	0	10	1,210

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.9%				7.7%				3.9%				1.7%			4.5%
Heavy Vehicle %	0.0%	5.0%	1.9%	0.0%	0.0%	1.0%	11.8%	1.9%	0.0%	11.1%	0.0%	1.7%	0.0%	2.1%	0.0%	0.0%	4.5%
Peak Hour Factor		0.93				0.93				0.73				0.83			0.94
Peak Hour Factor	0.00	0.71	0.94	0.78	0.00	0.66	0.84	0.75	0.00	0.68	0.38	0.66	0.00	0.90	0.00	0.75	0.94



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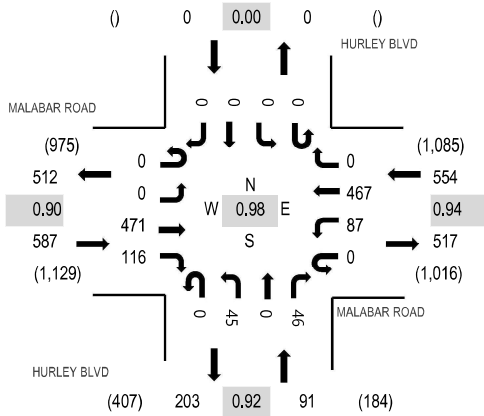
Location: 6 HURLEY BLVD & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

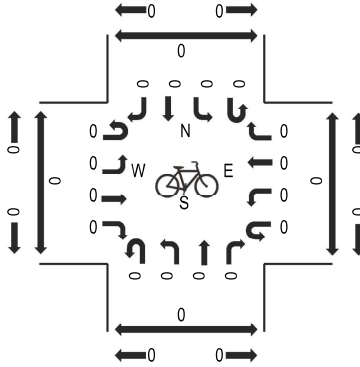
Peak Hour: 04:45 PM - 05:45 PM

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

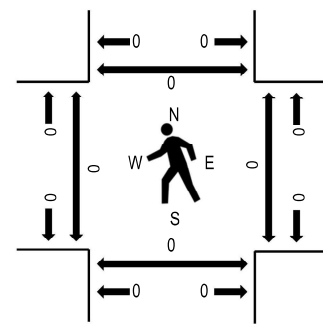
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				HURLEY BLVD Northbound				HURLEY BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	140	24	0	24	97	0	0	9	0	15	0	0	0	0	309	1,183	0	0	0	0
4:15 PM	0	0	110	31	0	25	114	0	0	7	0	17	0	0	0	0	304	1,188	0	0	0	0
4:30 PM	0	0	91	25	0	25	106	0	0	4	0	17	0	0	0	0	268	1,197	0	0	0	0
4:45 PM	0	0	102	24	0	24	126	0	0	11	0	15	0	0	0	0	302	1,232	0	0	0	0
5:00 PM	0	0	116	31	0	23	119	0	0	15	0	10	0	0	0	0	314	1,215	0	0	0	0
5:15 PM	0	0	134	29	0	24	109	0	0	10	0	7	0	0	0	0	313		0	0	0	0
5:30 PM	0	0	119	32	0	16	113	0	0	9	0	14	0	0	0	0	303		0	0	0	0
5:45 PM	0	0	96	25	0	25	115	0	0	11	0	13	0	0	0	0	285		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0	0	0	0	2	0	0	0	0	5
Lights	0	0	461	116	0	86	435	0	0	38	0	44	0	0	0	0	1,180
Mediums	0	0	9	0	0	1	30	0	0	7	0	0	0	0	0	0	47
Total	0	0	471	116	0	87	467	0	0	45	0	46	0	0	0	0	1,232

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.7%				6.0%				9.9%				0.0%			4.2%
Heavy Vehicle %	0.0%	0.0%	2.1%	0.0%	0.0%	1.1%	6.9%	0.0%	0.0%	15.6%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	4.2%
Peak Hour Factor		0.90				0.94				0.92				0.00			0.98
Peak Hour Factor	0.00	0.00	0.88	0.91	0.00	0.98	0.93	0.00	0.00	0.75	0.00	0.94	0.00	0.00	0.00	0.00	0.98



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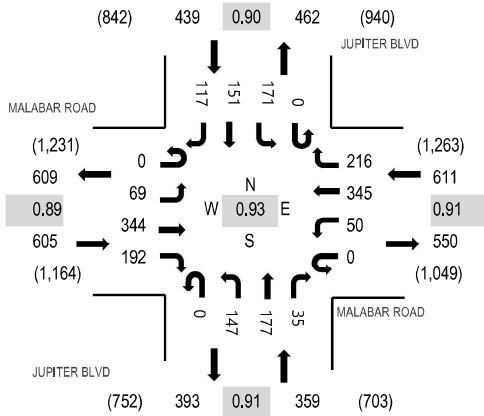
Location: 7 JUPITER BLVD & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

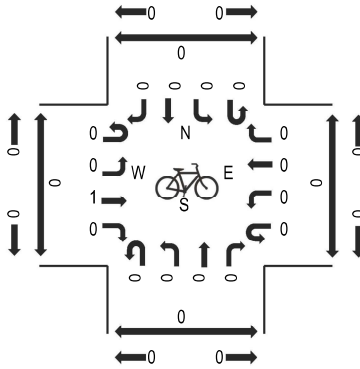
Peak Hour: 04:45 PM - 05:45 PM

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

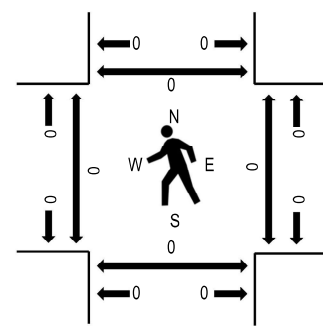
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				JUPITER BLVD Northbound				JUPITER BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	24	94	47	0	16	90	66	0	36	42	3	0	38	34	26	516	1,963	0	0	0	0
4:15 PM	0	18	85	49	0	15	105	58	0	26	49	11	0	25	31	33	505	1,911	0	1	0	0
4:30 PM	0	15	70	37	0	10	82	53	0	35	47	7	0	34	36	39	465	1,945	0	0	0	0
4:45 PM	0	16	70	51	0	8	94	49	0	36	44	6	0	40	27	36	477	2,014	0	0	0	0
5:00 PM	0	17	83	36	0	11	95	50	0	33	38	8	0	29	40	24	464	2,009	0	0	0	0
5:15 PM	0	19	95	55	0	16	75	57	0	37	49	13	0	49	44	30	539		0	0	0	0
5:30 PM	0	17	96	50	0	15	81	60	0	41	46	8	0	53	40	27	534		0	0	0	0
5:45 PM	0	12	75	33	0	20	87	50	0	29	44	15	0	42	31	34	472		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	4
Lights	0	68	336	190	0	48	328	216	0	136	175	32	0	170	146	115	1,960
Mediums	0	1	6	2	0	2	17	0	0	10	2	3	0	1	4	2	50
Total	0	69	344	192	0	50	345	216	0	147	177	35	0	171	151	117	2,014

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		1.8%				3.1%				4.5%				1.8%			2.7%
Heavy Vehicle %	0.0%	1.4%	2.3%	1.0%	0.0%	4.0%	4.9%	0.0%	0.0%	7.5%	1.1%	8.6%	0.0%	0.6%	3.3%	1.7%	2.7%
Peak Hour Factor		0.89				0.91				0.91				0.90			0.93
Peak Hour Factor	0.00	0.76	0.91	0.87	0.00	0.78	0.90	0.86	0.00	0.90	0.93	0.73	0.00	0.82	0.88	0.86	0.93



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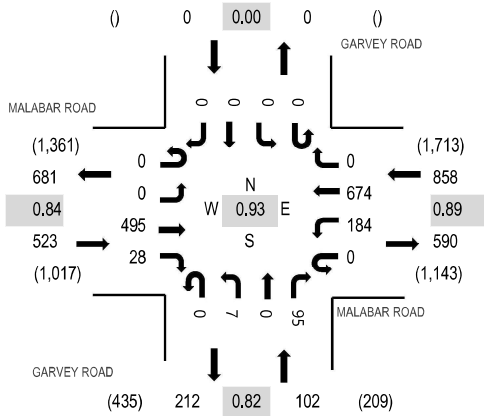
Location: 8 GARVEY ROAD & MALABAR ROAD PM

Date: Tuesday, January 16, 2024

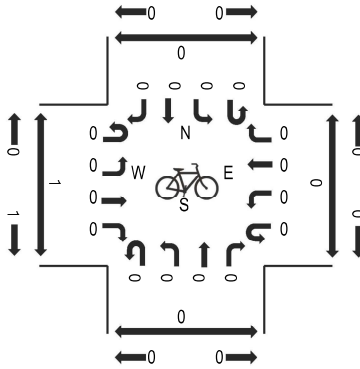
Peak Hour: 05:00 PM - 06:00 PM

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

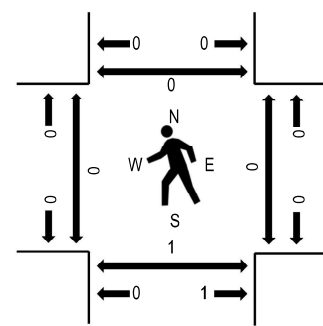
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MALABAR ROAD Eastbound				MALABAR ROAD Westbound				GARVEY ROAD Northbound				GARVEY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	126	8	0	46	169	0	0	4	0	27	0	0	0	0	380	1,456	0	0	0	0
4:15 PM	0	0	115	9	0	42	200	0	0	2	0	21	0	0	0	0	389	1,435	0	0	0	0
4:30 PM	0	0	119	7	0	58	151	0	0	4	0	23	0	0	0	0	362	1,446	0	0	0	0
4:45 PM	0	0	99	11	0	42	147	0	0	3	0	23	0	0	0	0	325	1,459	0	0	0	0
5:00 PM	0	0	93	9	0	52	171	0	0	1	0	33	0	0	0	0	359	1,483	0	0	0	0
5:15 PM	0	0	146	9	0	52	168	0	0	3	0	22	0	0	0	0	400		0	0	0	0
5:30 PM	0	0	134	7	0	38	173	0	0	1	0	22	0	0	0	0	375		0	0	0	0
5:45 PM	0	0	122	3	0	42	162	0	0	2	0	18	0	0	0	0	349		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lights	0	0	483	28	0	182	660	0	0	7	0	92	0	0	0	0	1,452
Mediums	0	0	10	0	0	2	14	0	0	0	0	3	0	0	0	0	29
Total	0	0	495	28	0	184	674	0	0	7	0	95	0	0	0	0	1,483

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	2.3%				1.9%				2.9%				0.0%				2.1%
Heavy Vehicle %	0.0%	0.0%	2.4%	0.0%	0.0%	1.1%	2.1%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%
Peak Hour Factor	0.84				0.89				0.82				0.00				0.93
Peak Hour Factor	0.00	0.00	0.85	0.82	0.00	0.88	0.97	0.00	0.00	0.81	0.00	0.77	0.00	0.00	0.00	0.00	0.93



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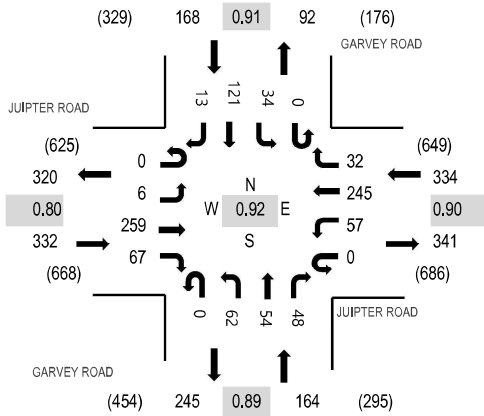
Location: 9 GARVEY ROAD & JUIPTER ROAD PM

Date: Tuesday, January 16, 2024

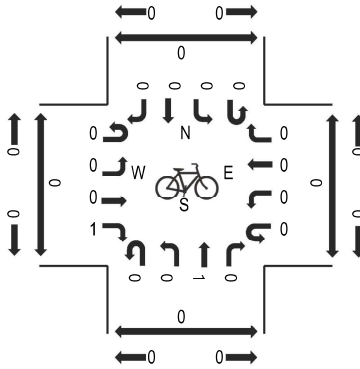
Peak Hour: 04:45 PM - 05:45 PM

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

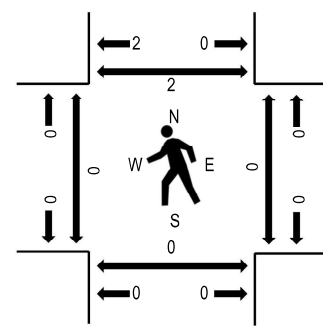
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	JUIPTER ROAD Eastbound				JUIPTER ROAD Westbound				GARVEY ROAD Northbound				GARVEY ROAD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	90	13	0	8	62	7	0	8	15	9	0	7	29	0	249	978	0	0	0	0
4:15 PM	0	1	71	15	0	8	69	6	0	11	9	12	0	11	26	2	241	965	0	0	0	0
4:30 PM	0	1	58	13	0	11	62	10	0	19	18	10	0	7	38	6	253	994	0	0	0	0
4:45 PM	0	2	56	13	0	11	65	11	0	11	15	8	0	10	31	2	235	998	0	0	0	2
5:00 PM	0	2	62	14	0	13	48	7	0	16	15	13	0	7	33	6	236	963	0	0	0	0
5:15 PM	0	1	71	18	0	12	66	8	0	23	13	13	0	9	33	3	270		0	0	0	0
5:30 PM	0	1	70	22	0	21	66	6	0	12	11	14	0	8	24	2	257		0	0	0	0
5:45 PM	0	2	57	14	0	11	54	7	0	9	7	4	0	9	23	3	200		0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
Lights	0	5	251	67	0	57	238	30	0	59	52	44	0	33	118	13	967
Mediums	0	1	6	0	0	0	6	2	0	3	2	4	0	1	3	0	28
Total	0	6	259	67	0	57	245	32	0	62	54	48	0	34	121	13	998

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	2.7%				2.7%				5.5%				2.4%				3.1%
Heavy Vehicle %	0.0%	16.7%	3.1%	0.0%	0.0%	0.0%	2.9%	6.3%	0.0%	4.8%	3.7%	8.3%	0.0%	2.9%	2.5%	0.0%	3.1%
Peak Hour Factor	0.80				0.90				0.89				0.91				0.92
Peak Hour Factor	0.00	0.75	0.76	0.77	0.00	0.68	0.93	0.82	0.00	0.75	0.85	0.86	0.00	0.80	0.89	0.71	0.92

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Page 1

Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	15-Jan-24 Mon	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	52			6	56				
12:15		5	61			5	58				
12:30		8	70			2	65				
12:45		7	61	31	244	3	62	16	241	47	485
01:00		4	46			4	63				
01:15		4	78			5	64				
01:30		2	46			5	46				
01:45		6	59	16	229	2	35	16	208	32	437
02:00		3	45			1	58				
02:15		1	71			2	55				
02:30		8	54			1	41				
02:45		3	69	15	239	1	42	5	196	20	435
03:00		3	63			0	42				
03:15		3	54			8	48				
03:30		4	61			8	37				
03:45		2	70	12	248	8	30	24	157	36	405
04:00		5	106			9	40				
04:15		3	102			12	34				
04:30		2	81			11	44				
04:45		2	81	12	370	13	53	45	171	57	541
05:00		5	101			20	38				
05:15		4	113			24	40				
05:30		7	103			36	35				
05:45		5	84	21	401	43	35	123	148	144	549
06:00		3	59			61	38				
06:15		12	61			53	30				
06:30		6	48			82	33				
06:45		16	50	37	218	79	28	275	129	312	347
07:00		23	38			87	27				
07:15		23	47			122	32				
07:30		26	30			102	18				
07:45		34	36	106	151	82	37	393	114	499	265
08:00		36	30			61	21				
08:15		31	19			69	11				
08:30		24	23			55	16				
08:45		28	20	119	92	50	17	235	65	354	157
09:00		44	14			45	11				
09:15		28	24			59	10				
09:30		53	19			55	8				
09:45		42	13	167	70	64	10	223	39	390	109
10:00		44	8			52	9				
10:15		37	13			60	3				
10:30		55	9			50	10				
10:45		45	10	181	40	64	3	226	25	407	65
11:00		57	13			54	5				
11:15		41	4			56	3				
11:30		49	9			53	4				
11:45		45	12	192	38	57	4	220	16	412	54
Total		909	2340			1801	1509			2710	3849
Percent		28.0%	72.0%			54.4%	45.6%			41.3%	58.7%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	16-Jan-24 Tue	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	42			4	51				
12:15		4	41			1	42				
12:30		6	43			3	42				
12:45		4	54	21	180	2	57	10	192	31	372
01:00		2	47			2	53				
01:15		2	83			0	55				
01:30		3	36			1	52				
01:45		4	54	11	220	2	47	5	207	16	427
02:00		5	79			2	41				
02:15		0	64			0	60				
02:30		7	67			1	56				
02:45		1	66	13	276	0	76	3	233	16	509
03:00		4	64			2	81				
03:15		4	80			4	87				
03:30		3	123			7	64				
03:45		2	185	13	452	4	64	17	296	30	748
04:00		3	152			8	60				
04:15		3	140			14	62				
04:30		5	118			13	56				
04:45		1	127	12	537	10	71	45	249	57	786
05:00		5	160			21	92				
05:15		2	146			35	72				
05:30		8	152			52	64				
05:45		3	117	18	575	52	58	160	286	178	861
06:00		11	118			81	46				
06:15		17	82			95	46				
06:30		30	77			108	39				
06:45		39	62	97	339	118	32	402	163	499	502
07:00		40	44			160	30				
07:15		47	43			179	21				
07:30		42	50			171	27				
07:45		45	32	174	169	180	19	690	97	864	266
08:00		63	33			206	26				
08:15		106	37			239	17				
08:30		115	24			225	17				
08:45		88	33	372	127	77	16	747	76	1119	203
09:00		43	27			89	15				
09:15		60	34			82	16				
09:30		45	16			58	10				
09:45		43	24	191	101	57	18	286	59	477	160
10:00		29	24			55	11				
10:15		61	21			58	13				
10:30		51	8			55	11				
10:45		40	11	181	64	58	5	226	40	407	104
11:00		45	9			53	4				
11:15		37	17			57	2				
11:30		46	13			51	2				
11:45		38	8	166	47	45	4	206	12	372	59
Total		1269	3087			2797	1910			4066	4997
Percent		29.1%	70.9%			59.4%	40.6%			44.9%	55.1%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	17-Jan-24 Wed	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	60			1	54				
12:15		6	56			4	51				
12:30		7	43			3	68				
12:45		5	60	23	219	1	63	9	236	32	455
01:00		5	69			2	58				
01:15		2	61			0	59				
01:30		3	56			1	54				
01:45		4	73	14	259	3	66	6	237	20	496
02:00		3	68			1	59				
02:15		0	60			3	58				
02:30		0	64			2	62				
02:45		4	60	7	252	3	62	9	241	16	493
03:00		3	61			0	107				
03:15		2	89			6	97				
03:30		4	177			3	76				
03:45		3	176	12	503	10	74	19	354	31	857
04:00		2	155			6	76				
04:15		2	138			20	71				
04:30		4	135			14	69				
04:45		1	151	9	579	20	86	60	302	69	881
05:00		1	142			21	108				
05:15		3	147			30	98				
05:30		5	166			59	81				
05:45		5	146	14	601	53	72	163	359	177	960
06:00		10	139			64	65				
06:15		22	116			88	67				
06:30		27	100			111	53				
06:45		48	50	107	405	129	43	392	228	499	633
07:00		46	56			172	48				
07:15		30	54			177	25				
07:30		43	57			194	29				
07:45		52	44	171	211	186	36	729	138	900	349
08:00		63	59			187	28				
08:15		92	41			235	29				
08:30		132	52			242	22				
08:45		68	42	355	194	86	7	750	86	1105	280
09:00		42	31			83	15				
09:15		55	35			79	10				
09:30		58	19			78	9				
09:45		46	17	201	102	65	6	305	40	506	142
10:00		61	13			70	10				
10:15		47	10			64	13				
10:30		38	12			63	10				
10:45		41	17	187	52	62	9	259	42	446	94
11:00		53	10			74	2				
11:15		61	13			60	5				
11:30		45	13			63	1				
11:45		59	4	218	40	51	4	248	12	466	52
Total		1318	3417			2949	2275			4267	5692
Percent		27.8%	72.2%			56.5%	43.5%			42.8%	57.2%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	18-Jan-24 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	48			2	42				
12:15		11	56			4	69				
12:30		6	61			2	69				
12:45		3	43	25	208	4	70	12	250	37	458
01:00		6	76			4	60				
01:15		4	52			3	63				
01:30		2	50			1	73				
01:45		2	68	14	246	2	50	10	246	24	492
02:00		3	79			2	48				
02:15		2	72			1	67				
02:30		0	79			5	52				
02:45		4	60	9	290	4	82	12	249	21	539
03:00		3	72			5	91				
03:15		3	87			4	112				
03:30		1	185			5	78				
03:45		1	193	8	537	6	73	20	354	28	891
04:00		2	129			10	83				
04:15		6	125			9	74				
04:30		3	136			12	81				
04:45		2	137	13	527	15	81	46	319	59	846
05:00		3	154			27	66				
05:15		3	169			30	80				
05:30		6	149			41	80				
05:45		9	149	21	621	48	66	146	292	167	913
06:00		8	144			71	64				
06:15		20	129			94	61				
06:30		37	69			97	72				
06:45		40	58	105	400	113	43	375	240	480	640
07:00		36	59			169	45				
07:15		55	63			208	21				
07:30		43	44			205	31				
07:45		48	33	182	199	142	25	724	122	906	321
08:00		66	37			213	34				
08:15		89	34			280	13				
08:30		144	28			229	10				
08:45		103	40	402	139	94	17	816	74	1218	213
09:00		49	28			65	21				
09:15		47	27			64	8				
09:30		34	24			58	11				
09:45		39	31	169	110	68	10	255	50	424	160
10:00		48	19			64	7				
10:15		48	17			65	12				
10:30		42	17			54	13				
10:45		25	18	163	71	56	10	239	42	402	113
11:00		43	14			68	8				
11:15		36	11			56	7				
11:30		47	21			56	8				
11:45		71	17	197	63	51	7	231	30	428	93
Total		1308	3411			2886	2268			4194	5679
Percent		27.7%	72.3%			56.0%	44.0%			42.5%	57.5%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	19-Jan-24 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	53			3	48				
12:15		6	85			3	81				
12:30		8	74			1	66				
12:45		10	72	29	284	3	58	10	253	39	537
01:00		2	76			2	60				
01:15		5	61			3	55				
01:30		1	80			0	96				
01:45		2	71	10	288	3	100	8	311	18	599
02:00		3	78			2	120				
02:15		4	143			3	89				
02:30		2	189			3	92				
02:45		0	107	9	517	1	81	9	382	18	899
03:00		3	79			4	69				
03:15		4	96			8	78				
03:30		5	106			3	86				
03:45		1	138	13	419	8	95	23	328	36	747
04:00		1	123			4	84				
04:15		3	141			10	67				
04:30		1	124			17	87				
04:45		2	132	7	520	13	72	44	310	51	830
05:00		3	118			22	67				
05:15		3	136			27	70				
05:30		4	118			38	61				
05:45		6	126	16	498	50	59	137	257	153	755
06:00		7	101			69	55				
06:15		20	91			83	45				
06:30		22	63			101	55				
06:45		35	56	84	311	107	35	360	190	444	501
07:00		47	47			138	40				
07:15		41	49			171	28				
07:30		41	48			156	42				
07:45		49	40	178	184	173	36	638	146	816	330
08:00		69	47			195	26				
08:15		111	38			270	25				
08:30		138	38			235	21				
08:45		77	29	395	152	82	19	782	91	1177	243
09:00		50	35			70	18				
09:15		43	27			82	19				
09:30		53	30			72	15				
09:45		40	24	186	116	59	22	283	74	469	190
10:00		48	23			43	17				
10:15		60	15			55	11				
10:30		38	22			90	8				
10:45		48	22	194	82	61	9	249	45	443	127
11:00		57	13			54	6				
11:15		55	8			44	13				
11:30		56	21			70	9				
11:45		69	11	237	53	57	10	225	38	462	91
Total		1358	3424			2768	2425			4126	5849
Percent		28.4%	71.6%			53.3%	46.7%			41.4%	58.6%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	20-Jan-24 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		17	56			2	90				
12:15		7	81			2	94				
12:30		9	84			6	83				
12:45		4	78	37	299	5	80	15	347	52	646
01:00		10	87			3	68				
01:15		2	70			1	77				
01:30		5	59			3	67				
01:45		1	69	18	285	2	74	9	286	27	571
02:00		6	62			3	65				
02:15		3	77			3	76				
02:30		3	85			3	84				
02:45		1	55	13	279	5	78	14	303	27	582
03:00		4	62			2	54				
03:15		2	74			2	48				
03:30		3	84			5	55				
03:45		3	92	12	312	5	70	14	227	26	539
04:00		2	71			4	60				
04:15		2	81			7	69				
04:30		2	71			14	79				
04:45		2	66	8	289	9	65	34	273	42	562
05:00		2	84			9	80				
05:15		2	92			16	67				
05:30		3	85			11	54				
05:45		4	66	11	327	14	51	50	252	61	579
06:00		6	71			14	36				
06:15		8	57			18	41				
06:30		9	70			33	39				
06:45		4	50	27	248	24	25	89	141	116	389
07:00		10	38			28	34				
07:15		27	46			39	32				
07:30		35	37			63	30				
07:45		26	65	98	186	42	22	172	118	270	304
08:00		30	35			60	27				
08:15		30	27			83	22				
08:30		37	24			54	21				
08:45		32	35	129	121	61	20	258	90	387	211
09:00		30	19			61	14				
09:15		36	24			63	15				
09:30		53	32			64	14				
09:45		35	23	154	98	65	15	253	58	407	156
10:00		48	17			77	11				
10:15		76	13			94	16				
10:30		69	18			76	14				
10:45		56	16	249	64	83	8	330	49	579	113
11:00		58	18			83	6				
11:15		81	16			67	17				
11:30		58	23			88	4				
11:45		57	17	254	74	82	11	320	38	574	112
Total		1010	2582			1558	2182			2568	4764
Percent		28.1%	71.9%			41.7%	58.3%			35.0%	65.0%

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Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	21-Jan-24 Sun	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	34			7	52				
12:15		11	22			6	68				
12:30		10	45			2	57				
12:45		8	41	43	142	4	63	19	240	62	382
01:00		4	37			5	70				
01:15		13	51			3	60				
01:30		7	80			2	72				
01:45		3	61	27	229	5	60	15	262	42	491
02:00		4	80			2	67				
02:15		5	70			4	43				
02:30		3	59			3	57				
02:45		5	45	17	254	5	46	14	213	31	467
03:00		2	57			1	57				
03:15		1	44			4	51				
03:30		2	64			4	46				
03:45		1	65	6	230	5	45	14	199	20	429
04:00		1	50			1	43				
04:15		2	66			5	57				
04:30		1	75			10	37				
04:45		2	68	6	259	9	48	25	185	31	444
05:00		4	49			5	49				
05:15		0	52			12	40				
05:30		3	50			8	31				
05:45		5	46	12	197	14	53	39	173	51	370
06:00		9	46			11	33				
06:15		2	42			19	36				
06:30		5	37			16	36				
06:45		7	40	23	165	20	25	66	130	89	295
07:00		10	35			25	26				
07:15		12	45			29	30				
07:30		17	25			39	15				
07:45		22	25	61	130	20	17	113	88	174	218
08:00		16	33			37	18				
08:15		14	32			49	14				
08:30		25	20			39	18				
08:45		21	19	76	104	36	14	161	64	237	168
09:00		20	21			52	9				
09:15		28	25			86	13				
09:30		18	17			65	8				
09:45		35	15	101	78	45	10	248	40	349	118
10:00		20	23			58	11				
10:15		42	19			77	5				
10:30		39	11			60	15				
10:45		34	13	135	66	53	6	248	37	383	103
11:00		46	10			72	10				
11:15		89	26			90	7				
11:30		57	19			70	3				
11:45		42	11	234	66	63	7	295	27	529	93
Total		741	1920			1257	1658			1998	3578
Percent		27.8%	72.2%			43.1%	56.9%			35.8%	64.2%
Grand Total		7913	20181			16016	14227			23929	34408
Percent		28.2%	71.8%			53.0%	47.0%			41.0%	59.0%

ADT ADT 8,334 AADT 8,334

ALL TRAFFIC DATA SERVICES

alltrafficdata.net

Site Code: 1
Station ID: 1
MALABAR ROAD WEST OF
THUNDERBIRD AVENUE

Start Time	15-Jan-24		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	31	16	21	10	23	9	25	12	29	10	37	15	43	19	30	13
01:00	16	16	11	5	14	6	14	10	10	8	18	9	27	15	16	10
02:00	15	5	13	3	7	9	9	12	9	9	13	14	17	14	12	9
03:00	12	24	13	17	12	19	8	20	13	23	12	14	6	14	11	19
04:00	12	45	12	45	9	60	13	46	7	44	8	34	6	25	10	43
05:00	21	123	18	160	14	163	21	146	16	137	11	50	12	39	16	117
06:00	37	275	97	402	107	392	105	375	84	360	27	89	23	66	69	280
07:00	106	393	174	690	171	729	182	724	178	638	98	172	61	113	139	494
08:00	119	235	372	747	355	750	402	816	395	782	129	258	76	161	264	536
09:00	167	223	191	286	201	305	169	255	186	283	154	253	101	248	167	265
10:00	181	226	181	226	187	259	163	239	194	249	249	330	135	248	184	254
11:00	192	220	166	206	218	248	197	231	237	225	254	320	234	295	214	249
12:00 PM	244	241	180	192	219	236	208	250	284	253	299	347	142	240	225	251
01:00	229	208	220	207	259	237	246	246	288	311	285	286	229	262	251	251
02:00	239	196	276	233	252	241	290	249	517	382	279	303	254	213	301	260
03:00	248	157	452	296	503	354	537	354	419	328	312	227	230	199	386	274
04:00	370	171	537	249	579	302	527	319	520	310	289	273	259	185	440	258
05:00	401	148	575	286	601	359	621	292	498	257	327	252	197	173	460	252
06:00	218	129	339	163	405	228	400	240	311	190	248	141	165	130	298	174
07:00	151	114	169	97	211	138	199	122	184	146	186	118	130	88	176	118
08:00	92	65	127	76	194	86	139	74	152	91	121	90	104	64	133	78
09:00	70	39	101	59	102	40	110	50	116	74	98	58	78	40	96	51
10:00	40	25	64	40	52	42	71	42	82	45	64	49	66	37	63	40
11:00	38	16	47	12	40	12	63	30	53	38	74	38	66	27	54	25
Lane	3249	3310	4356	4707	4735	5224	4719	5154	4782	5193	3592	3740	2661	2915	4015	4321
Day	6559		9063		9959		9873		9975		7332		5576		8336	
AM Peak Vol.	11:00	07:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	11:00	10:00	11:00	11:00	08:00	08:00
	192	393	372	747	355	750	402	816	395	782	254	330	234	295	264	536
PM Peak Vol.	17:00	12:00	17:00	15:00	17:00	17:00	17:00	15:00	16:00	14:00	17:00	12:00	16:00	13:00	17:00	15:00
	401	241	575	296	601	359	621	354	520	382	327	347	259	262	460	274

Comb. Total	6559	9063	9959	9873	9975	7332	5576	8336
ADT	ADT 8,334	ADT 8,334						

Segments Functional Classification, Maximum Acceptable Volume (MAV) and Level of Service (LOS)

ID	Road	From	To	Functional Classification	Existing Volume 2020 or Most Recent	Existing MAV	Existing Vol/MAV	Acceptable LOS*
322	ELLIS	JOHN RODES	EAST DRIVE	Urban Minor Arterial	15,968	15,600	1.02	E
321	ELLIS	EAST DRIVE	WICKHAM	Urban Minor Arterial	15,209	15,600	0.97	E
551	EMERSON	JUPITER	MALABAR	Urban Minor Arterial	15,386	39,800	0.39	D
552	EMERSON	MALABAR	AMERICANA BLVD.	Urban Minor Arterial	8,960	17,700	0.51	D
553	EMERSON	AMERICANA BLVD.	CULVER	Urban Minor Arterial	8,762	17,700	0.50	D
554	EMERSON	CULVER	MINTON	Urban Minor Arterial	4,504	17,700	0.25	D
555	EMERSON	MINTON	JUPITER	Urban Minor Arterial	21,447	39,800	0.54	D
616	EMERSON	JUPITER	SJHP	Urban Major Collector	11,619	17,700	0.66	D
316	EVANS	US 192	HIBISCUS	Urban Minor Arterial	17,640	39,800	0.44	D
319	EVANS	HIBISCUS	NASA	Urban Minor Arterial	15,545	39,800	0.39	D
556	FLEMING GRANT	KIWI DR	MICCO	Rural Minor Collector	1,460	14,200	0.10	D
579	GATEWAY DR	HIBISCUS	NASA	Urban Minor Collector	3,109	33,800	0.09	E
558	GRANT	BABCOCK	OLD DMIE	Rural Major Collector	2,959	14,200	0.21	D
566	HARLOCK	AURORA	LAKE WASHINGTON	Urban Minor Collector	3,081	15,600	0.20	E
585	HENRY	MINTON RD	HOLLYWOOD	Urban Major Collector	10,209	15,600	0.65	E
591	HENRY	HOLLYWOOD	DAIRY	Urban Major Collector	6,054	15,600	0.39	E
559	HIBISCUS BLVD	EVANS	DAIRY	Urban Minor Arterial	13,723	39,800	0.34	D
560	HIBISCUS BLVD	DAIRY	BABCOCK	Urban Minor Arterial	13,635	33,800	0.40	E
561	HIBISCUS BLVD	BABCOCK	APOLLO	Urban Minor Arterial	13,313	33,800	0.39	E
587	HICKORY	US 192	FEE	Urban Major Collector	969	15,600	0.06	E
588	HICKORY	FEE	HIBISCUS	Urban Major Collector	1,004	15,600	0.06	E
580	HICKORY	HIBISCUS	NASA	Urban Major Collector	3,584	15,600	0.23	E
318	HOLLYWOOD	PALM BAY RD	EBER	Urban Minor Arterial	13,754	17,700	0.78	D
317	HOLLYWOOD	EBER	FLORIDA/WINGATE	Urban Minor Arterial	12,842	17,700	0.73	D
374	HOLLYWOOD	FLORIDA/WINGATE	HENRY	Urban Minor Arterial	10,708	17,700	0.60	E
316	HOLLYWOOD	HENRY	US 192	Urban Minor Arterial	11,258	15,600	0.72	E
354	INTERLACHEN	ST. ANDREWS	BAYTREE	Urban Minor Collector	4,867	15,600	0.31	E
353	INTERLACHEN	BAYTREE	WICKHAM	Urban Minor Collector	5,934	15,600	0.38	E
511	JOHN RODES	US 192	SHERIDAN	Urban Minor Arterial	6,723	17,700	0.38	D
504	JOHN RODES	SHERIDAN	ELLIS	Urban Minor Arterial	7,055	17,700	0.40	D
505	JOHN RODES	ELLIS	EAU GALLIE	Urban Minor Arterial	9,400	17,700	0.53	D
506	JOHN RODES	EAU GALLIE	AURORA	Urban Major Collector	9,565	15,600	0.61	E
323	JORDAN BLASS	ST ANDREWS (J BLASS)	WICKHAM	Urban Minor Collector	3,924	15,600	0.25	E
617	JUPITER BLVD	SAN FILIPPO	EMERSON	Urban Minor Collector	10,526	15,600	0.67	E
618	JUPITER BLVD	EMERSON	ELDRON BLVD	Urban Minor Arterial	9,947	17,700	0.56	D
619	JUPITER BLVD	ELDRON BLVD	DEGROODT	Urban Minor Arterial	11,921	17,700	0.67	D
573	JUPITER BLVD	DEGROODT	MALABAR	Urban Minor Arterial	7,205	17,700	0.41	D
620	JUPITER BLVD	MALABAR	AMERICANA	Urban Minor Arterial	11,237	17,700	0.63	D
574	JUPITER BLVD	AMERICANA	PACE	Urban Minor Arterial	11,785	17,700	0.67	D
621	JUPITER BLVD	PACE	EMERSON	Urban Minor Arterial	10,832	17,700	0.61	D
612	LAKE ANDREW	STROM PARK	TRAFFORD	Urban Local	4,365	15,600	0.28	E
605	LAKE ANDREW	TRAFFORD	IVANHOE	Urban Local	5,665	39,800	0.14	D
79	LAKE ANDREW	IVANHOE DR	WICKHAM	Urban Major Collector	10,392	39,800	0.26	D
351	LAKE WASHINGTON	THE LAKE	HARLOCK	Urban Minor Collector	5,238	17,700	0.30	D
344	LAKE WASHINGTON	HARLOCK	TURTLEMOUND	Urban Minor Collector	4,132	17,700	0.23	D
338	LAKE WASHINGTON	TURTLEMOUND	WICKHAM	Urban Major Collector	8,332	17,700	0.47	D
557	MAIN	CENTRAL STREET	US 1	Urban Major Collector	2,236	15,600	0.14	E

Segments Functional Classification, Maximum Acceptable Volume (MAV) and Level of Service (LOS)

ID	Road	From	To	Functional Classification	Existing Volume 2020 or Most Recent	Existing MAV	Existing Vol/MAV	Acceptable LOS*
589	MALABAR	SJHP	JUPITER	Urban Minor Arterial	9,532	17,700	0.54	D
371	MALABAR	JUPITER	MINTON	Urban Principal Arterial-Other	16,865	17,700	0.95	D
491	MALABAR	MINTON	EMERSON	Urban Principal Arterial-Other	22,111	39,800	0.56	D
513	MALABAR	EMERSON	SAN FILIPPO	Urban Principal Arterial-Other	29,927	50,900	0.59	E
492	MALABAR	SAN FILIPPO	I-95	Urban Principal Arterial-Other	49,770	50,900	0.98	E
493	MALABAR	I-95	BABCOCK	Urban Principal Arterial-Other	38,183	59,900	0.64	D
494	MALABAR (SR 514)	BABCOCK	COREY	Urban Minor Arterial	15,812	24,200	0.65	D
516	MALABAR (SR 514)	COREY	US 1	Urban Minor Arterial	8,202	14,800	0.55	D
598	MELBOURNE AVE	US 1 OVERPASS	FRONT STREET	Urban Minor Collector	3,107	15,600	0.20	E
519	MICCO	BABCOCK	DOTTIE DRIVE	Rural Major Collector	2,319	14,200	0.16	D
520	MICCO	DOTTIE DRIVE	FLEMING GRANT	Urban Major Collector	3,863	17,700	0.22	D
518	MICCO	FLEMING GRANT	US 1	Urban Major Collector	7,590	17,700	0.43	D
490	MINTON	MALABAR	AMERICANA	Urban Principal Arterial-Other	23,084	39,800	0.58	D
489	MINTON	AMERICANA	EMERSON	Urban Principal Arterial-Other	25,491	39,800	0.64	D
488	MINTON	EMERSON	PALM BAY	Urban Principal Arterial-Other	51,052	33,800	1.51	E
487	MINTON	PALM BAY	HIELD	Urban Principal Arterial-Other	25,552	33,800	0.76	E
486	MINTON	HIELD	EBER	Urban Principal Arterial-Other	30,578	39,800	0.77	D
372	MINTON	EBER	WINGATE	Urban Principal Arterial-Other	29,077	39,800	0.73	D
483	MINTON	WINGATE	MILWAUKEE	Urban Principal Arterial-Other	30,275	39,800	0.76	D
482	MINTON	MILWAUKEE	HENRY	Urban Principal Arterial-Other	30,339	39,800	0.76	D
481	MINTON	HENRY	US 192	Urban Principal Arterial-Other	27,304	39,800	0.69	D
575	NASA	WICKHAM	EVANS	Urban Principal Arterial-Other	26,167	39,800	0.66	D
576	NASA	EVANS	EDDIE ALLEN	Urban Principal Arterial-Other	12,431	39,800	0.31	D
346	NASA (SR 508)	EDDIE ALLEN	DR. MARTIN LUTHER KING JR. BLVD	Urban Principal Arterial-Other	13,891	32,400	0.43	D
345	NASA (SR 508)	DR. MARTIN LUTHER KING JR. BLVD	BABCOCK	Urban Principal Arterial-Other	9,910	32,400	0.31	D
349	NASA (SR 508)	BABCOCK	APOLLO	Urban Principal Arterial-Other	11,430	32,400	0.35	D
342	NASA (SR 508)	APOLLO	US 1	Urban Principal Arterial-Other	10,511	32,400	0.32	D
599	NEW HAVEN	FRONT STREET	CAUSEWAY	Urban Major Collector	10,603	15,600	0.68	E
600	NORFOLK PARKWAY	PALM BAY ROAD	TARGET SIGNAL	Urban Major Collector	21,527	33,800	0.64	E
478	PALM BAY	MINTON	ATHENS	Urban Principal Arterial-Other	27,540	59,900	0.46	D
479	PALM BAY	ATHENS	CULVER	Urban Principal Arterial-Other	27,755	59,900	0.46	D
465	PALM BAY	CULVER	I-95 EAST RAMP	Urban Principal Arterial-Other	49,765	59,900	0.83	D
466	PALM BAY	I-95 EAST RAMP	HOLLYWOOD	Urban Principal Arterial-Other	53,212	59,900	0.89	D
467	PALM BAY	HOLLYWOOD	DAIRY	Urban Principal Arterial-Other	44,287	59,900	0.74	D
468	PALM BAY	DAIRY	PORT MALABAR	Urban Principal Arterial-Other	38,551	59,900	0.64	D
469	PALM BAY	PORT MALABAR	STACK	Urban Principal Arterial-Other	33,821	59,900	0.56	D
477	PALM BAY	STACK	RIVIERA	Urban Principal Arterial-Other	35,794	59,900	0.60	D
470	PALM BAY	RIVIERA	BABCOCK	Urban Principal Arterial-Other	34,192	59,900	0.57	D
480	PALM BAY	BABCOCK	KNECT	Urban Principal Arterial-Other	31,790	59,900	0.53	D
475	PALM BAY	KNECT	LIPSCOMB	Urban Principal Arterial-Other	33,874	59,900	0.57	D
476	PALM BAY	LIPSCOMB	TROUTMAN	Urban Principal Arterial-Other	18,297	59,900	0.31	D
471	PALM BAY	TROUTMAN	RJ Conlan	Urban Principal Arterial-Other	18,010	59,900	0.30	D
330	PARKWAY	TURTLE MOUND	WICKHAM	Urban Major Collector	4,800	17,700	0.27	D
601	PINEAPPLE	EAU GALLIE BLVD	AURORA	Urban Major Collector	5,142	15,600	0.33	E
570	PINEDA CSWY	I-95	ST ANDREWS	Urban Minor Arterial	29,726	41,790	0.71	D
328	PINEDA CSWY	ST ANDREWS	WICKHAM	Urban Minor Arterial	28,245	41,790	0.68	D
327	PINEDA CSWY	WICKHAM	US 1	Urban Principal Arterial-Other	33,122	41,790	0.79	D

Segments Functional Classification, Maximum Acceptable Volume (MAV) and Level of Service (LOS)

ID	Road	From	To	Functional Classification	Existing Volume 2020 or Most Recent	Existing MAV	Existing Vol/MAV	Acceptable LOS*
352	PINEHURST	WICKHAM	ST. ANDREWS	Urban Minor Collector	2,540	15,800	0.16	E
339	PORT MALABAR	BABCOCK	TROUTMAN	Urban Minor Arterial	15,451	39,800	0.39	D
340	PORT MALABAR	TROUTMAN	US 1	Urban Minor Arterial	11,485	39,800	0.29	D
329	POST	PINECONE	WICKHAM	Urban Major Collector	8,213	15,800	0.53	E
562	RJ CONLAN	PALM BAY RD	COMMERCE	Urban Principal Arterial-Other	13,109	39,800	0.33	D
563	RJ CONLAN	COMMERCE	US 1	Urban Principal Arterial-Other	10,112	39,800	0.25	D
495	SARNO (SR 5054)	EAU GALLIE	WICKHAM	Urban Minor Arterial	15,214	19,470	0.78	D
358	SARNO	WICKHAM	GROTON	Urban Minor Arterial	19,488	41,790	0.47	D
496	SARNO	CROTON	GARFIELD	Urban Minor Arterial	17,385	41,790	0.42	D
498	SARNO	GARFIELD	APOLLO	Urban Minor Arterial	18,714	41,790	0.45	D
499	SARNO	APOLLO	US 1	Urban Minor Arterial	14,798	33,800	0.44	E
581	SHERIDAN	JOHN RODES	WICKHAM	Urban Minor Collector	4,004	15,600	0.26	E
381	ST ANDREWS	PINEDA CAUSEWAY	INTERLACHEN	Urban Minor Collector	5,997	15,600	0.38	E
325	ST ANDREWS	INTERLACHEN	PINEHURST	Urban Minor Collector	3,973	15,600	0.25	E
326	ST ANDREWS	PINEHURST	WICKHAM	Urban Minor Collector	1,690	15,600	0.11	E
609	ST JOHNS HERITAGE PKWY	MALABAR	PAGE	Urban Minor Arterial	5,492	15,600	0.35	E
610	ST JOHNS HERITAGE PKWY	PAGE	EMERSON	Urban Minor Arterial	7,192	15,600	0.46	E
629	ST JOHNS HERITAGE PKWY	EMERSON	US 192	Urban Minor Arterial	10,700	15,600	0.69	E
630	ST JOHNS HERITAGE PKWY	US 192	I-95 INTERCHANGE	Urban Minor Arterial	6,638	15,600	0.43	E
632	ST JOHNS HERITAGE PKWY	BABCOCK	I-95 INTERCHANGE	Urban Minor Arterial	3,606	15,600	0.23	E
564	SAN FILIPPO	JUPITER	MALABAR	Urban Minor Arterial	21,461	39,800	0.54	D
324	SUNTREE	WICKHAM	US 1	Urban Minor Collector	13,228	19,451	0.68	E
611	TURTLEMOUND	EAU GALLIE	AURORA	Urban Major Collector	5,085	15,600	0.33	E
379	TURTLEMOUND	AURORA	LAKE WASHINGTON	Urban Major Collector	8,463	15,600	0.54	E
331	TURTLEMOUND	LAKE WASHINGTON	PARKWAY	Urban Major Collector	7,044	15,600	0.45	E
378	TURTLEMOUND	PARKWAY	PINE CONE ROAD	Urban Major Collector	6,128	15,600	0.39	E
569	UNIVERSITY	BABCOCK	US 1	Urban Major Collector	8,686	33,800	0.26	E
416	US 1	INDIAN RIVER COUNTY LINE	MICCO	Urban Principal Arterial-Other	19,114	41,790	0.46	D
417	US 1	MICCO	FIRST STREET	Urban Principal Arterial-Other	14,164	41,790	0.34	D
565	US 1	FIRST STREET	VALKARIA	Urban Principal Arterial-Other	13,314	41,790	0.32	D
418	US 1	VALKARIA	MALABAR	Urban Principal Arterial-Other	15,164	41,790	0.36	D
419	US 1	MALABAR	PORT MALABAR	Urban Principal Arterial-Other	18,142	41,790	0.43	D
420	US 1	PORT MALABAR	PALM BAY	Urban Principal Arterial-Other	22,192	39,800	0.56	D
539	US 1	PALM BAY	RJ CONLAN	Urban Principal Arterial-Other	18,904	39,800	0.47	D
343	US 1	RJ CONLAN	UNIVERSITY	Urban Principal Arterial-Other	27,588	59,900	0.46	D
348	US 1	UNIVERSITY	NEW HAVEN	Urban Principal Arterial-Other	31,490	59,900	0.53	D
384	US 1	NEW HAVEN	STRAWBRIDGE	Urban Principal Arterial-Other	25,320	59,900	0.42	D
385	US 1	STRAWBRIDGE	HIBISCUS	Urban Principal Arterial-Other	34,736	59,900	0.58	D
431	US 1	HIBISCUS	NASA	Urban Principal Arterial-Other	32,231	59,900	0.54	D
432	US 1	NASA	CHERRY	Urban Principal Arterial-Other	32,997	59,900	0.55	D
433	US 1	CHERRY	BALLARD	Urban Principal Arterial-Other	30,832	59,900	0.51	D
434	US 1	BALLARD	SARNO	Urban Principal Arterial-Other	41,406	59,900	0.69	D
435	US 1	SARNO	EAU GALLIE	Urban Principal Arterial-Other	47,780	59,900	0.80	D
442	US 1	EAU GALLIE	AURORA	Urban Principal Arterial-Other	34,684	59,900	0.58	D
450	US 1	AURORA	LAKE WASHINGTON	Urban Principal Arterial-Other	34,093	59,900	0.57	D
436	US 1	LAKE WASHINGTON	PARKWAY	Urban Principal Arterial-Other	33,902	59,900	0.57	D
437	US 1	PARKWAY	POST	Urban Principal Arterial-Other	34,849	59,900	0.58	D

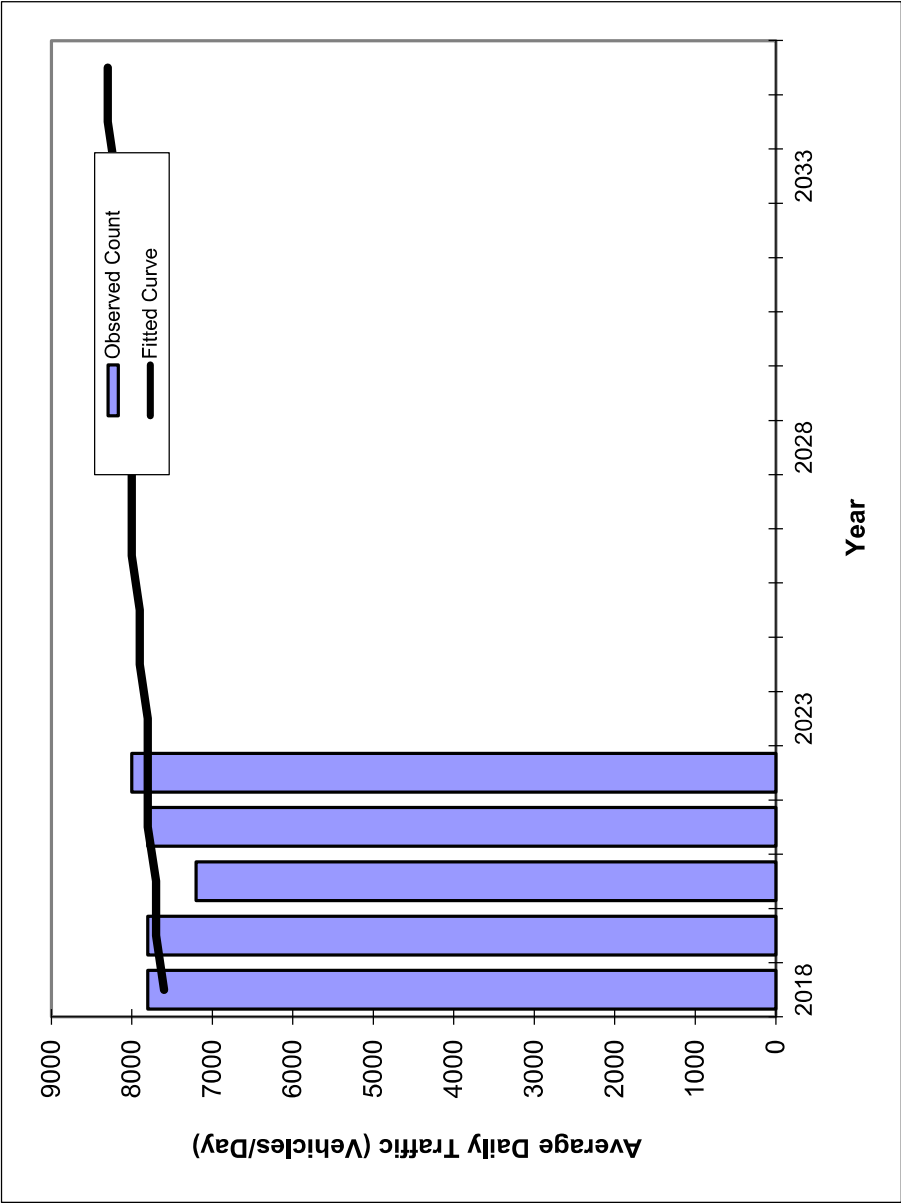
Appendix E

Background Growth

Traffic Trends - V03.a
JUPITER BLVD - Malabar - Garvey --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	573
Highway:	JUPITER BLVD - Malabar - Garvey



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	7800	7600
2019	7800	7700
2020	7200	7700
2021	7800	7800
2022	8000	7800
2024 Opening Year Trend		
2024	N/A	7900
2025 Mid-Year Trend		
2025	N/A	7900
2026 Design Year Trend		
2026	N/A	8000
TRANPLAN Forecasts/Trends		

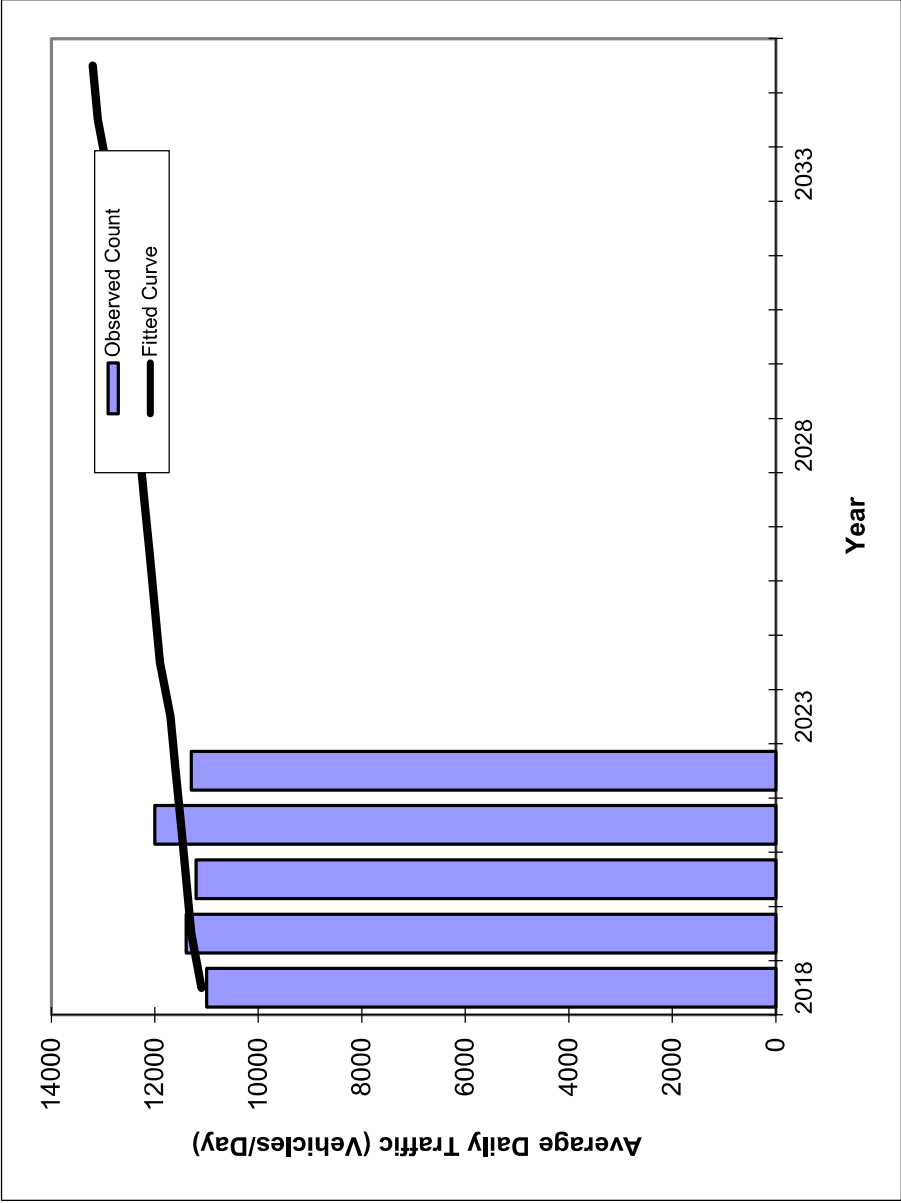
*Axle-Adjusted

** Annual Trend Increase:	40
Trend R-squared:	4.35%
Trend Annual Historic Growth Rate:	0.66%
Trend Growth Rate (2022 to Design Year):	0.64%
Printed:	23-Jan-24
Straight Line Growth Option	

Traffic Trends - V03.a
JUPITER BLVD - Pace - Malabar --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	620
Highway:	JUPITER BLVD - Pace - Malabar



** Annual Trend Increase:	120
Trend R-squared:	25.35%
Trend Annual Historic Growth Rate:	1.13%
Trend Growth Rate (2022 to Design Year):	1.08%
Printed:	23-Jan-24
Straight Line Growth Option	

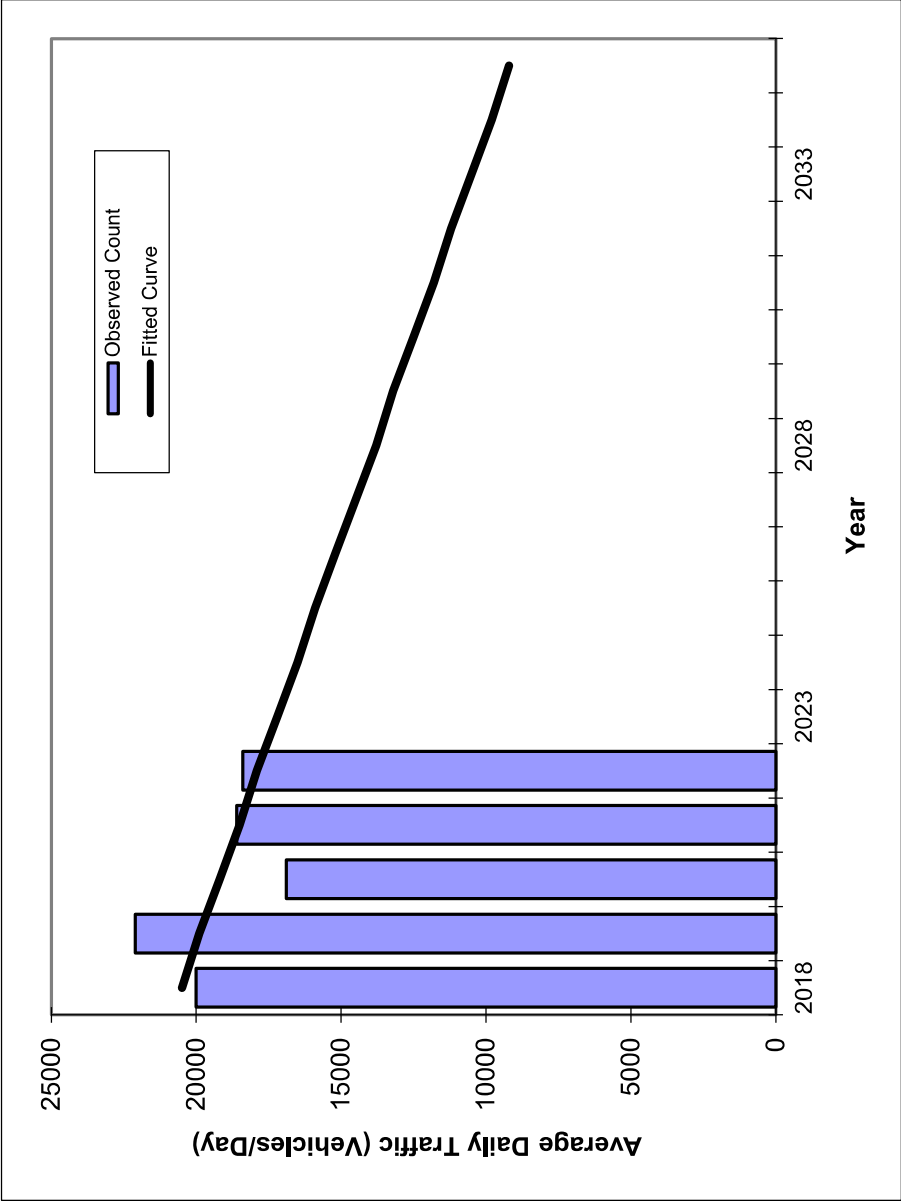
Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	11000	11100
2019	11400	11300
2020	11200	11400
2021	12000	11500
2022	11300	11600
2024 Opening Year Trend		
2024	N/A	11900
2025 Mid-Year Trend		
2025	N/A	12000
2026 Design Year Trend		
2026	N/A	12100
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Traffic Trends - V03.a
MALABAR Road - Garvey to Minton --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	371
Highway:	MALABAR Road - Garvey to Minton



** Annual Trend Increase:	-670
Trend R-squared:	29.26%
Trend Annual Historic Growth Rate:	-3.17%
Trend Growth Rate (2022 to Design Year):	-3.77%
Printed:	23-Jan-24
Straight Line Growth Option	

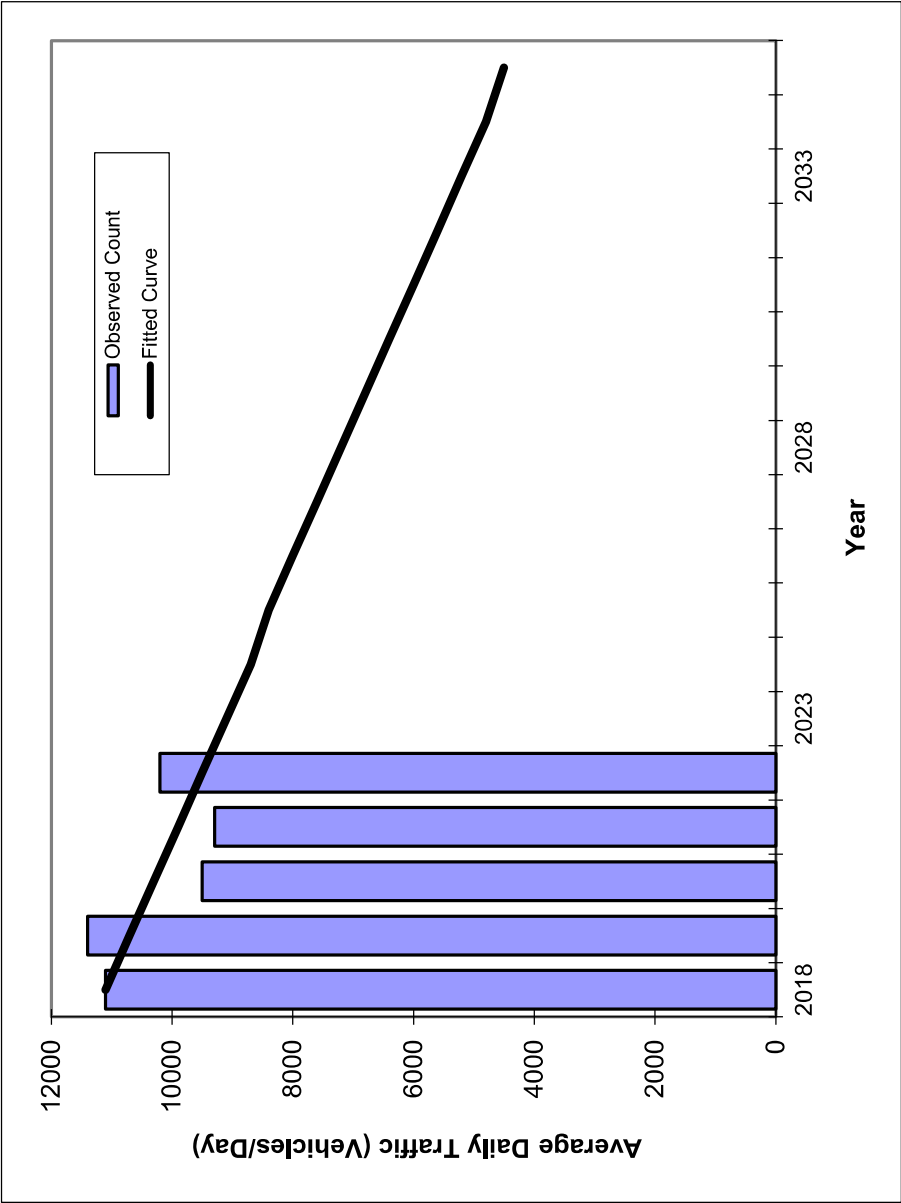
Traffic (ADT/AADT)	
Year	Trend**
2018	20500
2019	19900
2020	19200
2021	18500
2022	17900
2024 Opening Year Trend	
2024	N/A
2025 Mid-Year Trend	
2025	N/A
2026 Design Year Trend	
2026	N/A
TRANPLAN Forecasts/Trends	

*Axle-Adjusted

Traffic Trends - V03.a
MALABAR Road - SJHP to Garvey --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	609
Highway:	MALABAR Road - SJHP to Garvey



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	11100	11100
2019	11400	10700
2020	9500	10300
2021	9300	9900
2022	10200	9500
2024 Opening Year Trend		
2024	N/A	8700
2025 Mid-Year Trend		
2025	N/A	8400
2026 Design Year Trend		
2026	N/A	8000
TRANPLAN Forecasts/Trends		

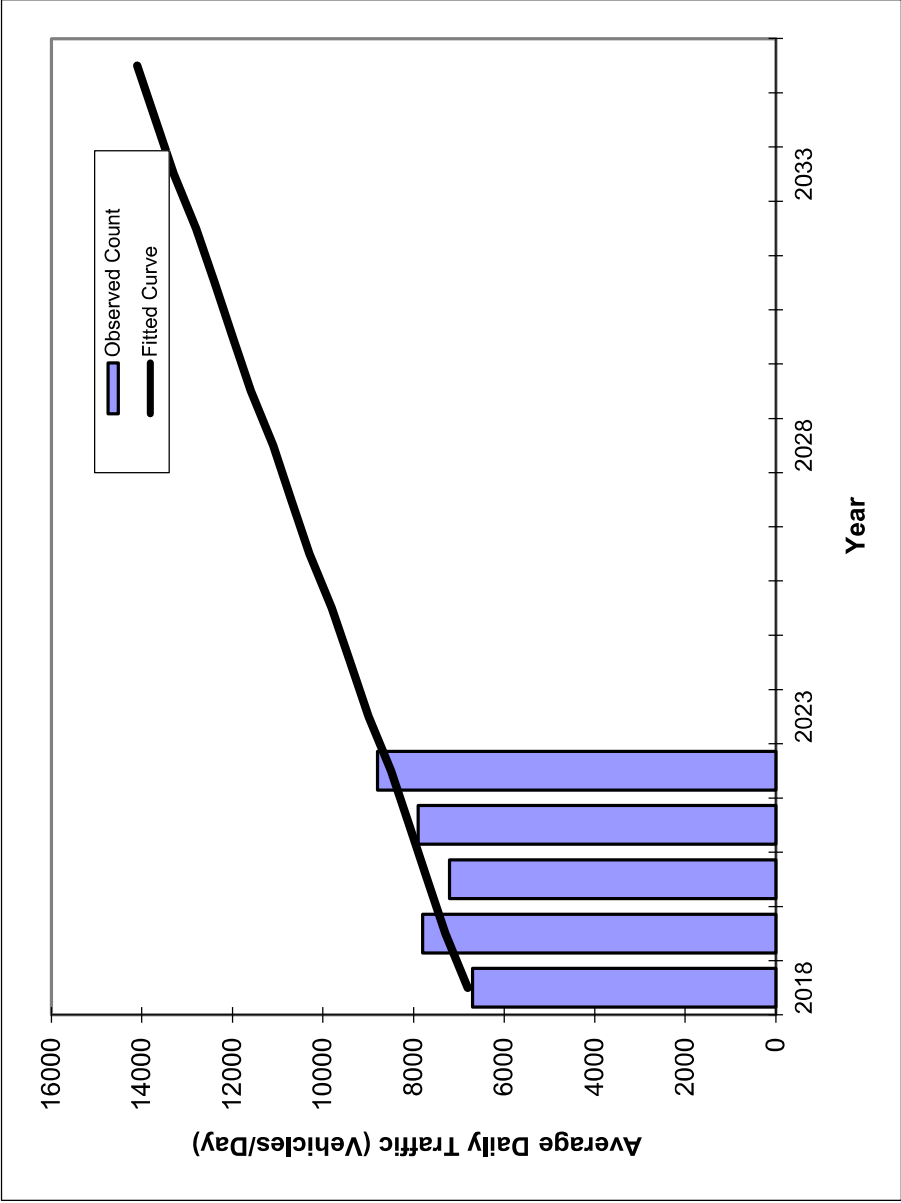
*Axle-Adjusted

** Annual Trend Increase:	-390
Trend R-squared:	43.46%
Trend Annual Historic Growth Rate:	-3.60%
Trend Growth Rate (2022 to Design Year):	-3.95%
Printed:	23-Jan-24
Straight Line Growth Option	

Traffic Trends - V03.a
SJHP - Emerson to Pace --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	629
Highway:	SJHP - Emerson to Pace



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2018	6700	6800
2019	7800	7300
2020	7200	7700
2021	7900	8100
2022	8800	8500
2024 Opening Year Trend		
2024	N/A	9400
2025 Mid-Year Trend		
2025	N/A	9800
2026 Design Year Trend		
2026	N/A	10300
TRANPLAN Forecasts/Trends		

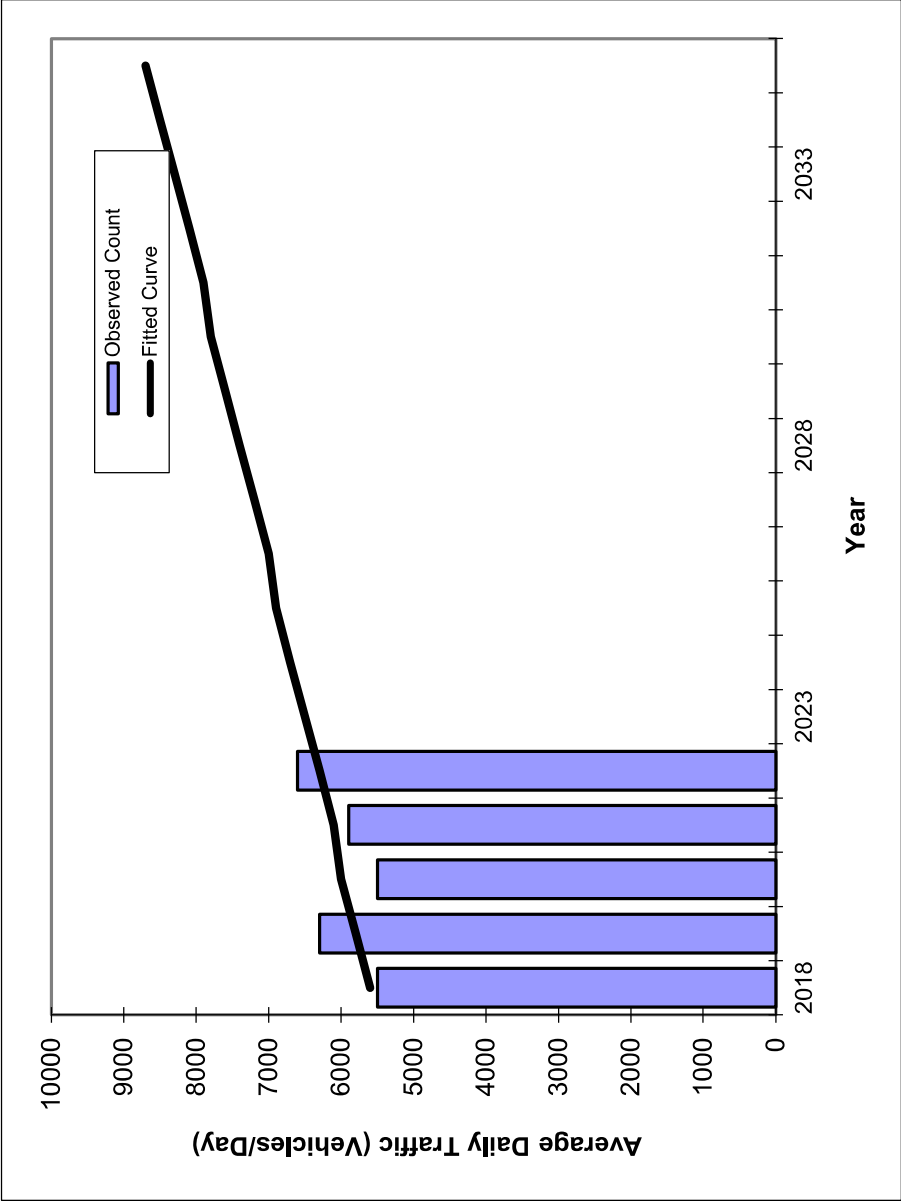
*Axle-Adjusted

** Annual Trend Increase:	430
Trend R-squared:	73.72%
Trend Annual Historic Growth Rate:	6.25%
Trend Growth Rate (2022 to Design Year):	5.29%
Printed:	23-Jan-24
Straight Line Growth Option	

Traffic Trends - V03.a
SJHP - Pace - Malabar --

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	609
Highway:	SJHP - Pace - Malabar



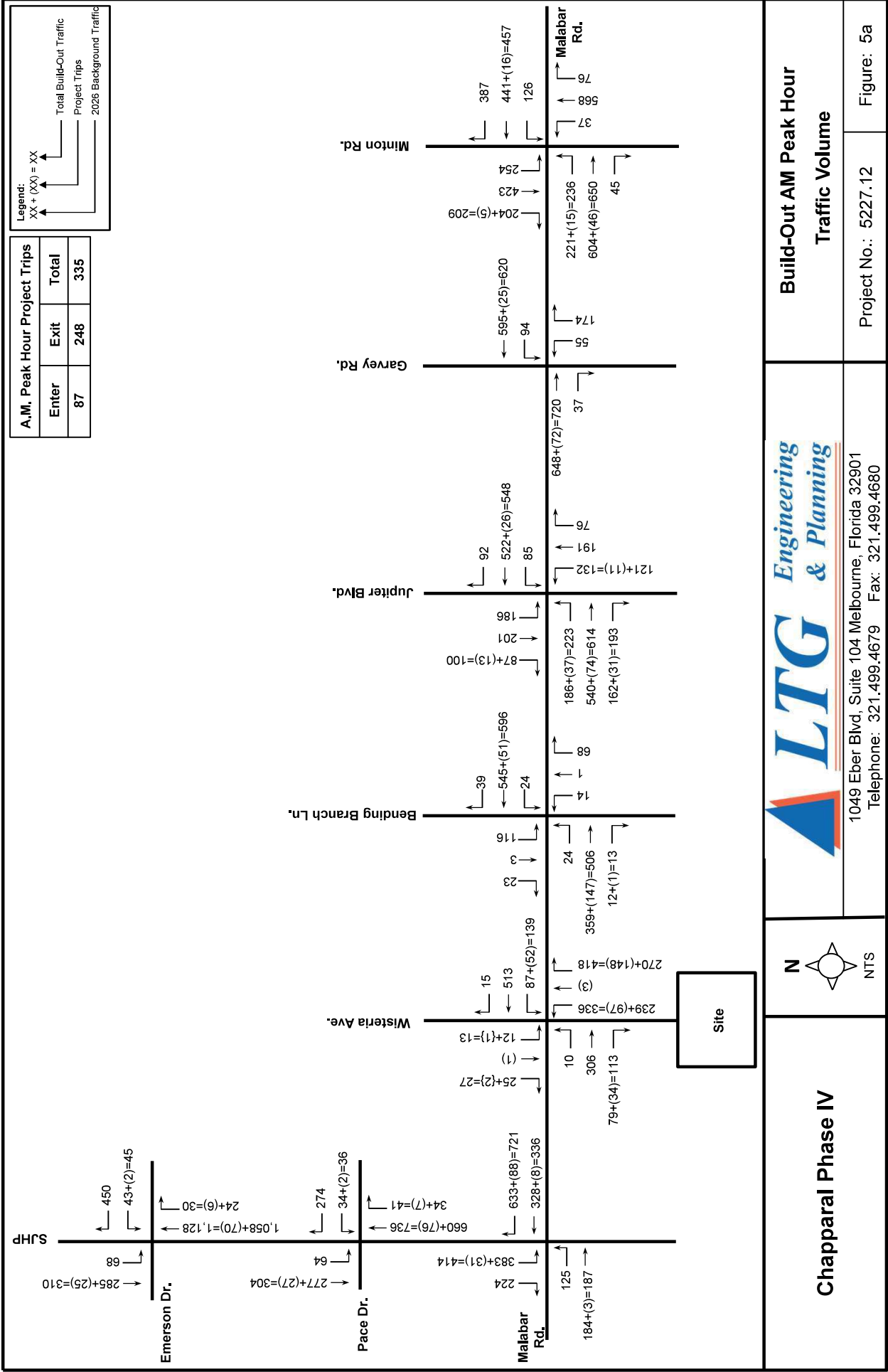
Traffic (ADT/AADT)		
Year	Count*	Trend**
2018	5500	5600
2019	6300	5800
2020	5500	6000
2021	5900	6100
2022	6600	6300
2024 Opening Year Trend		
2024	N/A	6700
2025 Mid-Year Trend		
2025	N/A	6900
2026 Design Year Trend		
2026	N/A	7000
TRANPLAN Forecasts/Trends		

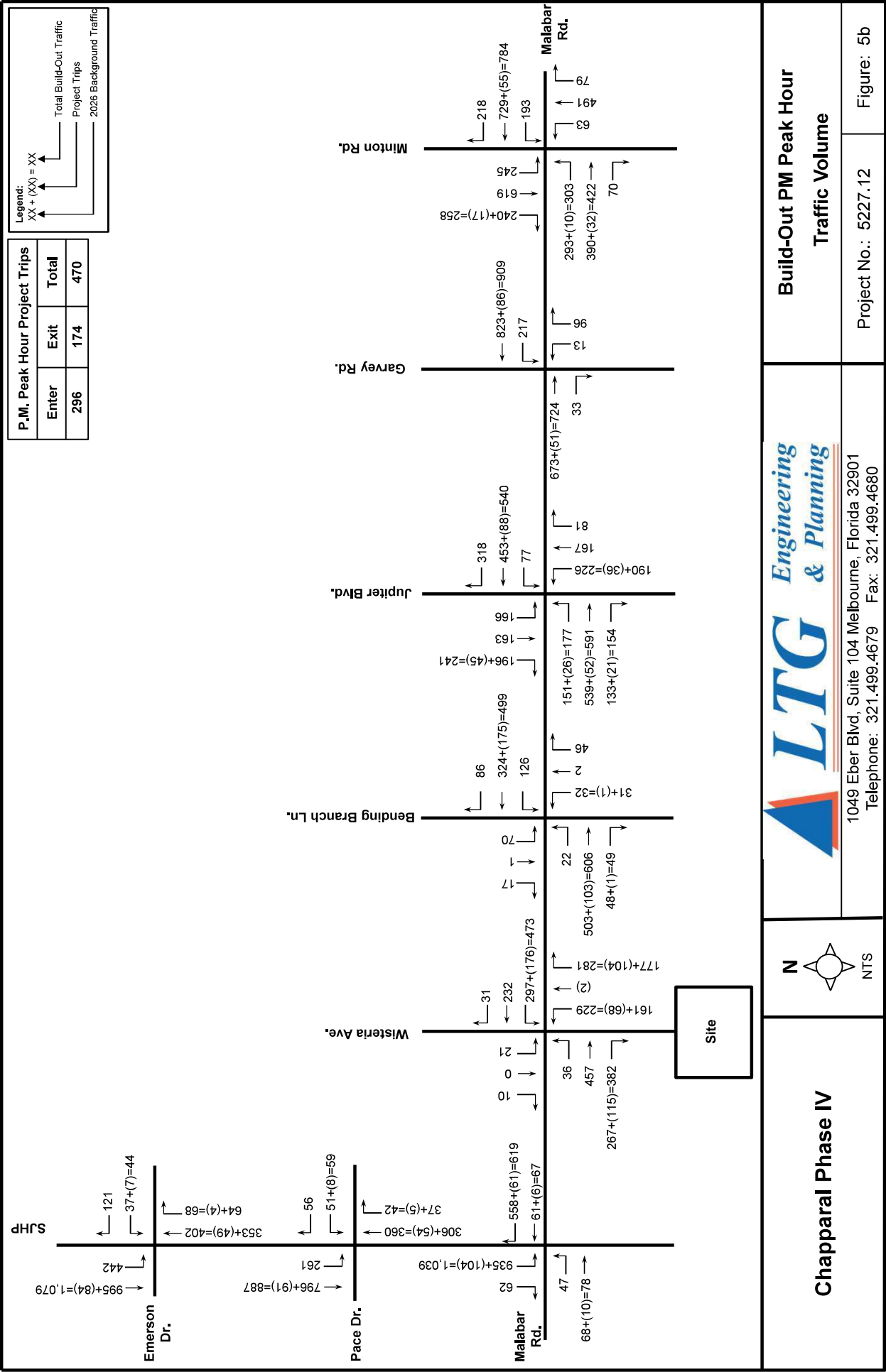
*Axle-Adjusted

** Annual Trend Increase:	180
Trend R-squared:	34.03%
Trend Annual Historic Growth Rate:	3.13%
Trend Growth Rate (2022 to Design Year):	2.78%
Printed:	23-Jan-24
Straight Line Growth Option	

Appendix F

Vested Trips





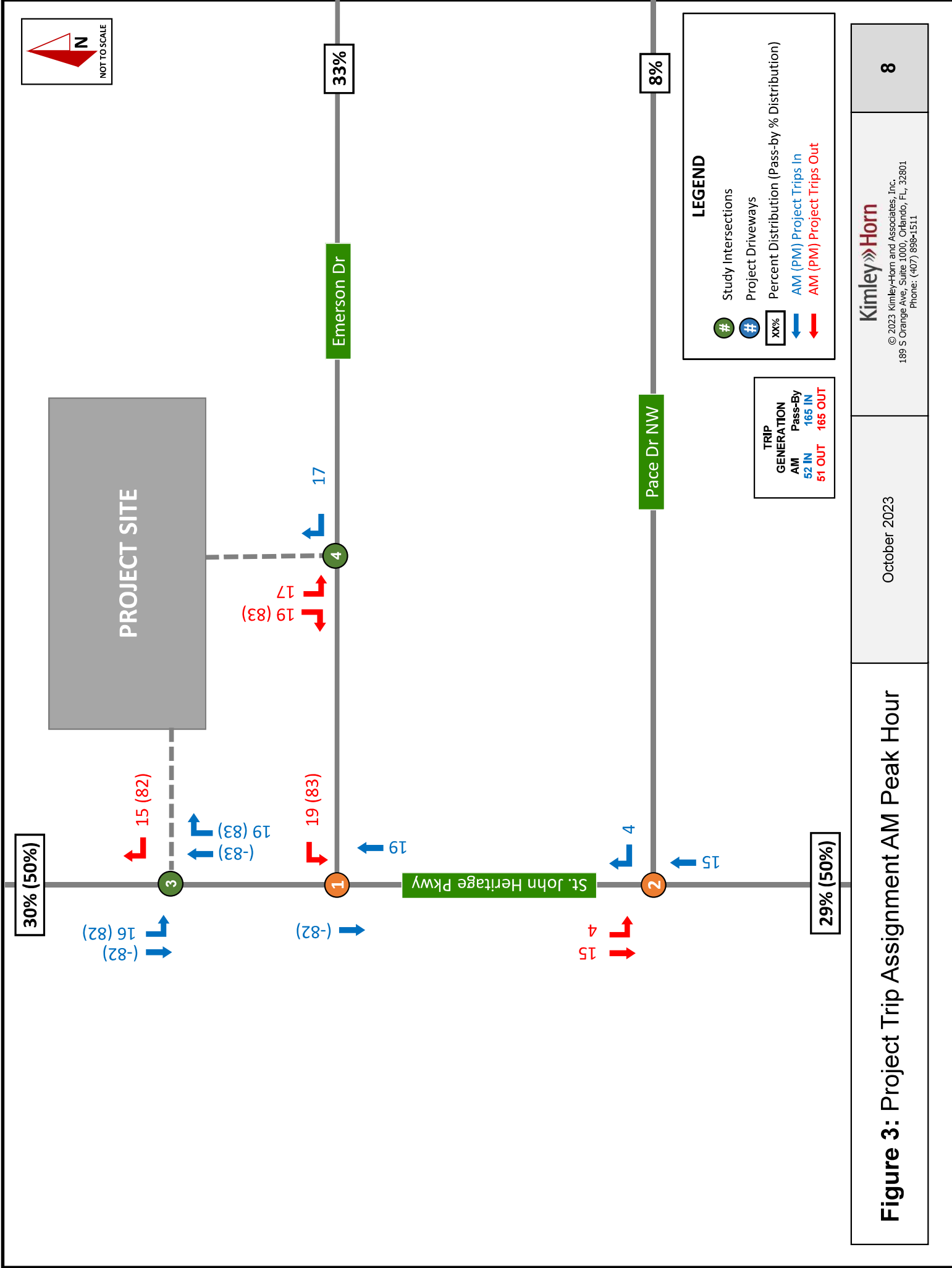
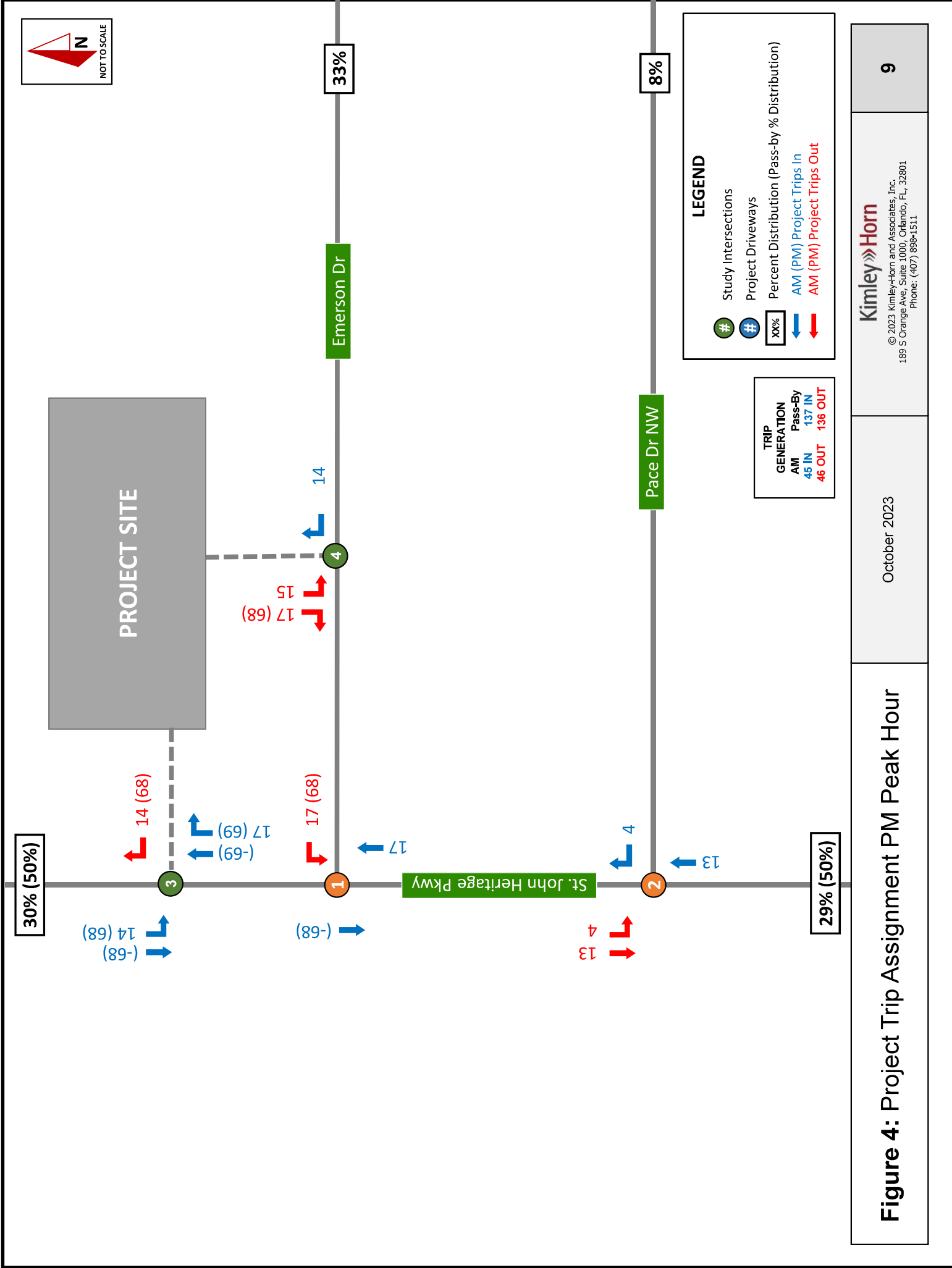


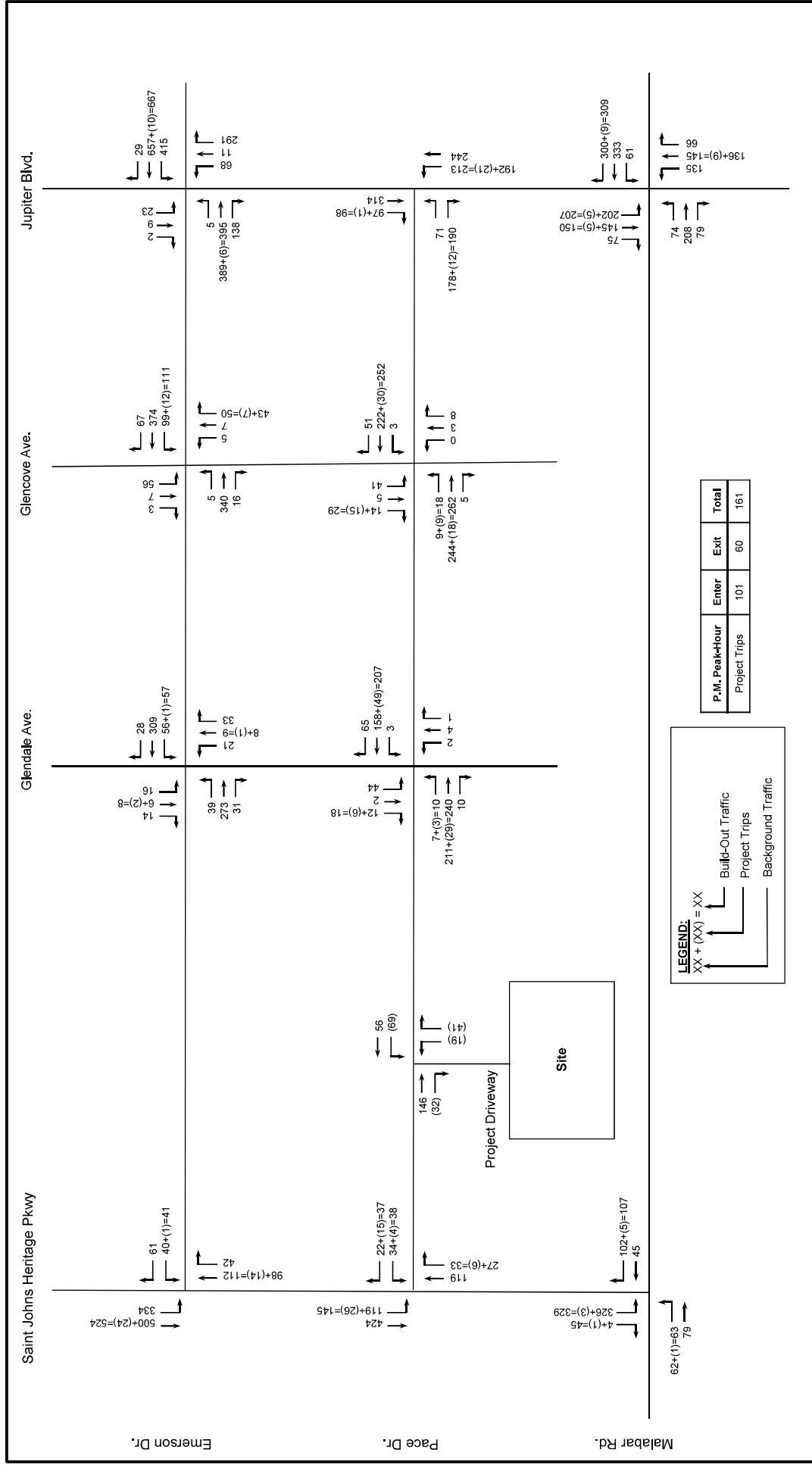
Figure 3: Project Trip Assignment AM Peak Hour

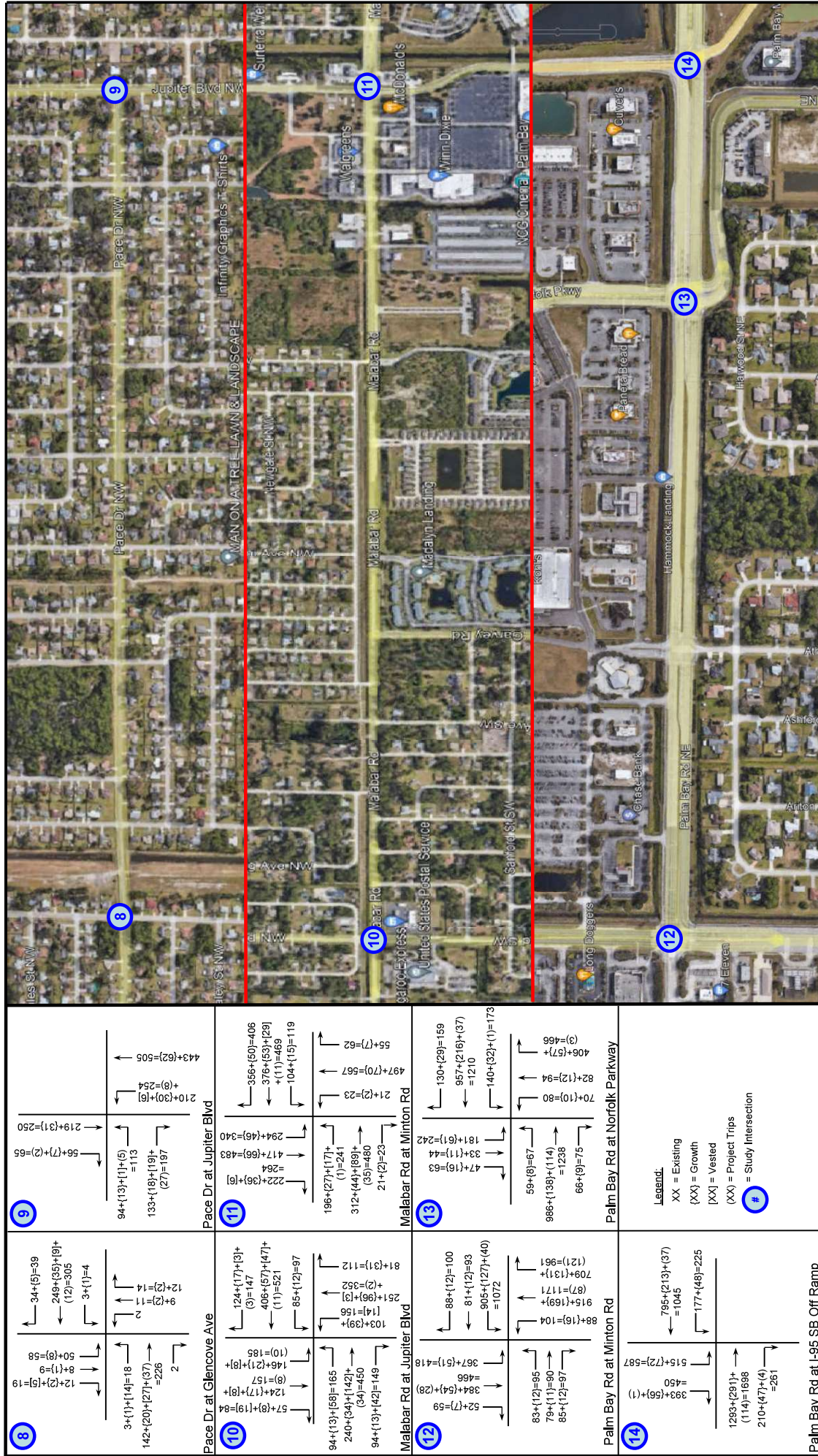
October 2023

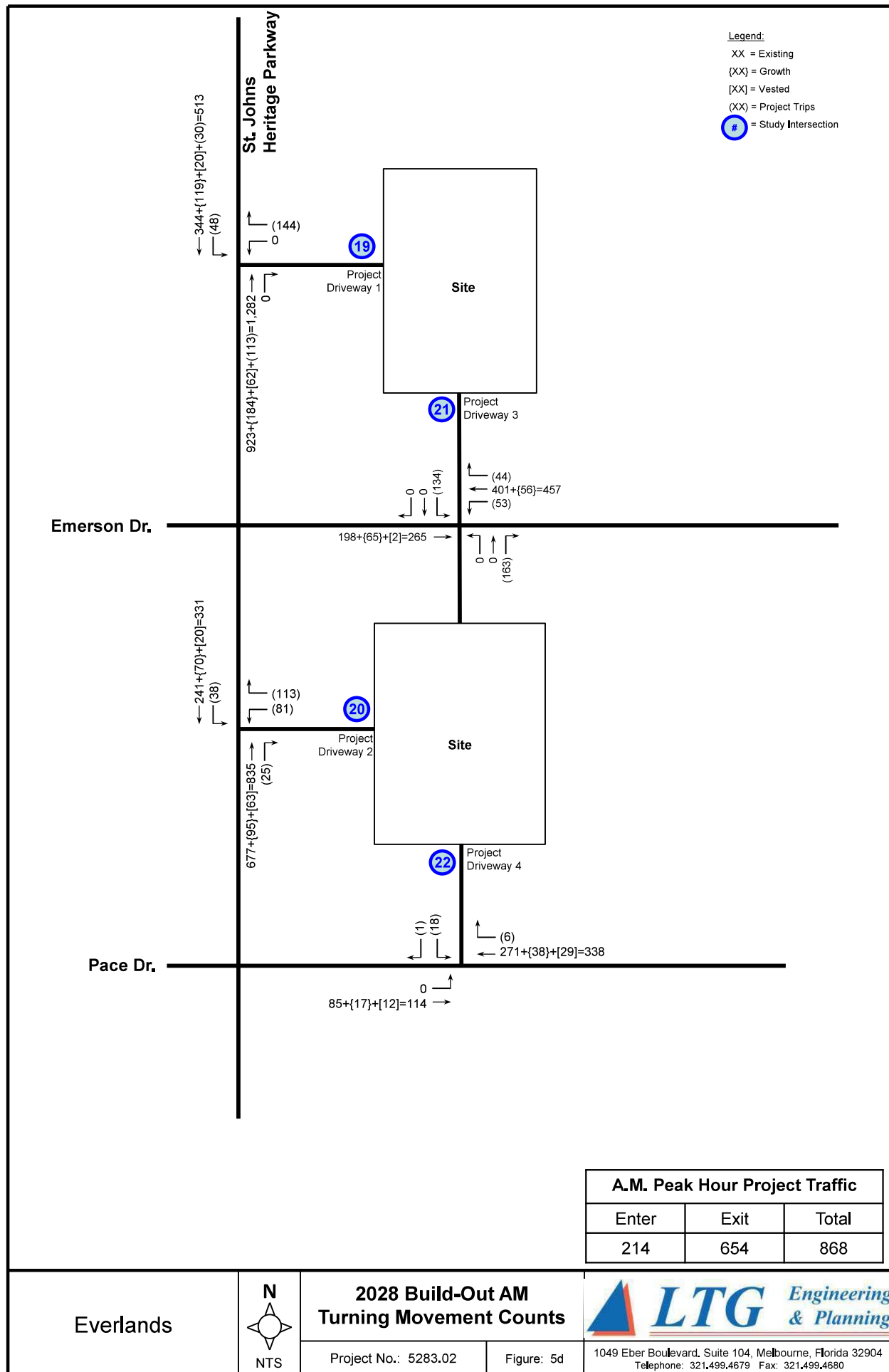
Kimley»Horn

© 2023 Kimley-Horn and Associates, Inc.
189 S Orange Ave, Suite 1000, Orlando, FL, 32801
Phone: (407) 898-1511









A.M. Peak Hour Project Traffic		
Enter	Exit	Total
214	654	868

Everlands



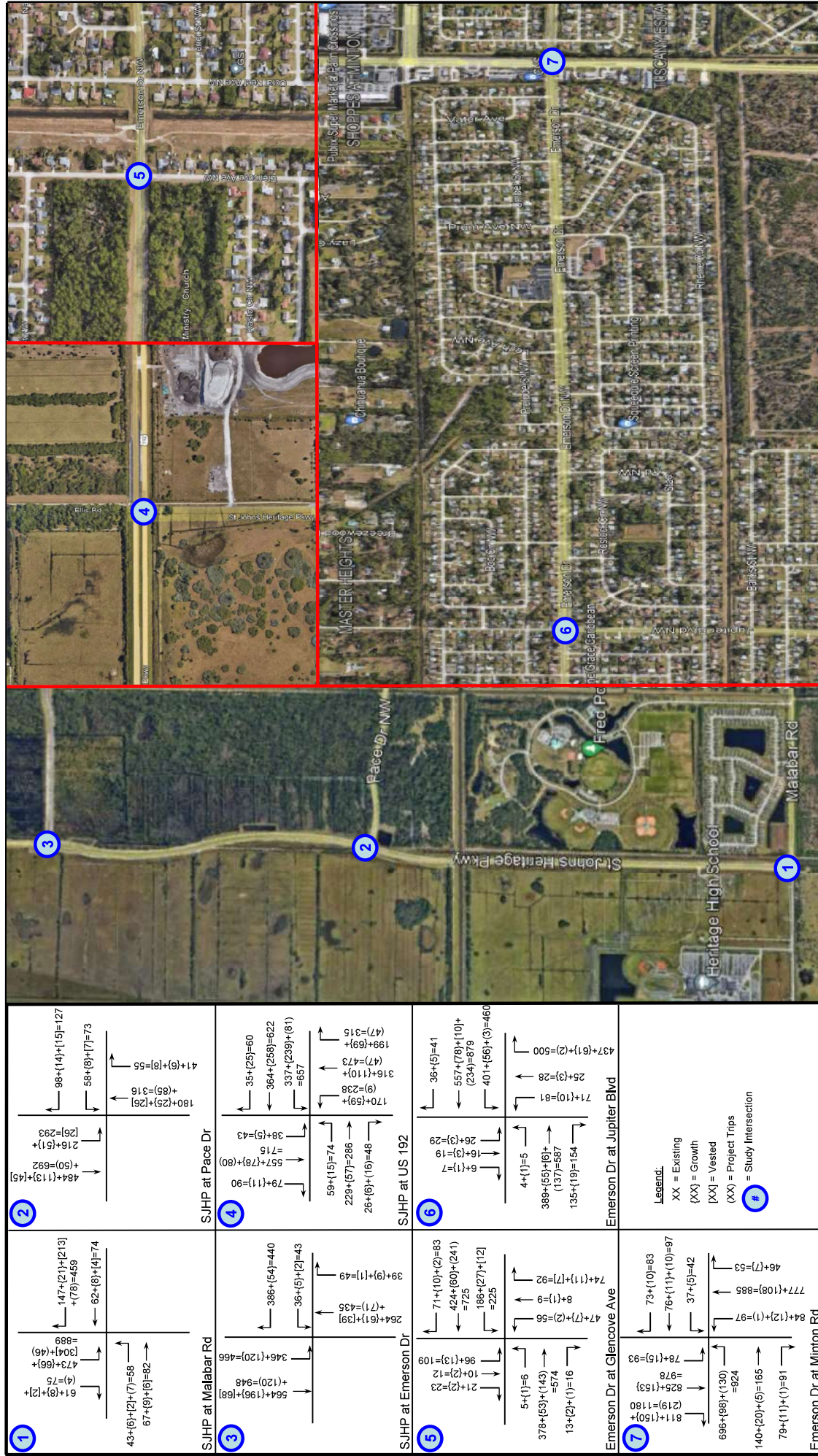
2028 Build-Out AM Turning Movement Counts

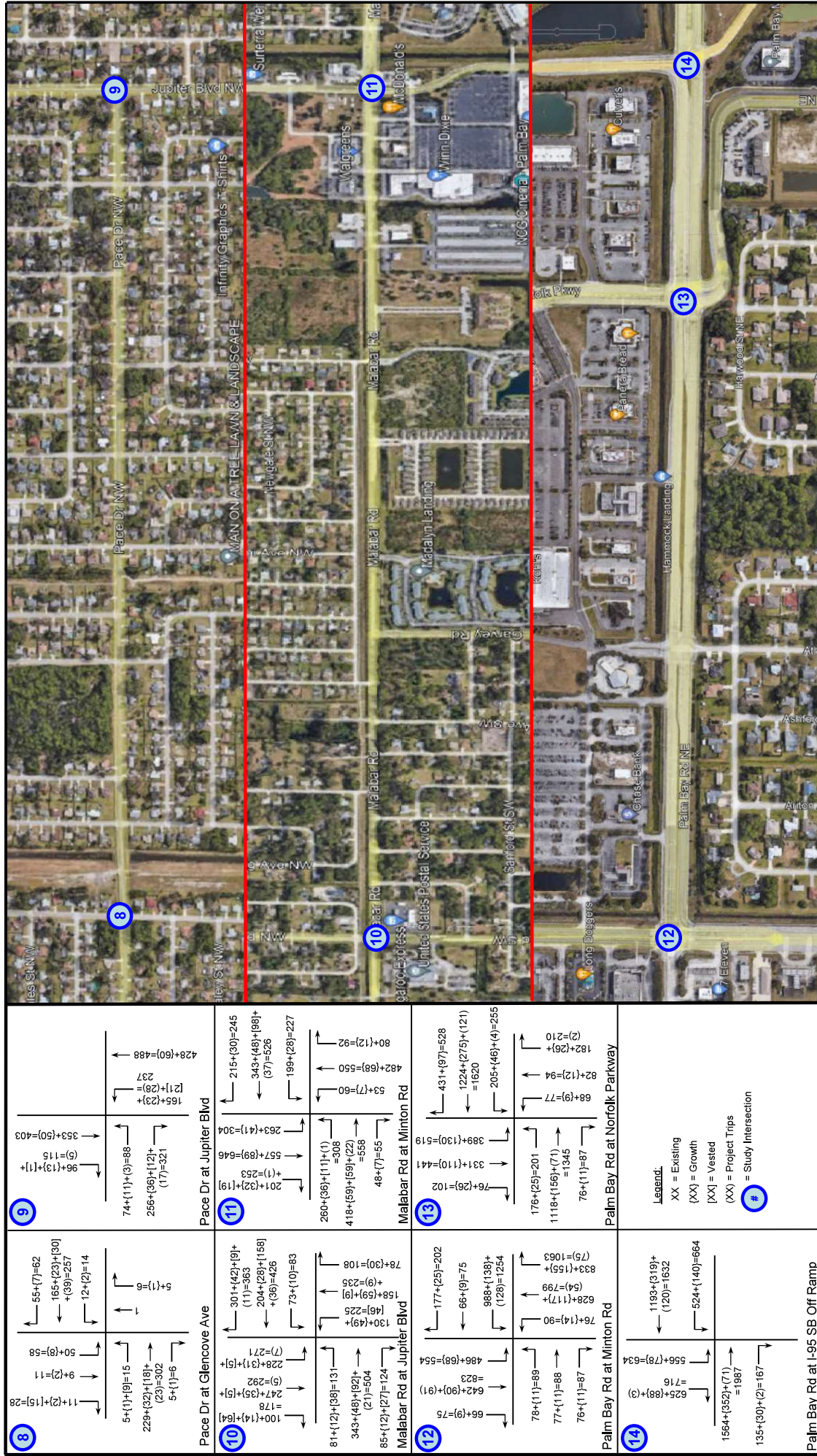
Project No.: 5283.02

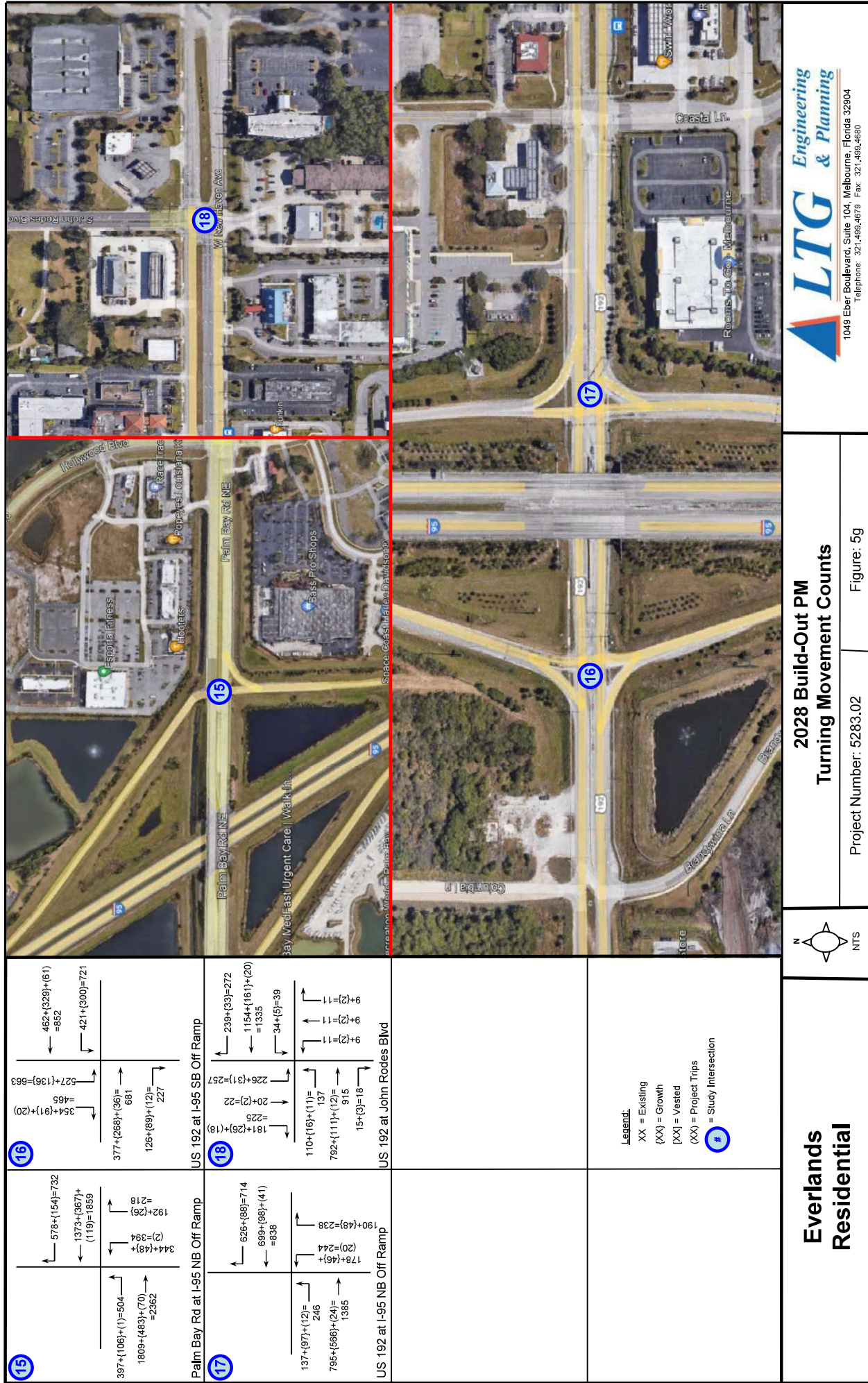
Figure: 5d

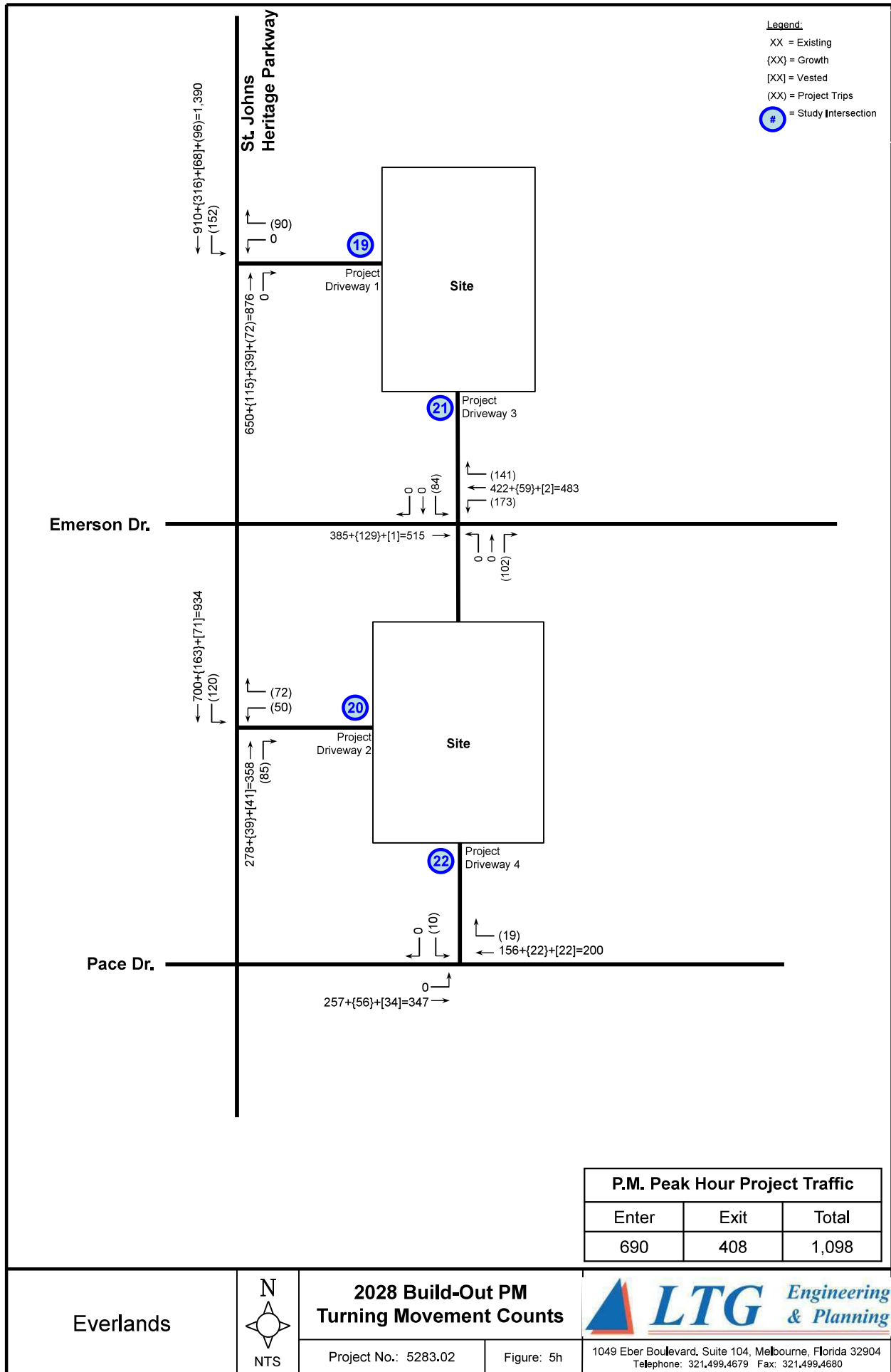
LTG Engineering & Planning

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









P.M. Peak Hour Project Traffic		
Enter	Exit	Total
690	408	1,098

Everlands



**2028 Build-Out PM
Turning Movement Counts**

Project No.: 5283.02

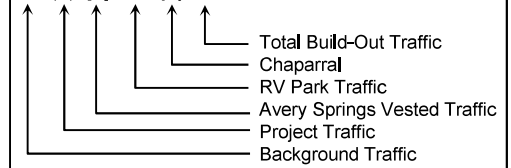
Figure: 5h

LTG Engineering & Planning

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

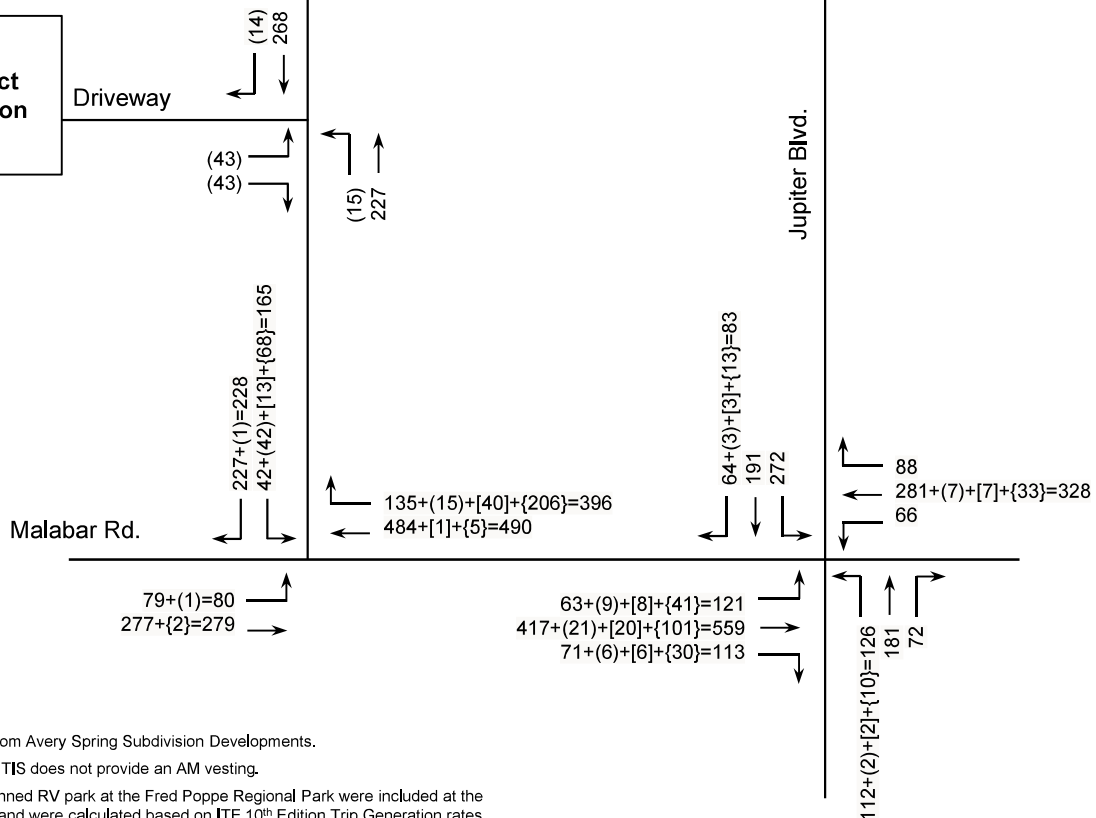
LEGEND

XX+(X)+[X]+*X*+(X)=XX



AM Peak-Hour	Enter	Exit	Total
Project Trips	29	86	115

Project Location



- Vested trips are from Avery Spring Subdivision Developments.
- Brentwood Lakes TIS does not provide an AM vesting.
- Trips from the planned RV park at the Fred Poppe Regional Park were included at the Project Driveway and were calculated based on ITE 10th Edition Trip Generation rates.

Palmer Property



NTS

2021 Phase 1 AM Peak-Hour Trip Assignment

Project No.: 4401.03

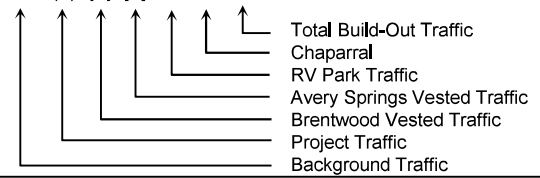
Figure: 5

LTG Engineering & Planning

1970 Dairy Road, W. Melbourne, FL 32904
Telephone: 321.499.4679 Fax: 321.499.4680 EB# 0009227

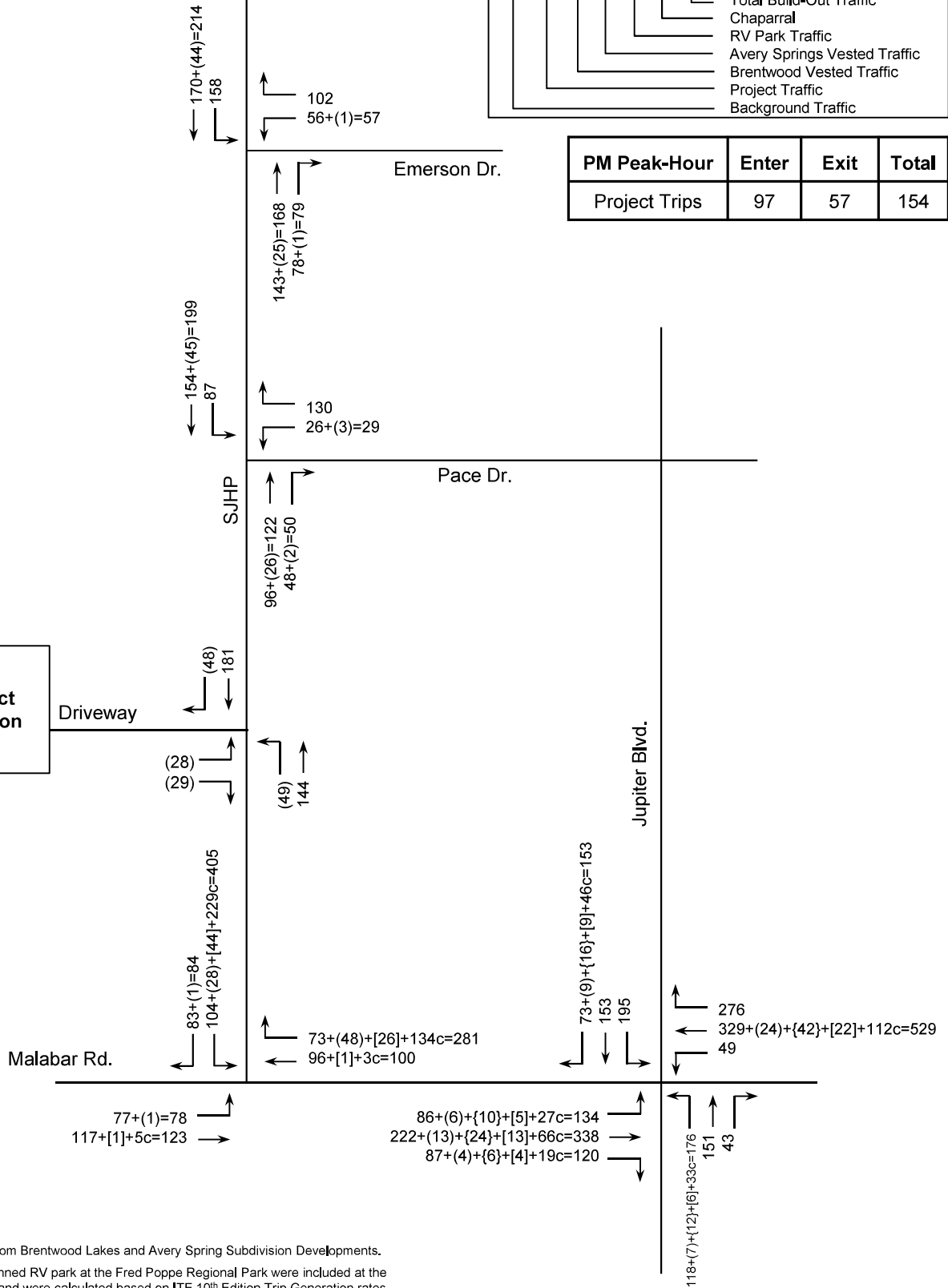
LEGEND

XXX+(X)+(X)+[X]+*X*+Xc=XX



PM Peak-Hour	Enter	Exit	Total
Project Trips	97	57	154

Project Location



- Vested trips are from Brentwood Lakes and Avery Spring Subdivision Developments.
- Trips from the planned RV park at the Fred Poppe Regional Park were included at the Project Driveway and were calculated based on ITE 10th Edition Trip Generation rates.

Palmer Property



NTS

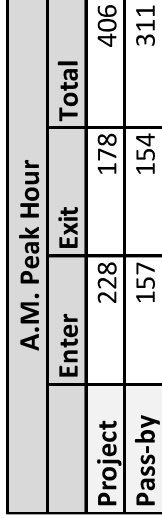
2021 Phase 1 PM Peak-Hour Trip Assignment

Project No.: 4401.03

Figure: 6

LTG Engineering & Planning

1970 Dairy Road, W. Melbourne, FL 32904
Telephone: 321.499.4679 Fax: 321.499.4680 EB# 0009227



2023 Build-Out A.M. Peak Hour Traffic Volume

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

Project No.: 5429.02

Figure: 5c

Appendix G

Trip Generation

Time Period	Land Use Code	Land Use	Equation	Size	Units	% Enter	% Exit	Enter	Exit	Total
AM Peak Hour	151	Self Storage	$T=0.09(X/1000)$	101,620	SF	59%	41%	5	4	9
	821	Shopping Plaza	$T=1.73(X/1000)$	57,805	SF	62%	38%	62	38	100
	220	Multi-Family Housing (Low Rise)	$T=0.31(X)+22.85$	424	DU	24%	76%	37	117	154
	Totals:							104	159	263
	Internal Capture Trips									
	151	Self Storage	Internal	101,620	SF	1%	2%	0	0	0
	821	Shopping Plaza	Internal	57,805	SF	1%	2%	1	1	2
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	3%	1%	1	1	2
	Total Internal Capture Percentage:		1%	Total Internal Trips:				1	0	1
	External Trips:							103	159	262
PM Peak Hour	151	Self Storage	$T=0.15(X/1000)$	101,620	SF	47%	53%	7	8	15
	821	Shopping Plaza	$T=5.19(X/1000)$	57,805	SF	49%	51%	147	153	300
	220	Multi-Family Housing (Low Rise)	$T=0.43(X)+20.55$	424	DU	63%	37%	128	75	203
	Totals:							282	236	518
	Internal Capture Trips									
	151	Self Storage	Internal	101,620	SF	10%	26%	1	2	3
	821	Shopping Plaza	Internal	57,805	SF	10%	26%	15	40	55
	220	Multi-Family Housing (Low Rise)	Internal	424	DU	32%	20%	41	15	56
	Total Internal Capture Percentage:		24%	Total Internal Trips:				57	57	114
	External Trips:							225	179	407
	Pass-By Trips (External x Pass-By Rate)									
	821	Shopping Plaza	40%	57,805	SF	50%	50%	46	46	92
	Pass-By Trips:							46	46	92
	Primary External Trips:							179	133	315
	Daily	151	Self Storage	$T=1.45(X/1000)$	101,620	SF	50%	50%	74	73
821		Shopping Plaza	$T=67.52(X/1000)$	57,805	SF	50%	50%	1952	1951	3903
220		Multi-Family Housing (Low Rise)	$T=6.41(X)+75.31$	424	DU	50%	50%	1397	1396	2793
Totals:							3423	3420	6843	
Internal Capture Trips										
151		Self Storage	Internal	101,620	SF	37%	42%	28	30	58
821		Shopping Plaza	Internal	57,805	SF	10%	12%	198	236	434
220		Multi-Family Housing (Low Rise)	Internal	424	DU	16%	13%	223	183	406
Total Internal Capture Percentage:		13%	Total Internal Trips:				449	449	898	
External Trips:							2974	2971	5945	

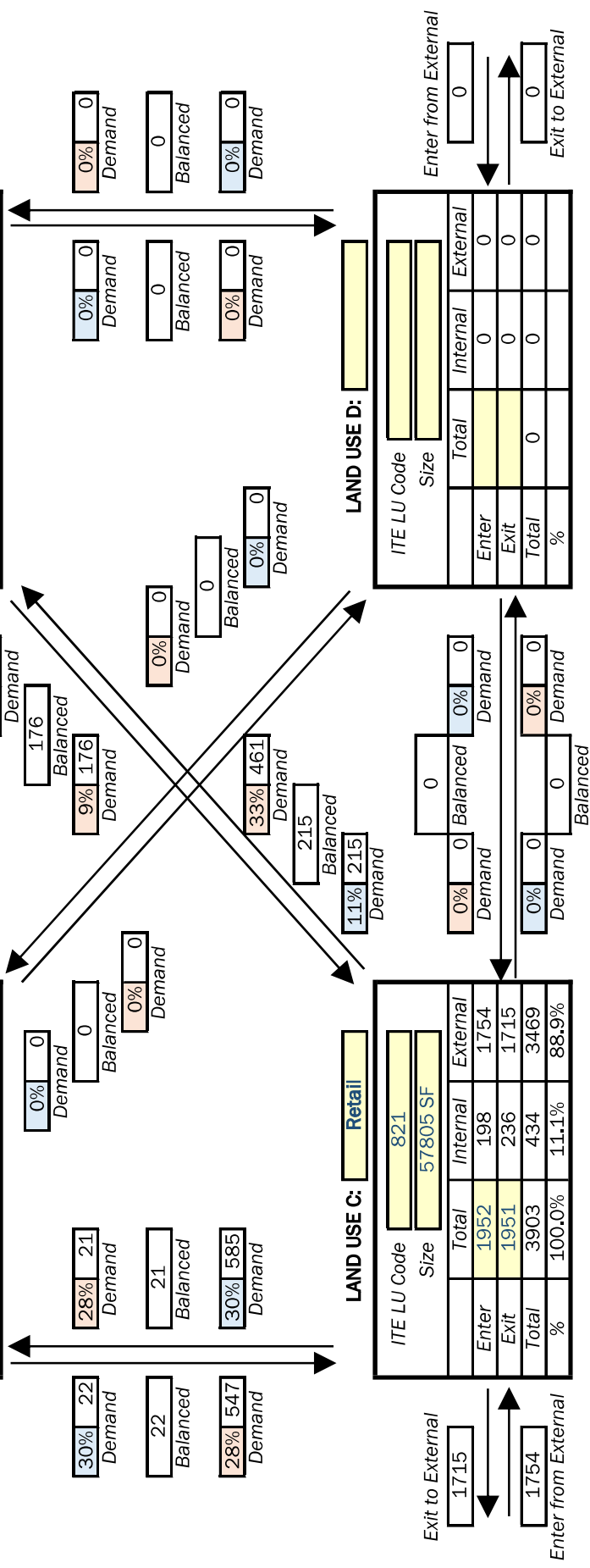
MULTI-USE DEVELOPMENT TRIP
GENERATION AND INTERNAL CAPTURE
SUMMARY

Analyst: CWP
Date: 1/23/2024

Name of Development: Mixed Use - Malabar Rd.
Time Period: Daily

LAND USE A: Retail	
ITE LU Code	151
Size	101,620 SF
Total	
Enter	74
Exit	73
Total	147
%	100.0%
Internal	28
External	46
Enter	30
Exit	58
Total	89
%	39.5%
Internal	43
External	89
Enter	46
Exit	43
Total	89
%	60.5%

LAND USE B: Residential	
ITE LU Code	220
Size	424 Units
Total	
Enter	1397
Exit	1396
Total	2793
%	100.0%
Internal	223
External	1174
Enter	183
Exit	406
Total	2387
%	85.5%

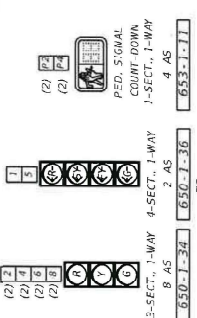
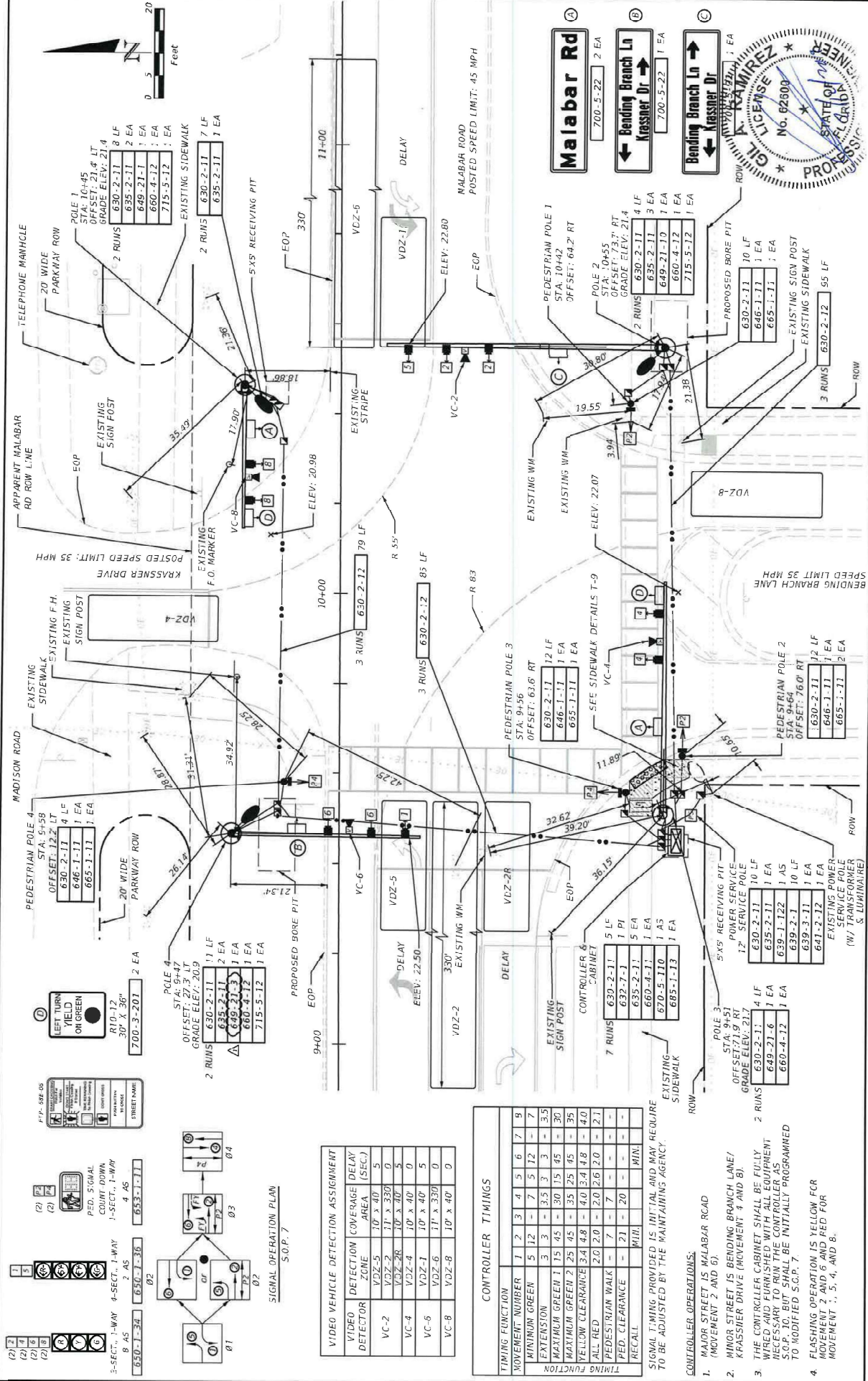


Net External Trips for Multi-Use Development				
	Land Use A	Land Use B	Land Use C	Land Use D
Enter	46	1174	1754	0
Exit	43	1213	1715	0
Total	89	2387	3469	0
Single Use Trip Gen Est.	147	2793	3903	0
Total				2974
				2971
				5945
Internal Capture				6843
				13.1%

Note: Internal capture rates obtained from ITE publications Trip Generation Handbook, 3rd Edition and Trip Generation Handbook, 2nd Edition

Appendix H

Capacity Analyses



SIGNAL OPERATION PLAN
S.O.P. 7

VIDEO DETECTOR	DETECTION ZONE	COVERAGE AREA (SEC.)	DELAY (SEC.)
VC-2	VZ-5	10' x 40'	5
VC-4	VZ-2	11' x 330'	0
VC-6	VZ-4	10' x 40'	5
VC-8	VZ-1	10' x 40'	5
	VZ-6	11' x 330'	0
	VZ-8	10' x 40'	0

VIDEO VEHICLE DETECTION ASSIGNMENT

VIDEO DETECTOR	DETECTION ZONE	COVERAGE AREA (SEC.)	DELAY (SEC.)
VC-2	VZ-5	10' x 40'	5
VC-4	VZ-2	11' x 330'	0
VC-6	VZ-4	10' x 40'	5
VC-8	VZ-1	10' x 40'	5
	VZ-6	11' x 330'	0
	VZ-8	10' x 40'	0

CONTROLLER TIMINGS

TIMING FUNCTION	MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	5	12	2	5	12	2	5	12	2
EXTENSION	3	3	3	3	3	3	3	3	3
MAXIMUM GREEN	1	15	45	30	15	45	30	15	45
YELLOW CLEARANCE	3	4	8	4	8	4	8	4	8
ALL RED	2	20	20	20	20	20	20	20	20
PEDESTRIAN WALK	7	7	7	7	7	7	7	7	7
PEDEST. CLEARANCE	21	20	20	20	20	20	20	20	20
RECALL									

- CONTROLLER OPERATIONS:
- MAJOR STREET IS MALABAR ROAD (MOVEMENT 2 AND 6).
 - MINOR STREET IS BENDING BRANCH LANE/ KRASSNER DRIVE (MOVEMENT 4 AND 8).
 - THE CONTROLLER CABINET SHALL BE FULLY WIRED AND FURNISHED WITH ALL EQUIPMENT NECESSARY TO RUN THE CONTROLLER AS TO MODIFIED S.C.P. 7.
 - FLASHING OPERATION IS YELLOW FOR MOVEMENT 2 AND 6 AND RED FOR MOVEMENT 1, 3, 4, AND 8.

DATE	DESCRIPTION	REVISIONS	DATE
3/17/19	WAST-ARM PAY ITEM REVISED TO CORRESPONDING DESIGN		

STATE OF FLORIDA	DEPARTMENT OF TRANSPORTATION	FINANCIAL PROJECT ID
ENGINEERING & PLANNING	COUNTY	MALABAR ROAD
DESIGNED BY: K. J. JAMES	COUNTY	BREVARD COUNTY
DATE: 3/17/2019	USER: jason	5/23/24 PM

SIGNALIZATION PLAN

SHEET NO. **T-8**

City of Palm Bay Signal Timing Sheet

INTERSECTION NAME:

INTSALLATION/INSPECTION DATE:

PROGRAMMED BY

PROGRAM DATE:

CONTROLER SERIAL #

SECURITY CODE:

Malabar and Jupiter

1/16/2019

INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
	EBL	WB	SBL	NB	WBL	EB	NBL	SB
MEMORY								
EXT RECALL		ON				ON		
MAX RECALL								
PED RECALL								
CAN I								
CAN II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

Xped	Yes	No
		x

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF	x	x	x	x	x	x	x	x
SEQUENCE		2	1=SEG,2=DUAL RING,3-7=SPEC, 8=LEAD/LAG					
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS								







INTERVAL	PHASE TIMINGS							
	1	2	3	4	5	6	7	8
	EBL	WB	SBL	NB	WBL	EB	NBL	SB
Min Green	6.0	10.0	6.0	10.0	6.0	10.0	11.0	10.0
PASSAGE	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
YELLOW	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
RED	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MAX I	30.0	70.0	30.0	20.0	20.0	70.0	20.0	25.0
MAX II								
WALK		7.0		7.0		7.0		7.0
PED CLEAR		18.0		18.0		18.0		18.0
S/A								
TBK								
TTR								
MIN GAP								
MAX VI								
MAX EXT								
AUTO MAX								
AMR								

	INITIALIZE/FLASH				INTERVAL CODES 1=RED 2=YELLOW 3=GREEN
	INITIALIZE	ENTER FLASH	EXIT FLASH		
	2	4	2		
RING 1 PHASE					
RING 2 PHASE	6	8	6		
INTERVAL	3	1	3		
POWER UP/RESTART TIMINGS					
MINUMUM FLASH	7			(0-9 OR 127 SEC)	
1ST ALL RED AFTER FLASH	0			(0-9 OR 127 SEC)	

Existing Capacity Analyses

Existing AM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	22.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	173	251	508	371	102	251
Future Vol, veh/h	173	251	508	371	102	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	7	6	3	3	2	5
Mvmt Flow	219	318	643	470	129	318

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1113	0	0 1399 643
Stage 1	-	-	- 643 -
Stage 2	-	-	- 756 -
Critical Hdwy	4.17	-	- 6.42 6.25
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.263	-	- 3.518 3.345
Pot Cap-1 Maneuver	609	-	- 155 468
Stage 1	-	-	- 523 -
Stage 2	-	-	- 464 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	609	-	- ~ 99 468
Mov Cap-2 Maneuver	-	-	- ~ 99 -
Stage 1	-	-	- 335 -
Stage 2	-	-	- 464 -







Approach	EB	WB	SB
HCM Control Delay, s/v	5.79	0	97.37
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	609	-	-	-	99	468
HCM Lane V/C Ratio	0.359	-	-	-	1.301	0.679
HCM Control Delay (s/veh)	14.2	-	-	-	269.5	27.4
HCM Lane LOS	B	-	-	-	F	D
HCM 95th %tile Q(veh)	1.6	-	-	-	9.1	5

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

Existing AM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	9.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	118	283	580	39	58	252
Future Vol, veh/h	118	283	580	39	58	252
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	2	5	6	4
Mvmt Flow	131	314	644	43	64	280






Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1053	644	0	0	688	0
Stage 1	644	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Critical Hdwy	6.44	6.22	-	-	4.16	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.318	-	-	2.254	-
Pot Cap-1 Maneuver	248	473	-	-	888	-
Stage 1	519	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	227	473	-	-	888	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	519	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v30.62		0	1.75
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 227 473	337	-
HCM Lane V/C Ratio	-	- 0.578 0.665	0.073	-
HCM Control Delay (s/veh)	-	- 40.5 26.5	9.4	0
HCM Lane LOS	-	- E D	A	A
HCM 95th %tile Q(veh)	-	- 3.2 4.8	0.2	-

Existing AM Peak Hour
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	75					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	399	1019	46	76	175
Future Vol, veh/h	20	399	1019	46	76	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	8	6
Mvmt Flow	21	424	1084	49	81	186

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1432	1084	0	0	1133	0
Stage 1	1084	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	4.18	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.272	-
Pot Cap-1 Maneuver	149	~ 265	-	-	595	-
Stage 1	327	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	127	~ 265	-	-	595	-
Mov Cap-2 Maneuver	127	-	-	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	610	-	-	-	-	-










Approach	WB	NB	SB
HCM Control Delay, s	308.53	0	3.63
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	127	265	534	-
HCM Lane V/C Ratio	-	-	0.168	1.603	0.136	-
HCM Control Delay (s/veh)	-	-	39	322	12	0
HCM Lane LOS	-	-	E	F	B	A
HCM 95th %tile Q(veh)	-	-	0.6	26.1	0.5	-

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

Existing AM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/26/2024

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	342	0	0	872	7	0	0	0	3	0	20
Future Vol, veh/h	7	342	0	0	872	7	0	0	0	3	0	20
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	402	0	0	1026	8	0	0	0	4	0	24




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1034	0	0	402	0	0	1445	1453	402	1449	1449	1030
Stage 1	-	-	-	-	-	-	419	419	-	1030	1030	-
Stage 2	-	-	-	-	-	-	1026	1034	-	419	419	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.77	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.103	4	3.3
Pot Cap-1 Maneuver	680	-	-	1167	-	-	111	132	652	79	132	286
Stage 1	-	-	-	-	-	-	616	594	-	215	313	-
Stage 2	-	-	-	-	-	-	286	312	-	502	594	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	680	-	-	1167	-	-	100	130	652	78	131	286
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	130	-	78	131	-
Stage 1	-	-	-	-	-	-	608	586	-	215	313	-
Stage 2	-	-	-	-	-	-	262	312	-	496	586	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.21	0	0	24.46
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	680	-	-	1167	-	-	212
HCM Lane V/C Ratio	-	0.012	-	-	-	-	-	0.128
HCM Control Delay (s/veh)	0	10.4	-	-	0	-	-	24.5
HCM Lane LOS	A	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.4

Existing AM Peak Hour
18: Hurley Boulevard & Malabar Road






HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	16.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	434	69	53	711	108	67
Future Vol, veh/h	434	69	53	711	108	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	5	8	3	3	5
Mvmt Flow	482	77	59	790	120	74

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	559	0	1428
Stage 1	-	-	-	-	521
Stage 2	-	-	-	-	908
Critical Hdwy	-	-	4.18	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.272	-	3.527
Pot Cap-1 Maneuver	-	-	983	-	148
Stage 1	-	-	-	-	594
Stage 2	-	-	-	-	392
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	983	-	132
Mov Cap-2 Maneuver	-	-	-	-	132
Stage 1	-	-	-	-	594
Stage 2	-	-	-	-	350

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.62	129.98
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	186	-	-	125	-
HCM Lane V/C Ratio	1.044	-	-	0.06	-
HCM Control Delay (s/veh)	130	-	-	8.9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	9.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	580	42	111	554	38	186
Future Vol, veh/h	580	42	111	554	38	186
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	5	6	4	3	3
Mvmt Flow	674	49	129	644	44	216

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	723
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	861
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	861
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.66	29
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	98	438	-	-	861	-
HCM Lane V/C Ratio	0.449	0.493	-	-	0.15	-
HCM Control Delay (s/veh)	68.4	21	-	-	9.9	-
HCM Lane LOS	F	C	-	-	A	-
HCM 95th %tile Q(veh)	1.9	2.7	-	-	0.5	-

Existing AM Peak Hour
25: Garvey Road

HCM 7th AWSC
01/26/2024

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	276	2	24	315	39	82	110	42	54	78	19
Future Vol, veh/h	23	276	2	24	315	39	82	110	42	54	78	19
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	5	4	10	4	4	5	1	1	8	0	7	0
Mvmt Flow	25	303	2	26	346	43	90	121	46	59	86	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0





















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	17.8	22.2	15.5	13.2
HCM LOS	C	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	8%	6%	36%
Vol Thru, %	47%	92%	83%	52%
Vol Right, %	18%	1%	10%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	301	378	151
LT Vol	82	23	24	54
Through Vol	110	276	315	78
RT Vol	42	2	39	19
Lane Flow Rate	257	331	415	166
Geometry Grp	1	1	1	1
Degree of Util (X)	0.472	0.579	0.701	0.318
Departure Headway (Hd)	6.608	6.306	6.072	6.889
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	543	569	594	519
Service Time	4.674	4.369	4.129	4.965
HCM Lane V/C Ratio	0.473	0.582	0.699	0.32
HCM Control Delay, s/veh	15.5	17.8	22.2	13.2
HCM Lane LOS	C	C	C	B
HCM 95th-tile Q	2.5	3.7	5.6	1.4

Existing AM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	323	17	60	741	64	69	3	85	88	1	45
Future Volume (vph)	21	323	17	60	741	64	69	3	85	88	1	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1810	1429	1736	1827	0	0	1681	0	0	1733	0
Flt Permitted	0.163			0.489				0.813			0.687	
Satd. Flow (perm)	295	1810	1429	893	1827	0	0	1398	0	0	1230	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		4			48			21	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	351	18	65	875	0	0	170	0	0	146	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	46.9	40.4	40.4	49.8	45.8			13.2			13.2	
Actuated g/C Ratio	0.61	0.53	0.53	0.65	0.60			0.17			0.17	
v/c Ratio	0.07	0.36	0.02	0.09	0.79			0.60			0.63	
Control Delay (s/veh)	5.8	13.6	0.0	5.4	22.2			30.9			38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.8	13.6	0.0	5.4	22.2			30.9			38.8	
LOS	A	B	A	A	C			C			D	
Approach Delay (s/veh)		12.6			21.1			30.9			38.8	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	3	95	0	8	224			48			50	
Queue Length 95th (ft)	13	192	0	26	#745			124			124	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	673	1086	887	883	1098			678			585	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.03	0.32	0.02	0.07	0.80			0.25			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 123.2

Actuated Cycle Length: 76.3

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.80

Existing AM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/26/2024























Intersection Signal Delay (s/veh): 21.6	Intersection LOS: C
Intersection Capacity Utilization 72.3%	ICU Level of Service C
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 30.4 s	 Ø2 51.8 s	 Ø4 41 s
 Ø5 30.4 s	 Ø6 51.8 s	 Ø8 41 s

Existing AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	349	88	47	411	125	207	217	40	205	165	106
Future Volume (vph)	136	349	88	47	411	125	207	217	40	205	165	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1779	0	1770	1754	0	1752	1845	1615	1719	1729	0
Flt Permitted	0.151			0.382			0.297			0.353		
Satd. Flow (perm)	287	1779	0	712	1754	0	548	1845	1615	639	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			10				158		15	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	465	0	50	570	0	220	231	43	218	289	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	72.4	60.5		59.5	51.0		43.1	24.2	24.2	46.5	26.1	
Actuated g/C Ratio	0.52	0.43		0.43	0.37		0.31	0.17	0.17	0.33	0.19	
v/c Ratio	0.48	0.59		0.13	0.88		0.68	0.72	0.10	0.59	0.86	
Control Delay (s/veh)	22.5	34.1		17.6	56.9		46.4	70.7	0.5	41.4	78.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	22.5	34.1		17.6	56.9		46.4	70.7	0.5	41.4	78.1	
LOS	C	C		B	E		D	E	A	D	E	
Approach Delay (s/veh)		31.4			53.8			53.8			62.4	
Approach LOS		C			D			D			E	
Queue Length 50th (ft)	67	328		22	477		142	200	0	141	249	
Queue Length 95th (ft)	111	474		46	694		#288	#461	0	260	#479	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	483	933		604	903		354	319	410	476	391	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.30	0.50		0.08	0.63		0.62	0.72	0.10	0.46	0.74	
Intersection Summary												
Area Type:	Other											
Cycle Length: 180												
Actuated Cycle Length: 139.4												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.88												

Existing AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/26/2024







Intersection Signal Delay (s/veh): 49.6	Intersection LOS: D
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

Existing PM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	22.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	55	119	87	187	505	50
Future Vol, veh/h	55	119	87	187	505	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	22	12	1	15
Mvmt Flow	61	132	97	208	561	56







Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	304	0	-	0	351
Stage 1	-	-	-	-	97
Stage 2	-	-	-	-	254
Critical Hdwy	4.12	-	-	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	2,218	-	-	-	3,509
Pot Cap-1 Maneuver	1256	-	-	-	648
Stage 1	-	-	-	-	930
Stage 2	-	-	-	-	790
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1256	-	-	-	617
Mov Cap-2 Maneuver	-	-	-	-	617
Stage 1	-	-	-	-	884
Stage 2	-	-	-	-	790

Approach	EB	WB	SB
HCM Control Delay, s/v	2.53	0	40.36
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1256	-	-	-	617	925
HCM Lane V/C Ratio	0.049	-	-	-	0.91	0.06
HCM Control Delay (s/veh)	8	-	-	-	43.5	9.1
HCM Lane LOS	A	-	-	-	E	A
HCM 95th %tile Q(veh)	0.2	-	-	-	11.4	0.2

Existing PM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	72	201	38	233	569
Future Vol, veh/h	40	72	201	38	233	569
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	16	0	9	11	1	1
Mvmt Flow	42	75	209	40	243	593






Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1288	209	0	0	249	0
Stage 1	209	-	-	-	-	-
Stage 2	1078	-	-	-	-	-
Critical Hdwy	6.56	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	169	836	-	-	1323	-
Stage 1	793	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	123	836	-	-	1323	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	223	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v23.62		0	2.42
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 123 836	523	-
HCM Lane V/C Ratio	-	- 0.339 0.09	0.184	-
HCM Control Delay (s/veh)	-	- 48.6 9.7	8.3	0
HCM Lane LOS	-	- E A	A	A
HCM 95th %tile Q(veh)	-	- 1.4 0.3	0.7	-

Existing PM Peak Hour
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/26/2024

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	111	224	38	405	794
Future Vol, veh/h	19	111	224	38	405	794
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	3	8	0	1	0
Mvmt Flow	20	116	233	40	422	827









Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1904	233	0	0	273	0
Stage 1	233	-	-	-	-	-
Stage 2	1671	-	-	-	-	-
Critical Hdwy	6.46	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	74	803	-	-	1296	-
Stage 1	796	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	803	-	-	1296	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	65	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v46.88		0	3.08
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 29 803	608	-
HCM Lane V/C Ratio	-	- 0.675 0.144	0.325	-
HCM Control Delay (s/veh)	-	- 261 10.2	9.1	0
HCM Lane LOS	-	- F B	A	A
HCM 95th %tile Q(veh)	-	- 2.2 0.5	1.4	-

Existing PM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/26/2024

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	614	0	0	314	8	0	0	0	6	0	3
Future Vol, veh/h	11	614	0	0	314	8	0	0	0	6	0	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	698	0	0	357	9	0	0	0	7	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	698	0	0	1080	1089	698	1084	1084	361
Stage 1	-	-	-	-	-	-	723	723	-	361	361	-
Stage 2	-	-	-	-	-	-	357	366	-	723	723	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1204	-	-	908	-	-	198	217	444	196	219	688
Stage 1	-	-	-	-	-	-	421	434	-	661	629	-
Stage 2	-	-	-	-	-	-	665	626	-	421	434	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1204	-	-	908	-	-	195	215	444	194	216	688
Mov Cap-2 Maneuver	-	-	-	-	-	-	195	215	-	194	216	-
Stage 1	-	-	-	-	-	-	416	429	-	661	629	-
Stage 2	-	-	-	-	-	-	662	626	-	416	429	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.14			0			0			19.7		
HCM LOS							A			C		




Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1204	-	-	908	-	-	255
HCM Lane V/C Ratio	-	0.01	-	-	-	-	-	0.04
HCM Control Delay (s/veh)	0	8	-	-	0	-	-	19.7
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

Existing PM Peak Hour
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/26/2024

Intersection






Int Delay, s/veh 3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	499	123	92	495	48	49
Future Vol, veh/h	499	123	92	495	48	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	1	7	16	4
Mvmt Flow	509	126	94	505	49	50

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	635
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	953
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	953
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.44	31.07
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	235	-	-	282	-
HCM Lane V/C Ratio	0.422	-	-	0.098	-
HCM Control Delay (s/veh)	31.1	-	-	9.2	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2	-	-	0.3	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	525	30	195	714	7	101
Future Vol, veh/h	525	30	195	714	7	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	1	2	0	3
Mvmt Flow	565	32	210	768	8	109

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	597
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	985
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	985
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.07	16.89
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	73	512	-	-	985	-
HCM Lane V/C Ratio	0.103	0.212	-	-	0.213	-
HCM Control Delay (s/veh)	59.8	13.9	-	-	9.6	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.8	-	-	0.8	-

Existing PM Peak Hour
25: Garvey Road & Jupiter Boulevard

HCM 7th AWSC
01/26/2024

Intersection	
Intersection Delay, s/veh	17.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	275	71	60	260	34	66	57	51	36	128	14
Future Vol, veh/h	6	275	71	60	260	34	66	57	51	36	128	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	17	3	0	0	3	6	5	4	8	3	3	0
Mvmt Flow	7	299	77	65	283	37	72	62	55	39	139	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0




















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	20.1	19	13.4	13.7
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	2%	17%	20%
Vol Thru, %	33%	78%	73%	72%
Vol Right, %	29%	20%	10%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	352	354	178
LT Vol	66	6	60	36
Through Vol	57	275	260	128
RT Vol	51	71	34	14
Lane Flow Rate	189	383	385	193
Geometry Grp	1	1	1	1
Degree of Util (X)	0.353	0.654	0.638	0.363
Departure Headway (Hd)	6.719	6.149	5.97	6.76
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	533	585	604	530
Service Time	4.781	4.199	4.02	4.824
HCM Lane V/C Ratio	0.355	0.655	0.637	0.364
HCM Control Delay, s/veh	13.4	20.1	19	13.7
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	1.6	4.8	4.5	1.6

Existing PM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	512	47	102	322	114	19	0	63	51	0	11
Future Volume (vph)	42	512	47	102	322	114	19	0	63	51	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1863	1615	1787	1669	0	0	1618	0	0	1752	0
Flt Permitted	0.472			0.347				0.901			0.706	
Satd. Flow (perm)	854	1863	1615	653	1669	0	0	1474	0	0	1287	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		16			81			81	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	545	50	109	464	0	0	87	0	0	66	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	33.0	28.7	28.7	34.3	31.2			7.8			7.8	
Actuated g/C Ratio	0.62	0.54	0.54	0.65	0.59			0.15			0.15	
v/c Ratio	0.07	0.54	0.05	0.19	0.46			0.30			0.25	
Control Delay (s/veh)	3.7	14.7	1.7	4.4	12.3			11.2			8.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.7	14.7	1.7	4.4	12.3			11.2			8.4	
LOS	A	B	A	A	B			B			A	
Approach Delay (s/veh)		13.0			10.8			11.3			8.5	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)	4	138	0	10	110			2			0	
Queue Length 95th (ft)	12	253	10	25	208			38			26	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	1031	1550	1356	1024	1391			1044			915	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.35	0.04	0.11	0.33			0.08			0.07	

Intersection Summary

Area Type: Other

Cycle Length: 123.2

Actuated Cycle Length: 52.9

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.54

Existing PM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/26/2024

Intersection Signal Delay (s/veh): 11.7	Intersection LOS: B
Intersection Capacity Utilization 57.8%	ICU Level of Service B
Analysis Period (min) 15	























Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 30.4 s	 Ø2 51.8 s	 Ø4 41 s
 Ø5 30.4 s	 Ø6 51.8 s	 Ø8 41 s

Existing PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings

01/26/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	365	204	53	366	229	156	188	37	181	160	124
Future Volume (vph)	73	365	204	53	366	229	156	188	37	181	160	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1768	0	1736	1736	0	1671	1667	1482	1787	1732	0
Flt Permitted	0.162			0.226			0.240			0.414		
Satd. Flow (perm)	305	1768	0	413	1736	0	422	1667	1482	779	1732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			20				158		19	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	611	0	57	640	0	168	202	40	195	305	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effect Green (s)	71.8	63.5		67.7	59.0		40.4	23.5	23.5	44.0	25.3	
Actuated g/C Ratio	0.51	0.45		0.48	0.42		0.29	0.17	0.17	0.32	0.18	
v/c Ratio	0.30	0.75		0.20	0.85		0.63	0.72	0.10	0.52	0.92	
Control Delay (s/veh)	18.3	38.5		16.9	48.2		46.8	72.8	0.5	40.4	87.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	18.3	38.5		16.9	48.2		46.8	72.8	0.5	40.4	87.5	
LOS	B	D		B	D		D	E	A	D	F	
Approach Delay (s/veh)		36.2			45.7			55.1			69.2	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	32	458		23	507		114	182	0	134	269	
Queue Length 95th (ft)	61	653		47	722		192	#365	0	219	#518	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	489	913		513	892		315	280	380	494	392	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.16	0.67		0.11	0.72		0.53	0.72	0.11	0.39	0.78	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 139.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Existing PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/26/2024

Intersection Signal Delay (s/veh): 49.6	Intersection LOS: D
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	







Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

Future No Build Capacity Analyses






No Build AM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	576.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	187	344	685	562	304	274
Future Vol, veh/h	187	344	685	562	304	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	7	6	3	3	2	5
Mvmt Flow	237	435	867	711	385	347
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1578	0	-	0	1776	867
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	909	-
Critical Hdwy	4.17	-	-	-	6.42	6.25
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.263	-	-	-	3.518	3.345
Pot Cap-1 Maneuver	403	-	-	-	~ 91	348
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	403	-	-	-	~ 37	348
Mov Cap-2 Maneuver	-	-	-	-	~ 37	-
Stage 1	-	-	-	-	~ 170	-
Stage 2	-	-	-	-	393	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	9.11	0		\$ 2340.18		
HCM LOS	F					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	403	-	-	-	37	348
HCM Lane V/C Ratio	0.587	-	-	-	10.266	0.997
HCM Control Delay (s/veh)	25.9	-	-	-	\$ 4374.8	82.8
HCM Lane LOS	D	-	-	-	F	F
HCM 95th %tile Q(veh)	3.6	-	-	-	46.5	11.3
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

No Build AM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/29/2024






Intersection						
Int Delay, s/veh	60.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	160	327	821	73	74	466
Future Vol, veh/h	160	327	821	73	74	466
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	2	5	6	4
Mvmt Flow	178	363	912	81	82	518

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1594	912	0	0	993	0
Stage 1	912	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Critical Hdwy	6.44	6.22	-	-	4.16	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.318	-	-	2.254	-
Pot Cap-1 Maneuver	~ 116	~ 332	-	-	681	-
Stage 1	388	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 97	~ 332	-	-	681	-
Mov Cap-2 Maneuver	~ 97	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	414	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/veh	237.05	0	1.51
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 97 332	247	-
HCM Lane V/C Ratio	-	- 1.841 1.095	0.121	-
HCM Control Delay (s/veh)	-	- \$ 489.6 113.5	11	0
HCM Lane LOS	-	- F F	B	A
HCM 95th %tile Q(veh)	-	- 14.7 13.8	0.4	-

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

Intersection						
Int Delay, s/veh	256.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	156	440	1415	82	84	228
Future Vol, veh/h	156	440	1415	82	84	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	8	6
Mvmt Flow	166	468	1505	87	89	243

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1927	1505	0	0	1593	0
Stage 1	1505	-	-	-	-	-
Stage 2	421	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	4.18	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.272	-
Pot Cap-1 Maneuver	~ 74	~ 150	-	-	395	-
Stage 1	205	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 55	~ 150	-	-	395	-
Mov Cap-2 Maneuver	~ 55	-	-	-	-	-
Stage 1	205	-	-	-	-	-
Stage 2	492	-	-	-	-	-









Approach	WB	NB	SB
HCM Control Delay, s/veh	4034.46	0	4.51
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	55	150	342	-
HCM Lane V/C Ratio	-	-	3.032	3.127	0.226	-
HCM Control Delay (s/veh)	-	\$ 1074.5	\$ 1020.2		16.7	0
HCM Lane LOS	-	-	F	F	C	A
HCM 95th %tile Q(veh)	-	-	17.5	43.8	0.9	-

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

No Build AM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/29/2024

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
Future Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	715	0	0	1405	8	0	0	0	4	0	25




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1413	0	0	715	0	0	2136	2145	715	2141	2141	1409
Stage 1	-	-	-	-	-	-	732	732	-	1409	1409	-
Stage 2	-	-	-	-	-	-	1405	1413	-	732	732	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.77	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.103	4	3.3
Pot Cap-1 Maneuver	489	-	-	894	-	-	36	49	434	23	49	172
Stage 1	-	-	-	-	-	-	416	430	-	125	207	-
Stage 2	-	-	-	-	-	-	175	206	-	327	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	489	-	-	894	-	-	30	48	434	23	49	172
Mov Cap-2 Maneuver	-	-	-	-	-	-	30	48	-	23	49	-
Stage 1	-	-	-	-	-	-	409	423	-	125	207	-
Stage 2	-	-	-	-	-	-	149	206	-	321	423	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v 0.14		0	0	58.69
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	489	-	-	894	-	-	94
HCM Lane V/C Ratio	-	0.017	-	-	-	-	-	0.299
HCM Control Delay (s/veh)	0	12.5	-	-	0	-	-	58.7
HCM Lane LOS	A	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	1.1

No Build AM Peak Hour
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/29/2024






Intersection						
Int Delay, s/veh	105.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	816	72	57	976	112	70
Future Vol, veh/h	816	72	57	976	112	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	5	8	3	3	5
Mvmt Flow	907	80	63	1084	124	78

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	987
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	677
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	677
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.6	\$ 1214.55
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	60	-	-	99	-
HCM Lane V/C Ratio	3.378	-	-	0.094	-
HCM Control Delay (s/veh)	\$ 1214.6	-	-	10.9	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	21.3	-	-	0.3	-

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





Intersection						
Int Delay, s/veh	10.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	811	44	115	688	40	194
Future Vol, veh/h	811	44	115	688	40	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	5	6	4	3	3
Mvmt Flow	943	51	134	800	47	226

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	994
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	680
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	680
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.66	76.55
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	50	306	-	-	680	-
HCM Lane V/C Ratio	0.933	0.736	-	-	0.197	-
HCM Control Delay (s/veh)	236.7	43.5	-	-	11.6	-
HCM Lane LOS	F	E	-	-	B	-
HCM 95th %tile Q(veh)	4	5.4	-	-	0.7	-

Intersection	
Intersection Delay, s/veh	52.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	380	44	25	392	41	82	114	44	56	81	20
Future Vol, veh/h	24	380	44	25	392	41	82	114	44	56	81	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	5	4	10	4	4	5	1	1	8	0	7	0
Mvmt Flow	26	418	48	27	431	45	90	125	48	62	89	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0





















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	64.4	68.5	22.5	17.6
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	5%	5%	36%
Vol Thru, %	48%	85%	86%	52%
Vol Right, %	18%	10%	9%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	448	458	157
LT Vol	82	24	25	56
Through Vol	114	380	392	81
RT Vol	44	44	41	20
Lane Flow Rate	264	492	503	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.594	0.988	1.005	0.412
Departure Headway (Hd)	8.102	7.226	7.19	8.691
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	443	502	508	418
Service Time	6.188	5.254	5.217	6.691
HCM Lane V/C Ratio	0.596	0.98	0.99	0.414
HCM Control Delay, s/veh	22.5	64.4	68.5	17.6
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	3.8	13.2	13.9	2

No Build AM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Future Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1810	1429	1736	1831	0	0	1682	0	0	1734	0
Flt Permitted	0.084			0.198				0.807			0.669	
Satd. Flow (perm)	152	1810	1429	362	1831	0	0	1388	0	0	1198	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		3			48			21	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	762	21	67	1173	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	51.7	45.7	45.7	55.1	50.8			14.4			14.4	
Actuated g/C Ratio	0.63	0.55	0.55	0.67	0.62			0.17			0.17	
v/c Ratio	0.11	0.76	0.02	0.18	1.03			0.62			0.67	
Control Delay (s/veh)	6.6	23.3	0.0	6.4	57.6			33.6			43.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.6	23.3	0.0	6.4	57.6			33.6			43.2	
LOS	A	C	A	A	E			C			D	
Approach Delay (s/veh)		22.3			54.9			33.7			43.2	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	3	305	0	10	482			63			65	
Queue Length 95th (ft)	13	#627	0	28	#1148			131			131	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	586	1001	824	670	1129			624			527	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.76	0.03	0.10	1.04			0.28			0.29	

Intersection Summary

Area Type: Other

Cycle Length: 123.2

Actuated Cycle Length: 82.5

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.04

No Build AM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/29/2024

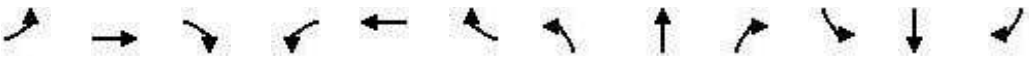










Intersection Signal Delay (s/veh): 41.5	Intersection LOS: D
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 30.4 s	 Ø2 51.8 s	 Ø4 41 s
 Ø5 30.4 s	 Ø6 51.8 s	 Ø8 41 s

No Build AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Future Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1768	0	1770	1762	0	1752	1845	1615	1719	1721	0
Flt Permitted	0.075			0.165			0.175			0.169		
Satd. Flow (perm)	142	1768	0	307	1762	0	323	1845	1615	306	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			8				158		18	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	215	771	0	52	715	0	291	246	45	246	346	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	99.3	86.2		79.0	70.1		43.8	22.8	22.8	51.0	26.9	
Actuated g/C Ratio	0.59	0.51		0.47	0.42		0.26	0.14	0.14	0.30	0.16	
v/c Ratio	0.73	0.84		0.24	0.96		1.14	0.98	0.12	0.83	1.19	
Control Delay (s/veh)	51.1	46.3		19.5	73.2		147.0	123.3	0.7	69.6	169.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	51.1	46.3		19.5	73.2		147.0	123.3	0.7	69.6	169.7	
LOS	D	D		B	E		F	F	A	E	F	
Approach Delay (s/veh)		47.4			69.6			125.7			128.2	
Approach LOS		D			E			F			F	
Queue Length 50th (ft)	148	716		23	742		~323	~303	0	213	~454	
Queue Length 95th (ft)	255	1012		46	#1161		#587	#544	0	328	#680	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	380	910		439	739		254	249	355	352	322	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.57	0.85		0.12	0.97		1.15	0.99	0.13	0.70	1.07	
Intersection Summary												
Area Type:	Other											
Cycle Length: 180												
Actuated Cycle Length: 168.3												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.19												

No Build AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024







Intersection Signal Delay (s/veh): 85.1	Intersection LOS: F
Intersection Capacity Utilization 106.1%	ICU Level of Service G
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

No Build PM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	305.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	252	263	416	810	59
Future Vol, veh/h	67	252	263	416	810	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	22	12	1	15
Mvmt Flow	74	280	292	462	900	66

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	754	0	0
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	856	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	856	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-







Approach	EB	WB	SB
HCM Control Delay, s/v	2.02	0	\$ 655.62
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	856	-	-	-	361	717
HCM Lane V/C Ratio	0.087	-	-	-	2.492	0.091
HCM Control Delay (s/veh)	9.6	-	-	-	\$ 702.6	10.5
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	72	0.3

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

No Build PM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	71.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	95	467	85	277	878
Future Vol, veh/h	89	95	467	85	277	878
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	16	0	9	11	1	1
Mvmt Flow	93	99	486	89	289	915

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1978	486	0	0	575	0
Stage 1	486	-	-	-	-	-
Stage 2	1492	-	-	-	-	-
Critical Hdwy	6.56	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 62	585	-	-	1003	-
Stage 1	590	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 26	585	-	-	1003	-
Mov Cap-2 Maneuver	~ 26	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	~ 79	-	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/veh	21.43	0	2.41
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 26 585	432	-
HCM Lane V/C Ratio	-	- 3.589 0.169	0.288	-
HCM Control Delay (s/veh)	-	\$ 1478.3 12.4	10	0
HCM Lane LOS	-	- F B	B	A
HCM 95th %tile Q(veh)	-	- 11.4 0.6	1.2	-

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









No Build PM Peak Hour
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	122	463	82	447	1120
Future Vol, veh/h	149	122	463	82	447	1120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	3	8	0	1	0
Mvmt Flow	155	127	482	85	466	1167
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2580	482	0	0	568	0
Stage 1	482	-	-	-	-	-
Stage 2	2098	-	-	-	-	-
Critical Hdwy	6.46	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	~ 27	582	-	-	1009	-
Stage 1	613	-	-	-	-	-
Stage 2	~ 100	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	582	-	-	1009	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s/v			0		3.3	
HCM LOS	-					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	-	582 ~ 355	-	
HCM Lane V/C Ratio	-	-	-	0.218 0.461	-	
HCM Control Delay (s/veh)	-	-	-	12.9 11.6	0	
HCM Lane LOS	-	-	-	B B	A	
HCM 95th %tile Q(veh)	-	-	-	0.8 2.5	-	
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

No Build PM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/29/2024

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	1004	0	0	682	8	0	0	0	6	0	3
Future Vol, veh/h	11	1004	0	0	682	8	0	0	0	6	0	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	1141	0	0	775	9	0	0	0	7	0	3




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	784	0	0	1141	0	0	1941	1950	1141	1945	1945	780
Stage 1	-	-	-	-	-	-	1166	1166	-	780	780	-
Stage 2	-	-	-	-	-	-	775	784	-	1166	1166	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	843	-	-	620	-	-	50	65	247	49	66	399
Stage 1	-	-	-	-	-	-	238	270	-	392	409	-
Stage 2	-	-	-	-	-	-	394	407	-	238	270	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	843	-	-	620	-	-	49	64	247	49	65	399
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	64	-	49	65	-
Stage 1	-	-	-	-	-	-	235	266	-	392	409	-
Stage 2	-	-	-	-	-	-	390	407	-	235	266	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0	0	66.25
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	843	-	-	620	-	-	69
HCM Lane V/C Ratio	-	0.015	-	-	-	-	-	0.149
HCM Control Delay (s/veh)	0	9.3	-	-	0	-	-	66.3
HCM Lane LOS	A	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.5

No Build PM Peak Hour
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/29/2024






Intersection						
Int Delay, s/veh	23.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	868	128	97	974	50	51
Future Vol, veh/h	868	128	97	974	50	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	1	7	16	4
Mvmt Flow	886	131	99	994	51	52

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1016
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	686
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	686
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.01	\$ 492.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	60	-	-	163	-
HCM Lane V/C Ratio	1.711	-	-	0.144	-
HCM Control Delay (s/veh)	\$ 492.1	-	-	11.1	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	9.4	-	-	0.5	-

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

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	722	31	203	998	7	105
Future Vol, veh/h	722	31	203	998	7	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	1	2	0	3
Mvmt Flow	776	33	218	1073	8	113

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	810	0	2303	793
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	1510	-
Critical Hdwy	-	-	4.11	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.327
Pot Cap-1 Maneuver	-	-	821	-	43	387
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	204	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	821	-	32	387
Mov Cap-2 Maneuver	-	-	-	-	32	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	150	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.85	26.44
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	32	387	-	-	821	-
HCM Lane V/C Ratio	0.239	0.292	-	-	0.266	-
HCM Control Delay (s/veh)	151.7	18.1	-	-	11	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	0.8	1.2	-	-	1.1	-

No Build PM Peak Hour
25: Garvey Road & Jupiter Boulevard

HCM 7th AWSC
01/29/2024

Intersection	
Intersection Delay, s/veh	51
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	377	74	62	389	35	69	59	53	37	133	15
Future Vol, veh/h	6	377	74	62	389	35	69	59	53	37	133	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	17	3	0	0	3	6	5	4	8	3	3	0
Mvmt Flow	7	410	80	67	423	38	75	64	58	40	145	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0




















Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	61.3	66.2	17.9	18.2
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	1%	13%	20%
Vol Thru, %	33%	82%	80%	72%
Vol Right, %	29%	16%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	181	457	486	185
LT Vol	69	6	62	37
Through Vol	59	377	389	133
RT Vol	53	74	35	15
Lane Flow Rate	197	497	528	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.448	0.977	1.002	0.459
Departure Headway (Hd)	8.297	7.082	6.83	8.327
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	437	512	528	434
Service Time	6.297	5.164	4.91	6.327
HCM Lane V/C Ratio	0.451	0.971	1	0.463
HCM Control Delay, s/veh	17.9	61.3	66.2	18.2
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	2.3	12.9	14.1	2.4

No Build PM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Future Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1863	1615	1787	1682	0	0	1618	0	0	1751	0
Flt Permitted	0.163			0.133				0.915			0.808	
Satd. Flow (perm)	295	1863	1615	250	1682	0	0	1497	0	0	1474	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		7			81			81	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	943	53	113	975	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	55.0	47.5	47.5	58.8	54.3			7.6			7.6	
Actuated g/C Ratio	0.71	0.61	0.61	0.76	0.70			0.10			0.10	
v/c Ratio	0.14	0.82	0.05	0.34	0.82			0.41			0.31	
Control Delay (s/veh)	3.9	22.0	1.5	5.7	21.7			16.4			10.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.9	22.0	1.5	5.7	21.7			16.4			10.7	
LOS	A	C	A	A	C			B			B	
Approach Delay (s/veh)		20.2			20.1			16.5			10.8	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	4	343	0	10	404			4			0	
Queue Length 95th (ft)	12	#694	10	25	#763			47			29	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	692	1141	1018	693	1179			720			710	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.07	0.83	0.05	0.16	0.83			0.13			0.10	
Intersection Summary												
Area Type:	Other											
Cycle Length:	123.2											
Actuated Cycle Length:	77.6											
Control Type:	Semi Act-Uncoord											
Maximum v/c Ratio:	0.83											

No Build PM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/29/2024























Intersection Signal Delay (s/veh): 19.7	Intersection LOS: B
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1	 Ø2	 Ø4
30.4 s	51.8 s	41 s
 Ø5	 Ø6	 Ø8
30.4 s	51.8 s	41 s

No Build PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Future Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1772	0	1736	1754	0	1671	1667	1482	1787	1706	0
Flt Permitted	0.051			0.056			0.157			0.325		
Satd. Flow (perm)	96	1772	0	102	1754	0	276	1667	1482	611	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			14				158		28	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	902	0	59	943	0	282	230	41	215	406	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effect Green (s)	89.9	77.8		79.2	70.1		46.5	25.4	25.4	46.8	25.8	
Actuated g/C Ratio	0.57	0.49		0.50	0.44		0.29	0.16	0.16	0.29	0.16	
v/c Ratio	0.68	1.03		0.44	1.20		1.10	0.86	0.11	0.65	1.35	
Control Delay (s/veh)	52.5	77.5		31.9	144.2		130.3	93.5	0.6	50.3	223.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	52.5	77.5		31.9	144.2		130.3	93.5	0.6	50.3	223.8	
LOS	D	E		C	F		F	F	A	D	F	
Approach Delay (s/veh)		74.4			137.7			105.4			163.8	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	83	~1008		26	~1169		~278	235	0	167	~530	
Queue Length 95th (ft)	162	#1369		64	#1583		#541	#487	0	257	#765	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	374	875		366	780		256	266	369	428	344	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.35	1.03		0.16	1.21		1.10	0.86	0.11	0.50	1.18	
Intersection Summary												
Area Type:	Other											
Cycle Length: 180												
Actuated Cycle Length: 159.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.35												

No Build PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024

Intersection Signal Delay (s/veh): 116.8	Intersection LOS: F
Intersection Capacity Utilization 116.2%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	







Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

Future Build Capacity Analyses

Build AM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	793.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	187	349	693	616	339	274
Future Vol, veh/h	187	349	693	616	339	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	7	6	3	3	2	5
Mvmt Flow	237	442	877	780	429	347

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1657	0	0 1792 877
Stage 1	-	-	- 877 -
Stage 2	-	-	- 915 -
Critical Hdwy	4.17	-	- 6.42 6.25
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.263	-	- 3.518 3.345
Pot Cap-1 Maneuver	376	-	- ~ 89 ~ 343
Stage 1	-	-	- ~ 407 -
Stage 2	-	-	- ~ 390 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	376	-	- ~ 33 ~ 343
Mov Cap-2 Maneuver	-	-	- ~ 33 -
Stage 1	-	-	- ~ 150 -
Stage 2	-	-	- ~ 390 -







Approach	EB	WB	SB
HCM Control Delay, s/v10.31		0	\$ 3172.21
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	376	-	-	-	33	343
HCM Lane V/C Ratio	0.63	-	-	-	13.077	1.011
HCM Control Delay (s/veh)	29.6	-	-	-	\$ 5665.9	87
HCM Lane LOS	D	-	-	-	F	F
HCM 95th %tile Q(veh)	4.1	-	-	-	52.6	11.6

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

Build AM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	76.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	327	870	78	74	498
Future Vol, veh/h	163	327	870	78	74	498
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	2	5	6	4
Mvmt Flow	181	363	967	87	82	553

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1684	967	0	0	1053	0
Stage 1	967	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Critical Hdwy	6.44	6.22	-	-	4.16	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.318	-	-	2.254	-
Pot Cap-1 Maneuver	~ 102	~ 309	-	-	646	-
Stage 1	366	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 84	~ 309	-	-	646	-
Mov Cap-2 Maneuver	~ 84	-	-	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	391	-	-	-	-	-







Approach	WB	NB	SB
HCM Control Delay, s	311.1	0	1.47
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 84 309	233	-
HCM Lane V/C Ratio	-	- 2.169 1.178	0.127	-
HCM Control Delay (s/veh)	-	- \$ 644.6 144.9	11.4	0
HCM Lane LOS	-	- F F	B	A
HCM 95th %tile Q(veh)	-	- 16.4 15.6	0.4	-

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

Build AM Peak Hour
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	283.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	440	1460	87	84	257
Future Vol, veh/h	159	440	1460	87	84	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	8	6
Mvmt Flow	169	468	1553	93	89	273

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2005	1553	0	0	1646	0
Stage 1	1553	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	4.18	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.272	-
Pot Cap-1 Maneuver	~ 66	~ 140	-	-	377	-
Stage 1	194	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 48	~ 140	-	-	377	-
Mov Cap-2 Maneuver	~ 48	-	-	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	465	-	-	-	-	-










Approach	WB	NB	SB
HCM Control Delay, s/veh	173.2	0	4.31
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	48	140	320	-
HCM Lane V/C Ratio	-	-	3.549	3.339	0.237	-
HCM Control Delay (s/veh)	-	\$ 1324	\$ 1118.5		17.5	0
HCM Lane LOS	-	-	F	F	C	A
HCM 95th %tile Q(veh)	-	-	18.6	44.9	0.9	-

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

Build AM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/29/2024

Intersection												
Int Delay, s/veh	54.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	654	20	31	1224	7	48	3	48	3	2	21
Future Vol, veh/h	7	654	20	31	1224	7	48	3	48	3	2	21
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	769	24	36	1440	8	56	4	56	4	2	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1448	0	0	793	0	0	2300	2307	769	2305	2326	1444
Stage 1	-	-	-	-	-	-	786	786	-	1517	1517	-
Stage 2	-	-	-	-	-	-	1514	1521	-	788	809	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.77	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.77	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.103	4	3.3
Pot Cap-1 Maneuver	474	-	-	837	-	-	~ 28	39	404	17	38	164
Stage 1	-	-	-	-	-	-	388	406	-	106	183	-
Stage 2	-	-	-	-	-	-	151	183	-	302	396	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	474	-	-	837	-	-	~ 21	36	404	13	35	164
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 21	36	-	13	35	-
Stage 1	-	-	-	-	-	-	382	399	-	102	175	-
Stage 2	-	-	-	-	-	-	121	175	-	253	389	-




Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.13	0.23	\$ 1106.43	111.28
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	39	474	-	-	837	-	-	62
HCM Lane V/C Ratio	2.973	0.017	-	-	0.044	-	-	0.497
HCM Control Delay (s/veh)	\$ 1106.4	12.7	-	-	9.5	-	-	111.3
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	13	0.1	-	-	0.1	-	-	2

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

Build AM Peak Hour
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/29/2024






Intersection						
Int Delay, s/veh	148.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	907	75	57	1035	114	70
Future Vol, veh/h	907	75	57	1035	114	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	5	8	3	3	5
Mvmt Flow	1008	83	63	1150	127	78

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1091
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	618
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	618
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.6	\$ 1821.14
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	44	-	-	94	-
HCM Lane V/C Ratio	4.636	-	-	0.103	-
HCM Control Delay (s/veh) \$	1821.1	-	-	11.5	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	23.3	-	-	0.3	-

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

Intersection						
Int Delay, s/veh	12.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	856	47	115	717	42	194
Future Vol, veh/h	856	47	115	717	42	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	5	6	4	3	3
Mvmt Flow	995	55	134	834	49	226





Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1050
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	648
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	648
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.66	100.79
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	43	285	-	-	648	-
HCM Lane V/C Ratio	1.126	0.792	-	-	0.206	-
HCM Control Delay (s/veh)	\$ 323.5	52.6	-	-	12	-
HCM Lane LOS	F	F	-	-	B	-
HCM 95th %tile Q(veh)	4.6	6.2	-	-	0.8	-

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

Intersection	
Intersection Delay, s/veh	55.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	399	44	25	404	41	85	116	44	56	84	20
Future Vol, veh/h	24	399	44	25	404	41	85	116	44	56	84	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	5	4	10	4	4	5	1	1	8	0	7	0
Mvmt Flow	26	438	48	27	444	45	93	127	48	62	92	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	70.7	71.4	22.9	17.9
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	5%	5%	35%
Vol Thru, %	47%	85%	86%	53%
Vol Right, %	18%	9%	9%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	467	470	160
LT Vol	85	24	25	56
Through Vol	116	399	404	84
RT Vol	44	44	41	20
Lane Flow Rate	269	513	516	176
Geometry Grp	1	1	1	1
Degree of Util (X)	0.601	1.012	1.015	0.415
Departure Headway (Hd)	8.262	7.297	7.279	8.781
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	439	503	501	413
Service Time	6.262	5.297	5.279	6.781
HCM Lane V/C Ratio	0.613	1.02	1.03	0.426
HCM Control Delay, s/veh	22.9	70.7	71.4	17.9
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	3.8	14.1	14.2	2

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	635	20	30	1263	14	46
Future Vol, veh/h	635	20	30	1263	14	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	690	22	33	1373	15	50

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	712
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	-	-	888
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	888
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.21	41.27
HCM LOS			E




















Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	162	-	-	888	-
HCM Lane V/C Ratio	0.401	-	-	0.037	-
HCM Control Delay (s/veh)	41.3	-	-	9.2	-
HCM Lane LOS	E	-	-	A	-
HCM 95th %tile Q(veh)	1.8	-	-	0.1	-

Build AM Peak Hour

Lanes, Volumes, Timings

14: Bending Branch Way/Krassner Drive & Malabar Road

01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Future Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1810	1429	1736	1831	0	0	1682	0	0	1734	0
Flt Permitted	0.084			0.133				0.807			0.669	
Satd. Flow (perm)	152	1810	1429	243	1831	0	0	1388	0	0	1198	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		3			48			21	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	864	21	67	1239	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	51.7	45.7	45.7	55.0	50.8			14.4			14.4	
Actuated g/C Ratio	0.63	0.55	0.55	0.67	0.62			0.17			0.17	
v/c Ratio	0.11	0.86	0.02	0.23	1.09			0.62			0.67	
Control Delay (s/veh)	6.7	29.7	0.0	7.2	77.7			33.6			43.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.7	29.7	0.0	7.2	77.7			33.6			43.2	
LOS	A	C	A	A	E			C			D	
Approach Delay (s/veh)		28.4			74.1			33.7			43.2	
Approach LOS		C			E			C			D	
Queue Length 50th (ft)	3	383	0	10	566			63			65	
Queue Length 95th (ft)	13	#762	0	28	#1235			131			131	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	586	1001	824	625	1128			624			527	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.86	0.03	0.11	1.10			0.28			0.29	

Intersection Summary

Area Type: Other

Cycle Length: 123.2

Actuated Cycle Length: 82.5

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.10

Build AM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/29/2024












Intersection Signal Delay (s/veh): 53.1	Intersection LOS: D
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 30.4 s	 Ø2 51.8 s	 Ø4 41 s
 Ø5 30.4 s	 Ø6 51.8 s	 Ø8 41 s

Build AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Future Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1766	0	1770	1764	0	1752	1845	1615	1719	1714	0
Flt Permitted	0.051			0.110			0.176			0.158		
Satd. Flow (perm)	97	1766	0	205	1764	0	325	1845	1615	286	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			8				158		20	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	843	0	52	748	0	304	246	45	246	363	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	101.4	88.3		78.9	70.1		43.7	22.7	22.7	51.3	27.0	
Actuated g/C Ratio	0.59	0.52		0.46	0.41		0.26	0.13	0.13	0.30	0.16	
v/c Ratio	0.82	0.91		0.31	1.02		1.21	1.00	0.12	0.84	1.26	
Control Delay (s/veh)	72.9	53.8		22.3	87.7		170.4	128.8	0.7	72.9	193.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	72.9	53.8		22.3	87.7		170.4	128.8	0.7	72.9	193.4	
LOS	E	D		C	F		F	F	A	E	F	
Approach Delay (s/veh)		58.1			83.5			140.4			144.8	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	207	851		23	~868		~365	~314	0	219	~500	
Queue Length 95th (ft)	324	#1242		46	#1242		#624	#544	0	332	#721	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	358	919		394	730		251	245	351	345	318	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.67	0.92		0.13	1.02		1.21	1.00	0.13	0.71	1.14	
Intersection Summary												
Area Type:	Other											
Cycle Length: 180												
Actuated Cycle Length: 170.5												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.26												

Build AM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024







Intersection Signal Delay (s/veh): 97.6	Intersection LOS: F
Intersection Capacity Utilization 110.7%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

Build PM Peak Hour
3: Malabar Road & St. Johns Heritage Parkway

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	360.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	67	261	270	461	871	59
Future Vol, veh/h	67	261	270	461	871	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	350	-	-	250	0	340
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	22	12	1	15
Mvmt Flow	74	290	300	512	968	66

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	812	0	-	0	739
Stage 1	-	-	-	-	300
Stage 2	-	-	-	-	439
Critical Hdwy	4.12	-	-	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	2.218	-	-	-	3.509
Pot Cap-1 Maneuver	814	-	-	-	~ 386
Stage 1	-	-	-	-	~ 754
Stage 2	-	-	-	-	~ 652
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	814	-	-	-	~ 351
Mov Cap-2 Maneuver	-	-	-	-	~ 351
Stage 1	-	-	-	-	~ 685
Stage 2	-	-	-	-	~ 652







Approach	EB	WB	SB
HCM Control Delay, s/v	2.02	0	\$ 770.72
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	814	-	-	-	351	710
HCM Lane V/C Ratio	0.091	-	-	-	2.758	0.092
HCM Control Delay (s/veh)	9.9	-	-	-	\$ 822.2	10.6
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	81.6	0.3

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

Build PM Peak Hour
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	111.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	94	95	508	89	277	934
Future Vol, veh/h	94	95	508	89	277	934
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	16	0	9	11	1	1
Mvmt Flow	98	99	529	93	289	973

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2079	529	0	0	622	0
Stage 1	529	-	-	-	-	-
Stage 2	1550	-	-	-	-	-
Critical Hdwy	6.56	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	~ 54	553	-	-	964	-
Stage 1	564	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 19	553	-	-	964	-
Mov Cap-2 Maneuver	~ 19	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	~ 62	-	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/veh	61.55	0	2.36
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	19	553	412	-
HCM Lane V/C Ratio	-	-	5.245	0.179	0.299	-
HCM Control Delay (s/veh)	-	\$	2322.4	12.9	10.3	0
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	12.8	0.6	1.3	-

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

Build PM Peak Hour
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/29/2024

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	154	122	500	86	447	1171
Future Vol, veh/h	154	122	500	86	447	1171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	3	8	0	1	0
Mvmt Flow	160	127	521	90	466	1220

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2672	521	0	0	610	0
Stage 1	521	-	-	-	-	-
Stage 2	2151	-	-	-	-	-
Critical Hdwy	6.46	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	~ 24	554	-	-	973	-
Stage 1	588	-	-	-	-	-
Stage 2	~ 94	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	554	-	-	973	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	0	-	-	-	-	-










Approach	WB	NB	SB
HCM Control Delay, s/v		0	3.33
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	554 ~ 314	-
HCM Lane V/C Ratio	-	-	0.23 0.478	-
HCM Control Delay (s/veh)	-	-	13.4 12	0
HCM Lane LOS	-	-	B B	A
HCM 95th %tile Q(veh)	-	-	0.9 2.6	-

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

Build PM Peak Hour
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/29/2024

Intersection												
Int Delay, s/veh	56.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	1029	48	63	725	8	58	2	54	6	3	3
Future Vol, veh/h	11	1029	48	63	725	8	58	2	54	6	3	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	1169	55	72	824	9	66	2	61	7	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	833	0	0	1224	0	0	2163	2170	1169	2167	2220	828
Stage 1	-	-	-	-	-	-	1194	1194	-	972	972	-
Stage 2	-	-	-	-	-	-	969	976	-	1195	1249	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	809	-	-	577	-	-	~ 35	47	237	34	44	374
Stage 1	-	-	-	-	-	-	230	262	-	306	334	-
Stage 2	-	-	-	-	-	-	308	332	-	229	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	809	-	-	577	-	-	~ 27	41	237	21	38	374
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 27	41	-	21	38	-
Stage 1	-	-	-	-	-	-	226	258	-	268	292	-
Stage 2	-	-	-	-	-	-	264	291	-	166	243	-




Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0.96	\$ 966.91	183.29
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	47	809	-	-	577	-	-	32
HCM Lane V/C Ratio	2.734	0.015	-	-	0.124	-	-	0.425
HCM Control Delay (s/veh)	\$ 966.9	9.5	-	-	12.1	-	-	183.3
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	13.8	0	-	-	0.4	-	-	1.4

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

Build PM Peak Hour
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/29/2024






Intersection						
Int Delay, s/veh	43.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	944	131	97	1076	54	51
Future Vol, veh/h	944	131	97	1076	54	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	1	7	16	4
Mvmt Flow	963	134	99	1098	55	52

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1097
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	640
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	640
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.96	\$ 957.95
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	40	-	-	149	-
HCM Lane V/C Ratio	2.647	-	-	0.155	-
HCM Control Delay (s/veh)	\$ 958	-	-	11.7	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	11.8	-	-	0.5	-

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

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	759	34	203	1048	11	105
Future Vol, veh/h	759	34	203	1048	11	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	1	2	0	3
Mvmt Flow	816	37	218	1127	12	113

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	853
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	791
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	791
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.83	37.87
HCM LOS	E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	27	366	-	-	791	-
HCM Lane V/C Ratio	0.437	0.308	-	-	0.276	-
HCM Control Delay (s/veh)	216.7	19.1	-	-	11.3	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	1.4	1.3	-	-	1.1	-

Build PM Peak Hour
25: Garvey Road & Jupiter Boulevard

HCM 7th AWSC
01/29/2024

Intersection	
Intersection Delay, s/veh	58.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	393	74	62	410	35	69	63	53	37	136	15
Future Vol, veh/h	6	393	74	62	410	35	69	63	53	37	136	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	17	3	0	0	3	6	5	4	8	3	3	0
Mvmt Flow	7	427	80	67	446	38	75	68	58	40	148	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	67.7	79.7	18.2	18.5
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	1%	12%	20%
Vol Thru, %	34%	83%	81%	72%
Vol Right, %	29%	16%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	473	507	188
LT Vol	69	6	62	37
Through Vol	63	393	410	136
RT Vol	53	74	35	15
Lane Flow Rate	201	514	551	204
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	1.001	1.05	0.462
Departure Headway (Hd)	8.444	7.257	6.965	8.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	430	504	524	427
Service Time	6.444	5.257	4.965	6.477
HCM Lane V/C Ratio	0.467	1.02	1.052	0.478
HCM Control Delay, s/veh	18.2	67.7	79.7	18.5
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	2.3	13.7	16	2.4

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	1035	50	61	725	12	53
Future Vol, veh/h	1035	50	61	725	12	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	1125	54	66	788	13	58




















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1179
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	-	-	592
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	592
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.92	48.45
HCM LOS	E		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	-	-	592	-
HCM Lane V/C Ratio	0.469	-	-	0.112	-
HCM Control Delay (s/veh)	48.4	-	-	11.8	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	2.2	-	-	0.4	-

Build PM Peak Hour
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/29/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Future Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	1863	1615	1787	1683	0	0	1618	0	0	1751	0
Flt Permitted	0.092			0.083				0.915			0.808	
Satd. Flow (perm)	166	1863	1615	156	1683	0	0	1497	0	0	1474	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		6			81			81	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	1027	53	113	1088	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	30.4	51.8	51.8	30.4	51.8		41.0	41.0		41.0	41.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	55.0	47.5	47.5	58.8	54.3			7.6			7.6	
Actuated g/C Ratio	0.71	0.61	0.61	0.76	0.70			0.10			0.10	
v/c Ratio	0.19	0.90	0.05	0.42	0.92			0.41			0.31	
Control Delay (s/veh)	5.0	28.2	1.5	12.1	30.8			16.4			10.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.0	28.2	1.5	12.1	30.8			16.4			10.7	
LOS	A	C	A	B	C			B			B	
Approach Delay (s/veh)		26.0			29.0			16.5			10.8	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	4	412	0	10	~596			4			0	
Queue Length 95th (ft)	12	#790	10	49	#894			47			29	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	632	1141	1018	649	1179			720			710	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.07	0.90	0.05	0.17	0.92			0.13			0.10	
Intersection Summary												
Area Type:	Other											
Cycle Length:	123.2											
Actuated Cycle Length:	77.6											
Control Type:	Semi Act-Uncoord											
Maximum v/c Ratio:	0.92											












Intersection Signal Delay (s/veh): 26.7	Intersection LOS: C
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

<div>  <div>Ø1</div> </div> <div>30.4 s</div>	<div>  <div>Ø2</div> </div> <div>51.8 s</div>	<div>  <div>Ø4</div> </div> <div>41 s</div>
<div>  <div>Ø5</div> </div> <div>30.4 s</div>	<div>  <div>Ø6</div> </div> <div>51.8 s</div>	<div>  <div>Ø8</div> </div> <div>41 s</div>

Build PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024




												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Future Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	1772	0	1736	1757	0	1671	1667	1482	1787	1697	0
Flt Permitted	0.051			0.056			0.158			0.312		
Satd. Flow (perm)	96	1772	0	102	1757	0	278	1667	1482	587	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			13				158		31	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	962	0	59	1001	0	304	230	41	215	435	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	37.0	78.0		37.0	78.0		27.0	28.0	28.0	37.0	33.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	92.8	79.8		79.2	70.1		46.3	25.3	25.3	47.1	25.9	
Actuated g/C Ratio	0.58	0.50		0.49	0.43		0.29	0.16	0.16	0.29	0.16	
v/c Ratio	0.72	1.08		0.44	1.29		1.20	0.88	0.11	0.66	1.45	
Control Delay (s/veh)	57.3	94.3		33.2	180.9		165.1	97.3	0.6	52.0	265.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	57.3	94.3		33.2	180.9		165.1	97.3	0.6	52.0	265.1	
LOS	E	F		C	F		F	F	A	D	F	
Approach Delay (s/veh)		89.3			172.8			126.3			194.7	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	106	~1142		26	~1323		~335	239	0	171	~600	
Queue Length 95th (ft)	194	#1525		67	#1768		#615	#500	0	264	#850	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	370	886		363	771		252	261	365	420	341	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.42	1.09		0.16	1.30		1.21	0.88	0.11	0.51	1.28	
Intersection Summary												
Area Type:	Other											
Cycle Length: 180												
Actuated Cycle Length: 161.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.46												

Build PM Peak Hour
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/29/2024

Intersection Signal Delay (s/veh): 141.7	Intersection LOS: F
Intersection Capacity Utilization 123.0%	ICU Level of Service H
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road






 Ø1 37 s	 Ø2 78 s	 Ø3 27 s	 Ø4 33 s
 Ø5 37 s	 Ø6 78 s	 Ø7 37 s	 Ø8 28 s

Appendix I

Capacity Analyses with Mitigation

No Build AM Peak Hour with Improvements
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	30.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	160	327	821	73	74	466
Future Vol, veh/h	160	327	821	73	74	466
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	2	5	6	4
Mvmt Flow	178	363	912	81	82	518

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1336	456	0	0	993	0
Stage 1	912	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6.88	6.94	-	-	4.22	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.32	-	-	2.26	-
Pot Cap-1 Maneuver	~ 142	551	-	-	668	-
Stage 1	347	-	-	-	-	-
Stage 2	623	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 122	551	-	-	668	-
Mov Cap-2 Maneuver	~ 122	-	-	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	533	-	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/veh	17.85	0	2.58
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 122 551	493	-
HCM Lane V/C Ratio	-	- 1.459 0.659	0.123	-
HCM Control Delay (s/veh)	-	- \$ 311.2 23.3	11.1	1.2
HCM Lane LOS	-	- F C	B	A
HCM 95th %tile Q(veh)	-	- 12.4 4.8	0.4	-

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

No Build AM Peak Hour with Improvements
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	107.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	156	440	1415	82	84	228
Future Vol, veh/h	156	440	1415	82	84	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	8	6
Mvmt Flow	166	468	1505	87	89	243

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1805	753	0	0	1593
Stage 1	1505	-	-	-	-
Stage 2	300	-	-	-	-
Critical Hdwy	6.8	6.92	-	-	4.26
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.31	-	-	2.28
Pot Cap-1 Maneuver	~ 72	~ 355	-	-	381
Stage 1	173	-	-	-	-
Stage 2	731	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 54	~ 355	-	-	381
Mov Cap-2 Maneuver	~ 54	-	-	-	-
Stage 1	173	-	-	-	-
Stage 2	547	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/veh	429.26	0	6.5
HCM LOS	F		










Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 54	355	355
HCM Lane V/C Ratio	-	- 3.075	1.32	0.235
HCM Control Delay (s/veh)	-	\$ 1095.6	193	17.3
HCM Lane LOS	-	- F	F	C
HCM 95th %tile Q(veh)	-	- 17.5	22.1	0.9

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

No Build AM Peak Hour with Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC

01/30/2024

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
Future Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	715	0	0	1405	8	0	0	0	4	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1413	0	0	715	0	0	1434	2145	358	1783	2141	706
Stage 1	-	-	-	-	-	-	732	732	-	1409	1409	-
Stage 2	-	-	-	-	-	-	702	1413	-	374	732	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	8.84	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.17	4	3.3
Pot Cap-1 Maneuver	489	-	-	894	-	-	96	49	645	26	49	383
Stage 1	-	-	-	-	-	-	384	430	-	81	207	-
Stage 2	-	-	-	-	-	-	399	206	-	471	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	489	-	-	894	-	-	88	48	645	25	49	383
Mov Cap-2 Maneuver	-	-	-	-	-	-	88	48	-	25	49	-
Stage 1	-	-	-	-	-	-	377	423	-	81	207	-
Stage 2	-	-	-	-	-	-	374	206	-	463	423	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v 0.14		0	0	37.69
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	489	-	-	894	-	-	138
HCM Lane V/C Ratio	-	0.017	-	-	-	-	-	0.205
HCM Control Delay (s/veh)	0	12.5	-	-	0	-	-	37.7
HCM Lane LOS	A	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.7

No Build AM Peak Hour with Improvements
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	36.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	816	72	57	976	112	70
Future Vol, veh/h	816	72	57	976	112	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	5	8	3	3	5
Mvmt Flow	907	80	63	1084	124	78

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	987	0	1616	493
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	669	-
Critical Hdwy	-	-	4.26	-	6.86	7
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.28	-	3.53	3.35
Pot Cap-1 Maneuver	-	-	661	-	~ 94	513
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	468	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	661	-	~ 81	513
Mov Cap-2 Maneuver	-	-	-	-	~ 81	-
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	404	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.89	\$ 408.62
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	119	-	-	199	-
HCM Lane V/C Ratio	1.693	-	-	0.096	-
HCM Control Delay (s/veh)	\$ 408.6	-	-	11	1.4
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	15.3	-	-	0.3	-

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

No Build AM Peak Hour with Improvements
22: Garvey Road & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	811	44	115	688	40	194
Future Vol, veh/h	811	44	115	688	40	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	5	6	4	3	3
Mvmt Flow	943	51	134	800	47	226

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	994
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.22
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.26
Pot Cap-1 Maneuver	-	-	668
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	668
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.68	34.57
HCM LOS			D





Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	72	516	-	-	668	-
HCM Lane V/C Ratio	0.642	0.437	-	-	0.2	-
HCM Control Delay (s/veh)	118.4	17.3	-	-	11.7	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	2.9	2.2	-	-	0.7	-

No Build AM Peak Hour with Improvements
25: Garvey Road

HCM 7th AWSC
01/30/2024

Intersection

Intersection Delay, s/veh 52.5
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	380	44	25	392	41	82	114	44	56	81	20
Future Vol, veh/h	24	380	44	25	392	41	82	114	44	56	81	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	5	4	10	4	4	5	1	1	8	0	7	0
Mvmt Flow	26	418	48	27	431	45	90	125	48	62	89	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	64.4	68.5	22.5	17.6
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	34%	5%	5%	36%
Vol Thru, %	48%	85%	86%	52%
Vol Right, %	18%	10%	9%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	448	458	157
LT Vol	82	24	25	56
Through Vol	114	380	392	81
RT Vol	44	44	41	20
Lane Flow Rate	264	492	503	173
Geometry Grp	1	1	1	1
Degree of Util (X)	0.594	0.988	1.005	0.412
Departure Headway (Hd)	8.102	7.226	7.19	8.691
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	443	502	508	418
Service Time	6.188	5.254	5.217	6.691
HCM Lane V/C Ratio	0.596	0.98	0.99	0.414
HCM Control Delay, s/veh	22.5	64.4	68.5	17.6
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	3.8	13.2	13.9	2

No Build AM Peak Hour with Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	187	344	685	562	304	274
Future Volume (vph)	187	344	685	562	304	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1687	3406	3505	1568	1770	1538
Flt Permitted	0.145				0.950	
Satd. Flow (perm)	257	3406	3505	1568	1770	1538
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				711		25
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	7%	6%	3%	3%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	237	435	867	711	385	347
Turn Type	pm+pt	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases	4			8		
Total Split (s)	19.0	54.0	35.0	35.0	36.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	45.4	45.4	26.6	26.6	22.4	41.3
Actuated g/C Ratio	0.55	0.55	0.32	0.32	0.27	0.50
v/c Ratio	0.68	0.23	0.76	0.71	0.79	0.44
Control Delay (s/veh)	25.0	10.5	31.0	6.8	40.7	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.0	10.5	31.0	6.8	40.7	14.0
LOS	C	B	C	A	D	B
Approach Delay (s/veh)		15.6	20.1		28.1	
Approach LOS		B	C		C	
Queue Length 50th (ft)	62	58	215	0	188	103
Queue Length 95th (ft)	116	82	257	29	241	138
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		340
Base Capacity (vph)	354	1978	1212	1007	634	765
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.22	0.72	0.71	0.61	0.45

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 82
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80

No Build AM Peak Hour with Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024

Intersection Signal Delay (s/veh): 21.1	Intersection LOS: C
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	




















Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



No Build AM Peak Hour with Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/30/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Future Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3438	1429	1736	3480	0	0	1682	0	0	1734	0
Flt Permitted	0.166			0.312				0.820			0.726	
Satd. Flow (perm)	300	3438	1429	570	3480	0	0	1410	0	0	1300	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		11			63			27	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	762	21	67	1173	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	31.6	27.2	27.2	32.8	29.7			12.7			12.7	
Actuated g/C Ratio	0.53	0.45	0.45	0.55	0.50			0.21			0.21	
v/c Ratio	0.07	0.48	0.02	0.15	0.67			0.50			0.51	
Control Delay (s/veh)	6.2	13.5	0.0	6.5	14.7			22.5			27.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.2	13.5	0.0	6.5	14.7			22.5			27.8	
LOS	A	B	A	A	B			C			C	
Approach Delay (s/veh)		13.0			14.3			22.5			27.9	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	3	103	0	8	115			32			35	
Queue Length 95th (ft)	13	187	0	28	325			116			120	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	307	2672	1133	435	2707			618			551	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.07	0.29	0.02	0.15	0.43			0.29			0.28	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 59.9												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.68												

No Build AM Peak Hour with Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024























Intersection Signal Delay (s/veh): 15.3	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

No Build AM Peak Hour with Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024





												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Future Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3359	0	1770	3348	0	1752	1845	1615	1719	1721	0
Flt Permitted	0.199			0.256			0.280			0.512		
Satd. Flow (perm)	378	3359	0	477	3348	0	517	1845	1615	926	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			33				230		38	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	215	771	0	52	715	0	291	246	45	246	346	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	14.0	31.0		13.0	30.0		18.0	28.0	28.0	18.0	28.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	32.8	27.7		28.4	21.4		31.4	19.4	19.4	30.6	19.0	
Actuated g/C Ratio	0.37	0.31		0.32	0.24		0.36	0.22	0.22	0.35	0.21	
v/c Ratio	0.84	0.71		0.21	0.85		0.86	0.60	0.08	0.59	0.86	
Control Delay (s/veh)	51.5	31.6		18.8	42.5		45.8	38.5	0.3	24.2	52.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	51.5	31.6		18.8	42.5		45.8	38.5	0.3	24.2	52.5	
LOS	D	C		B	D		D	D	A	C	D	
Approach Delay (s/veh)		36.0			40.9			39.2			40.8	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	80	209		18	195		109	126	0	90	169	
Queue Length 95th (ft)	#187	#310		40	#289		#226	204	0	146	#318	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	253	1082		240	858		337	418	543	423	419	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.85	0.71		0.22	0.83		0.86	0.59	0.08	0.58	0.83	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 88.4												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.87												

No Build AM Peak Hour with Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024






Intersection Signal Delay (s/veh): 38.9	Intersection LOS: D
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 31 s	 Ø3 18 s	 Ø4 28 s
 Ø5 14 s	 Ø6 30 s	 Ø7 18 s	 Ø8 28 s

No Build PM Peak Hour with Improvements
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	24					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	95	467	85	277	878
Future Vol, veh/h	89	95	467	85	277	878
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	16	0	9	11	1	1
Mvmt Flow	93	99	486	89	289	915

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1521	243	0	0	575
Stage 1	486	-	-	-	-
Stage 2	1034	-	-	-	-
Critical Hdwy	7.12	6.9	-	-	4.12
Critical Hdwy Stg 1	6.12	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-
Follow-up Hdwy	3.66	3.3	-	-	2.21
Pot Cap-1 Maneuver	95	764	-	-	1001
Stage 1	545	-	-	-	-
Stage 2	274	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 59	764	-	-	1001
Mov Cap-2 Maneuver	~ 59	-	-	-	-
Stage 1	545	-	-	-	-
Stage 2	168	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/20.33		0	4.22
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 59	764	747
HCM Lane V/C Ratio	-	- 1.583	0.13	0.288
HCM Control Delay (s/veh)	-	- \$ 444.4	10.4	10
HCM Lane LOS	-	- F	B	B
HCM 95th %tile Q(veh)	-	- 8.4	0.4	1.2

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

No Build PM Peak Hour with Improvements
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	282.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	122	463	82	447	1120
Future Vol, veh/h	149	122	463	82	447	1120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	3	8	0	1	0
Mvmt Flow	155	127	482	85	466	1167

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1997	241	0	0	568
Stage 1	482	-	-	-	-
Stage 2	1515	-	-	-	-
Critical Hdwy	6.92	6.96	-	-	4.12
Critical Hdwy Stg 1	5.92	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-
Follow-up Hdwy	3.56	3.33	-	-	2.21
Pot Cap-1 Maneuver	~ 50	757	-	-	1007
Stage 1	575	-	-	-	-
Stage 2	162	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 16	757	-	-	1007
Mov Cap-2 Maneuver	~ 16	-	-	-	-
Stage 1	575	-	-	-	-
Stage 2	~ 51	-	-	-	-










Approach	WB	NB	SB
HCM Control Delay, s/\$	2450	0	6.47
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	16	757	681	-
HCM Lane V/C Ratio	-	-	9.833	0.168	0.462	-
HCM Control Delay (s/veh)	-	\$	4447.3	10.7	11.6	4.4
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	20.3	0.6	2.5	-

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

No Build PM Peak Hour with Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/30/2024

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	11	1004	0	0	682	8	0	0	0	6	0	3
Future Vol, veh/h	11	1004	0	0	682	8	0	0	0	6	0	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	1141	0	0	775	9	0	0	0	7	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	784	0	0	1141	0	0	1553	1950	570	1375	1945	392
Stage 1	-	-	-	-	-	-	1166	1166	-	780	780	-
Stage 2	-	-	-	-	-	-	388	784	-	595	1166	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	843	-	-	620	-	-	78	65	469	106	66	613
Stage 1	-	-	-	-	-	-	209	270	-	359	409	-
Stage 2	-	-	-	-	-	-	613	407	-	462	270	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	843	-	-	620	-	-	77	64	469	105	65	613
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	64	-	105	65	-
Stage 1	-	-	-	-	-	-	206	266	-	359	409	-
Stage 2	-	-	-	-	-	-	610	407	-	456	266	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0	0	31.76
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	843	-	-	620	-	-	145
HCM Lane V/C Ratio	-	0.015	-	-	-	-	-	0.071
HCM Control Delay (s/veh)	0	9.3	-	-	0	-	-	31.8
HCM Lane LOS	A	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2

No Build PM Peak Hour with Improvements
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	7.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	868	128	97	974	50	51
Future Vol, veh/h	868	128	97	974	50	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	1	7	16	4
Mvmt Flow	886	131	99	994	51	52

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1016
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.21
Pot Cap-1 Maneuver	-	-	684
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	684
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.7	135.54
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	112	-	-	326	-
HCM Lane V/C Ratio	0.919	-	-	0.145	-
HCM Control Delay (s/veh)	135.5	-	-	11.1	1.9
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	5.7	-	-	0.5	-

No Build PM Peak Hour with Improvements
22: Garvey Road & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	722	31	203	998	7	105
Future Vol, veh/h	722	31	203	998	7	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	1	2	0	3
Mvmt Flow	776	33	218	1073	8	113

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	810
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.21
Pot Cap-1 Maneuver	-	-	818
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	818
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.86	16.64
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	56	593	-	-	818	-
HCM Lane V/C Ratio	0.134	0.191	-	-	0.267	-
HCM Control Delay (s/veh)	78.8	12.5	-	-	11	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	0.4	0.7	-	-	1.1	-

No Build PM Peak Hour with Improvements
25: Garvey Road

HCM 7th AWSC
01/30/2024

Intersection	
Intersection Delay, s/veh	51
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	377	74	62	389	35	69	59	53	37	133	15
Future Vol, veh/h	6	377	74	62	389	35	69	59	53	37	133	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	17	3	0	0	3	6	5	4	8	3	3	0
Mvmt Flow	7	410	80	67	423	38	75	64	58	40	145	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	61.3	66.2	17.9	18.2
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	1%	13%	20%
Vol Thru, %	33%	82%	80%	72%
Vol Right, %	29%	16%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	181	457	486	185
LT Vol	69	6	62	37
Through Vol	59	377	389	133
RT Vol	53	74	35	15
Lane Flow Rate	197	497	528	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.448	0.977	1.002	0.459
Departure Headway (Hd)	8.297	7.082	6.83	8.327
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	437	512	528	434
Service Time	6.297	5.164	4.91	6.327
HCM Lane V/C Ratio	0.451	0.971	1	0.463
HCM Control Delay, s/veh	17.9	61.3	66.2	18.2
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	2.3	12.9	14.1	2.4

No Build PM Peak Hour with Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	252	263	416	810	59
Future Volume (vph)	67	252	263	416	810	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	2959	1442	1787	1404
Flt Permitted	0.389				0.950	
Satd. Flow (perm)	725	3539	2959	1442	1787	1404
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				462		66
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	22%	12%	1%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	280	292	462	900	66
Turn Type	pm+pt	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases	4			8		
Total Split (s)	13.0	38.0	25.0	25.0	52.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	24.7	24.7	14.8	14.8	45.0	58.1
Actuated g/C Ratio	0.29	0.29	0.18	0.18	0.54	0.69
v/c Ratio	0.25	0.26	0.56	0.72	0.93	0.06
Control Delay (s/veh)	22.9	22.5	36.6	10.8	39.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	22.5	36.6	10.8	39.6	1.7
LOS	C	C	D	B	D	A
Approach Delay (s/veh)		22.7	20.8		37.0	
Approach LOS		C	C		D	
Queue Length 50th (ft)	28	58	78	0	462	0
Queue Length 95th (ft)	59	89	118	91	#770	13
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		340
Base Capacity (vph)	289	1326	644	675	972	976
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.21	0.45	0.68	0.93	0.07

Intersection Summary

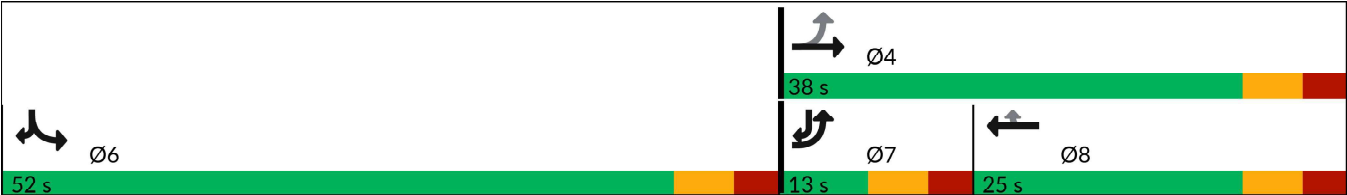
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 83.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.94

No Build PM Peak Hour with Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024

Intersection Signal Delay (s/veh): 28.7	Intersection LOS: C
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	




















Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



No Build PM Peak Hour with Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings

01/30/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Future Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3539	1615	1787	3196	0	0	1618	0	0	1751	0
Flt Permitted	0.276			0.240				0.900			0.702	
Satd. Flow (perm)	499	3539	1615	451	3196	0	0	1472	0	0	1281	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		27			112			112	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	943	53	113	975	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	50.0	50.0	14.0	53.0		26.0	26.0		26.0	26.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	32.0	28.5	28.5	35.0	31.8			7.6			7.6	
Actuated g/C Ratio	0.61	0.54	0.54	0.67	0.61			0.14			0.14	
v/c Ratio	0.10	0.49	0.05	0.23	0.50			0.29			0.24	
Control Delay (s/veh)	4.1	12.3	0.7	4.6	10.3			7.4			4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	4.1	12.3	0.7	4.6	10.3			7.4			4.5	
LOS	A	B	A	A	B			A			A	
Approach Delay (s/veh)		11.4			9.8			7.5			4.6	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	4	121	0	10	123			0			0	
Queue Length 95th (ft)	12	184	5	24	182			28			14	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	440	2865	1326	536	2726			656			580	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.11	0.33	0.04	0.21	0.36			0.14			0.12	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 52.5												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.50												

No Build PM Peak Hour with Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024























Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road



No Build PM Peak Hour with Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024


												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Future Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3367	0	1736	3333	0	1671	1667	1482	1787	1706	0
Flt Permitted	0.150			0.157			0.190			0.609		
Satd. Flow (perm)	282	3367	0	287	3333	0	334	1667	1482	1146	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			69				230		58	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	902	0	59	943	0	282	230	41	215	406	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	13.0	32.0		13.0	32.0		18.0	29.0	29.0	16.0	27.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	32.4	26.6		31.0	24.0		33.1	21.1	21.1	28.9	19.0	
Actuated g/C Ratio	0.36	0.30		0.34	0.27		0.37	0.23	0.23	0.32	0.21	
v/c Ratio	0.65	0.84		0.30	1.00		0.98	0.58	0.07	0.49	1.00	
Control Delay (s/veh)	34.6	36.0		20.1	62.2		74.5	37.7	0.2	22.7	77.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	34.6	36.0		20.1	62.2		74.5	37.7	0.2	22.7	77.8	
LOS	C	D		C	E		E	D	A	C	E	
Approach Delay (s/veh)		35.9			59.8			53.8			58.8	
Approach LOS		D			E			D			E	
Queue Length 50th (ft)	46	234		20	~266		110	117	0	78	~203	
Queue Length 95th (ft)	#104	#356		43	#405		#273	193	0	130	#395	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	201	1070		195	939		286	390	524	433	405	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.66	0.84		0.30	1.00		0.99	0.59	0.08	0.50	1.00	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 90												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.00												

No Build PM Peak Hour with Improvements
 19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
 01/30/2024






Intersection Signal Delay (s/veh): 50.9	Intersection LOS: D
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 32 s	 Ø3 18 s	 Ø4 27 s
 Ø5 13 s	 Ø6 32 s	 Ø7 16 s	 Ø8 29 s

Build AM Peak Hour with Background Improvements
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	38.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	327	870	78	74	498
Future Vol, veh/h	163	327	870	78	74	498
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	2	2	5	6	4
Mvmt Flow	181	363	967	87	82	553

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1408	483	0	0	1053
Stage 1	967	-	-	-	-
Stage 2	441	-	-	-	-
Critical Hdwy	6.88	6.94	-	-	4.22
Critical Hdwy Stg 1	5.88	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-
Follow-up Hdwy	3.54	3.32	-	-	2.26
Pot Cap-1 Maneuver	~ 127	529	-	-	633
Stage 1	325	-	-	-	-
Stage 2	610	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 108	529	-	-	633
Mov Cap-2 Maneuver	~ 108	-	-	-	-
Stage 1	325	-	-	-	-
Stage 2	516	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/veh	53.76	0	2.68
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 108 529	466	-
HCM Lane V/C Ratio	-	- 1.679 0.686	0.13	-
HCM Control Delay (s/veh)	-	- \$ 411.3 25.4	11.5	1.4
HCM Lane LOS	-	- F D	B	A
HCM 95th %tile Q(veh)	-	- 14 5.2	0.4	-

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










Build AM Peak Hour with Background Improvements
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	122.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	159	440	1460	87	84	257
Future Vol, veh/h	159	440	1460	87	84	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	8	6
Mvmt Flow	169	468	1553	93	89	273
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1869	777	0	0	1646	0
Stage 1	1553	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	6.8	6.92	-	-	4.26	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.31	-	-	2.28	-
Pot Cap-1 Maneuver	~ 65	~ 342	-	-	363	-
Stage 1	~ 163	-	-	-	-	-
Stage 2	718	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 48	~ 342	-	-	363	-
Mov Cap-2 Maneuver	~ 48	-	-	-	-	-
Stage 1	~ 163	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	505.88	0	6.67			
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	48	342	335	-
HCM Lane V/C Ratio	-	-	3.526	1.369	0.246	-
HCM Control Delay (s/veh)	-	-	\$ 1313.4	214.1	18.1	2.9
HCM Lane LOS	-	-	F	F	C	A
HCM 95th %tile Q(veh)	-	-	18.6	23.3	1	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Build AM Peak Hour with Background Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection												
Int Delay, s/veh	10.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	654	20	31	1224	7	48	3	48	3	2	21
Future Vol, veh/h	7	654	20	31	1224	7	48	3	48	3	2	21
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	769	24	36	1440	8	56	4	56	4	2	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1448	0	0	793	0	0	1580	2307	385	1920	2326	724
Stage 1	-	-	-	-	-	-	786	786	-	1517	1517	-
Stage 2	-	-	-	-	-	-	794	1521	-	403	809	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	8.84	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.17	4	3.3
Pot Cap-1 Maneuver	474	-	-	837	-	-	75	39	619	19	38	373
Stage 1	-	-	-	-	-	-	356	406	-	67	183	-
Stage 2	-	-	-	-	-	-	352	183	-	449	396	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	474	-	-	837	-	-	62	36	619	15	35	373
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	36	-	15	35	-
Stage 1	-	-	-	-	-	-	350	399	-	64	175	-
Stage 2	-	-	-	-	-	-	310	175	-	398	389	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.13			0.23			195.18			71.73		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	474	-	-	837	-	-	83
HCM Lane V/C Ratio	1.105	0.017	-	-	0.044	-	-	0.368
HCM Control Delay (s/veh)	195.2	12.7	-	-	9.5	-	-	71.7
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	7.3	0.1	-	-	0.1	-	-	1.4

Build AM Peak Hour with Background Improvements
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	51.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	907	75	57	1035	114	70
Future Vol, veh/h	907	75	57	1035	114	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	5	8	3	3	5
Mvmt Flow	1008	83	63	1150	127	78

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1091
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.26
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.28
Pot Cap-1 Maneuver	-	-	601
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	601
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.16	\$ 618.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	96	-	-	188	-
HCM Lane V/C Ratio	2.139	-	-	0.105	-
HCM Control Delay (s/veh)	\$ 618.2	-	-	11.7	1.6
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	17.9	-	-	0.4	-

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

Build AM Peak Hour with Background Improvements
22: Garvey Road & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	5.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	856	47	115	717	42	194
Future Vol, veh/h	856	47	115	717	42	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	5	6	4	3	3
Mvmt Flow	995	55	134	834	49	226

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1050
Stage 1	-	-	1023
Stage 2	-	-	684
Critical Hdwy	-	4.22	6.86
Critical Hdwy Stg 1	-	-	5.86
Critical Hdwy Stg 2	-	-	5.86
Follow-up Hdwy	-	2.26	3.53
Pot Cap-1 Maneuver	-	635	81
Stage 1	-	-	306
Stage 2	-	-	460
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	635	64
Mov Cap-2 Maneuver	-	-	64
Stage 1	-	-	306
Stage 2	-	-	363

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.68	42.78
HCM LOS	E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	64	495	-	-	635	-
HCM Lane V/C Ratio	0.761	0.456	-	-	0.21	-
HCM Control Delay (s/veh)	156.1	18.2	-	-	12.2	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	3.4	2.4	-	-	0.8	-

Build AM Peak Hour with Background Improvements
13: West Site Driveway & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	635	20	30	1263	14	46
Future Vol, veh/h	635	20	30	1263	14	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	690	22	33	1373	15	50

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	712
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	884
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	884
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.21	19.21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	-	-	884	-
HCM Lane V/C Ratio	0.205	-	-	0.037	-
HCM Control Delay (s/veh)	19.2	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Build AM Peak Hour with Background Improvements
25: Garvey Road

HCM 7th AWSC
01/30/2024

Intersection	
Intersection Delay, s/veh	55.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	399	44	25	404	41	85	116	44	56	84	20
Future Vol, veh/h	24	399	44	25	404	41	85	116	44	56	84	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	5	4	10	4	4	5	1	1	8	0	7	0
Mvmt Flow	26	438	48	27	444	45	93	127	48	62	92	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	70.7	71.4	22.9	17.9
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	5%	5%	35%
Vol Thru, %	47%	85%	86%	53%
Vol Right, %	18%	9%	9%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	467	470	160
LT Vol	85	24	25	56
Through Vol	116	399	404	84
RT Vol	44	44	41	20
Lane Flow Rate	269	513	516	176
Geometry Grp	1	1	1	1
Degree of Util (X)	0.601	1.012	1.015	0.415
Departure Headway (Hd)	8.262	7.297	7.279	8.781
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	439	503	501	413
Service Time	6.262	5.297	5.279	6.781
HCM Lane V/C Ratio	0.613	1.02	1.03	0.426
HCM Control Delay, s/veh	22.9	70.7	71.4	17.9
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	3.8	14.1	14.2	2

Build AM Peak Hour with Background Improvements

3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	187	349	693	616	339	274
Future Volume (vph)	187	349	693	616	339	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1687	3406	3505	1568	1770	1538
Flt Permitted	0.136				0.950	
Satd. Flow (perm)	241	3406	3505	1568	1770	1538
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				780		24
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	7%	6%	3%	3%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	237	442	877	780	429	347
Turn Type	pm+pt	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases	4			8		
Total Split (s)	19.0	54.0	35.0	35.0	36.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	45.8	45.8	26.9	26.9	24.3	43.1
Actuated g/C Ratio	0.54	0.54	0.32	0.32	0.29	0.51
v/c Ratio	0.71	0.23	0.78	0.75	0.83	0.43
Control Delay (s/veh)	28.1	11.1	32.6	7.4	44.0	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.1	11.1	32.6	7.4	44.0	13.8
LOS	C	B	C	A	D	B
Approach Delay (s/veh)		17.1	20.8		30.6	
Approach LOS		B	C		C	
Queue Length 50th (ft)	67	65	231	0	216	103
Queue Length 95th (ft)	121	83	261	27	273	138
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		340
Base Capacity (vph)	338	1918	1176	1044	615	787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.23	0.75	0.75	0.70	0.44

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.84




















Intersection Signal Delay (s/veh): 22.4	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



Build AM Peak Hour with Background Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Future Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3438	1429	1736	3479	0	0	1682	0	0	1734	0
Flt Permitted	0.147			0.267				0.819			0.721	
Satd. Flow (perm)	266	3438	1429	488	3479	0	0	1408	0	0	1291	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		10			63			27	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	864	21	67	1239	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	33.5	29.1	29.1	34.7	31.5			12.9			12.9	
Actuated g/C Ratio	0.54	0.47	0.47	0.56	0.51			0.21			0.21	
v/c Ratio	0.08	0.53	0.02	0.16	0.69			0.51			0.52	
Control Delay (s/veh)	6.3	13.9	0.0	6.7	15.1			23.3			29.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.3	13.9	0.0	6.7	15.1			23.3			29.0	
LOS	A	B	A	A	B			C			C	
Approach Delay (s/veh)		13.5			14.7			23.3			29.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	3	124	0	8	127			34			38	
Queue Length 95th (ft)	13	218	0	28	353			116			120	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	291	2613	1111	399	2647			597			529	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.08	0.33	0.02	0.17	0.47			0.30			0.29	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 61.9												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.70												

Build AM Peak Hour with Background Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024























Intersection Signal Delay (s/veh): 15.7	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

Build AM Peak Hour with Background Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024









												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Future Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3355	0	1770	3351	0	1752	1845	1615	1719	1714	0
Flt Permitted	0.181			0.205			0.248			0.511		
Satd. Flow (perm)	344	3355	0	382	3351	0	457	1845	1615	925	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			31				230		42	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	843	0	52	748	0	304	246	45	246	363	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	14.0	31.0		13.0	30.0		18.0	28.0	28.0	18.0	28.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	33.2	28.0		28.7	21.7		31.7	19.7	19.7	31.0	19.3	
Actuated g/C Ratio	0.37	0.31		0.32	0.24		0.36	0.22	0.22	0.35	0.22	
v/c Ratio	0.98	0.77		0.24	0.89		0.94	0.60	0.08	0.59	0.89	
Control Delay (s/veh)	80.7	34.3		19.4	45.7		60.5	38.4	0.3	24.2	56.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	80.7	34.3		19.4	45.7		60.5	38.4	0.3	24.2	56.7	
LOS	F	C		B	D		E	D	A	C	E	
Approach Delay (s/veh)		44.7			44.1			46.9			43.7	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	~95	236		18	208		115	126	0	90	179	
Queue Length 95th (ft)	#239	#360		40	#313		#261	204	0	146	#339	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	243	1085		216	851		322	414	540	423	417	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.99	0.78		0.24	0.88		0.94	0.59	0.08	0.58	0.87	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 89.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.99												

Build AM Peak Hour with Background Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024






Intersection Signal Delay (s/veh): 44.7	Intersection LOS: D
Intersection Capacity Utilization 92.6%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 31 s	 Ø3 18 s	 Ø4 28 s
 Ø5 14 s	 Ø6 30 s	 Ø7 18 s	 Ø8 28 s

Build PM Peak Hour with Background Improvements
6: St. Johns Heritage Parkway & Pace Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	32.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	94	95	508	89	277	934
Future Vol, veh/h	94	95	508	89	277	934
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	-	300	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	16	0	9	11	1	1
Mvmt Flow	98	99	529	93	289	973

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1593	265	0	0	622	0
Stage 1	529	-	-	-	-	-
Stage 2	1064	-	-	-	-	-
Critical Hdwy	7.12	6.9	-	-	4.12	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-
Follow-up Hdwy	3.66	3.3	-	-	2.21	-
Pot Cap-1 Maneuver	~ 85	740	-	-	962	-
Stage 1	517	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 50	740	-	-	962	-
Mov Cap-2 Maneuver	~ 50	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	155	-	-	-	-	-






Approach	WB	NB	SB
HCM Control Delay, s/veh	14.63	0	4.42
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	50	740	702	-
HCM Lane V/C Ratio	-	-	1.954	0.134	0.3	-
HCM Control Delay (s/veh)	-	-	\$ 621.9	10.6	10.3	2.7
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	9.7	0.5	1.3	-

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

Build PM Peak Hour with Background Improvements
7: St. Johns Heritage Parkway & Emerson Drive

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	376.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	154	122	500	86	447	1171
Future Vol, veh/h	154	122	500	86	447	1171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	3	8	0	1	0
Mvmt Flow	160	127	521	90	466	1220

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2062	260	0	0	610	0
Stage 1	521	-	-	-	-	-
Stage 2	1541	-	-	-	-	-
Critical Hdwy	6.92	6.96	-	-	4.12	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.33	-	-	2.21	-
Pot Cap-1 Maneuver	~ 45	735	-	-	971	-
Stage 1	549	-	-	-	-	-
Stage 2	~ 156	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 12	735	-	-	971	-
Mov Cap-2 Maneuver	~ 12	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	~ 43	-	-	-	-	-










Approach	WB	NB	SB
HCM Control Delay, s	338.9	0	6.93
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	12	735	642	-
HCM Lane V/C Ratio	-	-	12.958	0.173	0.479	-
HCM Control Delay (s/veh)	-	\$	5975.4	10.9	12.1	5
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	21.3	0.6	2.7	-

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

Build PM Peak Hour with Background Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection												
Int Delay, s/veh	26.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	1029	48	63	725	8	58	2	54	6	3	3
Future Vol, veh/h	11	1029	48	63	725	8	58	2	54	6	3	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	1169	55	72	824	9	66	2	61	7	3	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	833	0	0	1224	0	0	1751	2170	585	1582	2220	416
Stage 1	-	-	-	-	-	-	1194	1194	-	972	972	-
Stage 2	-	-	-	-	-	-	557	976	-	611	1249	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	809	-	-	577	-	-	~ 56	47	460	75	44	591
Stage 1	-	-	-	-	-	-	201	262	-	275	334	-
Stage 2	-	-	-	-	-	-	487	332	-	453	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	809	-	-	577	-	-	~ 44	41	460	53	38	591
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 44	41	-	53	38	-
Stage 1	-	-	-	-	-	-	198	258	-	241	292	-
Stage 2	-	-	-	-	-	-	419	291	-	383	243	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	0.1		0.96		\$ 449.52		80.51	
HCM LOS					F		F	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	77	809	-	-	577	-	-	61
HCM Lane V/C Ratio	1.685	0.015	-	-	0.124	-	-	0.224
HCM Control Delay (s/veh)	\$ 449.5	9.5	-	-	12.1	-	-	80.5
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	11	0	-	-	0.4	-	-	0.8

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

Build PM Peak Hour with Background Improvements
18: Hurley Boulevard & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	13					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	944	131	97	1076	54	51
Future Vol, veh/h	944	131	97	1076	54	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	0	1	7	16	4
Mvmt Flow	963	134	99	1098	55	52

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1097	0	1777	548
Stage 1	-	-	-	-	1030	-
Stage 2	-	-	-	-	747	-
Critical Hdwy	-	-	4.12	-	7.12	6.98
Critical Hdwy Stg 1	-	-	-	-	6.12	-
Critical Hdwy Stg 2	-	-	-	-	6.12	-
Follow-up Hdwy	-	-	2.21	-	3.66	3.34
Pot Cap-1 Maneuver	-	-	638	-	63	475
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	394	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	638	-	~ 49	475
Mov Cap-2 Maneuver	-	-	-	-	~ 49	-
Stage 1	-	-	-	-	275	-
Stage 2	-	-	-	-	306	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.99	258.26
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	87	-	-	298	-
HCM Lane V/C Ratio	1.231	-	-	0.155	-
HCM Control Delay (s/veh)	258.3	-	-	11.7	2.2
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	7.7	-	-	0.5	-

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

Build PM Peak Hour with Background Improvements
22: Garvey Road & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	2.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	↑
Traffic Vol, veh/h	759	34	203	1048	11	105
Future Vol, veh/h	759	34	203	1048	11	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	-	115
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	1	2	0	3
Mvmt Flow	816	37	218	1127	12	113

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	853	0	1834	426
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	1000	-
Critical Hdwy	-	-	4.12	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.33
Pot Cap-1 Maneuver	-	-	789	-	69	574
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	321	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	789	-	50	574
Mov Cap-2 Maneuver	-	-	-	-	50	-
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	232	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.83	20.92
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	50	574	-	-	789	-
HCM Lane V/C Ratio	0.237	0.197	-	-	0.277	-
HCM Control Delay (s/veh)	98.3	12.8	-	-	11.3	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	0.8	0.7	-	-	1.1	-

Build PM Peak Hour with Background Improvements
13: West Site Driveway & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1035	50	61	725	12	53
Future Vol, veh/h	1035	50	61	725	12	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	1125	54	66	788	13	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1179
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	588
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	588
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.92	25.41
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	246	-	-	588	-
HCM Lane V/C Ratio	0.287	-	-	0.113	-
HCM Control Delay (s/veh)	25.4	-	-	11.9	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.4	-

Build PM Peak Hour with Background Improvements
25: Garvey Road

HCM 7th AWSC
01/30/2024

Intersection	
Intersection Delay, s/veh	58.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	393	74	62	410	35	69	63	53	37	136	15
Future Vol, veh/h	6	393	74	62	410	35	69	63	53	37	136	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	17	3	0	0	3	6	5	4	8	3	3	0
Mvmt Flow	7	427	80	67	446	38	75	68	58	40	148	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	67.7	79.7	18.2	18.5
HCM LOS	F	F	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	1%	12%	20%
Vol Thru, %	34%	83%	81%	72%
Vol Right, %	29%	16%	7%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	473	507	188
LT Vol	69	6	62	37
Through Vol	63	393	410	136
RT Vol	53	74	35	15
Lane Flow Rate	201	514	551	204
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	1.001	1.05	0.462
Departure Headway (Hd)	8.444	7.257	6.965	8.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	430	504	524	427
Service Time	6.444	5.257	4.965	6.477
HCM Lane V/C Ratio	0.467	1.02	1.052	0.478
HCM Control Delay, s/veh	18.2	67.7	79.7	18.5
HCM Lane LOS	C	F	F	C
HCM 95th-tile Q	2.3	13.7	16	2.4

Build PM Peak Hour with Background Improvements

3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	261	270	461	871	59
Future Volume (vph)	67	261	270	461	871	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	2959	1442	1787	1404
Flt Permitted	0.387				0.950	
Satd. Flow (perm)	721	3539	2959	1442	1787	1404
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				512		66
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	22%	12%	1%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	290	300	512	968	66
Turn Type	pm+pt	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases	4			8		
Total Split (s)	13.0	38.0	25.0	25.0	52.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	24.8	24.8	14.9	14.9	45.5	58.6
Actuated g/C Ratio	0.29	0.29	0.18	0.18	0.54	0.69
v/c Ratio	0.25	0.27	0.57	0.75	1.00	0.06
Control Delay (s/veh)	22.9	22.8	37.1	11.3	54.1	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	22.8	37.1	11.3	54.1	1.7
LOS	C	C	D	B	D	A
Approach Delay (s/veh)		22.8	20.9		50.8	
Approach LOS		C	C		D	
Queue Length 50th (ft)	28	61	80	0	~595	0
Queue Length 95th (ft)	59	92	122	98	#856	13
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		340
Base Capacity (vph)	287	1312	637	712	962	994
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.22	0.47	0.72	1.01	0.07

Intersection Summary

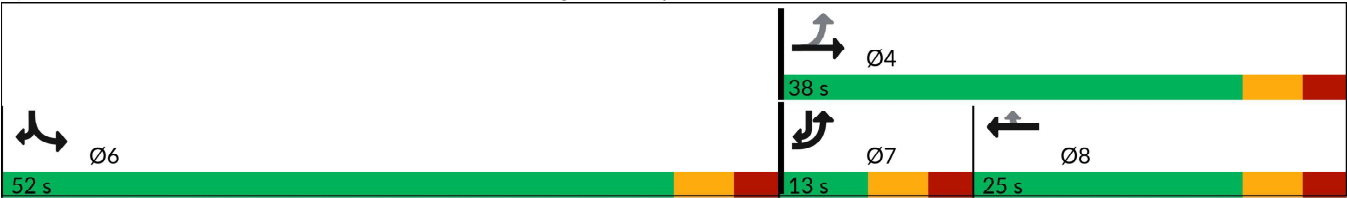
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 84.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01

Build PM Peak Hour with Background Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
01/30/2024
























Intersection Signal Delay (s/veh): 35.2	Intersection LOS: D
Intersection Capacity Utilization 79.1%	ICU Level of Service D
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



Build PM Peak Hour with Background Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Future Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3539	1615	1787	3199	0	0	1618	0	0	1751	0
Flt Permitted	0.233			0.213				0.900			0.745	
Satd. Flow (perm)	422	3539	1615	401	3199	0	0	1472	0	0	1359	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		23			112			112	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	1027	53	113	1088	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	50.0	50.0	14.0	53.0		26.0	26.0		26.0	26.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	34.8	31.4	31.4	37.7	34.7			7.7			7.7	
Actuated g/C Ratio	0.63	0.57	0.57	0.68	0.63			0.14			0.14	
v/c Ratio	0.11	0.51	0.05	0.25	0.54			0.30			0.23	
Control Delay (s/veh)	4.0	12.1	0.6	4.6	10.4			7.7			4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	4.0	12.1	0.6	4.6	10.4			7.7			4.5	
LOS	A	B	A	A	B			A			A	
Approach Delay (s/veh)		11.2			9.9			7.8			4.5	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	4	137	0	10	145			0			0	
Queue Length 95th (ft)	12	205	4	24	214			29			15	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	405	2747	1276	508	2616			635			592	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.12	0.37	0.04	0.22	0.42			0.14			0.11	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 55.3												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.54												

Build PM Peak Hour with Background Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
01/30/2024























Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road



Build PM Peak Hour with Background Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
01/30/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Future Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	220		0	220		220	240		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3367	0	1736	3338	0	1671	1667	1482	1787	1697	0
Flt Permitted	0.150			0.157			0.190			0.609		
Satd. Flow (perm)	282	3367	0	287	3338	0	334	1667	1482	1146	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		104			60				230		66	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	962	0	59	1001	0	304	230	41	215	435	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Total Split (s)	13.0	32.0		13.0	32.0		18.0	29.0	29.0	16.0	27.0	
Total Lost Time (s)	7.0	8.0		7.0	8.0		7.0	8.0	8.0	7.0	8.0	
Act Effct Green (s)	32.4	26.6		31.0	24.0		33.1	21.1	21.1	28.9	19.0	
Actuated g/C Ratio	0.36	0.30		0.34	0.27		0.37	0.23	0.23	0.32	0.21	
v/c Ratio	0.76	0.90		0.30	1.07		1.06	0.58	0.07	0.49	1.06	
Control Delay (s/veh)	44.6	41.2		20.1	82.0		95.7	37.7	0.2	22.7	92.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	44.6	41.2		20.1	82.0		95.7	37.7	0.2	22.7	92.7	
LOS	D	D		C	F		F	D	A	C	F	
Approach Delay (s/veh)		41.7			78.6			65.8			69.6	
Approach LOS		D			E			E			E	
Queue Length 50th (ft)	54	260		20	~322		~141	117	0	78	~243	
Queue Length 95th (ft)	#136	#398		43	#448		#305	193	0	130	#429	
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	175			220			220		220	240		
Base Capacity (vph)	201	1068		195	934		286	390	524	433	410	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.77	0.90		0.30	1.07		1.06	0.59	0.08	0.50	1.06	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 90												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 1.07												

Build PM Peak Hour with Background Improvements

19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings

01/30/2024

Intersection Signal Delay (s/veh): 62.6

Intersection LOS: E

Intersection Capacity Utilization 98.7%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 32 s	 Ø3 18 s	 Ø4 27 s
 Ø5 13 s	 Ø6 32 s	 Ø7 16 s	 Ø8 29 s

No Build AM Peak Hour with Additional Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	187	344	685	562	304	274
Future Volume (vph)	187	344	685	562	304	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1687	3406	3505	1568	3225	0
Flt Permitted	0.167				0.974	
Satd. Flow (perm)	297	3406	3505	1568	3225	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				711	246	
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	7%	6%	3%	3%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	237	435	867	711	732	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	7	4	8		6	
Permitted Phases	4			8		
Total Split (s)	20.0	59.0	39.0	39.0	31.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	47.9	47.9	28.4	28.4	18.1	
Actuated g/C Ratio	0.60	0.60	0.35	0.35	0.23	
v/c Ratio	0.60	0.21	0.69	0.70	0.79	
Control Delay (s/veh)	17.0	8.2	26.3	6.0	26.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	17.0	8.2	26.3	6.0	26.7	
LOS	B	A	C	A	C	
Approach Delay (s/veh)		11.4	17.2		26.7	
Approach LOS		B	B		C	
Queue Length 50th (ft)	52	50	199	0	128	
Queue Length 95th (ft)	91	71	239	26	151	
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		
Base Capacity (vph)	406	2253	1426	1059	1155	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.58	0.19	0.61	0.67	0.63	

Intersection Summary

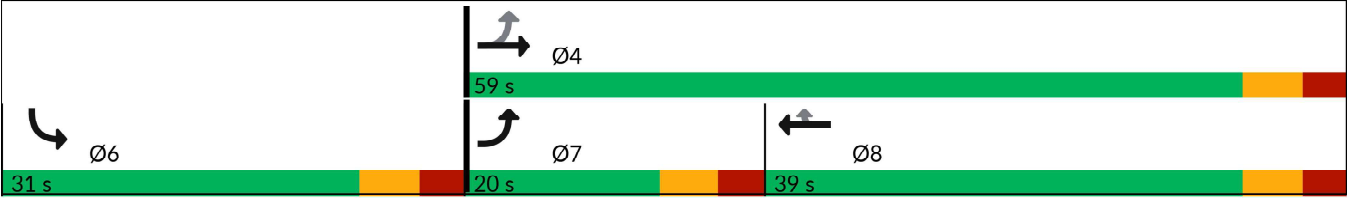
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 80.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80

No Build AM Peak Hour with Additional Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 18.2	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



No Build AM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	160	327	821	73	74	466
Future Volume (vph)	160	327	821	73	74	466
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	400		300	150	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1736	1583	3539	1538	0	3438
Flt Permitted	0.950					0.681
Satd. Flow (perm)	1736	1583	3539	1538	0	2358
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		92		81		
Link Speed (mph)	35		35			35
Link Distance (ft)	807		6746			5383
Travel Time (s)	15.7		131.4			104.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	2%	2%	5%	6%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	363	912	81	0	600
Turn Type	Prot	Prot	NA	Perm	Perm	NA
Protected Phases	8	8	2			6
Permitted Phases				2	6	
Total Split (s)	39.0	39.0	51.0	51.0	51.0	51.0
Total Lost Time (s)	7.0	7.0	7.0	7.0		7.0
Act Effect Green (s)	15.7	15.7	22.3	22.3		22.3
Actuated g/C Ratio	0.30	0.30	0.42	0.42		0.42
v/c Ratio	0.34	0.68	0.61	0.11		0.60
Control Delay (s/veh)	17.8	20.1	14.3	3.5		15.3
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	17.8	20.1	14.3	3.5		15.3
LOS	B	C	B	A		B
Approach Delay (s/veh)	19.4		13.5			15.4
Approach LOS	B		B			B
Queue Length 50th (ft)	41	68	103	0		67
Queue Length 95th (ft)	107	186	214	22		153
Internal Link Dist (ft)	727		6666			5303
Turn Bay Length (ft)		400		300		
Base Capacity (vph)	1123	1056	2964	1301		1974
Starvation Cap Reductn	0	0	0	0		0
Spillback Cap Reductn	0	0	0	0		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.16	0.34	0.31	0.06		0.30

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 53
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.68

No Build AM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 15.5	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: St. Johns Heritage Parkway & Pace Drive



No Build AM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024



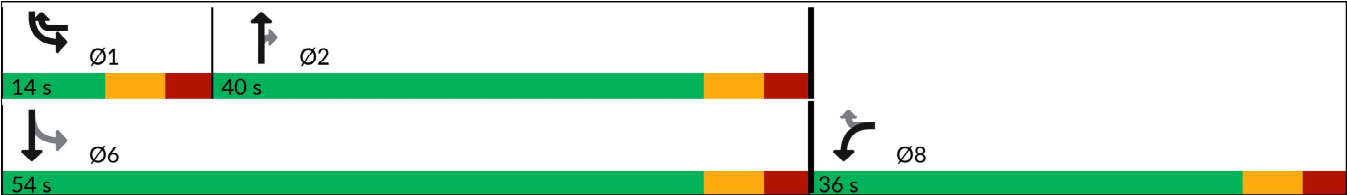
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	156	440	1415	82	84	228
Future Volume (vph)	156	440	1415	82	84	228
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240		300	150	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1805	1599	3574	1615	1671	3406
Flt Permitted	0.950				0.100	
Satd. Flow (perm)	1805	1599	3574	1615	176	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		4		87		
Link Speed (mph)	35		35			35
Link Distance (ft)	580		5383			4398
Travel Time (s)	11.3		104.9			85.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	0%	8%	6%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	468	1505	87	89	243
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2	6	
Total Split (s)	36.0	14.0	40.0	40.0	14.0	54.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Act Effect Green (s)	11.9	25.9	33.0	33.0	47.1	47.1
Actuated g/C Ratio	0.16	0.35	0.45	0.45	0.65	0.65
v/c Ratio	0.56	0.82	0.93	0.11	0.34	0.11
Control Delay (s/veh)	35.7	34.5	31.9	3.7	9.3	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.7	34.5	31.9	3.7	9.3	5.5
LOS	D	C	C	A	A	A
Approach Delay (s/veh)	34.9		30.4			6.6
Approach LOS	C		C			A
Queue Length 50th (ft)	70	186	322	0	13	18
Queue Length 95th (ft)	126	#307	#531	24	34	37
Internal Link Dist (ft)	500		5303			4318
Turn Bay Length (ft)		240		300	150	
Base Capacity (vph)	718	570	1617	778	257	2196
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.82	0.93	0.11	0.35	0.11

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 73
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.93




















Intersection Signal Delay (s/veh): 28.4	Intersection LOS: C
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 7: St. Johns Heritage Parkway & Emerson Drive



No Build AM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Future Volume (vph)	21	701	19	62	1012	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3438	1429	1736	3480	0	0	1682	0	0	1734	0
Flt Permitted	0.166			0.312				0.820			0.726	
Satd. Flow (perm)	300	3438	1429	570	3480	0	0	1410	0	0	1300	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		11			63			27	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	762	21	67	1173	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	31.6	27.2	27.2	32.8	29.7			12.7			12.7	
Actuated g/C Ratio	0.53	0.45	0.45	0.55	0.50			0.21			0.21	
v/c Ratio	0.07	0.48	0.02	0.15	0.67			0.50			0.51	
Control Delay (s/veh)	6.2	13.5	0.0	6.5	14.7			22.5			27.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.2	13.5	0.0	6.5	14.7			22.5			27.8	
LOS	A	B	A	A	B			C			C	
Approach Delay (s/veh)		13.0			14.3			22.5			27.9	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	3	103	0	8	115			32			35	
Queue Length 95th (ft)	13	187	0	28	325			116			120	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	307	2672	1133	435	2707			618			551	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.07	0.29	0.02	0.15	0.43			0.29			0.28	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 59.9
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68

No Build AM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 15.3	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

No Build AM Peak Hour with Additional Improvements
18: Hurley Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (vph)	816	72	57	976	112	70
Future Volume (vph)	816	72	57	976	112	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3457	0	0	3485	1684	0
Flt Permitted				0.838	0.970	
Satd. Flow (perm)	3457	0	0	2929	1684	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	20				33	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2581			3773	988	
Travel Time (s)	50.3			73.5	19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	5%	8%	3%	3%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	987	0	0	1147	202	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	
Total Lost Time (s)	6.0			6.0	6.0	
Act Effect Green (s)	34.9			34.9	11.7	
Actuated g/C Ratio	0.59			0.59	0.20	
v/c Ratio	0.48			0.66	0.55	
Control Delay (s/veh)	7.9			10.7	24.8	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	7.9			10.7	24.8	
LOS	A			B	C	
Approach Delay (s/veh)	7.9			10.7	24.8	
Approach LOS	A			B	C	
Queue Length 50th (ft)	84			117	47	
Queue Length 95th (ft)	162			231	133	
Internal Link Dist (ft)	2501			3693	908	
Turn Bay Length (ft)						
Base Capacity (vph)	3227			2733	637	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.31			0.42	0.32	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 58.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay (s/veh): 10.8

Intersection LOS: B

Intersection Capacity Utilization 79.0%

ICU Level of Service D

























Analysis Period (min) 15

Splits and Phases: 18: Hurley Boulevard & Malabar Road



No Build AM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Future Volume (vph)	202	556	169	49	536	136	274	231	42	231	188	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	220		220	250		220	240		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3505	1524	1770	3438	1568	1752	1845	1615	1719	1845	1553
Flt Permitted	0.266			0.429			0.421			0.606		
Satd. Flow (perm)	505	3505	1524	799	3438	1568	777	1845	1615	1097	1845	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			145			115			115
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	215	591	180	52	570	145	291	246	45	246	200	146
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	17.0	34.0	20.0	13.0	30.0	15.0	20.0	28.0	13.0	15.0	23.0	17.0
Total Lost Time (s)	7.0	8.0	7.0	7.0	8.0	4.5	7.0	8.0	7.0	4.5	8.0	7.0
Act Effct Green (s)	35.2	26.5	47.2	26.7	19.7	37.9	32.2	18.6	32.7	27.3	13.6	31.4
Actuated g/C Ratio	0.41	0.31	0.55	0.31	0.23	0.44	0.37	0.22	0.38	0.32	0.16	0.37
v/c Ratio	0.60	0.54	0.19	0.16	0.72	0.18	0.67	0.61	0.06	0.58	0.68	0.22
Control Delay (s/veh)	23.8	28.2	2.3	16.3	36.6	3.3	28.0	38.5	0.1	24.5	47.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.8	28.2	2.3	16.3	36.6	3.3	28.0	38.5	0.1	24.5	47.8	7.0
LOS	C	C	A	B	D	A	C	D	A	C	D	A
Approach Delay (s/veh)		22.6			29.0			30.3			28.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	75	150	0	16	154	0	116	126	0	91	108	11
Queue Length 95th (ft)	124	205	30	37	212	32	185	204	0	148	#183	50
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	200		200	220		220	250		220	240		240
Base Capacity (vph)	359	1105	924	317	886	779	443	432	685	430	324	645
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.19	0.16	0.64	0.19	0.66	0.57	0.07	0.57	0.62	0.23

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 85.9

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

No Build AM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 26.9	Intersection LOS: C
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 34 s	 Ø3 20 s	 Ø4 23 s
 Ø5 17 s	 Ø6 30 s	 Ø7 15 s	 Ø8 28 s

No Build AM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (vph)	811	44	115	688	40	194
Future Volume (vph)	811	44	115	688	40	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	250		0	115
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3442	0	1703	3471	1752	1568
Flt Permitted			0.259		0.950	
Satd. Flow (perm)	3442	0	464	3471	1752	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	11					148
Link Speed (mph)	35			35	35	
Link Distance (ft)	2837			1530	4212	
Travel Time (s)	55.3			29.8	82.1	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	4%	5%	6%	4%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	994	0	134	800	47	226
Turn Type	NA		Perm	NA	Prot	Prot
Protected Phases	4			8	2	2
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	27.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Act Effect Green (s)	23.5		23.5	23.5	8.9	8.9
Actuated g/C Ratio	0.49		0.49	0.49	0.19	0.19
v/c Ratio	0.58		0.58	0.46	0.14	0.54
Control Delay (s/veh)	9.6		20.3	8.5	20.8	14.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.6		20.3	8.5	20.8	14.1
LOS	A		C	A	C	B
Approach Delay (s/veh)	9.6			10.2	15.3	
Approach LOS	A			B	B	
Queue Length 50th (ft)	79		21	60	9	16
Queue Length 95th (ft)	152		75	117	43	84
Internal Link Dist (ft)	2757			1450	4132	
Turn Bay Length (ft)			250			115
Base Capacity (vph)	3263		440	3290	800	796
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.30		0.30	0.24	0.06	0.28

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 47.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.59

No Build AM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024

















Intersection Signal Delay (s/veh): 10.6	Intersection LOS: B
Intersection Capacity Utilization 51.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: Garvey Road & Malabar Road

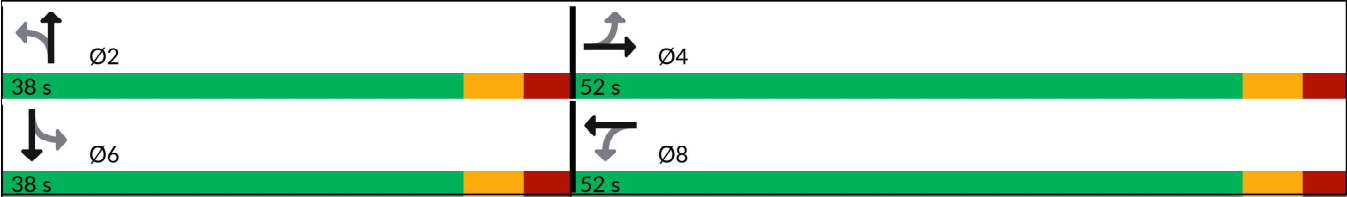


No Build AM Peak Hour with Additional Improvements
25: Garvey Road

Lanes, Volumes, Timings
02/01/2024










												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	380	44	25	392	41	82	114	44	56	81	20
Future Volume (vph)	24	380	44	25	392	41	82	114	44	56	81	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1787	0	0	1798	0	0	1780	0	0	1770	0
Flt Permitted		0.955			0.954			0.818			0.806	
Satd. Flow (perm)	0	1712	0	0	1720	0	0	1482	0	0	1453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			8			14			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		440			2310			1061			4212	
Travel Time (s)		8.6			45.0			20.7			82.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	10%	4%	4%	5%	1%	1%	8%	0%	7%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	492	0	0	503	0	0	263	0	0	173	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	52.0	52.0		52.0	52.0		38.0	38.0		38.0	38.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Act Effct Green (s)		20.5			20.5			14.4			14.4	
Actuated g/C Ratio		0.41			0.41			0.29			0.29	
v/c Ratio		0.69			0.70			0.60			0.40	
Control Delay (s/veh)		18.1			18.5			22.2			18.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		18.1			18.5			22.2			18.2	
LOS		B			B			C			B	
Approach Delay (s/veh)		18.1			18.6			22.2			18.2	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		102			105			57			35	
Queue Length 95th (ft)		243			250			158			104	
Internal Link Dist (ft)		360			2230			981			4132	
Turn Bay Length (ft)												
Base Capacity (vph)		1501			1508			989			968	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.33			0.27			0.18	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 49.9												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.71												
Intersection Signal Delay (s/veh): 19.0	Intersection LOS: B											
Intersection Capacity Utilization 60.0%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 25: Garvey Road



No Build AM Peak Hour with Additional Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
02/01/2024

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
Future Vol, veh/h	7	608	0	0	1194	7	0	0	0	3	0	21
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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	4	0	0	3	14	0	0	0	67	0	0
Mvmt Flow	8	715	0	0	1405	8	0	0	0	4	0	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1413	0	0	715	0	0	1434	2145	358	1783	2141	706
Stage 1	-	-	-	-	-	-	732	732	-	1409	1409	-
Stage 2	-	-	-	-	-	-	702	1413	-	374	732	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	8.84	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7.84	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	4.17	4	3.3
Pot Cap-1 Maneuver	489	-	-	894	-	-	96	49	645	26	49	383
Stage 1	-	-	-	-	-	-	384	430	-	81	207	-
Stage 2	-	-	-	-	-	-	399	206	-	471	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	489	-	-	894	-	-	88	48	645	25	49	383
Mov Cap-2 Maneuver	-	-	-	-	-	-	88	48	-	25	49	-
Stage 1	-	-	-	-	-	-	377	423	-	81	207	-
Stage 2	-	-	-	-	-	-	374	206	-	463	423	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v 0.14		0	0	37.69
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	489	-	-	894	-	-	138
HCM Lane V/C Ratio	-	0.017	-	-	-	-	-	0.205
HCM Control Delay (s/veh)	0	12.5	-	-	0	-	-	37.7
HCM Lane LOS	A	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.7

No Build PM Peak Hour with Additional Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	252	263	416	810	59
Future Volume (vph)	67	252	263	416	810	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	2959	1442	3418	0
Flt Permitted	0.392				0.955	
Satd. Flow (perm)	730	3539	2959	1442	3418	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				462	10	
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	22%	12%	1%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	280	292	462	966	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	7	4	8		6	
Permitted Phases	4			8		
Total Split (s)	13.0	48.0	35.0	35.0	42.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	24.7	24.7	15.1	15.1	23.5	
Actuated g/C Ratio	0.39	0.39	0.24	0.24	0.37	
v/c Ratio	0.18	0.20	0.41	0.66	0.75	
Control Delay (s/veh)	14.4	13.6	24.7	8.0	22.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	14.4	13.6	24.7	8.0	22.3	
LOS	B	B	C	A	C	
Approach Delay (s/veh)		13.8	14.5		22.4	
Approach LOS		B	B		C	
Queue Length 50th (ft)	17	35	52	0	165	
Queue Length 95th (ft)	49	73	102	76	279	
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		
Base Capacity (vph)	390	2395	1420	932	2054	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.12	0.21	0.50	0.47	

Intersection Summary

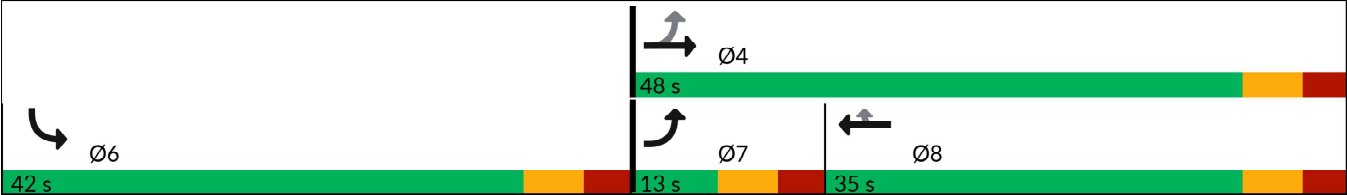
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 63.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.76

No Build PM Peak Hour with Additional Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 18.1	Intersection LOS: B
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



No Build PM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	89	95	467	85	277	878
Future Volume (vph)	89	95	467	85	277	878
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	400		300	150	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1556	1615	3312	1455	0	3531
Flt Permitted	0.950					0.716
Satd. Flow (perm)	1556	1615	3312	1455	0	2559
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		99		89		
Link Speed (mph)	35		35			35
Link Distance (ft)	807		6746			5383
Travel Time (s)	15.7		131.4			104.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	16%	0%	9%	11%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	99	486	89	0	1204
Turn Type	Prot	Prot	NA	Perm	Perm	NA
Protected Phases	8	8	2			6
Permitted Phases				2	6	
Total Split (s)	26.0	26.0	64.0	64.0	64.0	64.0
Total Lost Time (s)	7.0	7.0	7.0	7.0		7.0
Act Effect Green (s)	10.1	10.1	42.8	42.8		42.8
Actuated g/C Ratio	0.17	0.17	0.70	0.70		0.70
v/c Ratio	0.36	0.28	0.20	0.08		0.67
Control Delay (s/veh)	31.3	9.4	5.2	1.4		10.2
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	31.3	9.4	5.2	1.4		10.2
LOS	C	A	A	A		B
Approach Delay (s/veh)	20.0		4.6			10.2
Approach LOS	C		A			B
Queue Length 50th (ft)	30	0	36	0		144
Queue Length 95th (ft)	90	41	66	14		261
Internal Link Dist (ft)	727		6666			5303
Turn Bay Length (ft)		400		300		
Base Capacity (vph)	524	610	2963	1311		2290
Starvation Cap Reductn	0	0	0	0		0
Spillback Cap Reductn	0	0	0	0		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.18	0.16	0.16	0.07		0.53

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 61
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.67

Intersection Signal Delay (s/veh): 9.6	Intersection LOS: A
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: St. Johns Heritage Parkway & Pace Drive



No Build PM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	149	122	463	82	447	1120
Future Volume (vph)	149	122	463	82	447	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240		300	150	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1703	1568	3343	1615	1787	3610
Flt Permitted	0.950				0.324	
Satd. Flow (perm)	1703	1568	3343	1615	610	3610
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		127		85		
Link Speed (mph)	35		35			35
Link Distance (ft)	580		5383			4398
Travel Time (s)	11.3		104.9			85.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	6%	3%	8%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	127	482	85	466	1167
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2	6	
Total Split (s)	24.0	14.0	52.0	52.0	14.0	66.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Act Effect Green (s)	10.4	20.8	14.5	14.5	29.4	31.8
Actuated g/C Ratio	0.21	0.41	0.29	0.29	0.59	0.63
v/c Ratio	0.43	0.17	0.50	0.16	0.87	0.51
Control Delay (s/veh)	24.3	3.1	17.8	5.0	32.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	24.3	3.1	17.8	5.0	32.3	8.7
LOS	C	A	B	A	C	A
Approach Delay (s/veh)	14.8		15.9			15.5
Approach LOS	B		B			B
Queue Length 50th (ft)	42	0	65	0	79	113
Queue Length 95th (ft)	103	26	113	25	#273	197
Internal Link Dist (ft)	500		5303			4318
Turn Bay Length (ft)		240		300	150	
Base Capacity (vph)	616	722	2880	1403	533	3536
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.18	0.17	0.06	0.87	0.33

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 50.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.87

No Build PM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024




















Intersection Signal Delay (s/veh): 15.5	Intersection LOS: B
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 7: St. Johns Heritage Parkway & Emerson Drive



No Build PM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Future Volume (vph)	44	886	50	106	797	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3539	1615	1787	3196	0	0	1618	0	0	1751	0
Flt Permitted	0.266			0.251				0.900			0.702	
Satd. Flow (perm)	481	3539	1615	472	3196	0	0	1472	0	0	1281	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		26			112			112	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	943	53	113	975	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effect Green (s)	32.4	28.8	28.8	33.5	31.1			7.5			7.5	
Actuated g/C Ratio	0.62	0.55	0.55	0.65	0.60			0.14			0.14	
v/c Ratio	0.10	0.48	0.05	0.25	0.50			0.29			0.24	
Control Delay (s/veh)	3.9	11.4	0.7	5.0	10.5			7.3			4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.9	11.4	0.7	5.0	10.5			7.3			4.5	
LOS	A	B	A	A	B			A			A	
Approach Delay (s/veh)		10.5			10.0			7.4			4.6	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	4	116	0	10	123			0			0	
Queue Length 95th (ft)	12	170	5	24	183			28			14	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	440	2947	1362	453	2666			717			632	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.11	0.32	0.04	0.25	0.37			0.13			0.11	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 51.9												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.51												

No Build PM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024










Intersection Signal Delay (s/veh): 10.0	Intersection LOS: A
Intersection Capacity Utilization 55.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

No Build PM Peak Hour with Additional Improvements
18: Hurley Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	868	128	97	974	50	51
Future Volume (vph)	868	128	97	974	50	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3481	0	0	3374	1572	0
Flt Permitted				0.756	0.976	
Satd. Flow (perm)	3481	0	0	2564	1572	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	35				52	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2581			3773	988	
Travel Time (s)	50.3			73.5	19.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	0%	1%	7%	16%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1017	0	0	1093	103	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	
Total Lost Time (s)	6.0			6.0	6.0	
Act Effect Green (s)	43.0			43.0	8.3	
Actuated g/C Ratio	0.74			0.74	0.14	
v/c Ratio	0.39			0.57	0.38	
Control Delay (s/veh)	4.7			7.0	19.5	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	4.7			7.0	19.5	
LOS	A			A	B	
Approach Delay (s/veh)	4.8			7.1	19.5	
Approach LOS	A			A	B	
Queue Length 50th (ft)	68			96	17	
Queue Length 95th (ft)	126			185	63	
Internal Link Dist (ft)	2501			3693	908	
Turn Bay Length (ft)						
Base Capacity (vph)	3190			2348	644	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.32			0.47	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 58.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay (s/veh): 6.6 Intersection LOS: A

Intersection Capacity Utilization 78.7% ICU Level of Service D

























Analysis Period (min) 15

Splits and Phases: 18: Hurley Boulevard & Malabar Road



No Build PM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Future Volume (vph)	123	546	293	55	619	258	262	214	38	200	176	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	220		220	250		220	240		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3539	1599	1736	3438	1615	1671	1667	1482	1787	1845	1583
Flt Permitted	0.272			0.377			0.396			0.615		
Satd. Flow (perm)	512	3539	1599	689	3438	1615	697	1667	1482	1157	1845	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315			277			115			115
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	587	315	59	666	277	282	230	41	215	189	217
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	13.0	35.0	21.0	13.0	35.0	14.0	21.0	28.0	13.0	14.0	21.0	13.0
Total Lost Time (s)	7.0	8.0	7.0	7.0	8.0	4.5	7.0	8.0	7.0	4.5	8.0	7.0
Act Effct Green (s)	31.8	26.1	47.4	30.1	23.1	40.3	33.2	18.9	33.0	25.1	12.4	26.5
Actuated g/C Ratio	0.37	0.31	0.56	0.35	0.27	0.47	0.39	0.22	0.39	0.30	0.15	0.31
v/c Ratio	0.46	0.53	0.30	0.18	0.71	0.30	0.66	0.61	0.06	0.52	0.70	0.37
Control Delay (s/veh)	21.1	27.7	2.1	15.7	32.6	2.6	28.1	38.8	0.1	23.2	51.1	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.1	27.7	2.1	15.7	32.6	2.6	28.1	38.8	0.1	23.2	51.1	13.8
LOS	C	C	A	B	C	A	C	D	A	C	D	B
Approach Delay (s/veh)		19.1			23.4			30.5			28.4	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	43	146	0	18	172	0	109	114	0	74	100	41
Queue Length 95th (ft)	78	200	36	40	232	38	186	196	0	131	#198	103
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	200		200	220		220	250		220	240		240
Base Capacity (vph)	282	1156	1044	319	1099	918	437	394	646	417	284	572
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.51	0.30	0.18	0.61	0.30	0.65	0.58	0.06	0.52	0.67	0.38

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 84.9

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.71

No Build PM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024












Intersection Signal Delay (s/veh): 24.2	Intersection LOS: C
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1	 Ø2	 Ø3	 Ø4
13 s	35 s	21 s	21 s
 Ø5	 Ø6	 Ø7	 Ø8
13 s	35 s	14 s	28 s

No Build PM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	722	31	203	998	7	105
Future Volume (vph)	722	31	203	998	7	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	250		0	115
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3521	0	1787	3539	1805	1568
Flt Permitted			0.346		0.950	
Satd. Flow (perm)	3521	0	651	3539	1805	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	9					113
Link Speed (mph)	35			35	35	
Link Distance (ft)	2837			1530	4212	
Travel Time (s)	55.3			29.8	82.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	1%	2%	0%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	809	0	218	1073	8	113
Turn Type	NA		Perm	NA	Prot	Prot
Protected Phases	4			8	2	2
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	27.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Act Effect Green (s)	27.4		27.4	27.4	6.8	6.8
Actuated g/C Ratio	0.56		0.56	0.56	0.14	0.14
v/c Ratio	0.41		0.60	0.54	0.03	0.35
Control Delay (s/veh)	6.2		14.5	7.4	24.8	10.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.2		14.5	7.4	24.8	10.2
LOS	A		B	A	C	B
Approach Delay (s/veh)	6.3			8.6	11.2	
Approach LOS	A			A	B	
Queue Length 50th (ft)	52		31	76	2	0
Queue Length 95th (ft)	93		93	135	15	43
Internal Link Dist (ft)	2757			1450	4132	
Turn Bay Length (ft)			250			115
Base Capacity (vph)	3340		617	3357	789	749
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.24		0.35	0.32	0.01	0.15
Intersection Summary						
Area Type:	Other					
Cycle Length: 90						
Actuated Cycle Length: 49.3						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.60						

No Build PM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024

















Intersection Signal Delay (s/veh): 7.9	Intersection LOS: A
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: Garvey Road & Malabar Road

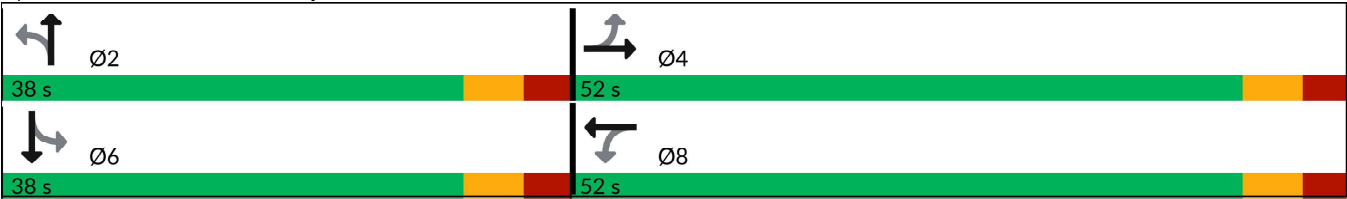


No Build PM Peak Hour with Additional Improvements
25: Garvey Road

Lanes, Volumes, Timings
02/01/2024









												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	377	74	62	389	35	69	59	53	37	133	15
Future Volume (vph)	6	377	74	62	389	35	69	59	53	37	133	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1807	0	0	1818	0	0	1695	0	0	1810	0
Flt Permitted		0.991			0.888			0.818			0.890	
Satd. Flow (perm)	0	1793	0	0	1624	0	0	1413	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			6			25			5	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		440			2310			1061			4212	
Travel Time (s)		8.6			45.0			20.7			82.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	3%	0%	0%	3%	6%	5%	4%	8%	3%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	497	0	0	528	0	0	197	0	0	201	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	52.0	52.0		52.0	52.0		38.0	38.0		38.0	38.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Act Effct Green (s)		21.8			21.8			12.6			12.6	
Actuated g/C Ratio		0.44			0.44			0.25			0.25	
v/c Ratio		0.62			0.73			0.52			0.48	
Control Delay (s/veh)		14.3			18.4			20.9			21.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		14.3			18.4			20.9			21.2	
LOS		B			B			C			C	
Approach Delay (s/veh)		14.3			18.5			20.9			21.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		91			107			40			45	
Queue Length 95th (ft)		218			258			120			127	
Internal Link Dist (ft)		360			2230			981			4132	
Turn Bay Length (ft)												
Base Capacity (vph)		1578			1428			959			1096	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.37			0.21			0.18	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 49.5												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.73												
Intersection Signal Delay (s/veh): 17.7	Intersection LOS: B											
Intersection Capacity Utilization 86.5%	ICU Level of Service E											
Analysis Period (min) 15												

Splits and Phases: 25: Garvey Road



No Build PM Peak Hour with Additional Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

HCM 7th TWSC
02/01/2024

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	11	1004	0	0	682	8	0	0	0	6	0	3
Future Vol, veh/h	11	1004	0	0	682	8	0	0	0	6	0	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	220	-	300	220	-	-	-	-	-	-	-	-
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, %	0	1	0	0	14	0	0	0	0	0	0	0
Mvmt Flow	13	1141	0	0	775	9	0	0	0	7	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	784	0	0	1141	0	0	1553	1950	570	1375	1945	392
Stage 1	-	-	-	-	-	-	1166	1166	-	780	780	-
Stage 2	-	-	-	-	-	-	388	784	-	595	1166	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	843	-	-	620	-	-	78	65	469	106	66	613
Stage 1	-	-	-	-	-	-	209	270	-	359	409	-
Stage 2	-	-	-	-	-	-	613	407	-	462	270	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	843	-	-	620	-	-	77	64	469	105	65	613
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	64	-	105	65	-
Stage 1	-	-	-	-	-	-	206	266	-	359	409	-
Stage 2	-	-	-	-	-	-	610	407	-	456	266	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.1	0	0	31.76
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	843	-	-	620	-	-	145
HCM Lane V/C Ratio	-	0.015	-	-	-	-	-	0.071
HCM Control Delay (s/veh)	0	9.3	-	-	0	-	-	31.8
HCM Lane LOS	A	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2

Build AM Peak Hour with Additional Improvements

3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	187	349	693	616	339	274
Future Volume (vph)	187	349	693	616	339	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1687	3406	3505	1568	3238	0
Flt Permitted	0.161				0.973	
Satd. Flow (perm)	286	3406	3505	1568	3238	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				780	223	
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	7%	6%	3%	3%	2%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	237	442	877	780	776	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	7	4	8		6	
Permitted Phases	4			8		
Total Split (s)	20.0	59.0	39.0	39.0	31.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	48.6	48.6	29.2	29.2	19.5	
Actuated g/C Ratio	0.59	0.59	0.35	0.35	0.24	
v/c Ratio	0.62	0.21	0.70	0.73	0.82	
Control Delay (s/veh)	18.4	8.6	27.0	6.6	29.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	18.4	8.6	27.0	6.6	29.7	
LOS	B	A	C	A	C	
Approach Delay (s/veh)		12.1	17.5		29.8	
Approach LOS		B	B		C	
Queue Length 50th (ft)	57	54	211	0	150	
Queue Length 95th (ft)	95	72	242	25	173	
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		
Base Capacity (vph)	393	2187	1385	1091	1116	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.60	0.20	0.63	0.71	0.70	

Intersection Summary

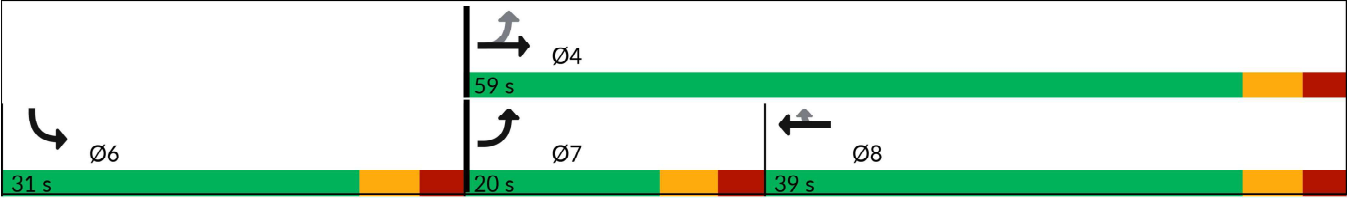
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 82.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83

Build AM Peak Hour with Additional Improvements
3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 19.4	Intersection LOS: B
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



Build AM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	163	327	870	78	74	498
Future Volume (vph)	163	327	870	78	74	498
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	400		300	150	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1736	1583	3539	1538	0	3442
Flt Permitted	0.950					0.671
Satd. Flow (perm)	1736	1583	3539	1538	0	2323
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		78		87		
Link Speed (mph)	35		35			35
Link Distance (ft)	807		6746			5383
Travel Time (s)	15.7		131.4			104.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	2%	2%	5%	6%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	363	967	87	0	635
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Total Split (s)	39.0	39.0	51.0	51.0	51.0	51.0
Total Lost Time (s)	7.0	7.0	7.0	7.0		7.0
Act Effect Green (s)	16.7	16.7	24.3	24.3		24.3
Actuated g/C Ratio	0.30	0.30	0.43	0.43		0.43
v/c Ratio	0.35	0.69	0.63	0.12		0.63
Control Delay (s/veh)	18.7	21.9	14.8	3.4		16.1
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	18.7	21.9	14.8	3.4		16.1
LOS	B	C	B	A		B
Approach Delay (s/veh)	20.9		13.9			16.2
Approach LOS	C		B			B
Queue Length 50th (ft)	44	75	116	0		76
Queue Length 95th (ft)	115	204	240	23		172
Internal Link Dist (ft)	727		6666			5303
Turn Bay Length (ft)		400		300		
Base Capacity (vph)	1064	1000	2858	1259		1876
Starvation Cap Reductn	0	0	0	0		0
Spillback Cap Reductn	0	0	0	0		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.17	0.36	0.34	0.07		0.34

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.1
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69

Build AM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024








Intersection Signal Delay (s/veh): 16.3	Intersection LOS: B
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: St. Johns Heritage Parkway & Pace Drive



Build AM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024

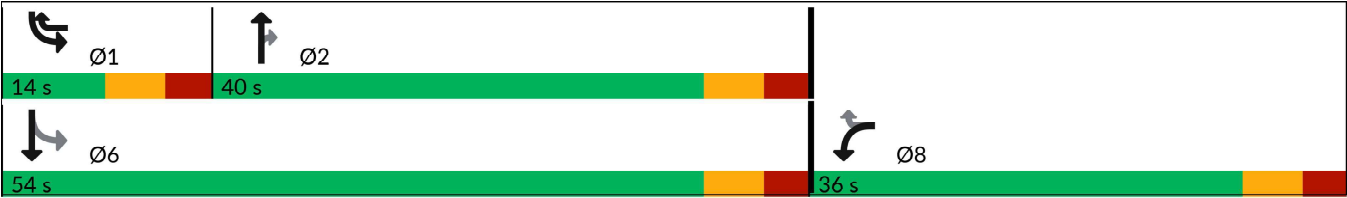
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	159	440	1460	87	84	257
Future Volume (vph)	159	440	1460	87	84	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240		300	150	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1805	1599	3574	1615	1671	3406
Flt Permitted	0.950				0.100	
Satd. Flow (perm)	1805	1599	3574	1615	176	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		3		93		
Link Speed (mph)	35		35			35
Link Distance (ft)	580		5383			4398
Travel Time (s)	11.3		104.9			85.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	0%	8%	6%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	169	468	1553	93	89	273
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2	6	
Total Split (s)	36.0	14.0	40.0	40.0	14.0	54.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Act Effect Green (s)	12.0	26.0	33.0	33.0	47.1	47.1
Actuated g/C Ratio	0.16	0.36	0.45	0.45	0.64	0.64
v/c Ratio	0.57	0.81	0.96	0.11	0.34	0.12
Control Delay (s/veh)	35.9	34.4	36.6	3.7	9.4	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.9	34.4	36.6	3.7	9.4	5.6
LOS	D	C	D	A	A	A
Approach Delay (s/veh)	34.8		34.8			6.6
Approach LOS	C		C			A
Queue Length 50th (ft)	71	187	342	0	13	21
Queue Length 95th (ft)	128	#305	#560	25	34	42
Internal Link Dist (ft)	500		5303			4318
Turn Bay Length (ft)		240		300	150	
Base Capacity (vph)	716	571	1615	781	256	2192
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.82	0.96	0.12	0.35	0.12
Intersection Summary						
Area Type:	Other					
Cycle Length: 90						
Actuated Cycle Length: 73.1						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.96						

Build AM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024





















Intersection Signal Delay (s/veh): 30.9	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 7: St. Johns Heritage Parkway & Emerson Drive



Build AM Peak Hour with Additional Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	654	20	31	1224	7	48	3	48	3	2	21
Future Volume (vph)	7	654	20	31	1224	7	48	3	48	3	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		300	220		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3471	1615	1805	3499	0	0	1734	0	0	1549	0
Flt Permitted	0.144			0.360				0.831			0.941	
Satd. Flow (perm)	274	3471	1615	684	3499	0	0	1476	0	0	1466	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			48		1			49			25	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		663			3156			566			556	
Travel Time (s)		12.9			61.5			11.0			10.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	4%	0%	0%	3%	14%	0%	0%	0%	67%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	769	24	36	1448	0	0	116	0	0	31	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	61.0	61.0	61.0	61.0	61.0		29.0	29.0		29.0	29.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Act Effect Green (s)	42.6	42.6	42.6	42.6	42.6			8.9			8.9	
Actuated g/C Ratio	0.71	0.71	0.71	0.71	0.71			0.15			0.15	
v/c Ratio	0.04	0.31	0.02	0.07	0.58			0.44			0.13	
Control Delay (s/veh)	5.5	5.5	0.6	5.3	7.9			22.8			14.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.5	5.5	0.6	5.3	7.9			22.8			14.7	
LOS	A	A	A	A	A			C			B	
Approach Delay (s/veh)		5.4			7.9			22.9			14.7	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)	1	58	0	4	148			21			2	
Queue Length 95th (ft)	6	98	3	15	232			71			23	
Internal Link Dist (ft)		583			3076			486			476	
Turn Bay Length (ft)	220		300	220								
Base Capacity (vph)	237	3010	1406	593	3034			604			585	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.03	0.26	0.02	0.06	0.48			0.19			0.05	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 60.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.58												
























Intersection Signal Delay (s/veh): 7.9	Intersection LOS: A
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: East Site Driveway/Thunderbird Avenue & Malabar Road



Build AM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Future Volume (vph)	22	795	19	62	1073	67	72	3	88	92	1	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3438	1429	1736	3479	0	0	1682	0	0	1734	0
Flt Permitted	0.147			0.267				0.819			0.721	
Satd. Flow (perm)	266	3438	1429	488	3479	0	0	1408	0	0	1291	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		10			63			27	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	13%	4%	3%	0%	3%	33%	1%	1%	100%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	864	21	67	1239	0	0	177	0	0	152	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	33.5	29.1	29.1	34.7	31.5			12.9			12.9	
Actuated g/C Ratio	0.54	0.47	0.47	0.56	0.51			0.21			0.21	
v/c Ratio	0.08	0.53	0.02	0.16	0.69			0.51			0.52	
Control Delay (s/veh)	6.3	13.9	0.0	6.7	15.1			23.3			29.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.3	13.9	0.0	6.7	15.1			23.3			29.0	
LOS	A	B	A	A	B			C			C	
Approach Delay (s/veh)		13.5			14.7			23.3			29.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	3	124	0	8	127			34			38	
Queue Length 95th (ft)	13	218	0	28	353			116			120	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	291	2613	1111	399	2647			597			529	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.08	0.33	0.02	0.17	0.47			0.30			0.29	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 61.9												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.70												

Build AM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 15.7	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

Build AM Peak Hour with Additional Improvements
18: Hurley Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (vph)	907	75	57	1035	114	70
Future Volume (vph)	907	75	57	1035	114	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3461	0	0	3486	1686	0
Flt Permitted				0.827	0.970	
Satd. Flow (perm)	3461	0	0	2891	1686	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	18				32	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2581			3773	988	
Travel Time (s)	50.3			73.5	19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	5%	8%	3%	3%	5%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1091	0	0	1213	205	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	
Total Lost Time (s)	6.0			6.0	6.0	
Act Effect Green (s)	38.5			38.5	12.4	
Actuated g/C Ratio	0.61			0.61	0.20	
v/c Ratio	0.51			0.68	0.57	
Control Delay (s/veh)	8.2			11.2	27.4	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	8.2			11.2	27.4	
LOS	A			B	C	
Approach Delay (s/veh)	8.3			11.3	27.4	
Approach LOS	A			B	C	
Queue Length 50th (ft)	101			135	53	
Queue Length 95th (ft)	195			269	149	
Internal Link Dist (ft)	2501			3693	908	
Turn Bay Length (ft)						
Base Capacity (vph)	3129			2612	599	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.35			0.46	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 63.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay (s/veh): 11.3

Intersection LOS: B

Intersection Capacity Utilization 83.3%

ICU Level of Service E

























Analysis Period (min) 15

Splits and Phases: 18: Hurley Boulevard & Malabar Road



Build AM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Future Volume (vph)	226	604	188	49	567	136	286	231	42	231	188	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	220		220	250		220	240		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3505	1524	1770	3438	1568	1752	1845	1615	1719	1845	1553
Flt Permitted	0.243			0.392			0.422			0.606		
Satd. Flow (perm)	462	3505	1524	730	3438	1568	778	1845	1615	1097	1845	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			200			145			115			115
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	6%	2%	5%	3%	3%	3%	0%	5%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	643	200	52	603	145	304	246	45	246	200	163
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	17.0	34.0	20.0	13.0	30.0	15.0	20.0	28.0	13.0	15.0	23.0	17.0
Total Lost Time (s)	7.0	8.0	7.0	7.0	8.0	4.5	7.0	8.0	7.0	4.5	8.0	7.0
Act Effct Green (s)	35.8	27.0	47.6	27.1	20.0	38.2	32.2	18.6	32.6	27.3	13.6	31.7
Actuated g/C Ratio	0.41	0.31	0.55	0.31	0.23	0.44	0.37	0.22	0.38	0.32	0.16	0.37
v/c Ratio	0.69	0.58	0.21	0.17	0.75	0.18	0.70	0.62	0.06	0.58	0.68	0.25
Control Delay (s/veh)	28.4	29.0	2.3	16.5	37.9	3.3	29.9	38.8	0.1	24.7	48.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	29.0	2.3	16.5	37.9	3.3	29.9	38.8	0.1	24.7	48.2	8.1
LOS	C	C	A	B	D	A	C	D	A	C	D	A
Approach Delay (s/veh)		23.9			30.3			31.4			28.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	85	166	0	16	165	0	123	126	0	91	108	18
Queue Length 95th (ft)	#143	225	31	37	225	32	#196	204	0	148	#183	59
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	200		200	220		220	250		220	240		240
Base Capacity (vph)	347	1112	936	301	879	780	441	429	681	427	321	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.58	0.21	0.17	0.69	0.19	0.69	0.57	0.07	0.58	0.62	0.25

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 86.4

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Build AM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 27.8	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1 13 s	 Ø2 34 s	 Ø3 20 s	 Ø4 23 s
 Ø5 17 s	 Ø6 30 s	 Ø7 15 s	 Ø8 28 s

Build AM Peak Hour with Additional Improvements

22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	↵
Traffic Volume (vph)	856	47	115	717	42	194
Future Volume (vph)	856	47	115	717	42	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	250		0	115
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3442	0	1703	3471	1752	1568
Flt Permitted			0.236		0.950	
Satd. Flow (perm)	3442	0	423	3471	1752	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	12					132
Link Speed (mph)	35			35	35	
Link Distance (ft)	2837			1530	4212	
Travel Time (s)	55.3			29.8	82.1	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	4%	5%	6%	4%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1050	0	134	834	49	226
Turn Type	NA		Perm	NA	Prot	Prot
Protected Phases	4			8	2	2
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	27.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Act Effect Green (s)	26.3		26.3	26.3	9.8	9.8
Actuated g/C Ratio	0.51		0.51	0.51	0.19	0.19
v/c Ratio	0.59		0.62	0.47	0.14	0.56
Control Delay (s/veh)	9.8		23.3	8.6	22.9	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	9.8		23.3	8.6	22.9	16.7
LOS	A		C	A	C	B
Approach Delay (s/veh)	9.8			10.7	17.8	
Approach LOS	A			B	B	
Queue Length 50th (ft)	89		22	65	10	20
Queue Length 95th (ft)	174		85	131	49	103
Internal Link Dist (ft)	2757			1450	4132	
Turn Bay Length (ft)			250			115
Base Capacity (vph)	3191		392	3218	758	753
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.33		0.34	0.26	0.06	0.30

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 51.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.62

Intersection Signal Delay (s/veh): 11.1	Intersection LOS: B
Intersection Capacity Utilization 53.2%	ICU Level of Service A
Analysis Period (min) 15	

















Splits and Phases: 22: Garvey Road & Malabar Road



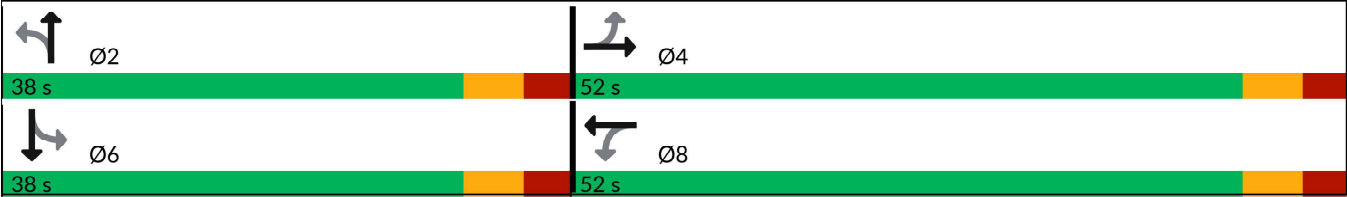
Build AM Peak Hour with Additional Improvements

25: Garvey Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	399	44	25	404	41	85	116	44	56	84	20
Future Volume (vph)	24	399	44	25	404	41	85	116	44	56	84	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1787	0	0	1798	0	0	1783	0	0	1771	0
Flt Permitted		0.956			0.955			0.814			0.803	
Satd. Flow (perm)	0	1714	0	0	1722	0	0	1476	0	0	1447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			8			13			9	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		440			2310			1061			4212	
Travel Time (s)		8.6			45.0			20.7			82.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	4%	10%	4%	4%	5%	1%	1%	8%	0%	7%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	512	0	0	516	0	0	268	0	0	176	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	52.0	52.0		52.0	52.0		38.0	38.0		38.0	38.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Act Effect Green (s)		21.7			21.7			15.1			15.1	
Actuated g/C Ratio		0.42			0.42			0.29			0.29	
v/c Ratio		0.71			0.71			0.61			0.41	
Control Delay (s/veh)		18.7			18.8			23.2			18.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		18.7			18.8			23.2			18.9	
LOS		B			B			C			B	
Approach Delay (s/veh)		18.8			18.8			23.2			19.0	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)		112			113			62			38	
Queue Length 95th (ft)		264			267			170			111	
Internal Link Dist (ft)		360			2230			981			4132	
Turn Bay Length (ft)												
Base Capacity (vph)		1468			1475			956			936	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.35			0.28			0.19	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 51.8												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.71												
Intersection Signal Delay (s/veh): 19.6	Intersection LOS: B											
Intersection Capacity Utilization 61.4%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 25: Garvey Road



Build AM Peak Hour with Additional Improvements
13: West Site Driveway & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	635	20	30	1263	14	46
Future Vol, veh/h	635	20	30	1263	14	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	690	22	33	1373	15	50

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	712
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	884
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	884
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.21	19.21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	318	-	-	884	-
HCM Lane V/C Ratio	0.205	-	-	0.037	-
HCM Control Delay (s/veh)	19.2	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Build PM Peak Hour with Additional Improvements

3: Malabar Road & St. Johns Heritage Parkway

Lanes, Volumes, Timings
02/01/2024



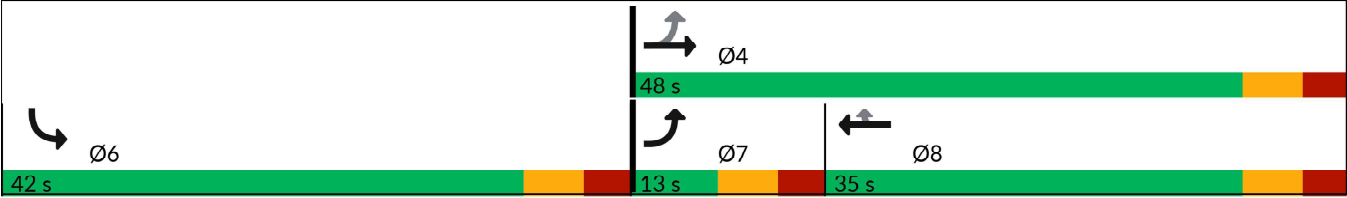
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	261	270	461	871	59
Future Volume (vph)	67	261	270	461	871	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350			250	0	340
Storage Lanes	1			1	2	0
Taper Length (ft)	25				25	
Satd. Flow (prot)	1770	3539	2959	1442	3420	0
Flt Permitted	0.393				0.955	
Satd. Flow (perm)	732	3539	2959	1442	3420	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				512	9	
Link Speed (mph)		35	35		35	
Link Distance (ft)		2248	2950		6746	
Travel Time (s)		43.8	57.5		131.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	22%	12%	1%	15%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	290	300	512	1034	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	7	4	8		6	
Permitted Phases	4			8		
Total Split (s)	13.0	48.0	35.0	35.0	42.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	
Act Effect Green (s)	25.3	25.3	15.7	15.7	25.4	
Actuated g/C Ratio	0.38	0.38	0.24	0.24	0.39	
v/c Ratio	0.19	0.21	0.42	0.69	0.78	
Control Delay (s/veh)	14.8	14.1	25.2	8.3	23.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	14.8	14.1	25.2	8.3	23.5	
LOS	B	B	C	A	C	
Approach Delay (s/veh)		14.3	14.6		23.5	
Approach LOS		B	B		C	
Queue Length 50th (ft)	18	40	57	0	185	
Queue Length 95th (ft)	48	75	104	79	325	
Internal Link Dist (ft)		2168	2870		6666	
Turn Bay Length (ft)	350			250		
Base Capacity (vph)	383	2332	1362	940	1972	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.12	0.22	0.54	0.52	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 65.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 18.7	Intersection LOS: B
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Malabar Road & St. Johns Heritage Parkway



Build PM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	94	95	508	89	277	934
Future Volume (vph)	94	95	508	89	277	934
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	400		300	150	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1556	1615	3312	1455	0	3535
Flt Permitted	0.950					0.708
Satd. Flow (perm)	1556	1615	3312	1455	0	2531
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		99		93		
Link Speed (mph)	35		35			35
Link Distance (ft)	807		6746			5383
Travel Time (s)	15.7		131.4			104.9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	16%	0%	9%	11%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	98	99	529	93	0	1262
Turn Type	Prot	Prot	NA	Perm	Perm	NA
Protected Phases	8	8	2			6
Permitted Phases				2	6	
Total Split (s)	25.0	25.0	65.0	65.0	65.0	65.0
Total Lost Time (s)	7.0	7.0	7.0	7.0		7.0
Act Effect Green (s)	10.3	10.3	46.7	46.7		46.7
Actuated g/C Ratio	0.16	0.16	0.71	0.71		0.71
v/c Ratio	0.40	0.29	0.22	0.08		0.70
Control Delay (s/veh)	33.6	9.7	5.2	1.4		10.9
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay (s/veh)	33.6	9.7	5.2	1.4		10.9
LOS	C	A	A	A		B
Approach Delay (s/veh)	21.6		4.7			10.9
Approach LOS	C		A			B
Queue Length 50th (ft)	34	0	41	0		163
Queue Length 95th (ft)	95	41	74	14		298
Internal Link Dist (ft)	727		6666			5303
Turn Bay Length (ft)		400		300		
Base Capacity (vph)	446	534	2897	1284		2214
Starvation Cap Reductn	0	0	0	0		0
Spillback Cap Reductn	0	0	0	0		0
Storage Cap Reductn	0	0	0	0		0
Reduced v/c Ratio	0.22	0.19	0.18	0.07		0.57

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 65.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70

Build PM Peak Hour with Additional Improvements
6: St. Johns Heritage Parkway & Pace Drive

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 10.1	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: St. Johns Heritage Parkway & Pace Drive



Build PM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	154	122	500	86	447	1171
Future Volume (vph)	154	122	500	86	447	1171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240		300	150	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Satd. Flow (prot)	1703	1568	3343	1615	1787	3610
Flt Permitted	0.950				0.320	
Satd. Flow (perm)	1703	1568	3343	1615	602	3610
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		127		90		
Link Speed (mph)	35		35			35
Link Distance (ft)	580		5383			4398
Travel Time (s)	11.3		104.9			85.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	6%	3%	8%	0%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	160	127	521	90	466	1220
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8		2	6	
Total Split (s)	24.0	14.0	52.0	52.0	14.0	66.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Act Effct Green (s)	10.7	21.1	15.6	15.6	30.6	33.0
Actuated g/C Ratio	0.21	0.41	0.30	0.30	0.59	0.64
v/c Ratio	0.45	0.17	0.51	0.16	0.88	0.52
Control Delay (s/veh)	25.3	3.2	17.8	4.7	33.2	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.3	3.2	17.8	4.7	33.2	8.9
LOS	C	A	B	A	C	A
Approach Delay (s/veh)	15.6		16.0			15.6
Approach LOS	B		B			B
Queue Length 50th (ft)	45	0	72	0	80	122
Queue Length 95th (ft)	110	27	124	26	#281	214
Internal Link Dist (ft)	500		5303			4318
Turn Bay Length (ft)		240		300	150	
Base Capacity (vph)	601	713	2819	1376	529	3506
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.18	0.18	0.07	0.88	0.35

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 51.7
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88

Build PM Peak Hour with Additional Improvements
7: St. Johns Heritage Parkway & Emerson Drive

Lanes, Volumes, Timings
02/01/2024




















Intersection Signal Delay (s/veh): 15.7	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 7: St. Johns Heritage Parkway & Emerson Drive



Build PM Peak Hour with Additional Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1029	48	63	725	8	58	2	54	6	3	3
Future Volume (vph)	11	1029	48	63	725	8	58	2	54	6	3	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	220		300	220		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	3574	1615	1805	3165	0	0	1734	0	0	1793	0
Flt Permitted	0.338			0.212				0.832			0.763	
Satd. Flow (perm)	642	3574	1615	403	3165	0	0	1480	0	0	1405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55		2			47			3	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		663			3156			566			556	
Travel Time (s)		12.9			61.5			11.0			10.8	
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
Heavy Vehicles (%)	0%	1%	0%	0%	14%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	1169	55	72	833	0	0	129	0	0	13	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	61.0	61.0	61.0	61.0	61.0		29.0	29.0		29.0	29.0	
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Act Effect Green (s)	34.3	34.3	34.3	34.3	34.3			8.8			8.8	
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66			0.17			0.17	
v/c Ratio	0.03	0.49	0.05	0.27	0.40			0.44			0.05	
Control Delay (s/veh)	6.0	7.8	2.1	10.2	7.1			19.7			18.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	6.0	7.8	2.1	10.2	7.1			19.7			18.0	
LOS	A	A	A	B	A			B			B	
Approach Delay (s/veh)		7.6			7.4			19.7			18.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	104	0	10	68			22			3	
Queue Length 95th (ft)	8	181	12	37	122			69			16	
Internal Link Dist (ft)		583			3076			486			476	
Turn Bay Length (ft)	220		300	220								
Base Capacity (vph)	619	3448	1560	389	3053			670			612	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.02	0.34	0.04	0.19	0.27			0.19			0.02	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 52.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.50												

Build PM Peak Hour with Additional Improvements
9: East Site Driveway/Thunderbird Avenue & Malabar Road

Lanes, Volumes, Timings
02/01/2024
























Intersection Signal Delay (s/veh): 8.3	Intersection LOS: A
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: East Site Driveway/Thunderbird Avenue & Malabar Road



Build PM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Future Volume (vph)	44	965	50	106	903	119	20	0	66	53	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	340		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1719	3539	1615	1787	3199	0	0	1618	0	0	1751	0
Flt Permitted	0.226			0.225				0.900			0.725	
Satd. Flow (perm)	409	3539	1615	423	3199	0	0	1472	0	0	1323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		22			112			112	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3156			2581			187			529	
Travel Time (s)		61.5			50.3			3.6			10.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	5%	2%	0%	1%	12%	2%	11%	0%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	1027	53	113	1088	0	0	91	0	0	68	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	51.0	51.0	11.0	51.0		28.0	28.0		28.0	28.0	
Total Lost Time (s)	5.4	6.8	6.8	5.4	6.8			6.0			6.0	
Act Effct Green (s)	35.5	32.1	32.1	36.7	34.5			7.7			7.7	
Actuated g/C Ratio	0.64	0.58	0.58	0.67	0.63			0.14			0.14	
v/c Ratio	0.11	0.49	0.05	0.26	0.54			0.30			0.24	
Control Delay (s/veh)	3.8	11.0	0.5	4.9	10.5			7.7			4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.8	11.0	0.5	4.9	10.5			7.7			4.5	
LOS	A	B	A	A	B			A			A	
Approach Delay (s/veh)		10.3			10.0			7.8			4.6	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	4	131	0	10	145			0			0	
Queue Length 95th (ft)	12	187	4	23	213			29			15	
Internal Link Dist (ft)		3076			2501			107			449	
Turn Bay Length (ft)	200		200	340								
Base Capacity (vph)	405	2903	1343	429	2628			690			627	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.12	0.35	0.04	0.26	0.41			0.13			0.11	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 55.1												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.54												

Build PM Peak Hour with Additional Improvements
14: Bending Branch Way/Krassner Drive & Malabar Road

Lanes, Volumes, Timings
02/01/2024










Intersection Signal Delay (s/veh): 9.9	Intersection LOS: A
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Bending Branch Way/Krassner Drive & Malabar Road

 Ø1 11 s	 Ø2 51 s	 Ø4 28 s
 Ø5 11 s	 Ø6 51 s	 Ø8 28 s

Build PM Peak Hour with Additional Improvements
18: Hurley Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	944	131	97	1076	54	51
Future Volume (vph)	944	131	97	1076	54	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3484	0	0	3376	1571	0
Flt Permitted				0.747	0.975	
Satd. Flow (perm)	3484	0	0	2532	1571	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	33				49	
Link Speed (mph)	35			35	35	
Link Distance (ft)	2581			3773	988	
Travel Time (s)	50.3			73.5	19.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	0%	1%	7%	16%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1097	0	0	1197	107	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	4			8	2	
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	
Total Lost Time (s)	6.0			6.0	6.0	
Act Effect Green (s)	48.2			48.2	8.8	
Actuated g/C Ratio	0.76			0.76	0.14	
v/c Ratio	0.41			0.62	0.41	
Control Delay (s/veh)	4.7			7.6	23.2	
Queue Delay	0.0			0.0	0.0	
Total Delay (s/veh)	4.7			7.6	23.2	
LOS	A			A	C	
Approach Delay (s/veh)	4.8			7.6	23.3	
Approach LOS	A			A	C	
Queue Length 50th (ft)	80			119	22	
Queue Length 95th (ft)	141			222	74	
Internal Link Dist (ft)	2501			3693	908	
Turn Bay Length (ft)						
Base Capacity (vph)	2986			2166	594	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.37			0.55	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 63.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 7.0

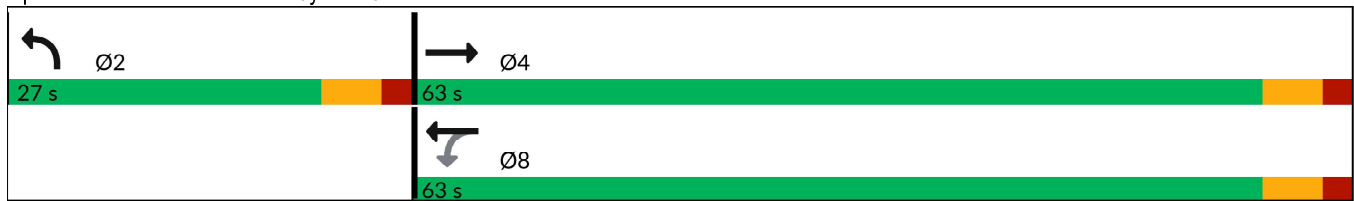
Intersection LOS: A

Intersection Capacity Utilization 83.9%

ICU Level of Service E

























Analysis Period (min) 15

Splits and Phases: 18: Hurley Boulevard & Malabar Road



Build PM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Future Volume (vph)	143	586	309	55	673	258	283	214	38	200	176	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	220		220	250		220	240		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3539	1599	1736	3438	1615	1671	1667	1482	1787	1845	1583
Flt Permitted	0.239			0.345			0.387			0.615		
Satd. Flow (perm)	450	3539	1599	630	3438	1615	681	1667	1482	1157	1845	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			332			277			115			115
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		3773			2837			1439			601	
Travel Time (s)		73.5			55.3			28.0			11.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	2%	1%	4%	5%	0%	8%	14%	9%	1%	3%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	630	332	59	724	277	304	230	41	215	189	246
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Total Split (s)	13.0	35.0	21.0	13.0	35.0	14.0	21.0	28.0	13.0	14.0	21.0	13.0
Total Lost Time (s)	7.0	8.0	7.0	7.0	8.0	4.5	7.0	8.0	7.0	4.5	8.0	7.0
Act Effct Green (s)	32.9	27.3	48.7	31.3	24.3	41.5	33.5	19.1	33.1	25.1	12.4	26.4
Actuated g/C Ratio	0.38	0.32	0.56	0.36	0.28	0.48	0.39	0.22	0.38	0.29	0.14	0.31
v/c Ratio	0.58	0.56	0.31	0.19	0.74	0.30	0.72	0.62	0.06	0.53	0.71	0.43
Control Delay (s/veh)	25.5	28.0	2.1	15.8	33.7	2.5	32.0	39.4	0.1	23.8	52.5	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	25.5	28.0	2.1	15.8	33.7	2.5	32.0	39.4	0.1	23.8	52.5	15.8
LOS	C	C	A	B	C	A	C	D	A	C	D	B
Approach Delay (s/veh)		20.0			24.6			32.7			29.2	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	50	159	0	18	191	0	126	118	0	79	104	56
Queue Length 95th (ft)	89	216	37	40	255	38	#215	196	0	131	#198	124
Internal Link Dist (ft)		3693			2757			1359			521	
Turn Bay Length (ft)	200		200	220		220	250		220	240		240
Base Capacity (vph)	265	1150	1057	306	1082	926	428	388	640	411	279	565
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.55	0.31	0.19	0.67	0.30	0.71	0.59	0.06	0.52	0.68	0.44

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 86.2

Control Type: Semi Act-Uncoord









Maximum v/c Ratio: 0.75

Build PM Peak Hour with Additional Improvements
19: Jupiter Boulevard & Malabar Road

Lanes, Volumes, Timings
02/01/2024












Intersection Signal Delay (s/veh): 25.3	Intersection LOS: C
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 19: Jupiter Boulevard & Malabar Road

 Ø1	 Ø2	 Ø3	 Ø4
13 s	35 s	21 s	21 s
 Ø5	 Ø6	 Ø7	 Ø8
13 s	35 s	14 s	28 s

Build PM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	759	34	203	1048	11	105
Future Volume (vph)	759	34	203	1048	11	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	250		0	115
Storage Lanes		0	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3517	0	1787	3539	1805	1568
Flt Permitted			0.332		0.950	
Satd. Flow (perm)	3517	0	625	3539	1805	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	10					113
Link Speed (mph)	35			35	35	
Link Distance (ft)	2837			1530	4212	
Travel Time (s)	55.3			29.8	82.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	1%	2%	0%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	853	0	218	1127	12	113
Turn Type	NA		Perm	NA	Prot	Prot
Protected Phases	4			8	2	2
Permitted Phases			8			
Total Split (s)	63.0		63.0	63.0	27.0	27.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Act Effct Green (s)	29.2		29.2	29.2	6.9	6.9
Actuated g/C Ratio	0.57		0.57	0.57	0.13	0.13
v/c Ratio	0.42		0.61	0.56	0.04	0.36
Control Delay (s/veh)	6.1		14.8	7.4	26.7	10.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.1		14.8	7.4	26.7	10.7
LOS	A		B	A	C	B
Approach Delay (s/veh)	6.2			8.6	12.3	
Approach LOS	A			A	B	
Queue Length 50th (ft)	55		32	83	3	0
Queue Length 95th (ft)	98		95	143	21	45
Internal Link Dist (ft)	2757			1450	4132	
Turn Bay Length (ft)			250			115
Base Capacity (vph)	3295		585	3315	765	729
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.26		0.37	0.34	0.02	0.16
Intersection Summary						
Area Type:	Other					
Cycle Length: 90						
Actuated Cycle Length: 51.4						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.61						

Build PM Peak Hour with Additional Improvements
22: Garvey Road & Malabar Road

Lanes, Volumes, Timings
02/01/2024

Intersection Signal Delay (s/veh): 7.9	Intersection LOS: A
Intersection Capacity Utilization 55.0%	ICU Level of Service A
Analysis Period (min) 15	

















Splits and Phases: 22: Garvey Road & Malabar Road



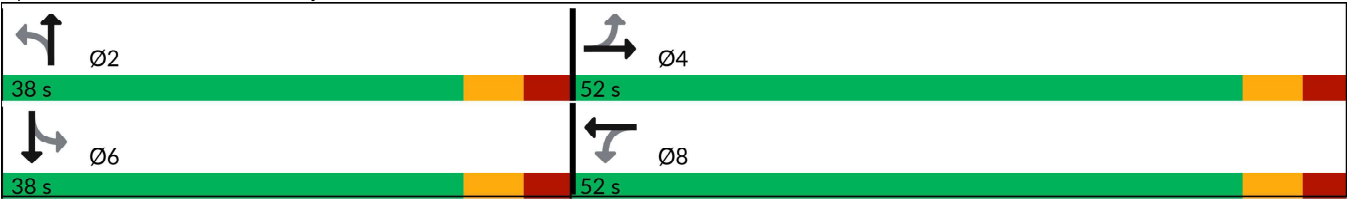
Build PM Peak Hour with Additional Improvements

25: Garvey Road

Lanes, Volumes, Timings
02/01/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	393	74	62	410	35	69	63	53	37	136	15
Future Volume (vph)	6	393	74	62	410	35	69	63	53	37	136	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1809	0	0	1820	0	0	1699	0	0	1810	0
Flt Permitted		0.991			0.890			0.823			0.894	
Satd. Flow (perm)	0	1794	0	0	1629	0	0	1424	0	0	1635	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			6			25			5	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		440			2310			1061			4212	
Travel Time (s)		8.6			45.0			20.7			82.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	3%	0%	0%	3%	6%	5%	4%	8%	3%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	514	0	0	551	0	0	201	0	0	204	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	52.0	52.0		52.0	52.0		38.0	38.0		38.0	38.0	
Total Lost Time (s)		7.0			7.0			7.0			7.0	
Act Effect Green (s)		22.9			22.9			13.0			13.0	
Actuated g/C Ratio		0.45			0.45			0.25			0.25	
v/c Ratio		0.63			0.74			0.52			0.48	
Control Delay (s/veh)		14.4			18.9			21.6			21.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		14.4			18.9			21.6			21.9	
LOS		B			B			C			C	
Approach Delay (s/veh)		14.5			18.9			21.7			22.0	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		98			116			42			48	
Queue Length 95th (ft)		229			275			127			134	
Internal Link Dist (ft)		360			2230			981			4132	
Turn Bay Length (ft)												
Base Capacity (vph)		1550			1406			941			1072	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.39			0.21			0.19	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 51												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.75												
Intersection Signal Delay (s/veh): 18.2	Intersection LOS: B											
Intersection Capacity Utilization 88.7%	ICU Level of Service E											
Analysis Period (min) 15												

Splits and Phases: 25: Garvey Road



Build PM Peak Hour with Additional Improvements
13: West Site Driveway & Malabar Road

HCM 7th TWSC
01/30/2024

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	1035	50	61	725	12	53
Future Vol, veh/h	1035	50	61	725	12	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	110	-	-	-
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	1125	54	66	788	13	58

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1179
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	588
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	588
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.92	25.41
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	246	-	-	588	-
HCM Lane V/C Ratio	0.287	-	-	0.113	-
HCM Control Delay (s/veh)	25.4	-	-	11.9	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.4	-

Appendix J
NCHRP Report 457 Sheets

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

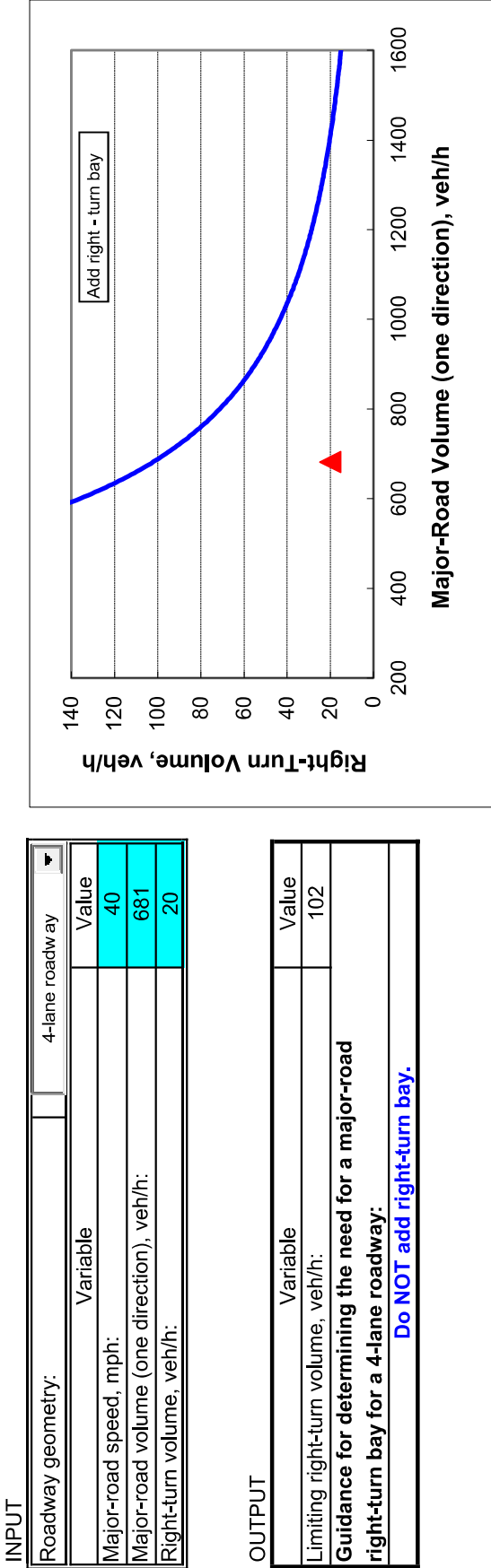


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:		4-lane roadway
Major-road speed, mph:	Variable	Value 40
Major-road volume (one direction), veh/h:		1088
Right-turn volume, veh/h:		48

OUTPUT

Limiting right-turn volume, veh/h:	Variable	Value 36
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:		
Add right-turn bay.		

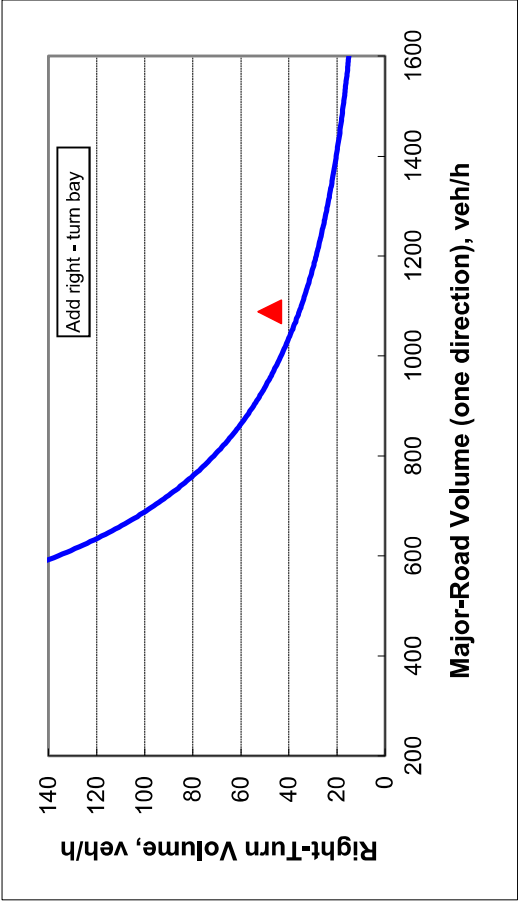


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

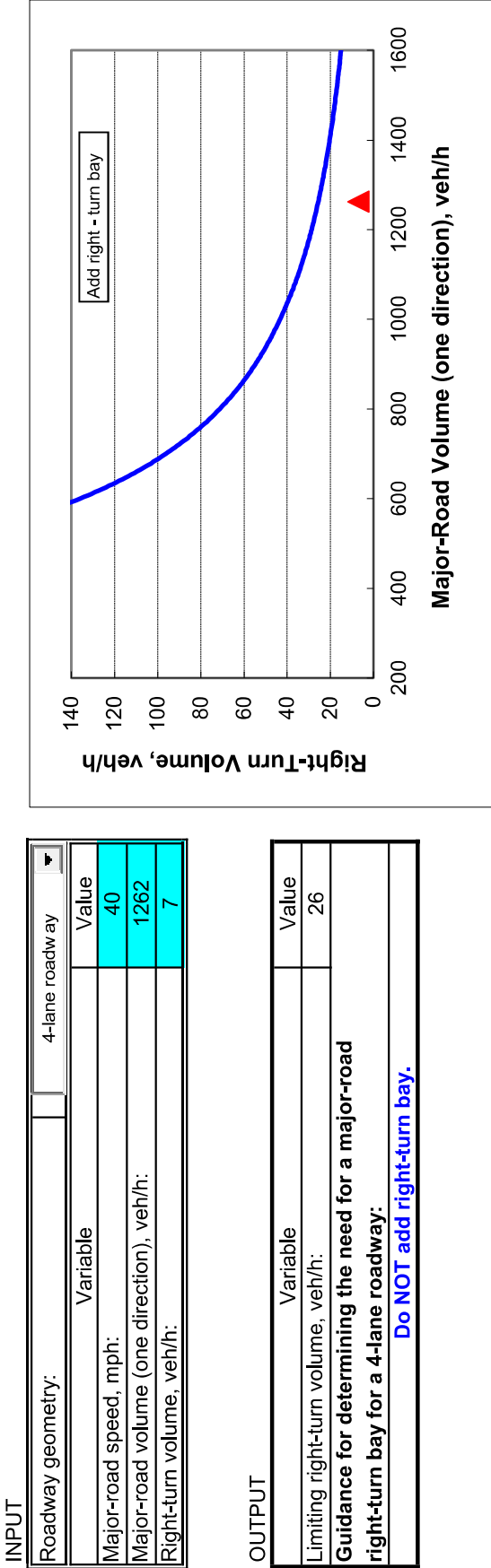


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

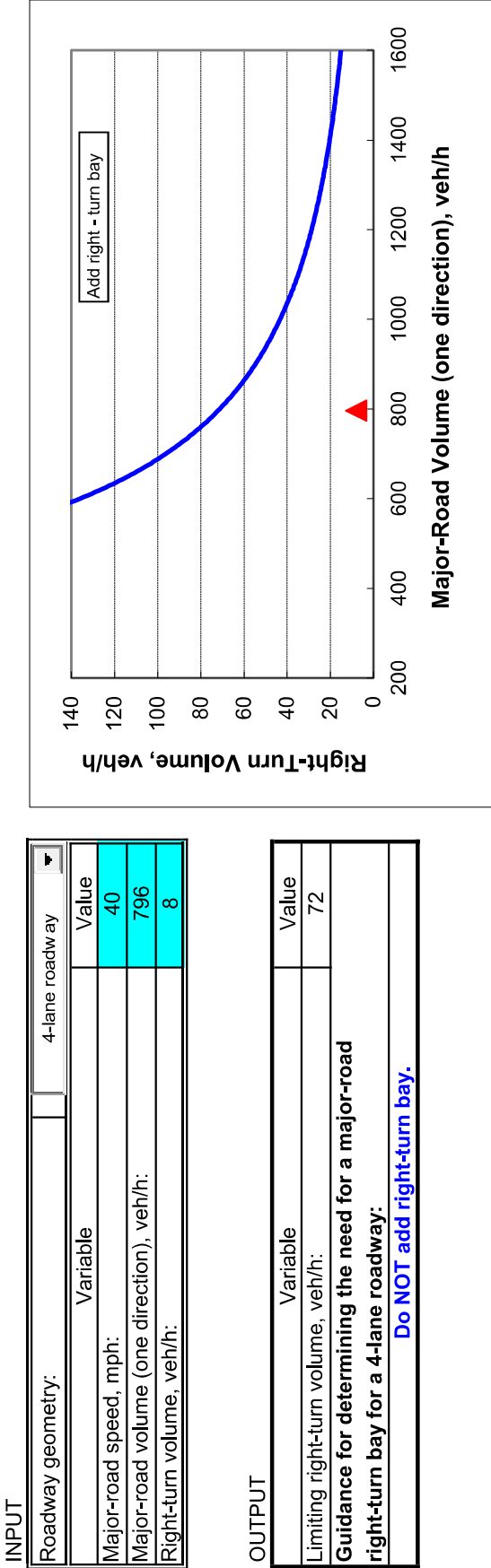


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

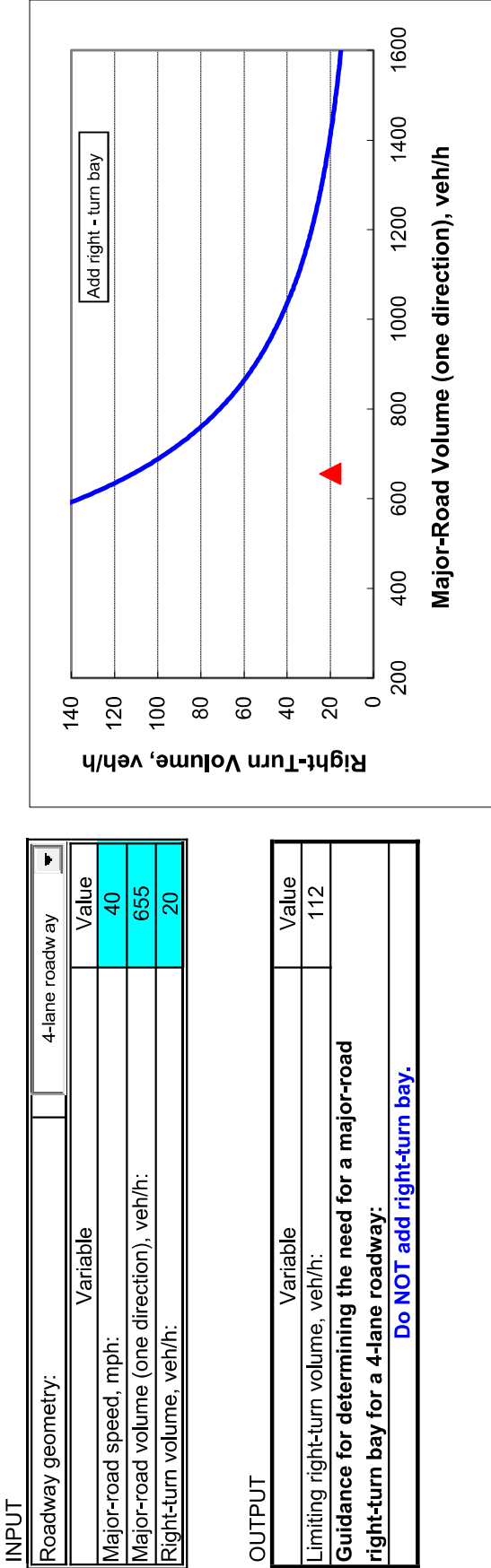


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:		4-lane roadway	▼
Variable		Value	
Major-road speed, mph:		40	
Major-road volume (one direction), veh/h:		1085	
Right-turn volume, veh/h:		50	

OUTPUT

Variable		Value
Limiting right-turn volume, veh/h:		36
Guidance for determining the need for a major-road right-turn bay for a 4-lane roadway:		
Add right-turn bay.		

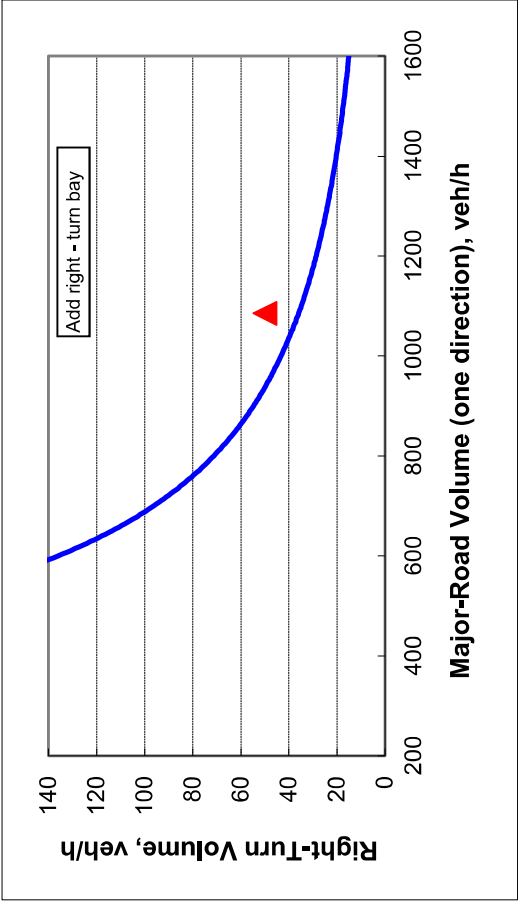


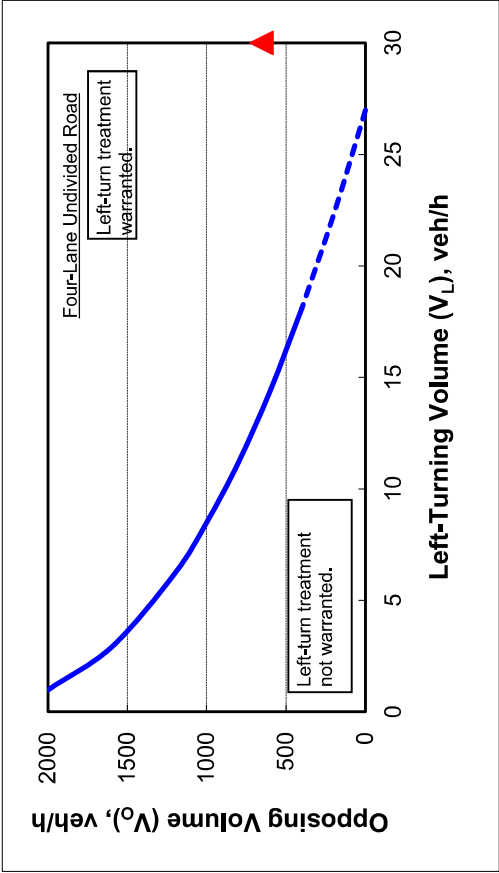
Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

4-lane roadway

INPUT	
Variable	Value
Left-turning volume (V_L), veh/h:	30
Advancing volume (V_A), veh/h:	1293
Opposing volume (V_O), veh/h:	655

OUTPUT

Variable	Message
Opposing volume (V_O) check:	O.K.
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay: Left-turn treatment warranted.	



Note: When $V_O < 400$ veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h ($V_A > 400$ veh/h).

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway, s:	6.0

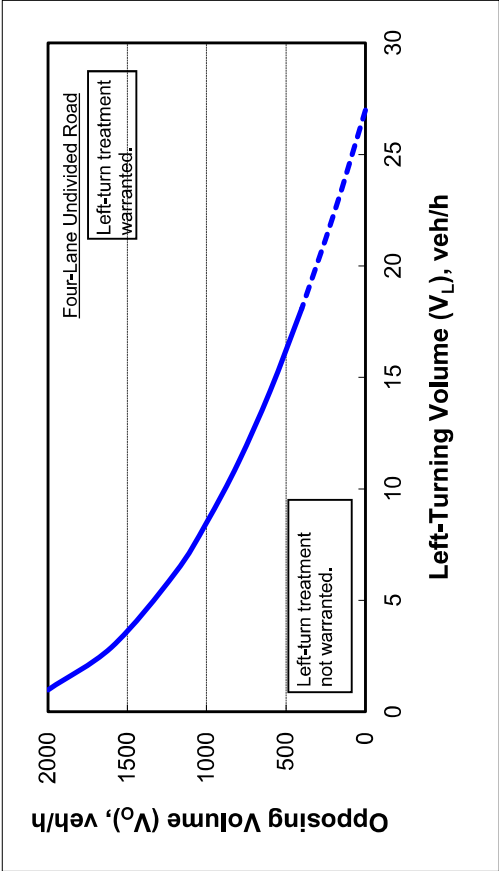
Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

4-lane roadway

INPUT	
Variable	Value
Left-turning volume (V_L), veh/h:	61
Advancing volume (V_A), veh/h:	786
Opposing volume (V_O), veh/h:	1085

OUTPUT

Variable	Message
Opposing volume (V_O) check:	O.K.
Combined volume (V_A and V_O) check:	O.K.
Guidance for determining the need for a major-road left-turn bay: Left-turn treatment warranted.	



Note: When $V_O < 400$ veh/h (dashed line), a left-turn lane is not normally warranted unless the advancing volume (V_A) in the same direction as the left-turning traffic exceeds 400 veh/h ($V_A > 400$ veh/h).

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	4.0
Critical headway, s:	6.0