



O'ROURKE
ENGINEERING & PLANNING

TRAFFIC ANALYSIS

FOR

Willow Lakes

Prepared for:

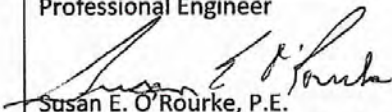
Willow Lakes, LLC

Prepared by

O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
772-781-7918

May 4, 2020
Revised July 22, 2020

SR19101.0

<p>Prepared by: O'Rourke Engineering & Planning Certificate of Authorization: #26869 22 SE Seminole Street Stuart, Florida 34994 772-781-7918</p>	<p>Professional Engineer  Susan E. O'Rourke, P.E. Date signed and sealed: 7/22/2020 License #: 42684</p>
---	--



O'ROURKE
ENGINEERING & PLANNING

May 4, 2020

Mr. Chad LaBonte
Willow Lakes, LLC
433 S. Main Street
Suite 218
West Hartford, CT 06110

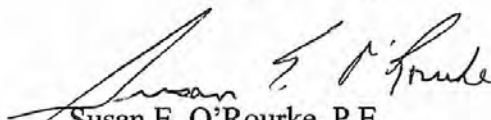
Re: Willow Lakes

Dear Mr. LaBonte:

O'Rourke Engineering & Planning has completed the analysis of the proposed mixed-use development with Wave Park project located generally north of Midway Road and west of the Interstate 95 freeway in St. Lucie County, Florida. The steps in the analysis and the ensuing results are presented herein.

It has been a pleasure working with you. If you have any questions or comments, please give me a call.

Respectfully submitted,
O'Rourke Engineering & Planning


Susan E. O'Rourke, P.E.
Registered Civil Engineer – Traffic

C6 – WillowLakes.text.5.4.2020

TABLE OF CONTENTS

INTRODUCTION	1
PROJECT DESCRIPTION	1
EXISTING ROADWAY CONDITONS	4
TRIP GENERATION	7
PROJECT ASSIGNMENT	7
STUDY AREA/PROJECT IMPACT	7
FUTURE TRAFFIC LINKS	7
ROADWAY NEEDS - LINKS	14
DRIVEWAY ANALYSIS	14
INTERSECTION ANALYSIS/IMPROVEMENTS	19
CONCLUSION	20

TABLES

TABLE 1: Existing Traffic Counts/Service Volumes	6
TABLE 2a: Trip Generation Daily - Existing Future Land Use	8
TABLE 2b: Trip Generation AM - Proposed Future Land Use	8
TABLE 2c: Trip Generation PM - Proposed Future Land Use	8
TABLE 3a: AM Project Significance	10
TABLE 3b: PM Project Significance	11
TABLE 4a: 2035 AM Link Analysis	12
TABLE 4b: 2035 PM Link Analysis	13
TABLE 5: Proportionate Share	16
TABLE 6: Intersection Level of Service	20
TABLE 7: Intersection Improvements	21

FIGURES

FIGURE 1: Project Location	2
FIGURE 2: Site Plan	3
FIGURE 3: Existing + Committed Roadway Network	5
FIGURE 4: Project Percent Assignment	9
FIGURE 5: Roadway Improvements	15
FIGURE 6a: Driveway Volumes-with Arterial Extension	17
FIGURE 6b: Driveway Volumes-without Arterial Extension	18
FIGURE 7: Intersection Geometrics	25

APPENDIX

APPENDIX i: Methodology Letter	
APPENDIX A: Existing Traffic Counts and Network Data	
APPENDIX B: Trip Generation AM and PM.	
APPENDIX C: Model Assignment	
APPENDIX D: 2035 Traffic Volumes and Roadway Network Data	
APPENDIX E: Driveway Analysis	
APPENDIX F: Intersection Data	

INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for a mixed-use urban village, including residential, retail, restaurants, and other commercial uses, with a beach community theme, anchored by a world-class surf park. The development allows for uses to develop within a program identified in the planned development agreement. For trip generation, we have defined land uses to calculate trips based on the following specific uses: 150 single family dwelling units; 850 multifamily dwelling units; 100,000 square feet of office; 50,000 square feet of medical office; 250,000 square feet of retail; a 5,000 square foot convenience store with 16 pumps; a 5,000 square foot convenience market; 15,000 square feet of pharmacy without drive-thru; 25,000 square feet of fast food restaurant with drive-thru; 100,000 square feet of high turnover sit down restaurant; a 9.5 acre water park; 19,600 square feet of recreational facilities; a 42,500 square foot movie theater; a Top Golf golfing simulator facility; and a 600 room hotel.

The purpose of this report is to determine the impact of the proposed project on the surrounding roadway system in accordance with the City of Ft. Pierce Transportation Element comprehensive plan policies and F.S. 163.3180(5)(b)4. To that end, the following analytical steps were taken:

- ◆summary of the project,
- ◆summary of existing lane geometrics-links,
- ◆summary of network and service volumes,
- ◆assessment of project traffic,
- ◆determination of study area,
- ◆summary of cumulative traffic volumes-links,
- ◆comparison of volumes to allowable levels of service,
- ◆development of future intersection volume,
- ◆development of project related improvements
- ◆analysis of intersections

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development involves a parcel of land located generally north of Midway Road and west of I-95 in Ft. Pierce, Florida. **Figure 1** shows the project location.

As noted above, the proposal is to develop a mix of uses. **Figure 2** illustrates a concept of how the site could develop.



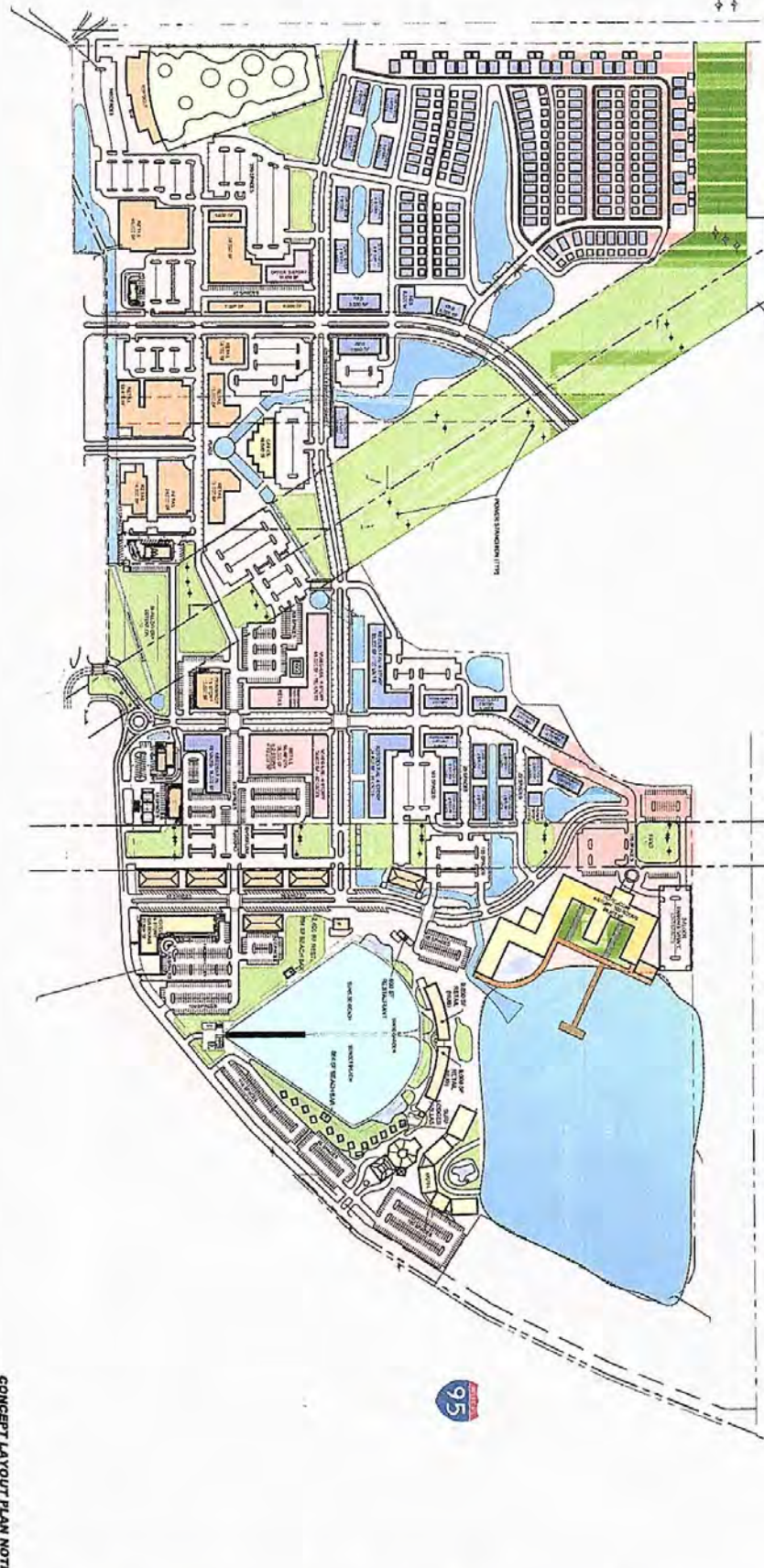
O'Rourke Engineering & Planning



772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

FIGURE 1
 PROJECT LOCATION
 Willow Lakes

Figure 2



CONCEPT LAYOUT PLAN NOTES

1. THIS PLAN IS A CONCEPTUAL PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.
2. THIS PLAN IS A CONCEPTUAL PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.
3. THIS PLAN IS A CONCEPTUAL PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.
4. THIS PLAN IS A CONCEPTUAL PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.
5. THIS PLAN IS A CONCEPTUAL PLAN AND IS NOT TO BE USED FOR CONSTRUCTION.



BOHLER //

SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REV.	DATE	COMMENTS

811
 CALL BEFORE YOU DIG
 1-800-485-5747
 www.811.com

FOR CONCEPT PURPOSES ONLY

PLANNED DEVELOPMENT PLAN DOCUMENTS

WILLOW LAKES, LLC

PROPOSED DEVELOPMENT
 W. BOWEN ROAD
 CITY OF FORT PIERCE
 FT. PIERCE, FLORIDA
 MAP NO. 202004

BOHLER //

18 OLD FORD ROAD, SUITE 8
 ROCKY HILL, CT 06067
 TEL: (860) 261-0400
 FAX: (860) 261-0405
 www.bohler.com

CONCEPT LAYOUT PLAN

CA-01

DATE: 04/15/2015

EXISTING ROADWAY CONDITIONS

The study area is defined as the roadways upon which the project has an impact of 1% of the level of service capacity of the adjacent roadway link, 3% on the balance of the arterial and collector roadways within two miles, and 5% on arterials and collectors beyond two miles and on all freeway links. Once the project traffic was assigned, the study area was refined based on the impact percentages.

The study area roadways were defined in terms of existing plus committed lane geometrics and existing traffic volumes.

Lane Geometrics

The study area was reviewed to determine the existing number and type of lanes along the roadway. In addition, improvements outlined in City, County or FDOT Five Year Programs were included. Roadway Improvements included in the 5-year Road Program are:

- Midway Road from Selvitz Road to 25th Street, 2L to 4LD, Under Construction
- Midway Road from 25th Street to US 1, 2L to 4LD, under construction
- Kings Highway from south of Okeechobee Road to north of Picos Road, 2L to 4LD, FY 2024
- Kings Highway from north of Picos Road to north of I-95 overpass, 2L to 4LD, FY 2024
- St Lucie West Boulevard from I-95 southbound exit to I-95 northbound exit, 2L to 4LD, FY 2022

Key roadways are described below.

Midway Road is a two-lane arterial with an east/west alignment west of the project. It is a four - lane roadway from just west of I-95 to East Torino Parkway. The portion from 25th Street to US-1 is currently under construction with a completion date year of 2024. Both LTC Ranch and Village at Midway have commitments to widen Midway Road or contribute to its widening.

Glades Cut-Off Road is two lane arterial with a general northeast to southwest alignment.

I-95 is included in the St. Lucie County Needs Plan to widen with auxiliary lanes. A PDE is funded beginning year 2024.

Figure 3 illustrates the existing lanes plus committed roadway network and signalized intersections within the general study area.

Existing Traffic Counts/Service Volumes

Existing traffic counts/service volumes were taken from the St. Lucie County Transportation Planning Organization (TPO) and from counts made in 2020. The peak direction and the D-factor were calculated from existing turning movement counts for significant links. This information was used to calculate the off-peak volumes.

Table 1 Summarizes the existing lanes and the relationship to the standardized capacity for each roadway link in the initial study area.

Existing count data, network, and D-factor data are provided in **Appendix A**.



O'Rourke Engineering & Planning



772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

LEGEND

- *Committed Lanes - Year
- = 2 LANE ARTERIAL
- - - = 4 LANE ARTERIAL
- · · · · = 6 LANE ARTERIAL
- · - · - · = 8 LANE ARTERIAL
- - - - - = 4 LANE EXPRESSWAY
- · - · - · = 6 LANE EXPRESSWAY
- = SIGNALIZED INTERSECTION

FIGURE 3

EXISTING + COMMITTED
 ROADWAY NETWORK

WILLOW LAKES

February 2020

Table 1: Existing Traffic Counts and Service Volume

Segment	From	To	Direction	Federal Functional Classification (1)	Existing / Committed Capacity	2019 AM Peak Hour Volume	2019 PM Peak Hour Volume	
Midway Rd	Okeechobee Rd	Shinn Rd	EB	Rural Principal Arterial-uf	760	272	376	
	Okeechobee Rd	Shinn Rd	WB	Rural Principal Arterial-uf	760	295	347	
	Shinn Rd	McCarty Rd	EB	Rural Principal Arterial-uf	630	272	376	
	Shinn Rd	McCarty Rd	WB	Rural Principal Arterial-uf	630	295	347	
	McCarty Rd	11 Mile Rd	EB	Urban Principal Arterial-uf	700	295	347	
	McCarty Rd	11 Mile Rd	WB	Urban Principal Arterial-uf	700	272	376	
	11 Mile Rd	Arterial A	EB	Urban Principal Arterial-uf	700	285	347	
	11 Mile Rd	Arterial A	WB	Urban Principal Arterial-uf	700	272	376	
	Arterial A	95	EB	Urban Principal Arterial-uf	2100	295	347	
	Arterial A	95	WB	Urban Principal Arterial-uf	2100	272	376	
	95	Glades Cut off Rd	EB	Urban Principal Arterial-CI	2100	758	911	
	95	Glades Cut off Rd	WB	Urban Principal Arterial-CI	2100	926	1,027	
	Glades Cut off Rd	NW East Torino Pkwy	EB	Urban Principal Arterial-CI	2100	1,178	1,281	
	Glades Cut off Rd	NW East Torino Pkwy	WB	Urban Principal Arterial-CI	2100	1,226	890	
	NW East Torino Pkwy	Florida's Turnpike	EB	Urban Principal Arterial-CI	920	1,216	1,253	
	NW East Torino Pkwy	Florida's Turnpike	WB	Urban Principal Arterial-CI	920	995	1,304	
	Florida's Turnpike	NW Corporate Way	EB	Urban Principal Arterial-CI	920	1,216	1,253	
	Florida's Turnpike	NW Corporate Way	WB	Urban Principal Arterial-CI	920	995	1,304	
	NW Corporate Way	S Jenkins Rd	EB	Urban Principal Arterial-CI	920	1,216	1,204	
	NW Corporate Way	S Jenkins Rd	WB	Urban Principal Arterial-CI	920	1,036	1,304	
	S Jenkins Rd	Selvitz Rd	EB	Urban Principal Arterial-CI	920	1,216	1,204	
	S Jenkins Rd	Selvitz Rd	WB	Urban Principal Arterial-CI	920	1,078	1,304	
	Selvitz Rd (3)	S 25th St	EB	Urban Principal Arterial-CI	2100	973	940	
	Selvitz Rd	S 25th St	WB	Urban Principal Arterial-CI	2100	973	801	
	S 25th St (4)	Oleander	EB	Urban Principal Arterial-CI	2100	1,025	942	
	S 25th St	Oleander	WB	Urban Principal Arterial-CI	2100	805	802	
	Oleander	US-1	EB	Urban Principal Arterial-CI	2100	635	654	
	Oleander	US-1	WB	Urban Principal Arterial-CI	2100	808	800	
	Okeechobee Rd	McCarty Rd	Florida's Turnpike	EB	Urban Principal Arterial-CI	1810	378	391
		McCarty Rd	Florida's Turnpike	WB	Urban Principal Arterial-CI	1810	378	391
		Florida's Turnpike	S King's Hwy	EB	Urban Principal Arterial-CI	2010	378	391
		Florida's Turnpike	S King's Hwy	WB	Urban Principal Arterial-CI	2010	378	391
		S King's Hwy	Crossroads Pkwy	EB	Urban Principal Arterial-CI	4170	960	1,013
		S King's Hwy	Crossroads Pkwy	WB	Urban Principal Arterial-CI	4170	960	1,013
		Crossroads Pkwy	95	EB	Urban Principal Arterial-CI	4170	1,063	1,086
Crossroads Pkwy		95	WB	Urban Principal Arterial-CI	4170	1,063	1,086	
95		Jenkins Rd	EB	Urban Principal Arterial-CI	4240	1,976	1,578	
95		Jenkins Rd	WB	Urban Principal Arterial-CI	4240	1,112	1,709	
Jenkins Rd		McNeil Rd	EB	Urban Principal Arterial-CI	4640	1,976	1,516	
Jenkins Rd		McNeil Rd	WB	Urban Principal Arterial-CI	4040	1,018	1,709	
McNeil Rd		Virginia Ave	EB	Urban Principal Arterial-CI	3170	1,580	1,322	
McNeil Rd		Virginia Ave	WB	Urban Principal Arterial-CI	3170	851	1,649	
Virginia Ave		35th St	EB	Urban Principal Arterial-CI	2100	687	727	
Virginia Ave	35th St	WB	Urban Principal Arterial-CI	2100	687	727		
I-95	Orange Ave	Okeechobee Rd	NB	Interstate	7300	1,822	1,894	
	Orange Ave	Okeechobee Rd	SB	Interstate	7300	1,822	1,894	
	Okeechobee Rd	Midway Rd	NB	Interstate	4580	4,578	3,717	
	Okeechobee Rd	Midway Rd	SB	Interstate	4580	3,181	3,717	
	W Midway Rd	St Lucie West Blvd	NB	Interstate	4580	3,571	3,079	
	W Midway Rd	St Lucie West Blvd	SB	Interstate	4580	3,571	3,079	
	St Lucie West Blvd	Crossroads Pkwy	NB	Interstate	4580	4,048	3,657	
	St Lucie West Blvd	Crossroads Pkwy	SB	Interstate	4580	4,048	3,657	
	Range Line Rd	Reserve Blvd	NB	Urban Minor Arterial-UF	1070	200	252	
	Range Line Rd	Reserve Blvd	SB	Urban Minor Arterial-UF	1070	164	233	
Reserve Blvd	Commerce Centre Dr	NB	Urban Minor Arterial-UF	1070	332	332		
Reserve Blvd	Commerce Centre Dr	SB	Urban Minor Arterial-UF	1070	272	306		
Commerce Centre Dr	W Midway Rd	NB	Urban Minor Arterial-CI	920	210	192		
Commerce Centre Dr	W Midway Rd	SB	Urban Minor Arterial-CI	920	202	151		
W Midway Rd	S Jenkins Road	NB	Urban Minor Arterial-CI	790	669	421		
W Midway Rd	S Jenkins Road	SB	Urban Minor Arterial-CI	790	626	687		
S Jenkins Rd	Selvitz Rd	NB	Urban Minor Arterial-CI	830	370	236		
S Jenkins Rd	Selvitz Rd	SB	Urban Minor Arterial-CI	830	291	385		
SW Saint Lucie West Blvd	95	California Blvd	EB	Other Principal Arterial	2100	1,722	1,670	
	95	California Blvd	WB	Other Principal Arterial	2100	1,722	1,670	
	California Blvd	Country Club Dr	EB	Other Principal Arterial	2100	1,722	1,670	
	California Blvd	Country Club Dr	WB	Other Principal Arterial	2100	1,722	1,670	
	Country Club Dr	Cashmere Blvd	EB	Other Principal Arterial	2100	1,722	1,670	
	Country Club Dr	Cashmere Blvd	WB	Other Principal Arterial	2100	1,722	1,670	
	Cashmere Blvd	Florida's Turnpike	EB	Other Principal Arterial	2170	2,446	2,308	
	Cashmere Blvd	Florida's Turnpike	WB	Other Principal Arterial	2170	2,446	2,308	
	Florida's Turnpike	Bayshore Blvd	EB	Other Principal Arterial	2170	2,446	2,308	
	Florida's Turnpike	Bayshore Blvd	WB	Other Principal Arterial	2170	2,446	2,308	
Jenkins Rd	Edwards Rd	Okeechobee Rd	NB	Urban Minor Arterial	880	468	471	
	Edwards Rd	Okeechobee Rd	SB	Urban Minor Arterial	880	549	558	
	Okeechobee Rd	Orange Ave	NB	Urban Minor Arterial	920	485	525	
25th St	Okeechobee Rd	Orange Ave	SB	Urban Minor Arterial	920	593	569	
	Midway Rd	Edwards Rd	NB	Urban Principal Arterial-CI	2100	1,310	749	
St James	Midway Rd	Edwards Rd	SB	Urban Principal Arterial-CI	2100	838	1,222	
	Bayshore Blvd	Midway Rd	NB	Urban Principal Arterial	2100	1,188	689	
Virginia Ave	Bayshore Blvd	Midway Rd	SB	Urban Principal Arterial	2100	559	1,173	
	Okeechobee Rd	25th St	EB	Urban Principal Arterial	3020	1,159	1,126	
Prima Vista Blvd	Okeechobee Rd	25th St	WB	Urban Principal Arterial	3020	1,169	1,126	
	Bayshore Blvd	Alonso Blvd	EB	Urban Principal Arterial	2100	944	1,005	
	Bayshore Blvd	Alonso Blvd	WB	Urban Principal Arterial	2100	944	1,005	
	Alonso Blvd	US 1	EB	Urban Principal Arterial	2100	1,171	1,097	
Selvitz Rd	Alonso Blvd	US 1	WB	Urban Principal Arterial	2100	1,171	1,097	
	Bayshore Blvd	Midway Rd	NB	Minor Arterial	750	426	240	
	Bayshore Blvd	Midway Rd	SB	Minor Arterial	750	200	426	
	Midway Rd	Glades Cut Off Rd	NB	Minor Arterial	700	696	537	
East Torino Pkwy	Midway Rd	Glades Cut Off Rd	SB	Minor Arterial	700	359	644	
	Midway Rd	Turtle Dove Ln	NB	Urban Minor Arterial	830	1,030	625	
	Midway Rd	Turtle Dove Ln	SB	Urban Minor Arterial	880	555	978	

Source: St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter 2019/2020
 Note: Peak Direction Volumes from St. Lucie County Traffic Counts and LOS Report Fall/Winter 2019/2020
 Links analyzed in tables 4a and 4b include the off peak volumes calculated using D factors in Appendix E.
 * TPO Value

- (1) St. Lucie County Comprehensive Plan
- (2) 2 lane portion falls with background traffic, and conditioned for improvement
- (3) Selvitz to Christensen Rd/ Christensen to 25th St all one capacity
- (4) 25th to Survite and Survite to Oleander same volume and capacity

TRIP GENERATION

To estimate the project traffic for this project various ITE Trip Generation, 10th edition rates were applied. The total trip generation will act as a “bank” of trips. As site plans are submitted, the trips will be calculated and draw down from the bank. The project has two unique uses; Topgolf and the Wave Garden. For Topgolf, 10,000 square feet of restaurant, 20 tees of golf, and 18 holes of golf were used to estimate trips. For the Wave Garden, 9.5 acres of a water slide park and 7,500 square feet of retail and restaurant, plus a 19,600 square foot recreation area were included to estimate trips. When the Wave Garden comes in for site plan, the quantity of uses will result in the trip calculation to be drawn from the overall pool of trips. No similar prototypes are operating currently in the US. Similar uses were used to estimate those uses as specific ITE and use codes for these uses do not exist. **Tables 2a, 2b, and 2c** provide the daily, AM, and PM trip generation for the proposed development. The project yields a high internal capture rate based on ITE internal capture pairings. The pairings were reduced in some cases to achieve an overall internal capture rate in line for projects of this size and with a complete mix of uses. **Appendix B** includes the details of the trip generation and internal capture for the Daily, AM and PM peak hours.

As shown, the project will generate 37,828 daily trips, 2,420 AM peak hour trips with 1,355 entering and 1,065 exiting, and 2,486 PM peak hour trips with 1,450 entering and 1,036 exiting.

PROJECT ASSIGNMENT

The project traffic was distributed using a select zone run from the 2040 Greater Treasure Coast Model. The assignment was run with and without the link to Arterial A in place. The resultant assignment from the 2040 Model is shown in **Appendix C**. The project percent assignment derived from that model assignment is shown in **Figure 4**.

STUDY AREA/ PROJECT IMPACT

Based on the project assignment and the impact to the network, the study area was refined.

Tables 3a and 3b summarize the project impact on the area network for the AM and PM Peak hour; respectively. As shown several links are significantly impacted by the project and required analysis.

FUTURE TRAFFIC LINKS

The project is expected to build out in 2035. To estimate future 2035 volumes the existing (2019/2020) traffic volumes were increased by a 0.5% growth rate. Traffic from 12 approved developments, including Village at Midway and LTC Ranch, was also added to create 2035 volumes without project. In no case was the resultant background growth less than 1%. In other words, if the background plus 0.5% per year plus committed traffic resulted in a volume that was less than existing plus 1% per year, the background traffic was adjusted up to the minimum 1%. The project traffic was then added to estimate the 2035 Total Traffic volumes with project. The Total Traffic volumes were then compared to the acceptable threshold on each link.

Tables 4a and 4b show the volumes and the relationship to adopted thresholds for the AM and PM Peak hours, respectively.

Appendix D includes the details regarding other approved projects.



O'Rourke Engineering & Planning



772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

FIGURE 4

PROJECT % ASSIGNMENT
 Main Table

WILLOW LAKES

April 2020

Table 3a: AM Project Significance

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	Existing / Committed Capacity (2012 Directional FDOT LOS D)	In/Out	Project Volume Peak	%Project of Capacity Peak Direction	Project Percent Assignment	3% or Greater < 2 Miles 5% or Greater > 5 Miles
Midway Rd	Okeechobee Rd	Shlins Rd	2	EB	Rural Principal Arterial-uf	760	In	27	3.57%	2%	NO
	Okeechobee Rd	Shlins Rd	2	WB	Rural Principal Arterial-uf	760	Out	21	2.80%	2%	NO
	Shlins Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	630	In	27	4.30%	2%	YES
	Shlins Rd	McCarty Rd	2	WB	Rural Principal Arterial-uf	630	Out	21	3.38%	2%	YES
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	700	In	27	3.87%	2%	YES
	McCarty Rd	11 Mile Rd	2	WB	Urban Principal Arterial-uf	700	Out	21	3.04%	2%	YES
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	700	In	27	3.87%	2%	YES
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial-uf	700	Out	21	3.04%	2%	YES
	Arterial A	195	4D(C)	EB	Urban Principal Arterial-uf	2100	Out	1022	48.69%	96%	YES
	Arterial A	195	4D(C)	WB	Urban Principal Arterial-uf	2100	In	1301	61.94%	96%	YES
	195	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	2100	Out	330	15.72%	31%	YES
	195	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	2100	In	420	20.00%	31%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	2100	Out	266	12.68%	25%	YES
	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	2100	In	399	16.13%	25%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	NW East Torino Pkwy	Florida's Turnpike	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	Florida's Turnpike	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	S Jenkins Rd	Selwitz Rd	2L	EB	Urban Principal Arterial-CI	920	Out	245	26.63%	23%	YES
	S Jenkins Rd	Selwitz Rd	2L	WB	Urban Principal Arterial-CI	920	In	312	33.88%	23%	YES
	Selwitz Rd	S 25th St	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	402	9.64%	19%	YES
	Selwitz Rd	S 25th St	4D(C)	WB	Urban Principal Arterial-CI	2100	In	257	12.26%	19%	YES
S 25th St	Oleander	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	170	8.11%	16%	YES	
S 25th St	Oleander	4D(C)	WB	Urban Principal Arterial-CI	2100	In	217	10.32%	16%	YES	
Oleander	US-1	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	170	8.11%	16%	YES	
Oleander	US-1	4D(C)	WB	Urban Principal Arterial-CI	2100	In	217	10.32%	16%	YES	
Okeechobee Rd	Florida's Turnpike	S King's Hwy	4LD	EB	Urban Principal Arterial-CI	2010	In	14	0.67%	1%	NO
	Florida's Turnpike	S King's Hwy	4LD	WB	Urban Principal Arterial-CI	2010	Out	11	0.53%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	EB	Urban Principal Arterial-CI	4170	In	14	0.32%	1%	NO
	S King's Hwy	Crossroads Pkwy	6LD	WB	Urban Principal Arterial-CI	4170	Out	11	0.26%	1%	NO
	Crossroads Pkwy	195	6LD	EB	Urban Principal Arterial-CI	4170	In	14	0.32%	1%	NO
	Crossroads Pkwy	195	6LD	WB	Urban Principal Arterial-CI	4170	Out	11	0.26%	1%	NO
	195	Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	4240	Out	298	7.03%	28%	YES
	195	Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	4240	In	379	8.95%	28%	YES
	Jenkins Rd	McNeil Rd	6LD	EB	Urban Principal Arterial-CI	4040	Out	277	6.85%	26%	YES
	Jenkins Rd	McNeil Rd	6LD	WB	Urban Principal Arterial-CI	4040	In	352	8.72%	26%	YES
	McNeil Rd	Virginia Ave	6LD	EB	Urban Principal Arterial-CI	3170	Out	277	8.74%	26%	YES
McNeil Rd	Virginia Ave	6LD	WB	Urban Principal Arterial-CI	3170	In	352	11.11%	26%	YES	
Virginia Ave	35th St	6LD	EB	Urban Principal Arterial-CI	2100	Out	75	3.55%	7%	NO	
Virginia Ave	35th St	6LD	WB	Urban Principal Arterial-CI	2100	In	95	4.52%	7%	NO	
I-95	Orange Ave	Okeechobee Rd	6LD	NB	Interstate	7320	Out	149	2.04%	14%	NO
	Orange Ave	Okeechobee Rd	6LD	SB	Interstate	7320	In	190	2.59%	14%	NO
	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	4580	Out	490	10.70%	46%	YES
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	4580	In	623	13.61%	46%	YES
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	4580	In	257	5.62%	19%	YES
	W Midway Rd	St Lucie West Blvd	6LD	SB	Interstate	4580	Out	202	4.42%	19%	NO
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	4580	In	244	5.33%	18%	YES
St Lucie West Blvd	Crosstown Pkwy	6LD	SB	Interstate	4580	Out	192	4.19%	18%	NO	
Glades Cut off Rd	Range Line Rd	Reserve Blvd	2	NB	Urban Minor Arterial-UF	1070	In	27	2.53%	2%	NO
	Range Line Rd	Reserve Blvd	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.99%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	NB	Urban Minor Arterial-UF	1070	In	27	2.53%	2%	NO
	Reserve Blvd	Commerce Centre Dr	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.99%	2%	NO
	W Midway Rd	Florida's Turnpike	2	NB	Urban Minor Arterial-CI	790	Out	64	8.09%	6%	YES
	W Midway Rd	Florida's Turnpike	2	SB	Urban Minor Arterial-CI	790	In	81	10.29%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	NB	Urban Minor Arterial-CI	790	Out	64	8.09%	6%	YES
	Florida's Turnpike	S Jenkins Rd	2	SB	Urban Minor Arterial-CI	790	In	81	10.29%	6%	YES
	S Jenkins Rd	Selwitz Rd	2	NB	Urban Minor Arterial-CI	830	Out	64	7.70%	6%	YES
	S Jenkins Rd	Selwitz Rd	2	SB	Urban Minor Arterial-CI	830	In	81	9.80%	6%	YES
SW Saint Lucie West Blvd	195	California Blvd	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	195	California Blvd	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	California Blvd	Country Club Dr	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	California Blvd	Country Club Dr	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	EB	Other Principal Arterial	2100	Out	11	0.51%	1%	NO
	Country Club Dr	Cashmere Blvd	4LD	WB	Other Principal Arterial	2100	In	14	0.65%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	EB	Other Principal Arterial	3170	Out	11	0.34%	1%	NO
	Cashmere Blvd	Florida's Turnpike	6LD	WB	Other Principal Arterial	3170	In	14	0.43%	1%	NO
	Florida's Turnpike	Bayshore Blvd	6LD	EB	Other Principal Arterial	3170	Out	11	0.34%	1%	NO
Florida's Turnpike	Bayshore Blvd	6LD	WB	Other Principal Arterial	3170	In	14	0.43%	1%	NO	
Jenkins Rd	Edwards Rd	Okeechobee Rd	2L	NB	Urban Minor Arterial-CI	880	In	14	1.54%	1%	NO
	Edwards Rd	Okeechobee Rd	2L	SB	Urban Minor Arterial-CI	880	Out	11	1.23%	1%	NO
	Okeechobee Rd	Orange Ave	2L	NB	Urban Minor Arterial-CI	920	Out	11	1.15%	1%	NO
Okeechobee Rd	Orange Ave	2L	SB	Urban Minor Arterial-CI	920	In	14	1.47%	1%	NO	
25th St	Midway Rd	Edwards Rd	4LD	NB	Urban Principal Arterial-CI	2100	Out	21	1.01%	2%	NO
	Midway Rd	Edwards Rd	4LD	SB	Urban Principal Arterial-CI	2100	In	27	1.29%	2%	NO
St James	Bayshore Blvd	Midway Rd	4LD	NB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
	Bayshore Blvd	Midway Rd	4LD	SB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
Virginia Ave	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	3020	Out	170	5.64%	16%	YES
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	3020	In	217	7.18%	16%	YES
Prima Vista Blvd	Bayshore Blvd	Alrosa Blvd	4LD	EB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
	Bayshore Blvd	Alrosa Blvd	4LD	WB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
	Alrosa Blvd	US 1	4LD	EB	Urban Principal Arterial-CI	2100	Out	11	0.51%	1%	NO
	Alrosa Blvd	US 1	4LD	WB	Urban Principal Arterial-CI	2100	In	14	0.65%	1%	NO
Selwitz Rd	Bayshore Blvd	Midway Rd	2	NB	Minor Arterial	750	In	41	5.42%	3%	YES
	Bayshore Blvd	Midway Rd	2	SB	Minor Arterial	750	Out	32	4.26%	3%	NO
	Midway Rd	Glades Cut Off Rd	2	NB	Minor Arterial	700	Out	11	1.52%	1%	NO
	Midway Rd	Glades Cut off Rd	2	SB	Minor Arterial	700	In	14	1.94%	1%	NO
East Torino Pkwy	Midway Rd	Turtle Dove Ln	2	NB	Urban Minor Arterial-CI	880	In	27	3.08%	2%	YES
	Midway Rd	Turtle Dove Ln	2	SB	Urban Minor Arterial-CI	880	Out	21	2.42%	2%	NO
Arterial A	Midway Rd	EW 5	6LD	NB	Urban Major Arterial - CI	3020	In	27	0.90%	2%	NO
	Midway Rd	EW 5	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.71%	2%	NO
	EW 5	Glades Cut off Rd	6LD	NB	Urban Major Arterial - CI	3020	In	27	0.90%	2%	NO
	EW 5	Glades Cut off Rd	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.71%	2%	NO

Source of Functional Classification: St. Lucie County Comprehensive Plan
= 5%

(2) 2 lane partition falls with background traffic, and conditioned for improvement

Trips In	1355
Trips Out	1065
Total	2420

Table 3b: PM Project Significance

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	Existing/Committed Capacity (2012 Directional FOOT LOS D)	In/Out	Project Volume Peak Direction	% Project of Capacity Peak Direction	Project Percent Assignment	3% or Greater < 2 Miles 5% or Greater 2-5 Miles	
Midway Rd	Okeechobee Rd	Shinn Rd	2	EB	Rural Principal Arterial-uf	760	In	29	3.82%	2%	NO	
	Okeechobee Rd	Shinn Rd	2	WB	Rural Principal Arterial-uf	760	Out	21	2.73%	2%	NO	
	Shinn Rd	McCarty Rd	2	EB	Rural Principal Arterial-uf	630	In	29	4.60%	2%	YES	
	Shinn Rd	McCarty Rd	2	WB	Rural Principal Arterial-uf	630	Out	21	3.29%	2%	YES	
	McCarty Rd	11 Mile Rd	2	EB	Urban Principal Arterial-uf	700	In	29	4.14%	2%	YES	
	McCarty Rd	11 Mile Rd	2	WB	Urban Principal Arterial-uf	700	Out	21	2.96%	2%	NO	
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial-uf	700	In	29	4.14%	2%	YES	
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial-uf	700	Out	21	2.96%	2%	NO	
	Arterial A	195	4D(C)	EB	Urban Principal Arterial-uf	2100	Out	995	47.36%	96%	YES	
	Arterial A	195	4D(C)	WB	Urban Principal Arterial-uf	2100	In	1302	66.29%	96%	YES	
	195	Glades Cut off Rd	4D	EB	Urban Principal Arterial-CI	2100	Out	321	15.29%	31%	YES	
	195	Glades Cut off Rd	4D	WB	Urban Principal Arterial-CI	2100	In	450	21.40%	31%	YES	
	195	Glades Cut off Rd	NW East Torino Pkwy	4D	EB	Urban Principal Arterial-CI	2100	Out	259	12.33%	25%	YES
	195	Glades Cut off Rd	NW East Torino Pkwy	4D	WB	Urban Principal Arterial-CI	2100	In	363	17.26%	25%	YES
	195	NW East Torino Pkwy	Florida's Turnpike	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	195	NW East Torino Pkwy	Florida's Turnpike	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	195	Florida's Turnpike	NW Corporate Way	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	195	Florida's Turnpike	NW Corporate Way	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	195	NW Corporate Way	S Jenkins Rd	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	195	NW Corporate Way	S Jenkins Rd	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	195	S Jenkins Rd	Selvitz Rd	2L	EB	Urban Principal Arterial-CI	920	Out	238	25.90%	23%	YES
	195	S Jenkins Rd	Selvitz Rd	2L	WB	Urban Principal Arterial-CI	920	In	334	36.25%	23%	YES
	195	Selvitz Rd	S 25th St	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	197	9.37%	19%	YES
	195	Selvitz Rd	S 25th St	4D(C)	WB	Urban Principal Arterial-CI	2100	In	276	13.12%	19%	YES
	195	S 25th St	Oleander	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	166	7.89%	16%	YES
	195	S 25th St	Oleander	4D(C)	WB	Urban Principal Arterial-CI	2100	In	232	11.05%	16%	YES
	195	Oleander	US-1	4D(C)	EB	Urban Principal Arterial-CI	2100	Out	166	7.89%	16%	YES
	195	Oleander	US-1	4D(C)	WB	Urban Principal Arterial-CI	2100	In	232	11.05%	16%	YES
	Okeechobee Rd	McCarty Rd	Florida's Turnpike	4LD	EB	Urban Principal Arterial-CI	1810	In	0	0.00%	0%	NO
		McCarty Rd	Florida's Turnpike	4LD	WB	Urban Principal Arterial-CI	1810	Out	0	0.00%	0%	NO
		Florida's Turnpike	S King's Hwy	4LD	EB	Urban Principal Arterial-CI	2010	In	15	0.72%	1%	NO
		Florida's Turnpike	S King's Hwy	4LD	WB	Urban Principal Arterial-CI	2010	Out	10	0.52%	1%	NO
S King's Hwy		Crossroads Pkwy	6LD	EB	Urban Principal Arterial-CI	4170	In	15	0.35%	1%	NO	
S King's Hwy		Crossroads Pkwy	6LD	WB	Urban Principal Arterial-CI	4170	Out	10	0.25%	1%	NO	
Crossroads Pkwy		195	6LD	EB	Urban Principal Arterial-CI	4170	In	15	0.35%	1%	NO	
Crossroads Pkwy		195	6LD	WB	Urban Principal Arterial-CI	4170	Out	10	0.25%	1%	NO	
195		Jenkins Rd	6LD	EB	Urban Principal Arterial-CI	4240	In	290	6.84%	28%	YES	
195		Jenkins Rd	6LD	WB	Urban Principal Arterial-CI	4240	Out	406	9.58%	28%	YES	
Jenkins Rd		McNeill Rd	8LD	EB	Urban Principal Arterial-CI	4040	In	269	6.67%	26%	YES	
Jenkins Rd		McNeill Rd	8LD	WB	Urban Principal Arterial-CI	4040	Out	377	9.33%	26%	YES	
McNeill Rd		Virginia Ave	6LD	EB	Urban Principal Arterial-CI	3170	In	289	8.50%	26%	YES	
McNeill Rd		Virginia Ave	6LD	WB	Urban Principal Arterial-CI	3170	Out	377	11.89%	26%	YES	
Virginia Ave	35th St	6LD	EB	Urban Principal Arterial-CI	2100	Out	73	3.45%	7%	NO		
Virginia Ave	35th St	6LD	WB	Urban Principal Arterial-CI	2100	In	102	4.83%	7%	NO		
I-95	Orange Ave	Okeechobee Rd	8LD	NB	Interstate	7320	Out	145	1.98%	14%	NO	
	Orange Ave	Okeechobee Rd	8LD	SB	Interstate	7320	In	203	2.77%	14%	NO	
	Okeechobee Rd	Midway Rd	6LD	NB	Interstate	4580	Out	477	10.41%	46%	YES	
	Okeechobee Rd	Midway Rd	6LD	SB	Interstate	4580	In	667	14.56%	46%	YES	
	W Midway Rd	St Lucie West Blvd	6LD	NB	Interstate	4580	Out	276	6.02%	19%	YES	
	W Midway Rd	St Lucie West Blvd	6LD	SB	Interstate	4580	Out	197	4.30%	19%	NO	
	St Lucie West Blvd	Crosstown Pkwy	6LD	NB	Interstate	4580	Out	261	5.70%	18%	YES	
	St Lucie West Blvd	Crosstown Pkwy	6LD	SB	Interstate	4580	Out	186	4.07%	18%	NO	
Glades Cut off Rd	Range Line Rd	Reserve Blvd	2	NB	Urban Minor Arterial-UF	1070	In	29	2.71%	2%	NO	
	Range Line Rd	Reserve Blvd	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.94%	2%	NO	
	Reserve Blvd	Commerce Centre Dr	2	NB	Urban Minor Arterial-UF	1070	In	29	2.71%	2%	NO	
	Reserve Blvd	Commerce Centre Dr	2	SB	Urban Minor Arterial-UF	1070	Out	21	1.94%	2%	NO	
	W Midway Rd	Florida's Turnpike	2	NB	Urban Minor Arterial-CI	790	Out	62	7.87%	6%	YES	
	W Midway Rd	Florida's Turnpike	2	SB	Urban Minor Arterial-CI	790	In	87	11.01%	6%	YES	
	Florida's Turnpike	S Jenkins Rd	2	NB	Urban Minor Arterial-CI	790	Out	62	7.87%	6%	YES	
	Florida's Turnpike	S Jenkins Rd	2	SB	Urban Minor Arterial-CI	790	In	87	11.01%	6%	YES	
SW Saint Lucie West Blvd	S Jenkins Rd	Selvitz Rd	2	NB	Urban Minor Arterial-CI	830	Out	62	7.48%	6%	YES	
	S Jenkins Rd	Selvitz Rd	2	SB	Urban Minor Arterial-CI	830	In	87	10.48%	6%	YES	
	195	California Blvd	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO	
	195	California Blvd	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO	
	California Blvd	Country Club Dr	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO	
	California Blvd	Country Club Dr	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO	
	Country Club Dr	Cashmere Blvd	4LD	EB	Other Principal Arterial	2100	Out	10	0.49%	1%	NO	
	Country Club Dr	Cashmere Blvd	4LD	WB	Other Principal Arterial	2100	In	15	0.69%	1%	NO	
	Cashmere Blvd	Florida's Turnpike	6LD	EB	Other Principal Arterial	3170	Out	10	0.33%	1%	NO	
	Cashmere Blvd	Florida's Turnpike	6LD	WB	Other Principal Arterial	3170	In	15	0.46%	1%	NO	
Jenkins Rd	Florida's Turnpike	Baysore Blvd	6LD	EB	Other Principal Arterial	3170	Out	10	0.33%	1%	NO	
	Florida's Turnpike	Baysore Blvd	6LD	WB	Other Principal Arterial	3170	In	15	0.46%	1%	NO	
25th St	Edwards Rd	Okeechobee Rd	2L	NB	Urban Minor Arterial-CI	880	In	15	1.65%	1%	NO	
	Edwards Rd	Okeechobee Rd	2L	SB	Urban Minor Arterial-CI	880	Out	10	1.18%	1%	NO	
St James	Okeechobee Rd	Orange Ave	2L	NB	Urban Minor Arterial-CI	920	Out	10	1.13%	1%	NO	
	Okeechobee Rd	Orange Ave	2L	SB	Urban Minor Arterial-CI	920	In	15	1.58%	1%	NO	
Virginia Ave	Midway Rd	Edwards Rd	4LD	NB	Urban Principal Arterial-CI	2100	Out	21	0.99%	2%	NO	
	Midway Rd	Edwards Rd	4LD	SB	Urban Principal Arterial-CI	2100	In	29	1.38%	2%	NO	
Prima Vista Blvd	Baysore Blvd	Midway Rd	4LD	NB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO	
	Baysore Blvd	Midway Rd	4LD	SB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO	
Selvitz Rd	Okeechobee Rd	25th St	6LD	EB	Urban Principal Arterial-CI	3020	Out	166	5.49%	16%	YES	
	Okeechobee Rd	25th St	6LD	WB	Urban Principal Arterial-CI	3020	In	232	7.68%	16%	YES	
Arterial A	Baysore Blvd	Alonso Blvd	4LD	EB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO	
	Baysore Blvd	Alonso Blvd	4LD	WB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO	
Selvitz Rd	Alonso Blvd	US 1	4LD	EB	Urban Principal Arterial-CI	2100	Out	10	0.49%	1%	NO	
	Alonso Blvd	US 1	4LD	WB	Urban Principal Arterial-CI	2100	In	15	0.69%	1%	NO	
Arterial A	Baysore Blvd	Midway Rd	2	NB	Minor Arterial	750	In	44	5.80%	3%	YES	
	Baysore Blvd	Midway Rd	2	SB	Minor Arterial	750	Out	31	4.14%	3%	NO	
Arterial A	Midway Rd	Glades Cut off Rd	2	NB	Minor Arterial	700	Out	10	1.43%	1%	NO	
	Midway Rd	Glades Cut off Rd	2	SB	Minor Arterial	700	In	15	2.07%	1%	NO	
Arterial A	Midway Rd	EW 5	6LD	NB	Urban Major Arterial - CI	3020	In	29	0.96%	2%	NO	
	Midway Rd	EW 5	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.69%	2%	NO	
Arterial A	EW 5	Glades Cut off Rd	6LD	NB	Urban Major Arterial - CI	3020	In	29	0.96%	2%	NO	
	EW 5	Glades Cut off Rd	6LD	SB	Urban Major Arterial - CI	3020	Out	21	0.69%	2%	NO	

Source of Functional Classification: St. Lucie County Comprehensive Plan
 = 5%
 (2) 2 lane portion falls with background traffic, and conditioned for improvement

Trips In	1450
Trips Out	1036
Total	2486

Table 49: 2035 Link Analysis - AM Peak Hour

Segment	From	To	Existing + Committed (C) Lanes	Direction	Federal Functional Classification	2013 Volume	Existing/Committed Capacity (2012 Directional FOOT LOS D)	5% Growth	AM Approved Projects	2035 AM Total Traffic w/o Project	Calculated Growth	Minimum Existing + 5% Growth per Year	2035 AM Total Traffic w/ Project	In/Out	Project Volume Peak Direction	% Project of Capacity Peak Direction	Project Percent Assignment	3% (5%) or Greater	Satisfies Criteria w/o Project	Satisfies Criteria w/ Project	Improvement	Proposed Capacity	Satisfies Criteria with Expanded Capacity
Midway Rd	Shen Rd	McCarry Rd	2	EB	Rural Principal Arterial/Urban Principal Arterial	272	620	33	260	575	4.33%		563	In	27	4.30%	2%	YES	YES	N/A		Yes	
	Shen Rd	McCarry Rd	2	WB	Rural Principal Arterial/Urban Principal Arterial	255	620	35	352	521	3.38%		523	Out	21	3.38%	2%	YES	YES	N/A		Yes	
	McCarry Rd	11 Mile Rd	2	WB	Urban Principal Arterial/Urban Principal Arterial	295	700	35	358	518	3.58%		515	Out	27	3.87%	2%	YES	YES	N/A		Yes	
	McCarry Rd	11 Mile Rd	2	WB	Urban Principal Arterial/Urban Principal Arterial	272	700	23	339	434	2.95%		455	Out	21	3.80%	2%	YES	YES	N/A		Yes	
	11 Mile Rd	Arterial A	2	EB	Urban Principal Arterial/Urban Principal Arterial	255	700	35	267	507	4.39%		614	In	27	3.87%	2%	YES	YES	N/A		Yes	
	11 Mile Rd	Arterial A	2	WB	Urban Principal Arterial/Urban Principal Arterial	255	700	35	267	507	4.39%		614	Out	27	3.87%	2%	YES	YES	N/A		Yes	
	Arterial A	55	3/4/2021	2	EB	Urban Principal Arterial/Urban Principal Arterial	255	1100	35	366	1156	8.69%		3208	Out	1032	48.60%	50%	YES	YES	6LD	3000	Yes
	Arterial A	55	2/4/2020	2	WB	Urban Principal Arterial/Urban Principal Arterial	272	1100	23	1,754	2089	13.46%		3359	In	1301	61.96%	50%	YES	YES	6LD	4000	Yes
	55	Glades Cut off Rd		4D	EB	Urban Principal Arterial/Urban Principal Arterial	758	2100	63	403	1274	3.04%	1554	Out	330	15.27%	31%	YES	YES	N/A		Yes	
	55	Glades Cut off Rd		4D	WB	Urban Principal Arterial/Urban Principal Arterial	935	2100	77	573	1576	3.30%	1896	In	420	21.00%	31%	YES	YES	N/A		Yes	
Midway Rd	Glades Cut off Rd	NW East Torino Hwy	4D	EB	Urban Principal Arterial/Urban Principal Arterial	1,176	2100	54	703	1999	3.30%	2264	Out	566	26.41%	29%	YES	YES	N/A		Yes		
	Glades Cut off Rd	NW East Torino Hwy	4D	WB	Urban Principal Arterial/Urban Principal Arterial	1,216	2100	50	721	2052	3.49%	2355	Out	578	27.32%	29%	YES	YES	N/A		Yes		
	5. Jenkins Rd	NW East Torino Hwy	2	EB	Urban Principal Arterial/Urban Principal Arterial	995	900	83	922	2000	4.60%		2312	In	312	33.88%	21%	YES	No	6LD	3000	Yes	
	5. Jenkins Rd	NW East Torino Hwy	2	WB	Urban Principal Arterial/Urban Principal Arterial	1,216	900	101	922	1889	2.62%	2084	Out	245	20.63%	21%	YES	No	6LD	2100	Yes		
	NW Corporate Way	5. Jenkins Rd	2	WB	Urban Principal Arterial/Urban Principal Arterial	1,026	900	58	621	1774	3.27%	2036	In	312	31.88%	21%	YES	No	6LD	2100	Yes		
	5. Jenkins Rd	Scholar Rd	2	EB	Urban Principal Arterial/Urban Principal Arterial	1,216	900	50	467	1794	2.42%	2029	Out	245	20.61%	21%	YES	No	6LD	2100	Yes		
	5. Jenkins Rd	Scholar Rd	2	WB	Urban Principal Arterial/Urban Principal Arterial	1,026	900	50	500	1718	2.92%	2029	Out	245	24.85%	21%	YES	No	6LD	2100	Yes		
	Scholar Rd	5. Jenkins Rd	2	EB	Urban Principal Arterial/Urban Principal Arterial	995	2100	81	448	1562	2.92%	1929	Out	257	12.20%	10%	YES	YES	N/A		Yes		
	Scholar Rd	5. Jenkins Rd	2	WB	Urban Principal Arterial/Urban Principal Arterial	1,026	2100	65	401	1511	2.46%	1861	Out	170	8.11%	10%	YES	YES	N/A		Yes		
	5.25th St	Olander	40(C)	WB	Urban Principal Arterial/Urban Principal Arterial	865	2100	67	448	1309	3.14%	1937	In	217	10.31%	10%	YES	YES	N/A		Yes		
Okeechobee Rd	Olander	US-1	40(C)	EB	Urban Principal Arterial/Urban Principal Arterial	635	2100	53	401	1089	3.43%	1259	Out	170	10.11%	10%	YES	YES	N/A		Yes		
	Olander	US-1	40(C)	WB	Urban Principal Arterial/Urban Principal Arterial	853	2100	57	448	1323	3.13%	1340	In	217	10.33%	10%	YES	YES	N/A		Yes		
	55	Jenkins Rd	4D	WB	Urban Principal Arterial/Urban Principal Arterial	1,112	620	50	317	1116	1.81%		1919	Out	328	8.89%	28%	YES	YES	N/A		Yes	
	55	Jenkins Rd	4D	EB	Urban Principal Arterial/Urban Principal Arterial	1,112	620	50	317	1116	1.81%		1919	Out	328	8.89%	28%	YES	YES	N/A		Yes	
	Jenkins Rd	McNeil Rd	8D	WB	Urban Principal Arterial/Urban Principal Arterial	1,476	620	164	138	1278	0.89%	2117	Out	277	6.85%	20%	YES	YES	N/A		Yes		
	Jenkins Rd	McNeil Rd	8D	EB	Urban Principal Arterial/Urban Principal Arterial	1,476	620	164	138	1278	0.89%	2117	Out	277	6.85%	20%	YES	YES	N/A		Yes		
	McNeil Rd	Virginia Ave	6D	WB	Urban Principal Arterial/Urban Principal Arterial	1,580	3170	131	6	1717	0.52%	1194	Out	352	8.74%	20%	YES	YES	N/A		Yes		
	McNeil Rd	Virginia Ave	6D	EB	Urban Principal Arterial/Urban Principal Arterial	1,580	3170	131	6	1717	0.52%	1194	Out	352	8.74%	20%	YES	YES	N/A		Yes		
	Okeechobee Rd	McCarry Rd	6D	WB	Urban Principal Arterial/Urban Principal Arterial	853	3170	71	8	930	0.52%	988	Out	372	11.11%	20%	YES	YES	N/A		Yes		
	Okeechobee Rd	McCarry Rd	6D	EB	Urban Principal Arterial/Urban Principal Arterial	478	650	380	293	5717	1.46%	6207	Out	490	10.70%	40%	YES	No	6LD	7200	Yes		
I-95	Okeechobee Rd	McCarry Rd	6D	NB	Urban Principal Arterial/Urban Principal Arterial	317	450	15	135	451	1.31%		373	In	135	5.42%	19%	YES	No	6LD	7200	Yes	
	Okeechobee Rd	McCarry Rd	6D	SB	Urban Principal Arterial/Urban Principal Arterial	317	450	15	135	451	1.31%		373	Out	135	5.42%	19%	YES	No	6LD	7200	Yes	
	11 Mile Rd	Arterial A	2	NB	Urban Principal Arterial/Urban Principal Arterial	604	450	135	1,297	5651	2.14%		5915	In	244	5.31%	18%	YES	No	6LD	7200	Yes	
	11 Mile Rd	Arterial A	2	SB	Urban Principal Arterial/Urban Principal Arterial	604	450	135	1,297	5651	2.14%		5915	Out	244	5.31%	18%	YES	No	6LD	7200	Yes	
	Glades Cut Off Rd	5. Jenkins Rd	2	SB	Urban Minor Arterial/Urban Minor Arterial	669	790	56	133	858	1.57%		912	Out	64	8.07%	6%	YES	No	4LD	2000	Yes	
	Glades Cut Off Rd	5. Jenkins Rd	2	SB	Urban Minor Arterial/Urban Minor Arterial	535	790	44	137	797	1.87%		783	In	81	10.37%	6%	YES	Yes	N/A		Yes	
	5. Jenkins Rd	Scholar Rd	2	NB	Urban Minor Arterial/Urban Minor Arterial	310	810	31	335	515	2.84%		600	Out	64	2.70%	6%	YES	Yes	N/A		Yes	
	5. Jenkins Rd	Scholar Rd	2	SB	Urban Minor Arterial/Urban Minor Arterial	719	810	24	40	335	2.84%		335	Out	81	5.80%	18%	YES	Yes	N/A		Yes	
	5.25th St	Olander	40(C)	WB	Urban Principal Arterial/Urban Principal Arterial	1159	3000	57	54	1380	0.76%	1371	Out	217	2.18%	15%	YES	Yes	N/A		Yes		
	5.25th St	Olander	40(C)	NB	Urban Principal Arterial/Urban Principal Arterial	416	750	35	50	511	1.44%		573	In	61	5.47%	3%	YES	Yes	N/A		Yes	
East Torino Hwy	Scholar Rd	Midway Rd	2	NB	Urban Minor Arterial/Urban Minor Arterial	1,870	850	85	29	1145	0.66%	1208	In	27	3.05%	2%	YES	No	4LD	2000	Yes		
	Scholar Rd	Midway Rd	2	SB	Urban Minor Arterial/Urban Minor Arterial	1,870	850	85	29	1145	0.66%	1208	Out	27	3.05%	2%	YES	No	4LD	2000	Yes		

Total In	1372
Total Out	1268
Total	2640
Years Growth	16

Source of Functional Classification: St. Lucie County Comprehensive Plan
 170+ 2019 Traffic Volume
 (1) Shaded areas indicate project with the highest unit needed for background
 (2) Highway from Arterial A to I-95 requires 4D for Background Traffic, Developer funded

ROADWAY NEEDS - LINKS

Based on the total traffic volumes, several roadways exceed capacity.

The project proposes to mitigate its impact by use of proportionate share. Florida Statutes state that if any road is determined to be transportation deficient without the project traffic under review, the costs of correcting that deficiency shall be removed from the project's proportionate-share calculation and the necessary transportation improvements to correct that deficiency shall be considered to be in place for purposes of the proportionate-share calculation. **Figure 5** illustrates the roadway improvements to which the project will provide a proportionate share contribution.

Table 5 summarizes the proportionate share by improvement for those improvements not needed by background traffic. As shown, the project's share is \$7,506,123. That cost includes the roadway links and one intersection described in an upcoming section on intersection analysis. Long Range planning estimates from FDOT were applied to develop the construction costs. And additional 30% was added for design and contingency. Right-of-way costs based on a 20% increase over assessed values was included as well.

The applicant will pay its proportionate share as follows:

- + The applicant shall pay \$5,843,946 to widen or the applicant shall cause to widen Midway Road from Arterial A to I-95 as a six-lane divided roadway with extended turn lanes, prior to pulling building permits that generate more than 805 AM inbound trips, or 873 AM outbound trips,
- + The applicant shall pay \$806,463 to widen Midway Road from Glades Cut-off to NW East Torino Parkway as a six-lane divided arterial prior to pulling building permits that generate 920 AM outbound trips,
- + The applicant shall pay \$132,932 to widen Midway Road from I-95 to Glades Cut-Off prior to pulling building permits that generate more than 1005 PM outbound trips, and
- + The applicant shall pay \$722,782 to widen Midway Road from Jenkins Road to Selvitz. prior to pulling building permits that generate more than 1077 PM inbound trips.

DRIVEWAY ANALYSIS

There are three project driveways on Midway Road; Gordy Road (Main Street/Driveway 1), Driveway 2 (Right-in/Right-out), and Pier Avenue (Driveway 3) (Full Access). When the project Village at Midway extends Arterial A, Willow Lakes will connect to Arterial A at Driveway 4.

Figure 6 summarizes the driveway volumes. The top half shows the volumes with Village at Midway and the Arterial A Extension in place. The bottom half illustrates the volumes without the Arterial A Extension and without the Village at Midway traffic volumes. This scenario is included to establish the turn lanes at the project driveways without the connection to Arterial A.



O'Rourke Engineering & Planning



772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

- = 2L to 4L
- = 2L to 6L
- = 4L to 6L
- = 4L to 6L+

 = Intersection Improvements

FIGURE 5

Road Improvements
 to be Prop Shared

WILLOW LAKES

February 2020

TABLE 54c: Prop Share - 2035 - AM

Segment	From	To	Direction	2035 Assignment	Existing 2019 Volume	2035 AM Peak Hour, Direct. Volume	Generalized Service Capacity	Total Cumulative Project Volume-Peak Direction	Total Traffic Peak Direction (2035) [C]	Existing Number of Lanes	Proposed Number of Lanes	Proposed Capacity	Length in Miles	FOOT Unit Cost	Construction Cost	Design/CEI/Contingency 30%(1)	Right of Way Cost	Total Cost of Improvement	Project Trips adjusted for remaining capacity	Project % of New Capacity	Project Share of Cost	Payment Due [2]
Milberry Road	Arroyal A	I-95	EB	96.0%	285	1,885	2,100	1022	2208	40	60	3000	1.32	4,915,750	3,144,995	973,319	0	4,217,714	108	11.2%	426,937	N/A
	Arroyal A	I-95	WB	96.0%	272	2,059	2,100	1301	3550	40	60+	4600	1.87	6,749,490	4,005,774	1,201,732	17,818	5,215,524	1,250	64.9%	3,168,394	892,160
	Glades Cut Off	I-95	EB	25.0%	1178	1,979	2,100	346	2445	40	60	3000	0.28	4,915,750	688,205	206,462	0	894,667	145	18.0%	161,250	830,160
	Glades Cut Off	BNV East Tennis Pathway	WB	25.0%	2126	2,082	2,100	339	2401	40	60	3000	0.28	4,915,750	1,152,695	468,722	3,774	2,014,981	301	32.9%	665,233	1908,160
(1) Adjustment for Design/CEI/Contingency 0.3																						
(Does not include "yellow" higher value included in PM)																						
																					Sub Total	
																					4,172,397	

TABLE 54b: Prop Share - 2035 - PM

Segment	From	To	Direction	2035 Assignment	Existing 2019 Volume	2035 PM Peak Hour, Direct. Volume	Generalized Service Capacity	Total Cumulative Project Volume-Peak Direction	Total Traffic Peak Direction (2035) [C]	Existing Number of Lanes	Proposed Number of Lanes	Proposed Capacity	Length in Miles	FOOT Unit Cost	Construction Cost	Design/CEI/Contingency 30%(1)	Right of Way Cost	Total Cost of Improvement	Project Trips adjusted for remaining capacity	Project % of New Capacity	Project Share of Cost	Payment Due [2]
Milberry Road	Arroyal A	I-95	EB	96.0%	347	2,523	3,000	995	3518	60+	60+	6000	1	7,786,716	1,897,158	1,164,070	17,818	5,078,196	478	48.8%	2,477,652	873,160
	Arroyal A	I-95	WB	96.0%	376	1,641	2,100	1392	3033	40	60	6000	1.87	4,915,750	2,977,917	895,249	17,818	3,810,984	915	63.3%	1,521,656	N/A
	Glades Cut Off	I-95	EB	31.0%	911	1,818	2,100	321	2137	40	60	3000	1.03	4,915,750	2,331,611	799,483	0	3,291,094	37	4.0%	132,932	1,005,160
	Glades Cut Off	BNV East Tennis Pathway	WB	25.0%	890	1,879	2,100	365	2242	40	60	3000	0.28	4,915,750	888,105	206,462	3,774	899,441	142	15.4%	138,184	N/A
	Arroyal A	Arroyal A	WB	23.0%	1304	2,042	2,100	334	2376	40	60	3000	0.75	4,915,750	1,881,496	553,022	17,219	2,413,647	276	29.0%	722,482	1077,160
(1) Adjustment for Design/CEI/Contingency 0.3																						
(Does not include "yellow" higher value included in AM)																						
																					Sub Total	
																					3,833,366	
																					Total	
																					\$7,996,133	

Upgrade Type	Cost
20 to 40	\$4,137,264.63
40 to 60	\$4,545,248.68
60 to 80	\$5,533,076.42
New 2 Lane Roadway	\$1,333,659.75
Bridge Section	\$4,894,101.57
Bridge Section	\$1557, Square foot

Section	Right of Way Cost Calculation			
	Land Area (Sq)	Land Value	Cost/FT	Total Cost
Arroyal A to I-95 (WB)	5,029,537	\$1,171,504	60.23	\$17,818
Glades Cut Off to Tennis (WB)	807,188	\$205,900	60.25	51,714
Jacobine Rd to Arroyal A	776,276	\$902,800	51.04	512,219
				635

Total Links + Intersections Prop Share

(2) Excess Cost Data Calculated As: The Available Capacity Divided by the Increase in Trips Multiplied by the Directional Project Trips.

- Threshold (a) = (b-a)/(c-d)*d
- a = Existing Capacity
- b = Existing Capacity
- c = 2035 Total Traffic Volume - 2019 Existing Volume
- d = Directional Project Trips at Buildout
- e = 75% Threshold

	IN	OUT
AM	1,562	1,670
PM	1,946	1,533

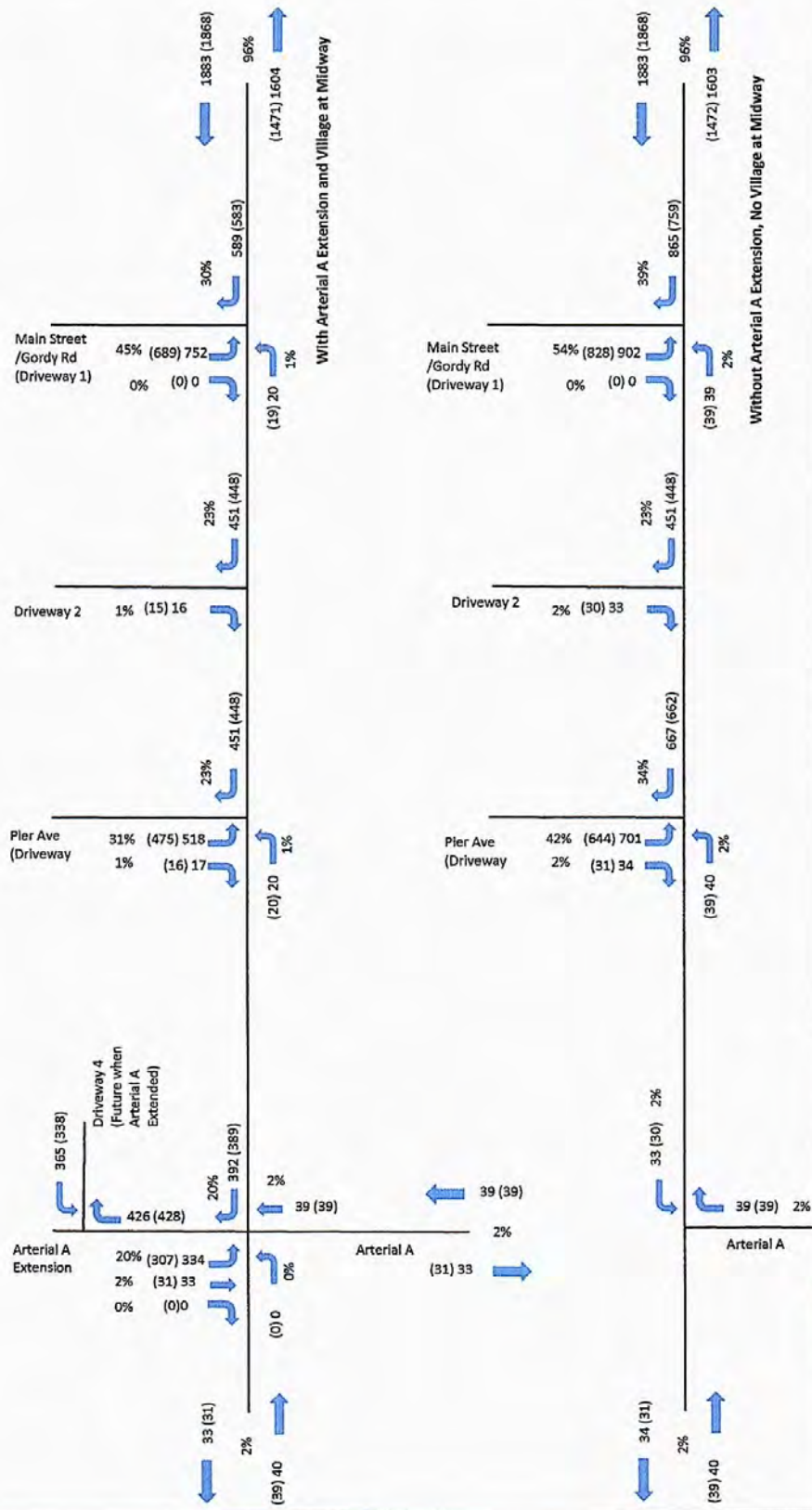


Figure 6
Willow Lakes Driveway Volumes
Willow Lakes

Legend
XX (XX) = AM (PM)

OROURKE
ENGINEERING & PLANNING

969 SE Federal Hwy, Suite 402
Stuart, FL 34994

Date:

Job Number:

Figure 7 illustrates the turn lanes needed at each driveway. These turn lanes will support the traffic with or without Arterial A. The applicant will coordinate with the property owners of Village at Midway and LTC Ranch as appropriate on shared or proximate driveways along Midway Road.

Appendix E Provides the driveway turning movements and the Highway Capacity Manual analysis.

INTERSECTION ANALYSIS/IMPROVEMENTS

Ten intersections were analyzed to determine their operating level of service for the following scenarios; existing, 2035 without project, and 2035 with project traffic. The intersections were analyzed for the AM and PM peak hour using Highway Capacity Manual (HCM) based software as appropriate. **Table 6** summarizes the results of the intersection analysis. As shown, improvements will be needed at several intersections.

Table 7 shows the existing and proposed lanes for the subject intersections. As shown, most of the improvements that are needed will be needed to support background traffic. Therefore, the improvements do not need to be prop shared. The intersection of I-95 Northbound and Midway requires a third westbound through lane. That additional lane is address in the link improvement, so it is not included as an intersection cost.

Appendix F includes the intersection analyses, signal timing worksheet and resultant data.

CONCLUSION

Willow Lakes will generate 37,828 daily trips; 2,420 AM Peak Hour trips and 2,486 PM Peak Hour trips. The project will provide sufficient access to the site and make proportionate share payments to mitigate offsite improvements. Improvements along Midway Road are required by multiple developers. The applicant will coordinate relative to the driveways and other construction projects.

The applicant will pay its proportionate share as follows:

- + The applicant shall pay \$5,843,946 to widen or the applicant shall cause to widen Midway Road from Arterial A to I-95 as a six-lane divided roadway with extended turn lanes, prior to pulling building permits that generate more than 805 AM inbound trips, or 873 AM outbound trips,
- + The applicant shall pay \$806,463 to widen Midway Road from Glades Cut-off to NW East Torino Parkway as a six-lane divided arterial prior to pulling building permits that generate 920 AM outbound trips,
- + The applicant shall pay \$132,932 to widen Midway Road from I-95 to Glades Cut-Off prior to pulling building permits that generate more than 1005 PM outbound trips, and
- + The applicant shall pay \$722,782 to widen Midway Road from Jenkins Road to Selvitz. prior to pulling building permits that generate more than 1077 PM inbound trips.

The total applicant prop share amount is \$7,506,123. With the driveway construction along Midway and the proportionate share payments, concurrency will be satisfied for Willow Lakes. As each site plan is submitted, a trip generation calculation, and an analysis of internal components within that phase of development will be provided.

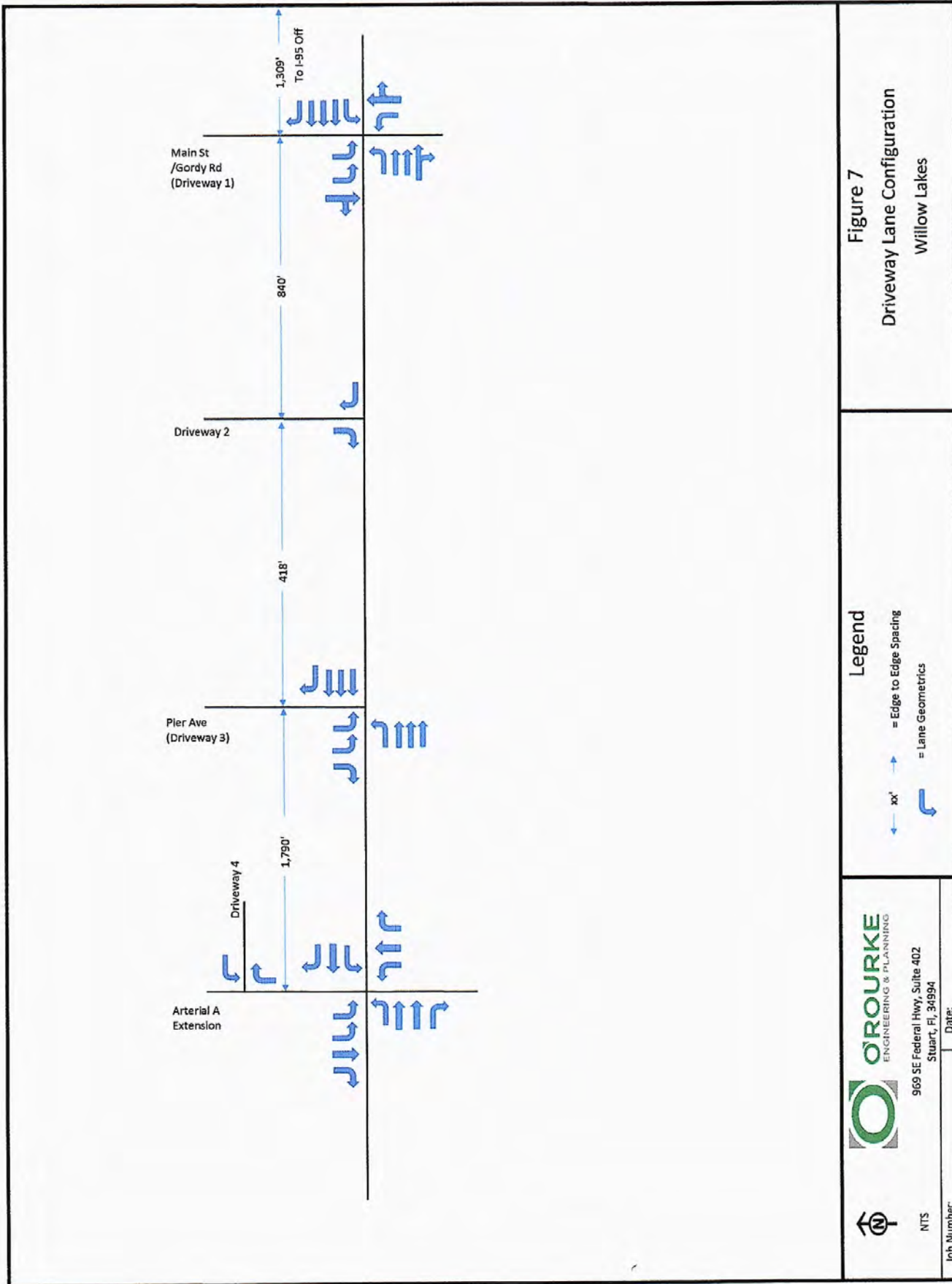


Table 6a: Intersection Analysis with Existing Committed Lanes

Intersection	Existing				2035 Background				2035 with Project			
	AM		PM		AM		PM		AM		PM	
	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1 Midway Rd & Okeechobee Rd	13.6	B	14.9	B	16.3	C	20.5	C	17.5	C	22.2	C
2 I-95 SB Ramp & Midway Rd	15.4	B	15.3	B	29.5	D	142.4	F	57.4	F	134.9	F
3 I-95 NB Ramp & Midway Rd	11.2	B	11.6	B	11	E	114.2	F	97.6	F	112.9	F
4 LTC Pkwy & Midway Rd (unsignalized)	11.5	B	19.7	C	876.3	F	1761.9	F	1545.3	F	2906.5	F
5 Glades Cut Off Rd & Midway Rd	39.8	D	28.7	C	85.2	F	96.7	F	78.9	F	101.3	F
6 Midway Rd & Torino Pkwy	45.2	D	84.2	C	127.8	F	148.5	F	131	F	147.8	F
7 Selvitz Rd & Midway Rd	35.3	D	29.6	C	47.2	D	45.3	D	48.1	D	51.6	D
8 25th St & Midway Rd	23.1	C	22.7	C	41.2	D	46.2	D	47.8	D	53.7	D
9 Jenkins Rd & Okeechobee Rd	32.2	C	31.1	C	42	D	43.1	D	41.8	D	43.5	D
10 Glades Cut Off Rd & Commerce Centre Dr (unsignalized)	17.2	C	11.7	B	N/A	F	N/A	F	N/A	F	N/A	F

Table 6b: Intersection Analysis with Improvements

Intersection	Existing + Improvements				2035 Background + Improvements				2035 with Project + Improvements			
	AM		PM		AM		PM		AM		PM	
	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
1 Midway Rd & Okeechobee Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 I-95 SB Ramp & Midway Rd	N/A	N/A	N/A	N/A	21.2	D	53.1	D	25.7	D	41.9	D
3 I-95 NB Ramp & Midway Rd	N/A	N/A	N/A	N/A	33.5	C	30.6	C	51.4	D	52.4	D
4 LTC Pkwy & Midway Rd	N/A	N/A	N/A	N/A	29.2	C	36.7	D	29.7	C	47.8	D
5 Glades Cut Off Rd & Midway Rd	N/A	N/A	N/A	N/A	46.9	D	50.4	D	39.7	D	43.6	D
6 Midway Rd & Torino Pkwy	N/A	N/A	N/A	N/A	54.2	D	51.5	D	49.4	D	38.6	D
7 Selvitz Rd & Midway Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8 25th St & Midway Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9 Jenkins Rd & Okeechobee Rd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10 Glades Cut Off Rd & Commerce Centre Dr	N/A	N/A	N/A	N/A	42.2	D	49.7	D	38.4	D	53.8	D

Note: The HCS may include analyses with subsets of the final improvements to ensure that the background traffic could not operate with fewer improvements than the "with project" scenario

TABLE 7: Intersection Geometrics

Intersection #	Intersection	Existing + Committed (C)	Needs for Existing (N)	Needs for Background (B)	Needs for Project (P)
1	Midway Rd & Okeechobee Rd		N/A	N/A	N/A
2	I-95 SB & Midway Rd		N/A		
3	I-95 NB & Midway Rd		N/A		
4	LTC Parkway & Midway Rd		N/A		
5	Glades Cut Off Rd & Midway Rd		N/A		
6	Midway Rd & Torino Parkway		N/A		
7	Selvitz Rd & Midway Rd		N/A		
8	25th St & Midway Rd		N/A		
9	Jenkins Rd & Okeechobee Rd		N/A	N/A	N/A
10	Glades Cut Off Rd & Commerce Centre Dr		N/A		

- (1) ● = Signalized Intersection
- (2) N = Needed for Existing Conditions
- (3) B = Needed for 2035 Background Conditions
- (4) P = Needed for Project
- (5) C = Committed Improvement
- * = Free Flow

APPENDIX i
Methodology Letter

seourourke@comcast.net

From: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Sent: Monday, February 24, 2020 4:17 PM
To: seourourke@comcast.net
Cc: John Andrews
Subject: FW: Willow Lakes Traffic Methodology - SLC

Please see County comments below. Should you contact the County directly, please include Jack and I in the conversation so that we are all on the same page.

Thanks Susan.

Jennifer Hofmeister, AICP, LCAM | Planning Director | City of Fort Pierce

Planning Department

Phone: 772.467.3730 Fax: 772.466-5808 100 North U.S. 1 Fort Pierce, FL 34950

[Website](#) | [Facebook](#) | [Survey](#)



From: Kori Benton <bentonk@stlucieco.org>
Sent: Monday, February 24, 2020 3:13 PM
To: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Subject: Willow Lakes Traffic Methodology - SLC

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

Good afternoon Jennifer,

Our team is continuing coordination with Susan O'Rourke and Alex Memering of Kimley-Horn (at this time) to pinpoint the Traffic Methodology for the Willow Lakes Impact Report.

Our Public Works Department & Planning Division support the following:

- Please analyze roadways that are impacted by 3% or greater due to project traffic within a 2-mile radius
- For roadways that are impacted by 5% or greater due to project traffic outside of the 2-mile radius, please continue to study the impacted segments until below the 5% impact threshold. *Maximum radius of 5 miles.*

Supplemental Methodology comments include:

- Please provide a background traffic growth calculation for each studied link to show the resultant annual growth rate considering committed traffic. A minimum growth rate of 1% should be applied.
- Please provide a turn lane analysis for each driveway connection on Midway Road based on information found within the FDOT Access Management Guidebook (November 2019) and NCHRP Report 457.



From: Kori Benton <bentonk@stlucieco.org>
Sent: Monday, February 24, 2020 3:13 PM
To: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Subject: Willow Lakes Traffic Methodology - SLC

SECURITY WARNING: This email originated outside of the City of Fort Pierce systems. Please use caution when clicking links or opening attachments. For questions or concerns please contact IT immediately. .

Good afternoon Jennifer,

Our team is continuing coordination with Susan O'Rourke and Alex Memering of Kimley-Horn (at this time) to pinpoint the Traffic Methodology for the Willow Lakes Impact Report.

Our Public Works Department & Planning Division support the following:

- Please analyze roadways that are impacted by 3% or greater due to project traffic within a 2-mile radius
- For roadways that are impacted by 5% or greater due to project traffic outside of the 2-mile radius, please continue to study the impacted segments until below the 5% impact threshold. *Maximum radius of 5 miles.*

Supplemental Methodology comments include:

- Please provide a background traffic growth calculation for each studied link to show the resultant annual growth rate considering committed traffic. A minimum growth rate of 1% should be applied.
- Please provide a turn lane analysis for each driveway connection on Midway Road based on information found within the FDOT Access Management Guidebook (November 2019) and NCHRP Report 457.
- Based on discussions within the methodology meeting on February 12, 2019, a 15-year buildout timeframe is proposed. Due the potential impacts to roadways and intersections within the potential study area, please provide a supplementary analysis to determine the timeframe when recommended improvements are required within the 15-year buildout timeframe.
- Please explain where Daily and AM peak hour rates were found for ITE 435 Multipurpose Recreational Facility as there is no Daily or AM peak hour of adjacent street rates for this land use within the ITE Trip Generation Manual, 10th Edition.
- Please check directional splits within the trip generation tables for all land uses and correct accordingly.
- Please use pass-by percentages for ITE 945 Gasoline/Service Station with Convenience Market within the ITE Trip Generation Handbook, 3rd Edition as this is the most similar use to ITE 960 Super Convenience Market/Gas Station.

The County reserves the right to request any other specific area of impact based on a study. Further, we will reserve input on the project traffic distribution until the 2040 Greater Treasure Coast Model is performed.

Unless the City has a Traffic Consultant in place for evaluation of the project, Galvin, Giordano & Associates appears to be our next-in-line for the actual TIR review. We hope to discuss further after evaluation of the proposed Methodology.

Kind regards,
Kori

From: seourke@comcast.net
Sent: Friday, February 28, 2020 12:11 PM
To: 'Jennifer Hofmeister'
Cc: 'John Andrews'
Subject: RE: Willow Lakes Traffic Methodology - SLC

Jennifer,

We are OK with all of these comments and will incorporate the comments into the finalized methodology. We won't be doing some of those items now, such as demonstrating the resultant growth rate, we will include that calculation within the traffic study.

I will update and circulate with the assignment plots attached.

Thanks.

Susan.

Susan E. O'Rourke, P.E.
President

O'Rourke Engineering & Planning
969 SE Federal Highway, Suite 402
Stuart, FL 34994
772 781 7918 o
561 350 8738 c
www.ORourkeEngineering.com

From: Jennifer Hofmeister <jhofmeister@cityoffortpierce.com>
Sent: Monday, February 24, 2020 4:17 PM
To: seourke@comcast.net
Cc: John Andrews <jandrews@cityoffortpierce.com>
Subject: FW: Willow Lakes Traffic Methodology - SLC

Please see County comments below. Should you contact the County directly, please include Jack and I in the conversation so that we are all on the same page.

Thanks Susan.

Jennifer Hofmeister, AICP, LCAM | Planning Director | City of Fort Pierce
Planning Department
Phone: 772.467.3730 Fax: 772.466-5808 100 North U.S. 1 Fort Pierce, FL 34950

[Website](#) | [Facebook](#) | [Survey](#)

- Based on discussions within the methodology meeting on February 12, 2019, a 15-year buildout timeframe is proposed. Due the potential impacts to roadways and intersections within the potential study area, please provide a supplementary analysis to determine the timeframe when recommended improvements are required within the 15-year buildout timeframe.
- Please explain where Daily and AM peak hour rates were found for ITE 435 Multipurpose Recreational Facility as there is no Daily of AM peak hour of adjacent street rates for this land use within the ITE Trip Generation Manual, 10th Edition.
- Please check directional splits within the trip generation tables for all land uses and correct accordingly.
- Please use pass-by percentages for ITE 945 Gasoline/Service Station with Convenience Market within the ITE Trip Generation Handbook, 3rd Edition as this is the most similar use to ITE 960 Super Convenience Market/Gas Station.

The County reserves the right to request any other specific area of impact based on a study. Further, we will reserve input on the project traffic distribution until the 2040 Greater Treasure Coast Model is performed.

Unless the City has a Traffic Consultant in place for evaluation of the project, Galvin, Giordano & Associates appears to be our next-in-line for the actual TIR review. We hope to discuss further after evaluation of the proposed Methodology.

Kind regards,
Kori

Please Note: Florida has very broad public records laws. Most written communications to or from County officials regarding County business are public records available to the public and media upon request. It is the policy of St. Lucie County that all County records shall be open for personal inspection, examination and / or copying. Your e-mail communications will be subject to public disclosure unless an exemption applies to the communication. If you received this email in error, please notify the sender by reply e-mail and delete all materials from all computers.



February 12, 2020

Methodology for Willow Lakes

A. The traffic analysis will be prepared in accordance with the **Draft TIS Guidelines prepared for the St. Lucie County TPO** and augmented based on discussion between the City of Ft. Pierce and St. Lucie County. The document reflects 5% on links and adjacent link of 1%. **Attachment A** includes the TIS Guideline.

B. Trip Generation for the site is based on ITE rates most closely related to the use. **Attachment B** summarizes the project trip generation and the internal capture. The use of ITE internal capture rates results in internal capture rates that are too high. So, the internal capture rates between certain pairings have been reduced. Those changes are shown in the attachments.

Pass-by will be limited to 10% of adjacent street and pass-by traffic shown separately for distribution and assignment.

Impact Area

According to the Guidelines, the adjacent link should be addressed if it has a one percent impact and the surrounding network should be addressed if the project has an impact of 5% or more.

If the project has 200 or more peak hour trips on a freeway ramp, a merge and weave analysis may be required for FDOT.

Attachment C shows the general study area. **Attachment D** shows the existing roadway geometrics in the study area.

We are in the process of running the 2040 Greater Treasure Coast Model. In the mean time we have presented the assignment for Village at Midway. The results are shown in **Attachment E**. We will run the assignment with and without Village at Midway and the extension of Arterial A.

Background traffic -- Will be determined based on existing counts plus historic growth not to exceed .5% and "other approved projects. We will include the approved DRIs. KHA or the City will provide the data that they have prepared. If other agencies have data, they should provide it as soon as possible.

Analysis

The Links will be analyzed in tabular format using the TPO capacities. If we feel those capacities are not appropriate we will review them with KHA prior to making adjustments.

Detailed arterial analysis may be used to demonstrate that operational level of service is different than the “theoretical” capacity

Intersections will be analyzed using the Highway Capacity Software by McTrans.

Other

Non-motorized transportation features and transit availability will be summarized for roadways within the study area.

Rights of way will be outlined for all roadways where mitigation is proposed.

Driveways

The project will have two full access driveways and one right-in/right-out driveway.

ATTACHMENT A

TIS Guideline

STANDARDIZED TRAFFIC IMPACT STUDIES (TIS) METHODOLOGY AND PROCEDURES

- **ST. LUCIE COUNTY**
- **CITY OF FORT PIERCE**
- **CITY OF PORT ST. LUCIE**

January 2014

APPENDIX A

Existing Traffic Counts and Network Data

D Factor and Off-Peak Volume Calculations

Segment	From	To	Direction	Count Location	2020 TMC Count AM	2020 TMC Count PM	D Factor AM	D Factor PM	2019 AM Peak Hour Volume	2019 PM Peak Hour Volume
Midway Rd	Okeechobee Rd	Shinn Rd	EB	Okeechobee & Midway	172	225	0.48	0.52	272	376
	Okeechobee Rd	Shinn Rd	WB	Okeechobee & Midway	183	207	0.52	0.48	295	347
	Shinn Rd	McCarty Rd	EB	Okeechobee & Midway	172	225	0.48	0.52	272	376
	Shinn Rd	McCarty Rd	WB	Okeechobee & Midway	183	207	0.52	0.48	295	347
	McCarty Rd	11 Mile Rd	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	McCarty Rd	11 Mile Rd	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	11 Mile Rd	Arterial A	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	11 Mile Rd	Arterial A	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	Arterial A	I95	EB	I-95 SB & Midway	256	278	0.52	0.48	295	347
	Arterial A	I95	WB	I-95 SB & Midway	241	302	0.48	0.52	272	376
	I95	Glades Cut off Rd	EB	I-95 NB & Midway	918	830	0.45	0.47	738	911
	I95	Glades Cut off Rd	WB	I-95 NB & Midway	1131	930	0.55	0.53	926	1,027
	Glades Cut off Rd	NW East Torino Pkwy	EB	Glades Cut-Off & Midway	921	915	0.49	0.59	1,178	1,281
	Glades Cut off Rd	NW East Torino Pkwy	WB	Glades Cut-Off & Midway	959	641	0.51	0.41	1,226	890
	NW East Torino Pkwy	Florida's Turnpike	EB	Torino & Midway	1030	823	0.55	0.49	1,216	1,253
	NW East Torino Pkwy	Florida's Turnpike	WB	Torino & Midway	841	865	0.45	0.51	995	1,304
	Florida's Turnpike	NW Corporate Way	EB	Torino & Midway	1030	823	0.55	0.49	1,216	1,253
	Florida's Turnpike	NW Corporate Way	WB	Torino & Midway	841	865	0.45	0.51	995	1,304
	NW Corporate Way	S Jenkins Rd	EB	Jenkins & Midway	1004	812	0.54	0.48	1,216	1,204
	NW Corporate Way	S Jenkins Rd	WB	Jenkins & Midway	855	879	0.46	0.52	1,036	1,304
	S Jenkins Rd	Selvitz Rd	EB	Jenkins & Midway	982	822	0.53	0.48	1,216	1,204
	S Jenkins Rd	Selvitz Rd	WB	Jenkins & Midway	863	875	0.47	0.52	1,078	1,304
	Selvitz Rd (3)	S 25th St	EB	25th & Midway	712	786	0.50	0.54	973	940
	Selvitz Rd	S 25th St	WB	25th & Midway	718	670	0.50	0.48	973	801
	S 25th St (4)	Oleander	EB	25th & Midway	680	760	0.56	0.54	1,025	942
	S 25th St	Oleander	WB	25th & Midway	533	656	0.44	0.46	805	802
	Oleander	US-1	EB						635	654
	Oleander	US-1	WB						808	800
	Okeechobee Rd	McCarty Rd	Florida's Turnpike	EB					378	391
		McCarty Rd	Florida's Turnpike	WB					378	391
		Florida's Turnpike	S King's Hwy	EB					378	391
		Florida's Turnpike	S King's Hwy	WB					378	391
		S King's Hwy	Crossroads Pkwy	EB					960	1,013
S King's Hwy		Crossroads Pkwy	WB					960	1,013	
Crossroads Pkwy		I95	EB					1,063	1,086	
Crossroads Pkwy		I95	WB					1,063	1,086	
I95		Jenkins Rd	EB	Jenkins & Okeechobee	1450	1183	0.64	0.48	1,976	1,578
I95		Jenkins Rd	WB	Jenkins & Okeechobee	810	1304	0.36	0.52	1,112	1,709
Jenkins Rd		McNeill Rd	EB	Jenkins & Okeechobee	1349	1136	0.66	0.47	1,926	1,516
Jenkins Rd		McNeill Rd	WB	Jenkins & Okeechobee	689	1271	0.34	0.53	1,018	1,709
McNeill Rd		Virginia Ave	EB						1,580	1,522
McNeill Rd		Virginia Ave	WB						851	1,649
Virginia Ave	35th St	EB						687	727	
Virginia Ave	35th St	WB						687	727	
I-95	Orange Ave	Okeechobee Rd	NB					1,822	1,894	
	Orange Ave	Okeechobee Rd	SB					1,802	1,894	
	Okeechobee Rd	Midway Rd	NB					4,578	3,717	
	Okeechobee Rd	Midway Rd	SB					3,181	3,717	
	W Midway Rd	St Lucie West Blvd	NB					3,571	3,079	
	W Midway Rd	St Lucie West Blvd	SB					3,571	3,079	
	St Lucie West Blvd	Crosstown Pkwy	NB					4,048	3,657	
St Lucie West Blvd	Crosstown Pkwy	SB					4,048	3,657		
Glades Cut off Rd	Ranga Line Rd	Reserve Blvd	NB	Glades Cut-Off & Commerce	450	268	0.55	0.52	200	252
	Ranga Line Rd	Reserve Blvd	SB	Glades Cut-Off & Commerce	375	244	0.45	0.48	164	233
	Reserve Blvd	Commerce Centre Dr	NB	Glades Cut-Off & Commerce	450	268	0.55	0.52	332	332
	Reserve Blvd	Commerce Centre Dr	SB	Glades Cut-Off & Commerce	375	244	0.45	0.48	272	306
	Commerce Centre Dr	W Midway Rd	NB	Glades Cut-Off & Commerce	272	177	0.51	0.56	210	192
	Commerce Centre Dr	W Midway Rd	SB	Glades Cut-Off & Commerce	262	140	0.49	0.44	202	151
	W Midway Rd	S. Jenkins Road	NB	Glades Cut-Off & Midway	374	261	0.56	0.38	669	421
	W Midway Rd	S. Jenkins Road	SB	Glades Cut-Off & Midway	296	432	0.44	0.62	526	687
	S Jenkins Rd	Selvitz Rd	NB	Glades Cut-Off & Midway	374	261	0.56	0.38	370	236
	S Jenkins Rd	Selvitz Rd	SB	Glades Cut-Off & Midway	296	432	0.44	0.62	291	585
SW Saint Lucie West Blvd	I95	California Blvd	EB					1,722	1,670	
	I95	California Blvd	WB					1,722	1,670	
	California Blvd	Country Club Dr	EB					1,722	1,670	
	California Blvd	Country Club Dr	WB					1,722	1,670	
	Country Club Dr	Cashmere Blvd	EB					1,722	1,670	
	Country Club Dr	Cashmere Blvd	WB					1,722	1,670	
	Cashmere Blvd	Florida's Turnpike	EB					2,446	2,308	
	Cashmere Blvd	Florida's Turnpike	WB					2,446	2,308	
	Florida's Turnpike	Bayshore Blvd	EB					2,446	2,308	
Florida's Turnpike	Bayshore Blvd	WB					2,446	2,308		
Jenkins Rd	Edwards Rd	Okeechobee Rd	NB	Jenkins & Okeechobee	315	294	0.46	0.46	468	471
	Edwards Rd	Okeechobee Rd	SB	Jenkins & Okeechobee	364	349	0.54	0.54	549	553
	Okeechobee Rd	Orange Ave	NB	Jenkins & Okeechobee	328	355	0.45	0.48	485	525
	Okeechobee Rd	Orange Ave	SB	Jenkins & Okeechobee	397	425	0.55	0.52	559	569
25th St	Midway Rd	Edwards Rd	NB	25th & Midway	1122	681	0.61	0.38	1,310	749
	Midway Rd	Edwards Rd	SB	25th & Midway	730	1095	0.39	0.62	838	1,222
St James	Bayshore Blvd	Midway Rd	NB	25th & Midway	1032	615	0.68	0.37	1,185	689
	Bayshore Blvd	Midway Rd	SB	25th & Midway	487	1041	0.32	0.63	559	1,173
Virginia Ave	Okeechobee Rd	25th St	EB					1,169	1,126	
	Okeechobee Rd	25th St	WB					1,169	1,126	
Prima Vista Blvd	Bayshore Blvd	Alrosa Blvd	EB					944	1,005	
	Bayshore Blvd	Alrosa Blvd	WB					944	1,005	
	Alrosa Blvd	US 1	EB					1,171	1,097	
Alrosa Blvd	US 1	WB					1,171	1,097		
Selvitz Rd	Bayshore Blvd	Midway Rd	NB	Selvitz & Midway	742	419	0.68	0.36	426	240
	Bayshore Blvd	Midway Rd	SB	Selvitz & Midway	355	745	0.32	0.64	200	426
	Midway Rd	Glades Cut Off Rd	NB	Selvitz & Midway	677	389	0.66	0.45	696	527
	Midway Rd	Glades Cut Off Rd	SB	Selvitz & Midway	353	483	0.34	0.55	359	644
East Torino Pkwy	Midway Rd	Turtle Dove Ln	NB	Torino & Midway	966	502	0.65	0.39	1,030	625
	Midway Rd	Turtle Dove Ln	SB	Torino & Midway	515	784	0.35	0.61	555	978

Source: St. Lucie TPO Traffic Counts and Level of Service Report Fall/Winter 2019/2020

(1) St. Lucie County Comprehensive Plan

(2) 2 lane portion falls with background traffic, and conditioned for improvement

Note: Peak Direction Volumes from St. Lucie County Traffic Counts and LOS Report Fall/Winter 2019/2020

Links analyzed in tables 4a and 4b include the off peak volumes calculated using D factors in Appendix C.

(3) Selvitz to Christensen Rd/ Christensen to 25th St all one capacity

(4) 25th to Sunrise and Sunrise to Oleander same volume and capacity



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
2ND ST	CITRUS AVE to ORANGE AVE	601	2,167	2017	540	190	C	0.704	161	C	0.596
2ND ST	ORANGE AVE to AVENUE A	602	2,217	2017	540	142	C	0.526	133	C	0.493
7TH ST	SUNRISE BLVD to GEORGIA AVE	519	1,022	2019	600	67	C	0.223	75	C	0.250
7TH ST	GEORGIA AVE to DELAWARE AVE	517	1,680	2019	790	101	C	0.259	106	C	0.272
7TH ST	DELAWARE AVE to CITRUS AVE	515	2,567	2019	790	155	C	0.397	153	C	0.392
7TH ST	CITRUS AVE to ORANGE AVE	515	2,567	2019	750	155	C	0.419	153	C	0.414
7TH ST	ORANGE AVE to AVENUE C	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE C to AE BACKUS AVE	603	2,979	2016	540	204	C	0.756	225	C	0.833
7TH ST	AE BACKUS AVE to AVENUE D	603	2,979	2016	750	204	C	0.551	225	C	0.608
7TH ST	AVENUE D to AVENUE H	604	1,767	2017	750	116	C	0.314	113	C	0.305
10TH ST	DELAWARE AVE to ORANGE AVE	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	ORANGE AVE to AVENUE C	605	233	2017	600	25	C	0.083	24	C	0.080
10TH ST	AVENUE C to AVENUE D	605	233	2017	540	25	C	0.093	24	C	0.089
13TH ST	VIRGINIA AVE to NEBRASKA AVE	527	6,500	2020	750	401	D	0.535	420	D	0.560
13TH ST	NEBRASKA AVE to GEORGIA AVE	527	6,500	2020	790	401	D	0.508	420	D	0.532
13TH ST	GEORGIA AVE to DELAWARE AVE	525	4,746	2017	750	275	C	0.743	260	C	0.703
13TH ST	DELAWARE AVE to ORANGE AVE	523	3,886	2017	750	256	C	0.692	239	C	0.646
13TH ST	ORANGE AVE to AVENUE B	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE B to AVENUE D	521	2,776	2017	750	164	C	0.443	160	C	0.432
13TH ST	AVENUE D to AVENUE H	165	2,728	2017	750	163	C	0.441	151	C	0.408
13TH ST	AVENUE H to AVENUE I	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE I to AVENUE O	165	2,728	2017	540	163	C	0.604	151	C	0.559
13TH ST	AVENUE O to AVENUE Q	165	2,728	2017	540	163	C	0.604	151	C	0.559
17TH ST	GEORGIA AVE to DELAWARE AVE	606	3,233	2016	600	179	C	0.597	179	C	0.597
17TH ST	DELAWARE AVE to ORANGE AVE	607	6,200	2020	790	294	C	0.754	283	C	0.726

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
17TH ST	ORANGE AVE to AVENUE D	608	4,033	2016	750	236	C	0.638	225	C	0.608
17TH ST	AVENUE D to AVENUE O	608	4,033	2016	750	236	C	0.638	225	C	0.608
25TH ST	MIDWAY RD to BELL AVE	940016	18,275	2017	2,100	1,310	C	0.652	1,222	C	0.608
25TH ST	BELL AVE to EDWARDS RD	159	19,040	2019	2,100	1,056	C	0.525	1,053	C	0.524
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	22,049	2017	2,000	1,405	C	0.736	1,401	C	0.734
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	21,000	2020	2,000	1,182	C	0.619	1,261	C	0.660
25TH ST	VIRGINIA AVE to NEBRASKA AVE	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	20,801	2017	2,000	1,193	C	0.625	1,069	C	0.560
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	GEORGIA AVE to DELAWARE AVE	609	23,000	2020	1,630	1,196	D	0.734	1,159	D	0.711
25TH ST	DELAWARE AVE to ORANGE AVE	940014	19,612	2017	1,630	1,021	D	0.626	1,015	D	0.623
25TH ST	ORANGE AVE to AVENUE D	610	19,000	2020	1,630	877	D	0.538	904	D	0.555
25TH ST	AVENUE D to AVENUE O	940050	15,331	2017	1,630	807	D	0.495	784	D	0.481
25TH ST	AVENUE O to JUANITA AVE	945152	13,301	2017	2,000	752	C	0.394	689	C	0.361
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	14,647	2013	2,100	794	C	0.395	745	C	0.371
25TH ST	ST LUCIE BLVD to US 1	945165	5,924	2017	2,100	340	C	0.169	380	C	0.189
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	7,000	2020	750	419	D	0.559	368	C	0.995
33RD ST	DELAWARE AVE to ORANGE AVE	948507	4,991	2017	790	230	C	0.622	230	C	0.622
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,300	2020	540	497	D	0.920	406	D	0.752
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,300	2020	790	497	D	0.629	406	D	0.514
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,600	2016	750	279	C	0.754	280	C	0.757
53RD ST	ANGLE RD to JUANITA AVE	614	2,767	2016	540	148	C	0.548	163	C	0.604
AE BACKUS AVE	7TH ST to US 1	632	1,033	2017	750	70	C	0.189	81	C	0.219
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	15,500	2019	2,100	1,011	C	0.503	851	C	0.423

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
AIROSO BLVD	CROSTOWN PKWY to PRIMA VISTA BLVD	243	15,827	2017	2,100	789	C	0.393	807	C	0.401
AIROSO BLVD	PRIMA VISTA BLVD to FLORESTA DR	101	14,344	2017	2,000	751	C	0.393	760	C	0.398
AIROSO BLVD	FLORESTA DR to ST JAMES DR	301	21,000	2019	2,100	1,114	C	0.554	1,130	C	0.562
ANGLE RD	ORANGE AVE to AVENUE D	100	10,000	2020	790	513	D	0.649	490	D	0.620
ANGLE RD	AVENUE D to AVENUE Q	100	10,000	2020	540	513	D	0.950	490	D	0.907
ANGLE RD	AVENUE Q to 53RD ST	615	8,600	2020	600	508	D	0.847	521	D	0.868
ANGLE RD	53RD ST to KEEN RD	616	6,000	2020	630	319	C	0.532	357	C	0.595
ANGLE RD	KEEN RD to KINGS HWY	616	6,000	2020	880	319	C	0.384	357	C	0.430
ANGLE RD	KINGS HWY to JOHNSTON RD	617	3,267	2016	1,070	201	B	0.529	195	B	0.513
ANGLE RD	JOHNSTON RD to FLORIDA'S TURNPIKE	948505	707	2017	1,070	37	B	0.088	37	B	0.088
AVENUE A	7TH ST to US 1	945034	1,189	2017	790	136	C	0.349	136	C	0.349
AVENUE A	US 1 to INDIAN RIVER DR	945033	2,200	2017	600	147	C	0.490	136	C	0.453
AVENUE D	ANGLE RD to 29TH ST	164	3,683	2016	600	209	C	0.697	205	C	0.683
AVENUE D	29TH ST to 25TH ST	164	3,683	2016	790	209	C	0.536	205	C	0.526
AVENUE D	25TH ST to 17TH ST	163	4,289	2016	750	241	C	0.651	227	C	0.614
AVENUE D	17TH ST to 13TH ST	162	3,711	2016	750	171	C	0.462	185	C	0.500
AVENUE D	13TH ST to 10TH ST	161	2,118	2016	750	100	C	0.270	112	C	0.303
AVENUE D	10TH ST to 7TH ST	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE D	7TH ST to US 1	160	2,383	2016	750	119	C	0.322	129	C	0.349
AVENUE I	25TH ST to 17TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE I	17TH ST to 13TH ST	620	2,533	2016	750	218	C	0.589	171	C	0.462
AVENUE H	13TH ST to 7TH ST	618	1,583	2017	540	92	C	0.341	99	C	0.367
AVENUE H	7TH ST to US 1	619	1,233	2017	750	67	C	0.181	66	C	0.178
AVENUE Q	ANGLE RD to 25TH ST	700	5,700	2020	750	301	C	0.814	289	C	0.781
AVENUE Q	25TH ST to 17TH ST	701	3,937	2016	750	281	C	0.759	314	C	0.849

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
AVENUE O	17TH ST to 13TH ST	701	3,937	2016	540	281	D	0.520	314	D	0.581
AVENUE O	13TH ST to US 1	685	1,867	2017	540	105	C	0.389	108	C	0.400
AVENUE C	10TH ST to 7TH ST	631	350	2017	540	20	C	0.074	21	C	0.078
BAYSHORE BLVD	MOUNTWELL ST to PORT ST LUCIE BLVD	621	6,000	2019	830	373	C	0.478	324	C	0.415
BAYSHORE BLVD	PORT ST LUCIE BLVD to THORNHILL DR	309	28,260	2018	2,100	1,335	C	0.664	1,297	C	0.645
BAYSHORE BLVD	THORNHILL DR to CROSSTOWN PKWY	948508	22,081	2017	2,100	1,019	C	0.534	1,019	C	0.534
BAYSHORE BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	307	27,000	2019	2,100	1,394	C	0.694	1,356	C	0.675
BAYSHORE BLVD	PRIMA VISTA BLVD to FLORESTA DR	305	17,500	2019	920	829	C	0.953	858	C	0.986
BAYSHORE BLVD	FLORESTA DR to SELVITZ RD	622	13,000	2019	790	707	C	0.943	623	C	0.831
BAYSHORE BLVD	SELVITZ RD to 25TH ST	622	13,000	2019	750	707	D	0.943	623	D	0.831
BEACH AVE	OLEANDER AVE to RIO MAR DR	623	3,500	2017	540	247	C	0.915	211	C	0.781
BECKER RD	VILLAGE PKWY to I-95	624	2,500	2017	3,170	196	C	0.063	178	C	0.058
BECKER RD	I-95 to SAVONA BLVD	625	21,000	2019	2,000	1,809	C	0.947	1,616	C	0.846
BECKER RD	SAVONA BLVD to PORT ST LUCIE BLVD	626	18,000	2019	2,100	1,142	C	0.568	1,083	C	0.539
BECKER RD	ALBACORE ST to DARWIN BLVD	302	13,500	2019	1,500	863	C	0.603	842	C	0.589
BECKER RD	PORT ST LUCIE BLVD to ALBACORE ST	302	13,500	2019	2,100	863	C	0.429	842	C	0.419
BECKER RD	ATHENA DR to FLORIDA'S TURNPIKE	627	15,000	2019	1,500	1,320	C	0.923	1,244	C	0.870
BECKER RD	DARWIN BLVD to ATHENA DR	627	15,000	2019	2,000	1,320	C	0.691	1,244	C	0.651
BECKER RD	FLORIDA'S TURNPIKE to SOUTHBEND BLVD	628	20,000	2019	2,100	1,333	C	0.663	1,657	C	0.824
BECKER RD	SOUTHBEND BLVD to GILSON RD	629	15,000	2019	920	956	F	1.039	1,182	F	1.285
BELL AVE	25TH ST to SUNRISE BLVD	104	4,758	2019	790	313	C	0.803	326	C	0.836
BELL AVE	SUNRISE BLVD to OLEANDER AVE	102	3,854	2019	600	217	C	0.723	223	C	0.743
CASHMERE BLVD	PEACOCK BLVD to TORINO PKWY	676	10,159	2018	630	714	F	1.133	589	C	0.982
CALIFORNIA BLVD	CAMEO BLVD to DEL RIO BLVD	633	7,813	2018	750	503	D	0.671	429	D	0.572
CALIFORNIA BLVD	DEL RIO BLVD to SAVONA BLVD	634	14,000	2019	920	774	C	0.890	771	C	0.886

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
CALIFORNIA BLVD	SAVONA BLVD to DEL RIO BLVD	635	12,500	2019	920	800	C	0.920	788	C	0.906
CALIFORNIA BLVD	DEL RIO BLVD to CROSSTOWN PKWY	636	15,000	2019	920	946	F	1.028	952	F	1.035
CALIFORNIA BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	234	19,500	2019	920	962	F	1.046	1,085	F	1.179
CALIFORNIA BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	234	19,500	2019	920	962	F	1.046	1,085	F	1.179
CALIFORNIA BLVD	ST LUCIE WEST BLVD to COUNTRY CLUB DR	233	9,100	2019	920	488	C	0.561	484	C	0.556
CALIFORNIA BLVD	COUNTRY CLUB DR to UNIVERSITY BLVD	724	7,800	2019	790	531	C	0.708	466	C	0.621
CALIFORNIA BLVD	UNIVERSITY BLVD to PEACOCK BLVD	724	7,800	2019	630	531	C	0.885	466	C	0.777
CALIFORNIA BLVD	PEACOCK BLVD to TORINO PKWY	637	13,000	2019	630	968	F	1.537	821	F	1.303
CASHMERE BLVD	DEL RIO BLVD to CROSSTOWN PKWY	642	10,021	2018	920	698	C	0.802	627	C	0.721
CASHMERE BLVD	CROSSTOWN PKWY to HEATHERWOOD BLVD	232	13,000	2019	920	749	C	0.861	666	C	0.766
CASHMERE BLVD	HEATHERWOOD BLVD to ST LUCIE WEST BLVD	232	13,000	2019	920	749	C	0.861	666	C	0.766
CASHMERE BLVD	ST LUCIE WEST BLVD to PEACOCK BLVD	231	14,000	2019	920	1,141	F	1.240	1,099	F	1.195
CARLTON RD	CARLTON RD (S) to OKEECHOBEE RD	641	392	2017	390	34	B	0.155	31	B	0.141
CAMEO BLVD	PORT ST LUCIE BLVD to CALIFORNIA BLVD	638	4,600	2019	750	376	D	0.501	281	C	0.759
CAMEO BLVD	CALIFORNIA BLVD to CROSSTOWN PKWY	639	9,319	2018	790	673	D	0.852	536	D	0.678
CAMPBELL RD	PICOS RD to ORANGE AVE	640	533	2017	540	44	C	0.163	43	C	0.159
CANE SLOUGH RD	US 1 to LENNARD RD	167	9,772	2016	1,710	535	C	0.695	545	C	0.708
CITRUS AVE	7TH ST to US 1	643	1,083	2019	750	150	C	0.405	150	C	0.405
CITRUS AVE	US 1 to 2ND ST	940160	4,131	2017	790	246	C	0.631	251	C	0.644
CITRUS AVE	2ND ST to INDIAN RIVER DR	644	4,276	2016	540	261	C	0.967	263	C	0.974
COMMUNITY BLVD	WESTCLIFFE LN to TRADITION PKWY	647	5,317	2017	1,470	362	C	0.548	336	C	0.509
COMMERCE CENTER DR	CROSSTOWN PKWY to ST LUCIE WEST BLVD	645	5,819	2017	1,710	363	C	0.471	390	C	0.506
COMMERCE CENTER DR	ST LUCIE WEST BLVD to GLADES CUT-OFF RD	646	7,500	2019	540	400	D	0.741	460	D	0.852
CORTEZ BLVD	35TH ST to 25TH ST	948500	2,171	2017	750	105	C	0.284	105	C	0.284
CORTEZ BLVD	25TH ST to SUNRISE BLVD	648	2,950	2019	750	211	C	0.570	193	C	0.522

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
COUNTRY CLUB DR	ST LUCIE WEST BLVD to CALIFORNIA BLVD	725	8,300	2019	1,710	535	C	0.695	489	C	0.635
CROSSTOWN PKWY	COMMERCE CENTER DR to I-95	650	16,233	2016	3,170	1,008	C	0.326	865	C	0.280
CROSSTOWN PKWY	I-95 to CALIFORNIA BLVD	651	24,500	2020	3,170	1,290	C	0.417	1,244	C	0.403
CROSSTOWN PKWY	CALIFORNIA BLVD to CASHMERE BLVD	652	25,000	2020	3,170	1,299	C	0.420	1,395	C	0.451
CROSSTOWN PKWY	CASHMERE BLVD to CAMEO BLVD	653	26,500	2019	3,170	1,256	C	0.406	1,307	C	0.423
CROSSTOWN PKWY	CAMEO BLVD to BAYSHORE BLVD	654	30,500	2019	3,170	1,502	C	0.486	1,556	C	0.504
CROSSTOWN PKWY	BAYSHORE BLVD to AIROSO BLVD	655	25,000	2020	3,170	1,320	C	0.427	1,384	C	0.448
CROSSTOWN PKWY	AIROSO BLVD to SANDIA DR	656	5,400	2016	3,170	348	C	0.118	297	C	0.101
CROSSTOWN PKWY	SANDIA DR to MANTH LN	657	6,400	2016	3,170	344	C	0.117	360	C	0.122
CROSSTOWN PKWY	FLORESTA DR to US 1	658	19,000	2020	3,170	1,019	C	0.347	1,124	C	0.382
CROSSROADS PKWY	OKEECHOBEE RD to KINGS HWY	649	2,142	2017	790	108	C	0.277	107	C	0.274
DARWIN BLVD	BECKER RD to PAAR DR	235	7,298	2018	630	728	F	1.156	642	F	1.019
DARWIN BLVD	PAAR DR to TULIP BLVD	235	7,298	2018	920	728	C	0.837	642	C	0.738
DARWIN BLVD	TULIP BLVD to PORT ST LUCIE BLVD	659	13,500	2019	920	673	C	0.774	708	C	0.814
DEL RIO BLVD	PORT ST LUCIE BLVD to CALIFORNIA BLVD	311	8,100	2019	920	633	C	0.728	570	C	0.655
DEL RIO BLVD	CALIFORNIA BLVD to CASHMERE BLVD	660	8,400	2019	880	512	C	0.617	508	C	0.612
DEL RIO BLVD	CASHMERE BLVD to CALIFORNIA BLVD	661	4,800	2017	880	281	C	0.339	294	C	0.354
DELAWARE AVE	HARTMAN RD to 33RD ST	662	1,667	2016	600	259	C	0.863	208	C	0.693
DELAWARE AVE	33RD ST to 25TH ST	500	3,118	2017	1,710	207	C	0.269	237	C	0.308
DELAWARE AVE	25TH ST to OKEECHOBEE RD	948526	3,122	2017	1,220	144	C	0.197	144	C	0.197
DELAWARE AVE	OKEECHOBEE RD to 13TH ST	663	12,000	2020	790	657	D	0.832	611	D	0.773
DELAWARE AVE	13TH ST to 10TH ST	664	7,402	2017	750	497	D	0.663	411	D	0.548
DELAWARE AVE	10TH ST to 7TH ST	664	7,402	2017	600	497	D	0.828	411	D	0.685
DELAWARE AVE	7TH ST to US 1	665	7,200	2020	750	390	D	0.520	402	D	0.536
EAST TORINO PKWY	CASHMERE BLVD to TORINO PKWY	710	11,500	2020	830	716	C	0.918	653	C	0.837

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
EAST TORINO PKWY	TORINO PKWY to MIDWAY RD	237	14,500	2020	880	1,030	F	1,170	978	F	1,111
EASY ST	US 1 to BUCHANAN DR	106	8,029	2018	750	601	D	0.801	483	D	0.644
EASY ST	BUCHANAN DR to YUCCA DR	106	8,029	2018	540	601	F	1.036	483	D	0.894
EDWARDS RD	JENKINS RD to MCNEIL RD	174	11,500	2020	630	573	C	0.955	594	C	0.990
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	11,500	2020	700	573	C	0.868	594	C	0.900
EDWARDS RD	SELVITZ RD to 25TH ST	110	15,000	2020	880	755	C	0.910	771	C	0.929
EDWARDS RD	25TH ST to SUNRISE BLVD	108	16,697	2019	1,630	877	D	0.538	867	D	0.532
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	15,207	2019	1,630	754	D	0.463	735	D	0.451
EDWARDS RD	OLEANDER AVE to US 1	173	9,581	2019	1,630	527	C	0.722	460	C	0.630
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,876	2019	750	130	C	0.351	127	C	0.343
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	13,000	2019	920	900	D	0.978	687	C	0.790
FLORESTA DR	THORNHILL DR to CROSSTOWN PKWY	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	PORT ST LUCIE BLVD to THORNHILL DR	315	12,500	2019	880	810	C	0.976	738	C	0.889
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	11,000	2019	920	671	C	0.771	576	C	0.662
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	9,600	2019	920	559	C	0.643	601	C	0.691
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	4,467	2018	630	349	C	0.582	365	C	0.608
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	4,467	2018	880	349	C	0.420	365	C	0.440
FT PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,555	2019	540	267	C	0.989	273	D	0.506
GARDENIA AVE	OLEANDER AVE to US 1	666	2,817	2017	750	188	C	0.508	200	C	0.541
GATLIN BLVD	W OF I-95 to E OF I-95	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	E OF I-95 to SAVAGE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	40,641	2017	3,170	3,058	C	0.990	2,493	C	0.807
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,700	2020	600	290	C	0.967	262	C	0.873

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
GEORGIA AVE	OKEECHOBEE RD to 17TH ST	667	4,700	2020	750	290	C	0.784	262	C	0.708
GEORGIA AVE	17TH ST to 13TH ST	508	4,733	2019	600	264	C	0.880	268	C	0.893
GEORGIA AVE	13TH ST to 7TH ST	506	2,169	2019	600	134	C	0.447	137	C	0.457
GEORGIA AVE	7TH ST to US 1	504	1,938	2019	600	122	C	0.407	135	C	0.450
GILSON RD	MARTIN C.L. to BECKER RD	111	11,000	2019	710	949	F	1.249	954	F	1.255
GILSON RD	BECKER RD to LAKERIDGE DR	111	11,000	2019	540	949	F	1.636	954	F	1.645
GLADES CUT-OFF RD	RANGE LINE RD to RESERVE BLVD	668	2,833	2017	1,070	200	B	0.526	252	B	0.663
GLADES CUT-OFF RD	RESERVE BLVD to COMMERCE CENTER DR	119	3,585	2016	1,070	332	B	0.874	332	B	0.874
GLADES CUT-OFF RD	CARLTON RD to RANGE LINE RD	668	2,833	2017	390	200	B	0.909	252	C	0.646
GLADES CUT-OFF RD	COMMERCE CENTER DR to MIDWAY RD	940279	2,770	2017	920	210	C	0.241	192	C	0.221
GLADES CUT-OFF RD	MIDWAY RD to JENKINS RD	115	12,500	2020	790	669	D	0.847	687	D	0.870
GLADES CUT-OFF RD	JENKINS RD to SELVITZ RD	113	6,600	2020	830	370	C	0.474	385	C	0.494
GRAHAM RD	KINGS HWY to JENKINS RD	669	3,733	2017	630	255	C	0.425	243	C	0.405
GREEN RIVER PKWY	MARTIN C.L. to CHARLESTON DR	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	CHARLESTON DR to MELALEUCA BLVD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
GREEN RIVER PKWY	MELALEUCA BLVD to WALTON RD	319	4,759	2018	1,070	337	B	0.887	332	B	0.874
HARTMAN RD	OKEECHOBEE RD to PETERSON RD	670	5,867	2017	750	388	D	0.517	357	C	0.965
HARTMAN RD	PETERSON RD to DELAWARE AVE	670	5,867	2017	540	388	D	0.719	357	D	0.661
HARTMAN RD	DELAWARE AVE to ORANGE AVE	670	5,867	2017	790	388	C	0.995	357	C	0.915
HEADER CANAL RD	OKEECHOBEE RD to ORANGE AVE	121	560	2019	670	46	B	0.209	56	B	0.255
HILLMOOR DR	US 1 to LENNARD RD	671	5,900	2019	790	306	C	0.785	389	C	0.997
I-95	GATLIN BLVD to ST LUCIE WEST BLVD	941901	79,065	2017	4,580	4,048	C	0.884	3,657	C	0.798
I-95	ST LUCIE WEST BLVD to MIDWAY RD	941904	63,486	2017	4,580	3,571	C	0.780	3,079	B	0.916
I-95	MIDWAY RD to OKEECHOBEE RD	941902	75,846	2017	4,580	4,578	C	10	3,717	C	0.812
I-95	OKEECHOBEE RD to ORANGE AVE	941903	45,500	2009	7,320	1,822	B	0.405	1,894	B	0.421

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
I-95	ORANGE AVE to INDRIIO RD	941905	43,452	2017	7,320	2,090	B	0.464	1,924	B	0.428
INDIAN RIVER DR	CITRUS AVE to ORANGE AVE	945029	5,228	2017	750	311	C	0.841	356	C	0.962
INDIAN RIVER DR	ORANGE AVE to AVENUE A	940003	5,888	2017	750	344	C	0.930	335	C	0.905
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	5,971	2017	790	349	C	0.895	411	D	0.520
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	5,971	2017	540	349	D	0.646	411	D	0.761
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	951	2017	1,080	69	B	0.168	75	B	0.183
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	951	2017	3,240	69	B	0.038	75	B	0.041
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	10,455	2017	3,240	598	B	0.330	629	B	0.348
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	10,455	2017	700	598	C	0.906	629	C	0.953
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	10,455	2017	880	598	C	0.720	629	C	0.758
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	9,876	2017	920	595	C	0.684	501	C	0.576
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	9,876	2017	790	595	D	0.753	501	D	0.634
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	6,600	2020	790	422	D	0.534	413	D	0.523
INDRIO RD	SLASH PINE TRL to US 1	114	6,600	2020	920	422	C	0.485	413	C	0.475
INDRIO RD	US 1 to OLD DIXIE HWY	672	917	2016	750	64	C	0.173	86	C	0.232
JENNINGS RD	US 1 to LENNARD RD	673	4,600	2016	2,100	304	C	0.151	248	C	0.123
JENKINS RD	EDWARDS RD to OKFEECHOBEE RD	133	10,500	2020	880	549	C	0.661	553	C	0.666
JENKINS RD	OKFEECHOBEE RD to GRAHAM RD	131	10,500	2020	920	593	C	0.682	569	C	0.654
JENKINS RD	GRAHAM RD to PETERSON RD	131	10,500	2020	630	593	C	0.988	569	C	0.948
JENKINS RD	PETERSON RD to ORANGE AVE	131	10,500	2020	920	593	C	0.682	569	C	0.654
JOHNSTON RD	ANGLE RD to L20	674	2,600	2016	1,070	176	B	0.463	171	B	0.450
JOHNSTON RD	L20 to MEADOWOOD DR	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	MEADOWOOD DR to OLD JOHNSTON RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	OLD JOHNSTON RD to INDRIIO RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	INDRIIO RD to RUSSOS RD	135	9,600	2020	1,070	544	C	0.716	545	C	0.717

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	135	9,600	2020	1,070	544	C	0.716	545	C	0.717
JUANITA AVE	53RD ST to 25TH ST	122	2,432	2017	750	157	C	0.424	143	C	0.386
JUANITA AVE	25TH ST to US 1	120	3,321	2017	750	185	C	0.500	182	C	0.492
KEEN RD	ANGLE RD to JUANITA AVE	129	2,885	2019	630	174	C	0.290	203	C	0.338
KEEN RD	JUANITA AVE to ST LUCIE BLVD	129	2,885	2019	630	174	C	0.290	203	C	0.338
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	940757	8,234	2017	830	361	C	0.435	369	C	0.445
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	940757	8,234	2017	660	361	C	0.547	369	C	0.559
KINGS HWY	GRAHAM RD to PICOS RD	940076	8,216	2017	660	405	C	0.614	389	C	0.589
KINGS HWY	PICOS RD to ORANGE AVE	940076	8,216	2017	830	405	C	0.488	389	C	0.469
KINGS HWY	ORANGE AVE to ANGLE RD	940077	16,792	2017	870	885	D	0.962	890	D	0.967
KINGS HWY	ANGLE RD to ST LUCIE BLVD	940751	11,394	2017	830	627	C	0.755	630	C	0.759
KINGS HWY	ST LUCIE BLVD to INDRIO RD	940006	13,481	2017	830	836	D	0.950	786	C	0.947
KITTERMAN RD	OLEANDER AVE to US 1	124	3,402	2018	750	224	C	0.605	203	C	0.549
KITTERMAN RD	US 1 to LENNARD EXT	678	2,250	2017	750	128	C	0.346	130	C	0.351
KIRBY LOOP RD	EDWARDS RD to 35TH ST	677	4,479	2016	630	296	C	0.493	362	C	0.603
LENNARD RD	US 1 to MARIPOSA AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MARIPOSA AVE to MELALEUCA BLVD	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	MELALEUCA BLVD to JENNINGS RD	325	18,500	2019	1,630	953	D	0.585	984	D	0.604
LENNARD RD	JENNINGS RD to HILLMOOR DR	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	HILLMOOR DR to TIFFANY AVE	325	18,500	2019	1,710	953	D	0.557	984	D	0.575
LENNARD RD	TIFFANY AVE to WALTON RD	323	5,765	2016	1,710	301	C	0.391	305	C	0.396
LENNARD RD	WALTON RD to S OF SAVANNA CLUB BLVD	679	4,455	2016	790	390	C	10	381	C	0.977
LYNGATE DR	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	306	9,400	2020	920	588	C	0.676	626	C	0.720
LYNGATE DR	MORNINGSIDE BLVD to US 1	306	9,400	2020	920	588	C	0.676	626	C	0.720
MARIPOSA AVE	LENNARD RD to HALLAHAN ST	166	6,400	2019	880	485	C	0.584	686	C	0.827

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
MCNEIL RD	OKEECHOBEE RD to KIRBY LOOP RD	682	4,600	2020	790	281	C	0.721	280	C	0.718
MCNEIL RD	KIRBY LOOP RD to EDWARDS RD	682	4,600	2020	540	281	D	0.520	280	D	0.519
MCCARTY RD	WILLIAMS RD to MIDWAY RD	680	375	2017	540	33	C	0.122	35	C	0.130
MCCARTY RD	MIDWAY RD to OKEECHOBEE RD	681	400	2020	540	34	C	0.126	35	C	0.130
MELALEUCA BLVD	LENNARD RD to GREEN RIVER PKWY	683	9,804	2018	920	648	C	0.745	584	C	0.671
MIDWAY RD	EAST TORINO PKWY to MILNER DR	134	22,500	2020	880	1,216	F	1.382	1,304	F	1.482
MIDWAY RD	MILNER DR to W OF SELVITZ RD	134	22,500	2020	790	1,216	F	1.539	1,304	F	1.651
MIDWAY RD	OKEECHOBEE RD to SHINN RD	940732	5,118	2017	760	295	C	0.440	376	C	0.561
MIDWAY RD	SHINN RD to MCCARTY RD	940732	5,118	2017	630	295	C	0.492	376	C	0.627
MIDWAY RD	MCCARTY RD to I-95	940732	5,118	2017	700	295	C	0.447	376	C	0.570
MIDWAY RD	I-95 to GLADES CUT-OFF RD	945140	16,655	2017	2,100	926	C	0.461	1,027	C	0.511
MIDWAY RD	GLADES CUT-OFF RD to EAST TORINO PKWY	228	21,500	2020	2,100	1,226	C	0.610	1,281	C	0.637
MIDWAY RD	W OF SELVITZ RD to SELVITZ RD	134	22,500	2020	920	1,216	F	1.322	1,304	F	1.417
MIDWAY RD	SELVITZ RD to CHRISTENSEN RD	132	18,500	2020	920	973	F	1.058	940	F	1.022
MIDWAY RD	CHRISTENSEN RD to 25TH ST	132	18,500	2020	790	973	F	1.158	940	F	1.119
MIDWAY RD	25TH ST to SUNRISE BLVD	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	SUNRISE BLVD to OLEANDER AVE	130	18,791	2016	790	1,025	F	1.220	942	F	1.121
MIDWAY RD	OLEANDER AVE to US 1	242	15,309	2016	790	808	E	0.962	800	E	0.952
MIDWAY RD	US 1 to WALLACE ST	940023	3,709	2017	790	287	C	0.736	317	C	0.813
MIDWAY RD	WALLACE ST to WEATHERBEE RD	940023	3,709	2017	920	287	C	0.330	317	C	0.364
MIDWAY RD	WEATHERBEE RD to INDIAN RIVER DR	940023	3,709	2017	630	287	C	0.478	317	C	0.528
MORNINGSIDE BLVD	WESTMORELAND BLVD to PORT ST LUCIE BLVD	333	2,654	2017	920	159	C	0.183	152	C	0.175
MORNINGSIDE BLVD	PORT ST LUCIE BLVD to LYNNGATE DR	331	2,900	2020	880	230	C	0.277	244	C	0.294
NEBRASKA AVE	25TH ST to 13TH ST	684	3,767	2017	1,710	234	C	0.304	197	C	0.256
OAKRIDGE DR	MOUNTWELL ST to OAKLYN ST	621	6,000	2019	700	373	C	0.565	324	C	0.491

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OHIO AVE	SUNRISE BLVD to COLONIAL RD	686	4,250	2017	540	252	C	0.933	246	C	0.911
OHIO AVE	COLONIAL RD to US 1	686	4,250	2017	750	252	C	0.681	246	C	0.665
OKEECHOBEE RD	OKEECHOBEE C.L. to BLUEFIELD RD	687	10,500	2020	1,010	540	B	0.535	528	B	0.523
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	10,500	2020	1,270	540	B	0.425	528	B	0.416
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,541	2017	1,340	348	B	0.260	340	B	0.254
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,541	2017	1,740	348	B	0.200	340	B	0.195
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	6,025	2017	1,810	327	B	0.181	327	B	0.181
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	7,551	2017	1,810	378	B	0.209	391	B	0.216
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	7,551	2017	2,010	378	C	0.188	391	C	0.195
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	21,250	2017	4,170	960	C	0.230	1,013	C	0.243
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	24,585	2017	4,170	1,063	C	0.255	1,086	C	0.260
OKEECHOBEE RD	I-95 to JENKINS RD	940029	30,244	2017	4,240	1,976	C	0.474	1,709	C	0.410
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	30,244	2017	4,040	1,976	C	0.498	1,709	C	0.430
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	28,870	2017	3,170	1,580	C	0.511	1,649	C	0.534
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2020	2,100	687	C	0.342	727	C	0.362
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2020	1,630	687	C	0.941	727	C	0.996
OKEECHOBEE RD	35TH ST to 33RD ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	33RD ST to 25TH ST	689	17,000	2020	1,630	922	D	0.566	902	D	0.553
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	13,500	2020	1,630	777	D	0.477	738	D	0.453
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	13,500	2020	1,710	777	D	0.454	738	C	0.958
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	5,150	2017	790	400	D	0.506	363	C	0.931
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,383	2017	750	65	C	0.176	65	C	0.176

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,041	2016	790	150	C	0.385	116	C	0.297
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,227	2017	870	57	C	0.069	57	C	0.069
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,900	2017	540	175	C	0.648	193	C	0.715
OLEANDER AVE	KITTERMAN RD to MIDWAY RD	141	6,498	2017	750	406	D	0.541	426	D	0.568
OLEANDER AVE	MIDWAY RD to WEATHERBEE RD	139	7,100	2020	750	388	D	0.517	421	D	0.561
OLEANDER AVE	WEATHERBEE RD to BELL AVE	139	7,100	2020	540	388	D	0.719	421	D	0.780
OLEANDER AVE	BELL AVE to FARMER'S MARKET RD	240	12,500	2020	540	671	F	1.157	647	F	1.116
OLEANDER AVE	FARMER'S MARKET RD to EDWARDS RD	240	12,500	2020	750	671	D	0.895	647	D	0.863
OLEANDER AVE	EDWARDS RD to WISTERIA AVE	505	10,000	2020	750	611	D	0.815	554	D	0.739
OLEANDER AVE	WISTERIA AVE to GARDENIA AVE	505	10,000	2020	540	611	F	1.053	554	E	0.955
OLEANDER AVE	GARDENIA AVE to VIRGINIA AVE	505	10,000	2020	790	611	D	0.773	554	D	0.701
OLEANDER AVE	VIRGINIA AVE to SUNRISE BLVD	503	4,561	2019	600	259	C	0.863	270	C	0.900
ORANGE AVE	OKEECHOBEE C.L. to SNEED RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SNEED RD to HEADER CANAL RD	144	4,780	2019	390	300	C	0.769	293	C	0.751
ORANGE AVE	SHINN RD to CAMPBELL RD	940144	2,722	2017	380	149	B	0.355	149	B	0.355
ORANGE AVE	CAMPBELL RD to KINGS HWY	940144	2,722	2017	1,070	149	B	0.355	149	B	0.355
ORANGE AVE	KINGS HWY to I-95	940041	18,112	2017	2,000	780	C	0.388	786	C	0.391
ORANGE AVE	I-95 to JENKINS RD	940035	14,009	2017	2,000	962	C	0.479	905	C	0.450
ORANGE AVE	JENKINS RD to HARTMAN RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	HARTMAN RD to ANGLE RD	940028	14,189	2017	2,000	764	C	0.380	710	C	0.353
ORANGE AVE	ANGLE RD to 25TH ST	940151	10,749	2013	1,710	847	D	0.495	985	D	0.576
ORANGE AVE	25TH ST to 17TH ST	945040	13,196	2017	1,630	690	C	0.945	757	D	0.464
ORANGE AVE	17TH ST to 13TH ST	945040	13,196	2017	1,710	690	C	0.896	757	C	0.983
ORANGE AVE	13TH ST to 10TH ST	945040	13,196	2017	370	690	D	0.920	757	E	0.946
ORANGE AVE	10TH ST to 7TH ST	940155	8,760	2017	300	443	D	0.738	509	D	0.848

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
ORANGE AVE	7TH ST to US 1	945134	7,219	2017	300	460	D	0.767	409	D	0.682
ORANGE AVE	US 1 to 2ND ST	945133	3,645	2017	300	232	C	0.773	227	C	0.757
ORANGE AVE	2ND ST to INDIAN RIVER DR	945133	3,645	2017	370	232	C	0.627	227	C	0.614
PARR DR	PORT ST LUCIE BLVD to DARWIN BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	DARWIN BLVD to TULIP BLVD	723	1,900	2019	540	167	C	0.619	126	C	0.467
PARR DR	SAVONA BLVD to PORT ST LUCIE BLVD	209	1,108	2016	700	81	C	0.123	71	C	0.108
PARR DR	ROSSER BLVD to SAVONA BLVD	209	1,108	2016	630	81	C	0.135	71	C	0.118
PEACOCK BLVD	CALIFORNIA BLVD to CASHMERE BLVD	693	4,717	2017	630	408	C	0.680	340	C	0.567
PEACOCK BLVD	UNIVERSITY BLVD to CALIFORNIA BLVD	694	10,000	2019	920	746	C	0.857	634	C	0.729
PEACOCK BLVD	ST LUCIE WEST BLVD to UNIVERSITY BLVD	948514	15,534	2017	2,100	717	C	0.375	717	C	0.375
PETERSON RD	BENT CREEK DR to HARTMAN RD	695	1,183	2017	540	94	C	0.348	80	C	0.296
PICOS RD	CAMPBELL RD to KINGS HWY	696	1,333	2017	540	92	C	0.341	86	C	0.319
PORT ST LUCIE BLVD	MARTIN C.L. to BECKER RD	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	BECKER RD to PAAR DR	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	PAAR DR to TULIP BLVD	948519	15,868	2017	700	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	TULIP BLVD to DARWIN BLVD	948519	15,868	2017	920	732	C	0.882	732	C	0.882
PORT ST LUCIE BLVD	DARWIN BLVD to GATLIN BLVD	697	32,000	2019	3,020	1,720	C	0.585	1,731	C	0.589
PORT ST LUCIE BLVD	GATLIN BLVD to DEL RIO BLVD	698	38,000	2019	3,170	2,215	C	0.717	1,957	C	0.633
PORT ST LUCIE BLVD	DEL RIO BLVD to CAMEO BLVD	945074	47,644	2017	3,170	3,186	F	1.01	2,892	C	0.936
PORT ST LUCIE BLVD	CAMEO BLVD to FLORIDA'S TURNPIKE	945074	47,644	2017	3,020	3,186	F	1.055	2,892	C	0.984
PORT ST LUCIE BLVD	FLORIDA'S TURNPIKE to BAYSHORE BLVD	945074	47,644	2017	3,170	3,186	F	1.01	2,892	C	0.936
PORT ST LUCIE BLVD	BAYSHORE BLVD to AIROSO BLVD	945073	48,955	2017	3,020	3,094	F	1.025	3,065	F	1.015
PORT ST LUCIE BLVD	AIROSO BLVD to FLORESTA DR	940780	49,175	2017	3,020	3,027	F	1	2,653	C	0.902
PORT ST LUCIE BLVD	FLORESTA DR to VETERANS MEMORIAL PKWY	940778	61,616	2017	3,020	4,415	F	1.462	3,293	F	1.090
PORT ST LUCIE BLVD	VETERANS MEMORIAL PKWY to MORNINGSIDE BLVD	940776	41,526	2017	3,020	2,499	C	0.850	2,217	C	0.754

* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
 * Volumes shown were adjusted using FDOT Seasonal Factors
 * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
 * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
PORT ST LUCIE BLVD	MORNINGSIDE BLVD to US 1	945072	40,456	2017	3,170	3,072	C	0.994	1,916	C	0.620
PRIMA VISTA BLVD	BAYSHORE BLVD to AIROSO BLVD	314	21,500	2020	2,100	944	C	0.470	1,005	C	0.500
PRIMA VISTA BLVD	AIROSO BLVD to FLORESTA DR	150	25,425	2018	2,100	1,171	C	0.583	1,097	C	0.546
PRIMA VISTA BLVD	FLORESTA DR to NARANJA AVE	148	26,500	2019	2,100	1,514	C	0.753	1,408	C	0.700
PRIMA VISTA BLVD	NARANJA AVE to RIO MAR DR	148	26,500	2019	2,000	1,514	C	0.793	1,408	C	0.737
PRIMA VISTA BLVD	RIO MAR DR to US 1	146	26,283	2018	2,100	1,278	C	0.636	1,165	C	0.580
PRIMA VISTA BLVD	US 1 to LENNARD RD	699	7,400	2017	1,710	449	C	0.583	452	C	0.587
RANGE LINE RD	MARTIN C.L. to BECKER RD	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RANGE LINE RD	BECKER RD to 2 MI S OF GLADES CUT-OFF RD	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RANGE LINE RD	2 MI S OF GLADES CUT-OFF RD to GLADES CUT-OFF...	145	1,780	2019	1,080	119	B	0.290	119	B	0.290
RIO MAR DR	PRIMA VISTA BLVD to BEACH AVE	147	6,600	2020	750	408	D	0.544	429	D	0.572
RIO MAR DR	BEACH AVE to US 1	147	6,600	2020	790	408	D	0.516	429	D	0.543
ROSSER BLVD	APRICOT RD to GATLIN BLVD	948510	3,425	2017	920	158	C	0.19	158	C	0.19
ROSSER BLVD	PAAR DR to APRICOT RD	948510	3,425	2017	1,070	158	B	0.376	158	B	0.376
SAVONA BLVD	BECKER RD to PAAR DR	236	9,800	2019	790	893	F	1.063	796	E	0.948
SAVONA BLVD	PAAR DR to GATLIN BLVD	236	9,800	2019	750	893	F	1.116	796	E	0.995
SAVONA BLVD	GATLIN BLVD to CALIFORNIA BLVD	702	14,500	2019	790	787	D	0.996	732	D	0.927
SAVAGE BLVD	GATLIN BLVD to GALIANO RD	168	3,922	2018	920	258	C	0.297	208	C	0.239
SAVANNAH RD	US 1 to INDIAN RIVER DR	514	2,188	2019	540	155	C	0.574	153	C	0.567
SELVITZ RD	BAYSHORE BLVD to ST JAMES BLVD	948501	8,756	2017	750	426	D	0.568	426	D	0.568
SELVITZ RD	ST JAMES BLVD to MIDWAY RD	948501	8,756	2017	750	426	D	0.568	426	D	0.568
SELVITZ RD	MIDWAY RD to GLADES CUT-OFF RD	703	10,400	2019	700	696	D	0.994	644	C	0.976
SELVITZ RD	GLADES CUT-OFF RD to EDWARDS RD	704	14,000	2020	790	787	D	0.996	752	D	0.952
SHINN RD	MIDWAY RD to OKEECHOBEE RD	705	775	2017	580	51	C	0.100	49	C	0.096
SHINN RD	OKEECHOBEE RD to ORANGE AVE	149	819	2019	1,080	62	B	0.151	62	B	0.151

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
SNEED RD	OKFEECHOBEE RD to ORANGE AVE	151	1,079	2019	670	68	B	0.309	83	B	0.377
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	337	16,000	2019	790	931	F	1.108	971	F	1.156
SR A1A NORTH	US 1 to OLD DIXIE HWY	940709	6,370	2017	920	430	C	0.494	430	C	0.494
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	706	10,500	2020	2,000	558	C	0.641	621	C	0.714
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	940114	8,090	2017	920	435	C	0.500	477	C	0.548
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	940719	5,507	2017	920	337	C	0.387	302	C	0.347
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	940116	3,825	2017	700	457	C	0.692	367	C	0.556
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	945016	7,908	2017	600	427	D	0.712	511	D	0.852
SR A1A SOUTH	OCEAN DR to BINNEY DR	940115	13,023	2017	600	648	F	1.012	678	F	1.059
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	940115	13,023	2017	790	648	D	0.820	678	D	0.858
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	940711	11,974	2017	1,550	659	C	0.955	596	C	0.864
SR A1A SOUTH	INDIAN RIVER DR to US 1	940711	11,974	2017	1,710	659	C	0.856	596	C	0.774
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	172	16,500	2020	2,100	1,129	C	0.562	1,088	C	0.541
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	239	19,000	2020	2,100	1,345	C	0.669	1,301	C	0.647
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	172	16,500	2020	1,800	1,129	C	0.656	1,088	C	0.633
ST JAMES DR	TELFORD AVE to MIDWAY RD	345	19,500	2020	2,100	1,188	C	0.591	1,173	C	0.584
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	707	4,750	2017	790	279	C	0.715	275	C	0.705
ST LUCIE BLVD	KINGS HWY to KEEN RD	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	KEEN RD to 25TH ST	156	5,710	2019	880	310	C	0.373	407	C	0.490
ST LUCIE BLVD	25TH ST to SENECA AVE	940270	3,819	2017	750	195	C	0.527	199	C	0.538
ST LUCIE BLVD	SENECA AVE to US 1	940270	3,819	2017	790	195	C	0.500	199	C	0.510
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	152	13,500	2019	700	662	D	0.946	683	D	0.976
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	318	36,000	2019	2,100	1,722	C	0.857	1,670	C	0.831

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



Coco Vista Centre
 466 SW Port St. Lucie Blvd, Suite 111
 Port St. Lucie, FL 34953
 772-462-1593 www.stlucietpo.org

**Traffic Counts and Level of Service Report
 Fall/Winter 2019/2020**

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	316	46,000	2019	3,170	2,446	C	0.792	2,308	C	0.747
SUNRISE BLVD	MIDWAY RD to BELL AVE	155	3,590	2016	540	249	C	0.922	233	C	0.863
SUNRISE BLVD	BELL AVE to EDWARDS RD	153	3,814	2016	750	253	C	0.684	286	C	0.773
SUNRISE BLVD	EDWARDS RD to CORTEZ BLVD	511	7,300	2020	600	647	F	1.011	515	D	0.858
SUNRISE BLVD	CORTEZ BLVD to VIRGINIA AVE	511	7,300	2020	750	647	D	0.863	515	D	0.687
SUNRISE BLVD	VIRGINIA AVE to OLEANDER AVE	509	5,300	2020	750	417	D	0.556	411	D	0.548
SUNRISE BLVD	OLEANDER AVE to 7TH ST	708	3,900	2017	1,540	243	C	0.352	282	C	0.409
SUNRISE BLVD	7TH ST to US 1	708	3,900	2017	1,710	243	C	0.316	282	C	0.366
TIFFANY AVE	US 1 to HILLMOOR DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	HILLMOOR DR to VILLAGE GREEN DR	322	15,000	2019	2,100	855	C	0.425	862	C	0.429
TIFFANY AVE	VILLAGE GREEN DR to LENNARD RD	320	4,666	2017	2,100	242	C	0.120	261	C	0.130
TORINO PKWY	CASHMERE BLVD to CALIFORNIA BLVD	709	7,800	2018	630	404	C	0.673	443	C	0.738
TORINO PKWY	CALIFORNIA BLVD to EAST TORINO PKWY	238	4,314	2018	630	255	C	0.425	223	C	0.372
TRADITION PKWY	COMMUNITY BLVD to VILLAGE PKWY	711	8,367	2018	1,710	996	D	0.582	1,144	D	0.669
TRADITION PKWY	VILLAGE PKWY to W OF I-95	712	36,500	2019	3,170	2,021	C	0.654	1,924	C	0.623
TULIP BLVD	DARWIN BLVD to PORT ST LUCIE BLVD	713	8,200	2019	790	524	D	0.663	456	D	0.577
TULIP BLVD	PORT ST LUCIE BLVD to PAAR DR	714	9,133	2018	790	639	D	0.809	493	D	0.624
TULIP BLVD	PAAR DR to DARWIN BLVD	714	9,133	2018	790	639	D	0.809	493	D	0.624
TURNPIKE FEEDER RD	TURNPIKE FEEDER RD SB RAMP to US 1	940078	4,989	2015	660	653	C	0.989	653	C	0.989
TURNPIKE FEEDER RD	INDIAN PINES BLVD to TURNPIKE FEEDER RD SB R...	940269	10,253	2017	870	676	C	0.777	620	C	0.713
TURNPIKE FEEDER RD	INDRIO RD to INDIAN PINES BLVD	940745	12,876	2017	870	696	C	0.800	732	C	0.841
US 1	MARTIN C.L. to LENNARD RD	945071	41,817	2017	4,240	1,904	C	0.457	2,239	C	0.537
US 1	LENNARD RD to PORT ST LUCIE BLVD	945071	41,817	2017	4,040	1,904	C	0.480	2,239	C	0.564
US 1	PORT ST LUCIE BLVD to JENNINGS RD	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545
US 1	JENNINGS RD to TIFFANY AVE	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593
www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	TIFFANY AVE to WALTON RD	945070	31,458	2017	3,020	1,510	C	0.514	1,603	C	0.545
US 1	WALTON RD to VILLAGE GREEN DR	945150	43,634	2017	3,020	2,364	C	0.804	2,119	C	0.721
US 1	VILLAGE GREEN DR to SPANISH LAKES BLVD	940265	47,369	2017	3,170	2,516	C	0.814	2,356	C	0.762
US 1	SPANISH LAKES BLVD to PRIMA VISTA BLVD	940265	47,369	2017	3,170	2,516	C	0.814	2,356	C	0.762
US 1	PRIMA VISTA BLVD to RIO MAR DR	940264	36,624	2017	3,170	1,694	C	0.548	1,667	C	0.539
US 1	RIO MAR DR to KITTERMAN RD	940266	30,753	2017	3,170	1,503	C	0.486	1,361	C	0.440
US 1	KITTERMAN RD to S OF SAEGER AVE	940266	30,753	2017	3,020	1,503	C	0.511	1,361	C	0.463
US 1	S OF SAEGER AVE to EASY ST	940266	30,753	2017	3,170	1,503	C	0.486	1,361	C	0.440
US 1	EASY ST to MIDWAY RD	945156	29,579	2017	3,170	1,379	C	0.446	1,340	C	0.434
US 1	MIDWAY RD to WEATHERBEE RD	940012	27,675	2017	2,100	1,300	C	0.647	1,316	C	0.655
US 1	WEATHERBEE RD to FARMER'S MARKET RD	940012	27,675	2017	2,000	1,300	C	0.681	1,316	C	0.689
US 1	FARMER'S MARKET RD to EDWARDS RD	940012	27,675	2017	2,000	1,300	C	0.681	1,316	C	0.689
US 1	EDWARDS RD to SAVANNAH RD	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	GARDENIA AVE to VIRGINIA AVE	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	SAVANNAH RD to GARDENIA AVE	945002	26,196	2017	2,000	1,200	C	0.628	1,177	C	0.616
US 1	VIRGINIA AVE to OHIO AVE	945003	23,845	2017	2,000	1,148	C	0.601	1,157	C	0.606
US 1	OHIO AVE to GEORGIA AVE	945003	23,845	2017	1,630	1,148	D	0.704	1,157	D	0.710
US 1	GEORGIA AVE to DELAWARE AVE	945008	21,107	2017	1,630	1,088	D	0.667	1,040	D	0.638
US 1	DELAWARE AVE to CITRUS AVE	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	CITRUS AVE to ORANGE AVE	940118	20,283	2017	1,630	1,009	D	0.619	910	D	0.558
US 1	ORANGE AVE to AVENUE A	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AVENUE A to AE BACKUS AVE	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AE BACKUS AVE to AVENUE D	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	AVENUE D to SR A1A SOUTH	945014	24,706	2017	1,630	1,252	D	0.768	1,220	D	0.748
US 1	SR A1A SOUTH to AVENUE H	715	33,500	2020	2,100	1,766	C	0.879	1,742	C	0.867

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

Traffic Counts and Level of Service Report
Fall/Winter 2019/2020

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
US 1	AVENUE H to OLD DIXIE HWY	715	33,500	2020	2,000	1,766	C	0.925	1,742	C	0.912
US 1	OLD DIXIE HWY to AVENUE O	940123	22,051	2017	2,000	1,530	C	0.801	1,196	C	0.626
US 1	AVENUE O to SR A1A NORTH	940123	22,051	2017	2,100	1,530	C	0.761	1,196	C	0.595
US 1	SR A1A NORTH to JUANITA AVE	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	JUANITA AVE to ST LUCIE BLVD	940010	17,583	2017	2,100	1,055	C	0.525	845	C	0.420
US 1	ST LUCIE BLVD to 25TH ST	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	25TH ST to INDRIQ RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIQ RD to TURNPIKE FEEDER RD	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
US 1	TURNPIKE FEEDER RD to INDIAN RIVER C.L.	940107	20,188	2017	2,100	1,099	C	0.547	1,092	C	0.543
VETERANS MEMORIAL PKWY	PORT ST LUCIE BLVD to LYNGATE DR	329	14,500	2019	2,100	779	C	0.388	817	C	0.406
VETERANS MEMORIAL PKWY	LYNGATE DR to US 1	327	14,911	2017	2,100	756	C	0.376	804	C	0.400
VILLAGE GREEN DR	US 1 to WALTON RD	716	9,600	2017	2,100	619	C	0.308	575	C	0.286
VILLAGE GREEN DR	WALTON RD to TIFFANY AVE	717	4,633	2017	920	249	C	0.286	235	C	0.270
VIRGINIA AVE	35TH ST to 25TH ST	940032	21,557	2017	3,020	1,111	C	0.378	1,083	C	0.368
VIRGINIA AVE	OKEECHOBEE RD to HARTMAN RD	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	HARTMAN RD to 35TH ST	940030	22,011	2017	3,020	1,169	C	0.398	1,126	C	0.383
VIRGINIA AVE	25TH ST to 13TH ST	940033	20,913	2017	3,020	1,093	C	0.372	1,164	C	0.396
VIRGINIA AVE	13TH ST to 11TH ST	940794	22,873	2017	3,020	1,101	C	0.374	1,101	C	0.374
VIRGINIA AVE	11TH ST to SUNRISE BLVD	940794	22,873	2017	3,170	1,101	C	0.356	1,101	C	0.356
VIRGINIA AVE	SUNRISE BLVD to OLEANDER AVE	940792	19,519	2017	3,020	1,063	C	0.362	992	C	0.337
VIRGINIA AVE	OLEANDER AVE to COLONIAL RD	940034	18,483	2017	3,170	1,043	C	0.338	1,020	C	0.330
VIRGINIA AVE	COLONIAL RD to US 1	940034	18,483	2017	3,020	1,043	C	0.355	1,020	C	0.347
VILLAGE PKWY	DISCOVERY WAY to TRADITION PKWY	718	14,000	2019	2,650	732	C	0.595	797	C	0.648
VILLAGE PKWY	BECKER RD to DISCOVERY WAY	718	14,000	2019	1,710	732	C	0.951	797	D	0.466
VILLAGE PKWY	TRADITION PKWY to WESTCLIFFE LN	719	23,000	2019	1,710	1,208	D	0.706	1,265	D	0.740

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.



**Traffic Counts and Level of Service Report
Fall/Winter 2019/2020**

Coco Vista Centre
466 SW Port St. Lucie Blvd, Suite 111
Port St. Lucie, FL 34953
772-462-1593 www.stlucietpo.org

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
VILLAGE PKWY	WESTCLIFFE LN to CROSSROADS PKWY	720	12,000	2019	1,540	640	C	0.928	634	C	0.919
WALTON RD	US 1 to VILLAGE GREEN DR	330	15,156	2019	1,710	915	D	0.535	841	D	0.492
WALTON RD	VILLAGE GREEN DR to LENNARD RD	328	13,000	2019	1,710	690	C	0.896	684	C	0.888
WALTON RD	LENNARD RD to GREEN RIVER PKWY	326	9,382	2018	880	569	C	0.686	627	C	0.755
WALTON RD	GREEN RIVER PKWY to INDIAN RIVER DR	324	5,402	2018	630	416	C	0.693	430	C	0.717
WESTCLIFFE LN	TREMONTE AVE to VILLAGE PKWY	722	6,267	2018	1,470	439	C	0.665	338	C	0.512
WEATHERBEE RD	OLEANDER AVE to US 1	721	3,574	2019	750	265	C	0.716	242	C	0.654
WEATHERBEE RD	US 1 to MIDWAY RD	158	6,300	2020	750	431	D	0.575	461	D	0.615
WESTMORELAND BLVD	MORNINGSIDE BLVD to PORT ST LUCIE BLVD	339	13,000	2019	920	685	C	0.787	729	C	0.838
WESTMORELAND BLVD	MARTIN C.L. to MORNINGSIDE BLVD	245	9,700	2019	920	540	C	0.621	598	C	0.687

Countywide Performance

Weighted V/C = **0.69**

% VMT below Standard = **8.04%**

- * Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT
- * Volumes shown were adjusted using FDOT Seasonal Factors
- * AADT = Annual Average Daily Traffic (volumes for both directions where applicable)
- * Counts with an ID format of 6 digits have data extracted from FDOT count stations.

MIDWAY ROAD FROM GLADES CUT OFF ROAD TO SELVITZ ROAD - RESERVE

4385431 Non-SIS



Project Description: FUNDING ACTION
Extra Description: 2019 TPO PRIORITY #2 RESERVE FOR FM 231440-3
Lead Agency: MANAGED BY FDOT
Length: 0
Phase Group: CONSTRUCTION
From: GLADES CUT OFF ROAD
To: SELVITZ ROAD

Phase	Fund Code	2020	2021	2022	2023	2024	Total
CST	SA	0	0	0	0	1,000,000	1,000,000
CST	SU	0	0	0	0	1,000,000	1,000,000
						2,000,000	2,000,000

Map data ©2019 Google
 Prior Year Cost: 0
 Future Year Cost: 0
 Total Project Cost: 2,000,000
 L RTP: Page 6-5

Notes

**I-95 NORTHBOUND AND SOUTHBOUND OFF-RAMPS AT MIDWAY ROAD
4397541 SIS**



Project Description: INTERCHANGE - ADD LANES
Extra Description: MIDWAY ROAD AT I-95 NB & SB OFF-RAMP INTERSECTION SHORT TERM IMPROVEMENTS; A)ADD SECOND LEFT TURN LANES TO BOTH NB AND SB OFF-RAMPS
Lead Agency: MANAGED BY FDOT **From:** OFF-RAMPS
Length: 0.775 **To:** MIDWAY RD
Phase Group: PRELIMINARY ENGINEERING, RAILROAD & UTILITIES, CONSTRUCTION, ENVIRONMENTAL

Phase	Fund Code	2020	2021	2022	2023	2024	Total
PE	DIH	20,000	0	0	0	0	20,000
PE	DS	230,000	0	0	0	0	230,000
RRU	DS	10,000	0	0	0	0	10,000
CST	DIH	0	0	57,472	0	0	57,472
CST	DS	0	0	1,468,717	0	0	1,468,717
ENV	DS	10,000	30,000	0	0	0	40,000
		270,000	30,000	1,526,189			1,826,189

Prior Year Cost: 0
 Future Year Cost: 0
 Total Project Cost: 1,826,189
 LRTP: Page 6-2

Notes

I-95 @ ST LUCIE WEST BLVD
4353371 SIS



Map data ©2019 Google

Prior Year Cost: **1,196,654**

Future Year Cost: **0**

Total Project Cost: **17,818,063**

L RTP: Page 6-2

Project Description: INTERCHANGE - ADD LANES

Extra Description: 2017 TPO PRIORITY #5 FROM COMMERCE CENTER DRIVE TO PEACOCK BLVD., WIDENING OF ROADWAY TO ACCOMMODATE THREE EB LANES AND TWO WB LANES ACROSS THE BRIDGE OVER I-95 AND BUILD A NEW EB BRIDGE. WIDENING THE SOUTHBOUND OFF RAMP INTERSECTION TO PROVIDE TWO LEFT TURN LANES AND ONE RIGHT TURN LANE. WIDENING THE...

Lead Agency: MANAGED BY FDOT

From: SR-9/I-95

Length: 1.814

To: ST LUCIE WEST BLVD

Phase Group: PRELIMINARY ENGINEERING, RAILROAD & UTILITIES, CONSTRUCTION, CONTRACT INCENTIVES, ENVIRONMENTAL

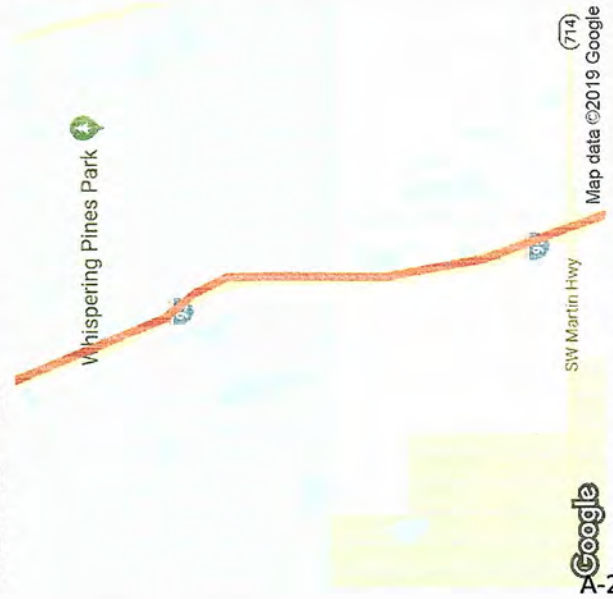
Phase Fund Code	2020	2021	2022	2023	2024	Total
RRU DDR	0	400,000	0	0	0	400,000
CST LF	0	0	3,100,000	0	0	3,100,000
CST DDR	0	0	10,153,103	0	0	10,153,103
CST DIH	0	0	108,786	0	0	108,786
CST TRIP	0	0	2,113,636	0	0	2,113,636
CST TRWR	0	0	565,884	0	0	565,884
INC DDR	0	0	150,000	0	0	150,000
ENV DDR	30,000	0	0	0	0	30,000
	30,000	400,000	16,191,409	0	0	16,621,409

Notes

**I-95 FROM MARTIN/ST. LUCIE COUNTY LINE TO OKEECHOBEE ROAD
4226816 SIS**

Project Description: PD&E/EMO STUDY
Lead Agency: MANAGED BY FDOT
Length: 15.499
Phase Group: P D & E

From: MARTIN/ST. LUCIE COUNTY LINE
To: OKEECHOBEE ROAD



Prior Year Cost: 2,536,059
Future Year Cost: 2,110,000
Total Project Cost: 11,992,052
LRTP: Page 7-1

Phase	Fund Code	2020	2021	2022	2023	2024	Total
PDE	ACNP	0	0	0	0	550,000	550,000
						550,000	550,000

Notes

APPENDIX B

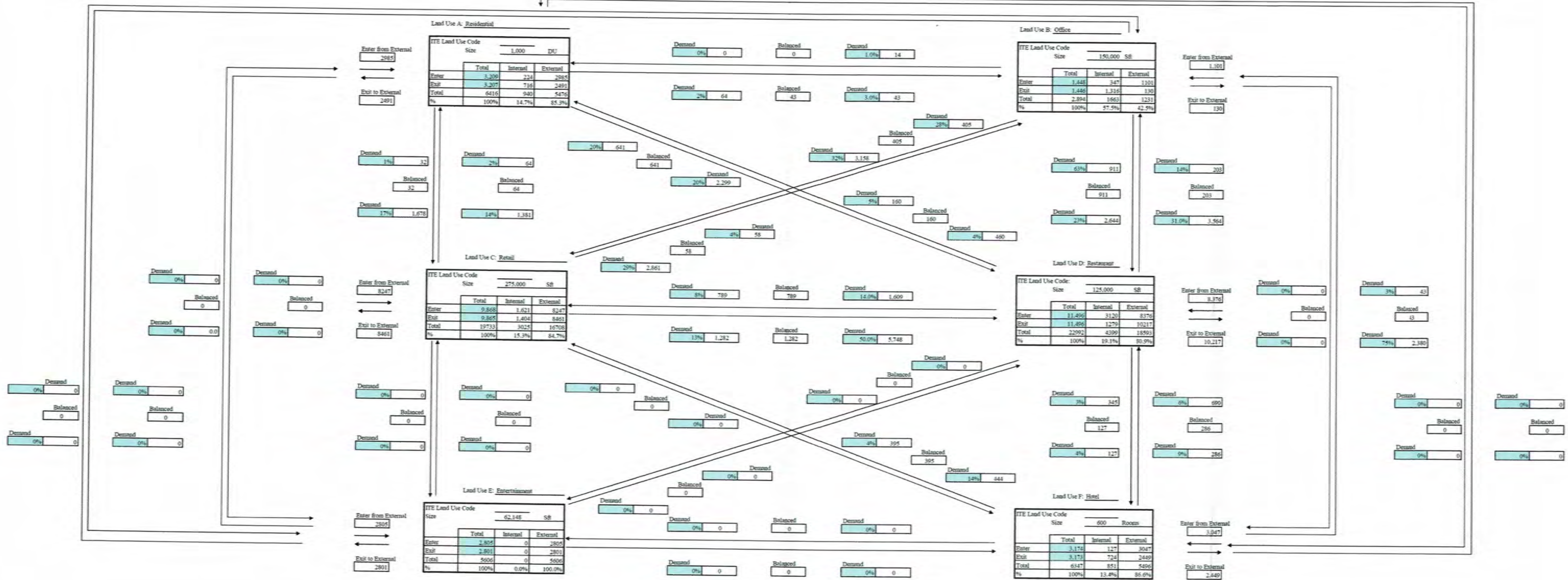
**AM and PM Trip Generation
Proposed Future Land Use**

Attachment B: Daily Internal Traffic

Analyst: James Kemp
Date: Feb-20

PROJECT
TRIP INTERNALIZATION - Daily

Name of Desktop: Willow Lakes
Time Period: Daily Peak Hour



Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Land Use E	Land Use F	Total
Enter	2985	1031	8247	8176	2805	3,047	26561
Exit	2491	139	8463	10217	2801	2,449	26549
Total	5476	1231	16708	18593	5606	5496	53110
Single-Use Trip Generation	6416	2994	19733	22992	5606	6347	63988
							17.0%

Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

Legend

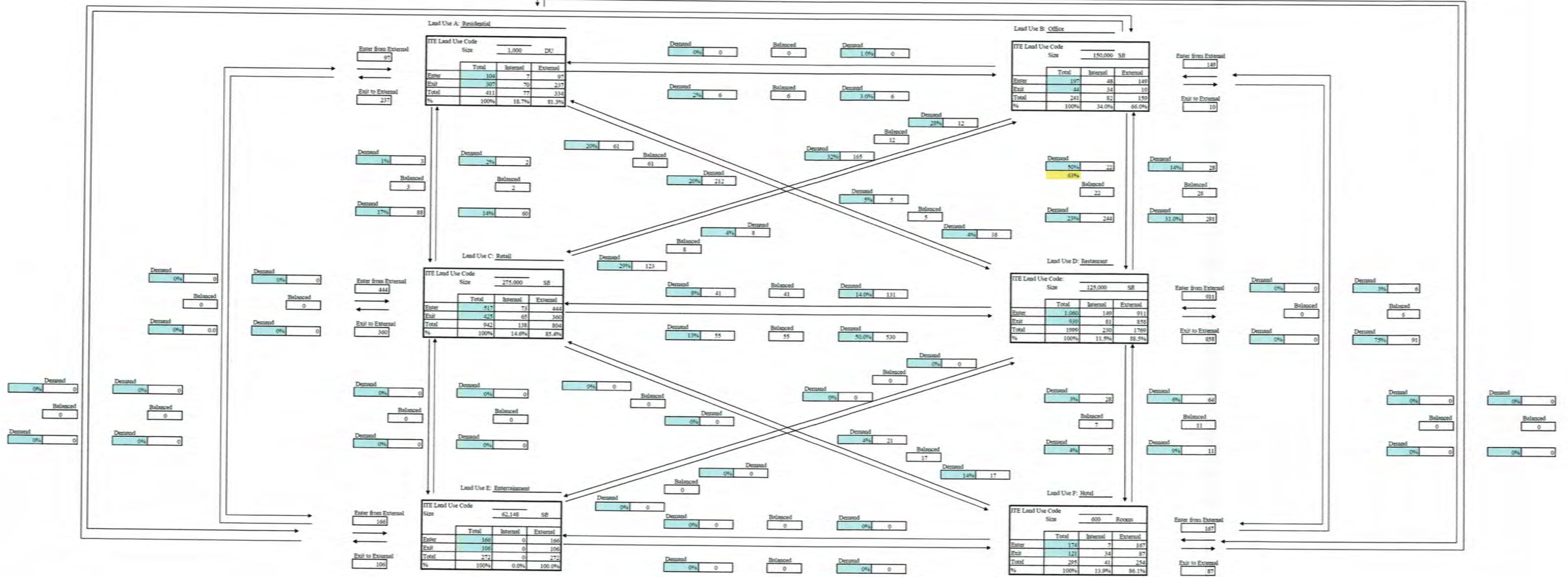
- X% Denotes % Used
- X% Denotes ITE Value if different from % Used
- Balanced Denotes Internal Trips Computed

Attachment B: AM Internal Traffic - Phase 1

Analyst: James Kemp
Date: Feb-20

PROJECT
TRIP INTERNALIZATION - AM

Name of Development: Willow Lakes
Time Period: AM Peak Hour



Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Land Use E	Land Use F	Total
Enter	97	149	444	911	166	167	1934
Exit	237	10	360	858	106	87	1658
Total	334	159	804	1769	272	254	3592
Single-Use Trip One Estimate	411	241	942	1999	272	294	4100
							Internal Capture 13.7%

Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

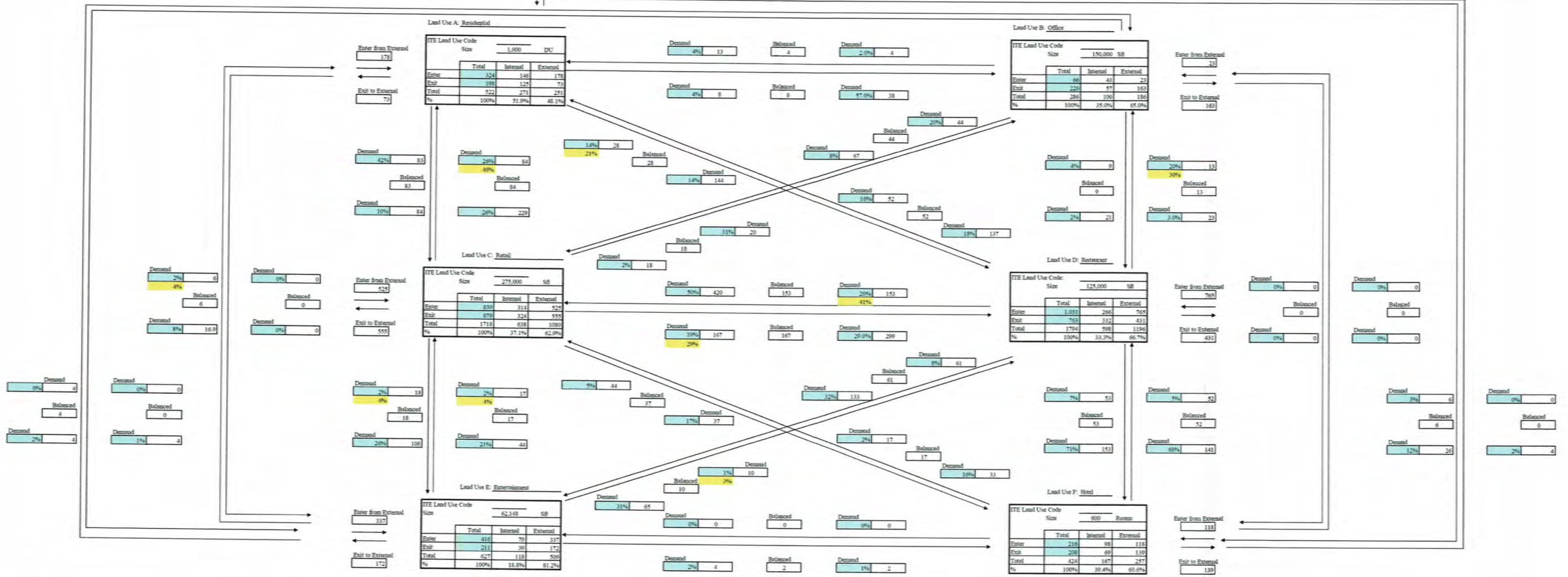
Legend
 X% Denotes % Used
 X% Denotes ITE Value if different from % Used
 Balanced Denotes Internal Trips Computed

Attachment B: PM Internal Traffic

Analyst: Jason Kemp
Date: Feb-20

PROJECT
TRIP INTERNALIZATION - PM

Name of Developer: Willem Lohes
Time Period: PM Peak Hour



Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Land Use D	Land Use E	Land Use F	Total
Enter	178	23	524	765	337	118	1946
Exit	73	163	554	431	172	139	1533
Total	251	186	1078	1196	509	257	3479
Single-Use Trip Generation	522	286	1718	1794	627	424	5371

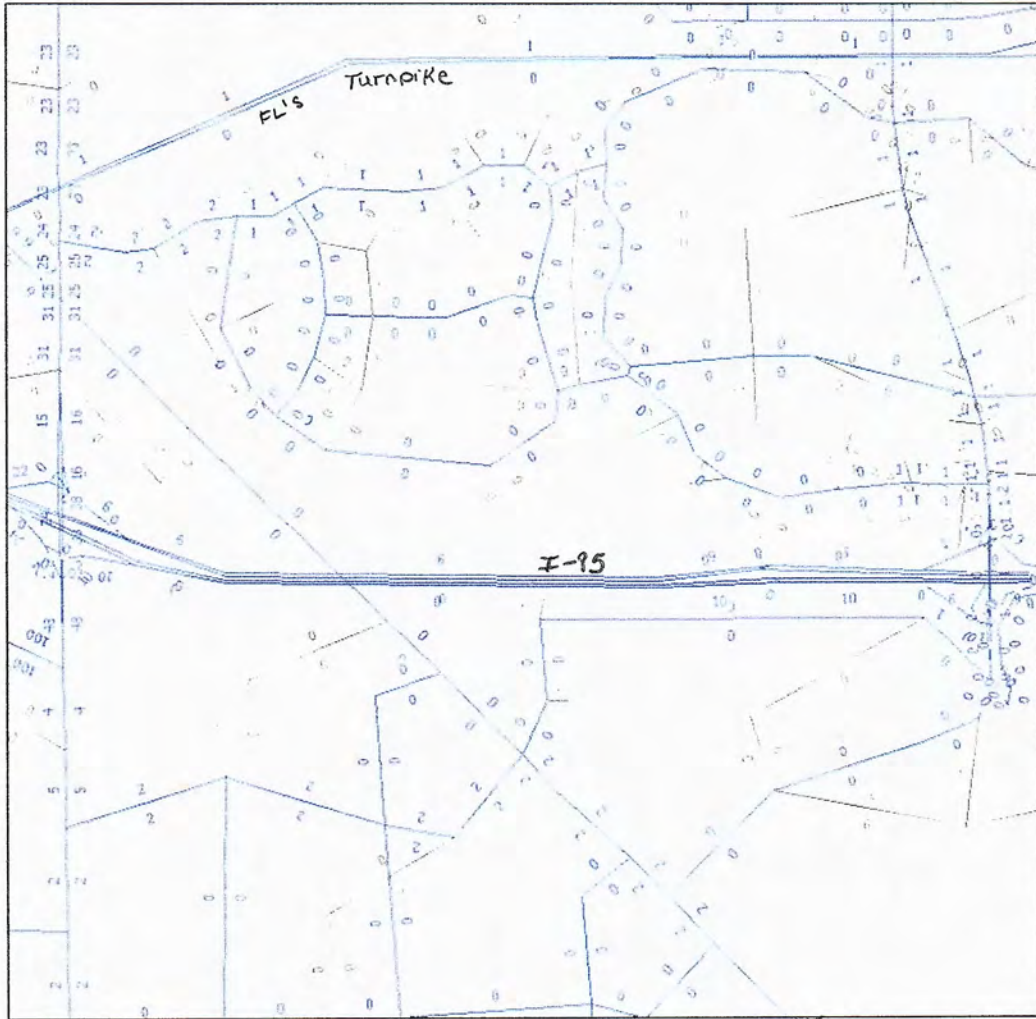
Source: based on procedures from the ITE Trip Generation Handbook, Chapter 7, March 2001

Legend
 X% Denotes % Used
 X% Denotes ITE Value if different from % Used
 Balanced Denotes Internal Trips Computed

APPENDIX C

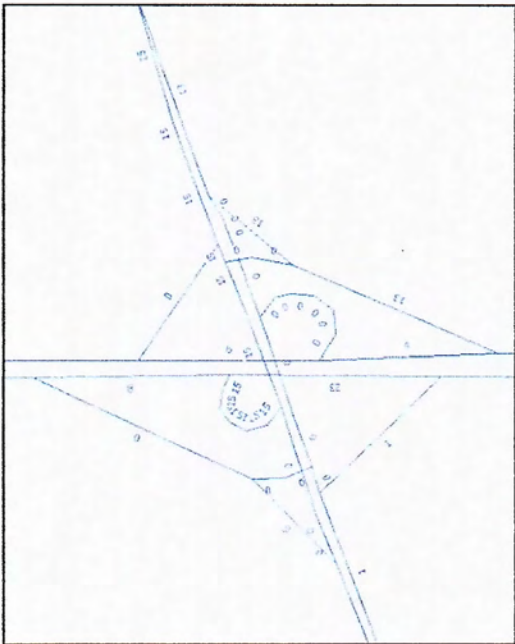
Model Assignment

Southern Assignment

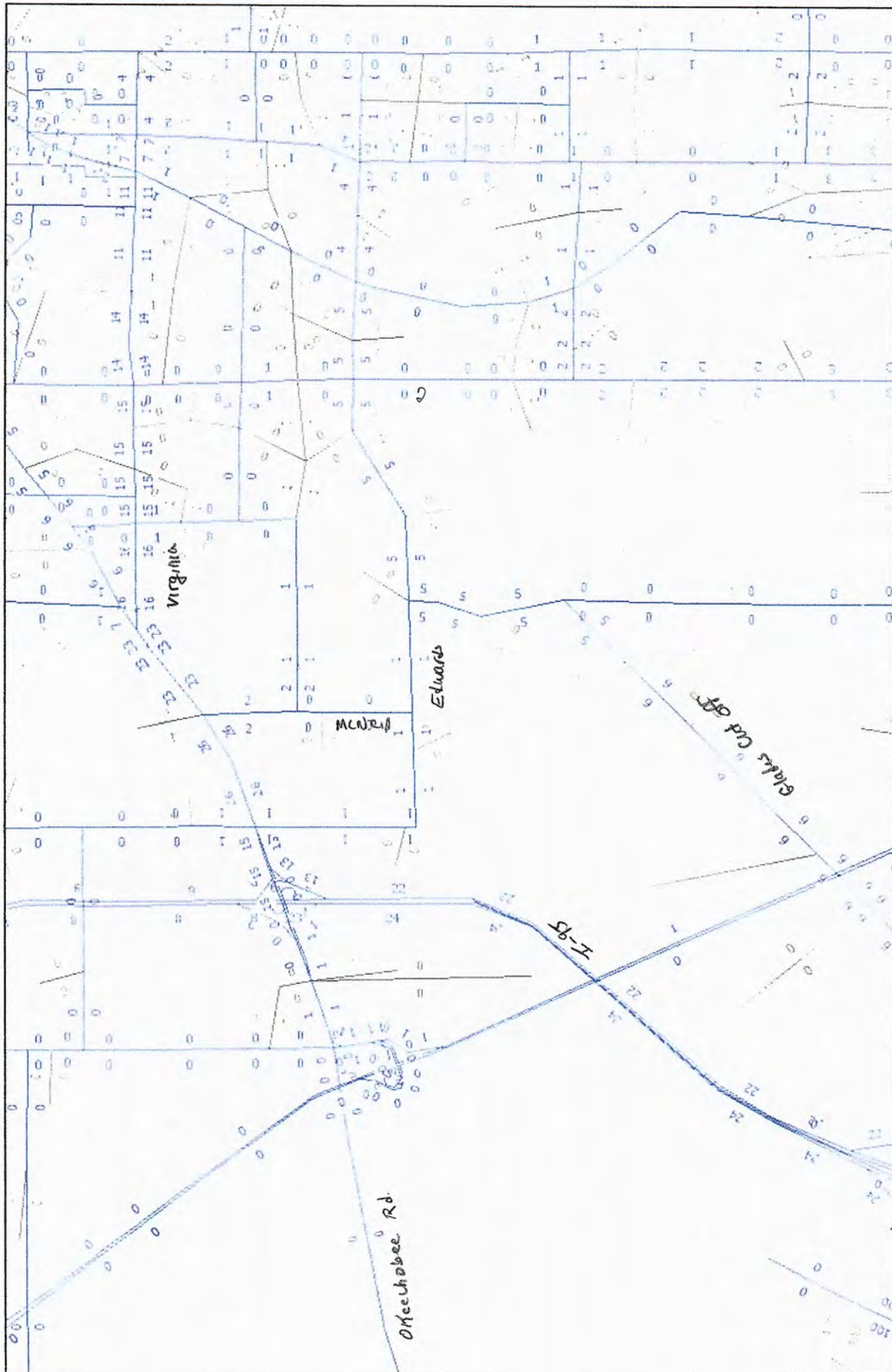


Midway Rd.

Class 5 (600 ft)

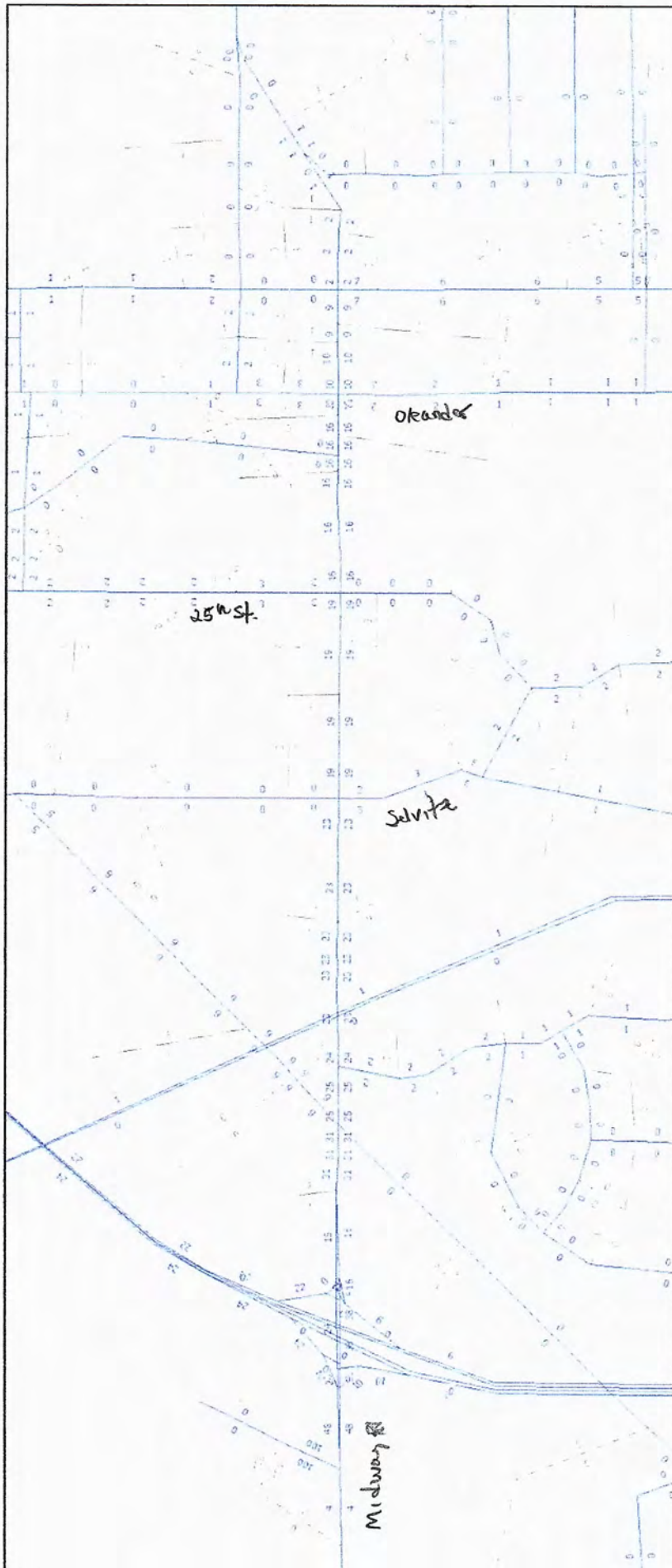


Northern Assignment



No SAM

Eastern Assignment



APPENDIX D

2035 Background Traffic Data

Other Projects

The Village at Midway

Whispering Oaks

Shinn Road

Rio Lago

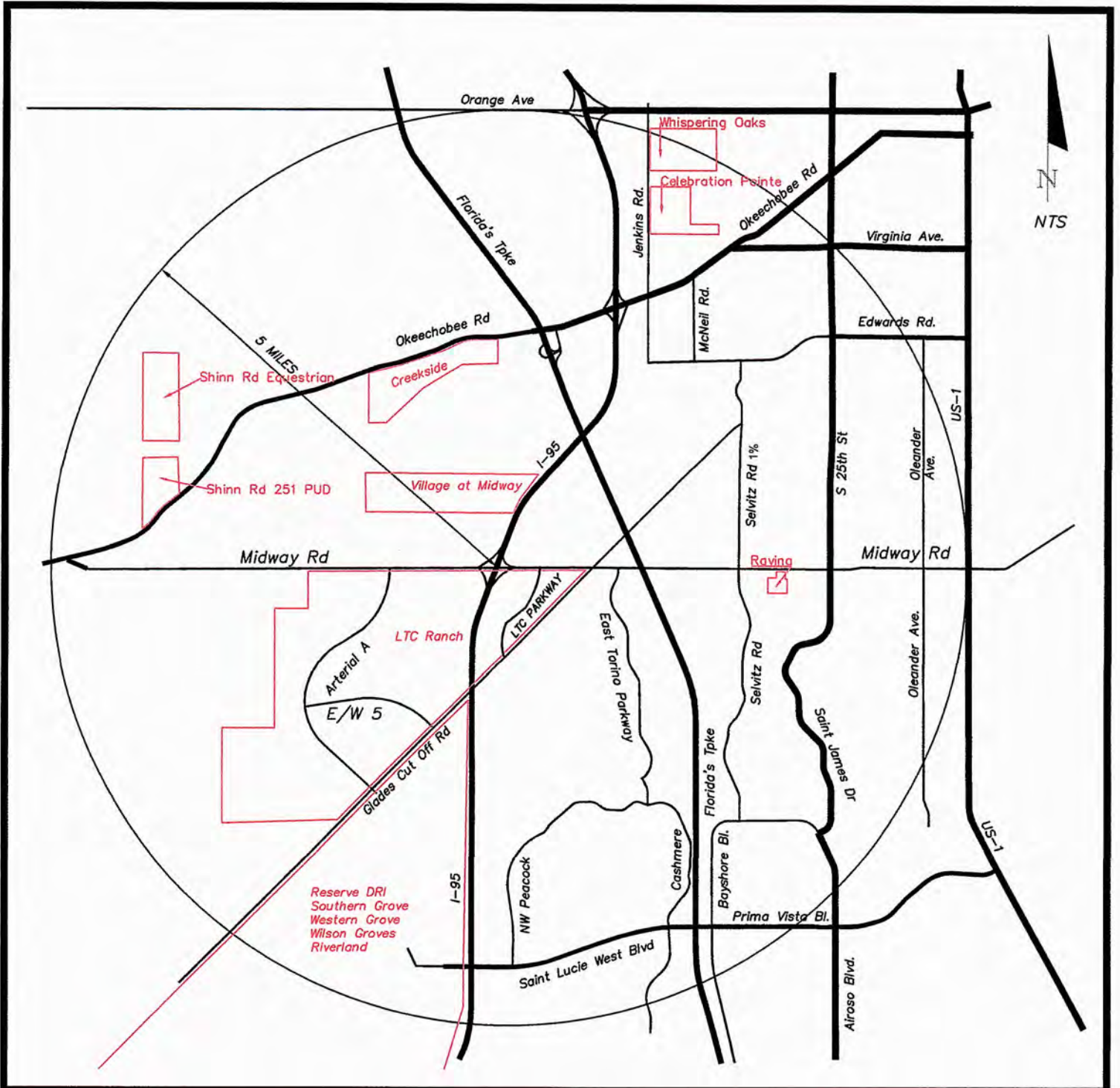
Ravinia

Creekside

Western Annexation: Western Grove, Southern Grove, Riverland, Wilson Grove

Village of Sunset Lake

LTC Ranch



O'Rourke Engineering & Planning



772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

Approved Project Locations

WILLOW LAKES

February 2020

THE VILLAGE AT MIDWAY

Table 2a Trip Generation - Daily

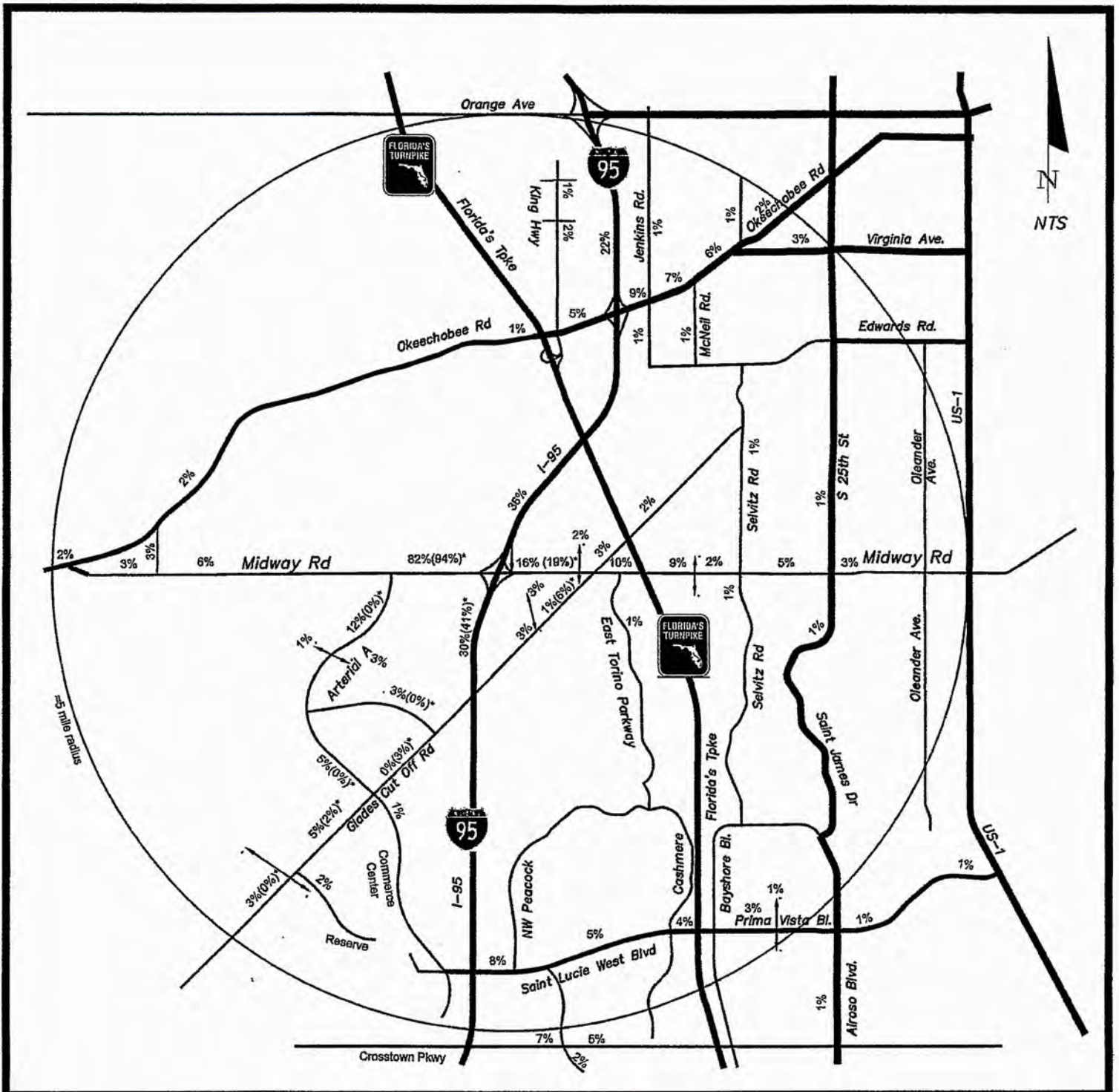
Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split			Gross Trips			Internalization Trips (2)			Net External Trips			Pass-by Trips			Net New Trips		
				% In	% Out	% Split	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	In	Out
Warehouse	150	1,500,000 SF	$L=0.85 \times (12.24)$	50%	50%	0	2,431	2,530	5,061	144	131	275	5.1%	2,387	2,399	4,786	479	10.0%	2,154	2,154	4,307
Apartment	220	650 DU	$T=0.06 \times (123.56)$	50%	50%	0	2,032	2,031	4,063	793	709	1,502	37.0%	1,259	1,322	2,581	0	0.0%	1,281	1,280	2,561
Shopping Center	820	160,000 SF	$L=0.65 \times (15.83)$	50%	50%	0	4,609	4,609	9,218	706	792	1,498	16.3%	3,903	3,817	7,720	2625	34.00%	2,548	2,547	5,095
General Light Industrial	110	1,200,000 SF	$T=7.47 \times (101.92)$	50%	50%	0	4,431	4,431	8,862	253	229	482	5.6%	4,178	4,202	8,380	888	10.0%	3,771	3,771	7,542
Convenience Store	851	5,000 SF	$T=737.99 \times (3)$	50%	50%	0	1,845	1,845	3,690	282	317	599	16.2%	1,563	1,528	3,091	1886	61.0%	603	602	1,205
Fast Food Restaurant	984	10,000 SF	$T=496.12 \times (3)$	50%	50%	0	2,481	2,480	4,961	508	508	1,016	20.5%	1,973	1,972	3,945	1933	49.0%	1,006	1,006	2,012
High Turnover Restaurant	932	25,000 SF	$T=127.15 \times (3)$	50%	50%	0	1,590	1,589	3,179	326	326	652	20.5%	1,264	1,263	2,527	1097	43.0%	720	720	1,440
TOTAL							19,519	19,515	39,034	3,012	3,012	6,024	15.4%	16,507	16,503	33,010	3848	26.8%	12,083	12,079	24,162

Table 2b Trip Generation - AM

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split			Gross Trips			Internalization Trips (2)			Net External Trips			Pass-by Trips			Net New Trips		
				% In	% Out	% Split	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	In	Out
Warehouse	150	1,500,000 SF	$L=0.85 \times (12.24)$	79%	21%	0	289	77	366	24	22	46	12.6%	265	55	320	32	10.0%	228	60	288
Apartment	220	650 DU	$T=0.06 \times (123.56)$	20%	80%	0	64	258	322	4	60	64	19.9%	60	198	258	0	0.0%	52	206	258
Shopping Center	820	160,000 SF	$L=0.65 \times (15.83)$	62%	38%	0	129	79	208	35	28	63	30.3%	94	51	145	49	34.00%	60	36	96
General Light Industrial	110	1,200,000 SF	$T=7.47 \times (101.92)$	88%	12%	0	1,168	1,59	1,327	86	78	164	12.4%	1,082	81	1,163	116	10.0%	921	126	1,047
Convenience Store	851	5,000 SF	$T=737.99 \times (3)$	50%	50%	0	1,68	167	335	46	59	105	31.3%	122	108	230	140	61.0%	45	45	90
Fast Food Restaurant	984	10,000 SF	$T=496.12 \times (3)$	51%	49%	0	232	222	454	82	49	131	28.9%	150	173	323	158	49.0%	84	81	165
High Turnover Restaurant	932	25,000 SF	$T=103.81 \times (3)$	55%	45%	0	149	121	270	48	29	77	28.5%	101	92	193	83	43.0%	61	49	110
TOTAL							2,199	1,683	3,882	325	325	650	19.8%	1,874	768	2,642	378	21.0%	1,451	603	2,054

Table 2c Trip Generation - PM

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Directional Split			Gross Trips			Internalization Trips (2)			Net External Trips			Pass-by Trips			Net New Trips		
				% In	% Out	% Split	In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	Total	In	Out
Warehouse	150	1,500,000 SF	$L=0.64 \times (12.24)$	25%	75%	0	84	253	337	4	10	14	4.2%	80	245	323	32	10.0%	78	218	291
Apartment	220	650 DU	$T=0.055 \times (123.56)$	65%	35%	0	244	131	375	86	61	147	39.2%	158	70	228	0	0.0%	148	80	228
Shopping Center	820	160,000 SF	$L=0.67 \times (15.83)$	48%	52%	0	394	427	821	100	88	188	22.9%	294	359	653	215	34.00%	201	217	418
General Light Industrial	110	1,200,000 SF	$T=7.47 \times (101.92)$	12%	88%	0	187	1,372	1,559	20	48	68	4.4%	167	1,394	1,491	149	10.0%	161	1,181	1,342
Convenience Store	851	5,000 SF	$T=52.41 \times (3)$	51%	49%	0	134	128	262	34	27	61	23.3%	100	101	201	123	61.0%	40	38	78
Fast Food Restaurant	984	10,000 SF	$T=496.12 \times (3)$	52%	48%	0	170	157	327	58	63	121	37.0%	112	94	206	101	49.0%	55	50	105
High Turnover Restaurant	932	25,000 SF	$T=9.85 \times (3)$	55%	45%	0	135	111	246	43	48	91	37.0%	92	63	155	67	43.0%	48	40	88
TOTAL							1,348	2,579	3,927	345	345	690	17.6%	1,003	2,234	3,237	687	21.2%	726	1,824	2,550



Susan E. O'Rourke, P.E., Inc.
 Traffic Engineering, Transportation Planning
 772-781-7918
 969 SE Federal Highway Suite 402
 Stuart, Florida 34994

LEGEND

xx% - Assignment w/ Arterial A
 (xx%)* - Assignment w/out Arterial A

FIGURE 4

**PROJECT % ASSIGNMENT
 THE VILLAGE AT MIDWAY**

JUNE 2015

PROJECT TRAFFIC

To estimate traffic generated by the Whispering Oaks Development, the ITE Trip Generation, 7th Edition trip rates were applied. These calculations provide an estimate of the typical generation. Trip generation for the project is shown in Table 2.

TABLE 2: Project Trip Generation

Land Use	Units	ITE Land Use Code	Daily Trip Equation (Trips)	PM Peak Hour Trip Equation (Trips)	%In/ %Out (trips in/trip out)
Town Home	231	230	$\text{Ln}(T) = 0.85\text{Ln}(x) + 2.55(1308)$	$\text{Ln}(T) = 0.82\text{Ln}(x) + 0.32(119)$	67%/ 33% (80/39)
Single Family	145	210	$\text{Ln}(T) = 0.92\text{Ln}(x) + 2.71(1464)$	$\text{Ln}(T) = 0.90\text{Ln}(x) + 0.53(150)$	63/37 (94/55)
	376		2772	269	174/ 95

The PM peak hour total trips would be 269 with 174 entering and 95 exiting the project.

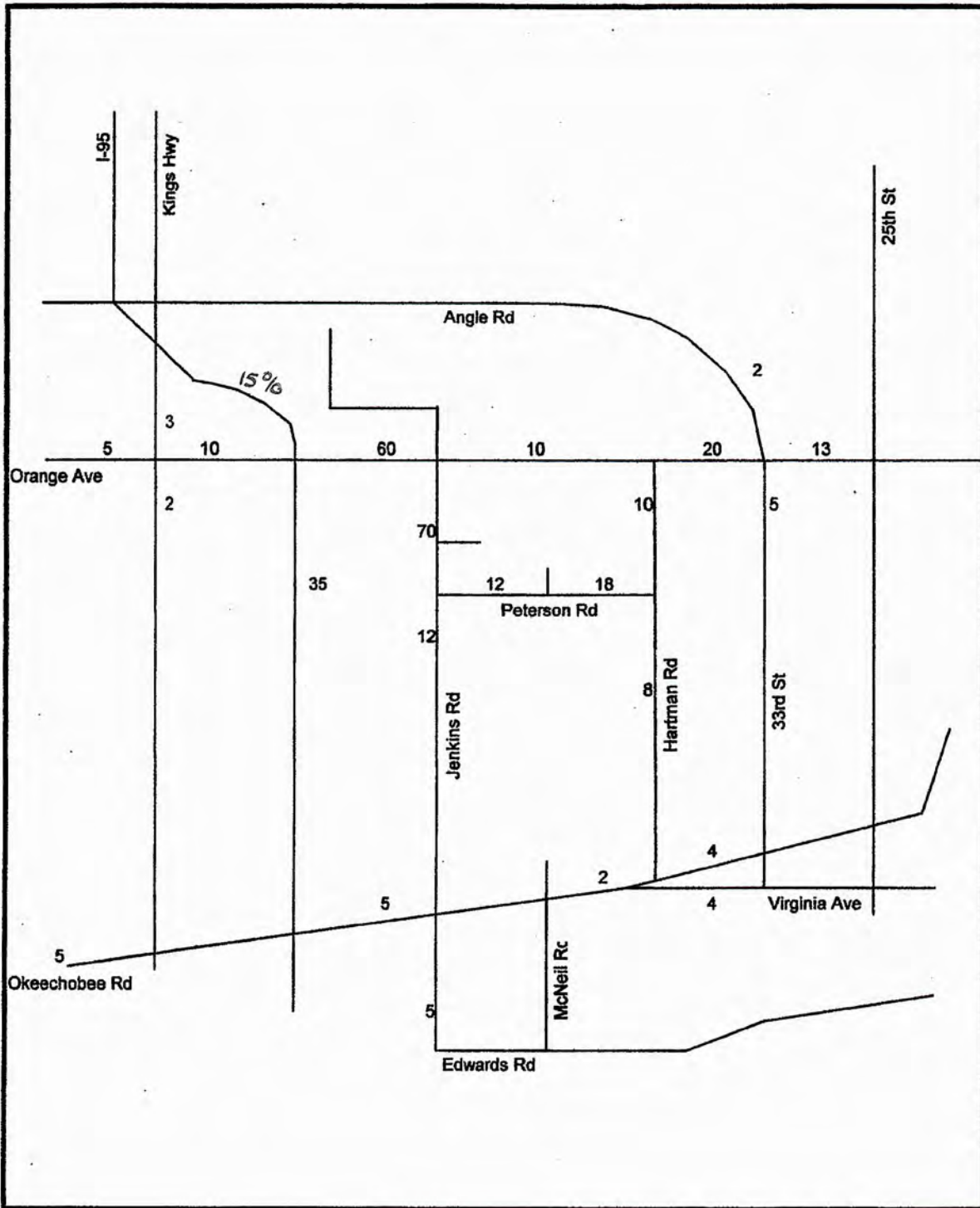
PROJECT DISTRIBUTION / ASSIGNMENT/ IMPACT

The project traffic was distributed by general geographic direction and then assigned to the roadway network.

Distribution -- The project general geographic traffic distribution was estimated as 15% north, 45% south, 25% east and 15% west.

Assignment -- This general distribution led to an assignment of external, new trips to the roadway network. Figure 2 illustrates the trip assignment and resultant trips.

The project provided a connection to Peterson Road to enhance the distribution of traffic. Additionally, the project will provide right-of-way on Jenkins Road for possible future widening.



↑
North
not to scale

Figure 2
Project Percent Assignment
Whispering Oaks

Exhibit 2
Shinn Road 251 PUD
Trip Generation

DAILY

Land Use	Intensity	Trip Generation Rate (1)	Total Trips		Internal Trips		External Trips		Pass-by Trips (1)	New External Trips	
			In	Out	In	Out	In	Out		In	Out
High Turnover Restaurant	10,000 SF	127.15 /1,000 SF	1,272	25	2.0%	1,247	312	25.0%	935		
Retail	85,000 SF	$\ln(T) = 0.65 \ln(X) + 5.83$	6,110	61	1.0%	6,049	1,512	25.0%	4,537		
Residential-Single Family	50 DUs	$\ln(T) = 0.92 \ln(X) + 2.71$	550	110	20.0%	440	-	0.0%	440		
Drive-In Bank	5,000 SF	246.49 /1000 SF	1,232	37	3.0%	1,195	359	30.0%	836		
TOTALS			9,164	233	2.5%	8,931	2,183		6,748		

AM PEAK HOUR

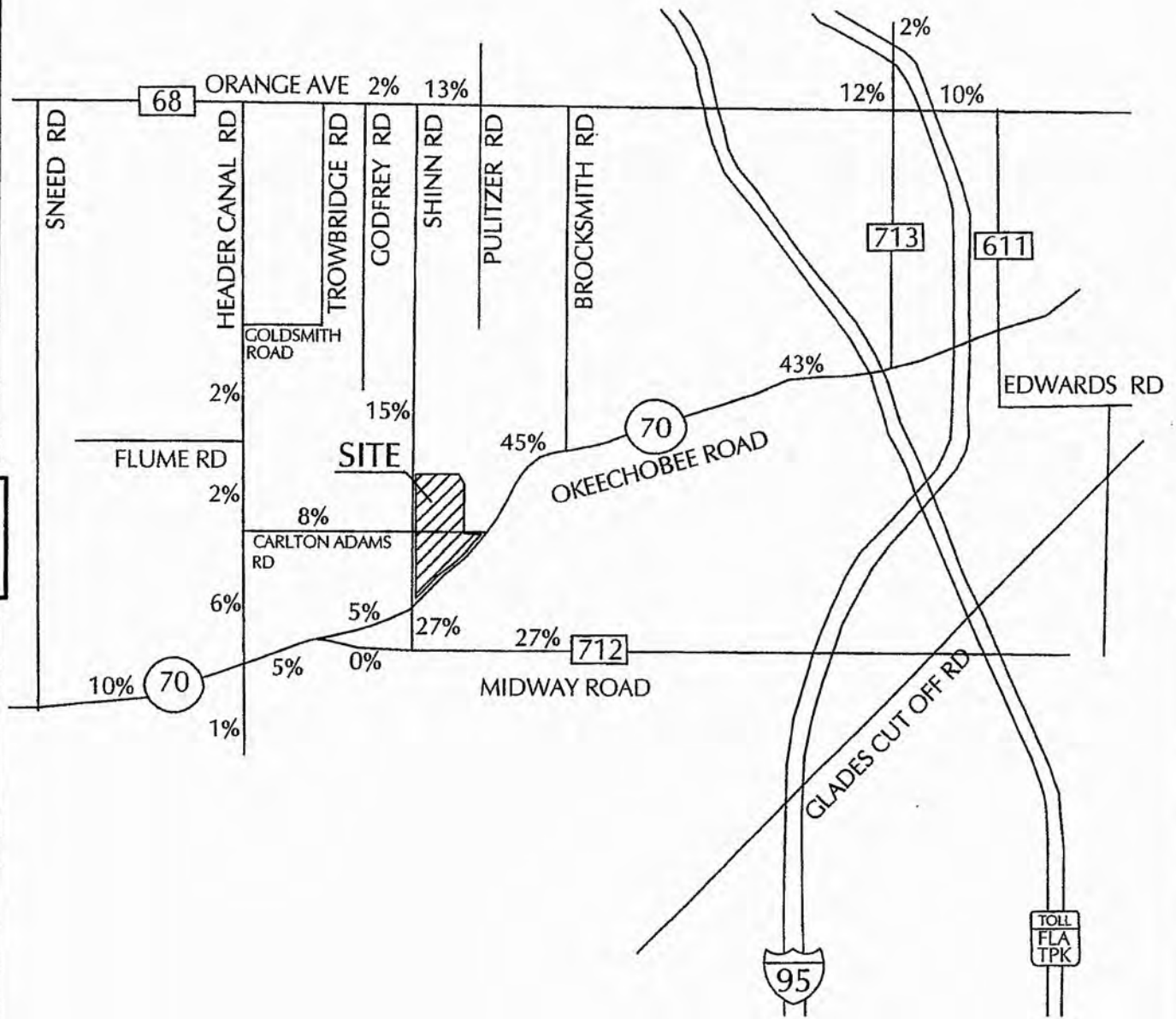
Land Use	Intensity	Trip Generation Rate (1)	Total Trips		Internal Trips		External Trips		Pass-by Trips (1)	New Trips	
			In	Out	In	Out	In	Out			
High Turnover Restaurant	10,000 SF	11.52 /1,000 SF (52/48)	60	55	4.0%	57	53	110	28	25.0%	42
Retail	85,000 SF	1.03 /1,000 SF (61/39)	54	34	3.0%	52	33	85	21	25.0%	39
Residential-Single Family	50 DUs	$T = 0.70(X) + 9.43(25/75)$	11	33	44	9	26	35	-	0.0%	9
Drive-In Bank	5,000 SF	12.34 /1,000 SF (56/44)	35	27	62	33	26	59	18	30.0%	23
TOTALS			160	149	309	20	6.5%	151	289	67	113

PM PEAK HOUR

Land Use	Intensity	Trip Generation Rate (1)	Total Trips		Internal Trips		External Trips		Pass-by Trips (1)	New Trips	
			In	Out	In	Out	In	Out			
High Turnover Restaurant	10,000 SF	10.92 /1,000 SF (61/39)	66	43	109	5	5.0%	63	41	104	46
Retail	85,000 SF	$\ln(T) = 0.660 \ln(X) + 3.40(48/52)$	270	292	562	6	1.0%	267	289	556	200
Residential-Single Family	50 DUs	$\ln(T) = 0.90 \ln(X) + 0.53(63/37)$	36	21	57	11	20.0%	29	17	46	29
Drive-In Bank	5,000 SF	45.74 /1,000 SF (50/50)	115	115	229	9	4.0%	109	110	220	76
TOTALS			487	471	957	31	3.2%	468	457	926	351

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition.

Not to Scale



6-16-09
05-195

SHINN ROAD
251 PUD

EXHIBIT 3A
PROJECT TRAFFIC DISTRIBUTION

PTC

Exhibit 3
Shinn Road Equestrian Estates
Trip Generation

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips
Residential Single Family	210	106 Dus	$Ln(T) = 0.920Ln(X) + 2.71$	1,097
TOTAL		106 Dus		1,097

AM PEAK HOUR

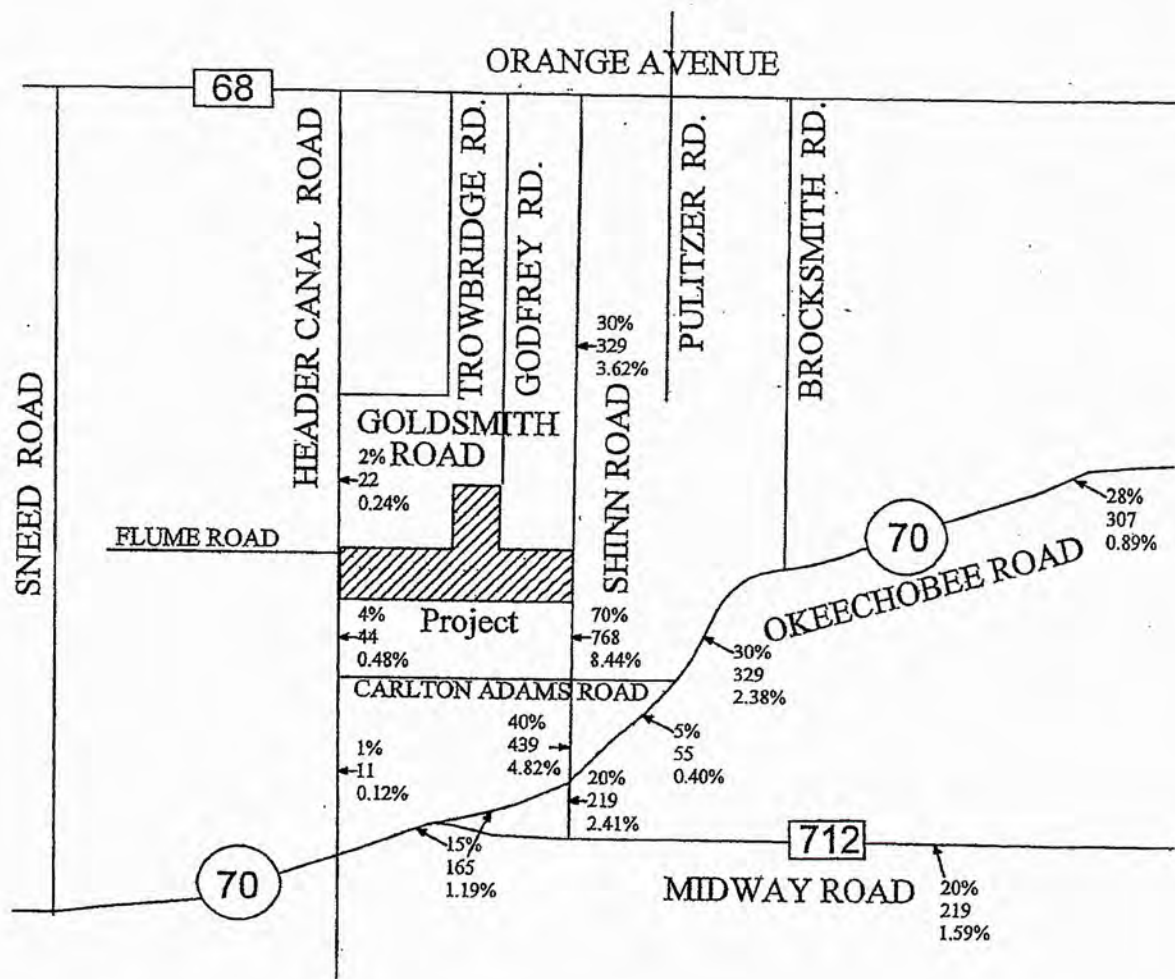
Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips	
				In	Out
Residential Single Family	210	106 Dus	$T = 0.700(X) + 9.43(25/75)$	21	63
TOTALS				21	63

PM PEAK HOUR

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips	
				In	Out
Residential Single Family	210	106 Dus	$Ln(T) = 0.90Ln(X) + 0.53(63/37)$	71	42
TOTALS				71	42

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 7th Edition.

Not to Scale



LEGEND

20% - PROJECT TRAFFIC DISTRIBUTION
 219 - DAILY TRAFFIC ASSIGNMENT
 2.41% - PROJECT TRAFFIC IMPACT

04-04-06
05-031 S

Shinn Road
Equestrian Estates

EXHIBIT 4
TRAFFIC DISTRIBUTION

PTC

EXISTING TRAFFIC CONDITIONS

The Peak Season, Average Daily Traffic Volume for the roadways in the study area were obtained from the Spring 2005, St. Lucie Urban Area Metropolitan Planning Organization traffic counts. These counts include the committed trips for the roadway link as published in the Spring 2005 Counts, and are summarized below:

Roadway	Segment	LOS AADT	Current AADT	Current AADT plus committed	LOS
Keen Road	north of project entrance	14,800	2,400	2,400	B
	south of project entrance	14,600	2,400	2,400	B
St. Lucie Boulevard	west of Keen Road	16,900	6,300	6,300	C
	east of Keen Road	16,900	6,300	6,300	C
Angle Road	west of Keen Road	16,900	10,600	10,600	C
	east of Keen Road	16,900	10,600	10,600	C
	west of No. Kings Highway	14,600	n/a	n/a	
No. Kings Highway	north of Angle Road	16,900	14,700	14,700	D
	south of Angle Road	16,900	14,000	14,000	D

TRIP GENERATION

The Trip Generation for the proposed Rio Lago Subdivision project was developed by utilizing the "Institute of Transportation Engineers Trip Generation Manual, Seventh Edition" which established the Trip Generation Rates for the proposed facility.

In developing the Trip Generation Rates, the ITE Manual was utilized for the AADT volumes. The following Tables have been provided to depict the Trip Generation Rates for this development. Table I depicts the 24-Hour Daily Volumes.

The Land Use Codes 210 "Single Family Detached Housing".

**TABLE I
Average Daily Trip Generation Volume**

Land Use	Dwelling Units (Each/SF)	Rate	Volume (Trips/Day)
ITE Code 210	72	$\ln(T) = 0.92\ln(X) + 2.71$ $T = [e^{(0.92\ln(72)+2.71)}]$	768
Total New Trips per Day =			768

TABLE II
P.M. Peak Hour Trip Generation Volume

Land Use	Dwelling Units (Each/SF)	Rate	Volume (Trips/Day)
ITE Code 210	72	$\text{Ln}(T) = 0.90\text{Ln}(X) + 0.53$ $T = [e^{(0.90\text{Ln}(72)+0.53)}]$	79
Total New Trips per Day =			79

TRIP DISTRIBUTION

The Trip Distribution from the site onto the surrounding network was derived based upon a review of the surrounding destinations for shopping, school and work; local knowledge and experience in evaluating traffic and travel patterns in the area and an assessment of the condition of the existing Transportation Network in the area. A summary of the Major Trip Assignments was estimated and a graphical representation follows on the next page.

A summary of the additional trips created by the project are as follows:

TABLE 1
Trip Distribution – Average Daily Trips

Roadway	Segment	project trip assignments as % of total trips generated	project trips as number of total
Keen Road	north of project entrance	20%	154
	south of project entrance	80%	614
St. Lucie Boulevard	west of Keen Road	5%	38
	east of Keen Road	15%	115
Angle Road	west of Keen Road	30%	230
	east of Keen Road	50%	384
	west of No. Kings Highway	1%	8
No. Kings Highway	north of Angle Road	7%	54
	south of Angle Road	22%	169

Exhibit 2
Ravinia
Trip Generation

DAILY

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips
Residential-Single	210	150 DUs	9.52 /DU	1,428
TOTAL		150 DUs		1,428

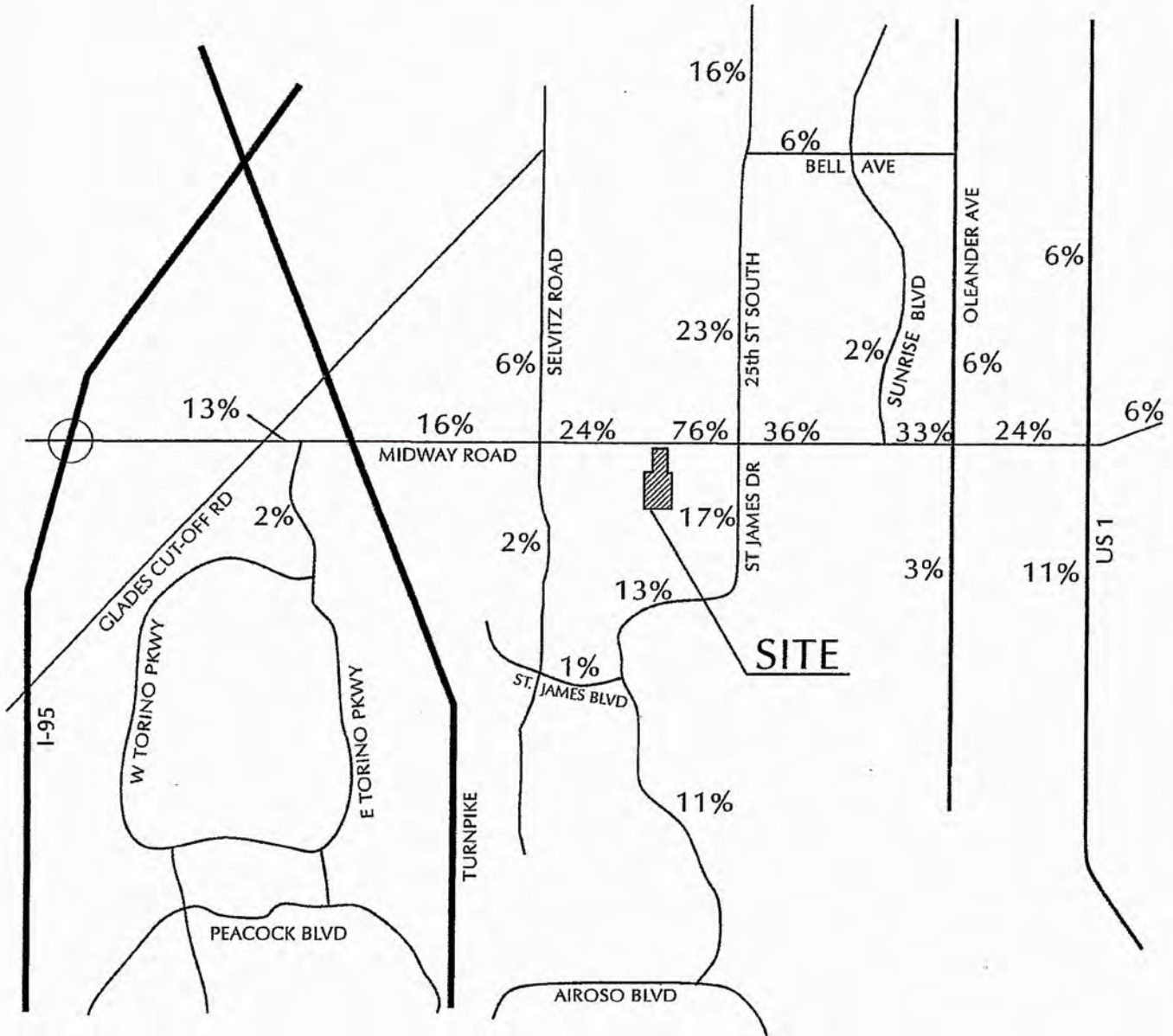
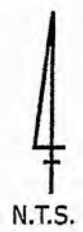
AM Peak Hour

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential-Single	210	150 DUs	0.75 /DU (25/75)	28	85	113
TOTAL		150 DUs		28	85	113

PM Peak Hour

Land Use	ITE Code	Intensity	Trip Generation Rate (1)	Total Trips		
				In	Out	Total
Residential-Single	210	150 DUs	1.00 /DU (63/37)	95	55	150
TOTAL		150 DUs		95	55	150

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition.



5/17/16
16-024

RAVINIA

EXHIBIT 3A
PROJECT TRAFFIC DISTRIBUTION



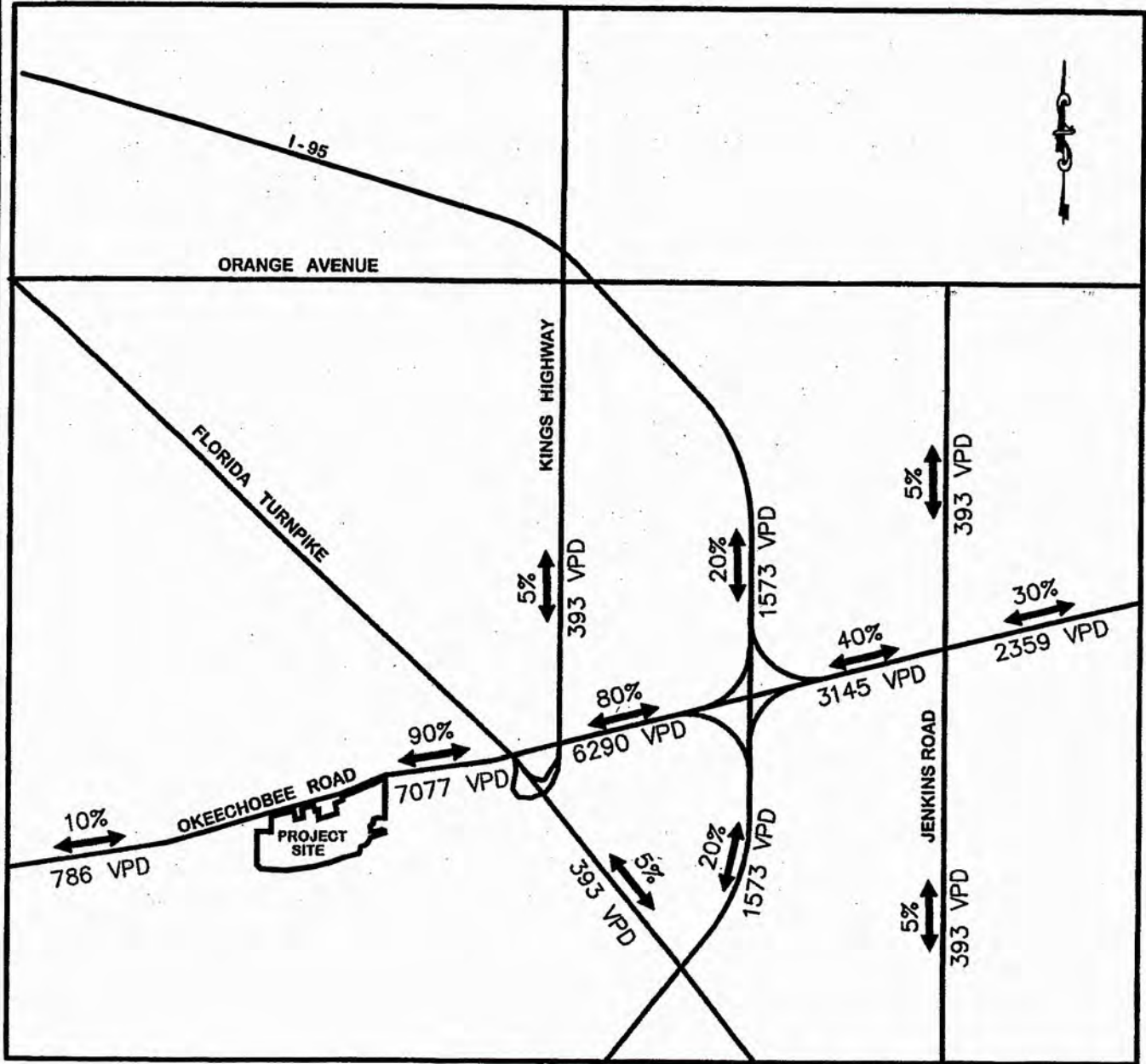


FIGURE 2



CONSULTING ENGINEERS
&
LAND SURVEYORS
2980 SOUTH 25th STREET
FORT PIERCE, FLORIDA 34981
(772) 464-3537
AUTHORIZATION NO. 4286

CREEKSIDE

TRIP DISTRIBUTION

JOB NO: 03-126	SCALE: N.T.S.
FILE: 03-126 EXH.DWG	DATE: 3-15-04

PROPOSED TRAFFIC GENERATION:

The additional traffic, which will be generated by the development of the Creekside PUD, is based upon the number and type of residential dwellings. The Institute of Transportation Engineer's Trip Generation Manual, Sixth Edition, Code 210 "Residential Single Family", Code 230 "Residential Condominium/Townhouse", Code 412 "County Park, and Code 814 Specialty Retail Center" was utilized to develop the trip generation rates. The trip generation of the facility for both the Average Daily Traffic and PM Peak Hour Traffic is calculated as follows:

**Table No. 1
Average Daily Traffic**

<u>Land Use</u>	<u>ITE Code</u>	<u>Units/Size</u>	<u>ADT Rates</u>	<u>ADT</u>
Single Family	210	443 DU	.920Ln(443)+2.707	4,077 VPD
Town Houses	230	397 DU	.850Ln(397)+2.564	2,101 VPD
County Park	412	3 Acres	2.28 Trips/Acre	7 VPD
Commercial	814	30,000 SF	40.67/1,000 SF*	1,678 VPD
			Total	7,863 VPD

* The commercial component of the development will result in pass-by and internal capture for the home to shopping portion of the standard trips generated. This percentage of pass-by and internal capture is typically estimated to be 25% for shopping centers. The trip generation rate for the commercial component is therefore reduced by 25% prior to application to the existing roadway network.

**Table No. 2
PM Peak Hour Traffic**

<u>Land Use</u>	<u>Units/Size</u>	<u>Peak Hour Avg. Rate</u>	<u>Directional Distribution</u>		<u>Directional Volumes</u>	
			<u>Enter</u>	<u>Exit</u>	<u>Enter</u>	<u>Exit</u>
Single Family	443 DU	.901Ln(443)+.527	64%	36%	263vph	147vph
Town Houses	397 DU	.827Ln(397)+.309	67%	33%	129vph	63vph
County Park	3 Acres	.06/Acre	41%	59%	0 vpd	0 vpd
Commercial	55,000 SF	2.59/1,000 SF*	43%	57%	46vph	61vph
			Totals		438vph	271vph

Table 3
Western Annexation Study
Cumulative Daily External Trips

Phase / DRI	Western Grove	Southern Grove	Riverland	Wilson Groves	TOTAL
Phase 1 (2010)	7,963	13,292	32,007	25,883	79,145
Phase 2 (2015)	26,969	66,403	110,332	61,492	265,196
Phase 3 (2020)	46,620	117,010	134,672	83,762	382,064
Phase 4 (2025)	46,975	163,121	140,083	96,188	446,367

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips

Phase / DRI	Western Grove			Southern Grove			Riverland			Wilson Groves		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Phase 1 (2010)	2,493	2,044	4,537	5,123	6,697	11,820	6,942	6,519	13,461	4,166	4,484	8,650
Phase 2 (2015)	1,480	1,138	2,618	3,157	3,469	6,626	5,944	4,991	10,935	3,261	2,986	6,247
Phase 3 (2020)	497	300	797	734	555	1,289	1,728	1,491	3,219	1,380	1,193	2,573
Phase 4 (2025)	2,510	2,061	4,571	6,990	10,071	17,061	7,095	7,277	14,372	4,543	5,639	10,182

Table 4
Western Annexation Study
Cumulative External P.M. Peak Hour Trips – Grand Totals

Phase	In	Out	Total
Phase 1 (2010)	18,724	19,744	38,468
Phase 2 (2015)	13,842	12,584	26,426
Phase 3 (2020)	4,339	3,539	7,878
Phase 4 (2025)	21,138	25,048	46,186



MTP Group, Inc.
 12798 Forest Hill Boulevard, Suite 303
 Wellington, FL 33414-4704
 Phone: (561) 795-0678 Telefax: (561) 795-0230
<http://www.mtpgroup.net>

Western Annexation Study Final Report.doc

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume		Impact		Significant Impact	
					NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Range Line	Martin Hwy. to Becker Rd.	2	3.0%	4,894	210	302	810	26%	37%	Y	Y	
	Becker Rd. to E/W 4 (Paar Dr.)	2	0.7%	1,142	49	70	810	6%	9%	Y	Y	
	E/W 4 (Paar Dr.) to E/W 3	2	0.8%	1,305	56	81	810	7%	10%	Y	Y	
Glades Cut-Off Rd.	E/W 3 to E/W 1	2	1.0%	1,631	101	70	810	12%	9%	Y	Y	
	E/W 1 to Gatlin Blvd.	2	0.5%	816	50	35	810	6%	4%	Y	N	
	Gatlin Blvd. to West Virginia Blvd.	2	0.1%	163	10	7	810	1%	1%	N	N	
N/S A	West Virginia Blvd. to Glades Cut-Off Rd.	2	0.4%	652	40	28	810	5%	3%	N	N	
	Range Line / CR 609 to N/S A	2	0.0%	0	0	0	760	0%	0%	N	N	
	N/S A to Commerce Center Pkwy.	2	0.1%	163	10	7	760	1%	1%	N	N	
Community Blvd.	Commerce Center Pkwy. to Midway Rd.	2	0.1%	163	10	7	760	1%	1%	N	N	
	N. of Midway Rd.	2	0.2%	326	20	14	760	3%	2%	N	N	
	Gatlin Blvd. to E/W XY	4	0.8%	1,305	81	56	1860	4%	3%	N	N	
Commerce Center Pkwy.	E/W XY to West Virginia Blvd.	4	0.5%	816	50	35	1860	3%	2%	N	N	
	West Virginia Blvd. to Glades Cut-Off Rd.	2	0.1%	163	10	7	860	1%	1%	N	N	
	Gatlin Blvd. to E/W XY	2	1.1%	1,794	111	77	860	13%	9%	Y	Y	
Village Pkwy.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.9%	3,099	191	133	1860	10%	7%	Y	Y	
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.8%	1,305	81	56	860	9%	7%	Y	Y	
	Gatlin Blvd. to E/W XY	6	10.7%	17,454	1,078	748	2790	39%	27%	Y	Y	
I-95	E/W XY to West Virginia Blvd.	4	5.8%	9,461	584	405	1860	31%	22%	Y	Y	
	Martin Hwy. to Becker Rd.	6	13.9%	22,674	972	1,400	5410	18%	25%	Y	Y	
	Becker Rd. to E/W 3	6	10.0%	16,312	899	1,007	5410	13%	19%	Y	Y	
NW Peacock Blvd. Loop	E/W 3 to Gatlin Blvd.	6	8.3%	13,539	580	836	5410	11%	15%	Y	Y	
	Gatlin Blvd. to West Virginia Blvd.	6	11.2%	18,270	1,128	783	5410	21%	14%	Y	Y	
	West Virginia Blvd. to St. Lucie West Blvd.	6	7.9%	12,887	796	552	5410	15%	10%	Y	Y	
Rosser Blvd.	St. Lucie West Blvd. to Midway Rd.	2	4.7%	7,667	473	329	5410	9%	6%	Y	Y	
	St. Lucie West Blvd. to California Blvd.	2	1.2%	1,957	121	84	760	16%	11%	Y	Y	
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
W. Torino Pkwy.	Becker Rd. to Paar Dr.	4	2.0%	3,262	140	201	1620	9%	12%	Y	Y	
	Paar Dr. to E/W 3	4	1.7%	2,773	119	171	1620	7%	11%	Y	Y	
	E/W 3 to Gatlin Blvd.	4	4.2%	6,851	294	423	1620	18%	26%	Y	Y	
E Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N	
	NW Peacock Blvd. to Midway Rd.	2	0.2%	326	20	14	760	3%	2%	N	N	
	California Blvd. to Cashmere Blvd.	2	0.2%	326	20	14	760	3%	2%	N	N	
S Torino Pkwy.	Del Rio Blvd. to Savonina Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N	
	Savonina Blvd. to Del Rio Blvd.	2	0.4%	652	28	40	760	4%	5%	N	Y	
	Del Rio Blvd. to West Virginia Blvd.	2	0.2%	326	14	20	760	2%	3%	N	N	
California Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.0%	1,631	101	70	1820	6%	4%	Y	N	
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.2%	326	20	14	760	3%	2%	N	N	
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.2%	326	20	14	760	3%	2%	N	N	
Savona Blvd.	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N	N	
	Paar Dr. to Gatlin Blvd.	2	0.7%	1,142	49	70	760	6%	9%	Y	Y	
	Gatlin Blvd. to California Blvd.	2	1.4%	2,284	141	98	760	19%	13%	Y	Y	
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N	
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.4%	652	40	28	760	5%	4%	Y	N	
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	

Table TR-4
Western Annexation Study
2025 Southern Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume		Impact		Significant Impact	
					NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
	California Blvd. to Cashmere Blvd.	2	0.3%	489	30	21	760	4%	3%	N	N	
	Cashmere Blvd. to California Blvd.	2	0.1%	163	10	7	760	1%	1%	N	N	
	Marlin Hwy. to Becker Rd.	4	2.3%	3,752	181	232	1860	9%	12%	Y	Y	
Port St. Lucie Blvd.	Becker Rd. to Paar Dr.	2	2.8%	4,567	196	282	890	22%	32%	Y	Y	
	Paar Dr. to Darwin Blvd.	2	3.2%	5,220	224	322	890	25%	36%	Y	Y	
	Darwin Blvd. to Gatlin Blvd.	4	2.7%	4,404	189	272	1860	10%	15%	Y	Y	
	Gatlin Blvd. to Del Rio Blvd.	6	8.2%	13,376	828	573	2790	30%	21%	Y	Y	
	Del Rio Blvd. to Bayshore Blvd.	6	6.5%	10,603	655	454	2790	23%	16%	Y	Y	
	Bayshore Blvd. to Airosa Blvd.	6	4.9%	7,993	493	343	2790	18%	12%	Y	Y	
	Airosa Blvd. to Southbend Blvd./Floresta Dr.	6	3.7%	6,035	373	259	2790	13%	9%	Y	Y	
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	3.3%	5,383	332	231	2790	12%	8%	Y	Y	
	Midport Rd. to US-1	6	2.0%	3,262	201	140	2790	7%	5%	Y	Y	
	US-1 to Lennard Rd.	4	0.9%	1,468	91	63	1860	5%	3%	N	N	
	Becker Rd. to Port St. Lucie Blvd.	2	0.1%	163	7	10	760	1%	1%	N	N	
	Turnpike	Marlin Hwy. to Becker Rd.	4	1.2%	1,957	84	121	2940	3%	4%	N	N
Becker Rd. to Port St. Lucie Blvd.		4	0.0%	0	0	0	2940	0%	0%	N	N	
Bayshore Blvd.	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N	
	Oakridge Blvd. to Port St. Lucie Blvd.	4	0.8%	1,305	56	81	1860	3%	4%	N	N	
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.3%	489	30	21	1860	2%	1%	N	N	
	West Virginia Dr. to Prima Vista Blvd.	4	0.5%	816	50	35	1860	3%	2%	N	N	
	Prima Vista Blvd. to Selvitz Rd.	2	0.6%	979	60	42	760	8%	6%	Y	Y	
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N	
Selvitz Rd.	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N	
	E/W 5 to Midway Rd.	2	0.1%	163	10	7	760	1%	1%	N	N	
St. James Dr.	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N	
	Bayshore Blvd. to E/W 5	4	0.4%	652	40	28	1860	2%	2%	N	N	
25 th Street	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N	
	N. of Midway	4	0.1%	163	10	7	1860	1%	0%	N	N	
Airosa Blvd.	Port St. Lucie Blvd. to West Virginia Dr.	4	0.7%	1,142	70	49	1860	4%	3%	N	N	
	West Virginia Dr. to Prima Vista Blvd.	4	1.2%	1,957	121	84	1860	7%	5%	Y	N	
	Prima Vista Blvd. to Floresta Dr.	4	0.3%	489	30	21	1860	2%	1%	N	N	
	Floresta Dr. to St. James Blvd.	4	0.3%	489	30	21	1860	2%	1%	N	N	
Southbend Blvd.	Becker Rd. to Oakridge Blvd.	2	0.9%	1,468	63	91	760	8%	12%	Y	Y	
	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
Floresta Dr.	Port St. Lucie Blvd. to West Virginia Dr.	4	0.4%	652	40	28	1860	2%	2%	N	N	
	West Virginia Dr. to Prima Vista Blvd.	4	0.2%	326	20	14	1860	1%	1%	N	N	
Oleander Ave.	Prima Vista Blvd. to Airosa Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N	
	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N	
Midport Rd.	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N	
	Port St. Lucie Blvd. to Lyngate Dr.	4	0.5%	816	50	35	1860	3%	2%	N	N	
High Meadows Ave.	Lyngate Dr. to West Virginia Dr.	4	0.1%	163	10	7	1860	1%	0%	N	N	
	CR 714 to Marlin Downs Blvd.	2	0.3%	489	21	30	760	3%	4%	N	N	
	Marlin Downs Blvd. to Mapp Rd./Murphy Rd.	2	0.1%	163	7	10	760	1%	1%	N	N	
Glison Rd.	Mapp Rd./Murphy Rd. to Becker Rd.	2	1.0%	1,631	70	101	760	9%	13%	Y	Y	

Table TR-4
 Western Annexation Study
 2025 Southern Grove Significant Impact
 External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	1.8%	2,936	181	126	3540	5%	4%	Y	N
	Port. St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	0.5%	816	50	35	2790	2%	1%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.5%	816	50	35	2790	2%	1%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.2%	326	20	14	2790	1%	1%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	326	20	14	2790	1%	1%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	163	10	7	2790	0%	0%	N	N
Lennard Rd.	St. Lucie West Blvd. to E/W 6	6	0.1%	163	10	7	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	163	10	7	2790	0%	0%	N	N
	N. of Midway	6	0.1%	163	10	7	2790	0%	0%	N	N
	US-1 to Tiffany Dr./Lyngate Dr.	4	0.2%	326	20	14	1620	1%	1%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.3%	489	30	21	1620	2%	1%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
SR 714/Martin Hwy	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	Range Line Rd. to I-95	2	0.2%	326	14	20	860	2%	2%	N	N
SR 714/Martin Downs Blvd.	I-95 to Port St. Lucie Blvd.	2	2.0%	3,262	201	140	860	23%	16%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	1.2%	1,957	121	84	1860	7%	5%	Y	N
CR 714	N. of FL. TPK Entrance to High Meadows Ave	4	0.6%	979	60	42	1860	3%	2%	N	N
	E. of High Meadows Ave.	4	0.5%	816	50	35	1860	3%	2%	N	N
Mapp Rd/Murphy Rd.	Turnpike to High Meadows Ave.	4	2.0%	3,262	201	140	1620	12%	9%	Y	Y
	High Meadows Ave. to Berry Ave.	4	1.7%	2,773	171	119	1620	11%	7%	Y	Y
Becker Rd.	E. of High Meadows Ave.	2	0.3%	489	30	21	760	4%	3%	N	N
	I-95 to Rosser Rd.	6	8.8%	14,355	886	615	2790	32%	22%	Y	Y
	Rosser Blvd. to Savona Blvd.	4	4.4%	7,177	443	308	1860	24%	17%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	4.3%	7,014	433	301	1860	23%	16%	Y	Y
	Port St. Lucie Blvd. to Darwin Blvd.	4	4.8%	7,830	483	336	1860	26%	18%	Y	Y
	Darwin Blvd. to Turnpike	4	4.9%	7,993	483	343	1860	27%	18%	Y	Y
Paar Dr.	Turnpike to Southbend Blvd.	4	3.1%	5,057	312	217	1860	17%	12%	Y	Y
	Southbend Blvd. to Gilson Rd.	4	1.0%	1,631	101	70	1860	5%	4%	Y	N
	Rosser Blvd. to Savona Blvd.	4	7.5%	12,234	755	524	1860	41%	28%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	6.6%	10,766	665	461	1860	36%	25%	Y	Y
	Range Line Rd. to N/S A	4	2.6%	4,241	182	262	1860	10%	14%	Y	Y
	N/S A to Community Blvd.	4	6.3%	10,277	440	634	1860	24%	34%	Y	Y
Gatlin Blvd.	Community Blvd. to Village Pkwy.	4	3.3%	5,383	231	332	1860	12%	18%	Y	Y
	Village Pkwy. to I-95	8	12.2%	19,901	1,229	853	3540	35%	24%	Y	Y
	I-95 to Rosser Blvd.	6	9.9%	16,149	997	692	2790	36%	25%	Y	Y
	Rosser Blvd. to Savona Blvd.	6	7.9%	12,887	796	552	2790	29%	20%	Y	Y
	Savona Blvd. to Port St. Lucie Blvd.	6	9.9%	16,149	997	692	2790	36%	25%	Y	Y
	Port St. Lucie Blvd. to US-1	2	0.6%	979	60	42	760	8%	6%	Y	Y
Westmoreland Blvd.	Bayshore Blvd. to Southbend Blvd.	4	0.8%	1,305	81	56	1620	5%	3%	Y	N
	Midport Rd. to US-1	2	0.3%	489	30	21	760	4%	3%	N	N
Tiffany Dr/Lyngate Dr.	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	N/S A to Community Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Commerce Center Parkway to Village Pkwy.	4	0.7%	1,142	49	70	1620	3%	4%	N	N

Table TR-4
 Western Annexation Study
 2025 Southern Grove Significant Impact
 External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	0.8%	1,305	56	81	1620	3%	5%	N	Y
	N/S A to Village Pkwy.	4	4.1%	6,688	287	413	1860	15%	22%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	2.9%	4,731	292	203	2700	10%	7%	Y	Y
	Commerce Center Pkwy. to I-95	6	2.1%	3,426	211	147	2790	8%	5%	Y	Y
	I-95 to California Blvd.	6	4.3%	7,014	433	301	2790	16%	11%	Y	Y
	California Blvd. to Cashmere Rd.	6	3.2%	5,220	322	224	2790	12%	8%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	3.2%	5,220	322	224	2790	12%	8%	Y	Y
	Bayshore Blvd. to Alrosa Blvd.	6	2.7%	4,404	272	189	2790	10%	7%	Y	Y
	Alrosa Blvd. to Floresta Dr.	6	1.6%	2,610	161	112	2790	6%	4%	Y	N
	Floresta Dr. to Midport Rd.	6	1.4%	2,284	141	98	2790	5%	4%	Y	N
	Midport Rd. to US-1	6	1.3%	2,121	131	91	2790	5%	3%	N	N
	US-1 to Villagegreen Dr.	4	0.4%	652	40	28	1860	2%	2%	N	N
	Villagegreen Dr. to Lennard Rd.	4	0.4%	652	40	28	1860	2%	2%	N	N
	Commerce Center Pkwy. to I-95	4	1.9%	3,099	133	191	1800	7%	11%	Y	Y
St. Lucie W/ Prima Vista Blvd.	I-95 to NW Peacock Blvd.	6	3.0%	4,894	302	210	2710	11%	8%	Y	Y
	NW Peacock Blvd. to California Blvd.	6	1.2%	1,957	121	84	2710	4%	3%	N	N
	California Blvd. to Cashmere Rd.	4	1.4%	2,284	141	98	1800	8%	5%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	0.6%	979	60	42	2710	2%	2%	N	N
	Bayshore Blvd. to Alrosa Blvd.	4	0.3%	489	30	21	1800	2%	1%	N	N
	Alrosa Blvd. to Floresta Dr.	4	0.9%	1,468	91	63	1800	5%	4%	Y	N
	Floresta Dr. to US-1	4	0.5%	816	50	35	1800	3%	2%	N	N
	W. of Eleven Mile Rd.	2	0.2%	326	14	20	860	2%	2%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.3%	489	21	30	860	2%	3%	N	N
	Commerce Center Pkwy. to I-95	2	0.2%	326	14	20	860	2%	2%	N	N
	I-95 to Glades Cut-Off Rd.	4	1.0%	1,631	70	101	1860	4%	5%	N	Y
	Glades Cut-Off Rd. to Torino Pkwy	4	0.8%	1,305	81	56	1860	4%	3%	N	N
	Torino Pkwy to Selvitz Rd.	4	0.8%	1,305	81	56	1860	4%	3%	N	N
	Selvitz Rd. to S. 25th St.	4	0.6%	979	60	42	1860	3%	2%	N	N
S. 25th St. to Sunrise Blvd.	2	0.5%	816	50	35	860	6%	4%	Y	N	
Midway Rd.	Sunrise Blvd. to Oleander Ave.	2	0.5%	816	50	35	860	6%	4%	Y	N
	Oleander Ave. to US-1	2	0.3%	489	30	21	860	3%	2%	N	N
	E. of US-1	2	0.2%	326	20	14	860	2%	2%	N	N

External Traffic
 IN 6,990
 OUT 10,071
 Daily 163,121

TABLE TR-4
Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	16.8%	7,892	788	422	1620	47%	26%	Y	Y
	N/S A to Village Pkwy.	4	25.4%	11,932	1,161	638	1860	62%	34%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	18.6%	8,737	467	850	2790	17%	30%	Y	Y
	Commerce Center Pkwy. to I-95	6	17.2%	8,080	432	786	2790	15%	28%	Y	Y
	I-95 to California Blvd.	6	11.5%	5,402	289	526	2790	10%	19%	Y	Y
	California Blvd. to Cashmere Rd.	6	8.9%	4,181	223	407	2790	8%	15%	Y	Y
	Cashmere Rd. to Bayshore Blvd.	6	8.4%	3,946	211	384	2790	8%	14%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	7.0%	3,288	176	320	2790	6%	11%	Y	Y
	Airoso Blvd. to Floresta Dr.	6	5.1%	2,396	128	233	2790	5%	8%	Y	Y
	Floresta Dr. to Midport Rd.	6	4.7%	2,208	118	215	2790	4%	8%	Y	Y
	Midport Rd. to US-1	6	4.3%	2,020	108	197	2790	4%	7%	Y	Y
	US-1 to Villagegreen Dr.	4	1.2%	564	30	55	1860	2%	3%	N	N
	Villagegreen Dr. to Lennard Rd.	4	1.1%	517	28	50	1660	2%	3%	N	N
	Commerce Center Pkwy. to I-95	6	1.5%	705	38	69	1800	2%	4%	N	N
I-95 to NW Peacock Blvd.	6	3.0%	1,409	75	137	2710	3%	5%	N	Y	
St. Lucie W/ Prima Vista Blvd.	NW Peacock Blvd. to California Blvd.	6	1.0%	470	25	46	2710	1%	2%	N	N
	California Blvd. to Cashmere Rd.	4	1.2%	584	30	55	1800	2%	3%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	188	10	18	2710	0%	1%	N	N
	Bayshore Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1800	0%	0%	N	N
	Airoso Blvd. to Floresta Dr.	4	0.9%	423	23	41	1800	1%	2%	N	N
	Floresta Dr. to US-1	4	0.5%	235	13	23	1800	1%	1%	N	N
	W. of Eleven Mile Rd.	2	0.4%	188	18	10	860	2%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.5%	235	23	13	860	3%	2%	N	N
	Commerce Center Pkwy. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
	I-95 to Glades Cut-Off Rd.	4	0.4%	188	18	10	1860	1%	1%	N	N
	Glades Cut-Off Rd. to Torino Pkwy	4	1.0%	470	25	46	1860	1%	2%	N	N
	Torino Pkwy to Selvitz Rd.	4	0.8%	376	20	37	1860	1%	2%	N	N
	Selvitz Rd. to S. 26th St.	2	0.7%	329	18	32	860	2%	4%	N	N
	S. 26th St. to Sunrise Blvd.	2	0.9%	423	23	41	860	3%	5%	N	N
Sunrise Blvd. to Oleander Ave.	2	0.4%	188	10	18	860	1%	2%	N	N	
Oleander Ave. to US-1	2	0.2%	94	5	9	860	1%	1%	N	N	
E. of US-1											

External Traffic
 IN 4,571
 OUT 2,510
 Daily 46,975

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lennard Rd. to Port St. Lucie Blvd.	8	2.4%	1,127	60	110	3540	2%	3%	N	N
	Port St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	2.6%	1,221	95	119	2790	2%	4%	N	N
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.2%	94	5	2790	2790	0%	0%	N	N
	West Virginia Dr. to Village Green Dr.	6	0.1%	47	3	5	2790	0%	0%	N	N
	Village Green Dr. to Savannah Club Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	St. Lucie West Blvd. to E/W 6	6	0.1%	47	3	5	2790	0%	0%	N	N
	E/W 6 to Midway Rd.	6	0.1%	47	3	5	2790	0%	0%	N	N
	N. of Midway	4	0.1%	47	3	5	1620	0%	0%	N	N
	US-1 to Tiffany Dr./Lyngate Dr.	4	0.1%	47	3	5	1620	0%	0%	N	N
Lennard Rd.	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.0%	0	0	0	1620	0%	0%	N	N
	West Virginia Dr. to Savannah Club Blvd.	4	0.0%	0	0	0	1620	0%	0%	N	N
	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	Range Line Rd. to I-95	2	0.0%	0	0	0	860	0%	0%	N	N
SR 714/Martin Hwy	I-95 to Port St. Lucie Blvd.	2	1.8%	846	45	82	860	5%	10%	Y	Y
	Port St. Lucie Blvd. to Turnpike	4	0.8%	376	20	37	1860	1%	2%	N	N
SR 714/Martin Downs Blvd.	N. of FL. TPK Entrance to High Meadows Ave.	4	0.3%	141	8	14	1860	0%	1%	N	N
	E. of High Meadows Ave.	4	0.2%	94	5	9	1860	0%	0%	N	N
CR 714	Turnpike to High Meadows Ave.	4	1.1%	517	28	50	1620	2%	3%	N	N
	High Meadows Ave. to Berry Ave.	4	0.8%	376	20	37	1620	1%	2%	N	N
Mapp Rd/Murphy Rd.	E. of High Meadows Ave.	2	0.2%	94	5	9	760	1%	1%	N	N
	I-95 to Rosser Rd.	6	1.4%	658	35	64	2790	1%	2%	N	N
Becker Rd.	Rosser Blvd. to Savona Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Savona Blvd. to Port St. Lucie Blvd.	4	1.1%	517	28	50	1860	2%	3%	N	N
	Port St. Lucie Blvd. to Darwin Blvd.	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Darwin Blvd. to Turnpike	4	2.1%	986	53	96	1860	3%	5%	N	Y
	Turnpike to Southbend Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Southbend Blvd. to Gilson Rd.	4	0.9%	423	23	41	1860	1%	2%	N	N
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	2.4%	1,127	60	110	1860	3%	6%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	4	2.3%	1,080	58	105	1860	3%	6%	N	Y
Gatlin Blvd.	Range Line Rd. to N/S A	4	24.7%	11,603	1,129	620	1860	61%	33%	Y	Y
	N/S A to Community Blvd.	4	31.0%	14,562	778	1,417	1860	42%	76%	Y	Y
	Community Blvd. to Village Pkwy.	4	22.2%	10,428	557	1,015	1860	30%	55%	Y	Y
	Village Pkwy. to I-95	8	14.4%	6,764	361	658	3540	10%	19%	Y	Y
	I-95 to Rosser Blvd.	6	6.9%	3,241	173	315	2790	6%	11%	Y	Y
Westmoreland Blvd.	Rosser Blvd. to Savona Blvd.	6	4.7%	2,208	118	215	2790	4%	8%	N	Y
	Savona Blvd. to Port St. Lucie Blvd.	6	3.7%	1,738	93	169	2790	3%	6%	N	Y
Oakridge Blvd.	Port St. Lucie Blvd. to US-1	2	0.3%	141	8	14	760	1%	2%	N	N
	Baysshore Blvd. to Southbend Blvd.	4	0.7%	329	18	32	1620	1%	2%	N	N
Tiffany Dr/Lyngate Dr.	Midport Rd. to US-1	2	0.0%	0	0	0	760	0%	0%	N	N
	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
E/W XY	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N/S A to Community Blvd.	2	4.9%	2,302	123	224	760	16%	29%	Y	Y
	Commerce Center Parkway to Village Pkwy.	4	2.5%	1,174	63	114	1620	4%	7%	N	Y

TABLE TR-4

Western Annexation Study
2025 Western Grove Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	California Blvd. to Cashmere Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	Cashmere Blvd. to California Blvd.	2	0.1%	47	3	5	760	0%	1%	N	N
	Martin Hwy. to Becker Rd.	4	1.2%	564	55	30	1860	3%	2%	N	N
Port St. Lucie Blvd.	Becker Rd. to Paar Dr.	2	2.2%	1,033	101	55	890	11%	6%	Y	Y
	Paar Dr. to Darwin Blvd.	2	0.6%	282	27	15	880	3%	2%	N	N
	Darwin Blvd. to Gallin Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Gallin Blvd. to Del Rio Blvd.	6	3.0%	1,409	137	75	2790	5%	3%	N	N
	Del Rio Blvd. to Bayshore Blvd.	6	2.3%	1,080	58	105	2790	2%	4%	N	N
	Bayshore Blvd. to Airosa Blvd.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Airosa Blvd. to Southbend Blvd./Floresta Dr.	6	1.6%	752	40	73	2790	1%	3%	N	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	1.3%	611	33	59	2790	1%	2%	N	N
	Midport Rd. to US-1	6	0.9%	423	23	41	2790	1%	1%	N	N
	US-1 to Lennard Rd.	4	0.5%	235	13	23	1860	1%	1%	N	N
Tumpike	Becker Rd. to Port St. Lucie Blvd.	2	0.2%	94	5	9	760	1%	1%	N	N
	Martin Hwy. to Becker Rd.	4	0.5%	235	23	13	2940	1%	0%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Oakridge Blvd. to Port St. Lucie Blvd.	4	0.7%	329	32	18	1860	2%	1%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.7%	329	18	32	1860	1%	2%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.5%	235	13	23	760	2%	3%	N	N
	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
	Bayshore Blvd. to E/W 5	4	0.5%	235	13	23	1860	1%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Airosa Blvd.	N. of Midway	4	0.0%	0	0	0	1860	0%	0%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.6%	282	15	27	1860	1%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	1.3%	611	33	59	1860	2%	3%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.5%	235	13	23	1860	1%	1%	N	N
Southbend Blvd.	Floresta Dr. to St. James Blvd.	4	0.5%	235	13	23	1860	1%	1%	N	N
	Becker Rd. to Oakridge Blvd.	2	0.7%	329	32	18	760	4%	2%	N	N
Floresta Dr.	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.3%	141	8	14	1860	0%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.1%	47	3	5	1860	0%	0%	N	N
	Prima Vista Blvd. to Airosa Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Oleander Ave.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Midport Rd.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.2%	94	5	9	1860	0%	0%	N	N
High Meadows Ave.	CR 714 to Martin Downs Blvd.	2	0.3%	141	14	8	760	2%	1%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
Glison Rd.	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.6%	282	27	15	760	4%	2%	N	N

TABLE TR-4
 Western Annexation Study
 2025 Western Grove Significant Impact
 External Network

Roadway	Link	Lanes	% External Traffic	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact
					NB/EB	SB/WB		NB/EB	SB/WB	
Range Line	Martin Hwy. to Becker Rd.	2	2.8%	1,315	128	70	810	16%	9%	Y
	Becker Rd. to E/W 4 (Paar Dr.)	2	2.3%	1,080	105	58	810	13%	7%	Y
	E/W 4 (Paar Dr.) to E/W 3	2	2.7%	1,268	123	68	810	15%	8%	Y
	E/W 3 to E/W 1	2	3.3%	1,550	151	83	810	18%	10%	Y
	E/W 1 to Gatlin Blvd.	2	3.6%	1,691	165	90	810	20%	11%	Y
	Gatlin Blvd. to West Virginia Blvd.	2	0.5%	235	13	23	810	2%	3%	N
Glades Cut-Off Rd.	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.1%	517	50	28	810	6%	3%	N
	Range Line / CR 609 to N/S A	2	0.1%	47	3	5	760	0%	1%	N
	N/S A to Commerce Center Pkwy.	2	4.7%	2,208	118	215	760	16%	28%	Y
	Commerce Center Pkwy. to Midway Rd.	2	1.2%	584	30	55	760	4%	7%	Y
	N. of Midway Rd.	2	0.5%	235	13	23	760	2%	3%	N
	Gatlin Blvd. to E/W XY	4	16.0%	7,516	402	731	1860	22%	39%	Y
N/S A	E/W XY to West Virginia Blvd.	4	13.5%	6,342	339	617	1860	16%	33%	Y
	West Virginia Blvd. to Glades Cut-Off Rd.	2	4.7%	2,208	118	215	860	14%	25%	Y
	Gatlin Blvd. to E/W XY	2	0.9%	423	41	23	860	5%	3%	N
	West Virginia Blvd. to St. Lucie West Blvd.	4	1.4%	658	35	64	1860	2%	3%	N
	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	47	3	5	860	0%	1%	N
	Gatlin Blvd. to E/W XY	6	1.1%	517	50	28	2790	2%	1%	N
Village Pkwy.	E/W XY to West Virginia Blvd.	4	0.0%	0	0	0	1860	0%	0%	N
	Martin Hwy. to Becker Rd.	6	9.5%	4,463	434	238	5410	8%	4%	Y
	Becker Rd. to E/W 3	6	9.6%	4,510	439	241	5410	8%	4%	Y
	E/W 3 to Gatlin Blvd.	6	7.6%	3,570	347	191	5410	6%	4%	Y
	Gatlin Blvd. to West Virginia Blvd.	6	0.0%	0	0	0	5410	0%	0%	N
	West Virginia Blvd. to St. Lucie West Blvd.	6	5.8%	2,725	146	265	5410	3%	5%	N
NW Peacock Blvd. Loop	St. Lucie West Blvd. to Midway Rd.	6	4.1%	1,926	103	187	5410	2%	3%	N
	St. Lucie West Blvd. to California Blvd.	2	1.9%	893	48	87	760	6%	11%	Y
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N
	Becker Rd. to Paar Dr.	4	0.2%	94	9	5	1620	1%	0%	N
	Paar Dr. to E/W 3	4	0.0%	0	0	0	1620	0%	0%	N
	E/W 3 to Gatlin Blvd.	4	0.0%	0	0	0	1620	0%	0%	N
W. Torino Pkwy.	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N
	NW Peacock Blvd. to Midway Rd.	2	0.2%	94	5	9	760	1%	1%	N
	California Blvd. to Cashmere Blvd.	2	0.3%	141	8	14	760	1%	2%	N
	Del Rio Blvd. to Savonina Blvd.	2	0.0%	0	0	0	760	0%	0%	N
	Savonina Blvd. to Del Rio Blvd.	2	0.5%	235	23	13	760	3%	2%	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.6%	282	27	15	760	4%	2%	N
California Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	4	1.9%	893	48	87	1620	3%	5%	Y
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.3%	141	8	14	760	1%	2%	N
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.3%	141	8	14	760	1%	2%	N
	Becker Rd. to Paar Dr.	2	0.0%	0	0	0	760	0%	0%	N
	Paar Dr. to Gatlin Blvd.	2	0.8%	376	37	20	760	5%	3%	N
	Gatlin Blvd. to California Blvd.	2	0.2%	94	5	9	760	1%	1%	N
Cashmere Blvd.	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	47	3	5	760	0%	1%	N
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.5%	235	13	23	760	2%	3%	N
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.0%	0	0	0	760	0%	0%	N
	Becker Rd. to Paar Dr.	2	0.8%	376	37	20	760	5%	3%	N
	Gatlin Blvd. to California Blvd.	2	0.2%	94	5	9	760	1%	1%	N
	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	47	3	5	760	0%	1%	N

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
West Virginia Dr.	Range Line Rd. to N/S A	4	0.2%	192	9	11	1620	1%	1%	N	N
	N/S A to Village Pkwy.	4	5.4%	5,194	245	305	1860	13%	16%	Y	Y
	Village Pkwy. to Commerce Center Pkwy.	6	3.1%	2,982	175	141	2790	6%	5%	Y	Y
	Commerce Center Pkwy. to I-95	6	2.7%	2,987	152	123	2790	5%	4%	Y	Y
	I-95 to California Blvd.	6	3.1%	2,982	175	141	2790	6%	5%	Y	Y
	California Blvd. to Cashmere Rd.	6	2.3%	2,212	130	104	2790	5%	4%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	2.0%	1,924	113	91	2790	4%	3%	N	N
	Bayshore Blvd. to Airosa Blvd.	6	1.6%	1,539	90	73	2790	3%	3%	N	N
	Airosa Blvd. to Floresta Dr.	6	0.7%	673	39	32	2790	1%	1%	N	N
	Floresta Dr. to Midport Rd.	6	0.6%	577	34	27	2790	1%	1%	N	N
	Midport Rd. to US-1	6	0.6%	577	34	27	2790	1%	1%	N	N
	US-1 to Villagegreen Dr.	4	0.2%	192	11	9	1860	1%	0%	N	N
	Villagegreen Dr. to Lennard Rd.	4	0.2%	192	11	9	1860	1%	0%	N	N
	Commerce Center Pkwy. to I-95	4	0.4%	365	18	23	1800	1%	1%	N	N
I-95 to NW Peacock Blvd.	6	2.3%	2,212	130	104	2710	5%	4%	N	N	
St. Lucie W/ Prima Vista Blvd.	NW Peacock Blvd. to California Blvd.	6	0.7%	673	39	32	2710	1%	1%	N	N
	California Blvd. to Cashmere Rd.	4	1.0%	962	56	45	1800	3%	3%	N	N
	Cashmere Rd. to Bayshore Blvd.	6	0.4%	365	23	18	2710	1%	1%	N	N
	Bayshore Blvd. to Airosa Blvd.	4	0.1%	96	6	5	1800	0%	0%	N	N
	Airosa Blvd. to Floresta Dr.	4	0.4%	385	23	18	1800	1%	1%	N	N
	Floresta Dr. to US-1	4	0.3%	289	17	14	1800	1%	1%	N	N
	W. of Eleven Mile Rd.	2	0.2%	192	9	11	860	1%	1%	N	N
	Eleven Mile Rd. to Commerce Center Pkwy.	2	0.3%	289	14	17	860	2%	2%	N	N
	Commerce Center Pkwy. to I-95	4	0.8%	770	36	45	860	4%	5%	N	Y
	I-95 to Glades Cut-Off Rd.	4	0.7%	673	32	39	1860	2%	2%	N	N
	Glades Cut-Off Rd. to Torino Pkwy	4	0.7%	673	39	32	1860	2%	2%	N	N
	Torino Pkwy. to Selvitz Rd.	4	0.7%	673	39	32	1860	2%	2%	N	N
	Selvitz Rd. to S. 25th St.	4	0.6%	577	34	27	1860	2%	1%	N	N
	S. 25th St. to Sunrise Blvd.	2	0.5%	481	28	23	860	3%	3%	N	N
Sunrise Blvd. to Oleander Ave.	2	0.5%	481	28	23	860	3%	3%	N	N	
Oleander Ave. to US-1	2	0.3%	289	17	14	860	2%	2%	N	N	
E. of US-1	2	0.1%	96	6	5	860	1%	1%	N	N	

External Traffic
IN 4,543
OUT 5,639
Daily 96,188

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External Traffic	Daily Traffic	Project Traffic		Service Volume		Impact		Significant Impact	
					NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
US-1	Lenriard Rd. to Port St. Lucie Blvd.	8	0.7%	673	39	32	3540	1%	N	N	N	
	Port St. Lucie Blvd. to Tiffany Dr./Lyngate Dr.	6	0.0%	0	0	0	2790	0%	N	N	N	
	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	6	0.0%	0	0	0	2790	0%	N	N	N	
	West Virginia Dr. to Village Green Dr.	6	0.2%	192	11	9	2790	0%	N	N	N	
	Village Green Dr. to Savannah Club Blvd.	6	0.2%	192	11	9	2790	0%	N	N	N	
	Savannah Club Blvd. to St. Lucie West Blvd.	6	0.0%	0	0	0	2790	0%	N	N	N	
	St. Lucie West Blvd. to E/W 6	6	0.1%	96	6	5	2790	0%	N	N	N	
	E/W 6 to Midway Rd.	6	0.1%	96	6	5	2790	0%	N	N	N	
	N. of Midway	6	0.1%	96	6	5	2790	0%	N	N	N	
	US-1 to Tiffany Dr./Lyngate Dr.	4	0.3%	289	17	14	1620	1%	N	N	N	
Lennard Rd.	Tiffany Dr./Lyngate Dr. to West Virginia Dr.	4	0.2%	192	11	9	1620	0%	N	N	N	
	West Virginia Dr. to Savannah Club Blvd.	4	0.1%	96	6	5	1620	0%	N	N	N	
SR 714/Martin Hwy	Savannah Club Blvd. to US-1	2	0.0%	0	0	0	760	0%	N	N	N	
	Range Line Rd. to I-95	2	0.1%	96	6	5	860	1%	N	N	N	
SR 714/Martin Downs Blvd.	I-95 to Port St. Lucie Blvd.	2	1.3%	1,250	73	59	860	8%	Y	Y	Y	
	Port St. Lucie Blvd. to Turnpike	4	0.9%	866	51	41	1860	3%	N	N	N	
CR 714	N. of FL TPK Entrance to High Meadows Av	4	0.7%	673	39	32	1860	2%	N	N	N	
	E. of High Meadows Ave.	4	0.6%	577	34	27	1860	2%	N	N	N	
Miapp Rd/Murphy Rd.	Turnpike to High Meadows Ave.	4	1.7%	1,635	96	77	1620	6%	Y	Y	Y	
	High Meadows Ave. to Berry Ave.	4	1.4%	1,347	79	64	1620	5%	N	N	N	
Becker Rd.	E. of High Meadows Ave.	2	0.3%	289	17	14	780	2%	N	N	N	
	I-95 to Rosser Rd.	6	8.5%	8,176	479	386	2790	17%	Y	Y	Y	
Paar Dr.	Rosser Blvd. to Savona Blvd.	4	5.6%	5,387	316	254	1860	17%	Y	Y	Y	
	Savona Blvd. to Port St. Lucie Blvd.	4	5.5%	5,290	310	250	1860	17%	Y	Y	Y	
Gatlin Blvd.	Port St. Lucie Blvd. to Darwin Blvd.	4	4.9%	4,713	276	223	1860	15%	Y	Y	Y	
	Darwin Blvd. to Turnpike	4	4.9%	4,713	278	223	1860	15%	Y	Y	Y	
Westmoreland Blvd.	Turnpike to Southbend Blvd.	4	3.1%	2,982	175	141	1860	9%	Y	Y	Y	
	Southbend Blvd. to Gilson Rd.	4	0.8%	770	45	36	1860	2%	N	N	N	
Oakridge Blvd.	Rosser Blvd. to Savona Blvd.	4	7.2%	6,926	406	327	1860	22%	Y	Y	Y	
	Savona Blvd. to Port St. Lucie Blvd.	4	6.7%	6,445	378	304	1860	20%	Y	Y	Y	
Tiffany Dr/Lyngate Dr.	Range Line Rd. to N/S A	4	0.8%	770	38	45	1860	2%	N	N	N	
	N/S A to Community Blvd.	4	0.4%	385	18	23	1860	1%	N	N	N	
E/W XY	Community Blvd. to Village Pkwy.	4	0.0%	0	0	0	1860	0%	N	N	N	
	Village Pkwy. to I-95	8	1.8%	1,539	90	73	3540	3%	N	N	N	
E/W XY	I-95 to Rosser Blvd.	6	1.0%	962	56	45	2790	2%	N	N	N	
	Rosser Blvd. to Savona Blvd.	6	1.8%	1,731	102	82	2790	4%	N	N	N	
E/W XY	Savona Blvd. to Port St. Lucie Blvd.	6	1.3%	1,250	73	59	2790	3%	N	N	N	
	Port St. Lucie Blvd. to US-1	2	0.3%	289	17	14	760	2%	N	N	N	
E/W XY	Bayshore Blvd. to Southbend Blvd.	4	0.3%	289	17	14	1620	1%	N	N	N	
	Midport Rd. to US-1	2	0.2%	192	11	9	760	1%	N	N	N	
E/W XY	US-1 to Villagegreen Dr.	2	0.0%	0	0	0	760	0%	N	N	N	
	Villagegreen Dr. to Lennard Rd.	2	0.0%	0	0	0	760	0%	N	N	N	
E/W XY	N/S A to Community Blvd.	2	0.1%	96	6	5	760	1%	N	N	N	
	Commerce Center Parkway to Village Pkwy.	4	0.3%	289	17	14	1620	1%	N	N	N	

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume	Impact		Significant Impact	
					NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
Del Rio Blvd.	Port St. Lucie Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Port St. Lucie Blvd.	Cashmere Blvd. to California Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Becker Rd. to Becker Rd.	4	1.8%	1,731	82	102	1860	4%	5%	Y	Y
	Martin Hwy. to Becker Rd.	2	4.8%	4,713	276	223	890	31%	25%	Y	Y
	Paar Dr. to Darwin Blvd.	4	4.0%	3,848	226	182	1860	12%	10%	Y	Y
	Darwin Blvd. to Gatlin Blvd.	6	5.2%	5,002	293	236	2790	11%	8%	Y	Y
	Del Rio Blvd. to Bayshore Blvd.	6	4.5%	4,328	254	204	2790	9%	7%	Y	Y
	Bayshore Blvd. to Airoso Blvd.	6	3.7%	3,559	209	168	2790	7%	6%	Y	Y
	Airoso Blvd. to Southbend Blvd./Floresta Dr.	6	2.9%	2,789	164	132	2790	6%	5%	Y	N
	Southbend Blvd./Floresta Dr. to Midport Rd.	6	2.4%	2,309	135	109	2790	5%	4%	N	N
	Midport Rd. to US-1	6	1.4%	1,347	79	64	2790	3%	2%	N	N
Darwin Blvd.	US-1 to Lennard Rd.	4	0.5%	481	28	23	1860	2%	1%	N	N
	Becker Rd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
Turnpike	Martin Hwy. to Becker Rd.	4	1.0%	962	45	56	2940	2%	2%	N	N
	Becker Rd. to Port St. Lucie Blvd.	4	0.0%	0	0	0	2940	0%	0%	N	N
Bayshore Blvd.	Port St. Lucie Blvd. to Ft. Pierce (SR 70)	4	0.0%	0	0	0	2940	0%	0%	N	N
	Oakridge Blvd. to Port St. Lucie Blvd.	4	0.3%	289	14	17	1860	1%	1%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.2%	192	11	9	1860	1%	0%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.4%	385	23	18	1860	1%	1%	N	N
	Prima Vista Blvd. to Selvitz Rd.	2	0.4%	385	23	18	760	3%	2%	N	N
Selvitz Rd.	Selvitz Rd. to St. James Dr.	2	0.0%	0	0	0	760	0%	0%	N	N
	Bayshore Blvd. to E/W 5	2	0.0%	0	0	0	760	0%	0%	N	N
St. James Dr.	E/W 5 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway	2	0.0%	0	0	0	760	0%	0%	N	N
25 th Street	Bayshore Blvd. to E/W 5	4	0.3%	289	17	14	1860	1%	1%	N	N
	E/W 5 to Midway Rd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Airoso Blvd.	N. of Midway	4	0.1%	96	6	5	1860	0%	0%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.9%	481	28	23	1860	2%	1%	N	N
	West Virginia Dr. to Prima Vista Blvd.	4	0.9%	866	51	41	1860	3%	2%	N	N
	Prima Vista Blvd. to Floresta Dr.	4	0.3%	289	17	14	1860	1%	1%	N	N
Southbend Blvd.	Floresta Dr. to St. James Blvd.	4	0.3%	289	17	14	1860	1%	1%	N	N
	Becker Rd. to Oakridge Blvd.	2	0.8%	770	45	36	760	6%	5%	Y	N
Floresta Dr.	Oakridge Blvd. to Port St. Lucie Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N
	Port St. Lucie Blvd. to West Virginia Dr.	4	0.3%	289	17	14	1860	1%	1%	N	N
Oleander Ave.	West Virginia Dr. to Prima Vista Blvd.	4	0.1%	96	6	5	1860	0%	0%	N	N
	Prima Vista Blvd. to Airoso Blvd.	4	0.0%	0	0	0	1860	0%	0%	N	N
Midport Rd.	E/W 6 to Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
	N. of Midway Rd.	2	0.0%	0	0	0	760	0%	0%	N	N
High Meadows Ave.	Port St. Lucie Blvd. to Lyngate Dr.	4	0.6%	577	34	27	1860	2%	1%	N	N
	Lyngate Dr. to West Virginia Dr.	4	0.1%	96	6	5	1860	0%	0%	N	N
Gilson Rd.	GR 714 to Martin Downs Blvd.	2	0.3%	289	14	17	760	2%	2%	N	N
	Martin Downs Blvd. to Mapp Rd/Murphy Rd.	2	0.0%	0	0	0	760	0%	0%	N	Y
	Mapp Rd/Murphy Rd. to Becker Rd.	2	0.8%	770	36	45	760	5%	8%	N	Y

TABLE TR-4
Western Annexation Study
2025 Wilson Groves Significant Impact
External Network

Roadway	Link	Lanes	% External	Daily Traffic	Project Traffic		Service Volume		Impact		Significant Impact	
					NB/EB	SB/MB	NB/EB	SB/MB	NB/EB	SB/MB	NB/EB	SB/MB
Range Line	Martin Hwy. to Becker Rd.	2	5.9%	5,675	268	333	810	33%	41%	Y	Y	
	Becker Rd. to E/W 4 (Paar Dr.)	2	1.2%	1,154	68	55	810	8%	7%	Y	Y	
	E/W 4 (Paar Dr.) to E/W 3	2	1.9%	1,828	86	107	810	11%	13%	Y	Y	
	E/W 3 to E/W 1	2	2.5%	2,405	141	114	810	17%	14%	Y	Y	
Glades Cut-Off Rd.	E/W 1 to Gatlin Blvd.	2	1.9%	1,828	107	86	810	13%	11%	Y	Y	
	Gatlin Blvd. to West Virginia Blvd.	2	1.2%	1,154	68	55	810	8%	7%	Y	Y	
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.0%	962	56	45	810	7%	6%	Y	Y	
	Range Line / CR 609 to N/S A	2	0.4%	385	23	18	760	3%	2%	N	N	
Community Blvd.	N/S A to Commerce Center Pkwy.	2	2.2%	2,116	124	100	760	16%	13%	Y	Y	
	Commerce Center Pkwy to Midway Rd.	2	0.3%	289	17	14	760	2%	2%	N	N	
	N. of Midway Rd.	2	0.3%	289	17	14	760	2%	2%	N	N	
	Gatlin Blvd. to E/W XY	4	7.2%	6,926	406	327	1860	22%	18%	Y	Y	
Commerce Center Pkwy.	E/W XY to West Virginia Blvd.	4	7.0%	6,733	395	318	1860	21%	17%	Y	Y	
	West Virginia Blvd. to Glades Cut-Off Rd.	2	1.8%	1,731	102	82	860	12%	10%	Y	Y	
	Gatlin Blvd. to E/W XY	2	1.5%	1,443	85	68	860	10%	8%	Y	Y	
	West Virginia Blvd. to St. Lucie West Blvd.	4	0.4%	385	23	18	1860	1%	1%	N	N	
Village Pkwy.	St. Lucie West Blvd. to Glades Cut-Off Rd.	2	0.1%	96	6	5	860	1%	1%	N	N	
	Gatlin Blvd. to E/W XY	6	1.7%	1,635	98	77	2790	3%	3%	N	N	
	E/W XY to West Virginia Blvd.	4	0.5%	481	28	23	1860	2%	1%	N	N	
	Martin Hwy. to Becker Rd.	6	5.7%	5,483	259	321	5410	5%	6%	N	Y	
i-95	Becker Rd. to E/W 3	6	1.7%	1,635	96	77	5410	2%	1%	N	N	
	E/W 3 to Gatlin Blvd.	6	5.7%	5,483	321	259	5410	6%	5%	Y	N	
	Gatlin Blvd. to West Virginia Blvd.	6	6.4%	6,156	361	291	5410	7%	5%	Y	Y	
	West Virginia Blvd. to St. Lucie West Blvd.	6	6.1%	5,867	344	277	5410	6%	5%	Y	Y	
NW Peacock Blvd. Loop	St. Lucie West Blvd. to Midway Rd.	6	4.0%	3,848	226	182	5410	4%	3%	N	Y	
	St. Lucie West Blvd. to California Blvd.	2	1.1%	1,058	62	50	760	8%	7%	Y	Y	
	California Blvd. to Cashmere Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
	Becker Rd. to Paar Dr.	4	2.9%	2,789	164	132	1620	10%	8%	Y	Y	
Rosser Blvd.	Paar Dr. to E/W 3	4	1.7%	1,635	96	77	1620	6%	5%	Y	Y	
	E/W 3 to Gatlin Blvd.	4	2.4%	2,309	135	109	1620	8%	7%	Y	Y	
	California Blvd. to E. Torino Pkwy.	2	0.0%	0	0	0	760	0%	0%	N	N	
	NW Peacock Blvd. to Midway Rd.	2	0.1%	96	6	5	760	1%	1%	N	N	
California Blvd.	California Blvd. to Cashmere Blvd.	2	0.2%	192	11	9	760	1%	1%	N	N	
	Del Rio Blvd. to Savanna Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
	Savanna Blvd. to Del Rio Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N	
	Del Rio Blvd. to West Virginia Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N	
Savona Blvd.	West Virginia Blvd. to St. Lucie West Blvd.	4	0.7%	673	39	32	1620	2%	2%	N	N	
	St. Lucie West Blvd. to NW Peacock Blvd.	2	0.1%	96	6	5	760	1%	1%	N	N	
	NW Peacock Blvd. Loop to W. Torino Pkwy.	2	0.2%	192	11	9	760	1%	1%	N	N	
	Becker Rd. to Paar Dr.	2	0.1%	96	6	5	760	1%	1%	N	N	
Cashmere Blvd.	Paar Dr. to Gatlin Blvd.	2	0.5%	481	28	23	760	4%	3%	N	N	
	Gatlin Blvd. to California Blvd.	2	0.6%	577	34	27	760	4%	4%	N	N	
	Del Rio Blvd. to West Virginia Blvd.	2	0.0%	0	0	0	760	0%	0%	N	N	
	West Virginia Blvd. to St. Lucie West Blvd.	2	0.2%	192	11	9	760	1%	1%	N	N	

**TABLE 1
VILLAGE OF SUNSET LAKES
TRIP GENERATION**

Land Use	Intensity	Daily Trips	PM Peak Hour		
			Total	In	Out
Proposed Site Traffic					
Single-Family Residential	63 DU	680	69	43	26
Apartments	314 DU	2,026	190	124	66
Townhomes	342 DU	1,875	165	111	54
Specialty Retail	2,000 SF	89	5	2	3
<i>Subtotal</i>		4,670	429	280	149
Internal Capture					
Residential to Specialty Retail	5%	234	22	11	11
Pass-By Trip Reduction					
Specialty Retail	34%	29	2	1	1
Net New External Trips		4,407	405	268	137
Driveway Trips		4,436	407	269	138

Note: Trips were calculated using the following rates and/or equations found in the Institute of Transportation Engineers' (ITE) Trip Generation Report, 8th Edition:

Daily Traffic Generation

Single-Family Residential	[ITE 210]	=	$\ln(T) = 0.92 \cdot \ln(X) + 2.71$
Apartments	[ITE 220]	=	$T = 6.06 \cdot (X) + 123.56$
Townhomes	[ITE 230]	=	$\ln(T) = 0.87 \cdot \ln(X) + 2.46$
Specialty Retail	[ITE 814]	=	$T = 44.32 \cdot (X/1000)$

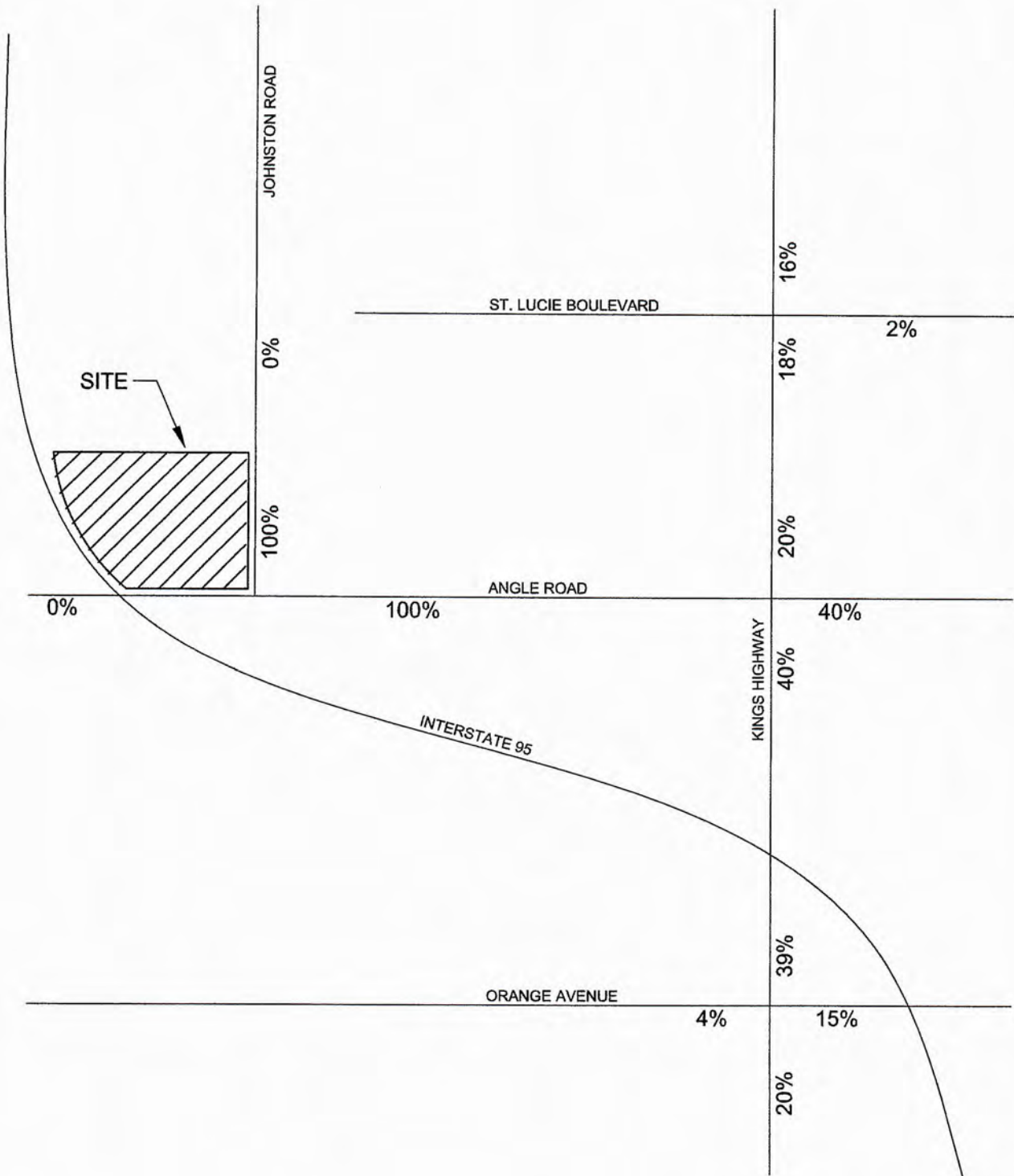
PM Peak Hour Traffic Generation

Single-Family Residential	[ITE 210]	=	$\ln(T) = 0.90 \cdot \ln(X) + 0.51$; (63% in, 37% out)
Apartments	[ITE 220]	=	$T = 0.55 \cdot (X) + 17.65$; (65% in, 35% out)
Townhomes	[ITE 230]	=	$\ln(T) = 0.82 \cdot \ln(X) + 0.32$; (67% in, 33% out)
Specialty Retail	[ITE 814]	=	$T = 2.71 \cdot (X/1000)$; (44% in, 56% out)

Average Pass-By Trip Percentage for Retail Development = 34%

k:\wpb_tpto\1443186000\traffic\2009-03\calcs\{2009-03-12.xls\}trip gen
March 12, 2009

 Kimley-Horn
and Associates, Inc.
© 2009, Kimley-Horn and Associates, Inc.



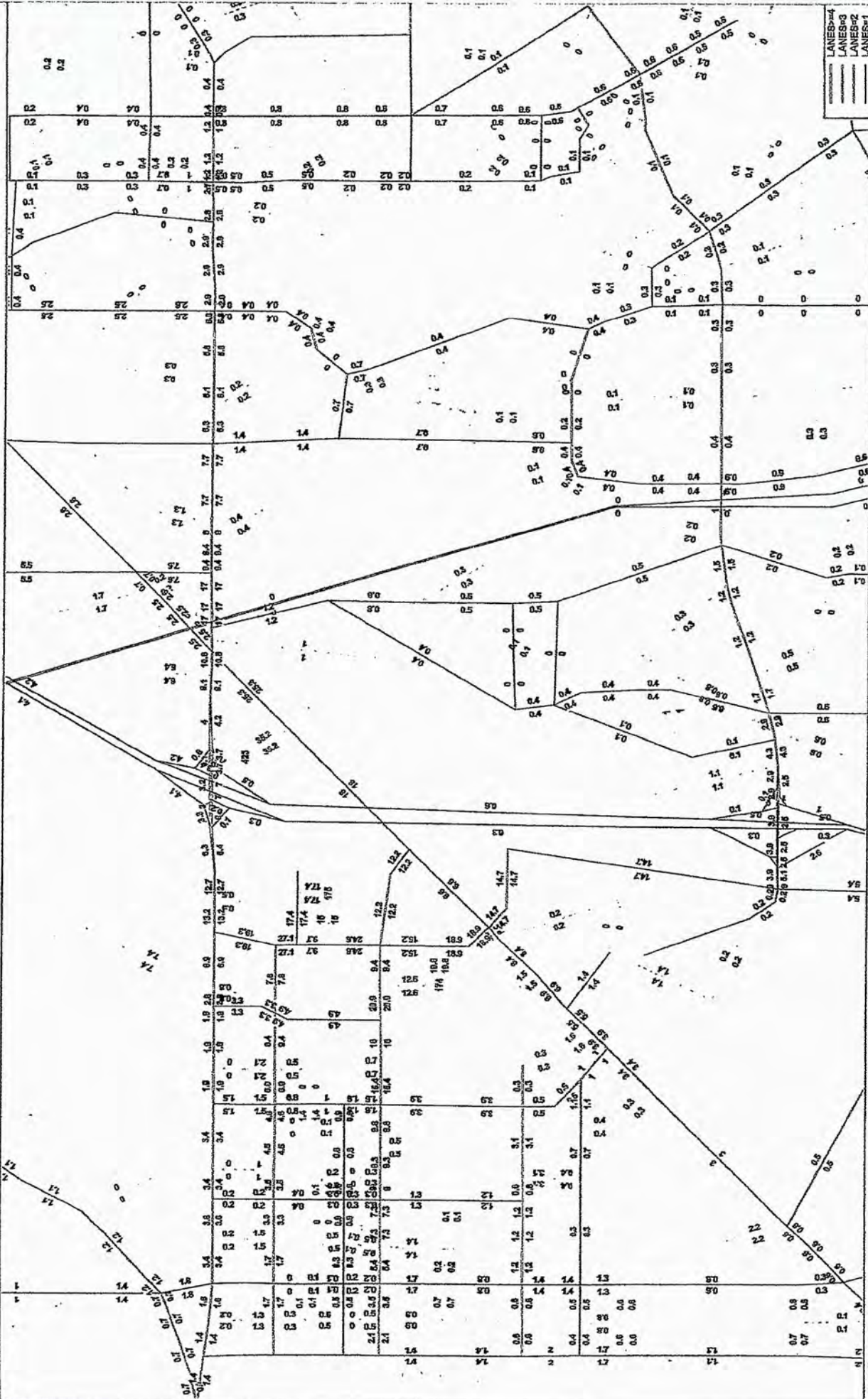
NOT TO SCALE

LEGEND
 XX% Project Traffic Distribution

FIGURE 2
PROJECT TRAFFIC DISTRIBUTION
VILLAGE OF SUNSET LAKES

 Kimley-Horn
 and Associates, Inc.
 PROJECT # 144386000

LTC Ranch Zones-Percent Distribution



LANE#4
LANE#3
LANE#2
LANE#1

Licensed to Kimley-Horn and Associates, Inc.

0110

Land Use	TE Co	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		Internal Trips		Net External Trips		Pass-by Trips		Net New Trips		West Side Trips	East Side Trips	Total
					In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			
					%	%	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total			
Single Family Detached	210	3.350	DU	$\text{Ln}(T) = 0.921 \text{Ln}(X) + 2.71$	50%	3,481	3,613	7,094	27.0%	19,207	9,537	19,207	0.0%	9,670	9,537	19,207	20,540	19,207	39,747
Multi-Family Housing	220	650	DU	$T = 7.56(X) - 40.86$	50%	2,437	2,436	4,873	27.0%	1,792	1,767	3,559	-	1,792	1,767	3,559	3,880	3,559	7,439
General Office	710	1,508,500	SR	$\text{Ln}(T) = 0.971 \text{Ln}(X) + 2.50$	50%	7,378	7,377	14,755	34.4%	5,828	5,828	9,680	-	5,828	3,852	9,680	9,680	9,680	19,360
Industrial Park	130	1,000,000	SR	$T = 3.37(X)$	50%	1,685	1,685	3,370	32.5%	1,331	944	2,275	-	1,331	944	2,275	-	2,275	4,550
Warehousing	150	960,000	SR	$T = 1.58(X) + 15.54$	50%	781	781	1,562	32.5%	617	437	1,054	-	617	437	1,054	-	1,054	2,111
Shopping Center	820	725,000	SR	$\text{Ln}(T) = 0.68 \text{Ln}(X) + 5.57$	50%	11,562	11,561	23,123	38.5%	8,320	14,223	4,836	-	3,485	5,902	9,387	9,287	10,234	19,621
TOTALS						36,994	36,990	73,984	32.4%	25,141	24,887	49,998	4,836	22,723	22,439	45,162	32,153	13,009	48,162

Source: ITE 10th Edition Trip Generation Rates

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		Internal Trips		Net External Trips		Pass-by Trips		Net New Trips		West Side Trips	East Side Trips	Total	
					In	Out	In	Out	In	Out	In	Out	In	Out						
					%	%	Total	Total	Total	Total	Total	Total	Total	Total						
Single Family Detached	210	3.350	DU	$T = 0.71(X) + 4.80$	25%	596	1,287	2,883	644	27.0%	555	1,184	1,739	-	555	1,184	1,739	1,739	1,739	
Multi-Family Housing	220	650	DU	$\text{Ln}(T) = 0.951 \text{Ln}(X) - 0.51$	25%	65	217	282	71	27.0%	60	146	206	-	60	146	206	206	206	
General Office	710	1,508,500	SR	$T = 0.94(X) + 26.49$	86%	1,242	202	1,444	86	495	833	116	949	-	833	116	949	949	949	
Industrial Park	130	1,000,000	SR	$T = 0.40(X)$	81%	324	76	400	24	137	211	52	263	-	211	52	263	263	263	
Warehousing	150	960,000	SR	$T = 0.17(X)$	77%	126	37	163	10	56	80	27	107	-	80	27	107	107	107	
Shopping Center	820	725,000	SR	$T = 0.94(X)$	62%	423	259	682	293	114	407	59.7%	130	145	275	94	34.0%	83	181	275
TOTALS						2,776	2,678	5,454	908	1,815	33.9%	1,869	1,670	3,539	94	2.7%	1,822	1,623	3,445	

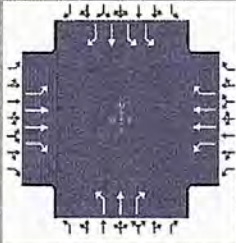
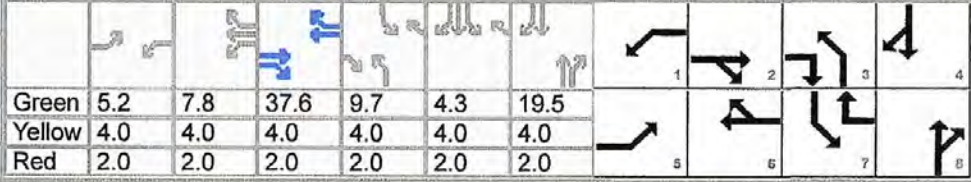
Source: ITE 10th Edition Trip Generation Rates

Land Use	TE Co	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		Internal Trips		Net External Trips		Pass-by Trips		Net New Trips		West Side Trips	East Side Trips	Total	
					In	Out	In	Out	In	Out	In	Out	In	Out						
					%	%	Total	Total	Total	Total	Total	Total	Total	Total						
Single Family Detached	210	3.350	DU	$\text{Ln}(T) = 0.964 \text{Ln}(X) + 0.20$	63%	1,863	1,094	2,957	567	811	27.4%	1,619	527	2,146	0.48	0.16	0.64	2,146	2,146	
Multi-Family Housing	220	650	DU	$\text{Ln}(T) = 0.89 \text{Ln}(X) - 0.02$	63%	197	115	312	26	86	27.6%	171	55	226	-	171	55	226	226	226
General Office	710	1,508,500	SR	$\text{Ln}(T) = 0.951 \text{Ln}(X) + 0.36$	16%	240	1,260	1,500	169	258	427	28.5%	71	1,002	1,073	0.05	0.66	0.71	1,073	1,208
Industrial Park	130	1,000,000	SR	$T = 0.40(X)$	21%	84	316	400	45	69	114	28.5%	39	247	286	-	39	247	286	322
Warehousing	150	960,000	SR	$T = 0.19(X)$	27%	49	133	182	21	31	52	28.6%	28	102	130	-	28	102	130	146
Shopping Center	820	725,000	SR	$\text{Ln}(T) = 0.741 \text{Ln}(X) + 2.89$	48%	1,130	1,224	2,354	781	301	1,082	46.0%	349	923	1,272	432	34.0%	134	706	840
TOTALS						3,563	4,142	7,705	1,286	2,572	33.4%	2,277	2,856	5,133	432	8.4%	2,062	2,639	4,701	

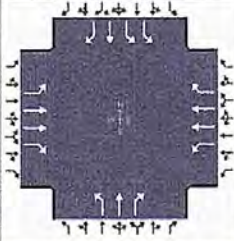
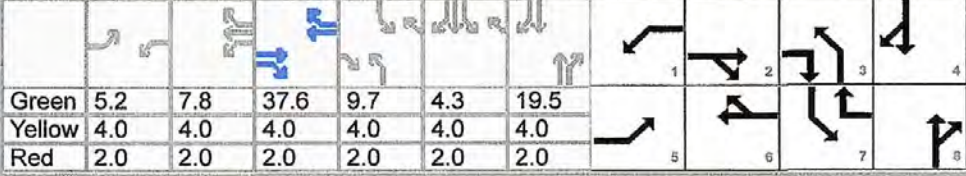
Source: ITE 10th Edition Trip Generation Rates

APPENDIX E
DRIVEWAY ANALYSIS

HCS7 Signalized Intersection Results Summary

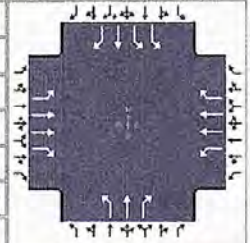
General Information					Intersection Information																			
Agency	O'Rourke Engineering				Duration, h	0.25																		
Analyst	James Kemp	Analysis Date	Jun 29, 2020		Area Type	Other																		
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour		PHF	0.95																		
Urban Street	Midway Rd	Analysis Year	2035		Analysis Period	1 > 7:00																		
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - 7.22.20.xus																					
Project Description	Willow Lakes																							
Demand Information					EB			WB			NB			SB										
Approach Movement	L		T		R		L		T		R		L		T		R							
Demand (v), veh/h	56		502		126		241		453		748		112		225		214		478		124		23	
Signal Information																								
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					
Green	5.2	7.8	37.6	9.7	4.3	19.5																		
Yellow	4.0	4.0	4.0	4.0	4.0	4.0																		
Red	2.0	2.0	2.0	2.0	2.0	2.0																		
Timer Results					EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT					
Assigned Phase	5		2		1		6		3		8		7		4									
Case Number	2.0		3.0		2.0		3.0		2.0		3.0		2.0		3.0									
Phase Duration, s	11.2		43.6		24.9		57.3		15.7		25.5		26.0		35.8									
Change Period, (Y+R _c), s	6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0									
Max Allow Headway (MAH), s	3.1		0.0		3.1		0.0		3.1		3.2		3.1		3.2									
Queue Clearance Time (g _s), s	5.9				18.5				9.7		18.3		18.7		8.7									
Green Extension Time (g _e), s	0.1		0.0		0.5		0.0		0.2		1.2		1.2		1.2									
Phase Call Probability	0.86				1.00				0.98		1.00		1.00		1.00									
Max Out Probability	0.00				0.00				0.00		0.00		0.00		0.00									
Movement Group Results					EB			WB			NB			SB										
Approach Movement	L		T		R		L		T		R		L		T		R							
Assigned Movement	5		2		12		1		6		16		3		8		18		7		4		14	
Adjusted Flow Rate (v), veh/h	59		528		133		254		477		787		118		237		225		503		131		24	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810		1809		1610		1810		1809		1610		1810		1900		1610		1757		1900		1610	
Queue Service Time (g _s), s	3.9		12.7		6.5		16.5		8.2		46.6		7.7		14.3		16.3		16.7		6.7		1.4	
Cycle Queue Clearance Time (g _c), s	3.9		12.7		6.5		16.5		8.2		46.6		7.7		14.3		16.3		16.7		6.7		1.4	
Green Ratio (g/C)	0.04		0.31		0.39		0.16		0.43		0.59		0.08		0.16		0.16		0.17		0.25		0.25	
Capacity (c), veh/h	78		1133		634		285		1548		957		146		309		262		585		472		400	
Volume-to-Capacity Ratio (X)	0.758		0.467		0.209		0.889		0.308		0.823		0.806		0.766		0.859		0.861		0.277		0.061	
Back of Queue (Q), ft/ln (95 th percentile)	84.3		226.1		117		305		147.8		628.3		163.4		278.2		274.5		295.5		139.2		24.4	
Back of Queue (Q), veh/ln (95 th percentile)	3.4		9.0		4.7		12.2		5.9		25.1		6.5		11.1		11.0		11.8		5.6		1.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Uniform Delay (d ₁), s/veh	56.8		27.7		24.0		49.5		16.5		19.3		54.2		48.0		48.9		48.7		36.4		34.4	
Incremental Delay (d ₂), s/veh	5.5		1.4		0.7		3.8		0.5		8.0		3.9		1.5		3.2		1.5		0.1		0.0	
Initial Queue Delay (d ₃), s/veh	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Control Delay (d), s/veh	62.3		29.1		24.8		53.3		17.0		27.3		58.1		49.5		52.1		50.2		36.5		34.4	
Level of Service (LOS)	E		C		C		D		B		C		E		D		D		D		D		C	
Approach Delay, s/veh / LOS	31.0		C		28.4		C		52.3		D		46.9		D									
Intersection Delay, s/veh / LOS	36.4										D													
Multimodal Results					EB			WB			NB			SB										
Pedestrian LOS Score / LOS	2.12		B		2.28		B		2.46		B		2.45		B									
Bicycle LOS Score / LOS	1.08		A		1.74		B		1.44		A		1.57		B									

HCS7 Signalized Intersection Input Data

General Information						Intersection Information										
Agency	O'Rourke Engineering					Duration, h	0.25									
Analyst	James Kemp	Analysis Date	Jun 29, 2020			Area Type	Other									
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour			PHF	0.95									
Urban Street	Midway Rd	Analysis Year	2035			Analysis Period	1> 7:00									
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - 7.22.20.xus													
Project Description	Willow Lakes															
Demand Information																
Approach Movement																
Demand (v), veh/h	EB			WB			NB			SB						
	L	T	R	L	T	R	L	T	R	L	T	R				
	56	502	126	241	453	748	112	225	214	478	124	23				
Signal Information																
Cycle, s	120.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
	Green	5.2	7.8	37.6	9.7	4.3	19.5									
	Yellow	4.0	4.0	4.0	4.0	4.0	4.0									
	Red	2.0	2.0	2.0	2.0	2.0	2.0									
Traffic Information																
Approach Movement																
Demand (v), veh/h	EB			WB			NB			SB						
	L	T	R	L	T	R	L	T	R	L	T	R				
	56	502	126	241	453	748	112	225	214	478	124	23				
Initial Queue (Q _b), veh/h	0			0			0			0						
Base Saturation Flow Rate (s ₀), veh/h	1900			1900			1900			1900						
Parking (N _m), man/h	None			None			None			None						
Heavy Vehicles (P _{HV}), %	0			0			0			0						
Ped / Bike / RTOR, /h	0			0			0			0						
Buses (N _b), buses/h	0			0			0			0						
Arrival Type (AT)	3			4			3			3						
Upstream Filtering (f)	1.00			1.00			1.00			1.00						
Lane Width (W), ft	12.0			12.0			12.0			12.0						
Turn Bay Length, ft	0			0			0			0						
Grade (Pg), %	0			0			0			0						
Speed Limit, mi/h	35			35			35			35						
Phase Information																
	EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT	
Maximum Green (G _{max}) or Phase Split, s	20.0		20.0		20.0		20.0		60.0		20.0		60.0		20.0	
Yellow Change Interval (Y), s	4.0		4.0		4.0		4.0		4.0		4.0		4.0		4.0	
Red Clearance Interval (R _c), s	2.0		2.0		2.0		2.0		2.0		2.0		2.0		2.0	
Minimum Green (G _{min}), s	6		6		6		6		6		6		6		6	
Start-Up Lost Time (l), s	2.0		2.0		2.0		2.0		2.0		2.0		2.0		2.0	
Extension of Effective Green (e), s	2.0		2.0		2.0		2.0		2.0		2.0		2.0		2.0	
Passage (PT), s	2.0		2.0		2.0		2.0		2.0		2.0		2.0		2.0	
Recall Mode	Off		Min		Off		Min		Off		Off		Off		Off	
Dual Entry	No		Yes		No		Yes		No		Yes		No		Yes	
Walk (Walk), s	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Pedestrian Clearance Time (PC), s	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
Multimodal Information																
85th % Speed / Rest in Walk / Corner Radius	0 No 25			0 No 25			0 No 25			0 No 25						
Walkway / Crosswalk Width / Length, ft	9.0 12 0			9.0 12 0			9.0 12 0			9.0 12 0						
Street Width / Island / Curb	0 0 No			0 0 No			0 0 No			0 0 No						
Width Outside / Bike Lane / Shoulder, ft	12 5.0 2.0			12 5.0 2.0			12 5.0 2.0			12 5.0 2.0						
Pedestrian Signal / Occupied Parking	No 0.50			No 0.50			No 0.50			No 0.50						

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - 7.22.20.xus		
Project Description	Willow Lakes				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	30	544	160	306	626	580	205	120	392	731	299	67

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap EW	On	Green	4.2	16.8	25.6	18.8	9.0	29.6		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
				Red	2.0	2.0	2.0	2.0	2.0	2.0		

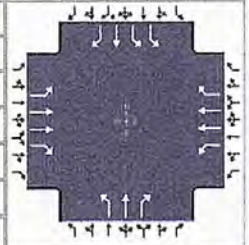
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	10.2	31.6	33.0	54.3	24.8	35.6	39.8	50.6
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.1	0.0	3.1	0.0	3.1	3.2	3.1	3.2
Queue Clearance Time (g _s), s	4.4		26.5		18.4	28.1	31.8	20.9
Green Extension Time (g _e), s	0.0	0.0	0.6	0.0	0.4	1.7	2.0	1.7
Phase Call Probability	0.71		1.00		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	32	573	168	322	659	611	216	126	307	769	315	71
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610	1757	1900	1610
Queue Service Time (g _s), s	2.4	21.2	11.2	24.5	18.2	35.3	16.4	7.9	26.1	29.8	18.9	4.4
Cycle Queue Clearance Time (g _c), s	2.4	21.2	11.2	24.5	18.2	35.3	16.4	7.9	26.1	29.8	18.9	4.4
Green Ratio (g/C)	0.03	0.18	0.32	0.19	0.35	0.59	0.13	0.21	0.21	0.24	0.32	0.32
Capacity (c), veh/h	55	664	512	348	1250	945	243	401	340	849	605	513
Volume-to-Capacity Ratio (X)	0.576	0.862	0.329	0.926	0.527	0.646	0.888	0.315	0.904	0.907	0.520	0.138
Back of Queue (Q), ft/ln (95 th percentile)	52.5	393.2	204.5	438.5	302.8	491.6	308.6	168.7	405.3	478.5	344	77.9
Back of Queue (Q), veh/ln (95 th percentile)	2.1	15.7	8.2	17.5	12.1	19.7	12.3	6.7	16.2	19.1	13.8	3.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	67.0	51.2	36.4	55.6	29.6	19.2	59.6	46.7	53.8	51.6	39.0	34.0
Incremental Delay (d ₂), s/veh	3.5	13.9	1.7	8.3	1.6	3.4	4.3	0.2	3.7	1.6	0.3	0.0
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	70.5	65.0	38.1	63.8	31.2	22.6	63.9	46.8	57.5	53.2	39.2	34.1
Level of Service (LOS)	E	E	D	E	C	C	E	D	E	D	D	C
Approach Delay, s/veh / LOS	59.4		E	34.5		C	57.6		E	48.2		D
Intersection Delay, s/veh / LOS	46.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.28	B	2.29	B	2.46	B	2.45	B
Bicycle LOS Score / LOS	1.13	A	1.80	B	1.56	B	2.39	B

HCS7 Signalized Intersection Input Data

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - 7.22.20.xus				
Project Description	Willow Lakes						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	30	544	160	306	626	580	205	120	392	731	299	67

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	4.2	16.8	25.6	18.8	9.0	29.6						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	30	544	160	306	626	580	205	120	392	731	299	67
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	100	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	19.0	13.0	18.0	12.0	89.0	15.0	94.0	20.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

Per Ave: Willow Lakes 2/15/2010
 ANALYSIS YEAR: 2015
 DAY: Tuesday
 CONTROL: Signalized
 SW STREET: Alderly Rd
 CITY: St. Louis

15 Min Period	Southbound				Eastbound				Westbound				
	NBL	NBT	NBA	NBB	ENL	ENT	ENR	ENB	WVL	WVT	WVR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR (8:00-9:00):

Direction	Volume	Left	Thru	Right	Left %	Thru %	Right %
Southbound	100	0	100	0	0	100	0
Eastbound	100	0	100	0	0	100	0
Westbound	100	0	100	0	0	100	0

Seasonal Factor: 1.000
 Year Growth: 15
 Willow Lakes: 1.000
 Village at Alderly: 1.000
 LTC Ranch: 1.000
 Southern Grove: 1.000
 Willow Groves: 1.000
 Brentland/Tenney: 1.000
 Western Grove: 1.000
 Ravenna: 1.000

15 Min Period	Southbound	Eastbound	Westbound	Total
4:00-4:15	0	0	0	0
4:15-4:30	0	0	0	0
4:30-4:45	0	0	0	0
4:45-5:00	0	0	0	0
5:00-5:15	0	0	0	0
5:15-5:30	0	0	0	0
5:30-5:45	0	0	0	0
5:45-6:00	0	0	0	0

PM PEAK HOUR (5:00-6:00):

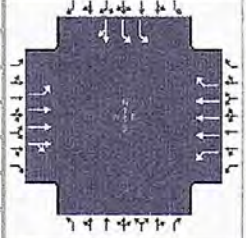
Direction	Volume	Left	Thru	Right	Left %	Thru %	Right %
Southbound	100	0	100	0	0	100	0
Eastbound	100	0	100	0	0	100	0
Westbound	100	0	100	0	0	100	0

Seasonal Factor: 1.000
 Year Growth: 15
 Willow Lakes: 1.000
 Village at Alderly: 1.000
 LTC Ranch: 1.000
 Southern Grove: 1.000
 Willow Groves: 1.000
 Brentland/Tenney: 1.000
 Western Grove: 1.000
 Ravenna: 1.000

15 Min Period	Southbound	Eastbound	Westbound	Total
6:00-6:15	0	0	0	0
6:15-6:30	0	0	0	0
6:30-6:45	0	0	0	0
6:45-7:00	0	0	0	0
7:00-7:15	0	0	0	0
7:15-7:30	0	0	0	0
7:30-7:45	0	0	0	0
7:45-8:00	0	0	0	0
8:00-8:15	0	0	0	0
8:15-8:30	0	0	0	0
8:30-8:45	0	0	0	0
8:45-9:00	0	0	0	0

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - 7.21.20.xus				
Project Description	Willow Lakes						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	38	1163	0	0	1418	1013				745	0	24

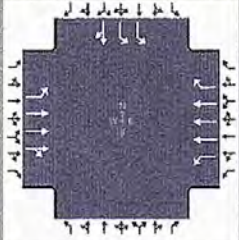
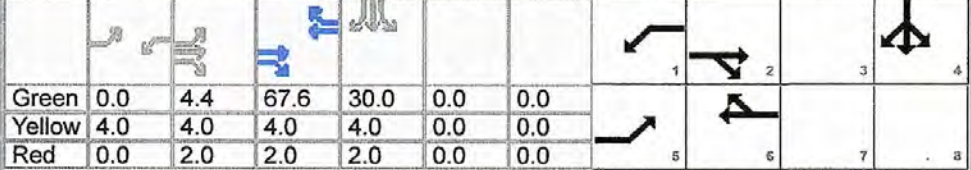
Signal Information				Signal Phases													
Cycle, s	120.0	Reference Phase	2	Green		Yellow		Red		Phase 1		Phase 2		Phase 3		Phase 4	
Offset, s	0	Reference Point	End	0.0	4.4	67.6	30.0	0.0	0.0	1		2		3		4	
Uncoordinated	No	Simult. Gap E/W	On	4.0	4.0	4.0	4.0	0.0	0.0	5		6		7		8	
Force Mode	Fixed	Simult. Gap N/S	On	0.0	2.0	2.0	2.0	0.0	0.0	5		6		7		8	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				10.0
Phase Duration, s	10.4	84.0	0.0	73.6				36.0
Change Period, (Y+R _c), s	6.0	6.0	4.0	6.0				6.0
Max Allow Headway (MAH), s	3.1	0.0	0.0	0.0				3.1
Queue Clearance Time (g _s), s	4.6							27.9
Green Extension Time (g _e), s	0.1	0.0	0.0	0.0				2.1
Phase Call Probability	0.74							1.00
Max Out Probability	0.00							0.00

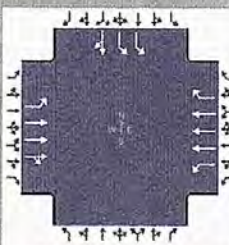
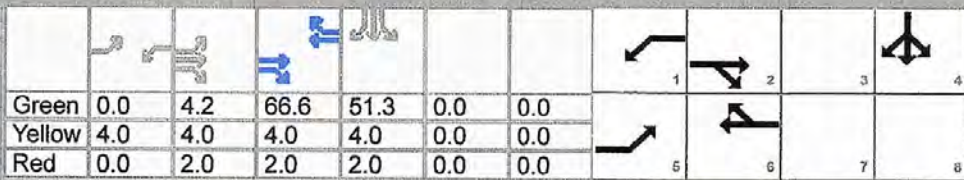
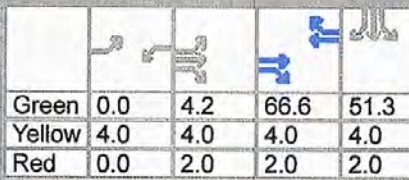
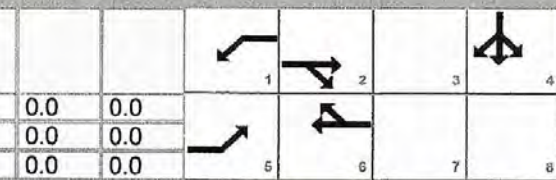
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (v), veh/h	40	1224	0	0	1493	751				784	25	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (g _s), s	2.6	4.8	0.0	0.0	14.0	45.8				25.9	1.4	
Cycle Queue Clearance Time (g _c), s	2.6	4.8	0.0	0.0	14.0	45.8				25.9	1.4	
Green Ratio (g/C)	0.04	0.65			0.56	0.56				0.25	0.25	
Capacity (c), veh/h	67	3705		2	2915	907				878	402	
Volume-to-Capacity Ratio (X)	0.600	0.330	0.000	0.000	0.512	0.828				0.893	0.063	
Back of Queue (Q), ft/ln (95 th percentile)	56	68.8	0	0	183	632.2				417.8	25.4	
Back of Queue (Q), veh/ln (95 th percentile)	2.2	2.8	0.0	0.0	7.3	25.3				16.7	1.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (d ₁), s/veh	56.9	3.1		0.0	8.3	21.4				43.4	34.3	
Incremental Delay (d ₂), s/veh	3.2	0.2	0.0	0.0	0.6	8.6				1.3	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (d), s/veh	60.1	3.4		0.0	8.9	30.0				44.8	34.3	
Level of Service (LOS)	E	A			A	C				D	C	
Approach Delay, s/veh / LOS	5.2		A	16.0		B	0.0			44.5		D
Intersection Delay, s/veh / LOS	18.1						B					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.36	A		2.09	B		3.18	C		2.62	C	
Bicycle LOS Score / LOS	1.18	A		1.72	B					1.82	B	

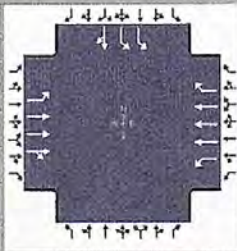
HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - 7.21.20.xus												
Project Description	Willow Lakes														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				38	1163	0	0	1418	1013				745	0	24
Signal Information															
Cycle, s	120.0	Reference Phase	2	Green	0.0	4.4	67.6	30.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	On	Red	0.0	2.0	2.0	2.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				38	1163	0	0	1418	1013				745	0	24
Initial Queue (Q _b), veh/h				0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N _m), man/h				None			None						None		
Heavy Vehicles (P _{HV}), %				0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h				0	0		0	0	300	0	0		0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0				0	0	0
Arrival Type (AT)				3	4	3	3	4	3				3	3	3
Upstream Filtering (I)				1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft				0	0		0	0	0				0	0	
Grade (P _g), %					0			0			0		0		
Speed Limit, mi/h				35	35	35	35	35	35				35	35	35
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s				18.0	26.0	15.0	23.0						79.0		
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0						4.0		
Red Clearance Interval (R _c), s				2.0	2.0	0.0	2.0						2.0		
Minimum Green (G _{min}), s				6	6	6	6						6		
Start-Up Lost Time (I _t), s				2.0	2.0	2.0	2.0				2.0	2.0			
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0				2.0	2.0			
Passage (PT), s				2.0	2.0	2.0	2.0						2.0		
Recall Mode				Off	Min	Off	Min						Off		
Dual Entry				No	Yes	No	Yes						Yes		
Walk (Walk), s				0.0	0.0	0.0	0.0				0.0	0.0			
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0				0.0	0.0			
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50						No	0.50	

HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency	O'Rourke Engineering				Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020		Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour		PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035		Analysis Period	1 > 7:00										
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - 7.21.20.xus													
Project Description	Willow Lakes															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h					29	1667	0	0	1474	745				1145	0	38
Signal Information																
Cycle, s	140.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On		Green	0.0	4.2	66.6	51.3	0.0	0.0					
		Yellow	4.0	4.0	4.0	4.0	0.0	0.0								
		Red	0.0	2.0	2.0	2.0	0.0	0.0								
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					5	2	1	6				4				
Case Number					2.0	4.0	2.0	3.0				10.0				
Phase Duration, s					10.2	82.7	0.0	72.6				57.3				
Change Period, (Y+R _c), s					6.0	6.0	4.0	6.0				6.0				
Max Allow Headway (MAH), s					3.1	0.0	0.0	0.0				3.1				
Queue Clearance Time (g _s), s					4.3							48.3				
Green Extension Time (g _e), s					0.0	0.0	0.0	0.0				2.9				
Phase Call Probability					0.69							1.00				
Max Out Probability					0.00							0.12				
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					5	2	12	1	6	16				7	4	14
Adjusted Flow Rate (v), veh/h					31	1755	0	0	1552	468				1205	40	
Adjusted Saturation Flow Rate (s), veh/h/ln					1810	1900	0	1810	1725	1610				1757	1610	
Queue Service Time (g _s), s					2.3	19.7	0.0	0.0	25.6	30.1				46.3	2.3	
Cycle Queue Clearance Time (g _c), s					2.3	19.7	0.0	0.0	25.6	30.1				46.3	2.3	
Green Ratio (g/C)					0.03	0.55			0.48	0.48				0.37	0.37	
Capacity (c), veh/h					54	3125		1	2461	766				1287	590	
Volume-to-Capacity Ratio (X)					0.566	0.562	0.000	0.000	0.630	0.612				0.937	0.068	
Back of Queue (Q), ft/ln (95 th percentile)					50.7	266	0	0	347.1	448.1				729.7	39.9	
Back of Queue (Q), veh/ln (95 th percentile)					2.0	10.6	0.0	0.0	13.9	17.9				29.2	1.6	
Queue Storage Ratio (RQ) (95 th percentile)					0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	
Uniform Delay (d ₁), s/veh					67.0	11.2		0.0	18.1	27.2				42.8	28.8	
Incremental Delay (d ₂), s/veh					3.4	0.7	0.0	0.0	1.2	3.6				10.1	0.0	
Initial Queue Delay (d ₃), s/veh					0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	
Control Delay (d), s/veh					70.5	11.9		0.0	19.4	30.8				52.9	28.9	
Level of Service (LOS)					E	B			B	C				D	C	
Approach Delay, s/veh / LOS					12.9		B	22.0		C	0.0			52.1		D
Intersection Delay, s/veh / LOS					26.2					C						
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS					1.39		A	2.11		B	3.18		C	2.63		C
Bicycle LOS Score / LOS					1.47		A	1.60		B			2.54		C	

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00										
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - 7.21.20.xus												
Project Description	Willow Lakes														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				29	1667	0	0	1474	745				1145	0	38
Signal Information															
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On	Green	0.0	4.2	66.6	51.3	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	0.0	0.0					
				Red	0.0	2.0	2.0	2.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				29	1667	0	0	1474	745				1145	0	38
Initial Queue (Q _b), veh/h				0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N _m), man/h				None			None						None		
Heavy Vehicles (P _{HV}), %				0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h				0	0		0	0	300	0	0		0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0				0	0	0
Arrival Type (AT)				3	4	3	3	4	3				3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft				0	0		0	0	0				0	0	
Grade (Pg), %					0			0			0			0	
Speed Limit, mi/h				35	35	35	35	35	35				35	35	35
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s				13.0	62.0	13.0	62.0				65.0				
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0				4.0				
Red Clearance Interval (R _c), s				2.0	2.0	0.0	2.0				2.0				
Minimum Green (G _{min}), s				6	6	6	6				6				
Start-Up Lost Time (l _f), s				2.0	2.0	2.0	2.0			2.0	2.0				
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0			2.0	2.0				
Passage (PT), s				2.0	2.0	2.0	2.0				2.0				
Recall Mode				Off	Min	Off	Min				Off				
Dual Entry				No	Yes	No	Yes				Yes				
Walk (Walk), s				0.0	0.0	0.0	0.0			0.0	0.0				
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0			0.0	0.0				
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50					No	0.50		

TURNING MOVEMENT VOLUME COUNTS

HWY STREET: WYBRIET Midway Rd
 FILENAME: Willow Lakes
 COUNTY: CITY: St Louis
 DATE: Tuesday
 ANALYSIS YEAR: 2035
 CONTROL: Signalized
 REPORT DATE: 2/18/2020

15 Min Period

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NRL	SBL	SBT	SBR	SRL	EEL	EET	EER	EWL	WBT	WBR	WBL	WTL
7:50-7:55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55-7:58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:58-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

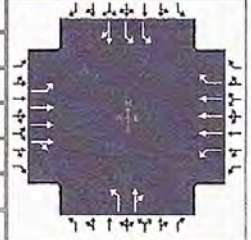
Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM

Direction	Volume	Seasonal Factor	Greenbook Rule	Years Observed	Trucks	Trucks Out
Northbound	455	1	1.003	15	1,582	1,570
Southbound	455	1	1.003	15	1,582	1,570
Eastbound	455	1	1.003	15	1,582	1,570
Westbound	455	1	1.003	15	1,582	1,570

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - 7.21.20...				
Project Description	Willow Lakes						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	57	1851	0	0	2845	1207	0	0	0	1002	0	15

Signal Information														
Cycle, s	120.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On											
Force Mode	Fixed	Simult. Gap N/S	On											
				Green	5.2	63.8	33.0	0.0	0.0	0.0				
				Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
				Red	2.0	2.0	2.0	0.0	0.0	0.0				

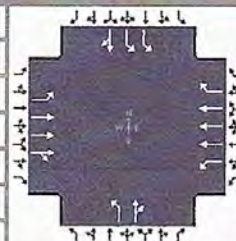
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	3.0		10.0		10.0
Phase Duration, s	11.2	81.0	0.0	69.8		0.0		39.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (g _s), s	3.7							35.0
Green Extension Time (g _e), s	0.1	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.86							1.00
Max Out Probability	0.00							1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	60	1948	0	0	2995	771	0	0		1055	16	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1900	1610	1810	1610		1810	1610	
Queue Service Time (g _s), s	1.7	12.6	0.0	0.0	61.3	21.3	0.0	0.0		33.0	0.9	
Cycle Queue Clearance Time (g _c), s	1.7	12.6	0.0	0.0	61.3	21.3	0.0	0.0		33.0	0.9	
Green Ratio (g/C)	0.59	0.62		0.48	0.53	0.81		0.32		0.28	0.28	
Capacity (c), veh/h	140	3562		177	3031	1299	2			995	443	
Volume-to-Capacity Ratio (X)	0.429	0.547	0.000	0.000	0.988	0.593	0.000	0.000		1.060	0.036	
Back of Queue (Q), ft/ln (95 th percentile)	42.4	153	0	0	752.6	238.4	0	0		731.9	15.2	
Back of Queue (Q), veh/ln (95 th percentile)	1.7	6.1	0.0	0.0	30.1	9.5	0.0	0.0		29.3	0.6	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	28.4	4.8		0.0	17.1	4.3	0.0			43.5	31.9	
Incremental Delay (d ₂), s/veh	0.8	0.6	0.0	0.0	13.8	2.0	0.0	0.0		45.8	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	29.1	5.4		0.0	30.9	6.3	0.0			89.3	31.9	
Level of Service (LOS)	C	A			C	A				F	C	
Approach Delay, s/veh / LOS	6.1		A	25.8		C	0.0			88.4		F
Intersection Delay, s/veh / LOS	29.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.09	B	3.43	C	2.62	C
Bicycle LOS Score / LOS	1.59	B	2.56	C	0.49	A	2.25	B

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - PM Peak Hour - 7.21.20...				
Project Description	Willow Lakes						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45

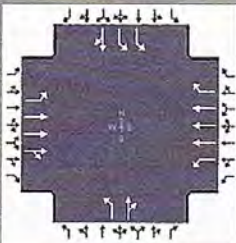
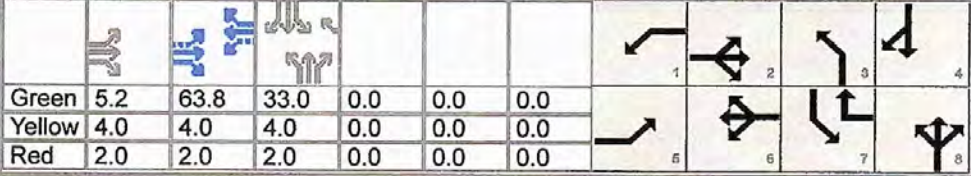
Signal Information				Signal Phases									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	4.8	58.2	59.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	2.0	3.0		10.0		10.0
Phase Duration, s	10.8	75.0	0.0	64.2		0.0		65.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (g _s), s	3.8							59.5
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.81							1.00
Max Out Probability	0.00							1.00

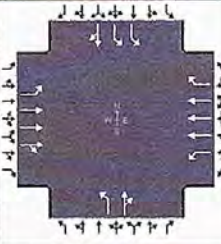
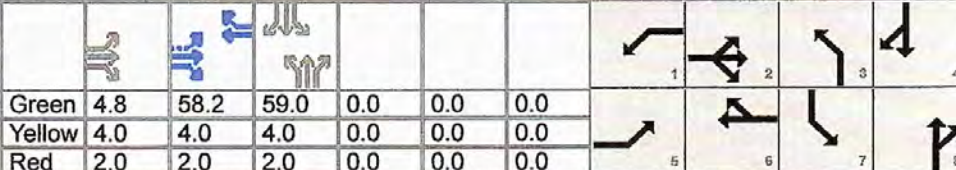
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	42	2439	0	0	1791	542	0	0		1502	47	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1900	1610	1810	1610		1810	1610	
Queue Service Time (g _s), s	1.8	47.8	0.0	0.0	33.8	41.5	0.0	0.0		57.5	2.5	
Cycle Queue Clearance Time (g _c), s	1.8	47.8	0.0	0.0	33.8	41.5	0.0	0.0		57.5	2.5	
Green Ratio (g/C)	0.46	0.49			0.42	0.42		0.42		0.42	0.42	
Capacity (c), veh/h	161	2809		1	2368	669	1			1525	679	
Volume-to-Capacity Ratio (X)	0.262	0.868	0.000	0.000	0.756	0.810	0.000	0.000		0.985	0.070	
Back of Queue (Q), ft/ln (95 th percentile)	35	637.3	0	0	505.6	622	0	0		945.8	42.7	
Back of Queue (Q), veh/ln (95 th percentile)	1.4	25.5	0.0	0.0	20.2	24.9	0.0	0.0		37.8	1.7	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	26.0	20.4		0.0	25.8	36.1	0.0			40.1	24.1	
Incremental Delay (d ₂), s/veh	0.3	4.0	0.0	0.0	2.3	10.3	0.0	0.0		19.4	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	26.3	24.3		0.0	28.1	46.3	0.0			59.5	24.2	
Level of Service (LOS)	C	C			C	D				E	C	
Approach Delay, s/veh / LOS	24.4		C	32.3		C	0.0			58.4		E
Intersection Delay, s/veh / LOS	35.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	2.12	B	3.33	C	2.62	C
Bicycle LOS Score / LOS	1.85	B	1.77	B	0.49	A	3.04	C

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - 7.21.20...												
Project Description	Willow Lakes														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				57	1851	0	0	2845	1207	0	0	0	1002	0	15
Signal Information															
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	5.2	63.8	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				57	1851	0	0	2845	1207	0	0	0	1002	0	15
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h				None			None			None			None		
Heavy Vehicles (P _{HV}), %				0	0		0	0	0	0	0		0	0	
Ped / Bike / RTOR, /h				0	0		0	0	475	0	0		0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Turn Bay Length, ft				0	0		0	0	0	0	0		0	0	
Grade (P _g), %					0			0			0			0	
Speed Limit, mi/h				35	35	35	35	35	35	35	35	35	35	35	35
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s				12.0	57.0	12.0	57.0	12.0	12.0	39.0	39.0				
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Red Clearance Interval (R _c), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Minimum Green (G _{min}), s				6	6	6	6	6	6	6	6				
Start-Up Lost Time (l _t), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Passage (PT), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Recall Mode				Off	Min	Off	Min	Off	Off	Off	Off				
Dual Entry				No	Yes	No	Yes	No	Yes	No	Yes				
Walk (Walk), s					0.0		0.0		0.0		0.0				
Pedestrian Clearance Time (PC), s					0.0		0.0		0.0		0.0				
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50	No	0.50	No	0.50	No	0.50		

HCS7 Signalized Intersection Input Data

General Information				Intersection Information																
Agency	O'Rourke Engineering			Duration, h	0.25															
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other															
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95															
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00															
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - PM Peak Hour - 7.21.20...																	
Project Description	Willow Lakes																			
Demand Information				EB			WB			NB			SB							
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R								
Demand (v), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45								
Signal Information																				
Cycle, s	140.0	Reference Phase	2																	
Offset, s	0	Reference Point	End	Green	4.8	58.2	59.0	0.0	0.0	0.0	0.0	0.0								
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0								
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0								
Traffic Information				EB			WB			NB			SB							
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R								
Demand (v), veh/h	40	2317	0	0	1701	915	0	0	0	1427	0	45								
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0								
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Parking (N _m), man/h	None			None			None			None										
Heavy Vehicles (P _{HV}), %	0	0		0	0	0	0	0		0	0									
Ped / Bike / RTOR, /h	0	0		0	0	400	0	0		0	0	0								
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0								
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3								
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Lane Width (W), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0									
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0									
Grade (P _g), %	0			0			0			0										
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35								
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT									
Maximum Green (G _{max}) or Phase Split, s	17.0			51.0			12.0			46.0			23.0		12.0		65.0		65.0	
Yellow Change Interval (Y), s	4.0			4.0			4.0			4.0			4.0		4.0		4.0		4.0	
Red Clearance Interval (R _c), s	2.0			2.0			2.0			2.0			2.0		2.0		2.0		2.0	
Minimum Green (G _{min}), s	6			6			6			6			6		6		6		6	
Start-Up Lost Time (l _t), s	2.0			2.0			2.0			2.0			2.0		2.0		2.0		2.0	
Extension of Effective Green (e), s	2.0			2.0			2.0			2.0			2.0		2.0		2.0		2.0	
Passage (PT), s	2.0			2.0			2.0			2.0			2.0		2.0		2.0		2.0	
Recall Mode	Off			Min			Off			Min			Off		Off		Off		Off	
Dual Entry	No			Yes			No			Yes			No		Yes		No		Yes	
Walk (Walk), s				0.0						0.0					0.0				0.0	
Pedestrian Clearance Time (PC), s				0.0						0.0					0.0				0.0	
Multimodal Information				EB			WB			NB			SB							
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25								
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0								
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No								
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0								
Pedestrian Signal / Occupied Parking	No			0.50			No			0.50			No			0.50				

TURNING MOVEMENT VOLUME COUNTS

CONTROL Signature

AMEND A
 WILSON LANE
 2/16/2020
 DAY Tuesday
 ANALYSIS YEAR 2015
 CITY St Louis
 EMM STREET - Milehigh Rd

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NEL	NUT	NBR	SBR	SEL	SET	SEB	SEB	WEL	WET	WBR	WBT	WTR	TOTAL	ONE HOUR SUM	
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

AM PEAK HOUR IS FROM:
 Volume
 Season Factor
 Growth
 Percent
 PROJECT

Seasonal Factor	Design Rate	Years Growth	Willow Lakes	LTC Ranch	Southern Grove	Wilson Grove	Riverland/Kennedy	Western Grove	Ranchia	Total Que	Trails In	Trails Out			
1	1,005	15	1,670	1,823	1,624	6,218	5,233	3,075	3,809	4,791	5,558	2,132	2,135	22	64

PM PEAK HOUR IS FROM:
 Volume
 Season Factor
 Growth
 Percent
 PROJECT

Seasonal Factor	Design Rate	Years Growth	Willow Lakes	LTC Ranch	Southern Grove	Wilson Grove	Riverland/Kennedy	Western Grove	Ranchia	Total Que	Trails In	Trails Out			
1	1,005	15	1,670	1,823	1,624	6,218	5,233	3,075	3,809	4,791	5,558	2,132	2,135	22	64

Total

112	0	254	0	0	0	0	0	0	0	466	126	274	430	0	1647
-----	---	-----	---	---	---	---	---	---	---	-----	-----	-----	-----	---	------

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NEL	NUT	NBR	SBR	SEL	SET	SEB	SEB	WEL	WET	WBR	WBT	WTR	TOTAL	ONE HOUR SUM	
4:00-4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00-5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45-6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

PM PEAK HOUR IS FROM:
 Volume
 Season Factor
 Growth
 Percent
 PROJECT

Seasonal Factor	Design Rate	Years Growth	Willow Lakes	LTC Ranch	Southern Grove	Wilson Grove	Riverland/Kennedy	Western Grove	Ranchia	Total Que	Trails In	Trails Out			
1	1,005	15	1,670	1,823	1,624	6,218	5,233	3,075	3,809	4,791	5,558	2,132	2,135	22	64

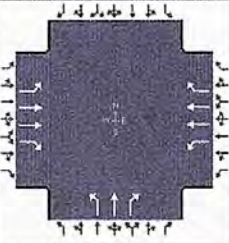
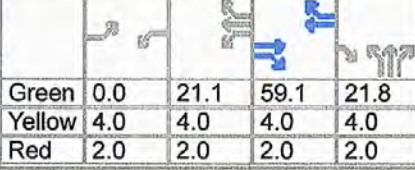
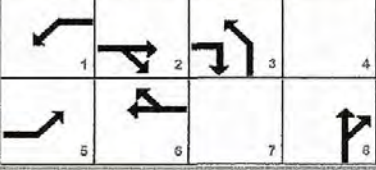
Total

205	0	431	0	0	0	0	0	0	0	514	160	337	559	0	2205
-----	---	-----	---	---	---	---	---	---	---	-----	-----	-----	-----	---	------

HCS7 Signalized Intersection Results Summary

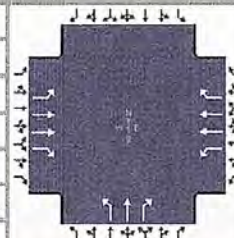
General Information					Intersection Information																				
Agency	O'Rourke Engineering				Duration, h	0.25																			
Analyst	James Kemp	Analysis Date	Jun 29, 2020		Area Type	Other																			
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour		PHF	0.95																			
Urban Street	Midway Rd	Analysis Year	2035		Analysis Period	1> 7:00																			
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - w.o. Arteri...																						
Project Description	Willow Lakes w.o. Arterial A																								
Demand Information		EB			WB			NB			SB														
Approach Movement		L	T	R	L	T	R	L	T	R	L	T	R												
Demand (v), veh/h		0	446	126	274	430	0	112	0	254															
Signal Information																									
Cycle, s	120.0	Reference Phase	2		Green	0.0	21.1	59.1	21.8	0.0	0.0														
Offset, s	0	Reference Point	End		Yellow	4.0	4.0	4.0	4.0	0.0	0.0														
Uncoordinated	No	Simult. Gap E/W	On		Red	2.0	2.0	2.0	2.0	0.0	0.0														
Force Mode	Fixed	Simult. Gap N/S	On																						
Timer Results		EBL			EBT			WBL			WBT			NBL			NBT			SBL			SBT		
Assigned Phase		5			2			1			6						8								
Case Number		2.0			3.0			2.0			3.0						9.0								
Phase Duration, s		0.0			65.1			27.1			92.2						27.8								
Change Period, (Y+R _c), s		6.0			6.0			6.0			6.0						6.0								
Max Allow Headway (MAH), s		0.0			0.0			3.1			0.0						3.3								
Queue Clearance Time (g _s), s								20.7									21.6								
Green Extension Time (g _e), s		0.0			0.0			0.4			0.0						0.2								
Phase Call Probability								1.00									1.00								
Max Out Probability								0.01									1.00								
Movement Group Results		EB			WB			NB			SB														
Approach Movement		L	T	R	L	T	R	L	T	R	L	T	R												
Assigned Movement		5	2	12	1	6	16	3	8	18															
Adjusted Flow Rate (v), veh/h		0	469	133	288	453	0	118	0	267															
Adjusted Saturation Flow Rate (s), veh/h/ln		1810	1809	1610	1810	1809	1610	1810	1900	1610															
Queue Service Time (g _s), s		0.0	6.5	3.5	18.7	0.8	0.0	6.8	0.0	19.6															
Cycle Queue Clearance Time (g _c), s		0.0	6.5	3.5	18.7	0.8	0.0	6.8	0.0	19.6															
Green Ratio (g/C)			0.49	0.67	0.18	0.72	0.72	0.18	0.18	0.18															
Capacity (c), veh/h		2	1780	1085	319	2599	1157	329	345	293															
Volume-to-Capacity Ratio (X)		0.000	0.264	0.122	0.905	0.174	0.000	0.359	0.000	0.914															
Back of Queue (Q), ft/ln (95 th percentile)		0	112.3	53.5	365	12.2	0	138.1	0	376.8															
Back of Queue (Q), veh/ln (95 th percentile)		0.0	4.5	2.1	14.6	0.5	0.0	5.5	0.0	15.1															
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00															
Uniform Delay (d ₁), s/veh		0.0	11.6	7.0	48.4	0.7	0.0	43.0	0.0	48.2															
Incremental Delay (d ₂), s/veh		0.0	0.4	0.2	13.3	0.1	0.0	0.2	0.0	26.6															
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
Control Delay (d), s/veh		0.0	11.9	7.2	61.8	0.9	0.0	43.2	0.0	74.8															
Level of Service (LOS)			B	A	E	A		D		E															
Approach Delay, s/veh / LOS		10.9		B	24.6		C	65.2		E	0.0														
Intersection Delay, s/veh / LOS		28.9						C																	
Multimodal Results		EB			WB			NB			SB														
Pedestrian LOS Score / LOS		2.10		B	1.34		A	2.48		B	2.48		B												
Bicycle LOS Score / LOS		0.98		A	1.10		A	1.12		A															

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Arterial A	File Name	Midway Rd Arterial A - AM Peak Hour - w.o. Arteri...												
Project Description	Willow Lakes w.o. Arterial A														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				0	446	126	274	430	0	112	0	254			
Signal Information															
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On	Green	0.0	21.1	59.1	21.8	0.0	0.0					
				Yellow	4.0	4.0	4.0	4.0	0.0	0.0					
				Red	2.0	2.0	2.0	2.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				0	446	126	274	430	0	112	0	254			
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0			
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900			
Parking (N _m), man/h				None			None			None					
Heavy Vehicles (P _{HV}), %				0	0	0	0	0	0	0	0	0			
Ped / Bike / RTOR, /h				0	0	0	0	0		0	0	0	0	0	
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0			
Arrival Type (AT)				3	4	3	3	4	3	3	3	3			
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lane Width (W), ft				12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0			
Turn Bay Length, ft				0	0	0	0	0	0	0	0	0			
Grade (P _g), %					0			0			0			0	
Speed Limit, mi/h				35	35	35	35	35	35	35	35	35			
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s				13.0	56.0	34.0	77.0	30.0	30.0						
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0	4.0	4.0						
Red Clearance Interval (R _c), s				2.0	2.0	2.0	2.0	2.0	2.0						
Minimum Green (G _{min}), s				6	6	6	6	6	6						
Start-Up Lost Time (l _f), s				2.0	2.0	2.0	2.0	2.0	2.0						
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0						
Passage (PT), s				2.0	2.0	2.0	2.0	2.0	2.0						
Recall Mode				Off	Min	Off	Min	Off	Off						
Dual Entry				No	Yes	No	Yes	No	Yes						
Walk (Walk), s				0.0	0.0	0.0	0.0	0.0	0.0						
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0	0.0	0.0						
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking				No	0.50		No	0.50		No	0.50				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - w.o. Arteri...		
Project Description	Willow Lakes w.o. Arterial A				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	514	160	337	559	0	205	0	431			

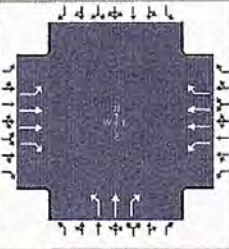
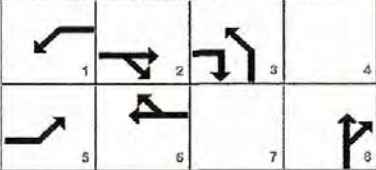
Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	140.0	Reference Phase	2	Green	0.0	29.6	59.6	32.8	0.0	0.0	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	0.0	0.0	5	6	7	8	
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	2.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		
Case Number	2.0	3.0	2.0	3.0		9.0		
Phase Duration, s	0.0	65.6	35.6	101.2		38.8		
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s	0.0	0.0	3.1	0.0		3.3		
Queue Clearance Time (g _s), s			28.9			31.6		
Green Extension Time (g _e), s	0.0	0.0	0.7	0.0		1.2		
Phase Call Probability			1.00			1.00		
Max Out Probability			0.00			0.00		

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18			
Adjusted Flow Rate (v), veh/h	0	541	168	355	588	0	216	0	348			
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1809	1610	1810	1900	1610			
Queue Service Time (g _s), s	0.0	11.3	5.6	26.9	2.7	0.0	14.5	0.0	29.6			
Cycle Queue Clearance Time (g _c), s	0.0	11.3	5.6	26.9	2.7	0.0	14.5	0.0	29.6			
Green Ratio (g/C)		0.43	0.66	0.21	0.68	0.68	0.23	0.23	0.23			
Capacity (c), veh/h	1	1539	1063	383	2459	1095	424	446	378			
Volume-to-Capacity Ratio (X)	0.000	0.352	0.158	0.927	0.239	0.000	0.509	0.000	0.923			
Back of Queue (Q), ft/ln (95 th percentile)	0	201.2	89.7	460.6	41.5	0	269.3	0	450.8			
Back of Queue (Q), veh/ln (95 th percentile)	0.0	8.0	3.6	18.4	1.7	0.0	10.8	0.0	18.0			
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Uniform Delay (d ₁), s/veh	0.0	19.9	9.0	54.1	2.2	0.0	46.6	0.0	52.3			
Incremental Delay (d ₂), s/veh	0.0	0.6	0.3	4.2	0.2	0.0	0.4	0.0	4.1			
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (d), s/veh	0.0	20.5	9.4	58.4	2.5	0.0	46.9	0.0	56.4			
Level of Service (LOS)		C	A	E	A		D		E			
Approach Delay, s/veh / LOS	17.8		B	23.5		C	52.8		D	0.0		
Intersection Delay, s/veh / LOS	29.1						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.26		B	1.36		A	2.48		B	2.48		B
Bicycle LOS Score / LOS	1.07		A	1.27		A	1.42		A			

HCS7 Signalized Intersection Input Data

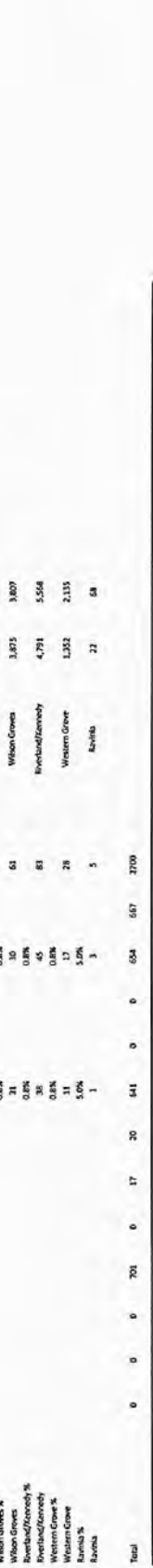
General Information				Intersection Information												
Agency	O'Rourke Engineering			Duration, h	0.25											
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other											
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95											
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00											
Intersection	Arterial A	File Name	Midway Rd Arterial A - PM Peak Hour - w.o. Arteri...													
Project Description	Willow Lakes w.o. Arterial A															
Demand Information				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h				0	514	160	337	559	0	205	0	431				
Signal Information																
Cycle, s	140.0	Reference Phase	2	Green	0.0	29.6	59.6	32.8	0.0	0.0						
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	0.0	0.0						
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	2.0	0.0	0.0						
Force Mode	Fixed	Simult. Gap N/S	On													
Traffic Information				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h				0	514	160	337	559	0	205	0	431				
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0				
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900				
Parking (N _m), man/h				None			None			None						
Heavy Vehicles (P _{HV}), %				0	0	0	0	0	0	0	0	0				
Ped / Bike / RTOR, /h				0	0	0	0	0		0	0	100	0	0		
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0				
Arrival Type (AT)				3	4	3	3	4	3	3	3	3				
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Lane Width (W), ft				12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0				
Turn Bay Length, ft				0	0	0	0	0	0	0	0	0				
Grade (Pg), %					0			0			0			0		
Speed Limit, mi/h				35	35	35	35	35	35	35	35	35				
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT					
Maximum Green (G _{max}) or Phase Split, s				13.0	13.0	30.0	30.0	97.0	97.0							
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0	4.0	4.0							
Red Clearance Interval (R _c), s				2.0	2.0	2.0	2.0	2.0	2.0							
Minimum Green (G _{min}), s				6	6	6	6	6	6							
Start-Up Lost Time (l _t), s				2.0	2.0	2.0	2.0	2.0	2.0							
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0							
Passage (PT), s				2.0	2.0	2.0	2.0	2.0	2.0							
Recall Mode				Off	Min	Off	Min	Off	Off							
Dual Entry				No	Yes	No	Yes	No	Yes							
Walk (Walk), s				0.0	0.0	0.0	0.0	0.0	0.0							
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0	0.0	0.0							
Multimodal Information				EB			WB			NB			SB			
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25				
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0				
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No				
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0				
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50	No	0.50	No	0.50					

TURNING MOVEMENT VOLUME COUNTS

HWY STREET: Kildenny Rd
 CITY: St Louis
 ANALYSIS YEAR: 2015
 DAY: Tuesday
 PERIOD: 15 Min
 CONTROL: Signalized

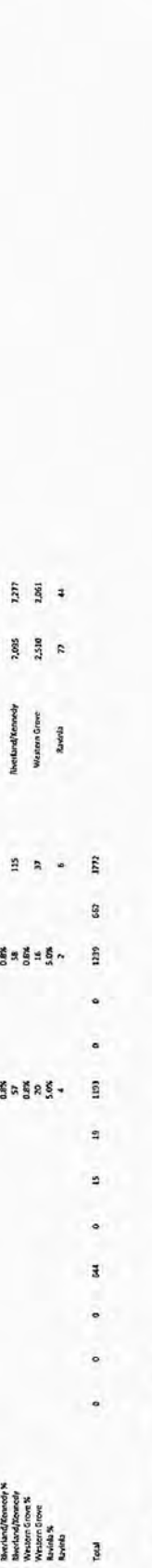
15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	49	0	112	496
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	50	0	107	497	
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	67	0	148	489	
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	66	0	125	446	
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	58	0	113	419	
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	56	0	99	0	
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	61	0	105	0	
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	35	0	102	0	

AM PEAK HOUR IS FROM:
 Volume: 113.2%
 Season Factor: 1.005
 Growth Rate: 1.005
 Year Growth: 15
 Breakout Factor: 1
 Year Growth: 15
 Wilson Lakes: 1,862
 LTC Ranch: 1,873
 Southern Grove: 6,218
 Wilson Groves: 3,875
 Birchland/Kennedy: 4,791
 Western Grove: 1,352
 Ravinia: 22
 Bayville: 58
 Trips In: 1,862
 Trips Out: 1,873

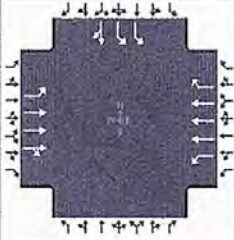
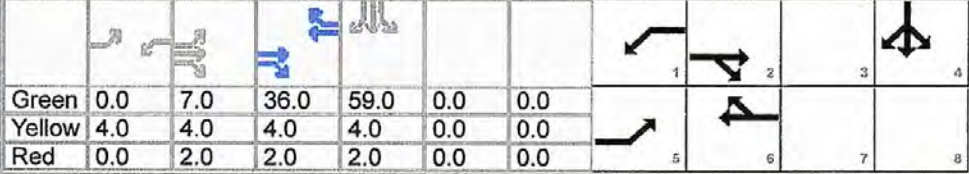
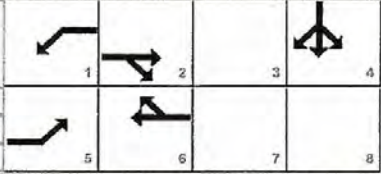


15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	0	0	0	0	0	0	0	0	0	0	0	0	71	0	125	517
4:15-4:30	0	0	0	0	0	0	0	0	0	0	0	77	0	128	571	
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	73	0	148	552	
4:45-5:00	0	0	0	0	0	0	0	0	0	0	0	76	0	136	564	
5:00-5:15	0	0	0	0	0	0	0	0	0	0	0	72	0	160	543	
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	81	0	138	0	
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	65	0	130	0	
5:45-6:00	0	0	0	0	0	0	0	0	0	0	0	56	0	117	0	

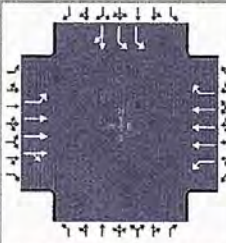
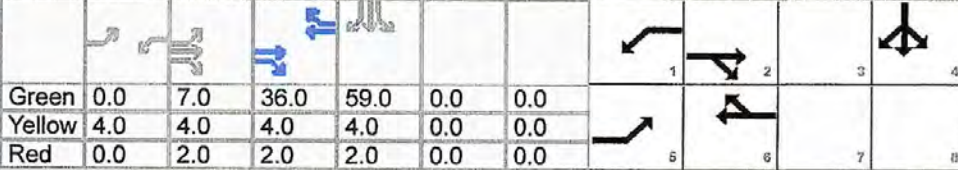
PM PEAK HOUR IS FROM:
 Volume: 113.2%
 Season Factor: 1.005
 Growth Rate: 1.005
 Year Growth: 15
 Breakout Factor: 1
 Year Growth: 15
 Wilson Lakes: 1,946
 LTC Ranch: 2,370
 Southern Grove: 6,990
 Wilson Groves: 4,543
 Birchland/Kennedy: 3,055
 Western Grove: 2,530
 Ravinia: 77
 Bayville: 41
 Trips In: 1,946
 Trips Out: 1,533



HCS7 Signalized Intersection Results Summary

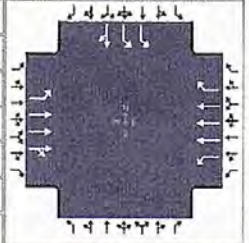
General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020		Area Type	Other									
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour		PHF	0.95									
Urban Street	Midway Rd	Analysis Year	2035		Analysis Period	1> 7:00									
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - w.o. Arteria...												
Project Description	Willow Lakes - without Arterial A														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	20	641	0	0	654	667				701	0	17			
Signal Information															
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	0.0	7.0	36.0	59.0	0.0	0.0									
Yellow	4.0	4.0	4.0	4.0	0.0	0.0									
Red	0.0	2.0	2.0	2.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase	5			2	1	6				4					
Case Number	2.0			4.0	2.0	3.0				10.0					
Phase Duration, s	13.0			55.0	0.0	42.0				65.0					
Change Period, (Y+R _c), s	6.0			6.0	4.0	6.0				6.0					
Max Allow Headway (MAH), s	3.1			0.0	0.0	0.0				3.1					
Queue Clearance Time (g _s), s	3.3									18.2					
Green Extension Time (g _e), s	0.0			0.0	0.0	0.0				2.0					
Phase Call Probability	1.00									1.00					
Max Out Probability	0.32									0.00					
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	5	2	12	1	6	16				7	4	14			
Adjusted Flow Rate (v), veh/h	21	675	0	0	688	492				738	18				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610				
Queue Service Time (g _s), s	1.3	7.7	0.0	0.0	11.6	36.0				16.2	0.7				
Cycle Queue Clearance Time (g _c), s	1.3	7.7	0.0	0.0	11.6	36.0				16.2	0.7				
Green Ratio (g/C)	0.06	0.41			0.30	0.30				0.49	0.49				
Capacity (c), veh/h	106	2327		2	1553	483				1728	792				
Volume-to-Capacity Ratio (X)	0.199	0.290	0.000	0.000	0.443	1.018				0.427	0.023				
Back of Queue (Q), ft/ln (95 th percentile)	27.5	145.7	0	0	203.6	692.9				266.1	11.3				
Back of Queue (Q), veh/ln (95 th percentile)	1.1	5.8	0.0	0.0	8.1	27.7				10.6	0.5				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00				
Uniform Delay (d ₁), s/veh	53.8	17.9			0.0	28.7	42.0			19.6	15.7				
Incremental Delay (d ₂), s/veh	0.3	0.3	0.0	0.0	0.9	45.5				0.1	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0				
Control Delay (d), s/veh	54.2	18.2			0.0	29.6	87.5			19.7	15.7				
Level of Service (LOS)	D	B			C	F				B	B				
Approach Delay, s/veh / LOS	19.3		B		53.7		D		0.0		19.6		B		
Intersection Delay, s/veh / LOS	34.8						C								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.40		A		2.12		B		3.03		C		2.62		C
Bicycle LOS Score / LOS	0.87		A		1.14		A						1.73		B

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - AM Peak Hour - w.o. Arteria...												
Project Description				Willow Lakes - without Arterial A											
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				20	641	0	0	654	667				701	0	17
Signal Information															
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	0.0	7.0	36.0	59.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	2.0	2.0	2.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				20	641	0	0	654	667				701	0	17
Initial Queue (Q _b), veh/h				0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N _m), man/h				None			None						None		
Heavy Vehicles (P _{HV}), %				0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h				0	0		0	0	200	0	0		0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0				0	0	0
Arrival Type (AT)				3	4	3	3	4	3				3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft				0	0		0	0	0				0	0	
Grade (Pg), %					0			0			0			0	
Speed Limit, mi/h				35	35	35	35	35	35				35	35	35
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s				13.0	42.0	13.0	42.0					65.0			
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0					4.0			
Red Clearance Interval (R _c), s				2.0	2.0	0.0	2.0					2.0			
Minimum Green (G _{min}), s				6	6	6	6					6			
Start-Up Lost Time (l _f), s				2.0	2.0	2.0	2.0				2.0	2.0			
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0				2.0	2.0			
Passage (PT), s				2.0	2.0	2.0	2.0					2.0			
Recall Mode				Off	Min	Off	Min					Off			
Dual Entry				No	Yes	No	Yes					Yes			
Walk (Walk), s				0.0	0.0	0.0	0.0				0.0	0.0			
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0				0.0	0.0			
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Input Data

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - w.o. Arteria...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	19	1193	0	0	1239	662				644	0	15

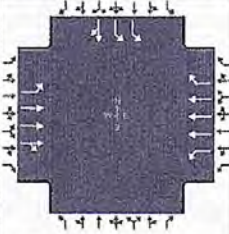
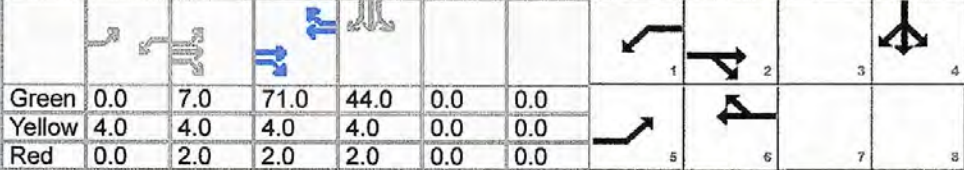
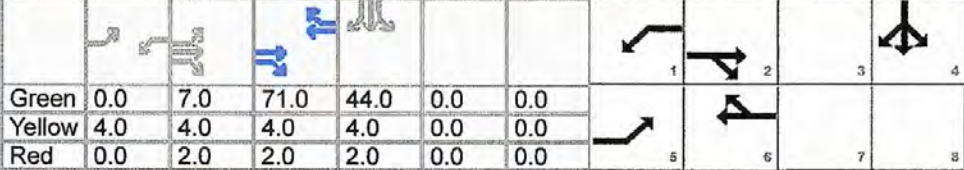
Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	0.0	7.0	71.0	44.0	0.0	0.0						
Yellow	4.0	4.0	4.0	4.0	0.0	0.0						
Red	0.0	2.0	2.0	2.0	0.0	0.0						

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	19	1193	0	0	1239	662				644	0	15
Initial Queue (Q _b), veh/h	0	0	0	0	0	0				0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900				1900	1900	1900
Parking (N _m), man/h	None			None						None		
Heavy Vehicles (P _{HV}), %	0	0		0	0	0				0	0	
Ped / Bike / RTOR, /h	0	0		0	0	200	0	0		0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)	3	4	3	3	4	3				3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0	12.0				12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0				0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35				35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	13.0	77.0	13.0	77.0				50.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0				4.0
Red Clearance Interval (R _c), s	2.0	2.0	0.0	2.0				2.0
Minimum Green (G _{min}), s	6	6	6	6				6
Start-Up Lost Time (I _f), s	2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0			2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0				2.0
Recall Mode	Off	Min	Off	Min				Off
Dual Entry	No	Yes	No	Yes				Yes
Walk (Walk), s	0.0	0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0			0.0	0.0

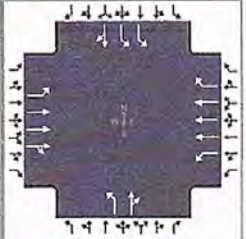
Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Pier Rd	File Name	Midway Rd Pier Rd - PM Peak Hour - w.o. Arteria...												
Project Description	Willow Lakes - without Arterial A														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	19	1193	0	0	1239	662				644	0	15			
Signal Information															
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	0.0	7.0	71.0	44.0	0.0	0.0									
Yellow	4.0	4.0	4.0	4.0	0.0	0.0									
Red	0.0	2.0	2.0	2.0	0.0	0.0									
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase	5			2			1			6					
Case Number	2.0			4.0			2.0			3.0					
Phase Duration, s	13.0			90.0			0.0			77.0					
Change Period, (Y+R _c), s	6.0			6.0			4.0			6.0					
Max Allow Headway (MAH), s	3.1			0.0			0.0			0.0					
Queue Clearance Time (g _s), s	3.5									24.9					
Green Extension Time (g _e), s	0.0			0.0			0.0			0.0					
Phase Call Probability	1.00									1.00					
Max Out Probability	0.44									0.00					
Movement Group Results				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	5	2	12	1	6	16				7	4	14			
Adjusted Flow Rate (v), veh/h	20	1256	0	0	1304	486				678	16				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1725	1610				1757	1610				
Queue Service Time (g _s), s	1.5	8.7	0.0	0.0	17.2	29.9				22.9	1.0				
Cycle Queue Clearance Time (g _c), s	1.5	8.7	0.0	0.0	17.2	29.9				22.9	1.0				
Green Ratio (g/C)	0.05	0.60			0.51	0.51				0.31	0.31				
Capacity (c), veh/h	90	3420		1	2625	817				1104	506				
Volume-to-Capacity Ratio (X)	0.221	0.367	0.000	0.000	0.497	0.596				0.614	0.031				
Back of Queue (Q), ft/ln (95 th percentile)	31.3	136.2	0	0	239.9	439.2				379.7	17				
Back of Queue (Q), veh/ln (95 th percentile)	1.3	5.4	0.0	0.0	9.6	17.6				15.2	0.7				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00				
Uniform Delay (d ₁), s/veh	63.9	6.5		0.0	14.0	24.4				40.8	33.2				
Incremental Delay (d ₂), s/veh	0.5	0.3	0.0	0.0	0.7	3.2				0.7	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0				
Control Delay (d), s/veh	64.3	6.8		0.0	14.6	27.6				41.5	33.3				
Level of Service (LOS)	E	A			B	C				D	C				
Approach Delay, s/veh / LOS	7.7	A		18.1	B		0.0			41.3	D				
Intersection Delay, s/veh / LOS	18.9						B								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.38	A		2.10	B		3.04	C		2.63	C				
Bicycle LOS Score / LOS	1.19	A		1.47	A					1.63	B				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - w.o. Art...		
Project Description	Willow Lakes - without Arterial A				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	20	1329	0	0	1750	785	0	0	0	935	0	0

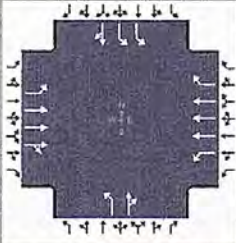
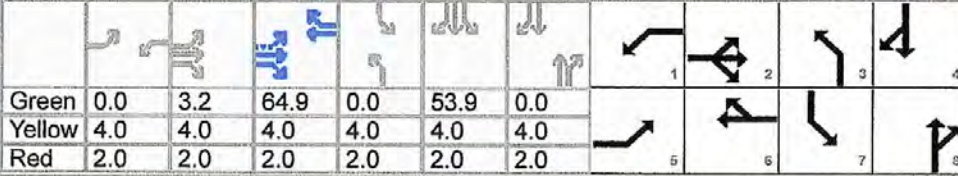
Signal Information				Signal Phases									
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	3.0	65.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	2.0	3.0		10.0		10.0
Phase Duration, s	9.0	80.0	0.0	71.0		0.0		40.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0		6.0		6.0
Max Allow Headway (MAH), s	3.1	0.0	0.0	0.0		0.0		3.1
Queue Clearance Time (g _s), s	2.6							34.6
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0		0.0		0.0
Phase Call Probability	0.50							1.00
Max Out Probability	0.00							1.00

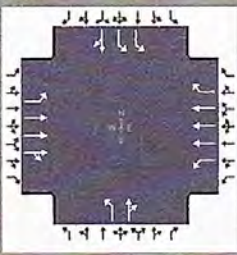
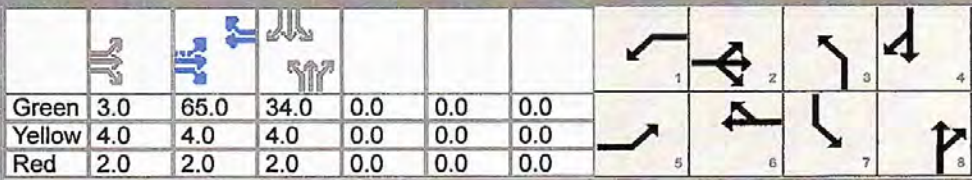
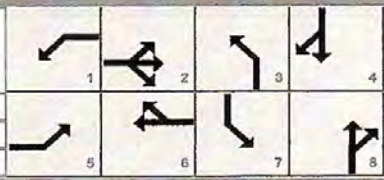
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	21	1399	0	0	1842	511	0	0		984	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	0	1810	1725	1610	1810	0		1792	0	
Queue Service Time (g _s), s	0.6	7.8	0.0	0.0	22.6	25.5	0.0	0.0		32.6	0.0	
Cycle Queue Clearance Time (g _c), s	0.6	7.8	0.0	0.0	22.6	25.5	0.0	0.0		32.6	0.0	
Green Ratio (g/C)	0.58	0.62		0.54	0.54					0.28		
Capacity (c), veh/h	196	3515		2	2802	872	2			1016		
Volume-to-Capacity Ratio (X)	0.108	0.398	0.000	0.000	0.657	0.586	0.000	0.000		0.969	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	10.5	111.2	0	0	260.8	373	0	0		595.4	0	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	4.4	0.0	0.0	10.4	14.9	0.0	0.0		23.8	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	13.3	4.8		0.0	10.8	18.5	0.0			42.5		
Incremental Delay (d ₂), s/veh	0.1	0.3	0.0	0.0	1.2	2.9	0.0	0.0		20.9	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	13.4	5.1		0.0	12.0	21.3	0.0			63.4		
Level of Service (LOS)	B	A			B	C				E		
Approach Delay, s/veh / LOS	5.2		A	14.0		B	0.0			63.4		E
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	2.09	B	3.18	C	2.62	C
Bicycle LOS Score / LOS	1.27	A	1.78	B	0.49	A	2.11	B

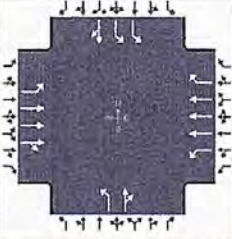
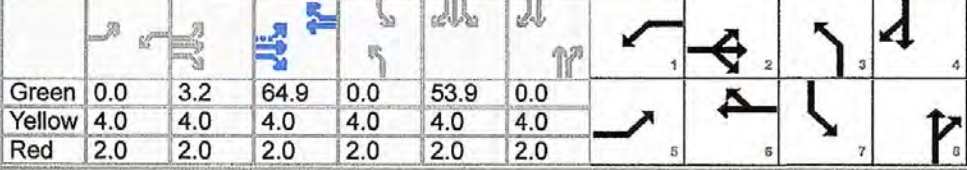
HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency	O'Rourke Engineering				Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020		Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour		PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035		Analysis Period	1> 7:00										
Intersection	Gordy Rd	File Name	Midway Rd Gordy Rd - PM Peak Hour - w.o. Arte...													
Project Description	Willow Lakes - without Arterial A															
Demand Information				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h				19	1222	0	0	1209	778	0	0	0	858	0	0	
Signal Information																
Cycle, s	140.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Float	Simult. Gap N/S	On													
Green	0.0	3.2	64.9	0.0	53.9	0.0										
Yellow	4.0	4.0	4.0	4.0	4.0	4.0										
Red	2.0	2.0	2.0	2.0	2.0	2.0										
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT					
Assigned Phase				5	2	1	6	3	8	7	4					
Case Number				1.1	4.0	2.0	3.0	2.0	4.0	2.0	4.0					
Phase Duration, s				9.2	80.1	0.0	70.9	0.0	0.0	59.9	59.9					
Change Period, (Y+R _c), s				6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0					
Max Allow Headway (MAH), s				3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0					
Queue Clearance Time (g _s), s				2.8								53.8				
Green Extension Time (g _e), s				0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0					
Phase Call Probability				0.54								1.00				
Max Out Probability				0.00								1.00				
Movement Group Results				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Assigned Movement				5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate (v), veh/h				20	1286	0	0	1273	503	0	0		903	0		
Adjusted Saturation Flow Rate (s), veh/h/ln				1810	1900	0	1810	1725	1610	1810	0		1202	0		
Queue Service Time (g _s), s				0.8	13.3	0.0	0.0	19.6	34.2	0.0	0.0		51.8	0.0		
Cycle Queue Clearance Time (g _c), s				0.8	13.3	0.0	0.0	19.6	34.2	0.0	0.0		51.8	0.0		
Green Ratio (g/C)				0.50	0.53			0.46	0.46				0.38			
Capacity (c), veh/h				236	3017		1	2398	746	1			925			
Volume-to-Capacity Ratio (X)				0.085	0.426	0.000	0.000	0.531	0.675	0.000	0.000		0.976	0.000		
Back of Queue (Q), ft/ln (95 th percentile)				15	211.9	0	0	282	503.2	0	0		627.1	0		
Back of Queue (Q), veh/ln (95 th percentile)				0.6	8.5	0.0	0.0	11.3	20.1	0.0	0.0		25.1	0.0		
Queue Storage Ratio (RQ) (95 th percentile)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		
Uniform Delay (d ₁), s/veh				19.4	11.7		0.0	18.1	29.3	0.0			42.4			
Incremental Delay (d ₂), s/veh				0.1	0.4	0.0	0.0	0.8	4.8	0.0	0.0		23.7	0.0		
Initial Queue Delay (d ₃), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Control Delay (d), s/veh				19.4	12.1		0.0	19.0	34.2	0.0			66.1			
Level of Service (LOS)				B	B			B	C				E			
Approach Delay, s/veh / LOS				12.2		B	23.3		C	0.0			66.1		E	
Intersection Delay, s/veh / LOS				29.3						C						
Multimodal Results				EB			WB			NB			SB			
Pedestrian LOS Score / LOS				1.91		B	2.11		B	3.18		C	2.58		C	
Bicycle LOS Score / LOS				1.21		A	1.46		A	0.49		A	1.98		B	

HCS7 Signalized Intersection Input Data

General Information						Intersection Information																		
Agency	O'Rourke Engineering					Duration, h	0.25																	
Analyst	James Kemp	Analysis Date	Jun 29, 2020			Area Type	Other																	
Jurisdiction	St. Lucie County		Time Period	AM Peak Hour		PHF	0.95																	
Urban Street	Midway Rd		Analysis Year	2035		Analysis Period	1> 7:00																	
Intersection	Gordy Rd	File Name	Midway Rd & Gordy Rd - AM Peak Hour - w.o. Art...																					
Project Description	Willow Lakes - without Arterial A																							
Demand Information			EB			WB			NB			SB												
Approach Movement			L	T	R	L	T	R	L	T	R	L	T	R										
Demand (v), veh/h			20	1329	0	0	1750	785	0	0	0	935	0	0										
Signal Information																								
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On	Green	3.0	65.0	34.0	0.0	0.0	0.0	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	Red	2.0	2.0	2.0	0.0	0.0	0.0
Traffic Information			EB			WB			NB			SB												
Approach Movement			L	T	R	L	T	R	L	T	R	L	T	R										
Demand (v), veh/h			20	1329	0	0	1750	785	0	0	0	935	0	0										
Initial Queue (Q _b), veh/h			0	0	0	0	0	0	0	0	0	0	0	0										
Base Saturation Flow Rate (s ₀), veh/h			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900										
Parking (N _m), man/h			None			None			None			None												
Heavy Vehicles (P _{HV}), %			0	0		0	0	0	0	0		0	0											
Ped / Bike / RTOR, /h			0	0		0	0	300	0	0		0	0											
Buses (N _b), buses/h			0	0	0	0	0	0	0	0	0	0	0	0										
Arrival Type (AT)			3	4	3	3	4	3	3	3	3	3	3	3										
Upstream Filtering (I)			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00										
Lane Width (W), ft			12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0											
Turn Bay Length, ft			0	0		0	0	0	0	0		0	0											
Grade (P _g), %			0			0			0			0												
Speed Limit, mi/h			35	35	35	35	35	35	35	35	35	35	35	35										
Phase Information			EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT														
Maximum Green (G _{max}) or Phase Split, s			13.0	55.0	13.0	55.0	12.0	12.0	40.0	40.0														
Yellow Change Interval (Y), s			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0														
Red Clearance Interval (R _c), s			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0														
Minimum Green (G _{min}), s			6	6	6	6	6	6	6	6														
Start-Up Lost Time (I _t), s			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0														
Extension of Effective Green (e), s			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0														
Passage (PT), s			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0														
Recall Mode			Off	Min	Off	Min	Off	Off	Off	Off														
Dual Entry			No	Yes	No	Yes	No	Yes	No	Yes														
Walk (Walk), s						0.0			0.0															
Pedestrian Clearance Time (PC), s						0.0			0.0															
Multimodal Information			EB			WB			NB			SB												
85th % Speed / Rest in Walk / Corner Radius			0	No	25	0	No	25	0	No	25	0	No	25										
Walkway / Crosswalk Width / Length, ft			9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0										
Street Width / Island / Curb			0	0	No	0	0	No	0	0	No	0	0	No										
Width Outside / Bike Lane / Shoulder, ft			12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0										
Pedestrian Signal / Occupied Parking			No	0.50	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50										

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Jun 29, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Gordy Rd	File Name	Midway Rd Gordy Rd - PM Peak Hour - w.o. Arte...												
Project Description	Willow Lakes - without Arterial A														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	19	1222	0	0	1209	778	0	0	0	858	0	0	0	0	0
Signal Information															
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap EW	On												
Force Mode	Float	Simult. Gap N/S	On	Green	0.0	3.2	64.9	0.0	53.9	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
		Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Traffic Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	19	1222	0	0	1209	778	0	0	0	858	0	0	0	0	0
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None					
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	300	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0	0	0	0		0	0		0	0	
Grade (P _g), %		0			0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s	17.0	51.0	14.0	48.0	23.0	15.0	60.0	52.0							
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0							
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0							
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6							
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0							
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0							
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0							
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off							
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes							
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
Multimodal Information				EB	WB	NB	SB								
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50					

APPENDIX F

2035 Intersection Data

2035 Intersection Worksheet
HCS
Timing Sheets

TURNING MOVEMENT VOLUME COUNTS

#1E

7/15/2020

N/S STREET: Midway Rd
 FILENAME: Willow Lakes
 COUNTY DATE: 7/20/2020
 REPORT DATE: Thursday
 ANALYSIS YEAR: 2020
 CONTROL: TWSC
 E/W STREET: Oberholser Rd
 CITY: St Lucie

15 Min Period

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
7:00-7:15	27	0	2	0	0	0	0	49	40	3	47	0	168
7:15-7:30	34	0	1	0	0	0	0	51	42	0	58	0	186
7:30-7:45	48	0	0	0	0	0	0	65	55	2	45	0	215
7:45-8:00	47	0	0	0	0	0	0	55	39	5	53	0	199
8:00-8:15	38	0	0	0	0	0	0	55	31	5	38	0	167
8:15-8:30	50	0	0	0	0	0	0	54	34	1	49	0	188
8:30-8:45	46	0	0	0	0	0	0	59	30	2	46	0	183
8:45-9:00	26	0	0	0	0	0	0	64	44	4	30	0	177

AM PEAK HOUR IS FROM:
 Volumes: 183 0 0 0 0 0 0 0 229 159 13 185 0 769
 Season Factor: 1
 Growth Rate: 1
 Years Grown: 0
 In/Out: - - - - -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PRODUCT: 0 0 0 0 0 0 0 0 0 0 0 0 0

PHIS: 0.894
 Seasonal Factor: 1
 Growth Rate: 1
 Years Grown: 0
 Willow Lakes
 Trips In: 1,327
 Trips Out: 1,032

Total: 183 0 0 0 0 0 0 0 229 159 13 185 0 769

15 Min Period lanes

15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
4:00-4:15	42	0	2	0	0	0	0	67	44	0	81	0	236
4:15-4:30	45	0	2	0	0	0	0	67	51	0	67	0	232
4:30-4:45	65	0	2	0	0	0	0	73	40	0	87	0	247
4:45-5:00	59	0	1	0	0	0	1	74	44	1	84	0	264
5:00-5:15	48	0	6	0	0	0	0	59	52	1	79	0	245
5:15-5:30	49	0	0	0	0	0	0	69	48	2	73	0	241
5:30-5:45	40	0	4	0	0	0	2	61	75	2	72	0	256
5:45-6:00	35	0	0	0	0	0	0	70	46	1	47	0	199

PM PEAK HOUR IS FROM:
 Volumes: 196 0 11 0 0 0 0 0 263 219 6 308 0 1006
 Season Factor: 1
 Growth Rate: 1
 Years Grown: 0
 In/Out: - - - - -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PRODUCT: 0 0 0 0 0 0 0 0 0 0 0 0 0

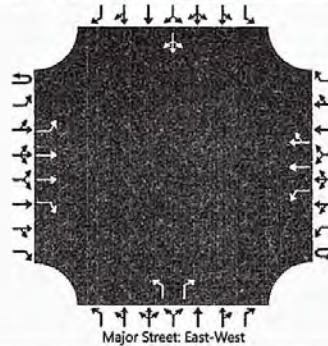
PHIS: 0.953
 Seasonal Factor: 1
 Growth Rate: 1
 Years Grown: 0
 Willow Lakes
 Village at Midway: 776 1,824
 LTC Ranch: 2,457 3,776
 Shinn Road 253: 351 341
 Shinn Road Equestrian Estates: 71 42

Total: 196 0 11 0 0 0 0 0 263 219 6 308 0 1006

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Midway & Okeechobee
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie
Date Performed	4/10/2020	East/West Street	Okeechobee Rd
Analysis Year	2020	North/South Street	Midway Rd
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Existing		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0	
Configuration		L	T	R		L	T	TR		L		R			LTR		
Volume (veh/h)	0	0	229	159	0	13	185	0		183		0		0	0	0	
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized		No								No							
Median Type Storage					Left Only								1				

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				14				193		0				0
Capacity, c (veh/h)		1368				1140				611		905				
v/c Ratio		0.00				0.01				0.32		0.00				
95% Queue Length, Q ₉₅ (veh)		0.0				0.0				1.3		0.0				
Control Delay (s/veh)		7.6				8.2				13.6		9.0				
Level of Service (LOS)		A				A				B		A				
Approach Delay (s/veh)		0.0				0.5				13.6						
Approach LOS										B						

HCS7 Two-Way Stop-Control Report

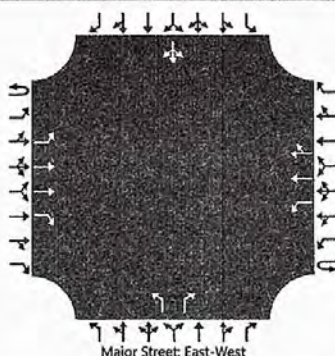
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2020
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Existing

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound					
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R		
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12			
Priority																		
Number of Lanes	0	1	2	1	0	1	2	0	1	0	1		0	1	0			
Configuration		L	T	R		L	T	TR	L		R				LTR			
Volume (veh/h)	0	3	263	219	0	6	308	0	196		11		0	0	0			
Percent Heavy Vehicles (%)	3	3			3	3			3		3		3	3	3			
Proportion Time Blocked																		
Percent Grade (%)									0				0					
Right Turn Channelized		No							No									
Median Type Storage		Left Only									1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				6				206		12				0
Capacity, c (veh/h)		1225				1047				556		881				
v/c Ratio		0.00				0.01				0.37		0.01				
95% Queue Length, Q ₉₅ (veh)		0.0				0.0				1.7		0.0				
Control Delay (s/veh)		7.9				8.5				15.2		9.1				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				0.2				14.9						
Approach LOS										B						

TURNING MOVEMENT VOLUME COUNTS

CONTROL TWSC

EW STREET, Okeschooborn Rd

CITY, St Louis

Michoud Rd

Willow Lakes

3/26/2020

DATE Thursday

ANALYSIS YEAR 2005

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
7:00-7:15	27	0	2	0	0	0	0	49	40	3	47	0	188	768
7:15-7:30	34	0	1	0	0	0	51	42	0	58	0	186	767	
7:30-7:45	48	0	0	0	0	0	65	55	2	45	0	315	768	
7:45-8:00	47	0	0	0	0	0	55	39	5	53	0	159	717	
8:00-8:15	38	0	0	0	0	0	55	31	5	38	0	167	715	
8:15-8:30	50	0	0	0	0	0	54	34	1	40	0	188		
8:30-8:45	46	0	0	0	0	0	59	30	2	46	0	183		
8:45-9:00	26	0	0	0	0	0	64	44	4	39	0	177		

AM PEAK HOUR IS FROM:

Volumes
Season Factor
Growth
In/Den
Percentage
PROJECT
Milwauy %
Village at Midway
LTC Ranch %
LTC Ranch Volume
Shinn Road 251 %
Shinn Road 251
Shinn Road Equestrian Estates %
Shinn Road Equestrian Estates

Seasonal Factor: 1
Growth Rate: 1.005
Years Growth: 15
Willow Lakes
Village at Midway
LTC Ranch
Shinn Road 251
Shinn Road Equestrian Estates

Trips In: 1,377
Trips Out: 1,052
Trips In: 3,651
Trips Out: 603
Trips In: 1,823
Trips Out: 1,624
Trips In: 113
Trips Out: 109
Trips In: 21
Trips Out: 63

Total 221 0 11 0 0 0 0 256 213 27 214 0 942

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
4:00-4:15	42	0	2	0	0	0	0	67	44	0	81	0	236	978
4:15-4:30	45	0	2	0	0	0	0	67	51	0	67	0	231	988
4:30-4:45	45	0	2	0	0	0	0	73	40	0	87	0	247	997
4:45-5:00	59	0	1	0	0	0	1	74	44	1	84	0	264	1006
5:00-5:15	48	0	0	0	0	0	0	59	51	1	75	0	245	941
5:15-5:30	49	0	0	0	0	0	0	69	45	2	71	0	241	
5:30-5:45	40	0	4	0	0	0	2	61	75	2	72	0	256	
5:45-6:00	35	0	0	0	0	0	0	70	46	1	47	0	199	

PM PEAK HOUR IS FROM:

Volumes
Season Factor
Growth
In/Den
Percentage
PROJECT
Milwauy %
Village at Midway
LTC Ranch %
LTC Ranch Volume
Shinn Road 251 %
Shinn Road 251
Shinn Road Equestrian Estates %
Shinn Road Equestrian Estates

Seasonal Factor: 1
Growth Rate: 1.005
Years Growth: 15
Willow Lakes
Village at Midway
LTC Ranch
Shinn Road 251
Shinn Road Equestrian Estates

Trips In: 1,441
Trips Out: 1,027
Trips In: 3,651
Trips Out: 603
Trips In: 1,823
Trips Out: 1,624
Trips In: 113
Trips Out: 109
Trips In: 21
Trips Out: 63

Total 268 0 33 0 0 0 3 312 267 23 355 0 1061

1 w/d P

HCS7 Two-Way Stop-Control Report

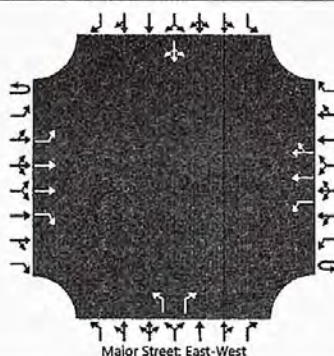
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	with Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	1	0	1	2	0		1	0	1		0	1	0	
Configuration		L	T	R		L	T	TR		L		R			LTR		
Volume (veh/h)	0	0	256	240	0	27	214	0		242		11		0	0	0	
Percent Heavy Vehicles (%)	3	3			3	3				3		3		3	3	3	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized		No								No							
Median Type Storage		Left Only												1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				28				255		12				0
Capacity, c (veh/h)		1333				1034				563		886				
v/c Ratio		0.00				0.03				0.45		0.01				
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				2.3		0.0				
Control Delay (s/veh)		7.7				8.6				16.6		9.1				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				1.0				16.3						
Approach LOS										C						

HCS7 Two-Way Stop-Control Report

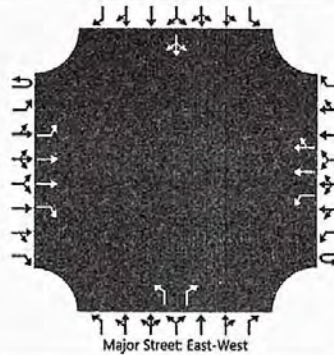
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/10/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	without Project

Site Information

Intersection	Midway & Okeechobee
Jurisdiction	St. Lucie
East/West Street	Okeechobee Rd
North/South Street	Midway Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	1	0	1	2	0	1	0	1		0	1	0	
Configuration		L	T	R		L	T	TR	L		R				LTR	
Volume (veh/h)	3	0	312	267	0	23	355	0	268		33		0	0	0	
Percent Heavy Vehicles (%)	3	3			3	3			3		3		3	3	3	
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized		No							No							
Median Type Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1			4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)	6.46	4.16			4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)	2.5	2.2			2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.53	2.23			2.23				3.53		3.33		3.53	4.03	3.33

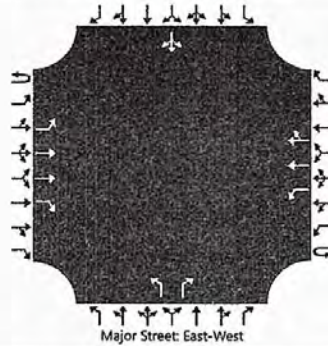
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3			24				282		35			0	
Capacity, c (veh/h)		827			958				490		848				
v/c Ratio		0.00			0.03				0.58		0.04				
95% Queue Length, Q ₉₅ (veh)		0.0			0.1				3.6		0.1				
Control Delay (s/veh)		9.4			8.9				21.9		9.4				
Level of Service (LOS)		A			A				C		A				
Approach Delay (s/veh)		0.0			0.5				20.5						
Approach LOS									C						

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	Midway & Okeechobee		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie		
Date Performed	4/10/2020			East/West Street	Okeechobee Rd		
Analysis Year	2035			North/South Street	Midway Rd		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	with Project						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	1	0	1	2	0	1	0	1		0	1	0	
Configuration		L	T	R		L	T	TR	L		R				LTR	
Volume (veh/h)	0	0	267	252	0	40	225	0	253		23		0	0	0	
Percent Heavy Vehicles (%)	3	3			3	3			3		3		3	3	3	
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized		No							No							
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33		3.53	4.03	3.33

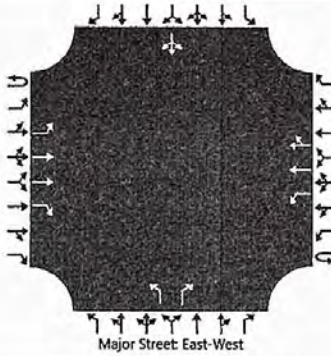
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				42				266		24				0
Capacity, c (veh/h)		1320				1012				534		879				
v/c Ratio		0.00				0.04				0.50		0.03				
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				2.8		0.1				
Control Delay (s/veh)		7.7				8.7				18.3		9.2				
Level of Service (LOS)		A				A				C		A				
Approach Delay (s/veh)		0.0				1.3				17.5						
Approach LOS										C						

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	Midway & Okeechobee		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie		
Date Performed	4/10/2020			East/West Street	Okeechobee Rd		
Analysis Year	2035			North/South Street	Midway Rd		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	with Project						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	1	0	1	2	0	1	0	1		0	1	0	
Configuration		L	T	R		L	T	TR	L		R				LTR	
Volume (veh/h)	3	0	312	296	0	23	355	0	289		33		0	0	0	
Percent Heavy Vehicles (%)	3	3			3	3			3		3		3	3	3	
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No								No							
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1			4.1				7.5		6.9		7.5	6.5	6.9
Critical Headway (sec)	6.46	4.16			4.16				7.56		6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)	2.5	2.2			2.2				3.5		3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.53	2.23			2.23				3.53		3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3			24				304		35				0
Capacity, c (veh/h)		827			933				490		848				
v/c Ratio		0.00			0.03				0.62		0.04				
95% Queue Length, Q ₉₅ (veh)		0.0			0.1				4.2		0.1				
Control Delay (s/veh)		9.4			9.0				23.7		9.4				
Level of Service (LOS)		A			A				C		A				
Approach Delay (s/veh)		0.0			0.5				22.2						
Approach LOS									C						

TURNING MOVEMENT VOLUME COUNTS

2 E

CONTROL: Signalized

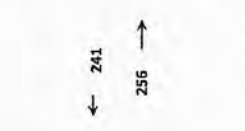
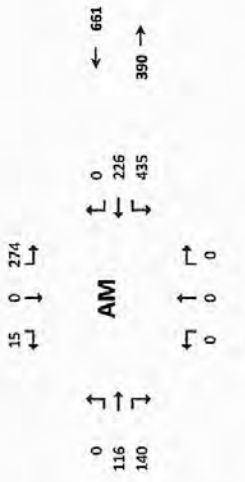
EW STREET: Midway Rd

N/S STREET: Willow Lakes

DAY: Tuesday
ANALYSIS YEAR: 2020

CITY: St. Lucie

ISS 58 Ramp
Willow Lakes
2/18/2020



15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR SUM	
	NBL	NBT	NBR	NBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	WBL	WBT	WBR		TOTAL
7:00-7:15	0	0	0	53	0	5	0	23	40	101	44	0	266	103	0	0	0	1206
7:15-7:30	0	0	0	75	0	1	0	24	33	126	49	0	308	1206	0	0	0	1206
7:30-7:45	0	0	0	71	0	5	0	38	43	108	62	0	317	1159	0	0	0	1206
7:45-8:00	0	0	0	71	0	5	0	31	32	102	61	0	302	1067	0	0	0	1206
8:00-8:15	0	0	0	57	0	4	0	23	32	58	54	0	269	984	0	0	0	1206
8:15-8:30	0	0	0	72	0	6	0	19	22	90	52	0	261	984	0	0	0	1206
8:30-8:45	0	0	0	51	0	9	0	25	19	79	52	0	235	984	0	0	0	1206
8:45-9:00	0	0	0	44	0	5	0	32	30	76	30	0	219	984	0	0	0	1206
Total	0	0	0	274	0	15	0	116	140	435	226	0	1206	0	0	0	1206	

PH: 0.922
Seasonal Factor: 1
Growth Rate: 1
Years Crown: 0

PH: 0.922
Seasonal Factor: 1
Growth Rate: 1
Years Crown: 0

AM PEAK HOUR IS FROM:
7:15AM TO 8:15AM
Volumes: 0 0 0 274 0 15 0 116 140 435 226 0 1206
Season Factor: 0 0 0 274 0 15 0 116 140 435 226 0 1206
Growth: 0 0 0 274 0 15 0 116 140 435 226 0 1206
In/Out: - - - - - Out In - - -
Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0

PM PEAK HOUR IS FROM:
4:30 PM TO 5:30 PM
Volumes: 0 0 0 310 0 27 0 124 154 452 275 0 1342
Season Factor: 0 0 0 310 0 27 0 124 154 452 275 0 1342
Growth: 0 0 0 310 0 27 0 124 154 452 275 0 1342
In/Out: - - - - - Out In - - -
Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0

St. Lucie County



00024 - MIDWAY RD @ I-95 SB RAMP - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

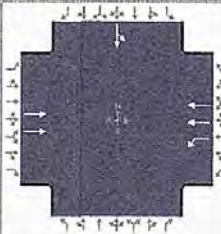
Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	WB-T	E-L	W-T	WB-L	EB-T	W-L	SB	N	N	N	N	N	N	N	N
Min Green	0	8	0	0	7	8	0	6	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	3.0	0.0	0.0	5.0	3.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	45	0	0	30	45	0	25	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	0.0	5.0	0.0	0.0	5.0	5.0	0.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q in use

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - Existing.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		116		435	226					274	0	

Signal Information													
Cycle, s	56.8	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
				Green	14.4	8.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0
				Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				12.0
Phase Duration, s		16.0	22.4	38.4				18.4
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		2.9	3.0	2.9				3.0
Queue Clearance Time (g _s), s		3.8	13.5	3.9				11.0
Green Extension Time (g _e), s		0.8	0.9	0.8				0.5
Phase Call Probability		1.00	1.00	1.00				0.99
Max Out Probability		0.00	0.00	0.00				0.00

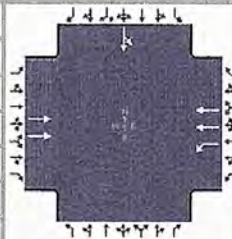
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		126		473	246						298	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809						1810	
Queue Service Time (g _s), s		1.8		11.5	1.9						9.0	
Cycle Queue Clearance Time (g _c), s		1.8		11.5	1.9						9.0	
Green Ratio (g/C)		0.14		0.43	0.54						0.20	
Capacity (c), veh/h		509		726	1936						364	
Volume-to-Capacity Ratio (X)		0.248		0.651	0.127						0.819	
Back of Queue (Q), ft/ln (95 th percentile)		29.7		160	22.4						153.2	
Back of Queue (Q), veh/ln (95 th percentile)		1.2		6.4	0.9						6.1	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00						0.00	
Uniform Delay (d ₁), s/veh		21.8		12.7	6.6						21.7	
Incremental Delay (d ₂), s/veh		0.1		0.4	0.0						1.8	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0						0.0	
Control Delay (d), s/veh		21.8		13.1	6.6						23.5	
Level of Service (LOS)		C		B	A						C	
Approach Delay, s/veh / LOS	21.8		C	10.9		B	0.0			23.5		C
Intersection Delay, s/veh / LOS	15.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.35	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	0.59	A	1.08	A			0.98	A

HCS7 Signalized Intersection Input Data

2 E A M

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - Existing - 6.2....				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		116		435	226					274	0	

Signal Information																	
Cycle, s	56.8	Reference Phase	2														
Offset, s	0	Reference Point	End														
Uncoordinated	Yes	Simult. Gap E/W	On														
Force Mode	Fixed	Simult. Gap N/S	On														
				Green	14.4	8.0	11.4	0.0	0.0	0.0							
				Yellow	5.0	5.0	4.0	0.0	0.0	0.0							
				Red	3.0	3.0	3.0	0.0	0.0	0.0							

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		116		435	226					274	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (S ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None			None						None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		3		3	3					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0		
Turn Bay Length, ft		0		0	0					0		
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

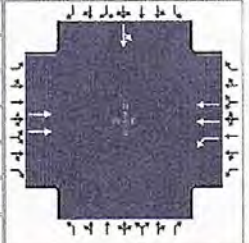
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		40.0	40.0	40.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Results Summary

2 AM PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - Existing - 6.2.2...		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		124		452	275					310	0	

Signal Information												
Cycle, s	58.6	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	14.9	8.0	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				12.0
Phase Duration, s		16.0	22.9	38.9				19.7
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		2.9	3.0	2.9				3.0
Queue Clearance Time (g _s), s		3.9	14.0	4.4				12.1
Green Extension Time (g _e), s		0.9	0.9	0.9				0.6
Phase Call Probability		1.00	1.00	1.00				1.00
Max Out Probability		0.00	0.00	0.00				0.00

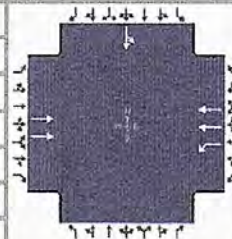
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		131		476	289						326	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809						1810	
Queue Service Time (g _s), s		1.9		12.0	2.4						10.1	
Cycle Queue Clearance Time (g _c), s		1.9		12.0	2.4						10.1	
Green Ratio (g/C)		0.14		0.43	0.53						0.22	
Capacity (c), veh/h		493		717	1910						392	
Volume-to-Capacity Ratio (X)		0.265		0.663	0.152						0.833	
Back of Queue (Q), ft/ln (95 th percentile)		32.4		171.9	29.5						174	
Back of Queue (Q), veh/ln (95 th percentile)		1.3		6.9	1.2						7.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00						0.00	
Uniform Delay (d ₁), s/veh		22.7		13.3	7.1						22.0	
Incremental Delay (d ₂), s/veh		0.1		0.4	0.0						1.8	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0						0.0	
Control Delay (d), s/veh		22.8		13.7	7.1						23.8	
Level of Service (LOS)		C		B	A						C	
Approach Delay, s/veh / LOS	22.8		C	11.2		B	0.0			23.8		C
Intersection Delay, s/veh / LOS	15.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.36	A	2.30	B	2.13	B
Bicycle LOS Score / LOS	0.60	A	1.12	A			1.03	A

HCS7 Signalized Intersection Input Data

2 EPM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - Existing - 6.2....				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		124		452	275					310	0	

Signal Information												
Cycle, s	58.6	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	14.9	8.0	12.7	0.0	0.0	0.0	0.0	0.0
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		124		452	275					310	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None			None						None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		3		3	3					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0						12.0	
Turn Bay Length, ft		0		0	0						0	
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		40.0	40.0	40.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

TURNING MOVEMENT VOLUME COUNTS

PWS STREET: R55 54 Loop
 FROM: Willow Lake
 TO: 2/25/2019
 ANALYSIS YEAR: 2015-2019
 DAY: Tuesday
 CONTROL: Signalized
 CITY: 31 Loop

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NRT	SR	SL	SBL	SRT	SR	SL	EBL	EBT	EBR	EBL	WBL	WBT	WBR	WBL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

15 Min Period	ONE HOUR SUM	PERCENTAGE	TRIPLE	TRIPLE
7:00-7:15	0	0%	0	0
7:15-7:30	0	0%	0	0
7:30-7:45	0	0%	0	0
7:45-8:00	0	0%	0	0
8:00-8:15	0	0%	0	0
8:15-8:30	0	0%	0	0
8:30-8:45	0	0%	0	0
8:45-9:00	0	0%	0	0

15 Min Period	ONE HOUR SUM	PERCENTAGE	TRIPLE	TRIPLE
7:00-7:15	0	0%	0	0
7:15-7:30	0	0%	0	0
7:30-7:45	0	0%	0	0
7:45-8:00	0	0%	0	0
8:00-8:15	0	0%	0	0
8:15-8:30	0	0%	0	0
8:30-8:45	0	0%	0	0
8:45-9:00	0	0%	0	0

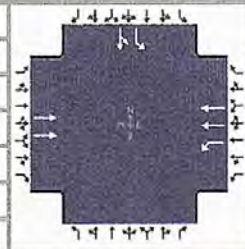
15 Min Period	ONE HOUR SUM	PERCENTAGE	TRIPLE	TRIPLE
7:00-7:15	0	0%	0	0
7:15-7:30	0	0%	0	0
7:30-7:45	0	0%	0	0
7:45-8:00	0	0%	0	0
8:00-8:15	0	0%	0	0
8:15-8:30	0	0%	0	0
8:30-8:45	0	0%	0	0
8:45-9:00	0	0%	0	0

15 Min Period	ONE HOUR SUM	PERCENTAGE	TRIPLE	TRIPLE
7:00-7:15	0	0%	0	0
7:15-7:30	0	0%	0	0
7:30-7:45	0	0%	0	0
7:45-8:00	0	0%	0	0
8:00-8:15	0	0%	0	0
8:15-8:30	0	0%	0	0
8:30-8:45	0	0%	0	0
8:45-9:00	0	0%	0	0

HCS7 Signalized Intersection Results Summary

#2 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 w.o. Proje...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green		17.0	52.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow		5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red		3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	25.0	85.0				35.0
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			19.0					27.6
Green Extension Time (g _e), s		0.0	0.0	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					0.18

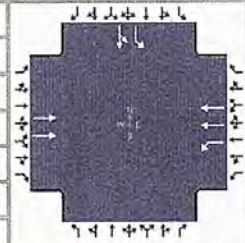
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		813		517	872					395	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (g _s), s		16.3		17.0	6.2					25.6	0.0	
Cycle Queue Clearance Time (g _c), s		16.3		17.0	6.2					25.6	0.0	
Green Ratio (g/C)		0.43		0.59	0.64					0.23	0.23	
Capacity (c), veh/h		1568		519	2320					423	444	
Volume-to-Capacity Ratio (X)		0.519		0.997	0.376					0.933	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		245		467.8	80.3					491.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		9.8		18.7	3.2					19.6	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh		17.8		22.1	3.6					45.1	0.0	
Incremental Delay (d ₂), s/veh		1.2		38.7	0.5					21.4	0.0	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		19.0		60.8	4.0					66.5	0.0	
Level of Service (LOS)		B		E	A					E		
Approach Delay, s/veh / LOS	19.0	B		25.2	C			0.0		66.5	E	
Intersection Delay, s/veh / LOS	29.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.65	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.16	A	1.63	B			1.14	A

HCS7 Signalized Intersection Input Data

2 w/o AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green		17.0	52.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow		5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red		3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s _b), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None		None						None		
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0		0			0			0		
Speed Limit, mi/h		45		45	45					45	45	

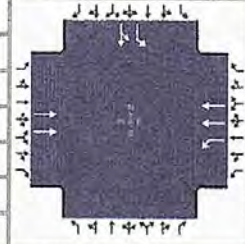
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s		60.0	20.0	80.0			
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _f), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

HCS7 Signalized Intersection Results Summary

2 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 w.o. Proje...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	12.0	52.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	20.0	80.0				40.0
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			14.0					35.0
Green Extension Time (g _e), s		0.0	0.0	0.0				0.0
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					1.00

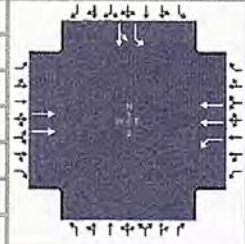
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	6			5	2					3	8	
Adjusted Flow Rate (v), veh/h	1742			539	904					500	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	1809			1810	1809					1810	1900	
Queue Service Time (g _s), s	52.0			12.0	9.0					33.0	0.0	
Cycle Queue Clearance Time (g _c), s	52.0			12.0	9.0					33.0	0.0	
Green Ratio (g/C)	0.43			0.55	0.60					0.28	0.28	
Capacity (c), veh/h	1568			241	2171					498	523	
Volume-to-Capacity Ratio (X)	1.111			2.237	0.417					1.005	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	1060.8			1595.3	121.6					681.5	0	
Back of Queue (Q), veh/ln (95 th percentile)	42.4			63.8	4.9					27.3	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00			0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh	25.3			39.1	5.7					43.5	0.0	
Incremental Delay (d ₂), s/veh	59.8			570.1	0.6					41.5	0.0	
Initial Queue Delay (d ₃), s/veh	0.0			0.0	0.0					0.0	0.0	
Control Delay (d), s/veh	85.1			609.1	6.3					85.0	0.0	
Level of Service (LOS)	F			F	A					F		
Approach Delay, s/veh / LOS	85.1	F		231.4	F		0.0			85.0	F	
Intersection Delay, s/veh / LOS	142.4						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.66	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.93	B	1.68	B			1.31	A

HCS7 Signalized Intersection Input Data

2 w/o PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	12.0	52.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None		None	None					None	None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0		0	0		0			0	0	
Speed Limit, mi/h		45		45	45					45	45	

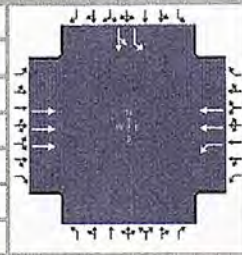
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s		60.0	20.0	80.0			
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
	0	No	25	0	No	25				0	No	25
85th % Speed / Rest in Walk / Corner Radius												
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Results Summary

2 w/o AM turnp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 w.o. Proje...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	

Signal Information				Signal Timing (s)									
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	21.4	48.4	27.2	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0			
				Red	3.0	3.0	3.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		56.4	29.4	85.8				34.2
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			20.5					26.8
Green Extension Time (g _e), s		0.0	0.9	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.00					0.10

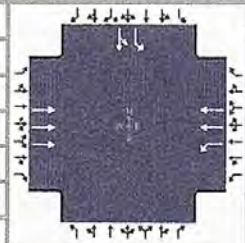
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		787		501	844					382	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (g _s), s		10.6		18.5	5.5					24.8	0.0	
Cycle Queue Clearance Time (g _c), s		10.6		18.5	5.5					24.8	0.0	
Green Ratio (g/C)		0.40		0.60	0.65					0.23	0.23	
Capacity (c), veh/h		2087		602	2344					411	431	
Volume-to-Capacity Ratio (X)		0.377		0.832	0.360					0.930	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		173.8		296.1	72.2					475.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		7.0		11.8	2.9					19.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh		19.0		15.8	3.3					45.4	0.0	
Incremental Delay (d ₂), s/veh		0.5		3.5	0.4					20.3	0.0	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		19.5		19.2	3.7					65.7	0.0	
Level of Service (LOS)		B		B	A					E		
Approach Delay, s/veh / LOS	19.5		B	9.5		A	0.0			65.7		E
Intersection Delay, s/veh / LOS	21.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.40	A	1.65	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	0.92	A	1.60	B			1.12	A

HCS7 Signalized Intersection Input Data

2 w/o AM+1MP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	

Signal Information				Phase Diagram								
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green		21.4	48.4	27.2	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow		5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
		Red		3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		748		476	802					363	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None			None						None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

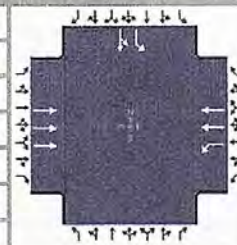
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _f), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

HCS7 Signalized Intersection Results Summary

2 w/o PM + imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 w.o. Proje...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	32.0	52.0	33.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0			
				Red	3.0	3.0	3.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		60.0	40.0	100.0				40.0
Change Period, (Y+Rc), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (gs), s			34.0					35.0
Green Extension Time (ge), s		0.0	0.0	0.0				0.0
Phase Call Probability			1.00					1.00
Max Out Probability			1.00					1.00

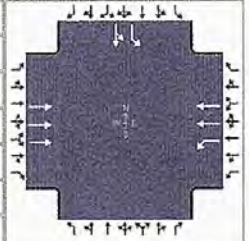
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		1687		522	876					484	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (gs), s		40.8		32.0	6.2					33.0	0.0	
Cycle Queue Clearance Time (gc), s		40.8		32.0	6.2					33.0	0.0	
Green Ratio (g/C)		0.37		0.61	0.66					0.24	0.24	
Capacity (c), veh/h		1922		489	2377					427	448	
Volume-to-Capacity Ratio (X)		0.878		1.068	0.368					1.135	0.000	
Back of Queue (Q), ft/ln (95th percentile)		560.3		833.9	82.7					885.1	0	
Back of Queue (Q), veh/ln (95th percentile)		22.4		33.4	3.3					35.4	0.0	
Queue Storage Ratio (RQ) (95th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d1), s/veh		32.5		42.9	3.4					53.5	0.0	
Incremental Delay (d2), s/veh		6.1		60.1	0.4					85.9	0.0	
Initial Queue Delay (d3), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		38.6		103.0	3.8					139.4	0.0	
Level of Service (LOS)		D		F	A					F		
Approach Delay, s/veh / LOS	38.6		D	40.9		D	0.0			139.4		F
Intersection Delay, s/veh / LOS	53.1						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.66	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.42	A	1.64	B			1.29	A

HCS7 Signalized Intersection Input Data

#2 w/o PM uimp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 w.o. Proj...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	32.0	52.0	33.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0		
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0		

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1603		496	832					460	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None			None						None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _f), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

TURNING MOVEMENT VOLUME COUNTS

R/S Street: EHW STREET - Midway Rd
 R/S Name: EHW STREET - Midway Rd
 COUNTY: COVY, S. Laclede
 DATE: 2/14/2020
 ANALYSIS YEAR: 2015
 RAY: Timofey
 CONTROL: Squared
 15 Min Period:

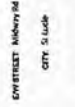
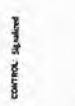
15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NRT	NBR	NBL	SBL	SRT	SBR	SBL	EBL	EBT	EBR	WBL	WRT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	0	0	0	53	0	0	5	0	23	42	101	44	0	0	256	1303
7:15-7:30	0	0	0	75	0	1	0	24	31	216	49	0	0	0	308	1706
7:30-7:45	0	0	0	71	0	0	5	0	34	43	108	82	0	0	317	1199
7:45-8:00	0	0	0	71	0	0	5	0	31	32	102	63	0	0	302	1067
8:00-8:15	0	0	0	57	0	4	0	13	32	99	54	0	0	0	269	984
8:15-8:30	0	0	0	72	0	0	0	0	10	22	90	52	0	0	261	984
8:30-8:45	0	0	0	51	0	0	9	0	25	15	79	53	0	0	235	915
8:45-9:00	0	0	0	44	0	0	5	0	21	20	78	28	0	0	213	818

AM PEAK HOUR IS FROM:

Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1012	1.000	1.000	15	1.000	1.000	1.000

AM PEAK HOUR IS FROM:

Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1012	1.000	1.000	15	1.000	1.000	1.000



AM PEAK HOUR IS FROM:
 Volume: 1012
 Season Factor: 1.000
 Growth Rate: 1.000
 Year Growth: 15
 Wilson Index: 1.000
 Truck Out Loss: 1.000
 Truck Out Loss: 1.000

AM PEAK HOUR IS FROM:
 Volume: 1012
 Season Factor: 1.000
 Growth Rate: 1.000
 Year Growth: 15
 Wilson Index: 1.000
 Truck Out Loss: 1.000
 Truck Out Loss: 1.000

PM PEAK HOUR IS FROM:

Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1409	1.000	1.000	15	1.000	1.000	1.000

PM PEAK HOUR IS FROM:

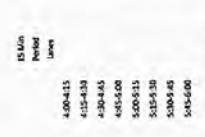
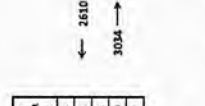
Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1409	1.000	1.000	15	1.000	1.000	1.000

PM PEAK HOUR IS FROM:

Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1409	1.000	1.000	15	1.000	1.000	1.000

PM PEAK HOUR IS FROM:

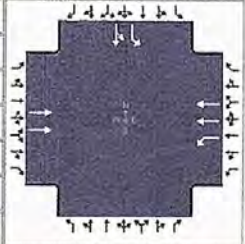
Volume	Season Factor	Growth Rate	Year Growth	Wilson Index	Truck Out Loss	Truck Out Loss
1409	1.000	1.000	15	1.000	1.000	1.000



HCS7 Signalized Intersection Results Summary

#2 w/p AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 with Proje...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information				Signal Timing (s)																
Cycle, s	120.0	Reference Phase	2																	
Offset, s	0	Reference Point	End	Green	31.2	38.6	27.2	0.0	0.0	0.0										
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0										
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		46.6	39.2	85.8				34.2
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			30.5					26.8
Green Extension Time (g _e), s		0.0	0.7	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.08					0.10

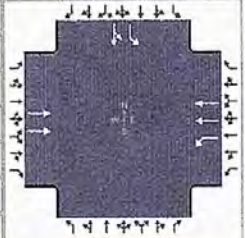
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		1347		501	1558					382	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (g _s), s		38.6		28.5	16.5					24.8	0.0	
Cycle Queue Clearance Time (g _c), s		38.6		28.5	16.5					24.8	0.0	
Green Ratio (g/C)		0.32		0.60	0.65					0.23	0.23	
Capacity (c), veh/h		1163		530	2344					411	431	
Volume-to-Capacity Ratio (X)		1.159		0.945	0.665					0.930	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		995.3		589.4	154.6					475.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		39.8		23.6	6.2					19.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh		34.3		35.9	4.0					45.4	0.0	
Incremental Delay (d ₂), s/veh		81.3		20.2	1.5					20.3	0.0	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		115.6		56.1	5.5					65.7	0.0	
Level of Service (LOS)		F		E	A					E		
Approach Delay, s/veh / LOS	115.6		F	17.8		B	0.0			65.7		E
Intersection Delay, s/veh / LOS	57.4						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.65	B	2.32	B	2.16	B
Bicycle LOS Score / LOS	1.60	B	2.19	B			1.12	A

HCS7 Signalized Intersection Input Data

2 w/p AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 with Proj...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information				Signal Timing (s)													
Cycle, s	120.0	Reference Phase	2														
Offset, s	0	Reference Point	End	Green	31.2	38.6	27.2	0.0	0.0	0.0							
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0							
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0							

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1280		476	1480					363	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None		None							None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (P _g), %		0		0			0			0		
Speed Limit, mi/h		45		45	45					45	45	

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

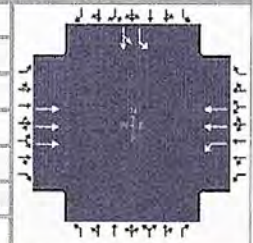
Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Results Summary

2 w/ PAM + Imp

General Information

Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - AM - 2035 with Proje...		
Project Description	with Project + Imp				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	27.4	42.3	27.2	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		50.3	35.4	85.8				34.2
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			26.6					26.8
Green Extension Time (g _e), s		0.0	0.8	0.0				0.4
Phase Call Probability			1.00					1.00
Max Out Probability			0.01					0.10

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		1347		501	1558					382	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1725		1810	1809					1810	1900	
Queue Service Time (g _s), s		25.3		24.6	16.5					24.8	0.0	
Cycle Queue Clearance Time (g _c), s		25.3		24.6	16.5					24.8	0.0	
Green Ratio (g/C)		0.35		0.60	0.65					0.23	0.23	
Capacity (c), veh/h		1826		532	2344					411	431	
Volume-to-Capacity Ratio (X)		0.738		0.942	0.665					0.930	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		358.5		574.1	154.6					475.2	0	
Back of Queue (Q), veh/ln (95 th percentile)		14.3		23.0	6.2					19.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh		27.3		29.9	4.0					45.4	0.0	
Incremental Delay (d ₂), s/veh		2.7		16.8	1.5					20.3	0.0	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		30.0		46.8	5.5					65.7	0.0	
Level of Service (LOS)		C		D	A					E		
Approach Delay, s/veh / LOS	30.0		C	15.6		B	0.0			65.7		E
Intersection Delay, s/veh / LOS	25.7						C					

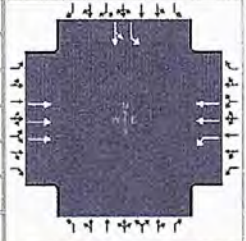
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.65	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.23	A	2.19	B			1.12	A

HCS7 Signalized Intersection Input Data

2 w/ P AM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - AM - 2035 with Proj...				
Project Description	with Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1280		476	1480					363	0	

Signal Information				Signal Timing (s)									
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	27.4	42.3	27.2	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0		
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0		

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1280		476	1480					363	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None		None							None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0		0			0			0		
Speed Limit, mi/h		45		45	45					45	45	

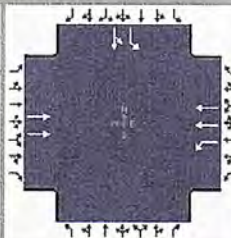
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		40.0	40.0	80.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

HCS7 Signalized Intersection Results Summary

2 w/p PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 with Proje...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		2121		496	1557					460	0	

Signal Information													
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	38.3	57.9	20.8	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		65.9	46.3	112.2				27.8
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			37.6					20.4
Green Extension Time (g _e), s		0.0	0.7	0.0				0.3
Phase Call Probability			1.00					1.00
Max Out Probability			0.12					0.00

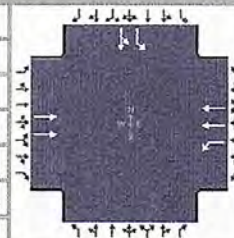
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		6		5	2					3	8	
Adjusted Flow Rate (v), veh/h		2233		522	1639					242	0	
Adjusted Saturation Flow Rate (s), veh/h/ln		1809		1810	1809					1810	1900	
Queue Service Time (g _s), s		57.9		35.6	1.1					18.4	0.0	
Cycle Queue Clearance Time (g _c), s		57.9		35.6	1.1					18.4	0.0	
Green Ratio (g/C)		0.41		0.70	0.74					0.15	0.15	
Capacity (c), veh/h		1497		547	2694					268	282	
Volume-to-Capacity Ratio (X)		1.491		0.955	0.608					0.903	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		2571.9		706.3	24					348.8	0	
Back of Queue (Q), veh/ln (95 th percentile)		102.9		28.3	1.0					14.0	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00		0.00	0.00					0.00	0.00	
Uniform Delay (d ₁), s/veh		31.4		44.0	0.1					58.6	0.0	
Incremental Delay (d ₂), s/veh		224.7		23.0	1.0					10.3	0.0	
Initial Queue Delay (d ₃), s/veh		0.0		0.0	0.0					0.0	0.0	
Control Delay (d), s/veh		256.1		67.0	1.2					68.9	0.0	
Level of Service (LOS)		F		E	A					E		
Approach Delay, s/veh / LOS	256.1	F		17.1	B		0.0			68.9	E	
Intersection Delay, s/veh / LOS	134.9						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.63	B	2.33	B	2.16	B
Bicycle LOS Score / LOS	2.33	B	2.27	B			1.29	A

HCS7 Signalized Intersection Input Data

2 w/ P PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 with Proj...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		2121		496	1557					460	0	

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	38.3	57.9	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		2121		496	1557					460	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None		None						None		
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (A _T)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

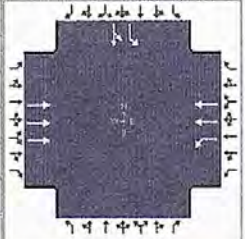
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _t), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50				No		0.50

HCS7 Signalized Intersection Results Summary

2 w/p PM+imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp Midway Rd - PM - 2035 with Proje...				
Project Description	with Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		2121		496	1557					460	0	

Signal Information													
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	38.3	57.9	20.8	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		6	5	2				8
Case Number		8.3	1.0	4.0				10.0
Phase Duration, s		65.9	46.3	112.2				27.8
Change Period, (Y+R _c), s		8.0	8.0	8.0				7.0
Max Allow Headway (MAH), s		0.0	3.0	0.0				3.0
Queue Clearance Time (g _s), s			37.6					20.4
Green Extension Time (g _e), s		0.0	0.7	0.0				0.3
Phase Call Probability			1.00					1.00
Max Out Probability			0.12					0.00

Movement Group Results	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	6			5			2			3			8		
Adjusted Flow Rate (v), veh/h	2233			522			1639			242			0		
Adjusted Saturation Flow Rate (s), veh/h/ln	1725			1810			1809			1810			1900		
Queue Service Time (g _s), s	57.9			35.6			1.1			18.4			0.0		
Cycle Queue Clearance Time (g _c), s	57.9			35.6			1.1			18.4			0.0		
Green Ratio (g/C)	0.41			0.70			0.74			0.15			0.15		
Capacity (c), veh/h	2142			547			2694			268			282		
Volume-to-Capacity Ratio (X)	1.042			0.955			0.608			0.903			0.000		
Back of Queue (Q), ft/ln (95 th percentile)	899.8			706.4			24			348.8			0		
Back of Queue (Q), veh/ln (95 th percentile)	36.0			28.3			1.0			14.0			0.0		
Queue Storage Ratio (RQ) (95 th percentile)	0.00			0.00			0.00			0.00			0.00		
Uniform Delay (d ₁), s/veh	31.4			44.0			0.1			58.6			0.0		
Incremental Delay (d ₂), s/veh	31.6			23.0			1.0			10.3			0.0		
Initial Queue Delay (d ₃), s/veh	0.0			0.0			0.0			0.0			0.0		
Control Delay (d), s/veh	62.9			67.0			1.2			68.9			0.0		
Level of Service (LOS)	F			E			A			E					
Approach Delay, s/veh / LOS	62.9	E		17.1	B		0.0			68.9	E				
Intersection Delay, s/veh / LOS	41.9						D								

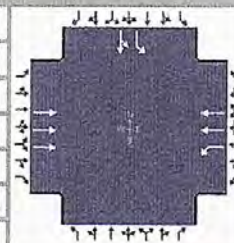
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.41	A	1.63	B	2.48	B	2.33	B
Bicycle LOS Score / LOS	1.72	B	2.27	B			1.29	A

HCS7 Signalized Intersection Input Data

2 W/P AM + W/P

General Information

Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	I-95 SB Ramp	File Name	I-95 SB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project + Imp				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		2121		496	1557					460	0	

Signal Information

Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	38.3	57.9	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		2121		496	1557					460	0	
Initial Queue (Q _b), veh/h		0		0	0					0	0	
Base Saturation Flow Rate (s ₀), veh/h		1900		1900	1900					1900	1900	
Parking (N _m), man/h		None			None						None	
Heavy Vehicles (P _{HV}), %		0		0	0					0	0	
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0				0	0	0
Arrival Type (AT)		4		3	4					3	3	
Upstream Filtering (f)		1.00		1.00	1.00					1.00	1.00	
Lane Width (W), ft		12.0		12.0	12.0					12.0	12.0	
Turn Bay Length, ft		0		0	0					0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h		45		45	45					45	45	

Phase Information

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		60.0	40.0	100.0				40.0
Yellow Change Interval (Y), s		5.0	5.0	5.0				4.0
Red Clearance Interval (R _c), s		3.0	3.0	3.0				3.0
Minimum Green (G _{min}), s		8	7	8				6
Start-Up Lost Time (l _f), s		2.0	2.0	2.0			2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0			2.0	2.0
Passage (PT), s		2.0	2.0	2.0				2.0
Recall Mode		Min	Off	Min				Off
Dual Entry		Yes	No	Yes				Yes
Walk (Walk), s		0.0	0.0	0.0			0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0			0.0	0.0

Multimodal Information

85th % Speed / Rest in Walk / Corner Radius	EB			WB			NB			SB		
	0	No	25	0	No	25				0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0				9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No				0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0				12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50					No	0.50	

TURNING MOVEMENT VOLUME COUNTS

N/S STREET: N/S NB Ramp
 FILENAME: Willow Lakes
 COUNT DATE: 2/19/2020
 REPORT DATE:

E/W STREET: Midway Rd
 CITY: St Lucie
 DAY: Tuesday
 ANALYSIS YEAR: 2020

CONTROL: Signalized

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
7:00-7:15	35	0	99	0	0	0	1	82	0	0	125	88	430	2147
7:15-7:30	31	0	115	0	0	0	4	102	0	0	369	145	566	2198
7:30-7:45	40	0	122	0	0	0	4	140	0	0	172	150	628	2074
7:45-8:00	32	0	125	0	0	0	2	119	0	0	340	105	523	1855
8:00-8:15	32	0	110	0	0	0	4	85	0	0	137	113	481	1681
8:15-8:30	31	0	114	0	0	0	3	75	0	0	110	100	442	
8:30-8:45	28	0	111	0	0	0	3	85	0	0	100	91	410	
8:45-9:00	21	0	82	0	0	0	7	73	0	0	90	66	339	

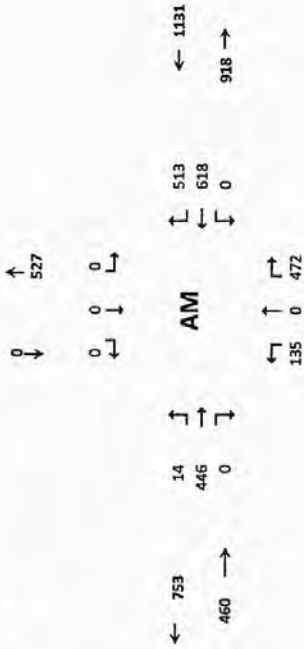
AM PEAK HOURS FROM:

Volumes: 135 0 472 0 0 0 14 446 0 0 618 513 2198
 Season Factor: 1
 Growth: 135 0 472 0 0 0 14 446 0 0 618 513 2198
 In/Out: - IN - - - - - IN -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0

PHF: 0.875

Seasonal Factor: 1
 Growth Rate: 1
 Years Growth: 0

Trips In Trips Out



15 Min Period lanes	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
4:00-4:15	26	0	111	0	0	0	3	89	0	0	132	70	433	1778
4:15-4:30	26	0	105	0	0	0	7	91	0	0	165	81	475	1893
4:30-4:45	34	0	112	0	0	0	12	93	0	0	134	68	453	1836
4:45-5:00	42	0	103	0	0	0	3	97	0	0	110	62	417	1805
5:00-5:15	37	0	90	0	0	0	2	129	0	0	191	99	548	1744
5:15-5:30	41	0	108	0	0	0	1	101	0	0	111	56	418	
5:30-5:45	25	0	102	0	0	0	1	95	0	0	130	69	422	
5:45-6:00	29	0	80	0	0	0	5	93	0	0	100	49	356	

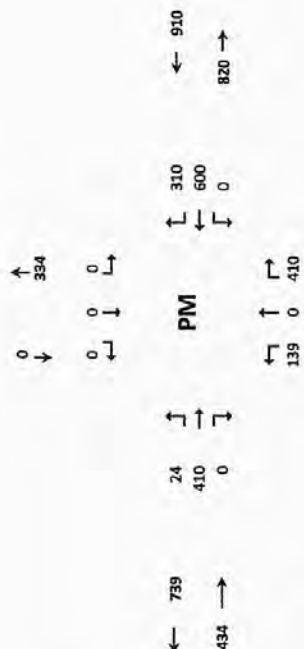
PM PEAK HOURS FROM:

Volumes: 139 0 410 0 0 0 24 410 0 0 600 310 1893
 Season Factor: 1
 Growth: 139 0 410 0 0 0 24 410 0 0 600 310 1893
 In/Out: - IN - - - - - IN -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0

PHF: 0.864

Seasonal Factor: 1
 Growth Rate: 1
 Years Growth: 0

Trips In Trips Out



St. Lucie County



00023 - MIDWAY RD @ I-95 NB RAMP - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

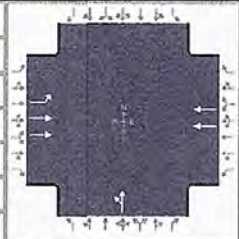
Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBL	WB	N	NB	N	N	N	N	N	N	N	N	N	N	N	N
Min Green	7	15	5	7	5	15	5	5	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	18	45	0	25	0	45	0	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	28	55	0	35	0	55	0	35	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	5.0	4.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	1.0	3.0	1.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Pinuse

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - Existing.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	14	446			618		135	0				

Signal Information														
Cycle, s	46.2	Reference Phase	2											
Offset, s	0	Reference Point	End	Green	1.2	15.0	5.9	0.0	0.0	0.0				
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		12.0		
Phase Duration, s	9.2	32.2		23.0		13.9		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	2.9		2.9		3.0		
Queue Clearance Time (g _s), s	2.2	5.4		9.1		5.6		
Green Extension Time (g _e), s	0.0	2.7		2.7		0.2		
Phase Call Probability	0.18	1.00		1.00		0.85		
Max Out Probability	0.00	0.00		0.00		0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6		2			7	4				
Adjusted Flow Rate (v), veh/h	15	485		672			147					
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809		1809			1810					
Queue Service Time (g _s), s	0.2	3.4		7.1			3.6					
Cycle Queue Clearance Time (g _c), s	0.2	3.4		7.1			3.6					
Green Ratio (g/C)	0.40	0.52		0.32			0.13					
Capacity (c), veh/h	337	1899		1175			233					
Volume-to-Capacity Ratio (X)	0.045	0.255		0.572			0.630					
Back of Queue (Q), ft/ln (95 th percentile)	3	32.4		95.6			57.9					
Back of Queue (Q), veh/ln (95 th percentile)	0.1	1.3		3.8			2.3					
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00			0.00					
Uniform Delay (d ₁), s/veh	9.4	6.0		12.9			19.1					
Incremental Delay (d ₂), s/veh	0.0	0.0		0.2			1.1					
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0			0.0					
Control Delay (d), s/veh	9.5	6.0		13.1			20.1					
Level of Service (LOS)	A	A		B			C					
Approach Delay, s/veh / LOS	6.1	A		13.1	B		20.1	C		0.0		
Intersection Delay, s/veh / LOS	11.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.35	A	1.38	A	2.13	B	2.29	B
Bicycle LOS Score / LOS	0.90	A	1.04	A	0.73	A		

HCS7 Signalized Intersection Input Data

3 E AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - Existing - 6.2....				
Project Description	Existing						

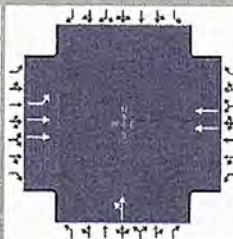
Demand Information		EB			WB			NB			SB		
Approach Movement		L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		14	446			618		135	0				

Signal Information															
Cycle, s	46.3	Reference Phase	2	↔		↔		↕		↗		↖		↘	
Offset, s	0	Reference Point	End	Green	1.3	15.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information		EB			WB			NB			SB		
Approach Movement		L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		14	446			618		135	0				
Initial Queue (Q _b), veh/h		0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h		1900	1900			1900		1900	1900				
Parking (N _m), man/h			None			None			None				
Heavy Vehicles (P _{HV}), %		0	0			0		0	0				
Ped / Bike / RTOR, /h		0	0		0	0		0	0		0	0	
Buses (N _b), buses/h		0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3			3		3	3				
Upstream Filtering (f)		1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft		12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft		0	0			0		0	0				
Grade (P _g), %			0			0			0			0	
Speed Limit, mi/h		45	45			45		45	45				

Phase Information		EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		28.0	55.0		55.0		35.0		
Yellow Change Interval (Y), s		5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s		3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s		7	15		15		7		
Start-Up Lost Time (l _t), s		2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s		2.0	2.0		2.0	2.0	2.0		
Passage (PT), s		2.0	2.0		2.0		2.0		
Recall Mode		Off	Min		Min		Off		
Dual Entry		No	Yes		Yes		Yes		
Walk (Walk), s		0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s		0.0	0.0		0.0	0.0	0.0		

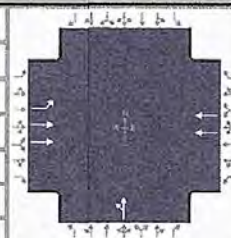
Multimodal Information		EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius		0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft		9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb		0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft		12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking		No	0.50		No	0.50		No	0.50				



HCS7 Signalized Intersection Results Summary

#36 AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - Existing.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	24	410			600		139	0				

Signal Information				Phase Diagram								
Cycle, s	47.1	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	2.0	15.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	
		Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		12.0		
Phase Duration, s	10.0	33.0		23.0		14.0		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	2.9		2.9		3.0		
Queue Clearance Time (g _s), s	2.4	5.1		9.1		5.7		
Green Extension Time (g _e), s	0.0	2.5		2.5		0.2		
Phase Call Probability	0.29	1.00		1.00		0.86		
Max Out Probability	0.00	0.00		0.00		0.00		

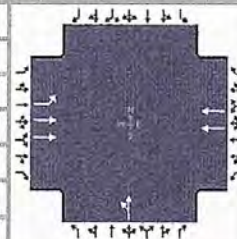
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	26	446			652			151				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809			1809			1810				
Queue Service Time (g _s), s	0.4	3.1			7.1			3.7				
Cycle Queue Clearance Time (g _c), s	0.4	3.1			7.1			3.7				
Green Ratio (g/C)	0.40	0.53			0.32			0.13				
Capacity (c), veh/h	365	1924			1153			232				
Volume-to-Capacity Ratio (X)	0.072	0.232			0.566			0.651				
Back of Queue (Q), ft/ln (95 th percentile)	5.1	29.7			96.8			61.5				
Back of Queue (Q), veh/ln (95 th percentile)	0.2	1.2			3.9			2.5				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00			0.00				
Uniform Delay (d ₁), s/veh	9.4	5.9			13.3			19.5				
Incremental Delay (d ₂), s/veh	0.0	0.0			0.2			1.2				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0			0.0				
Control Delay (d), s/veh	9.4	5.9			13.5			20.7				
Level of Service (LOS)	A	A			B			C				
Approach Delay, s/veh / LOS	6.1	A		13.5	B		20.7	C		0.0		
Intersection Delay, s/veh / LOS	11.6						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.35	A	1.38	A	2.13	B	2.29	B
Bicycle LOS Score / LOS	0.88	A	1.03	A	0.74	A		

HCS7 Signalized Intersection Input Data

#3 EPM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.86
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - Existing - 6.2....		
Project Description	Existing				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	24	410			600			139	0			

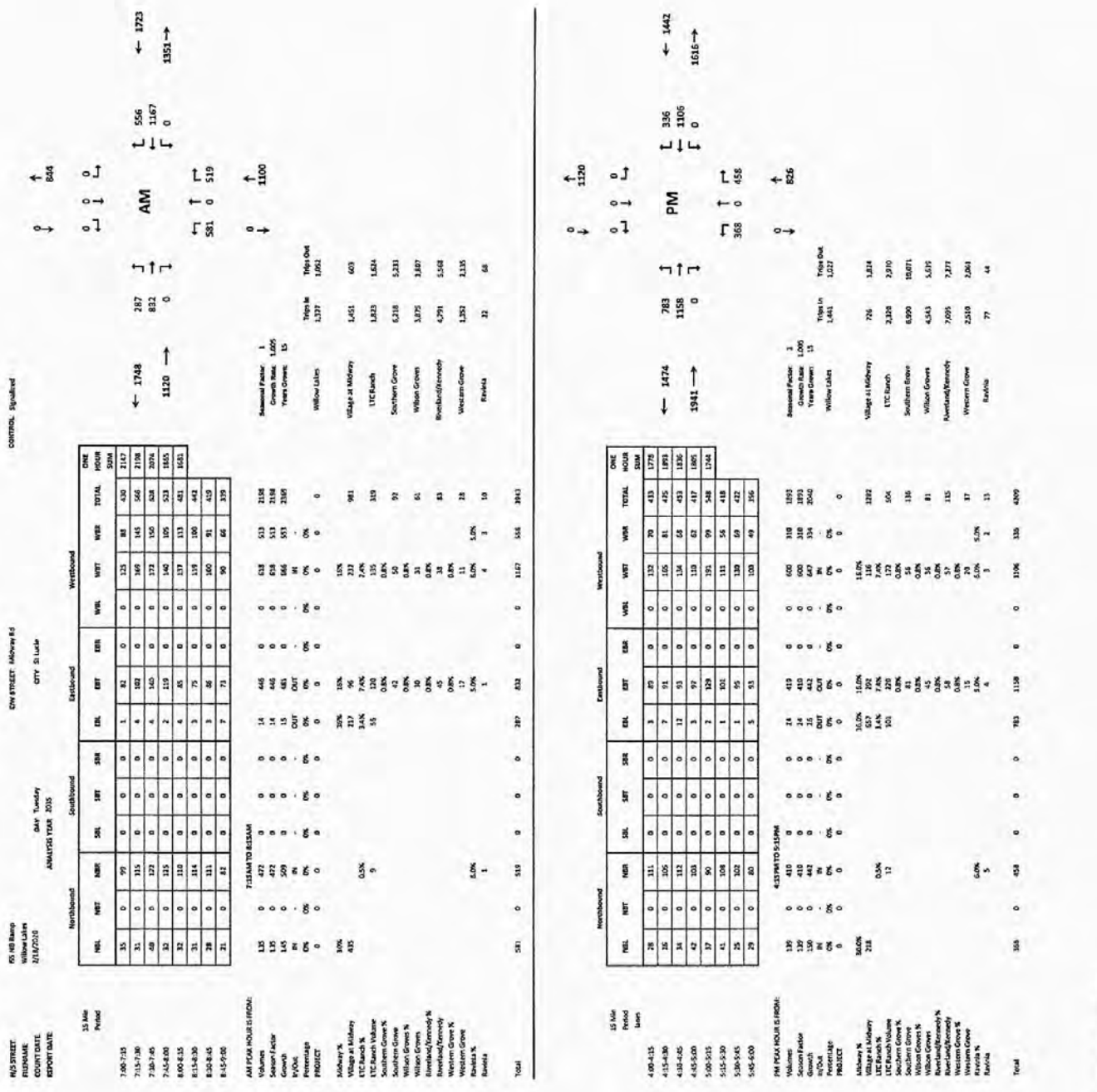
Signal Information				Phase Diagram								
Cycle, s	47.3	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	2.2	15.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	24	410			600			139	0			
Initial Queue (Q _b), veh/h	0	0			0			0	0			
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900			1900	1900			
Parking (N _m), man/h	None			None			None					
Heavy Vehicles (P _{HV}), %	0	0			0			0	0			
Ped / Bike / RTOR, /h	0	0			0	0			0	0		
Buses (N _b), buses/h	0	0	0		0	0	0		0	0	0	
Arrival Type (AT)	3	3			3			3	3			
Upstream Filtering (f)	1.00	1.00			1.00			1.00	1.00			
Lane Width (W), ft	12.0	12.0			12.0			12.0				
Turn Bay Length, ft	0	0			0			0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45			45	45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	28.0	55.0		55.0		35.0	
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l ₀), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

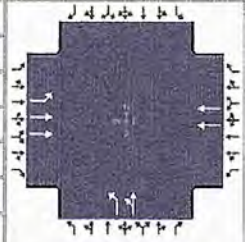
TURNING MOVEMENT VOLUME COUNTS



HCS7 Signalized Intersection Results Summary

#3 w/o AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	287	832			1167		581	0				

Signal Information				Phase Diagram								
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	17.0	37.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	25.0	70.0		45.0		50.0		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	18.6					43.8		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	312	904			1268		632	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809			1809		1810	1900				
Queue Service Time (g _s), s	16.6	14.0			37.0		41.8	0.0				
Cycle Queue Clearance Time (g _c), s	16.6	14.0			37.0		41.8	0.0				
Green Ratio (g/C)	0.47	0.52			0.31		0.35	0.35				
Capacity (c), veh/h	316	1869			1115		633	665				
Volume-to-Capacity Ratio (X)	0.986	0.484			1.137		0.997	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	476.6	202.4			911.2		792	0				
Back of Queue (Q), veh/ln (95 th percentile)	19.1	8.1			36.4		31.7	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	37.4	11.2			35.3		38.9	0.0				
Incremental Delay (d ₂), s/veh	46.6	0.9			73.1		35.0	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	84.0	12.1			108.4		73.9	0.0				
Level of Service (LOS)	F	B			F		E					
Approach Delay, s/veh / LOS	30.5		C		108.4		F		73.9		E	0.0
Intersection Delay, s/veh / LOS	71.0						E					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.68		B	1.42		A	2.16		B	2.32		B
Bicycle LOS Score / LOS	1.49		A	1.53		B	1.53		B			

HCS7 Signalized Intersection Input Data

#3 w/o AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...				
Project Description	without Project						

Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				287	832			1167		581	0				

Signal Information				Signal Phases											
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	17.0	37.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				287	832			1167		581	0				
Initial Queue (Q _b), veh/h				0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h				1900	1900			1900		1900	1900				
Parking (N _m), man/h				None			None			None					
Heavy Vehicles (P _{HV}), %				0	0			0		0	0				
Ped / Bike / RTOR, /h				0	0		0	0		0	0		0	0	
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0			
Arrival Type (AT)				3	4			4		3	3				
Upstream Filtering (f)				1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft				12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft				0	0			0		0	0				
Grade (P _g), %					0			0			0			0	
Speed Limit, mi/h				45	45			45		45	45				

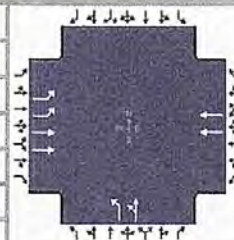
Phase Information		EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		25.0	70.0		45.0		50.0		
Yellow Change Interval (Y), s		5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s		3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s		7	15		15		7		
Start-Up Lost Time (l), s		2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s		2.0	2.0		2.0	2.0	2.0		
Passage (PT), s		2.0	2.0		2.0		2.0		
Recall Mode		Off	Min		Min		Off		
Dual Entry		No	Yes		Yes		Yes		
Walk (Walk), s		0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s		0.0	0.0		0.0	0.0	0.0		

Multimodal Information				EB			WB			NB			SB			
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25				
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0				
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No				
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0				
Pedestrian Signal / Occupied Parking				No		0.50	No		0.50	No		0.50				

HCS7 Signalized Intersection Results Summary

3 w/o AM + IMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	287	832			1167		581	0				

Signal Information														
Cycle, s	120.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On											
Force Mode	Fixed	Simult. Gap N/S	On											
				Green	8.5	44.9	42.6	0.0	0.0	0.0				
				Yellow	5.0	5.0	5.0	0.0	0.0	0.0				
				Red	3.0	3.0	3.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	16.5	69.4		52.9		50.6		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	8.1					41.5		
Green Extension Time (g _e), s	0.5	0.0		0.0		1.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	0.00					0.02		

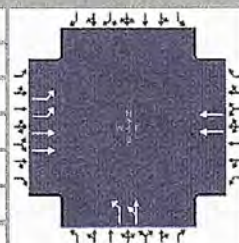
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	1	6		2			7	4				
Adjusted Flow Rate (v), veh/h	302	876		1228			612	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809		1809			1810	1900				
Queue Service Time (g _s), s	6.1	13.6		37.3			39.5	0.0				
Cycle Queue Clearance Time (g _c), s	6.1	13.6		37.3			39.5	0.0				
Green Ratio (g/C)	0.46	0.51		0.37			0.35	0.35				
Capacity (c), veh/h	429	1852		1354			642	674				
Volume-to-Capacity Ratio (X)	0.705	0.473		0.907			0.953	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	108.6	199.8		544.9			678.3	0				
Back of Queue (Q), veh/ln (95 th percentile)	4.3	8.0		21.8			27.1	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00			0.00	0.00				
Uniform Delay (d ₁), s/veh	27.4	11.4		28.2			37.8	0.0				
Incremental Delay (d ₂), s/veh	0.8	0.9		10.4			18.2	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0			0.0	0.0				
Control Delay (d), s/veh	28.2	12.3		38.6			56.0	0.0				
Level of Service (LOS)	C	B		D			E					
Approach Delay, s/veh / LOS	16.4		B	38.6		D	56.0		E	0.0		
Intersection Delay, s/veh / LOS	33.5						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.68		B	1.70		B	2.16		B	2.48		B
Bicycle LOS Score / LOS	1.46		A	1.50		B	1.50		A			

HCS7 Signalized Intersection Input Data

#3 w/o AM + IMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	287	832			1167		581	0				

Signal Information				Phase Diagram								
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	8.5	44.9	42.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	287	832			1167		581	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h	None			None			None					
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	16.0	60.0		44.0		60.0	
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (f _l), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

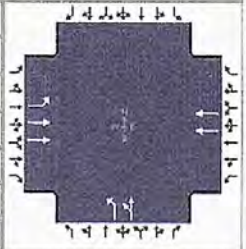
Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

HCS7 Signalized Intersection Results Summary

3 w/o PM

General Information

Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	35.4	32.0	28.6	0.0	0.0	0.0		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0		

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	43.4	83.4		40.0		36.6		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	37.4					27.9		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	851	1259			1202		400	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809			1809		1810	1900				
Queue Service Time (g _s), s	35.4	12.6			32.0		25.9	0.0				
Cycle Queue Clearance Time (g _c), s	35.4	12.6			32.0		25.9	0.0				
Green Ratio (g/C)	0.58	0.63			0.27		0.24	0.24				
Capacity (c), veh/h	593	2273			966		431	453				
Volume-to-Capacity Ratio (X)	1.434	0.554			1.244		0.928	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	1882.2	141.9			1050.5		463.9	0				
Back of Queue (Q), veh/ln (95 th percentile)	75.3	5.7			42.0		18.6	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	35.4	4.6			38.6		44.7	0.0				
Incremental Delay (d ₂), s/veh	205.0	1.0			118.8		12.5	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	240.4	5.6			157.4		57.2	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	100.3	F		157.4	F		57.2	E		0.0		
Intersection Delay, s/veh / LOS	114.2						F					

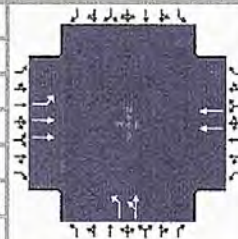
Multimodal Results

	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.66	B	1.42	A	2.16	B	2.32	B
Bicycle LOS Score / LOS	2.23	B	1.48	A	1.15	A		

HCS7 Signalized Intersection Input Data

3 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	35.4	32.0	28.6	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0			
				Red	3.0	3.0	3.0	0.0	0.0	0.0			

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h	None			None			None					
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

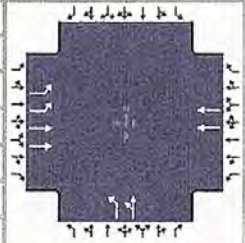
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	30.0	70.0		40.0		50.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l _t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

HCS7 Signalized Intersection Results Summary

3 w/o PM + IMP

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...		
Project Description	without Project + Improvements				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				

Signal Information											
Cycle, s	120.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	No	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	28.0	85.0		57.0		35.0		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	20.7					27.3		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.0		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					1.00		

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		7	4				
Adjusted Flow Rate (v), veh/h	824	1219			1164		387	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809			1809		1810	1900				
Queue Service Time (g _s), s	18.7	10.6			30.8		25.3	0.0				
Cycle Queue Clearance Time (g _c), s	18.7	10.6			30.8		25.3	0.0				
Green Ratio (g/C)	0.59	0.64			0.41		0.22	0.22				
Capacity (c), veh/h	854	2321			1477		407	428				
Volume-to-Capacity Ratio (X)	0.965	0.525			0.788		0.951	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	374.8	119.3			426.7		521.5	0				
Back of Queue (Q), veh/ln (95 th percentile)	15.0	4.8			17.1		20.9	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	28.8	3.9			23.2		45.9	0.0				
Incremental Delay (d ₂), s/veh	22.4	0.9			4.3		32.0	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	51.2	4.7			27.5		77.9	0.0				
Level of Service (LOS)	D	A			C		E					
Approach Delay, s/veh / LOS	23.5		C	27.5		C	77.9		E	0.0		
Intersection Delay, s/veh / LOS	30.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.65	B	1.69	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.17	B	1.45	A	1.13	A		

HCS7 Signalized Intersection Input Data

3 w/o PM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 w.o. Proj...				
Project Description	without Project + Improvements						

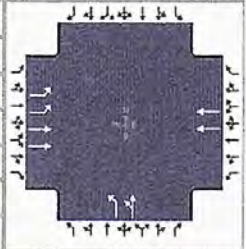
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				

Signal Information				Signal Phases									
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
Green	20.0	49.0	27.0	0.0	0.0	0.0							
Yellow	5.0	5.0	5.0	0.0	0.0	0.0							
Red	3.0	3.0	3.0	0.0	0.0	0.0							

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	783	1158			1106		368	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	28.0	85.0		57.0		35.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l _f), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

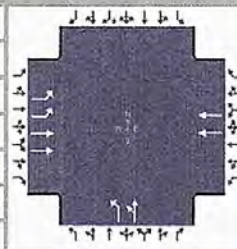
Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				



HCS7 Signalized Intersection Results Summary

#3 w/P AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	15.9	64.0	36.1	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0		
				Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	23.9	95.9		72.0		44.1		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	17.9					35.5		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.01		

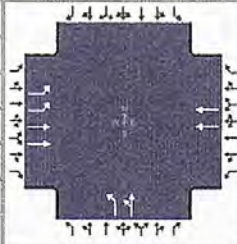
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	818	1223			1671		441	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809			1809		1810	1900				
Queue Service Time (g _s), s	15.9	14.1			64.0		33.5	0.0				
Cycle Queue Clearance Time (g _c), s	15.9	14.1			64.0		33.5	0.0				
Green Ratio (g/C)	0.58	0.63			0.46		0.26	0.26				
Capacity (c), veh/h	501	2271			1654		467	490				
Volume-to-Capacity Ratio (X)	1.631	0.539			1.010		0.945	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	1120.7	167.4			916.9		605.2	0				
Back of Queue (Q), veh/ln (95 th percentile)	44.8	6.7			36.7		24.2	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	48.5	5.4			27.3		51.0	0.0				
Incremental Delay (d ₂), s/veh	292.9	0.9			24.6		20.2	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	341.4	6.3			51.9		71.2	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	140.6	F		51.9	D		71.2	E		0.0		
Intersection Delay, s/veh / LOS	97.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.66	B	1.69	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.17	B	1.87	B	1.94	B		

HCS7 Signalized Intersection Input Data

3 w/P AM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information												
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	15.9	64.0	36.1	0.0	0.0	0.0				
		Yellow	5.0	5.0	5.0	0.0	0.0	0.0				
		Red	3.0	3.0	3.0	0.0	0.0	0.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	777	1162			1587		838	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

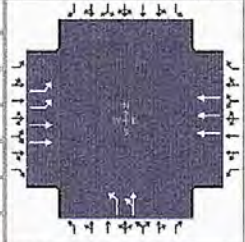
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	15.0	87.0		72.0		53.0	
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l _t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

HCS7 Signalized Intersection Results Summary

3 W/P AM IMP

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2	Green	15.9	64.0	36.1	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6		2		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	23.9	95.9		72.0		44.1		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	17.9					35.5		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.6		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.01		

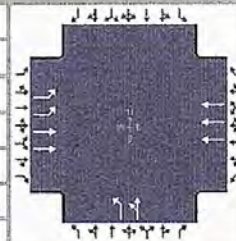
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	1	6			2		7	4				
Adjusted Flow Rate (v), veh/h	818	1223			1671		441	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809			1725		1810	1900				
Queue Service Time (g _s), s	15.9	14.1			31.0		33.5	0.0				
Cycle Queue Clearance Time (g _c), s	15.9	14.1			31.0		33.5	0.0				
Green Ratio (g/C)	0.58	0.63			0.46		0.26	0.26				
Capacity (c), veh/h	644	2271			2366		467	490				
Volume-to-Capacity Ratio (X)	1.270	0.539			0.706		0.945	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	695.1	167.4			398.2		605.2	0				
Back of Queue (Q), veh/ln (95 th percentile)	27.8	6.7			15.9		24.2	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	33.2	5.4			20.9		51.0	0.0				
Incremental Delay (d ₂), s/veh	133.5	0.9			1.8		20.2	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	166.7	6.3			22.7		71.2	0.0				
Level of Service (LOS)	F	A			C		E					
Approach Delay, s/veh / LOS	70.6	E		22.7	C		71.2	E		0.0		
Intersection Delay, s/veh / LOS	51.4						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.66	B		1.69	B		2.33	B		2.62	C	
Bicycle LOS Score / LOS	2.17	B		1.41	A		1.94	B				

HCS7 Signalized Intersection Input Data

3 WIP AM 11/19

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - AM - 2035 with Proj...		
Project Description	with Project + Improvements				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				

Signal Information				Signal Phases										
Cycle, s	140.0	Reference Phase	2	EB		WB		NB		SB				
Offset, s	0	Reference Point	End	Green	15.9	64.0	36.1	0.0	0.0	0.0	1	2	3	4
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0	5	6	7	8
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	0.0	0.0	0.0				

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	777	1162			1587		838	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h	None			None			None					
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

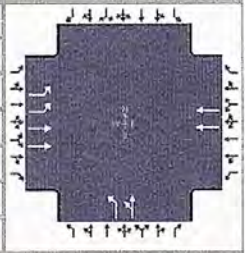
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	15.0	87.0		72.0		53.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l _t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

HCS7 Signalized Intersection Results Summary

#3 W/P PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information				Signal Phases									
Cycle, s	140.0	Reference Phase	2	←	←	←	←	←	←	←	←	←	←
Offset, s	0	Reference Point	End	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Uncoordinated	No	Simult. Gap E/W	On	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘
Force Mode	Fixed	Simult. Gap N/S	On	↙	↙	↙	↙	↙	↙	↙	↙	↙	↙
Green	43.8	44.0	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	51.8	103.8		52.0		36.2		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	45.8					27.7		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.5		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

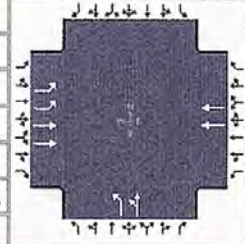
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2		6			7	4				
Adjusted Flow Rate (v), veh/h	1326	1557		1638			338	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809		1809			1810	1900				
Queue Service Time (g _s), s	43.8	12.4		44.0			25.7	0.0				
Cycle Queue Clearance Time (g _c), s	43.8	12.4		44.0			25.7	0.0				
Green Ratio (g/C)	0.64	0.68		0.31			0.20	0.20				
Capacity (c), veh/h	1234	2475		1137			365	383				
Volume-to-Capacity Ratio (X)	1.075	0.629		1.440			0.928	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	990.4	115.3		1861			470.1	0				
Back of Queue (Q), veh/ln (95 th percentile)	39.6	4.6		74.4			18.8	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00			0.00	0.00				
Uniform Delay (d ₁), s/veh	42.1	2.5		40.7			54.9	0.0				
Incremental Delay (d ₂), s/veh	48.3	1.2		203.1			14.6	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0			0.0	0.0				
Control Delay (d), s/veh	90.4	3.7		243.8			69.5	0.0				
Level of Service (LOS)	F	A		F			E					
Approach Delay, s/veh / LOS	43.6		D	243.8		F	69.5		E	0.0		
Intersection Delay, s/veh / LOS	112.9						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.65	B	1.71	B	2.16	B	2.48	B
Bicycle LOS Score / LOS	2.87	C	1.84	B	1.60	B		

HCS7 Signalized Intersection Input Data

#3 WIP PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...		
Project Description	with Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information				Signal Phases								
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	43.8	44.0	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (f)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

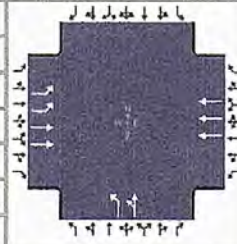
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	39.0	91.0		52.0		49.0		
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (l _t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

HCS7 Signalized Intersection Results Summary

3 WIP + IMP

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information													
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
		Green		43.8	44.0	28.2	0.0	0.0	0.0				
		Yellow		5.0	5.0	5.0	0.0	0.0	0.0				
		Red		3.0	3.0	3.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		4		
Case Number	1.0	4.0		8.3		10.0		
Phase Duration, s	51.8	103.8		52.0		36.2		
Change Period, (Y+R _c), s	8.0	8.0		8.0		8.0		
Max Allow Headway (MAH), s	3.0	0.0		0.0		3.0		
Queue Clearance Time (g _s), s	45.8					27.7		
Green Extension Time (g _e), s	0.0	0.0		0.0		0.5		
Phase Call Probability	1.00					1.00		
Max Out Probability	1.00					0.00		

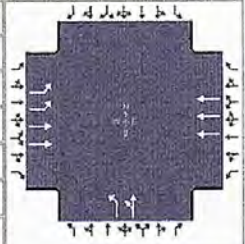
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6		7	4				
Adjusted Flow Rate (v), veh/h	1326	1557			1638		338	0				
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809			1725		1810	1900				
Queue Service Time (g _s), s	43.8	12.4			44.0		25.7	0.0				
Cycle Queue Clearance Time (g _c), s	43.8	12.4			44.0		25.7	0.0				
Green Ratio (g/C)	0.64	0.68			0.31		0.20	0.20				
Capacity (c), veh/h	1234	2475			1627		365	383				
Volume-to-Capacity Ratio (X)	1.075	0.629			1.007		0.928	0.000				
Back of Queue (Q), ft/ln (95 th percentile)	989.5	115.3			693.6		470.1	0				
Back of Queue (Q), veh/ln (95 th percentile)	39.6	4.6			27.7		18.8	0.0				
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00			0.00		0.00	0.00				
Uniform Delay (d ₁), s/veh	42.1	2.5			40.7		54.9	0.0				
Incremental Delay (d ₂), s/veh	48.2	1.2			23.9		14.6	0.0				
Initial Queue Delay (d ₃), s/veh	0.0	0.0			0.0		0.0	0.0				
Control Delay (d), s/veh	90.3	3.7			64.6		69.5	0.0				
Level of Service (LOS)	F	A			F		E					
Approach Delay, s/veh / LOS	43.5		D		64.6		E		69.5		E	0.0
Intersection Delay, s/veh / LOS	52.4						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.65		B	1.71		B	2.33		B	2.62		C
Bicycle LOS Score / LOS	2.87		C	1.39		A	1.60		B			

HCS7 Signalized Intersection Input Data

#3 with IMP

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 1, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	I-95 NB Ramp	File Name	I-95 NB Ramp & Midway Rd - PM - 2035 with Proj...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	1260	1479			1556		643	0				

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	43.8	44.0	28.2	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	5.0	0.0	0.0	0.0			
				Red	3.0	3.0	3.0	0.0	0.0	0.0			

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	1260	1479			1556		643	0				
Initial Queue (Q _b), veh/h	0	0			0		0	0				
Base Saturation Flow Rate (s ₀), veh/h	1900	1900			1900		1900	1900				
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %	0	0			0		0	0				
Ped / Bike / RTOR, /h	0	0		0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	4			4		3	3				
Upstream Filtering (I)	1.00	1.00			1.00		1.00	1.00				
Lane Width (W), ft	12.0	12.0			12.0		12.0	12.0				
Turn Bay Length, ft	0	0			0		0	0				
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45			45		45	45				

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	39.0	91.0		52.0		49.0	
Yellow Change Interval (Y), s	5.0	5.0		5.0		5.0		
Red Clearance Interval (R _c), s	3.0	3.0		3.0		3.0		
Minimum Green (G _{min}), s	7	15		15		7		
Start-Up Lost Time (I _t), s	2.0	2.0		2.0	2.0	2.0		
Extension of Effective Green (e), s	2.0	2.0		2.0	2.0	2.0		
Passage (PT), s	2.0	2.0		2.0		2.0		
Recall Mode	Off	Min		Min		Off		
Dual Entry	No	Yes		Yes		Yes		
Walk (Walk), s	0.0	0.0		0.0	0.0	0.0		
Pedestrian Clearance Time (PC), s	0.0	0.0		0.0	0.0	0.0		

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

TURNING MOVEMENT VOLUME COUNTS

#4E

CONTROL: TWSC

N/S STREET: E/W STREET: Midway Rd
 FILENAME: Willow Lakes
 COUNTY: St. Lucie
 DATE: Tuesday
 ANALYSIS YEAR: 2020

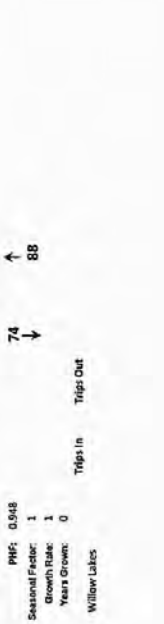
15 Min Period	Northbound				Southbound				Eastbound				Westbound				
	NBL	NBT	NBR	NBR	SBL	SBT	SBR	SBR	EBL	EBT	EBR	EBR	WBL	WBT	WBR	WBR	ONE HOUR SUM
7:00-7:15	0	0	2	0	0	0	0	0	0	159	30	0	5	203	0	0	1804
7:15-7:30	0	0	3	0	0	0	0	0	158	24	7	243	0	435	0	1863	
7:30-7:45	0	0	1	0	0	0	0	0	217	27	2	236	0	483	0	1896	
7:45-8:00	0	0	2	0	0	0	0	0	226	30	6	228	0	488	0	1700	
8:00-8:15	0	0	0	0	0	0	0	0	234	30	6	185	0	455	0	1513	
8:15-8:30	0	0	2	0	0	0	0	0	223	22	2	381	0	430	0	0	
8:30-8:45	0	0	0	0	0	0	0	0	143	8	3	173	0	317	0	0	
8:45-9:00	0	0	0	0	0	0	0	0	140	13	7	141	0	301	0	0	
AM PEAK HOUR IS FROM: 7:15AM TO 8:30AM																	
Volumes	0	0	6	0	0	0	0	0	835	111	21	888	0	1861	0	1861	
Season Factor	0	0	6	0	0	0	0	0	835	111	21	888	0	1861	0	1861	
Growth	0	0	6	0	0	0	0	0	835	111	21	888	0	1861	0	1861	
In/Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PERCENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Total

F-58

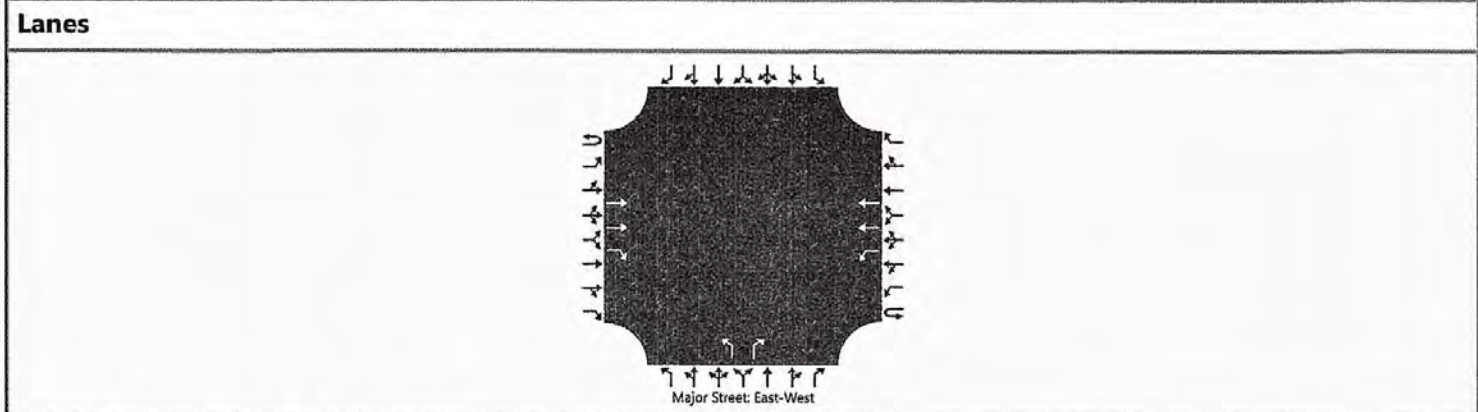
15 Min Period	Northbound				Southbound				Eastbound				Westbound				
	NBL	NBT	NBR	NBR	SBL	SBT	SBR	SBR	EBL	EBT	EBR	EBR	WBL	WBT	WBR	WBR	ONE HOUR SUM
4:00-4:15	15	0	3	0	0	0	0	0	0	185	7	2	224	0	436	1672	
4:15-4:30	15	0	1	0	0	0	0	0	151	16	1	211	0	395	1686		
4:30-4:45	15	0	3	0	0	0	0	0	188	16	0	194	0	416	1707		
4:45-5:00	18	0	3	0	0	0	0	0	220	22	3	159	0	425	1677		
5:00-5:15	25	0	9	0	0	0	0	0	175	19	1	221	0	450	1622		
5:15-5:30	12	0	3	0	0	0	0	0	209	12	1	179	0	416	0		
5:30-5:45	17	0	0	0	0	0	0	0	182	12	0	175	0	366	0		
5:45-6:00	6	0	2	0	0	0	0	0	154	9	0	159	0	370	0		
PM PEAK HOUR IS FROM: 4:30 PM TO 5:30PM																	
Volumes	70	0	18	0	0	0	0	0	792	69	5	753	0	1707	1707		
Season Factor	70	0	18	0	0	0	0	0	792	69	5	753	0	1707	1707		
Growth	70	0	18	0	0	0	0	0	792	69	5	753	0	1707	1707		
In/Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PERCENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Total

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Midway & LTC Pkwy
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	4/10/2020	East/West Street	Midway Road
Analysis Year	2020	North/South Street	LTC Parkway
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Existing		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	1	0	1	2	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			835	111	0	21	888			0		6				
Percent Heavy Vehicles (%)					3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			No							No						
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.5		6.9					
Critical Headway (sec)					4.16				6.86		6.96					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.23				3.53		3.33					

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					22				0		6					
Capacity, c (veh/h)					684				254		563					
v/c Ratio					0.03				0.00		0.01					
95% Queue Length, Q ₉₅ (veh)					0.1				0.0		0.0					
Control Delay (s/veh)					10.4				19.2		11.5					
Level of Service (LOS)					B				C		B					
Approach Delay (s/veh)					0.2					11.5						
Approach LOS										B						

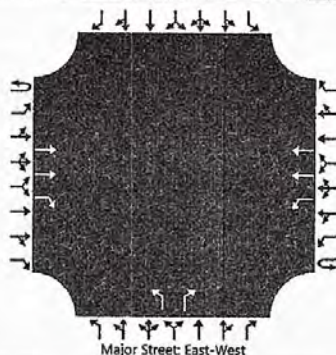
HCS7 Two-Way Stop-Control Report

/

General Information		Site Information	
Analyst	James Kemp	Intersection	Midway & LTC Pkwy
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	4/10/2020	East/West Street	Midway Road
Analysis Year	2020	North/South Street	LTC Parkway
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Existing		

45

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	0	2	1	0	1	2	0	1	0	1		0	0	0	
Configuration			T	R		L	T		L		R					
Volume (veh/h)			792	69	0	5	753		70		18					
Percent Heavy Vehicles (%)					3	3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized		No							No							
Median Type Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.5		6.9				
Critical Headway (sec)					4.16				6.86		6.96				
Base Follow-Up Headway (sec)					2.2				3.5		3.3				
Follow-Up Headway (sec)					2.23				3.53		3.33				

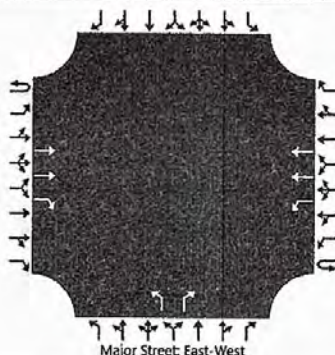
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					5				74		19				
Capacity, c (veh/h)					740				287		582				
v/c Ratio					0.01				0.26		0.03				
95% Queue Length, Q ₉₅ (veh)					0.0				1.0		0.1				
Control Delay (s/veh)					9.9				21.8		11.4				
Level of Service (LOS)					A				C		B				
Approach Delay (s/veh)					0.1				19.7						
Approach LOS									C						

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Midway & LTC Pkwy
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	4/10/2020	East/West Street	Midway Road
Analysis Year	2035	North/South Street	LTC Parkway
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	without Project		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9			10	11	12
Priority																
Number of Lanes	0	0	2	1	0	1	2	0	1	0	1			0	0	0
Configuration			T	R		L	T		L		R					
Volume (veh/h)			1330	138	0	23	1481		401		104					
Percent Heavy Vehicles (%)					3	3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized			No						No							
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.16				6.86		6.96				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

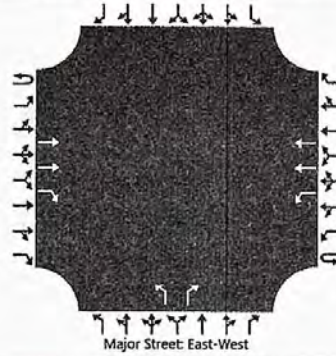
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						24				422		109				
Capacity, c (veh/h)						421				129		379				
v/c Ratio						0.06				3.28		0.29				
95% Queue Length, Q ₉₅ (veh)						0.2				40.6		1.2				
Control Delay (s/veh)						14.1				1098.9		18.3				
Level of Service (LOS)						B				F		C				
Approach Delay (s/veh)						0.2				876.3						
Approach LOS										F						

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	Midway & LTC Pkwy		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie County		
Date Performed	4/10/2020			East/West Street	Midway Road		
Analysis Year	2035			North/South Street	LTC Parkway		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	without Project						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	0	2	1	0	1	2	0	1	0	1		0	0	0	
Configuration			T	R		L	T		L		R					
Volume (veh/h)			1644	129	0	5	1453		552		198					
Percent Heavy Vehicles (%)					3	3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized		No							No							
Median Type Storage					Left Only							1				

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.5		6.9				
Critical Headway (sec)					4.16				6.86		6.96				
Base Follow-Up Headway (sec)					2.2				3.5		3.3				
Follow-Up Headway (sec)					2.23				3.53		3.33				

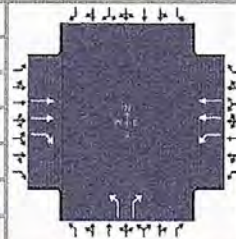
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					5				581		208				
Capacity, c (veh/h)					315				95		295				
v/c Ratio					0.02				6.09		0.71				
95% Queue Length, Q ₉₅ (veh)					0.1				64.1		5.0				
Control Delay (s/veh)					16.6				2378.8		42.0				
Level of Service (LOS)					C				F		E				
Approach Delay (s/veh)					0.1				1761.9						
Approach LOS									F						

HCS7 Signalized Intersection Results Summary

#4 w/o AM + imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - AM - 2035 w.o. Project + Imp...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1330	138	23	1481		401		104			

Signal Information														
Cycle, s	120.0	Reference Phase	2											
Offset, s	0	Reference Point	End	Green	3.3	74.7	24.0	0.0	0.0	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		80.7	9.3	90.0		30.0		
Change Period, (Y+R _c), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g _s), s			2.5			26.0		
Green Extension Time (g _e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.55			1.00		
Max Out Probability			0.00			1.00		

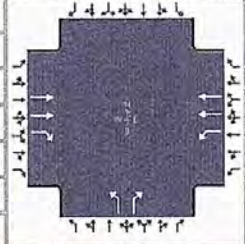
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		1400	145	24	1559		422		109			
Adjusted Saturation Flow Rate (s), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g _s), s		28.6	4.5	0.5	27.3		24.0		7.0			
Cycle Queue Clearance Time (g _c), s		28.6	4.5	0.5	27.3		24.0		7.0			
Green Ratio (g/C)		0.62	0.62	0.67	0.70		0.20		0.20			
Capacity (c), veh/h		2251	1002	260	2532		362		322			
Volume-to-Capacity Ratio (X)		0.622	0.145	0.093	0.616		1.166		0.340			
Back of Queue (Q), ft/ln (95 th percentile)		402.6	68.6	8.5	354		758.2		123			
Back of Queue (Q), veh/ln (95 th percentile)		16.1	2.7	0.3	14.2		30.3		4.9			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh		14.0	9.4	10.9	9.5		48.0		41.2			
Incremental Delay (d ₂), s/veh		1.3	0.3	0.1	1.1		100.8		0.2			
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		15.3	9.7	11.0	10.6		148.8		41.4			
Level of Service (LOS)		B	A	B	B		F		D			
Approach Delay, s/veh / LOS	14.7	B		10.6	B		126.7	F		0.0		
Intersection Delay, s/veh / LOS	29.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.88	B	0.67	A	2.33	B	2.32	B
Bicycle LOS Score / LOS	1.76	B	1.79	B		F		

HCS7 Signalized Intersection Input Data

4 W/O AM + IMP

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - AM - 2035 w.o. Project + I...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1330	138	23	1481		401		104			

Signal Information															
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On	Green	3.3	74.7	24.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0				
				Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1330	138	23	1481		401		104			
Initial Queue (Q _b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s ₀), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (f)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h		45	45	45	45		45		45			

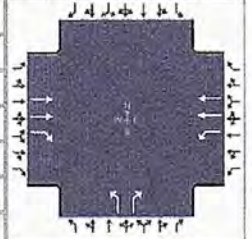
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s		70.0	20.0	90.0		30.0	
Yellow Change Interval (Y), s		4.0	4.0	4.0		4.0		
Red Clearance Interval (R _c), s		2.0	2.0	2.0		2.0		
Minimum Green (G _{min}), s		6	6	6		6		
Start-Up Lost Time (l), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0		2.0		
Recall Mode		Min	Off	Min		Off		
Dual Entry		Yes	No	Yes		Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No		0.50	No		0.50	No		0.50			

HCS7 Signalized Intersection Results Summary

#4 w/o PM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - PM - 2035 w.o. Project + Im...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1644	129	5	1453		552		198			

Signal Information														
Cycle, s	120.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	1.0	67.0	34.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
				Red	2.0	2.0	2.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		73.0	7.0	80.0		40.0		
Change Period, (Y+R _c), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g _s), s			2.1			36.0		
Green Extension Time (g _e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.16			1.00		
Max Out Probability			0.00			1.00		

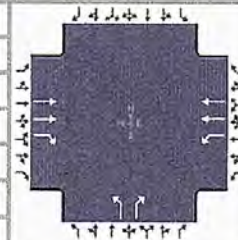
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	2	12		1	6		3		18			
Adjusted Flow Rate (v), veh/h	1731	136		5	1529		581		208			
Adjusted Saturation Flow Rate (s), veh/h/ln	1809	1610		1810	1809		1810		1610			
Queue Service Time (g _s), s	48.6	1.7		0.1	33.7		34.0		12.8			
Cycle Queue Clearance Time (g _c), s	48.6	1.7		0.1	33.7		34.0		12.8			
Green Ratio (g/C)	0.56	0.84		0.58	0.62		0.28		0.28			
Capacity (c), veh/h	2021	1356		118	2231		513		456			
Volume-to-Capacity Ratio (X)	0.856	0.100		0.044	0.686		1.133		0.457			
Back of Queue (Q), ft/ln (95 th percentile)	679.4	13.7		2.6	464.6		932.7		213.2			
Back of Queue (Q), veh/ln (95 th percentile)	27.2	0.5		0.1	18.6		37.3		8.5			
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh	22.4	1.6		21.3	15.3		43.0		35.4			
Incremental Delay (d ₂), s/veh	4.9	0.1		0.1	1.7		81.9		0.3			
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0		0.0		0.0			
Control Delay (d), s/veh	27.3	1.8		21.4	17.0		124.9		35.7			
Level of Service (LOS)	C		A	C		B	F		D			
Approach Delay, s/veh / LOS	25.5	C		17.0	B		101.3	F		0.0		
Intersection Delay, s/veh / LOS	36.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	0.69	A	2.33	B	2.32	B
Bicycle LOS Score / LOS	2.03	B	1.75	B		F		

HCS7 Signalized Intersection Input Data

#4 w/o PM + mid

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - PM - 2035 w.o. Project + I...				
Project Description	without Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1644	129	5	1453		552		198			

Signal Information				Signal Phases							
Cycle, s	120.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	No	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								
Green	1.0	67.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1644	129	5	1453		552		198			
Initial Queue (Q _b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s ₀), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N _m), man/h		None			None			None				
Heavy Vehicles (P _{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (f)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (P _g), %		0			0		0		0			0
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s		60.0	20.0	80.0	20.0	40.0	
Yellow Change Interval (Y), s		4.0	4.0	4.0	4.0	4.0		
Red Clearance Interval (R _c), s		2.0	2.0	2.0	2.0	2.0		
Minimum Green (G _{min}), s		6	6	6	6	6		
Start-Up Lost Time (l), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0	2.0	2.0		
Recall Mode		Min	Off	Min	Off	Off		
Dual Entry		Yes	No	Yes	No	Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

4 WIP

TURNING MOVEMENT VOLUME COUNTS

SITE: WILSON LAKES
 REFERENCE: 1/17/2020
 COUNTY: ST. LOUIS
 PROJECT: 2020
 DATE: 1/17/2020
 COUNTY: ST. LOUIS
 PROJECT: 2020
 DATE: 1/17/2020

15 MIN PERIOD	Northbound				Eastbound				Westbound				ONE HOUR SUM			
	NBL	NRT	WBL	WRT	ENL	ERT	ESL	ESR	WNL	WRT	WBL	WRT	TOTAL	HR	MIN	
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD	15 MIN PERIOD
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00
7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00

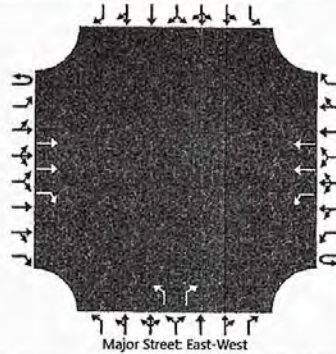
HCS7 Two-Way Stop-Control Report

General Information

Site Information

Analyst	James Kemp	Intersection	Midway & LTC Pkwy
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	4/10/2020	East/West Street	Midway Road
Analysis Year	2035	North/South Street	LTC Parkway
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	with Project		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	0	2	1	0	1	2	0	1	0	1		0	0	0	
Configuration			T	R		L	T		L		R					
Volume (veh/h)			1660	138	0	23	1901		401		104					
Percent Heavy Vehicles (%)					3	3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized		No							No							
Median Type Storage					Left Only								1			

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.5		6.9					
Critical Headway (sec)					4.16				6.86		6.96					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.23				3.53		3.33					

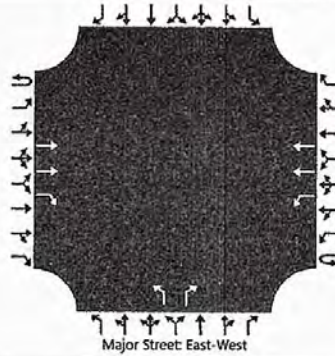
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					24				422		109					
Capacity, c (veh/h)					308				83		291					
v/c Ratio					0.08				5.09		0.38					
95% Queue Length, Q ₉₅ (veh)					0.3				45.8		1.7					
Control Delay (s/veh)					17.7				1939.7		24.6					
Level of Service (LOS)					C				F		C					
Approach Delay (s/veh)					0.2				1545.3							
Approach LOS									F							

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	Midway & LTC Pkwy		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie County		
Date Performed	4/10/2020			East/West Street	Midway Road		
Analysis Year	2035			North/South Street	LTC Parkway		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	with Project						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	0	2	1	0	1	2	0	1	0	1		0	0	0	
Configuration			T	R		L	T			L		R				
Volume (veh/h)			1965	129	0	5	1903		552		198					
Percent Heavy Vehicles (%)					3	3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized			No						No							
Median Type Storage							Left Only					1				

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.5		6.9				
Critical Headway (sec)					4.16				6.86		6.96				
Base Follow-Up Headway (sec)					2.2				3.5		3.3				
Follow-Up Headway (sec)					2.23				3.53		3.33				

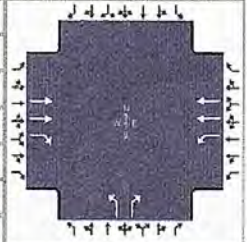
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					5				581		208				
Capacity, c (veh/h)					232				62		227				
v/c Ratio					0.02				9.42		0.92				
95% Queue Length, Q ₉₅ (veh)					0.1				68.1		7.7				
Control Delay (s/veh)					20.9				3918.5		85.0				
Level of Service (LOS)					C				F		F				
Approach Delay (s/veh)						0.1				2906.5					
Approach LOS										F					

HCS7 Signalized Intersection Results Summary

4 w/p AM + imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - AM - 2035 with Project + Imp...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h		1660	138	23	1901		401		104			

Signal Information				Signal Timing (s)								Signal Phases					
Cycle, s	120.0	Reference Phase	2	Green	3.3	74.7	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On														

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		80.7	9.3	90.0		30.0		
Change Period, (Y+R _c), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g _s), s			2.5			26.0		
Green Extension Time (g _e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.55			1.00		
Max Out Probability			0.00			1.00		

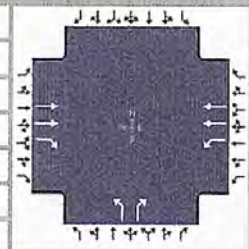
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		1747	145	24	2001		422		109			
Adjusted Saturation Flow Rate (s), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g _s), s		42.3	4.5	0.5	44.6		24.0		7.0			
Cycle Queue Clearance Time (g _c), s		42.3	4.5	0.5	44.6		24.0		7.0			
Green Ratio (g/C)		0.62	0.62	0.67	0.70		0.20		0.20			
Capacity (c), veh/h		2251	1002	185	2532		362		322			
Volume-to-Capacity Ratio (X)		0.776	0.145	0.131	0.790		1.166		0.340			
Back of Queue (Q), ft/ln (95 th percentile)		567.3	68.6	10.7	543.3		758.2		123			
Back of Queue (Q), veh/ln (95 th percentile)		22.7	2.7	0.4	21.7		30.3		4.9			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh		16.6	9.4	15.7	12.1		48.0		41.2			
Incremental Delay (d ₂), s/veh		2.7	0.3	0.1	2.6		100.8		0.2			
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		19.3	9.7	15.8	14.7		148.8		41.4			
Level of Service (LOS)		B	A	B	B		F		D			
Approach Delay, s/veh / LOS	18.5	B		14.7	B		126.7	F		0.0		
Intersection Delay, s/veh / LOS	29.7						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.88	B		0.67	A		2.33	B		2.32	B	
Bicycle LOS Score / LOS	2.05	B		2.16	B			F				

HCS7 Signalized Intersection Input Data

#4 w/p AM+imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy & Midway - AM - 2035 with Project + I...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1660	138	23	1901		401		104			

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

	Green	Yellow	Red	Green	Yellow	Red	Green	Yellow	Red	Green	Yellow	Red
EB L	3.3	4.0	2.0	24.0	4.0	2.0	0.0	4.0	2.0	0.0	4.0	2.0
EB T	74.7	4.0	2.0	0.0	4.0	2.0	0.0	0.0	4.0	2.0	0.0	0.0
EB R				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WB L				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WB T				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WB R				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NB L				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NB T				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NB R				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB L				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB T				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SB R				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

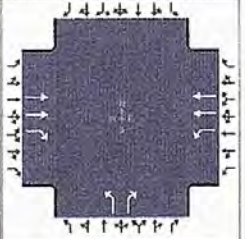
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1660	138	23	1901		401		104			
Initial Queue (Q _b), veh/h		0	0	0	0		0		0			
Base Saturation Flow Rate (s ₀), veh/h		1900	1900	1900	1900		1900		1900			
Parking (N _m), man/h		None			None				None			
Heavy Vehicles (P _{HV}), %		0	0	0	0		0		0			
Ped / Bike / RTOR, /h	0	0	0	0	0		0	0		0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)		3	3	3	3		3		3			
Upstream Filtering (f)		1.00	1.00	1.00	1.00		1.00		1.00			
Lane Width (W), ft		12.0	12.0	12.0	12.0		12.0		12.0			
Turn Bay Length, ft		0	0	0	0		0		0			
Grade (Pg), %		0			0				0			0
Speed Limit, mi/h		45	45	45	45		45		45			

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		70.0	20.0	90.0		30.0		
Yellow Change Interval (Y), s		4.0	4.0	4.0		4.0		
Red Clearance Interval (R _c), s		2.0	2.0	2.0		2.0		
Minimum Green (G _{min}), s		6	6	6		6		
Start-Up Lost Time (l _t), s		2.0	2.0	2.0	2.0			
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0			
Passage (PT), s		2.0	2.0	2.0		2.0		
Recall Mode		Min	Off	Min		Off		
Dual Entry		Yes	No	Yes		Yes		
Walk (Walk), s		0.0	0.0	0.0	0.0			
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0			

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50				

HCS7 Signalized Intersection Results Summary #4 w/p PM+Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 28, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	LTC Parkway	File Name	LTC Pkwy Midway - PM - 2035 with Project + Im...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h		1965	129	5	1903		552		198			

Signal Information				EB				WB				NB				SB			
Cycle, s	140.0	Reference Phase	2	Green	1.1	86.9	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Force Mode	Fixed	Simult. Gap N/S	On																

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		7.3	1.0	4.0		9.0		
Phase Duration, s		92.9	7.1	100.0		40.0		
Change Period, (Y+R _c), s		6.0	6.0	6.0		6.0		
Max Allow Headway (MAH), s		0.0	3.0	0.0		3.1		
Queue Clearance Time (g _s), s			2.1			36.0		
Green Extension Time (g _e), s		0.0	0.0	0.0		0.0		
Phase Call Probability			0.19			1.00		
Max Out Probability			0.00			1.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate (v), veh/h		2068	136	5	2003		581		208			
Adjusted Saturation Flow Rate (s), veh/h/ln		1809	1610	1810	1809		1810		1610			
Queue Service Time (g _s), s		70.9	1.8	0.1	57.1		34.0		15.8			
Cycle Queue Clearance Time (g _c), s		70.9	1.8	0.1	57.1		34.0		15.8			
Green Ratio (g/C)		0.62	0.86	0.64	0.67		0.24		0.24			
Capacity (c), veh/h		2245	1390	89	2429		439		391			
Volume-to-Capacity Ratio (X)		0.921	0.098	0.059	0.825		1.322		0.533			
Back of Queue (Q), ft/ln (95 th percentile)		960	14	4.2	736.4		1278.8		259.6			
Back of Queue (Q), veh/ln (95 th percentile)		38.4	0.6	0.2	29.5		51.2		10.4			
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay (d ₁), s/veh		23.5	1.4	28.5	16.9		53.0		46.1			
Incremental Delay (d ₂), s/veh		7.7	0.1	0.1	3.3		160.2		0.7			
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay (d), s/veh		31.2	1.6	28.6	20.3		213.2		46.8			
Level of Service (LOS)		C	A	C	C		F		D			
Approach Delay, s/veh / LOS	29.4		C	20.3		C	169.3		F	0.0		
Intersection Delay, s/veh / LOS	47.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.89	B	0.68	A	2.33	B	2.33	B
Bicycle LOS Score / LOS	2.31	B	2.14	B		F		

HCS7 Signalized Intersection Input Data

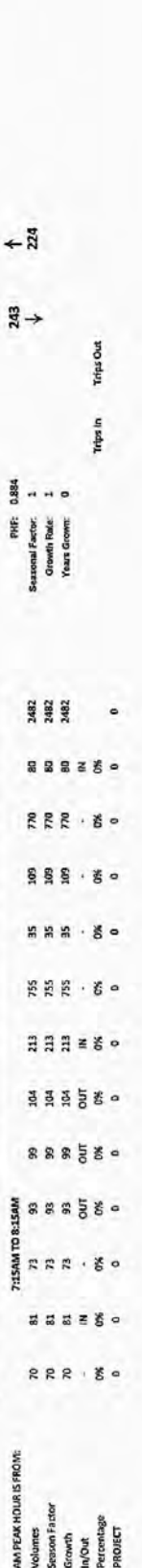
#4 w/p PM + Imp

General Information				Intersection Information				Diagram								
Agency	O'Rourke Engineering			Duration, h	0.25											
Analyst	James Kemp		Analysis Date	Apr 28, 2020		Area Type	Other									
Jurisdiction	St. Lucie		Time Period	PM Peak Hour		PHF	0.95									
Urban Street	Midway Rd		Analysis Year	2035		Analysis Period	1> 7:00									
Intersection	LTC Parkway		File Name	LTC Pkwy Midway - PM - 2035 with Project + Im...												
Project Description	with Project + Improvements															
Demand Information				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h					1965	129	5	1903		552		198				
Signal Information																
Cycle, s	140.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On	Green	1.1	86.9	34.0	0.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0					
				Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0					
Traffic Information				EB			WB			NB			SB			
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h					1965	129	5	1903		552		198				
Initial Queue (Q _b), veh/h					0	0	0	0		0		0				
Base Saturation Flow Rate (s ₀), veh/h					1900	1900	1900	1900		1900		1900				
Parking (N _m), man/h					None		None		None		None					
Heavy Vehicles (P _{HV}), %					0	0	0	0		0		0				
Ped / Bike / RTOR, /h				0	0	0	0	0		0	0		0	0		
Buses (N _b), buses/h				0	0	0	0	0	0		0	0	0			
Arrival Type (AT)					3	3	3	3		3		3				
Upstream Filtering (f)					1.00	1.00	1.00	1.00		1.00		1.00				
Lane Width (W), ft					12.0	12.0	12.0	12.0		12.0		12.0				
Turn Bay Length, ft					0	0	0	0		0		0				
Grade (Pg), %					0		0		0		0		0			
Speed Limit, mi/h					45	45	45	45		45		45				
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT					
Maximum Green (G _{max}) or Phase Split, s					80.0	20.0	100.0	20.0	40.0							
Yellow Change Interval (Y), s					4.0	4.0	4.0	4.0	4.0							
Red Clearance Interval (R _c), s					2.0	2.0	2.0	2.0	2.0							
Minimum Green (G _{min}), s					6	6	6	6	6							
Start-Up Lost Time (l _t), s					2.0	2.0	2.0	2.0	2.0							
Extension of Effective Green (e), s					2.0	2.0	2.0	2.0	2.0							
Passage (PT), s					2.0	2.0	2.0	2.0	2.0							
Recall Mode					Min	Off	Min	Off	Off							
Dual Entry					Yes	No	Yes	No	Yes							
Walk (Walk), s					0.0	0.0	0.0	0.0	0.0							
Pedestrian Clearance Time (PC), s					0.0	0.0	0.0	0.0	0.0							
Multimodal Information				EB			WB			NB			SB			
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25				
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0				
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No				
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0				
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50	No	0.50	No	0.50					

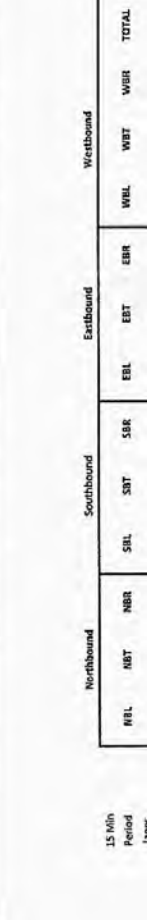
TURNING MOVEMENT VOLUME COUNTS

N/S STREET: Glades Cut Off
 FILENAME: Willow Lakes
 COUNT DATE: 2/18/2020
 REPORT DATE: 2/18/2020
 DAY: Tuesday
 ANALYSIS YEAR: 2020
 CITY: St Lucie
 CONTROL: Signalized
 E/W STREET: Midway Rd

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	17	25	9	16	12	12	22	28	28	146	5	40	160	27	518	2438
7:15-7:30	17	25	13	24	16	31	52	156	8	43	214	19	628	2482		
7:30-7:45	26	20	29	22	18	27	29	170	13	24	196	16	590	2530		
7:45-8:00	18	20	25	29	25	22	51	261	9	25	187	18	702	2200		
8:00-8:15	9	16	6	18	18	18	24	81	168	5	17	173	27	862	1880	
8:15-8:30	7	4	4	15	5	33	40	139	9	17	170	33	476			
8:30-8:45	8	11	15	25	8	22	43	119	5	16	173	15	460			
8:45-9:00	3	12	11	17	7	22	37	110	1	17	131	13	382			
<p>AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM</p> <p>Volumes: 70 81 73 93 99 104 213 755 35 109 770 80 2482</p> <p>Season Factor: 1</p> <p>Growth Rate: 1</p> <p>Years Growth: 0</p> <p>PHF: 0.884</p> <p>Trips In: 243</p> <p>Trips Out: 224</p>																



15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	6	8	32	56	9	61	46	46	127	10	14	128	27	524	2058	
4:15-4:30	10	20	11	55	11	64	44	161	16	1	135	33	561	2035		
4:30-4:45	15	13	25	58	6	40	39	162	25	12	142	14	531	1982		
4:45-5:00	11	7	17	39	7	28	21	171	16	7	117	9	452	1966		
5:00-5:15	5	13	18	48	10	27	23	145	10	14	115	8	491	1923		
5:15-5:30	11	10	12	46	7	21	23	159	16	15	152	14	488			
5:30-5:45	6	7	11	45	16	27	18	227	10	15	133	20	535			
5:45-6:00	1	10	12	23	7	27	37	175	2	9	115	11	409			
<p>PM PEAK HOUR IS FROM: 4:00PM TO 5:00PM</p> <p>Volumes: 42 48 85 209 33 190 130 621 69 36 522 83 2068</p> <p>Season Factor: 1</p> <p>Growth Rate: 1</p> <p>Years Growth: 0</p> <p>PHF: 0.932</p> <p>Trips In: 130</p> <p>Trips Out: 621</p>																



15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
42	48	85	209	33	190	130	621	69	36	522	83	2068				
42	48	85	209	33	190	130	621	69	36	522	83	2068				
0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<p>Total: 42 48 85 209 33 190 130 621 69 36 522 83 2068</p>																

St. Lucie County



00022 - MIDWAY RD @ GLADES CUT OFF - - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

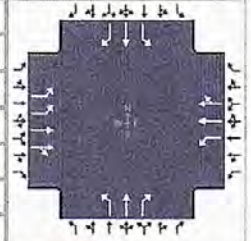
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	15	10	7	7	10	10	7	7	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	0	0	7	0	0	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	20	0	0	0	0	0	20	0	0	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	60	20	25	25	60	10	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Signalized Intersection Results Summary

5 E AM

General Information

Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - Existing - 6.2.202...		
Project Description	Existing				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	213	755	35	109	770	80	70	81	73	93	99	104

Signal Information

Cycle, s	85.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On	Green	9.2	3.5	10.0	7.3	0.8	24.2			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.0	0.0	4.0			
				Red	3.0	0.0	3.0	3.0	0.0	3.0			

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	15.1	32.0	14.3	31.2	20.7	21.5	17.2	18.0
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.2
Queue Clearance Time (g _s), s	7.7	20.8	7.7	23.2	4.9	5.9	6.1	7.9
Green Extension Time (g _e), s	0.4	2.0	0.0	1.0	0.1	0.8	0.1	0.8
Phase Call Probability	1.00	1.00	0.95	1.00	0.85	1.00	0.92	1.00
Max Out Probability	0.00	0.83	1.00	1.00	0.00	0.00	0.00	0.00

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	242	452	445	124	491	475	80	92	83	106	113	118
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1870	1810	1900	1837	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	5.7	18.8	18.8	5.7	21.2	21.2	2.9	3.6	3.9	4.1	4.7	5.9
Cycle Queue Clearance Time (g _c), s	5.7	18.8	18.8	5.7	21.2	21.2	2.9	3.6	3.9	4.1	4.7	5.9
Green Ratio (g/C)	0.10	0.29	0.29	0.09	0.28	0.28	0.27	0.16	0.16	0.23	0.12	0.12
Capacity (c), veh/h	335	558	549	156	541	523	436	302	256	403	223	189
Volume-to-Capacity Ratio (X)	0.722	0.811	0.811	0.793	0.908	0.908	0.182	0.304	0.324	0.262	0.503	0.624
Back of Queue (Q), ft/ln (95 th percentile)	109.1	358.4	354.3	128.6	436.5	426.3	53.4	73.7	66.7	77	97.3	104.6
Back of Queue (Q), veh/ln (95 th percentile)	4.4	14.3	14.2	5.1	17.5	17.1	2.1	2.9	2.7	3.1	3.9	4.2
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	37.4	27.8	27.8	38.1	29.3	29.3	24.0	31.6	31.7	27.1	35.2	35.7
Incremental Delay (d ₂), s/veh	1.1	8.2	8.3	9.3	17.8	18.3	0.1	0.2	0.3	0.1	0.7	1.3
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	38.5	36.0	36.2	47.4	47.2	47.6	24.1	31.8	32.0	27.2	35.8	37.0
Level of Service (LOS)	D	D	D	D	D	D	C	C	C	C	D	D
Approach Delay, s/veh / LOS	36.6		D	47.4		D	29.4		C	33.5		C
Intersection Delay, s/veh / LOS	39.8						D					

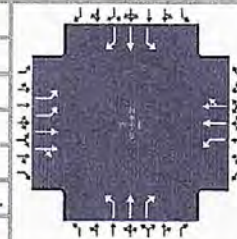
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.11		B	2.28		B	2.29		B	2.45		B
Bicycle LOS Score / LOS	1.43		A	1.39		A	0.91		A	1.04		A

HCS7 Signalized Intersection Input Data

#5E AM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - Existing - 6.2.202...				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	213	755	35	109	770	80	70	81	73	93	99	104

Signal Information				Signal Phases											
Cycle, s	85.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	9.2	3.5	10.0	7.3	0.8	24.2									
Yellow	5.0	0.0	5.0	4.0	0.0	4.0									
Red	3.0	0.0	3.0	3.0	0.0	3.0									

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	213	755	35	109	770	80	70	81	73	93	99	104
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	25.0	10.0	25.0	25.0	60.0	25.0	60.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

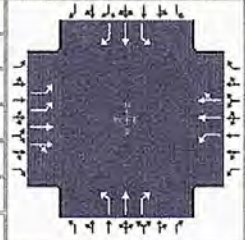
Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 E.P.M

General Information

Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off Midway - PM - Existing - 6.2.2020...		
Project Description	Existing				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	130	621	69	36	522	83	42	48	85	209	33	190

Signal Information

Cycle, s	74.9	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On	Green	9.2	0.8	11.3	3.9	2.7	17.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.0	0.0	4.0			
				Red	3.0	0.0	3.0	3.0	0.0	3.0			

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	13.6	26.7	10.9	24.0	17.2	19.3	18.0	20.1
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	3.3	3.1	3.3
Queue Clearance Time (g _s), s	4.9	15.9	3.6	14.5	3.4	5.9	9.7	11.2
Green Extension Time (g _e), s	0.2	2.3	0.0	2.4	0.0	0.8	0.4	0.8
Phase Call Probability	0.95	1.00	0.56	1.00	0.61	1.00	0.99	1.00
Max Out Probability	0.00	0.23	0.00	0.17	0.00	0.00	0.00	0.00

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	141	381	369	39	336	322	46	52	92	227	36	207
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1833	1810	1900	1809	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	2.9	13.9	13.9	1.6	12.5	12.5	1.4	1.8	3.9	7.7	1.2	9.2
Cycle Queue Clearance Time (g _c), s	2.9	13.9	13.9	1.6	12.5	12.5	1.4	1.8	3.9	7.7	1.2	9.2
Green Ratio (g/C)	0.09	0.26	0.26	0.05	0.23	0.23	0.27	0.15	0.15	0.28	0.16	0.16
Capacity (c), veh/h	311	499	482	95	430	410	486	287	244	514	307	260
Volume-to-Capacity Ratio (X)	0.454	0.764	0.765	0.414	0.781	0.785	0.094	0.181	0.379	0.442	0.117	0.794
Back of Queue (Q), ft/ln (95 th percentile)	53.3	259	253	31.2	235	228	25.4	35.6	65.2	138.6	23.8	159.9
Back of Queue (Q), veh/ln (95 th percentile)	2.1	10.4	10.1	1.2	9.4	9.1	1.0	1.4	2.6	5.5	1.0	6.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	32.4	25.5	25.5	34.4	27.2	27.3	20.3	27.8	28.6	22.0	26.9	30.2
Incremental Delay (d ₂), s/veh	0.4	3.0	3.2	1.1	2.0	2.2	0.0	0.1	0.4	0.2	0.1	2.1
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	32.8	28.5	28.7	35.5	29.2	29.5	20.3	27.9	29.0	22.2	26.9	32.3
Level of Service (LOS)	C	C	C	D	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	29.3	C		29.7	C		26.6	C		27.0	C	
Intersection Delay, s/veh / LOS	28.7						C					

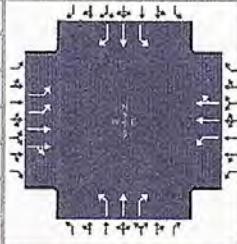
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.11	B		2.28	B		2.29	B		2.44	B	
Bicycle LOS Score / LOS	1.22	A		1.06	A		0.80	A		1.26	A	

HCS7 Signalized Intersection Input Data

#5 E PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.92		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - Existing - 6.2.20...				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	130	621	69	36	522	83	42	48	85	209	33	190

Signal Information				Signal Diagrams											
Cycle, s	74.9	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	9.2	0.8	11.3	3.9	2.7	17.0									
Yellow	5.0	0.0	5.0	4.0	0.0	4.0									
Red	3.0	0.0	3.0	3.0	0.0	3.0									

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	130	621	69	36	522	83	42	48	85	209	33	190
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L		None			None			None		
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

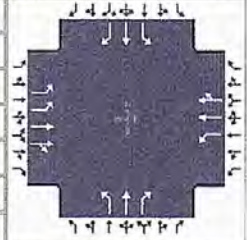
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	20.0	25.0	10.0	25.0	25.0	60.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 w/o AM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168

Signal Information				Signal Timing Diagram															
Cycle, s	140.0	Reference Phase	2																
Offset, s	0	Reference Point	Begin																
Uncoordinated	No	Simult. Gap E/W	On																
Force Mode	Fixed	Simult. Gap N/S	On																
		Green		9.8	4.8	34.4	12.7	0.3	48.0										
		Yellow		5.0	0.0	5.0	4.0	0.0	4.0										
		Red		3.0	0.0	3.0	3.0	0.0	3.0										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	19.7	55.0	20.0	55.3	22.6	47.2	17.8	42.4
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	12.7	50.0	15.0	8.7	7.0		7.9	
Green Extension Time (g _e), s	0.0	0.0	0.0	3.4	0.1	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	1.00	1.00	0.00	0.00		1.00	

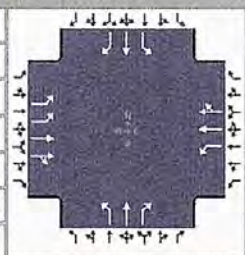
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	272	651	643	253	121	114	95	176	203	105	195	177
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1876	1810	1900	1662	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	10.7	47.9	48.0	13.0	6.2	6.7	5.0	10.3	14.6	5.9	12.1	13.0
Cycle Queue Clearance Time (g _c), s	10.7	47.9	48.0	13.0	6.2	6.7	5.0	10.3	14.6	5.9	12.1	13.0
Green Ratio (g/C)	0.09	0.34	0.34	0.09	0.35	0.35	0.35	0.28	0.28	0.32	0.25	0.25
Capacity (c), veh/h	318	651	643	168	656	574	433	532	450	414	467	395
Volume-to-Capacity Ratio (X)	0.853	0.999	1.000	1.504	0.184	0.199	0.219	0.331	0.451	0.254	0.417	0.447
Back of Queue (Q), ft/ln (95 th percentile)	234.9	931.5	925.5	707.1	130.1	123.5	100.1	219.1	256.8	118.6	251.9	237.3
Back of Queue (Q), veh/ln (95 th percentile)	9.4	37.3	37.0	28.3	5.2	4.9	4.0	8.8	10.3	4.7	10.1	9.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	62.7	46.0	46.0	63.5	32.1	32.2	31.8	40.0	41.6	35.0	44.4	44.8
Incremental Delay (d ₂), s/veh	17.8	34.9	35.5	255.0	0.0	0.1	0.1	1.7	3.2	0.1	2.7	3.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	80.6	80.9	81.5	318.5	32.1	32.3	31.9	41.7	44.8	35.1	47.1	48.4
Level of Service (LOS)	F	F	F	F	C	C	C	D	D	D	D	D
Approach Delay, s/veh / LOS	81.1		F	180.6		F	41.1		D	44.9		D
Intersection Delay, s/veh / LOS	85.2						F					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.13		B	2.29		B	2.30		B	2.46		B
Bicycle LOS Score / LOS	1.78		B	0.89		A	1.27		A	1.27		A

HCS7 Signalized Intersection Input Data

5 w/o AM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168

Signal Information				Signal Timing Diagram								
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	Begin									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	9.8	4.8	34.4	12.7	0.3	48.0						
Yellow	5.0	0.0	5.0	4.0	0.0	4.0						
Red	3.0	0.0	3.0	3.0	0.0	3.0						

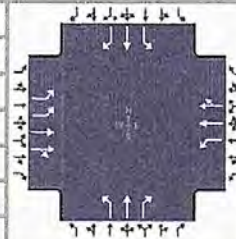
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	258	1185	44	240	137	86	90	167	193	100	185	168
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L		None			None			None		
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	55.0	20.0	55.0	24.0	46.0	19.0	41.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (I _l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary #5 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 w.o. Project...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204

Signal Information														
Cycle, s	140.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	10.0	3.1	35.9	10.0	3.0	48.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	0.0	5.0	4.0	0.0	4.0				
				Red	3.0	0.0	3.0	3.0	0.0	3.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	17.0	55.0	20.0	58.0	21.1	47.0	18.0	43.9
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	9.8	50.0	15.0	47.7	4.8		12.0	
Green Extension Time (g _e), s	0.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.88		1.00	
Max Out Probability	0.96	1.00	1.00	0.98	0.00		1.00	

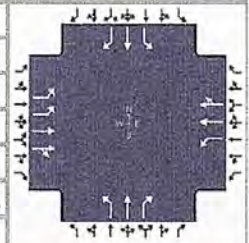
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	200	798	787	205	651	639	54	189	287	222	147	215
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1858	1810	1900	1862	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	7.8	48.0	48.0	13.0	45.3	45.7	2.8	11.2	21.9	10.0	8.8	16.0
Cycle Queue Clearance Time (g _c), s	7.8	48.0	48.0	13.0	45.3	45.7	2.8	11.2	21.9	10.0	8.8	16.0
Green Ratio (g/C)	0.07	0.34	0.34	0.09	0.36	0.36	0.35	0.28	0.28	0.33	0.26	0.26
Capacity (c), veh/h	250	651	637	168	692	679	465	529	449	404	487	412
Volume-to-Capacity Ratio (X)	0.799	1.225	1.236	1.222	0.940	0.942	0.115	0.358	0.641	0.549	0.303	0.521
Back of Queue (Q), ft/ln (95th percentile)	169.4	1465.7	1478.8	493.8	768.7	770.6	55.3	234.5	366.4	77.9	194	281.1
Back of Queue (Q), veh/ln (95th percentile)	6.8	58.6	59.2	19.8	30.7	30.8	2.2	9.4	14.7	3.1	7.8	11.2
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	64.0	38.0	39.0	63.5	34.5	35.5	30.8	40.5	44.3	38.7	42.0	44.7
Incremental Delay (d ₂), s/veh	7.6	114.5	119.2	141.4	20.5	21.1	0.0	1.9	6.9	0.9	1.6	4.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	71.6	152.5	158.2	204.9	55.0	56.7	30.8	42.4	51.2	39.6	43.6	49.3
Level of Service (LOS)	E	F	F	F	E	E	C	D	D	D	D	D
Approach Delay, s/veh / LOS	146.0		F	76.3		E	46.0		D	44.2		D
Intersection Delay, s/veh / LOS	96.7						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.30	B	2.46	B
Bicycle LOS Score / LOS	1.96	B	1.72	B	1.36	A	1.45	A

HCS7 Signalized Intersection Input Data

5 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 w.o. Project...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204

Signal Information				Signal Timing (s)										
Cycle, s	140.0	Reference Phase	2											
Offset, s	0	Reference Point	End	Green	10.0	3.1	35.9	10.0	3.0	48.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	0.0	5.0	4.0	0.0	4.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	0.0	3.0	3.0	0.0	3.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	190	1413	93	195	1156	69	51	180	273	211	140	204
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

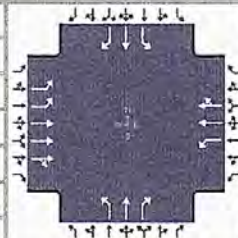
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	20.0	55.0	20.0	55.0	24.0	47.0	18.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	15	10	10	10
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
	85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

5 w/o AM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168

Signal Information				Signal Timing (s)										
Cycle, s	140.0	Reference Phase	2	Green	9.7	24.9	13.1	1.6	53.6	0.0	1	2	3	4
Offset, s	0	Reference Point	End	Yellow	5.0	5.0	4.0	4.0	4.0	0.0	5	6	7	8
Uncoordinated	No	Simult. Gap E/W	On	Red	3.0	3.0	3.0	3.0	3.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On											

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.1	60.6	28.7	69.2	17.7	32.8	17.8	32.9
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	12.6	27.6	21.2	54.4	7.8		8.5	
Green Extension Time (g _e), s	0.4	8.8	0.5	7.9	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	0.00	0.06	0.00	0.23	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	272	868	426	253	760	749	95	176	203	105	195	177
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1864	1810	1900	1860	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	10.6	25.6	25.6	19.2	51.8	52.4	5.8	11.7	16.6	6.5	13.1	14.2
Cycle Queue Clearance Time (g _c), s	10.6	25.6	25.6	19.2	51.8	52.4	5.8	11.7	16.6	6.5	13.1	14.2
Green Ratio (g/C)	0.09	0.38	0.38	0.15	0.44	0.44	0.25	0.18	0.18	0.25	0.18	0.18
Capacity (c), veh/h	328	1456	714	280	845	827	262	337	286	293	338	287
Volume-to-Capacity Ratio (X)	0.828	0.596	0.596	0.902	0.900	0.905	0.362	0.521	0.711	0.359	0.576	0.617
Back of Queue (Q), ft/ln (95 th percentile)	210.6	434.9	429	350.3	838.9	835.2	118.5	254.6	310.2	132.3	280.6	266.8
Back of Queue (Q), veh/ln (95 th percentile)	8.4	17.4	17.2	14.0	33.6	33.4	4.7	10.2	12.4	5.3	11.2	10.7
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	62.4	34.5	34.5	58.1	36.0	36.1	42.7	52.2	54.2	42.6	52.7	53.1
Incremental Delay (d ₂), s/veh	2.1	0.1	0.3	4.3	8.1	8.8	0.3	5.7	14.0	0.3	7.0	9.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	64.4	34.7	34.8	62.4	44.1	44.9	43.1	57.8	68.2	42.9	59.6	62.7
Level of Service (LOS)	E	C	C	E	D	D	D	E	E	D	E	E
Approach Delay, s/veh / LOS	39.9		D	47.1		D	59.3		E	57.1		E
Intersection Delay, s/veh / LOS	46.9						D					

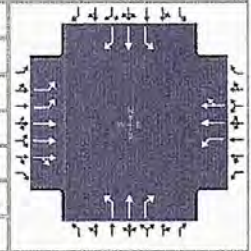
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	2.28	B	2.46	B	2.61	C
Bicycle LOS Score / LOS	1.35	A	1.94	B	1.27	A	1.27	A

HCS7 Signalized Intersection Input Data

#5 w/o AM + imp

General Information

Agency	O'Rourke Engineering			Duration, h	0.25
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 w.o. Project...		
Project Description	without Project + Imp				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168

Signal Information

Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	9.7	24.9	13.1	1.6	53.6	0.0						
Yellow	5.0	5.0	4.0	4.0	4.0	0.0						
Red	3.0	3.0	3.0	3.0	3.0	0.0						

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	258	1185	44	240	1347	86	90	167	193	100	185	168
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (S ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	29.0	17.0	87.0	75.0	18.0	18.0	18.0	18.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

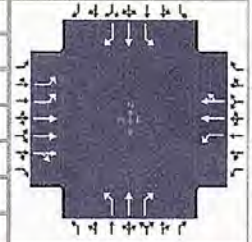
Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 w/o PM+MP

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off Midway - PM - 2035 w.o. Project...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241

Signal Information				Signal Timing (s)																			
Cycle, s	140.0	Reference Phase	2	Green	8.9	7.5	28.7	11.3	6.7	46.9	Yellow	5.0	0.0	5.0	4.0	0.0	4.0	Red	3.0	0.0	3.0	3.0	3.0
Offset, s	0	Reference Point	End																				
Uncoordinated	No	Simult. Gap E/W	On																				
Force Mode	Fixed	Simult. Gap N/S	On																				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	18.3	53.9	25.0	60.6	16.9	36.7	24.4	44.3
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	10.9	38.7	17.7	44.0	5.3		16.1	
Green Extension Time (g _e), s	0.4	8.1	0.3	8.3	0.1	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	0.19	0.00	0.17	0.00		0.00	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	226	1075	520	206	620	605	56	184	305	237	146	254
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1838	1810	1900	1848	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	8.9	36.7	36.7	15.7	41.9	42.0	3.3	11.9	26.0	14.1	8.7	19.4
Cycle Queue Clearance Time (g _c), s	8.9	36.7	36.7	15.7	41.9	42.0	3.3	11.9	26.0	14.1	8.7	19.4
Green Ratio (g/C)	0.08	0.33	0.33	0.13	0.38	0.38	0.27	0.21	0.21	0.33	0.26	0.26
Capacity (c), veh/h	283	1272	615	233	728	708	397	390	331	409	492	417
Volume-to-Capacity Ratio (X)	0.800	0.845	0.845	0.887	0.853	0.854	0.141	0.472	0.923	0.579	0.297	0.608
Back of Queue (Q), ft/ln (95 th percentile)	181.2	608.4	603.5	298.2	690	676.5	65.8	254.1	489	259.3	192.1	331.7
Back of Queue (Q), veh/ln (95 th percentile)	7.2	24.3	24.1	11.9	27.6	27.1	2.6	10.2	19.6	10.4	7.7	13.3
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	63.3	43.2	43.2	60.0	39.6	39.6	38.7	48.9	54.5	36.6	41.6	45.6
Incremental Delay (d ₂), s/veh	2.0	2.4	4.7	4.5	4.9	5.1	0.1	4.1	33.3	0.5	1.5	6.5
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	65.3	45.5	47.9	64.5	44.5	44.7	38.7	53.0	87.9	37.1	43.2	52.1
Level of Service (LOS)	E	D	D	E	D	D	D	D	F	D	D	D
Approach Delay, s/veh / LOS	48.7		D	47.5		D	71.1		E	44.5		D
Intersection Delay, s/veh / LOS	50.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.46	B	2.60	C
Bicycle LOS Score / LOS	1.49	A	1.67	B	1.39	A	1.54	B

This page intentionally left blank.

HCS7 Signalized Intersection Input Data

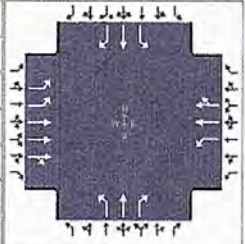
#5 w/c PM+imp

General Information

Agency: O'Rourke Engineering
 Analyst: James Kemp
 Jurisdiction: St. Lucie
 Urban Street: Midway Rd
 Intersection: Glades Cut Off Rd
 Project Description: without Project + Imp

Intersection Information

Duration, h: 0.25
 Area Type: Other
 PHF: 0.95
 Analysis Period: 1> 7:00
 File Name: Glades Cut Off & Midway - PM - 2035 w.o. Project...



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241

Signal Information

Cycle, s	140.0	Reference Phase	2			
Offset, s	0	Reference Point	End			
Uncoordinated	No	Simult. Gap E/W	On			
Force Mode	Fixed	Simult. Gap N/S	On			
Green	8.9	7.5	28.7	11.3	6.7	46.9
Yellow	5.0	0.0	5.0	4.0	0.0	4.0
Red	3.0	0.0	3.0	3.0	0.0	3.0

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	215	1422	93	196	1075	89	53	175	290	225	139	241
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

E#5 WIP

TURNING MOVEMENT VOLUME COUNTS

CONTROL: Signalized

EWART STREET, Midway Rd
CITY: SLACK

REV: Tuesday
ANALYSIS YEAR: 2020

US STREET: 7/14/2020
FILENAME: 2/14/2020
DATE: 2/14/2020
REPORT DATE:

15 Min Period

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR TOTAL SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	WBL		
7:00-7:15	3	25	9	16	13	22	22	22	22	22	22	47	149	27	218		
7:15-7:30	3	25	13	24	26	31	31	31	31	31	31	43	214	19	624		
7:30-7:45	3	20	29	29	28	37	37	37	37	37	37	24	296	16	290		
7:45-8:00	3	20	25	29	37	31	31	31	31	31	31	25	387	18	707		
8:00-8:15	3	16	5	18	38	24	24	24	24	24	24	17	173	27	562		
8:15-8:30	7	4	4	12	5	33	40	39	9	17	17	17	17	31	476		
8:30-8:45	3	11	15	22	8	22	43	31	9	16	17	17	17	15	460		
8:45-9:00	3	13	12	17	7	22	27	15	1	17	17	17	17	13	382		

AM/FM HOURS FROM

Seasonal Factor: 1
Growth Rate: 1.005
Year Growth: 25

Without Lanes: 1,855
Volume at Midway: 1,451
LTC Branch: 1,823
Southern Grove: 6,233
Wilson Grove: 3,875
Riverland/Kennedy: 4,975
Western Grove: 1,312
Ravels: 22
Frontiers: 58

Trips In: 1,855
Trips Out: 1,855

15 Min Period

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR TOTAL SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	WBL		
9:00-9:15	3	25	9	16	13	22	22	22	22	22	22	47	149	27	218		
9:15-9:30	3	25	13	24	26	31	31	31	31	31	31	43	214	19	624		
9:30-9:45	3	20	29	29	28	37	37	37	37	37	37	24	296	16	290		
9:45-10:00	3	20	25	29	37	31	31	31	31	31	31	25	387	18	707		
10:00-10:15	3	16	5	18	38	24	24	24	24	24	24	17	173	27	562		
10:15-10:30	7	4	4	12	5	33	40	39	9	17	17	17	17	31	476		
10:30-10:45	3	11	15	22	8	22	43	31	9	16	17	17	17	15	460		
10:45-11:00	3	13	12	17	7	22	27	15	1	17	17	17	17	13	382		

AM/FM HOURS FROM

Seasonal Factor: 1
Growth Rate: 1.005
Year Growth: 25

Without Lanes: 1,855
Volume at Midway: 1,451
LTC Branch: 1,823
Southern Grove: 6,233
Wilson Grove: 3,875
Riverland/Kennedy: 4,975
Western Grove: 1,312
Ravels: 22
Frontiers: 58

Trips In: 1,855
Trips Out: 1,855

15 Min Period

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR TOTAL SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	WBL		
11:00-11:15	6	8	82	56	9	61	61	61	61	61	61	14	128	27	824		
11:15-11:30	10	20	31	36	11	61	61	61	61	61	61	3	115	33	561		
11:30-11:45	13	23	25	38	6	40	39	39	39	39	39	11	142	14	531		
11:45-12:00	11	7	17	39	7	28	21	17	18	18	18	7	117	9	452		
12:00-12:15	5	33	18	41	10	27	23	14	15	15	15	14	117	6	601		
12:15-12:30	11	10	11	46	7	21	23	15	18	18	18	15	122	14	468		
12:30-12:45	6	7	11	45	16	37	38	22	27	27	27	15	113	20	535		
12:45-1:00	1	10	12	23	7	37	37	17	17	17	17	9	115	11	460		

AM/FM HOURS FROM

Seasonal Factor: 1
Growth Rate: 1.005
Year Growth: 25

Without Lanes: 1,490
Volume at Midway: 728
LTC Branch: 3,320
Southern Grove: 6,990
Riverland/Kennedy: 4,543
Western Grove: 3,510
Ravels: 77
Frontiers: 122

Trips In: 1,490
Trips Out: 1,490

15 Min Period

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR TOTAL SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	WBL		
1:00-1:15	4	48	85	229	33	300	300	300	300	300	300	16	522	83	2048		
1:15-1:30	4	48	85	229	33	300	300	300	300	300	300	16	522	83	2048		
1:30-1:45	0	1	7	21	1	30	30	30	30	30	30	0	0	0	223		
1:45-2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:00-2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:15-2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:30-2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:45-3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:00-3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15-3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30-3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45-4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

AM/FM HOURS FROM

Seasonal Factor: 1
Growth Rate: 1.005
Year Growth: 25

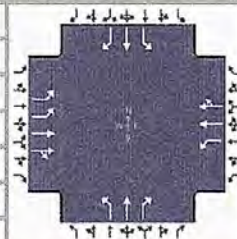
Without Lanes: 1,490
Volume at Midway: 728
LTC Branch: 3,320
Southern Grove: 6,990
Riverland/Kennedy: 4,543
Western Grove: 3,510
Ravels: 77
Frontiers: 122

Trips In: 1,490
Trips Out: 1,490

HCS7 Signalized Intersection Results Summary

#5 w/PAM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information				Signal Timing (s)									
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	9.7	19.3	13.0	1.6	59.4	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	5.0	5.0	4.0	4.0	4.0	0.0			
				Red	3.0	3.0	3.0	3.0	3.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.0	66.4	28.6	75.0	17.7	27.2	17.8	27.3
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	15.0	59.7	21.2	70.0	8.1		8.9	
Green Extension Time (g _e), s	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	1.00	0.00	1.00	0.37		0.00	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	339	789	784	253	934	931	95	176	203	105	195	262
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1880	1810	1900	1867	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	13.0	57.3	57.7	19.2	68.0	68.0	6.1	12.3	17.4	6.9	13.8	19.3
Cycle Queue Clearance Time (g _c), s	13.0	57.3	57.7	19.2	68.0	68.0	6.1	12.3	17.4	6.9	13.8	19.3
Green Ratio (g/C)	0.09	0.42	0.42	0.15	0.49	0.49	0.21	0.14	0.14	0.21	0.14	0.14
Capacity (c), veh/h	326	806	797	280	923	907	207	260	220	239	261	221
Volume-to-Capacity Ratio (X)	1.039	0.980	0.984	0.903	1.012	1.027	0.457	0.676	0.922	0.441	0.745	1.184
Back of Queue (Q), ft/ln (95 th percentile)	337.3	1032.8	1035	350.4	1233.7	1260.5	126.2	278.7	370.9	140.6	311.9	578.6
Back of Queue (Q), veh/ln (95 th percentile)	13.5	41.3	41.4	14.0	49.3	50.4	5.0	11.1	14.8	5.6	12.5	23.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	63.5	39.7	39.8	58.1	36.0	36.0	47.5	57.5	59.7	47.3	58.0	60.4
Incremental Delay (d ₂), s/veh	60.2	26.6	27.7	4.4	32.6	36.9	0.6	13.2	43.2	0.5	17.5	119.1
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	123.7	66.4	67.6	62.5	68.6	72.9	48.0	70.7	102.8	47.8	75.5	179.5
Level of Service (LOS)	F	E	E	E	F	F	D	E	F	D	E	F
Approach Delay, s/veh / LOS	77.0	E		69.8	E		80.0	E			118.8	F
Intersection Delay, s/veh / LOS	78.9						E					

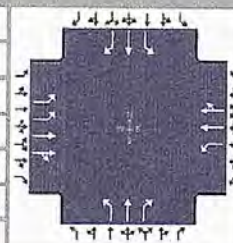
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.27	B	2.32	B	2.47	B
Bicycle LOS Score / LOS	2.07	B	2.23	B	1.27	A	1.42	A

HCS7 Signalized Intersection Input Data

#5 w/p AM

General Information

Agency	O'Rourke Engineering			Intersection Information	
Analyst	James Kemp	Analysis Date	4/17/2020	Duration, h	0.25
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	Area Type	Other
Urban Street	Midway Rd	Analysis Year	2035	PHF	0.95
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...		
Project Description	with Project				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information

Cycle, s	140.0	Reference Phase	2											
Offset, s	0	Reference Point	End	Green	9.7	19.3	13.0	1.6	59.4	0.0	1	2	3	4
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	4.0	4.0	4.0	0.0	5	6	7	8
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	3.0	3.0	0.0				

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	47.0	48.0	75.0	20.0	18.0	27.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (f _l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

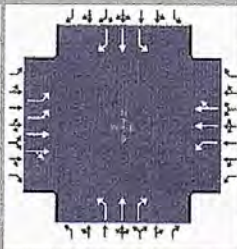
Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 w/4 PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information				Signal Timing Diagram																			
Cycle, s	140.0	Reference Phase	2																				
Offset, s	0	Reference Point	End																				
Uncoordinated	No	Simult. Gap E/W	On																				
Force Mode	Fixed	Simult. Gap N/S	On																				
				Green	8.9	1.2	19.0	13.9	4.1	63.0													
				Yellow	5.0	0.0	5.0	4.0	0.0	4.0													
				Red	3.0	0.0	3.0	3.0	0.0	3.0													

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.9	70.0	25.0	74.1	16.9	27.0	18.0	28.1
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	13.4	65.0	17.7	56.8	5.6		12.1	
Green Extension Time (g _e), s	0.5	0.0	0.3	6.8	0.0	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	1.00	0.00	0.76	0.00		1.00	

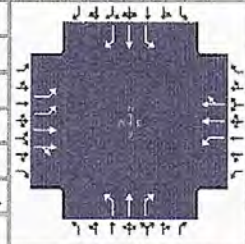
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	292	935	932	206	808	798	56	184	305	237	146	345
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1865	1810	1900	1861	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	11.4	63.0	63.0	15.7	54.0	54.8	3.6	13.0	19.0	10.1	10.0	20.1
Cycle Queue Clearance Time (g _c), s	11.4	63.0	63.0	15.7	54.0	54.8	3.6	13.0	19.0	10.1	10.0	20.1
Green Ratio (g/C)	0.10	0.45	0.45	0.13	0.48	0.48	0.20	0.14	0.14	0.21	0.14	0.14
Capacity (c), veh/h	349	855	839	233	910	891	240	257	218	233	273	232
Volume-to-Capacity Ratio (X)	0.834	1.094	1.111	0.887	0.888	0.896	0.233	0.716	1.400	1.018	0.535	1.490
Back of Queue (Q), ft/ln (95 th percentile)	222.4	1427.1	1466.1	298.2	880.3	881.8	73.1	294.8	784.3	298.3	228.2	925.5
Back of Queue (Q), veh/ln (95 th percentile)	8.9	57.1	58.6	11.9	35.2	35.3	2.9	11.8	31.4	11.9	9.1	37.0
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	61.9	38.5	38.5	60.0	33.0	33.3	46.8	57.9	60.5	56.0	55.6	59.9
Incremental Delay (d ₂), s/veh	2.0	59.6	66.2	4.5	10.3	11.3	0.2	15.7	205.5	63.9	7.3	242.0
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.9	98.1	104.7	64.5	43.3	44.5	47.0	73.7	266.0	119.8	62.9	301.9
Level of Service (LOS)	E	F	F	E	D	D	D	E	F	F	E	F
Approach Delay, s/veh / LOS	96.3	F		46.3	D		178.6	F		194.7	F	
Intersection Delay, s/veh / LOS	101.3						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	2.28	B	2.32	B	2.47	B
Bicycle LOS Score / LOS	2.27	B	1.98	B	1.39	A	1.69	B

HCS7 Signalized Intersection Input Data

#5 WP PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information																		
Cycle, s	140.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On															
Force Mode	Fixed	Simult. Gap N/S	On															
				Green	8.9	1.2	19.0	13.9	4.1	63.0								
				Yellow	5.0	0.0	5.0	4.0	0.0	4.0								
				Red	3.0	0.0	3.0	3.0	0.0	3.0								

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

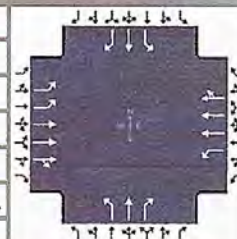
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (I), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 w/ PAM + imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information				Signal Phases											
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	8.9	0.3	21.2	13.9	4.1	53.7									
Yellow	5.0	5.0	5.0	4.0	0.0	4.0									
Red	3.0	3.0	3.0	3.0	0.0	3.0									

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.9	60.7	25.0	64.8	16.9	29.2	25.1	37.5
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	13.4	43.0	17.7	31.7	5.5		17.0	
Green Extension Time (g _e), s	0.5	10.7	0.3	13.5	0.1	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.89		1.00	
Max Out Probability	0.00	0.44	0.00	0.21	0.00		1.00	

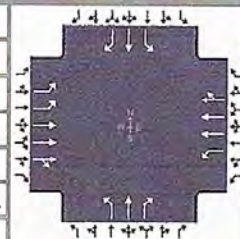
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	292	1256	612	206	1082	524	56	184	305	237	146	345
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1847	1810	1900	1841	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	11.4	40.4	41.0	15.7	28.9	29.7	3.5	12.8	21.2	15.0	9.2	26.4
Cycle Queue Clearance Time (g _c), s	11.4	40.4	41.0	15.7	28.9	29.7	3.5	12.8	21.2	15.0	9.2	26.4
Green Ratio (g/C)	0.10	0.38	0.38	0.13	0.41	0.41	0.21	0.15	0.28	0.29	0.21	0.31
Capacity (c), veh/h	349	1457	708	233	1568	760	330	288	451	346	400	499
Volume-to-Capacity Ratio (X)	0.834	0.862	0.864	0.887	0.690	0.690	0.169	0.640	0.677	0.684	0.366	0.692
Back of Queue (Q), ft/ln (95 th percentile)	222.4	607.3	631.5	298.2	435.1	448.4	71.4	281.4	391.1	284.5	205	426.3
Back of Queue (Q), veh/ln (95 th percentile)	8.9	24.3	25.3	11.9	17.4	17.9	2.9	11.3	15.6	11.4	8.2	17.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	61.9	31.0	32.4	60.0	25.0	26.6	44.6	55.8	44.8	41.8	47.3	42.4
Incremental Delay (d ₂), s/veh	2.0	3.7	7.4	4.5	0.6	1.3	0.1	10.5	7.9	3.5	2.6	7.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.9	34.7	39.8	64.5	25.6	27.9	44.7	66.3	52.7	45.3	49.9	50.1
Level of Service (LOS)	E	C	D	E	C	C	D	E	D	D	D	D
Approach Delay, s/veh / LOS	40.1		D	30.7		C	56.5		E	48.5		D
Intersection Delay, s/veh / LOS	39.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	2.28	B	2.61	C	2.73	C
Bicycle LOS Score / LOS	1.68	B	1.48	A	1.39	A	1.69	B

HCS7 Signalized Intersection Input Data

#5 w/PA+Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - PM - 2035 with Project...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328

Signal Information				Signal Diagrams											
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	8.9	0.3	21.2	13.9	4.1	53.7					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	5.0	5.0	5.0	4.0	0.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	3.0	3.0	3.0	0.0	3.0					

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	277	1681	93	196	1437	89	53	175	290	225	139	328
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

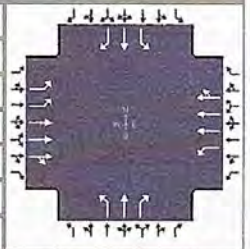
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	31.0	56.0	39.0	64.0	24.0	27.0	18.0	21.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#5 WIP PM+imp

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information				Signal Timing (s)													
Cycle, s	140.0	Reference Phase	2														
Offset, s	0	Reference Point	End	Green	9.7	31.2	13.0	1.6	47.4	0.0	Yellow	5.0	5.0	4.0	4.0	4.0	0.0
Uncoordinated	No	Simult. Gap E/W	On	Red	3.0	3.0	3.0	3.0	3.0	0.0							
Force Mode	Fixed	Simult. Gap N/S	On														

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	1	6	5	2
Case Number	2.0	4.0	2.0	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.0	54.4	28.6	63.0	17.7	39.2	17.8	39.2
Change Period, (Y+R _c), s	7.0	7.0	7.0	7.0	8.0	8.0	8.0	8.0
Max Allow Headway (MAH), s	3.1	3.0	3.1	3.0	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s	15.0	36.0	21.2	41.1	7.5		8.1	
Green Extension Time (g _e), s	0.0	11.3	0.4	12.0	0.1	0.0	0.2	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		0.98	
Max Out Probability	1.00	0.36	0.00	0.30	0.00		0.00	

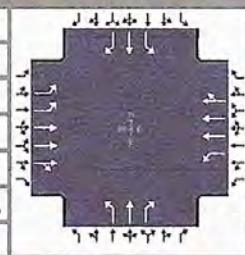
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	339	1055	519	253	1254	612	95	176	203	105	195	262
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1900	1870	1810	1900	1851	1810	1900	1610	1810	1900	1610
Queue Service Time (g _s), s	13.0	33.9	34.0	19.2	38.5	39.1	5.5	11.1	12.6	6.1	12.4	18.6
Cycle Queue Clearance Time (g _c), s	13.0	33.9	34.0	19.2	38.5	39.1	5.5	11.1	12.6	6.1	12.4	18.6
Green Ratio (g/C)	0.09	0.34	0.34	0.15	0.40	0.40	0.29	0.22	0.38	0.29	0.22	0.32
Capacity (c), veh/h	326	1286	633	280	1520	740	322	423	607	354	424	509
Volume-to-Capacity Ratio (X)	1.039	0.820	0.820	0.903	0.825	0.826	0.294	0.416	0.335	0.297	0.459	0.515
Back of Queue (Q), ft/ln (95 th percentile)	337.3	528.1	539.3	350.4	567.4	587.3	110.4	237.2	221.9	123.3	260.4	311.8
Back of Queue (Q), veh/ln (95 th percentile)	13.5	21.1	21.6	14.0	22.7	23.5	4.4	9.5	8.9	4.9	10.4	12.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	63.5	34.7	35.4	58.1	28.6	29.9	37.8	46.6	31.1	37.7	47.1	39.1
Incremental Delay (d ₂), s/veh	60.2	2.3	4.5	4.4	2.2	4.5	0.2	3.0	1.5	0.2	3.6	3.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	123.7	37.0	39.9	62.5	30.8	34.4	38.0	49.6	32.6	37.8	50.6	42.8
Level of Service (LOS)	F	D	D	E	C	C	D	D	C	D	D	D
Approach Delay, s/veh / LOS	53.1		D	35.6		D	40.0		D	44.6		D
Intersection Delay, s/veh / LOS	43.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.29	B	2.60	C	2.73	C
Bicycle LOS Score / LOS	1.54	B	1.65	B	1.27	A	1.42	A

HCS7 Signalized Intersection Input Data

5 w/p AM + 117P

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Glades Cut Off Rd	File Name	Glades Cut Off & Midway - AM - 2035 with Project...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249

Signal Information				Signal Timing (s)													
Cycle, s	140.0	Reference Phase	2	Green	9.7	31.2	13.0	1.6	47.4	0.0	Yellow	5.0	5.0	4.0	4.0	4.0	0.0
Offset, s	0	Reference Point	End	Red	3.0	3.0	3.0	3.0	3.0	0.0	Force Mode	Fixed	Simult. Gap E/W	On	Simult. Gap N/S	On	

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	322	1451	44	240	1686	86	90	167	193	100	185	249
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	4	3	3	4	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0		0	0		0	0	0	0	0	0
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	47.0	48.0	75.0	20.0	18.0	27.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Red Clearance Interval (R _c), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Green (G _{min}), s	7	7	7	7	10	10	10	10
Start-Up Lost Time (I _l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

TO/PO STREET: Willow Lakes
FILENAME: 7/20/2020
REPORT DATE: 7/20/2020
DAY: Thursday
ANALYSIS YEAR: 2020
CONTROL: TNSC
EM STREET: Midway Rd
CITY: St. Louis

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL		
7:00-7:15	136	1	126	3	2	1	1	3	117	52	45	124	5	615	2677		
7:15-7:30	103	0	85	1	2	5	4	110	55	64	162	3	594	2623			
7:30-7:45	135	1	108	6	0	7	1	161	77	92	145	1	784	2605			
7:45-8:00	142	1	128	4	0	4	4	181	70	56	136	6	734	2311			
8:00-8:15	110	1	101	2	0	3	8	123	41	49	121	2	561	1989			
8:15-8:30	81	0	93	1	0	6	11	134	47	55	143	3	576				
8:30-8:45	82	1	67	3	1	5	4	93	35	48	99	2	440				
8:45-9:00	34	0	57	0	0	3	5	52	52	43	106	2	392				

AM PEAK HOUR IS FROM: 7:00AM TO 8:00AM
Volumes: 516 3 447 14 4 17 12 569 254 257 569 15 1677
Seasonal Factor: 1
Growth Rate: 1
Years Growth: 0
PHF: 0.912
Trips In: 1102, 835, 12, 569, 254, 516, 3, 447, 515, 966
Trips Out: 841, 1030, 15, 569, 257, 447, 966

15 Min Period	Northbound	Southbound	Eastbound	Westbound	ONE HOUR SUM								
Total	516	3	447	14	4	17	12	569	254	257	569	15	1677

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL		
4:00-4:15	50	1	59	0	2	0	0	1	143	71	58	96	0	483	2137		
4:15-4:30	41	0	76	0	1	0	0	92	95	106	183	1	595	2280			
4:30-4:45	54	0	76	0	1	3	1	117	69	63	128	0	512	2393			
4:45-5:00	53	0	66	0	0	0	1	141	103	85	96	0	547	2334			
5:00-5:15	43	0	63	0	1	2	3	94	98	86	185	1	576	2380			
5:15-5:30	57	0	107	0	0	0	1	153	137	89	124	0	668				
5:30-5:45	42	0	71	2	0	1	0	136	104	81	116	0	543				
5:45-6:00	61	1	74	0	0	0	1	107	82	70	95	2	493				

PM PEAK HOUR IS FROM: 4:05PM TO 5:05PM
Volumes: 195 0 307 2 1 3 5 514 442 341 523 1 2334
Seasonal Factor: 1
Growth Rate: 1
Years Growth: 0
PHF: 0.874
Trips In: 721, 961, 5, 514, 442, 195, 0, 307, 784, 502
Trips Out: 865, 823, 1, 523, 341, 502

15 Min Period	Northbound	Southbound	Eastbound	Westbound	ONE HOUR SUM								
Total	195	0	307	2	1	3	5	514	442	341	523	1	2334

By-Phase Timing Data

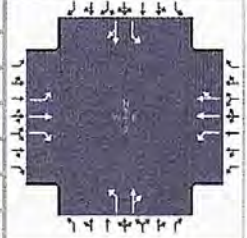
Midway

Direction	Phase											
	1 ERL	2 W/B	3 S/BL	4 N/B	5 W/BL	6 E/B	7 N/BL	8 S/B	9	10	11	12
Minimum Green	7	7	7	7	7	7	7	7	5	5	5	5
Bike Min Green	0	0	0	0	0	0	0	0	0	0	0	0
Cond Serv Min Grn	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10
Ped Clearance	0	16	0	16	0	16	0	16	0	16	0	16
Veh Extension	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Alt Veh Exten	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Extension	0	0	0	25	0	0	0	0	0	0	0	0
Max 1	15	60	15	40	35	60	40	35	35	35	35	35
Max 2	40	40	40	40	40	40	40	40	40	40	40	40
Max 3	0	0	0	50	0	0	0	0	0	0	0	0
Det. Fail Max	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0
Red Clearance	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act. B4 Init	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Actuation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	30	30	30	30	30	30	30	30	30	30	30	30
Time B4 Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Cars Waiting	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Signalized Intersection Results Summary

#6EAM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - Existing - 7.22.20.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	12	569	254	257	569	15	516	3	447	14	4	17

Signal Information				Signal Timing Diagram								
Cycle, s	103.9	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	1.8	4.0	36.0	2.1	11.9	12.1						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.8	42.0	17.8	52.0	26.0	36.0	8.1	18.1
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.5	33.3	11.5	13.2	22.0	32.0	2.7	3.2
Green Extension Time (g _e), s	0.0	2.7	0.3	2.9	0.0	0.0	0.0	1.1
Phase Call Probability	0.31	1.00	1.00	1.00	1.00	1.00	0.35	1.00
Max Out Probability	0.00	0.04	0.01	0.00	1.00	1.00	0.00	0.00

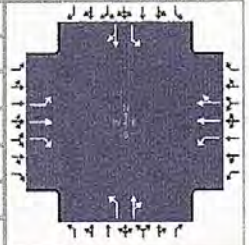
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	13	599	267	271	309	306	543	474		15	22	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1883	1810	1612		1810	1658	
Queue Service Time (g _s), s	0.5	31.3	13.5	9.5	11.2	11.2	20.0	30.0		0.7	1.2	
Cycle Queue Clearance Time (g _c), s	0.5	31.3	13.5	9.5	11.2	11.2	20.0	30.0		0.7	1.2	
Green Ratio (g/C)	0.36	0.35	0.35	0.48	0.44	0.44	0.33	0.29		0.14	0.12	
Capacity (c), veh/h	360	658	558	314	841	833	565	465		106	193	
Volume-to-Capacity Ratio (X)	0.035	0.910	0.479	0.863	0.367	0.367	0.961	1.018		0.140	0.115	
Back of Queue (Q), ft/ln (95 th percentile)	8.5	531.4	214.5	193.6	204.1	202.9	308.4	603.6		14.6	22.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.3	21.3	8.6	7.7	8.2	8.1	12.3	24.1		0.6	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	21.2	32.4	26.6	23.2	19.3	19.3	35.0	37.0		39.8	41.1	
Incremental Delay (d ₂), s/veh	0.0	8.3	0.2	8.1	0.1	0.1	28.2	46.4		0.2	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	21.2	40.7	26.8	31.2	19.4	19.4	63.2	83.3		40.0	41.2	
Level of Service (LOS)	C	D	C	C	B	B	E	F		D	D	
Approach Delay, s/veh / LOS	36.2			23.0			72.6			40.7		
Intersection Delay, s/veh / LOS	45.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.91	B	2.12	B	2.31	B
Bicycle LOS Score / LOS	1.94	B	1.22	A	2.17	B	0.55	A

HCS7 Signalized Intersection Input Data

#6 E Am

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - Existing - 7.22.20.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	12	569	254	257	569	15	516	3	447	14	4	17

Signal Information				Signal Timing (s)								Signal Phases											
Cycle, s	103.9	Reference Phase	2	Green	1.8	4.0	36.0	2.1	11.9	12.1	Yellow	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0	2.0
Offset, s	0	Reference Point	End																				
Uncoordinated	Yes	Simult. Gap E/W	On																				
Force Mode	Fixed	Simult. Gap N/S	On																				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	12	569	254	257	569	15	516	3	447	14	4	17
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

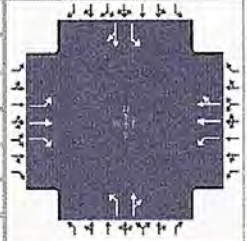
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#6 EPM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - Existing 7.22.20.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3

Signal Information				Phase Diagrams								
Cycle, s	84.2	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	0.7	6.0	28.1	0.3	4.0	9.1		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	6.7	34.1	18.7	46.1	16.3	25.0	6.3	15.1
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.2	24.8	12.3	9.5	10.1	18.4	2.1	2.2
Green Extension Time (g _e), s	0.0	3.1	0.4	3.2	0.2	0.6	0.0	0.7
Phase Call Probability	0.12	1.00	1.00	1.00	0.99	1.00	0.05	1.00
Max Out Probability	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00

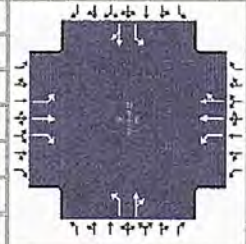
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	541	465	359	276	276	205	323		2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1610		1810	1674	
Queue Service Time (g _s), s	0.2	22.4	22.8	10.3	7.5	7.5	8.1	16.4		0.1	0.2	
Cycle Queue Clearance Time (g _c), s	0.2	22.4	22.8	10.3	7.5	7.5	8.1	16.4		0.1	0.2	
Green Ratio (g/C)	0.34	0.33	0.33	0.51	0.48	0.48	0.25	0.23		0.11	0.11	
Capacity (c), veh/h	391	635	538	420	907	906	460	365		101	181	
Volume-to-Capacity Ratio (X)	0.013	0.852	0.865	0.854	0.304	0.304	0.447	0.886		0.021	0.023	
Back of Queue (Q), ft/ln (95 th percentile)	2.8	359.1	320.3	194.6	127	126.9	146.4	269.1		1.7	3.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	14.4	12.8	7.8	5.1	5.1	5.9	10.8		0.1	0.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	18.3	26.2	26.3	17.6	13.5	13.5	26.5	31.6		33.8	33.7	
Incremental Delay (d ₂), s/veh	0.0	1.3	1.7	7.0	0.1	0.1	0.3	6.7		0.0	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	18.3	27.4	28.0	24.6	13.6	13.6	26.8	38.3		33.8	33.7	
Level of Service (LOS)	B	C	C	C	B	B	C	D		C	C	
Approach Delay, s/veh / LOS	27.6 / C			17.9 / B			33.8 / C			33.7 / C		
Intersection Delay, s/veh / LOS	25.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.90	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	2.16	B	1.24	A	1.36	A	0.50	A

HCS7 Signalized Intersection Input Data

#6 E PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - Existing 7.22.20.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3

Signal Information														
Cycle, s	84.2	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	Yes	Simult. Gap E/W	On											
Force Mode	Fixed	Simult. Gap N/S	On											
				Green	0.7	6.0	28.1	0.3	4.0	9.1				
				Yellow	4.0	4.0	4.0	4.0	4.0	4.0				
				Red	2.0	2.0	2.0	2.0	2.0	2.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	514	442	341	523	1	195	0	307	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

#6 w/o

TURNING MOVEMENT VOLUME COUNTS

NO. STREET: Midway Rd
REFERENCE: Willow Lake
COUNT DATE: 2/25/2005
REPORT DATE:

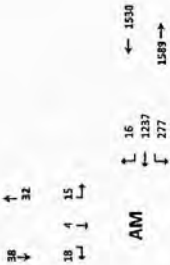
SW STREET: Midway Rd
CITY: Gluck

CONTROL: TWY

DAY: Thursday
ANALYSIS YEAR: 2005

15 Min
Period

Table with columns: 15 Min Period, Northbound, Southbound, Eastbound, Westbound, and Overall Hourly Sum.



AM PEAK HOUR TO SUM:

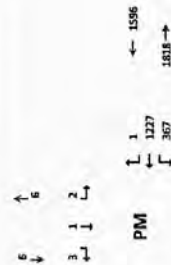
Summary table for AM Peak Hour to Sum with columns: Volume, Season Factor, Growth Rate, Year Counts, and Total Counts.

AM PEAK HOUR TO SUM:

Table showing traffic volume breakdown by movement for AM peak hour.

15 Min
Period
Sum

Table with columns: 15 Min Period Sum, Northbound, Southbound, Eastbound, Westbound, and Overall Hourly Sum.



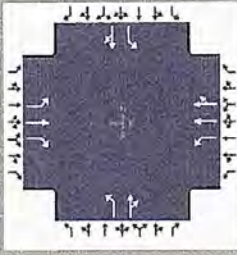
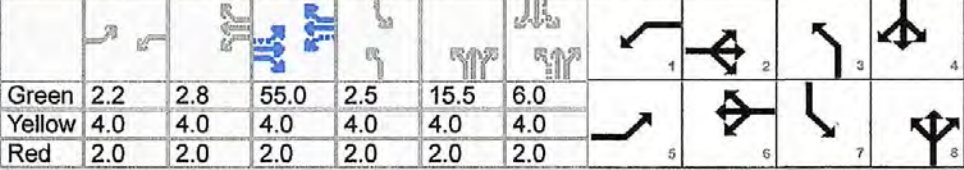
PM PEAK HOUR TO SUM:

Summary table for PM Peak Hour to Sum with columns: Volume, Season Factor, Growth Rate, Year Counts, and Total Counts.

PM PEAK HOUR TO SUM:

Table showing traffic volume breakdown by movement for PM peak hour.

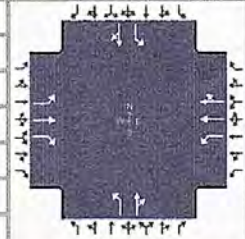
HCS7 Signalized Intersection Results Summary # 6 w/o AM

General Information					Intersection Information											
Agency	O'Rourke Engineering & Planning				Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Apr 17, 2020		Area Type	Other										
Jurisdiction	St. Lucie	Time Period	AM Peak Hour		PHF	0.95										
Urban Street	Midway Road	Analysis Year	2035		Analysis Period	1 > 7:00										
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 w.o. Project - 7....													
Project Description	without Project															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h					13	1092	280	277	1237	16	572	3	482	15	4	18
Signal Information																
Cycle, s	120.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
Green	2.2	2.8	55.0	2.5	15.5	6.0										
Yellow	4.0	4.0	4.0	4.0	4.0	4.0										
Red	2.0	2.0	2.0	2.0	2.0	2.0										
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					5	2	1	6	3	8	7	4				
Case Number					1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0				
Phase Duration, s					8.2	61.0	17.0	69.8	30.0	33.5	8.5	12.0				
Change Period, (Y+R _c), s					6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Allow Headway (MAH), s					3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3				
Queue Clearance Time (g _s), s					2.5		13.0		26.0	29.5	3.0	3.6				
Green Extension Time (g _e), s					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4				
Phase Call Probability					0.37		1.00		1.00	1.00	0.41	1.00				
Max Out Probability					0.00		1.00		1.00	1.00	0.10	1.00				
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h					14	1149	295	292	661	658	602	511		16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln					1810	1900	1610	1810	1900	1891	1810	1612		1810	1656	
Queue Service Time (g _s), s					0.5	55.0	14.6	11.0	30.0	30.0	24.0	27.5		1.0	1.6	
Cycle Queue Clearance Time (g _c), s					0.5	55.0	14.6	11.0	30.0	30.0	24.0	27.5		1.0	1.6	
Green Ratio (g/C)					0.48	0.46	0.46	0.57	0.53	0.53	0.27	0.23		0.07	0.05	
Capacity (c), veh/h					205	871	738	226	1010	1006	473	370		97	83	
Volume-to-Capacity Ratio (X)					0.067	1.320	0.399	1.289	0.654	0.654	1.272	1.380		0.163	0.280	
Back of Queue (Q), ft/ln (95 th percentile)					8.7	2193	235.5	638.6	476.3	475.4	773.5	1135.8		20	30.4	
Back of Queue (Q), veh/ln (95 th percentile)					0.3	87.7	9.4	25.5	19.1	19.0	30.9	45.4		0.8	1.2	
Queue Storage Ratio (RQ) (95 th percentile)					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh					18.9	32.5	21.6	39.2	20.2	20.2	44.5	46.2		52.5	54.9	
Incremental Delay (d ₂), s/veh					0.1	152.2	1.6	159.2	3.3	3.3	138.2	187.2		0.3	0.7	
Initial Queue Delay (d ₃), s/veh					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh					18.9	184.7	23.2	198.4	23.5	23.5	182.7	233.4		52.7	55.6	
Level of Service (LOS)					B	F	C	F	C	C	F	F		D	E	
Approach Delay, s/veh / LOS					150.5		F	55.2		E	206.0		F	54.4		D
Intersection Delay, s/veh / LOS					127.8						F					
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS					1.91		B	1.90		B	2.13		B	2.32		B
Bicycle LOS Score / LOS					2.89		C	1.82		B	2.32		B	0.55		A

HCS7 Signalized Intersection Input Data

6 w/o AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 w.o. Project - 7...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information				Phase Diagrams									
Cycle, s	120.0	Reference Phase	2	[Phase Diagrams 1-8]									
Offset, s	0	Reference Point	End	Green	2.2	2.8	55.0	2.5	15.5	6.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0			

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

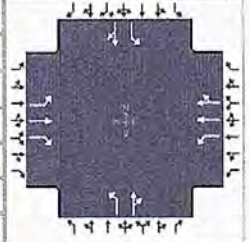
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	14.0	61.0	17.0	64.0	30.0	29.0	13.0	12.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l ₀), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

6 W/O PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Phase Diagrams											
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	1.1	11.9	78.0	0.5	3.5	9.0					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.1	84.0	25.0	101.9	16.0	24.5	6.5	15.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.2		21.0		12.0	20.5	2.2	2.3
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.09

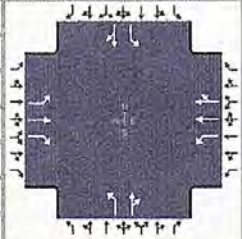
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1563	522	386	646	646	229	348		2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1610		1810	1674	
Queue Service Time (g _s), s	0.2	78.0	29.8	19.0	22.7	22.7	10.0	18.5		0.2	0.3	
Cycle Queue Clearance Time (g _c), s	0.2	78.0	29.8	19.0	22.7	22.7	10.0	18.5		0.2	0.3	
Green Ratio (g/C)	0.56	0.56	0.56	0.71	0.68	0.68	0.15	0.13		0.07	0.06	
Capacity (c), veh/h	286	1058	897	298	1301	1301	269	213		58	108	
Volume-to-Capacity Ratio (X)	0.018	1.477	0.582	1.298	0.497	0.497	0.852	1.636		0.037	0.039	
Back of Queue (Q), ft/ln (95 th percentile)	3.2	3669.9	418.7	870.7	348.6	348.5	203	1004.7		3.2	6.3	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	146.8	16.7	34.8	13.9	13.9	8.1	40.2		0.1	0.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	13.5	31.0	20.3	51.7	10.5	10.5	59.3	60.7		61.2	61.5	
Incremental Delay (d ₂), s/veh	0.0	219.9	2.8	156.8	1.4	1.4	21.2	306.3		0.1	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	13.5	250.9	23.1	208.5	11.9	11.9	80.6	367.0		61.3	61.5	
Level of Service (LOS)	B	F	C	F	B	B	F	F		E	E	
Approach Delay, s/veh / LOS	193.4		F	57.1		E	253.3		F	61.4		E
Intersection Delay, s/veh / LOS	148.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	1.88	B	2.15	B	2.32	B
Bicycle LOS Score / LOS	3.94	D	1.87	B	1.44	A	0.50	A

HCS7 Signalized Intersection Input Data

6 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Signal Diagram													
Cycle, s	140.0	Reference Phase	2														
Offset, s	0	Reference Point	End														
Uncoordinated	No	Simult. Gap E/W	On														
Force Mode	Fixed	Simult. Gap N/S	On														
				Green	1.1	11.9	78.0	0.5	3.5	9.0							
				Yellow	4.0	4.0	4.0	4.0	4.0	4.0							
				Red	2.0	2.0	2.0	2.0	2.0	2.0							

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

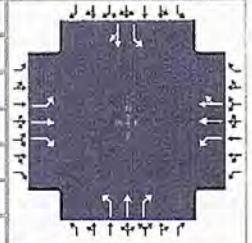
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	84.0	84.0	25.0	25.0	16.0	18.0	13.0	15.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

6 w/o +NBR AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project - ...				
Project Description	without Project +NBR						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information				Signal Timing Diagram									
Cycle, s	120.0	Reference Phase	2	[Timing Diagram: Shows 8 phases (1-8) with green, yellow, and red arrows for each approach (EB, WB, NB, SB). Phase 1 is EB L, 2 is EB T, 3 is EB R, 4 is WB L, 5 is WB T, 6 is WB R, 7 is NB L, 8 is NB T. SB R is not shown.]									
Offset, s	0	Reference Point	End	Green	2.2	6.0	43.8	2.5	5.5	24.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	49.8	20.2	61.8	20.0	41.5	8.5	30.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.6		16.3		16.0		37.5	
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Phase Call Probability	0.37		1.00		1.00		1.00	
Max Out Probability	0.00		1.00		1.00		1.00	

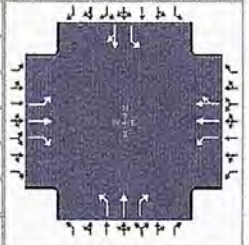
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1149	295	292	661	658	602	3	507	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1891	1810	1900	1610	1810	1656	
Queue Service Time (g _s), s	0.6	43.7	17.1	14.3	34.2	34.2	14.0	0.1	35.5	0.8	1.4	
Cycle Queue Clearance Time (g _c), s	0.6	43.7	17.1	14.3	34.2	34.2	14.0	0.1	35.5	0.8	1.4	
Green Ratio (g/C)	0.38	0.37	0.37	0.50	0.47	0.47	0.33	0.30	0.30	0.22	0.20	
Capacity (c), veh/h	163	692	587	277	884	880	535	562	476	382	331	
Volume-to-Capacity Ratio (X)	0.084	1.661	0.502	1.052	0.747	0.748	1.126	0.006	1.065	0.041	0.070	
Back of Queue (Q), ft/ln (95th percentile)	10.7	2989.7	278.8	494.3	559.6	558.5	737.6	2.8	753.4	16.1	24.6	
Back of Queue (Q), veh/ln (95th percentile)	0.4	119.6	11.2	19.8	22.4	22.3	29.5	0.1	30.1	0.6	1.0	
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	25.5	38.1	29.7	38.1	26.3	26.3	41.5	29.8	42.3	36.8	39.0	
Incremental Delay (d ₂), s/veh	0.1	303.7	3.1	68.5	5.7	5.8	78.5	0.0	59.7	0.0	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	25.6	341.8	32.7	106.6	32.0	32.1	119.9	29.8	102.0	36.8	39.0	
Level of Service (LOS)	C	F	C	F	C	C	F	C	F	D	D	
Approach Delay, s/veh / LOS	276.4	F		45.5	D		111.5	F			38.1	D
Intersection Delay, s/veh / LOS	142.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.91	B	2.12	B	2.30	B
Bicycle LOS Score / LOS	2.89	C	1.82	B	2.32	B	0.55	A

HCS7 Signalized Intersection Input Data

#6 w/o +NBR AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project -...				
Project Description	without Project <i>f NBR</i>						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information				Signal Phases										
Cycle, s	120.0	Reference Phase	2	[Diagram showing 8 signal phases: 1-4 for EB, WB, NB, SB; 5-8 for cross-traffic]										
Offset, s	0	Reference Point	End	Green	2.2	6.0	43.8	2.5	5.5	24.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

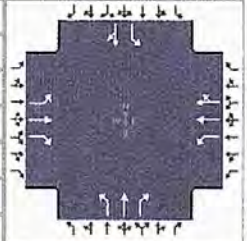
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	50.0	20.0	50.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#6 W/O + N BR PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7...				
Project Description	without Project + N BR						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Signal Phases											
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	1.1	12.2	64.0	0.5	7.5	18.7					
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0					
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	70.0	25.3	88.2	20.0	38.2	6.5	24.7
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.2		21.4		16.0	31.8	2.1	2.3
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.7
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	0.18	0.00	0.00

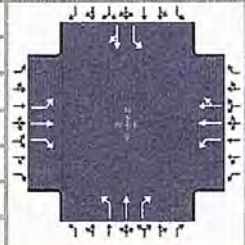
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1563	522	386	646	646	229	0	348	2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1899	1810	1900	1610	1810	1674	
Queue Service Time (g _s), s	0.2	64.0	36.5	19.4	29.8	29.8	14.0	0.0	29.8	0.1	0.3	
Cycle Queue Clearance Time (g _c), s	0.2	64.0	36.5	19.4	29.8	29.8	14.0	0.0	29.8	0.1	0.3	
Green Ratio (g/C)	0.46	0.46	0.46	0.61	0.59	0.59	0.25	0.23	0.23	0.14	0.13	
Capacity (c), veh/h	222	868	736	302	1116	1116	420	437	370	249	223	
Volume-to-Capacity Ratio (X)	0.024	1.800	0.710	1.280	0.579	0.579	0.546	0.000	0.941	0.008	0.019	
Back of Queue (Q), ft/ln (95 th percentile)	4.1	4551.4	525.7	856.5	470.6	470.5	278.3	0	514.2	2.9	5.8	
Back of Queue (Q), veh/ln (95 th percentile)	0.2	182.1	21.0	34.3	18.8	18.8	11.1	0.0	20.6	0.1	0.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	20.8	38.0	30.5	49.3	18.1	18.1	45.6	0.0	53.0	52.2	52.7	
Incremental Delay (d ₂), s/veh	0.0	364.8	5.7	149.1	2.2	2.2	0.8	0.0	25.5	0.0	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	20.8	402.8	36.3	198.4	20.3	20.3	46.4	0.0	78.5	52.2	52.7	
Level of Service (LOS)	C	F	D	F	C	C	D		E	D	D	
Approach Delay, s/veh / LOS	310.3		F	61.3		E	65.8		E	52.6		D
Intersection Delay, s/veh / LOS	181.4						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.11	B	1.90	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	3.94	D	1.87	B	1.44	A	0.50	A

HCS7 Signalized Intersection Input Data

6 w/o + NBR PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project - 7....				
Project Description	without Project + NBR						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Signal Diagrams												
Cycle, s	140.0	Reference Phase	2	[Signal Diagrams 1-8]												
Offset, s	0	Reference Point	End	[Signal Diagrams 1-8]												
Uncoordinated	No	Simult. Gap E/W	On	Green	1.1	12.2	64.0	0.5	7.5	18.7	[Signal Diagrams 1-8]					
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	[Signal Diagrams 1-8]					
				Red	2.0	2.0	2.0	2.0	2.0	2.0	[Signal Diagrams 1-8]					

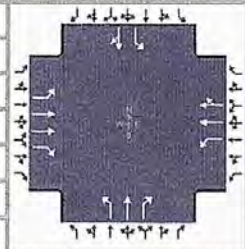
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	70.0	20.0	70.0	20.0	30.0	20.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary # 6 w/o AM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project +...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information				Phase Diagrams								
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	2.2	2.5	43.5	2.5	15.5	17.8		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	49.5	16.7	58.0	30.0	45.3	8.5	23.8
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.6		13.1		26.0	39.1	2.9	3.5
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.1
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.00

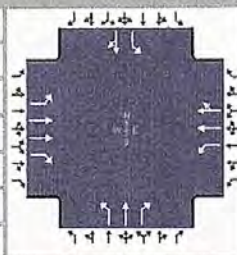
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1149	295	292	661	658	602	3	507	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1900	1891	1810	1900	1610	1810	1656	
Queue Service Time (g _s), s	0.6	35.8	17.2	11.1	36.2	36.3	24.0	0.1	37.1	0.9	1.5	
Cycle Queue Clearance Time (g _c), s	0.6	35.8	17.2	11.1	36.2	36.3	24.0	0.1	37.1	0.9	1.5	
Green Ratio (g/C)	0.38	0.36	0.36	0.47	0.43	0.43	0.36	0.33	0.33	0.17	0.15	
Capacity (c), veh/h	145	1301	579	257	824	821	607	622	527	303	245	
Volume-to-Capacity Ratio (X)	0.094	0.883	0.509	1.135	0.802	0.802	0.991	0.005	0.963	0.052	0.095	
Back of Queue (Q), ft/ln (95 th percentile)	10.8	581.9	281	446.3	604.9	603.7	423.6	2.7	628.4	17.4	26.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	23.3	11.2	17.9	24.2	24.1	16.9	0.1	25.1	0.7	1.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	26.9	36.1	30.1	29.9	29.5	29.5	38.5	27.2	39.6	41.9	44.2	
Incremental Delay (d ₂), s/veh	0.1	9.0	3.2	97.6	8.1	8.1	34.2	0.0	28.5	0.0	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	27.0	45.0	33.3	127.5	37.6	37.6	72.6	27.2	68.2	41.9	44.3	
Level of Service (LOS)	C	D	C	F	D	D	E	C	E	D	D	
Approach Delay, s/veh / LOS	42.5		D	53.9		D	70.5		E	43.3		D
Intersection Delay, s/veh / LOS	54.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.29	B	2.46	B
Bicycle LOS Score / LOS	1.69	B	1.82	B	2.32	B	0.55	A

HCS7 Signalized Intersection Input Data

6 w/o AM turnp

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy & Midway - AM - 2035 w.o. Project +...		
Project Description	without Project + Imp				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	120.0	Reference Phase	2	Green	2.2	2.5	43.5	2.5	15.5	17.8	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	5	6	7	8	
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	2.0	2.0	2.0	2.0	2.0					
Force Mode	Fixed	Simult. Gap N/S	On												

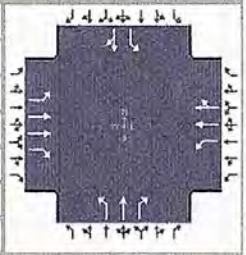
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	13	1092	280	277	1237	16	572	3	482	15	4	18
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	15.0	50.0	15.0	50.0	30.0	25.0	30.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
	85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No			0.50			No			0.50		

HCS7 Signalized Intersection Results Summary # 6 w/o PM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project + I...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Phase Diagrams								
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	1.1	12.0	73.9	0.5	2.5	14.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	79.9	25.1	97.9	15.0	28.5	6.5	20.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.2		21.1		11.0	24.5	2.1	2.3
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.00	0.00

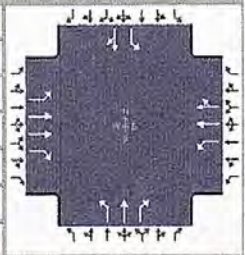
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1563	522	386	646	646	229	0	348	2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1900	1899	1810	1900	1610	1810	1674	
Queue Service Time (g _s), s	0.2	50.3	31.7	19.1	24.8	24.8	9.0	0.0	22.5	0.1	0.3	
Cycle Queue Clearance Time (g _c), s	0.2	50.3	31.7	19.1	24.8	24.8	9.0	0.0	22.5	0.1	0.3	
Green Ratio (g/C)	0.54	0.53	0.53	0.68	0.66	0.66	0.18	0.16	0.16	0.10	0.10	
Capacity (c), veh/h	268	1909	850	354	1247	1247	307	305	259	201	167	
Volume-to-Capacity Ratio (X)	0.020	0.819	0.614	1.090	0.518	0.518	0.747	0.000	1.346	0.010	0.025	
Back of Queue (Q), ft/ln (95 th percentile)	3.5	727.1	448.6	697.3	384.1	384	178.6	0	838.7	3	6	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	29.1	17.9	27.9	15.4	15.4	7.1	0.0	33.5	0.1	0.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	15.4	27.5	23.1	42.1	12.5	12.5	55.7	0.0	58.7	56.4	56.9	
Incremental Delay (d ₂), s/veh	0.0	4.1	3.3	74.2	1.5	1.5	8.6	0.0	179.1	0.0	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	15.4	31.5	26.4	116.4	14.1	14.1	64.3	0.0	237.9	56.4	56.9	
Level of Service (LOS)	B	C	C	F	B	B	E		F	E	E	
Approach Delay, s/veh / LOS	30.2		C	37.6		D	168.9		F	56.7		E
Intersection Delay, s/veh / LOS	51.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.10	B	1.88	B	2.31	B	2.47	B
Bicycle LOS Score / LOS	2.21	B	1.87	B	1.44	A	0.50	A

HCS7 Signalized Intersection Input Data

#6 w/o AM + Imp

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 w.o. Project + I...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3

Signal Information				Signal Phases																			
Cycle, s	140.0	Reference Phase	2	[Signal diagrams for EB, WB, NB, SB approaches]																			
Offset, s	0	Reference Point	End	Green	1.1	12.0	73.9	0.5	2.5	14.0	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0
Uncoordinated	No	Simult. Gap E/W	On																				
Force Mode	Fixed	Simult. Gap N/S	On																				

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1485	496	367	1227	1	218	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	80.0	25.0	85.0	15.0	20.0	15.0	20.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

#6 w/p

15 Min Period	Northbound				Southbound				Eastbound				Westbound				
	NBL	NBT	NRA	NLA	SBL	SBT	SRA	SAL	EBL	EBT	EBR	EBL	WBL	WBT	WBR	WBL	
7:00-7:15	335	1	135	3	2	1	3	137	33	137	45	234	5	615	2677		
7:15-7:30	353	0	43	1	2	1	4	112	55	64	152	3	594	2423			
7:30-7:45	315	1	106	0	0	7	1	561	77	92	145	1	714	2675			
7:45-8:00	342	1	124	4	0	4	4	381	70	56	138	6	714	3111			
8:00-8:15	310	1	55	2	0	3	8	323	41	49	121	2	561	1869			
8:15-8:30	315	0	93	1	0	8	11	334	47	55	143	3	576				
8:30-8:45	382	3	49	3	1	5	4	31	35	48	99	2	460				
8:45-9:00	34	0	13	0	0	3	1	92	52	43	154	2	310				

15 Min Period	Northbound				Southbound				Eastbound				Westbound				
15 Min Period	NBL	NBT	NRA	NLA	SBL	SBT	SRA	SAL	EBL	EBT	EBR	EBL	WBL	WBT	WBR	WBL	
4:00-4:15	50	1	55	0	2	0	0	1	143	71	54	95	0	483	2337		
4:15-4:30	41	0	78	0	1	0	0	30	95	106	143	1	505	2320			
4:30-4:45	54	0	78	0	1	1	1	117	89	63	128	0	513	2300			
4:45-5:00	51	0	86	0	0	0	1	145	133	85	95	0	547	2341			
5:00-5:15	43	0	63	0	1	2	3	94	98	86	145	1	526	2325			
5:15-5:30	57	0	107	0	0	0	1	153	137	92	134	0	608				
5:30-5:45	43	0	71	2	0	1	0	132	124	83	112	0	543				
5:45-6:00	41	1	74	0	0	0	1	109	82	75	105	2	671				

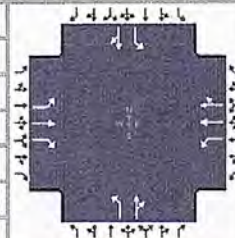
15 Min Period	Northbound				Southbound				Eastbound				Westbound				
15 Min Period	NBL	NBT	NRA	NLA	SBL	SBT	SRA	SAL	EBL	EBT	EBR	EBL	WBL	WBT	WBR	WBL	
8:00-8:15	205	0	307	2	1	3	5	514	442	343	323	1	2234				
8:15-8:30	195	0	307	2	1	3	5	514	442	343	323	1	2234				
8:30-8:45	210	0	311	2	1	3	5	554	476	357	344	1	2515				
8:45-9:00	206	0	306	2	1	3	5	521	474	346	323	0	2476				
9:00-9:15	205	0	306	2	1	3	5	521	474	346	323	0	2476				
9:15-9:30	205	0	306	2	1	3	5	521	474	346	323	0	2476				
9:30-9:45	205	0	306	2	1	3	5	521	474	346	323	0	2476				
9:45-10:00	205	0	306	2	1	3	5	521	474	346	323	0	2476				

CONTROL: TWSC
 ROADWAY TO SIGNAL: 1
 GROWTH RATE: 1.005
 YEAR GROWTH: 15
 VEHICLE LANE: 1.000
 VILLAGE AT MIDWAY: 716 1.324
 ITC BUNCH: 2320 2.970
 BENTLEY GROVE: 5,096 30,071
 WILSON GROVE: 4,561 5,809
 HAVENLAND/KENNEDY: 7,295 7,177
 WESTERN GROVE: 2,210 2,061
 KENNEDY: 77 44
 FROSTERS: 257 132

HCS7 Signalized Intersection Results Summary

#6 w/ PAM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information																								
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					
				Green	2.2	1.8	62.0	2.5	9.5	6.0	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0	2.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	8.2	68.0	16.0	75.8	24.0	27.5	8.5	12.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.4		12.0		22.0	18.9	3.0	3.6
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		1.00		1.00	0.06	0.00	0.07

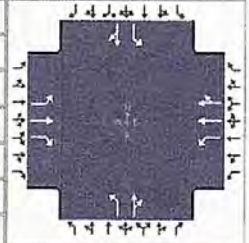
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1407	318	292	824	823	631	237		16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1899	1893	1810	1613		1810	1656	
Queue Service Time (g _s), s	0.4	63.0	14.3	10.0	37.7	37.9	20.0	16.9		1.0	1.6	
Cycle Queue Clearance Time (g _c), s	0.4	63.0	14.3	10.0	37.7	37.9	20.0	16.9		1.0	1.6	
Green Ratio (g/C)	0.54	0.53	0.53	0.62	0.59	0.59	0.25	0.18		0.07	0.05	
Capacity (c), veh/h	170	998	832	211	1120	1101	437	290		122	83	
Volume-to-Capacity Ratio (X)	0.081	1.411	0.382	1.383	0.736	0.748	1.444	0.818		0.129	0.280	
Back of Queue (Q), ft/ln (95 th percentile)	7.5	2932	226.2	690.5	566.6	569.3	1095.7	298.4		19.9	30.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.3	117.3	9.0	27.6	22.7	22.8	43.8	11.9		0.8	1.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	17.6	28.5	17.5	40.5	18.1	17.9	45.6	47.3		52.3	54.9	
Incremental Delay (d ₂), s/veh	0.1	190.9	1.3	199.3	4.3	4.7	212.5	10.6		0.2	0.7	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	17.6	219.4	18.8	239.7	22.4	22.5	258.1	57.9		52.5	55.6	
Level of Service (LOS)	B	F	B	F	C	C	F	E		D	E	
Approach Delay, s/veh / LOS	181.1		F	55.1		E	203.4		F	54.3		D
Intersection Delay, s/veh / LOS	131.0						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.27	B	1.89	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	3.36	C	2.09	B	1.92	B	0.55	A

HCS7 Signalized Intersection Input Data

#6 w/P AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information				Signal Diagram											
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	2.2	1.8	62.0	2.5	9.5	6.0									
Yellow	4.0	4.0	4.0	4.0	4.0	4.0									
Red	2.0	2.0	2.0	2.0	2.0	2.0									

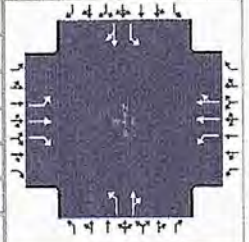
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	68.0	68.0	12.0	12.0	24.0	21.0	19.0	16.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (I _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0
Passage (P _T), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (P _C), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary # 6 w/p PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information				Phase Diagrams								
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	1.1	7.9	89.0	0.5	5.5	6.0				
		Yellow	4.0	4.0	4.0	4.0	0.0	4.0				
		Red	2.0	2.0	2.0	2.0	0.0	2.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	7.1	95.0	21.0	108.9	12.0	17.5	6.5	12.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.1		17.0		8.0	13.5	2.2	2.3
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	1.00	0.06	0.64

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1814	544	386	822	822	260	138		2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1900	1810	1610		1810	1674	
Queue Service Time (g _s), s	0.1	89.0	26.0	15.0	28.3	28.3	6.0	11.5		0.2	0.3	
Cycle Queue Clearance Time (g _c), s	0.1	89.0	26.0	15.0	28.3	28.3	6.0	11.5		0.2	0.3	
Green Ratio (g/C)	0.64	0.64	0.64	0.76	0.73	0.73	0.10	0.08		0.05	0.04	
Capacity (c), veh/h	226	1208	1023	245	1396	1396	187	133		58	72	
Volume-to-Capacity Ratio (X)	0.023	1.502	0.532	1.574	0.589	0.589	1.391	1.040		0.037	0.059	
Back of Queue (Q), ft/ln (95 th percentile)	2.5	4282.8	357.1	1051.5	396.3	396.2	557.3	318.2		3.2	6.5	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	171.3	14.3	42.1	15.9	15.8	22.3	12.7		0.1	0.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	9.9	25.5	14.0	53.8	8.7	8.7	64.8	64.2		63.9	64.3	
Incremental Delay (d ₂), s/veh	0.0	230.2	2.0	276.9	1.8	1.8	205.3	89.3		0.1	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	9.9	255.7	16.0	330.7	10.5	10.5	270.1	153.5		64.0	64.4	
Level of Service (LOS)	A	F	B	F	B	B	F	F		E	E	
Approach Delay, s/veh / LOS	199.9		F	71.4		E	229.7		F	64.3		E
Intersection Delay, s/veh / LOS	147.8						F					

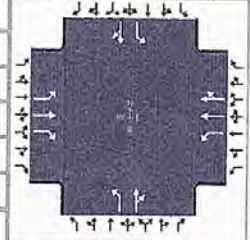
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.17	B	1.86	B	2.15	B	2.32	B
Bicycle LOS Score / LOS	4.39	D	2.16	B	1.14	A	0.50	A

HCS7 Signalized Intersection Input Data

#6 WIP PM

General Information

Agency	O'Rourke Engineering & Planning			Intersection Information			
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Duration, h	0.25		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	Area Type	Other		
Urban Street	Midway Road	Analysis Year	2035	PHF	0.95		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7...				
Project Description	with Project						



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information

Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	1.1	7.9	89.0	0.5	5.5	6.0						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	2.0	2.0	2.0	2.0	0.0	2.0						

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			0	L		None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information

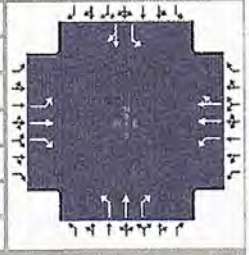
	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	84.0	95.0	21.0	32.0	12.0	12.0	12.0	12.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary # 6 w/p FNR AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....				
Project Description	with Project <i>FNR</i>						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

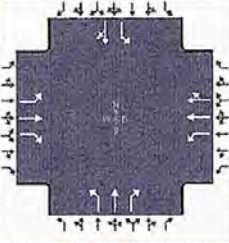
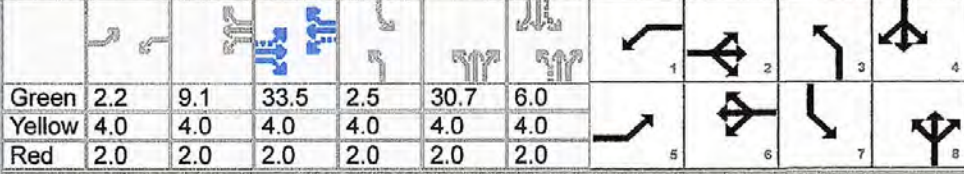
Signal Information				Signal Phases																				
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End	Green	2.2	9.1	33.5	2.5	30.7	6.0	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0	2.0
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	39.5	23.3	54.6	45.2	48.7	8.5	12.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.6		17.0		38.8	15.1	3.0	3.6
Green Extension Time (g _e), s	0.0	0.0	0.3	0.0	0.4	0.5	0.0	0.3
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		0.02		1.00	0.00	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1407	318	292	824	823	631	3	234	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1899	1893	1810	1900	1610	1810	1656	
Queue Service Time (g _s), s	0.6	34.5	21.3	15.0	49.6	49.6	36.8	0.1	13.1	1.0	1.6	
Cycle Queue Clearance Time (g _c), s	0.6	34.5	21.3	15.0	49.6	49.6	36.8	0.1	13.1	1.0	1.6	
Green Ratio (g/C)	0.30	0.29	0.29	0.44	0.41	0.41	0.43	0.36	0.36	0.07	0.05	
Capacity (c), veh/h	93	546	449	321	785	767	756	677	573	169	83	
Volume-to-Capacity Ratio (X)	0.147	2.577	0.707	0.908	1.050	1.074	0.834	0.005	0.407	0.094	0.280	
Back of Queue (Q), ft/ln (95 th percentile)	12.6	4883.3	355.6	306.5	1052.7	1112.3	579.5	2.6	213.9	19.8	30.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.5	195.3	14.2	12.3	42.1	44.5	23.2	0.1	8.6	0.8	1.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	34.5	42.8	38.9	35.0	35.2	35.2	30.4	24.9	29.1	52.3	54.9	
Incremental Delay (d ₂), s/veh	0.3	715.1	9.1	15.9	46.0	54.1	7.0	0.0	0.2	0.1	0.7	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	34.8	757.9	47.9	50.8	81.2	89.3	37.4	24.9	29.3	52.4	55.6	
Level of Service (LOS)	C	F	D	D	F	F	D	C	C	D	E	
Approach Delay, s/veh / LOS	622.4		F	80.1		F	35.1		D	54.3		D
Intersection Delay, s/veh / LOS	277.1						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.50	B	1.92	B	2.12	B	2.32	B
Bicycle LOS Score / LOS	3.36	C	2.09	B	1.92	B	0.55	A

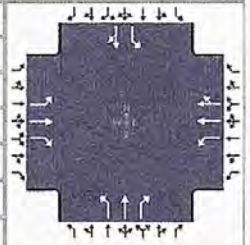
HCS7 Signalized Intersection Input Data #6 w/P +NBR AM

General Information				Intersection Information																				
Agency	O'Rourke Engineering & Planning			Duration, h	0.25																			
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other																			
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95																			
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00																			
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project - 7....																					
Project Description	with Project +NBR																							
Demand Information				EB			WB			NB			SB											
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18												
Signal Information																								
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On	Green	2.2	9.1	33.5	2.5	30.7	6.0	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0	2.0
Traffic Information				EB			WB			NB			SB											
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18												
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0												
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Parking (N _m), man/h	None			None			None			None														
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0												
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0												
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0												
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3												
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0												
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0												
Grade (Pg), %	0			0			0			0														
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45												
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT													
Maximum Green (G _{max}) or Phase Split, s	14.0	32.0	25.0	43.0	47.0	30.0	33.0	16.0																
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0																
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0																
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6																
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0																
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0																
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0																
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off																
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes																
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
Multimodal Information				EB			WB			NB			SB											
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25												
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0												
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No												
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0												
Pedestrian Signal / Occupied Parking	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50														

HCS7 Signalized Intersection Results Summary

6 w/ P + NB R2 PM

General Information				Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....		
Project Description	with Project + NB R2				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information				Signal Phases								
Cycle, s	140.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	1.1	18.2	64.0	0.5	14.3	6.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	2.0	2.0	2.0	2.0	2.0	2.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	70.0	31.3	94.2	26.7	32.2	6.5	12.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.2		27.3		20.7	12.7	2.2	2.3
Green Extension Time (g _e), s	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		1.00		1.00	0.00	0.00	0.16

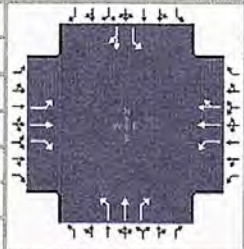
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1814	544	386	822	822	260	0	138	2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1900	1610	1810	1900	1900	1810	1900	1610	1810	1674	
Queue Service Time (g _s), s	0.2	64.0	38.8	25.3	39.5	39.5	18.7	0.0	10.7	0.2	0.3	
Cycle Queue Clearance Time (g _c), s	0.2	64.0	38.8	25.3	39.5	39.5	18.7	0.0	10.7	0.2	0.3	
Green Ratio (g/C)	0.47	0.46	0.46	0.65	0.63	0.63	0.21	0.19	0.19	0.05	0.04	
Capacity (c), veh/h	169	869	736	378	1197	1196	377	356	302	119	71	
Volume-to-Capacity Ratio (X)	0.031	2.088	0.739	1.022	0.687	0.687	0.689	0.000	0.457	0.018	0.059	
Back of Queue (Q), ft/ln (95 th percentile)	4.1	5878	556.9	645	588.3	588.3	338.5	0	191.1	3.2	6.5	
Back of Queue (Q), veh/ln (95 th percentile)	0.2	235.1	22.3	25.8	23.5	23.5	13.5	0.0	7.6	0.1	0.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	21.2	38.0	31.2	49.0	16.9	16.9	51.7	0.0	50.5	63.8	64.3	
Incremental Delay (d ₂), s/veh	0.0	493.6	6.6	51.9	3.2	3.2	3.9	0.0	0.4	0.0	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	21.2	531.6	37.7	100.9	20.1	20.1	55.5	0.0	50.9	63.8	64.4	
Level of Service (LOS)	C	F	D	F	C	C	E		D	E	E	
Approach Delay, s/veh / LOS	416.7		F	35.5		D	53.9		D	64.2		E
Intersection Delay, s/veh / LOS	224.8						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.39	B	1.89	B	2.14	B	2.32	B
Bicycle LOS Score / LOS	4.39	D	2.16	B	1.14	A	0.50	A

HCS7 Signalized Intersection Input Data

6 WPA + NBR PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project - 7....				
Project Description	with Project + NBR						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information				Signal Timing Diagram											
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	1.1	18.2	64.0	0.5	14.3	6.0									
Yellow	4.0	4.0	4.0	4.0	4.0	4.0									
Red	2.0	2.0	2.0	2.0	2.0	2.0									

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			0	L	None			
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

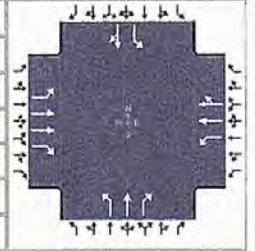
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	20.0	70.0	30.0	80.0	28.0	27.0	13.0	12.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (I _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#6 W/P + Imp AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project + I...				
Project Description	with Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information				Phase Diagrams									
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	2.2	7.4	49.4	2.5	16.5	6.0			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0			
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	8.2	55.4	21.6	68.8	31.0	34.5	8.5	12.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (g _s), s	2.5		15.2		29.0	17.5	3.0	3.6
Green Extension Time (g _e), s	0.0	0.0	0.4	0.0	0.0	0.5	0.0	0.4
Phase Call Probability	0.37		1.00		1.00	1.00	0.41	1.00
Max Out Probability	0.00		0.00		1.00	0.00	0.00	0.00

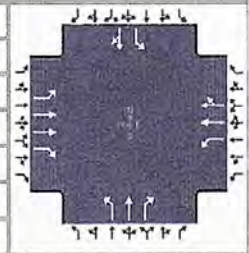
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	14	1407	318	292	824	823	631	3	234	16	23	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1899	1610	1810	1899	1893	1810	1900	1610	1810	1656	
Queue Service Time (g _s), s	0.5	41.0	17.4	13.2	43.1	43.2	27.0	0.2	15.5	1.0	1.6	
Cycle Queue Clearance Time (g _c), s	0.5	41.0	17.4	13.2	43.1	43.2	27.0	0.2	15.5	1.0	1.6	
Green Ratio (g/C)	0.43	0.42	0.42	0.56	0.53	0.53	0.31	0.24	0.24	0.07	0.05	
Capacity (c), veh/h	138	1594	663	322	1010	991	542	452	383	169	83	
Volume-to-Capacity Ratio (X)	0.099	0.883	0.480	0.905	0.816	0.831	1.163	0.007	0.610	0.094	0.280	
Back of Queue (Q), ft/ln (95 th percentile)	9.8	663.2	277.4	358.5	670.9	677	625.4	3.1	251.5	19.8	30.4	
Back of Queue (Q), veh/ln (95 th percentile)	0.4	26.5	11.1	14.3	26.8	27.1	25.0	0.1	10.1	0.8	1.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	24.1	32.5	25.9	33.0	23.6	23.3	41.9	34.9	40.8	52.3	54.9	
Incremental Delay (d ₂), s/veh	0.1	7.4	2.5	11.7	7.3	8.1	92.2	0.0	0.6	0.1	0.7	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	24.2	40.0	28.4	44.7	30.9	31.4	134.1	34.9	41.4	52.4	55.6	
Level of Service (LOS)	C	D	C	D	C	C	F	C	D	D	E	
Approach Delay, s/veh / LOS	37.7		D	33.2		C	108.7		F	54.3		D
Intersection Delay, s/veh / LOS	49.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.48	B	1.90	B	2.30	B	2.47	B
Bicycle LOS Score / LOS	1.92	B	2.09	B	1.92	B	0.55	A

HCS7 Signalized Intersection Input Data

6W1A+1MP PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - AM - 2035 with Project + I...				
Project Description	with Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18

Signal Information				Phase Diagrams							
Cycle, s	120.0	Reference Phase	2								
Offset, s	0	Reference Point	End	Green	2.2	7.4	49.4	2.5	16.5	6.0	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	2.0	2.0	2.0	2.0	

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	13	1337	302	277	1549	16	599	3	482	15	4	18
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	260	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

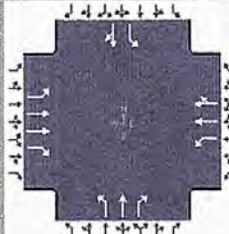
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	31.0	45.0	20.0	34.0	31.0	16.0	39.0	24.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	3.0	2.0	3.0	4.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

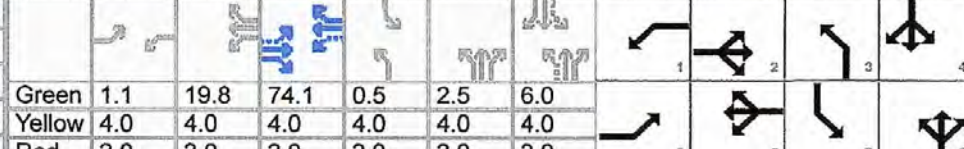
HCS7 Signalized Intersection Results Summary

#6 W/P + Imp PM

General Information					Intersection Information				
Agency	O'Rourke Engineering & Planning				Duration, h	0.25			
Analyst	James Kemp	Analysis Date	Apr 17, 2020		Area Type	Other			
Jurisdiction	St. Lucie	Time Period	PM Peak Hour		PHF	0.95			
Urban Street	Midway Road	Analysis Year	2035		Analysis Period	1 > 7:00			
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project + I...						
Project Description	with Project + Imp								



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information																
Cycle, s	140.0	Reference Phase	2	Green	1.1	19.8	74.1	0.5	2.5	6.0	Red	2.0	2.0	2.0	2.0	2.0
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	4.0	4.0	4.0	Red	2.0	2.0	2.0	2.0	2.0
Uncoordinated	No	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	3.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.1	80.1	32.9	105.9	15.0	20.5	6.5	12.0
Change Period, (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	0.0	3.0	0.0	3.0	3.3	3.0	3.3
Queue Clearance Time (gs), s	2.2		26.2		11.0	13.8	2.2	2.3
Green Extension Time (ge), s	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.2
Phase Call Probability	0.19		1.00		1.00	1.00	0.08	1.00
Max Out Probability	0.00		0.00		1.00	0.00	0.00	0.00

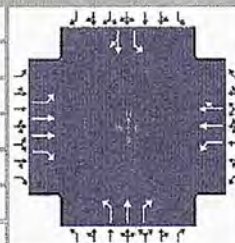
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	5	1814	544	386	822	822	260	0	138	2	4	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1810	1900	1900	1810	1900	1610	1810	1674	
Queue Service Time (gs), s	0.2	66.2	33.6	24.2	30.6	30.6	9.0	0.0	11.8	0.2	0.3	
Cycle Queue Clearance Time (gc), s	0.2	66.2	33.6	24.2	30.6	30.6	9.0	0.0	11.8	0.2	0.3	
Green Ratio (g/C)	0.54	0.53	0.53	0.74	0.71	0.71	0.12	0.10	0.10	0.05	0.04	
Capacity (c), veh/h	214	1915	852	414	1356	1356	226	197	167	119	71	
Volume-to-Capacity Ratio (X)	0.025	0.947	0.638	0.933	0.606	0.606	1.152	0.000	0.827	0.018	0.059	
Back of Queue (Q), ft/ln (95 th percentile)	3.5	968.9	472.4	487.1	434.2	434.1	403.2	0	213.3	3.2	6.5	
Back of Queue (Q), veh/ln (95 th percentile)	0.1	38.8	18.9	19.5	17.4	17.4	16.1	0.0	8.5	0.1	0.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d1), s/veh	15.2	31.1	23.4	46.9	10.1	10.1	62.8	0.0	61.5	63.8	64.3	
Incremental Delay (d2), s/veh	0.0	11.4	3.6	4.3	2.0	2.0	107.2	0.0	3.9	0.0	0.1	
Initial Queue Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	15.2	42.5	27.1	51.2	12.1	12.1	170.0	0.0	65.4	63.8	64.4	
Level of Service (LOS)	B	D	C	D	B	B	F		E	E	E	
Approach Delay, s/veh / LOS	38.9		D	19.6		B	133.8		F	64.2		E
Intersection Delay, s/veh / LOS	38.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.38	B	1.87	B	2.32	B	2.48	B
Bicycle LOS Score / LOS	2.44	B	2.16	B	1.14	A	0.50	A

HCS7 Signalized Intersection Input Data

#6 WP + Imp PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 17, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	East Torino Pkwy	File Name	Torino Pkwy Midway - PM - 2035 with Project + I...				
Project Description	with Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	140.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On	Green	1.1	19.8	74.1	0.5	2.5	6.0					
		Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	4.0	4.0					
Force Mode	Fixed			Red	2.0	2.0	2.0	2.0	2.0	2.0					

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	1723	517	367	1561	1	247	0	331	2	1	3
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			0	L		None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0	0	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	200	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0	0	0	0	
Grade (P _g), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	13.0	27.0	74.0	88.0	15.0	22.0	17.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	6	6	6	6	6	6	6
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
	85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

#7 E

N/S STREET: Selwitz Rd
 FILENAME: Willow Lakes
 COUNT DATE: 2/13/2020
 REPORT DATE: 2/13/2020
 DAY: Tuesday
 ANALYSIS YEAR: 2020
 CITY: St Louis
 CONTROL: Signalized
 EW STREET: Midway Rd

15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EER	WBL	WBT	WBR	TOTAL		
7:00-7:15	45	71	24	13	24	32	32	30	156	33	33	9	148	21	651		
7:15-7:30	63	81	22	15	32	27	27	44	183	28	28	18	145	23	681		
7:30-7:45	67	122	22	37	39	22	22	59	151	32	32	22	213	21	807		
7:45-8:00	74	127	24	19	60	28	28	53	182	18	18	40	193	26	843		
8:00-8:15	54	52	11	21	31	20	20	40	173	28	28	16	168	13	627		
8:15-8:30	52	59	23	13	28	20	20	34	127	26	26	17	167	10	576		
8:30-8:45	60	57	23	12	33	25	25	30	151	29	29	7	111	22	560		
8:45-9:00	38	39	23	15	15	15	15	30	150	30	30	10	116	17	502		

AM PEAK HOURS FROM: 7:00AM TO 8:00AM
 Volumes: 249 401 92 83 155 109 109 111 111 88 699 91 2982
 Season Factor: 1
 Growth Rate: 1
 Years Growth: 0
 In/Out: IN - - - - - IN - - - - - IN - - - - - IN - - - - -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



15 Min Period	Northbound				Southbound				Eastbound				Westbound				ONE HOUR SUM
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EBT	EER	WBL	WBT	WBR	TOTAL		
4:00-4:15	52	57	12	24	55	39	39	31	186	58	58	35	173	10	732		
4:15-4:30	72	56	17	15	66	27	27	36	159	44	44	37	154	16	699		
4:30-4:45	48	49	22	20	69	21	21	52	151	74	74	26	162	8	702		
4:45-5:00	57	40	13	16	73	22	22	35	157	75	75	29	144	16	677		
5:00-5:15	24	48	7	33	86	23	23	16	100	85	85	23	157	14	716		
5:15-5:30	49	44	18	13	82	25	25	41	182	90	90	34	166	16	760		
5:30-5:45	30	46	6	14	55	22	22	29	159	64	64	28	143	13	609		
5:45-6:00	44	42	11	11	53	12	12	25	122	59	59	29	129	13	550		

PM PEAK HOURS FROM: 4:30 PM TO 5:30PM
 Volumes: 178 181 60 82 310 91 91 154 680 324 112 629 54 2855
 Season Factor: 1
 Growth Rate: 1
 Years Growth: 0
 In/Out: IN - - - - - IN - - - - - IN - - - - - IN - - - - -
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



St. Lucie County

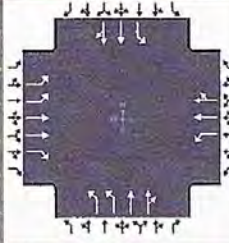

00026 - MIDWAY RD @ SELVITZ RD -- Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	10	10	12	10	10	10	10	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	24	0	26	0	26	0	29	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	3.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	14	60	22	24	13	60	16	24	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	O'Rourke Engineering & Planning			Duration, h	0.25	
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other	
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88	
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1 > 7:00	
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - Existing - 6.2.2020.xus			
Project Description	Existing + Committed					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	185	712	111	89	699	91	249	401	92	89	155	109

Signal Information													
Cycle, s	82.6	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On	Green	9.0	1.0	14.7	9.0	2.9	22.0			
		Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0			
Force Mode	Fixed			Red	2.0	0.0	2.0	2.0	0.0	2.0			

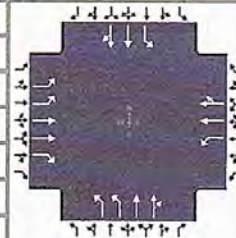
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	17.9	30.9	15.0	28.0	16.0	21.6	15.0	20.7
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g _s), s	6.5	18.6	6.4	21.3	8.4	14.1	6.4	8.5
Green Extension Time (g _e), s	0.4	2.3	0.1	0.7	0.3	1.5	0.1	1.5
Phase Call Probability	0.99	1.00	0.90	1.00	1.00	1.00	0.90	1.00
Max Out Probability	0.00	0.63	0.00	1.00	0.07	0.00	0.01	0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	210	809	126	101	458	440	283	288	272	101	156	144
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1810	1900	1823	1757	1900	1777	1810	1900	1646
Queue Service Time (g _s), s	4.5	16.6	4.9	4.4	19.2	19.3	6.4	11.9	12.1	4.4	6.1	6.5
Cycle Queue Clearance Time (g _c), s	4.5	16.6	4.9	4.4	19.2	19.3	6.4	11.9	12.1	4.4	6.1	6.5
Green Ratio (g/C)	0.14	0.30	0.30	0.11	0.27	0.27	0.12	0.19	0.19	0.11	0.18	0.18
Capacity (c), veh/h	507	1090	485	198	506	486	425	360	337	198	338	293
Volume-to-Capacity Ratio (X)	0.415	0.742	0.260	0.512	0.905	0.905	0.666	0.799	0.808	0.512	0.461	0.492
Back of Queue (Q), ft/ln (95 th percentile)	81.4	279.4	77.4	83.1	390.8	380.1	116.7	225.4	216.9	83.1	118.4	110.4
Back of Queue (Q), veh/ln (95 th percentile)	3.3	11.2	3.1	3.3	15.6	15.2	4.7	9.0	8.7	3.3	4.7	4.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	32.2	26.0	21.9	34.7	29.3	29.3	34.7	32.0	32.0	34.7	30.4	30.6
Incremental Delay (d ₂), s/veh	0.2	2.5	0.1	0.8	16.7	17.3	0.7	1.6	1.8	0.8	0.4	0.5
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	32.4	28.4	22.0	35.5	46.0	46.6	35.4	33.5	33.8	35.5	30.8	31.1
Level of Service (LOS)	C	C	C	D	D	D	D	C	C	D	C	C
Approach Delay, s/veh / LOS	28.4		C	45.2		D	34.2		C	32.1		C
Intersection Delay, s/veh / LOS	35.3						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.29	B	2.58	C
Bicycle LOS Score / LOS	1.43	A	1.31	A	1.18	A	0.82	A

HCS7 Signalized Intersection Input Data

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.88		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - Existing - 6.2.2020.xus				
Project Description	Existing + Committed						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	185	712	111	89	699	91	249	401	92	89	155	109

Signal Information																	
Cycle, s	82.6	Reference Phase	2	Green		Yellow		Red		1		2		3		4	
Offset, s	0	Reference Point	End	9.0	1.0	14.7	9.0	2.9	22.0	5		6		7		8	
Uncoordinated	Yes	Simult. Gap E/W	On	4.0	0.0	4.0	4.0	0.0	4.0	5		6		7		8	
Force Mode	Fixed	Simult. Gap N/S	On	2.0	0.0	2.0	2.0	0.0	2.0	5		6		7		8	

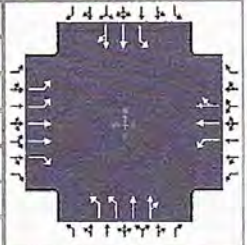
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	185	712	111	89	699	91	249	401	92	89	155	109
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	22.0	24.0	16.0	24.0	14.0	60.0	13.0	60.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0		0.0		0.0		0.0	
Pedestrian Clearance Time (PC), s	0.0		0.0		0.0		0.0	

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

General Information					Intersection Information				
Agency	O'Rourke Engineering & Planning				Duration, h	0.25			
Analyst	James Kemp	Analysis Date	Apr 15, 2020		Area Type	Other			
Jurisdiction	St. Lucie	Time Period	PM Peak Hour		PHF	0.94			
Urban Street	Midway Rd	Analysis Year	2020		Analysis Period	1> 7:00			
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - Existing - 6.2.2020.xus						
Project Description	Existing								



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	154	680	324	112	629	54	178	181	60	82	310	91

Signal Information																	
Cycle, s	76.0	Reference Phase	2	Green		Yellow		Red		1		2		3		4	
Offset, s	0	Reference Point	End														
Uncoordinated	Yes	Simult. Gap E/W	On	5		6		7		8		9		10		11	
Force Mode	Fixed	Simult. Gap N/S	On														

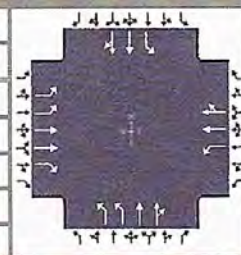
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	17.6	27.2	15.2	24.7	15.8	19.2	14.4	17.8
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g _s), s	5.1	16.9	6.7	15.8	5.8	6.9	5.4	10.6
Green Extension Time (g _e), s	0.3	2.7	0.1	2.9	0.2	1.2	0.1	1.2
Phase Call Probability	0.97	1.00	0.92	1.00	0.98	1.00	0.84	1.00
Max Out Probability	0.00	0.46	0.00	0.37	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	164	723	345	119	368	358	189	131	126	87	219	207
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1810	1900	1847	1757	1900	1741	1810	1900	1753
Queue Service Time (g _s), s	3.1	13.7	14.9	4.7	13.8	13.8	3.8	4.6	4.9	3.4	8.4	8.6
Cycle Queue Clearance Time (g _c), s	3.1	13.7	14.9	4.7	13.8	13.8	3.8	4.6	4.9	3.4	8.4	8.6
Green Ratio (g/C)	0.15	0.28	0.28	0.12	0.25	0.25	0.13	0.17	0.17	0.11	0.16	0.16
Capacity (c), veh/h	538	1008	449	219	469	456	454	330	302	201	295	272
Volume-to-Capacity Ratio (X)	0.305	0.718	0.768	0.544	0.786	0.787	0.417	0.397	0.415	0.435	0.744	0.762
Back of Queue (Q), ft/ln (95th percentile)	55.8	233.2	242.4	88.2	255.1	250.7	67.4	88.8	85.7	64.1	164.3	156.5
Back of Queue (Q), veh/ln (95th percentile)	2.2	9.3	9.7	3.5	10.2	10.0	2.7	3.6	3.4	2.6	6.6	6.3
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	28.6	24.7	25.2	31.4	26.7	26.8	30.4	27.9	28.0	31.6	30.6	30.7
Incremental Delay (d ₂), s/veh	0.1	1.5	5.2	0.8	3.9	4.1	0.2	0.3	0.3	0.6	1.4	1.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	28.7	26.2	30.3	32.2	30.6	30.8	30.7	28.1	28.3	32.1	32.1	32.4
Level of Service (LOS)	C	C	C	C	C	C	C	C	C	C	C	C
Approach Delay, s/veh / LOS	27.7	C		30.9	C		29.3	C		32.2	C	
Intersection Delay, s/veh / LOS	29.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.29	B	2.58	C
Bicycle LOS Score / LOS	1.50	B	1.19	A	0.86	A	0.91	A

HCS7 Signalized Intersection Input Data

General Information					Intersection Information	
Agency	O'Rourke Engineering & Planning			Duration, h	0.25	
Analyst	James Kemp	Analysis Date	Apr 15, 2020		Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour		PHF	0.94
Urban Street	Midway Rd	Analysis Year	2020		Analysis Period	1 > 7:00
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - Existing - 6.2.2020.xus			
Project Description	Existing					



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	154	680	324	112	629	54	178	181	60	82	310	91

Signal Information												
Cycle, s	76.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									

Green
8.4 1.4 11.8 9.2 2.4 18.7
Yellow
4.0 0.0 4.0 4.0 0.0 4.0
Red
2.0 0.0 2.0 2.0 0.0 2.0

1
2
3
4
5
6
7
8

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	154	680	324	112	629	54	178	181	60	82	310	91
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	22.0	24.0	16.0	24.0	14.0	60.0	13.0	60.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (I _l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

#E7 w/o

TURNING MOVEMENT VOLUME COUNTS

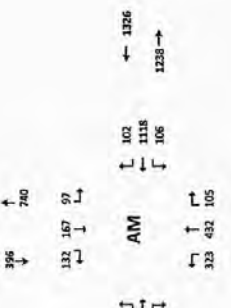
CONTROL: Signalized

SWIFT ST
WILSON LANE
1/21/2020

ENWY STREET - MILWAUKEE RD
CITY: STURIS

DATE: Tuesday
ANALYSIS YEAR: 2035

ISLW Period	Northbound				Southbound				Eastbound				Westbound				TOTAL HOUR SUM
	NBL	NBT	NBR	NLA	SBL	SBT	SBR	SBA	EBL	EBT	EBR	EBL	WBL	WBT	WBR	WBA	
7:00-7:15	45	71	24	18	31	24	31	30	106	33	8	248	21	631	381		
7:15-7:30	61	81	21	15	44	33	27	44	103	28	18	145	23	481	296		
7:30-7:45	67	122	22	37	39	22	59	101	107	10	14	219	21	807	261		
7:45-8:00	74	127	24	19	50	28	51	102	118	18	40	159	26	849	268		
8:00-8:15	54	53	13	21	31	25	40	173	28	16	108	13	837	205			
8:15-8:30	52	58	23	15	33	26	34	177	18	17	107	10	576				
8:30-8:45	60	57	23	12	31	35	36	151	29	7	111	22	560				
8:45-9:00	38	35	23	19	35	15	36	150	30	18	116	17	501				



AM PEAK HOUR IS FROM:

Volumes	249	421	81	89	135	129	135	712	111	69	699	91	2581
Seasonal Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

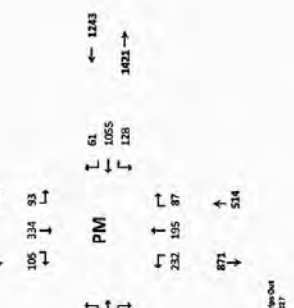
AM PEAK HOUR IS FROM:

Volumes	249	421	81	89	135	129	135	712	111	69	699	91	2581
Seasonal Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

F-138

PM PEAK HOUR IS FROM:

Volumes	178	381	66	82	310	91	154	690	324	132	629	54	2625
Seasonal Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

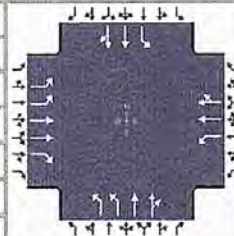


PM PEAK HOUR IS FROM:

Volumes	178	381	66	82	310	91	154	690	324	132	629	54	2625
Seasonal Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Time Day	1	1	1	1	1	1	1	1	1	1	1	1	1
Year Class	15	15	15	15	15	15	15	15	15	15	15	15	15
Future Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 w.o. Project - 7.10.2...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	205	1035	163	106	1118	102	323	442	105	97	167	132

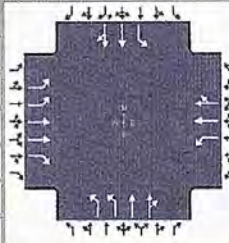
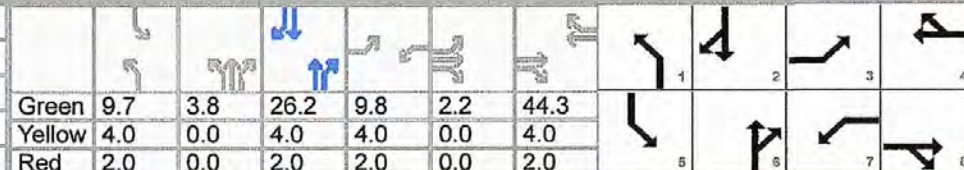
Signal Information				Phase Diagrams										
Cycle, s	120.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On	Green	9.7	3.8	26.2	9.8	2.2	44.3	1	2	3	4
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8
				Red	2.0	0.0	2.0	2.0	0.0	2.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	52.6	15.8	50.3	19.4	36.0	15.7	32.2
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	9.1	33.6	9.2	41.6	13.4		8.6	
Green Extension Time (g _e), s	0.2	5.7	0.1	2.8	0.0	0.0	0.1	0.0
Phase Call Probability	1.00	1.00	0.98	1.00	1.00		0.97	
Max Out Probability	0.11	0.30	0.10	0.86	1.00		0.06	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	216	1089	172	112	651	633	340	296	280	102	164	151
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1810	1900	1844	1757	1900	1774	1810	1900	1629
Queue Service Time (g _s), s	7.1	31.6	8.8	7.2	39.4	39.6	11.4	16.6	16.8	6.6	8.9	9.5
Cycle Queue Clearance Time (g _c), s	7.1	31.6	8.8	7.2	39.4	39.6	11.4	16.6	16.8	6.6	8.9	9.5
Green Ratio (g/C)	0.10	0.39	0.39	0.08	0.37	0.37	0.11	0.25	0.25	0.08	0.22	0.22
Capacity (c), veh/h	351	1404	625	147	702	681	394	475	443	146	415	356
Volume-to-Capacity Ratio (X)	0.615	0.776	0.275	0.758	0.927	0.930	0.864	0.624	0.631	0.700	0.395	0.423
Back of Queue (Q), ft/ln (95 th percentile)	139.1	490.9	146.1	153.9	701.4	691.1	243.8	326.3	314.1	136.1	194.6	184.2
Back of Queue (Q), veh/ln (95 th percentile)	5.6	19.6	5.8	6.2	28.1	27.6	9.8	13.1	12.6	5.4	7.8	7.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	51.8	32.1	25.1	54.0	36.3	36.3	52.4	40.0	40.1	53.8	40.1	40.4
Incremental Delay (d ₂), s/veh	1.0	2.3	0.1	4.9	17.2	18.0	16.5	6.1	6.7	2.3	2.8	3.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	52.8	34.5	25.2	58.8	53.4	54.3	68.9	46.1	46.7	56.0	42.9	44.0
Level of Service (LOS)	D	C	C	E	D	D	E	D	D	E	D	D
Approach Delay, s/veh / LOS	36.1		D	54.3		D	54.8		D	46.5		D
Intersection Delay, s/veh / LOS	47.2						D					

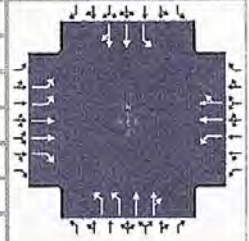
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.30	B	2.60	C
Bicycle LOS Score / LOS	1.71	B	1.64	B	1.24	A	0.83	A

HCS7 Signalized Intersection Input Data

General Information				Intersection Information											
Agency	O'Rourke Engineering & Planning			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other										
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95										
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 w.o. Project + Imp - ...												
Project Description	without Project + Improvements														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				205	1035	163	106	1118	102	323	442	105	97	167	132
Signal Information															
Cycle, s	120.0	Reference Phase	2	Green	9.7	3.8	26.2	9.8	2.2	44.3					
Offset, s	0	Reference Point	End	Yellow	4.0	0.0	4.0	4.0	0.0	4.0					
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	0.0	2.0	2.0	0.0	2.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				205	1035	163	106	1118	102	323	442	105	97	167	132
Initial Queue (Qb), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (so), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (Nm), man/h				None			None			None			None		
Heavy Vehicles (PHV), %				0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h				0	0	0	0	0	0	0	0	0	0	0	0
Buses (Nb), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft				0	0	0	0	0		0	0		0	0	
Grade (Pg), %				0			0			0			0		
Speed Limit, mi/h				45	45	45	45	45	45	45	45	45	45	45	45
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (Gmax) or Phase Split, s				20.0	50.0	20.0	50.0	18.0	32.0	18.0	32.0				
Yellow Change Interval (Y), s				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Red Clearance Interval (Rc), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Minimum Green (Gmin), s				12	10	10	10	10	10	10	10				
Start-Up Lost Time (lf), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Extension of Effective Green (e), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Passage (PT), s				2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0				
Recall Mode				Off	Off	Off	Off	Off	Min	Off	Min				
Dual Entry				No	Yes	No	Yes	No	Yes	No	Yes				
Walk (Walk), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Pedestrian Clearance Time (PC), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50	No	0.50	No	0.50	No	0.50	No	0.50		

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - 2035 w.o. Project - 7.10....				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	184	1241	409	128	1055	61	232	195	87	93	334	105

Signal Information				EB				WB				NB				SB								
Cycle, s	120.0	Reference Phase	2	[Diagram]				[Diagram]				[Diagram]				[Diagram]								
Offset, s	0	Reference Point	End	Green	9.6	0.7	28.7	10.7	1.3	45.0	Yellow	4.0	0.0	4.0	4.0	0.0	4.0	Red	2.0	0.0	2.0	2.0	0.0	2.0
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					

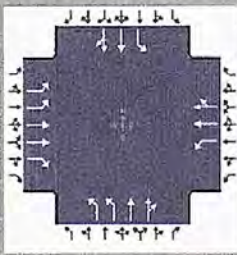
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	52.3	16.7	51.0	16.3	35.4	15.6	34.7
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	8.3	43.7	10.8	36.1	10.2		8.3	
Green Extension Time (g _e), s	0.2	2.6	0.1	5.5	0.2	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.99	1.00	1.00		0.96	
Max Out Probability	0.04	0.95	0.79	0.58	1.00		0.10	

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	194	1306	431	135	593	582	244	153	144	98	238	224
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1810	1900	1863	1757	1900	1705	1810	1900	1745
Queue Service Time (g _s), s	6.3	41.7	26.9	8.8	34.0	34.1	8.2	7.9	8.4	6.3	13.1	13.4
Cycle Queue Clearance Time (g _c), s	6.3	41.7	26.9	8.8	34.0	34.1	8.2	7.9	8.4	6.3	13.1	13.4
Green Ratio (g/C)	0.10	0.39	0.39	0.09	0.38	0.38	0.09	0.24	0.24	0.08	0.24	0.24
Capacity (c), veh/h	351	1395	621	162	713	699	303	465	418	145	454	417
Volume-to-Capacity Ratio (X)	0.552	0.937	0.693	0.833	0.832	0.833	0.807	0.328	0.345	0.675	0.525	0.537
Back of Queue (Q), ft/ln (95th percentile)	123.1	669.6	392.1	202.7	575.1	566.9	173.5	172.6	164.9	129.7	266.5	256.1
Back of Queue (Q), veh/ln (95th percentile)	4.9	26.8	15.7	8.1	23.0	22.7	6.9	6.9	6.6	5.2	10.7	10.2
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	51.5	35.5	30.9	53.8	34.1	34.1	53.8	37.2	37.4	53.7	39.7	39.9
Incremental Delay (d ₂), s/veh	0.5	11.5	2.6	15.4	7.5	7.7	7.7	1.9	2.3	2.0	4.3	4.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	52.0	47.0	33.6	69.2	41.5	41.7	61.6	39.1	39.6	55.7	44.0	44.8
Level of Service (LOS)	D	D	C	E	D	D	E	D	D	E	D	D
Approach Delay, s/veh / LOS	44.5		D	44.5		D	49.4		D	46.4		D
Intersection Delay, s/veh / LOS	45.3						D					

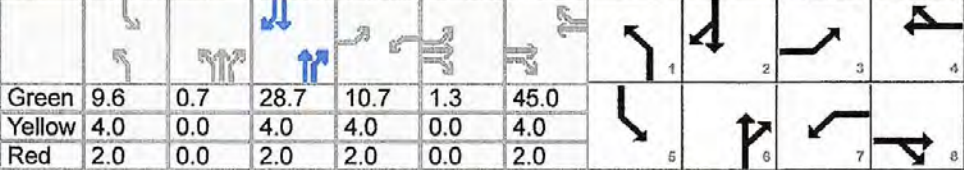
Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.44	B	2.28	B	2.30	B	2.59	C
Bicycle LOS Score / LOS	2.08	B	1.57	B	0.93	A	0.95	A

HCS7 Signalized Intersection Input Data

General Information						Intersection Information					
Agency	O'Rourke Engineering & Planning					Duration, h	0.25				
Analyst	James Kemp	Analysis Date	Apr 15, 2020			Area Type	Other				
Jurisdiction	St. Lucie	Time Period	PM Peak Hour			PHF	0.95				
Urban Street	Midway Rd	Analysis Year	2035			Analysis Period	1 > 7:00				
Intersection	Selvitz Rd	File Name	Selvitz & Midway - PM - 2035 w.o. Project - 7.10....								
Project Description	without Project										



Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				184	1241	409	128	1055	61	232	195	87	93	334	105

Signal Information				Signal Diagram											
Cycle, s	120.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	9.6	0.7	28.7	10.7	1.3	45.0									
Yellow	4.0	0.0	4.0	4.0	0.0	4.0									
Red	2.0	0.0	2.0	2.0	0.0	2.0									

Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				184	1241	409	128	1055	61	232	195	87	93	334	105
Initial Queue (Q ₀), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h				None			None			None			None		
Heavy Vehicles (P _{HV}), %				0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h				0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft				0	0	0	0	0		0	0		0	0	
Grade (Pg), %				0			0			0			0		
Speed Limit, mi/h				45	45	45	45	45	45	45	45	45	45	45	45

Phase Information		EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		20.0	50.0	20.0	50.0	18.0	32.0	18.0	32.0
Yellow Change Interval (Y), s		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s		12	10	10	10	10	10	10	10
Start-Up Lost Time (l _t), s		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode		Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry		No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50		No	0.50		No	0.50		No	0.50	

This page intentionally left blank.

TURNING MOVEMENT VOLUME COUNTS

#7 W/P

CONTRACT: Squigline

SUBJECT: Willow Lakes

ENGINEER: McQuay-JR

CITY: St. Louis

DATE: Tuesday

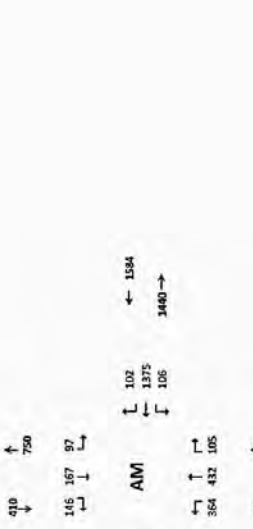
ANALYSIS YEAR: 2015

REPORT DATE:

15 Min Period

5-00-15	5-15-15	5-30-15	5-45-15	6-00-15	6-15-15	6-30-15	6-45-15
145	157	97	102	137	105	432	105

Dir	Southbound			Eastbound			Westbound			ONE WAY
	NBL	SBL	SLT	EBL	EBT	EBR	WBL	WBT	WBR	
45	71	24	34	30	186	33	9	343	21	651
63	48	22	33	44	183	26	18	341	23	648
87	312	32	37	57	151	31	21	233	21	867
74	327	34	39	53	182	45	45	333	35	848
54	34	11	23	29	43	173	29	34	168	627
51	24	23	23	29	34	127	34	17	187	626
61	27	23	22	23	28	151	29	7	111	323
38	29	23	23	23	20	159	28	10	115	321



Seasonal Factor	1
Peak-Hour Factor	1.005
Year Growth	3%
Winter Adjustment	1.035
Winter Adjustment	1.051
Winter Adjustment	1.024
Southern Growth	3.373
Winter Growth	3.087
Eastbound/Thruway	6.291
Western Growth	1.352
Bonus	21
Forecast	58

TOURNA TO SOUTH

Southbound	Eastbound	Westbound
349	401	62
249	401	62
249	401	62
249	401	62
249	401	62
249	401	62
249	401	62
249	401	62
249	401	62
249	401	62

ALL 15 MIN HOUR VOLUME

Volume	249
Season Factor	1
In/Out	1
Percentage	100%
Predict	1
McQuay's	1
Village at Midway	1
LTC Beach 'N	1
LTC Beach Volume	1
Southern Growth	1
Wilson Growth	1
Wilson Growth	1
Westland/Granada	1
Westland/Granada	1
Western Growth	1
Western Growth	1
Bonus	1
Forecast	1
Forecast	1

Dir	Southbound			Eastbound			Westbound			ONE WAY
NBL	SBL	SLT	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
51	97	12	34	31	186	33	9	343	21	651
72	58	17	33	44	183	26	18	341	23	648
85	61	18	36	57	154	31	21	233	21	867
37	46	13	35	53	182	45	45	333	35	848
24	41	7	33	29	43	173	29	34	168	627
49	41	18	33	29	34	127	34	17	187	626
30	46	6	34	28	159	28	10	115	323	
44	43	11	23	23	20	159	28	10	115	321

ALL 15 MIN HOUR VOLUME

Volume	349
Season Factor	1
In/Out	1
Percentage	100%
Predict	1
McQuay's	1
Village at Midway	1
LTC Beach 'N	1
LTC Beach Volume	1
Southern Growth	1
Wilson Growth	1
Wilson Growth	1
Westland/Granada	1
Westland/Granada	1
Western Growth	1
Western Growth	1
Bonus	1
Forecast	1
Forecast	1

Seasonal Factor	1
Peak-Hour Factor	1.005
Year Growth	3%
Winter Adjustment	1.035
Winter Adjustment	1.051
Southern Growth	3.373
Winter Growth	3.087
Eastbound/Thruway	6.291
Western Growth	1.352
Bonus	21
Forecast	58

ALL 15 MIN HOUR VOLUME

Volume	249
Season Factor	1
In/Out	1
Percentage	100%
Predict	1
McQuay's	1
Village at Midway	1
LTC Beach 'N	1
LTC Beach Volume	1
Southern Growth	1
Wilson Growth	1
Wilson Growth	1
Westland/Granada	1
Westland/Granada	1
Western Growth	1
Western Growth	1
Bonus	1
Forecast	1
Forecast	1

ALL 15 MIN HOUR VOLUME

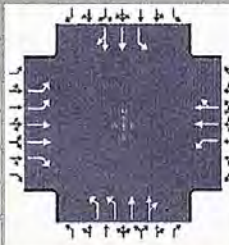
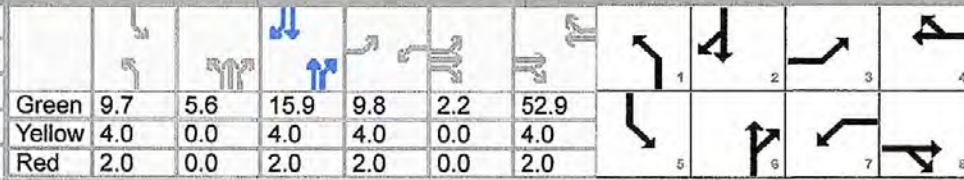
Volume	349
Season Factor	1
In/Out	1
Percentage	100%
Predict	1
McQuay's	1
Village at Midway	1
LTC Beach 'N	1
LTC Beach Volume	1
Southern Growth	1
Wilson Growth	1
Wilson Growth	1
Westland/Granada	1
Westland/Granada	1
Western Growth	1
Western Growth	1
Bonus	1
Forecast	1
Forecast	1

Dir	Southbound			Eastbound			Westbound			ONE WAY
NBL	SBL	SLT	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	
51	97	12	34	31	186	33	9	343	21	651
72	58	17	33	44	183	26	18	341	23	648
85	61	18	36	57	154	31	21	233	21	867
37	46	13	35	53	182	45	45	333	35	848
24	41	7	33	29	43	173	29	34	168	627
49	41	18	33	29	34	127	34	17	187	626
30	46	6	34	28	159	28	10	115	323	
44	43	11	23	23	20	159	28	10	115	321

ALL 15 MIN HOUR VOLUME

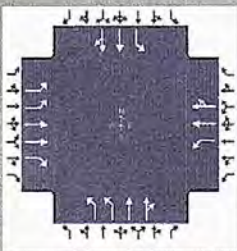
Volume	349
Season Factor	1
In/Out	1
Percentage	100%
Predict	1
McQuay's	1
Village at Midway	1
LTC Beach 'N	1
LTC Beach Volume	1
Southern Growth	1
Wilson Growth	1
Wilson Growth	1
Westland/Granada	1
Westland/Granada	1
Western Growth	1
Western Growth	1
Bonus	1
Forecast	1
Forecast	1

HCS7 Signalized Intersection Results Summary

General Information						Intersection Information													
Agency		O'Rourke Engineering & Planning				Duration, h		0.25											
Analyst		James Kemp		Analysis Date		Apr 15, 2020		Area Type								Other			
Jurisdiction		St. Lucie		Time Period		AM Peak Hour		PHF								0.95			
Urban Street		Midway Rd		Analysis Year		2035		Analysis Period								1 > 7:00			
Intersection		Selvitz Rd		File Name		Selvitz & Midway - AM - 2035 with Project - 7.9.20...													
Project Description		with Project																	
Demand Information				EB			WB			NB			SB						
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R				
Demand (v), veh/h				216	1237	195	106	1375	102	364	432	105	97	167	146				
Signal Information																			
Cycle, s		120.0	Reference Phase													2			
Offset, s		0	Reference Point													End			
Uncoordinated		No	Simult. Gap E/W													On			
Force Mode		Fixed	Simult. Gap N/S													On			
				Green	9.7	5.6	15.9	9.8	2.2	52.9									
				Yellow	4.0	0.0	4.0	4.0	0.0	4.0									
				Red	2.0	0.0	2.0	2.0	0.0	2.0									
Timer Results				EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT	
Assigned Phase				3		8		7		4		1		6		5		2	
Case Number				2.0		3.0		2.0		4.0		2.0		4.0		2.0		4.0	
Phase Duration, s				18.0		61.1		15.8		58.9		21.3		27.5		15.7		21.9	
Change Period, (Y+R c), s				6.0		6.0		6.0		6.0		6.0		6.0		6.0		6.0	
Max Allow Headway (MAH), s				3.0		3.0		3.0		3.0		3.0		0.0		3.0		0.0	
Queue Clearance Time (g s), s				9.5		38.5		9.2		49.8		14.8				8.6			
Green Extension Time (g e), s				0.2		8.0		0.1		3.0		0.5		0.0		0.1		0.0	
Phase Call Probability				1.00		1.00		0.98		1.00		1.00				0.97			
Max Out Probability				0.56		0.37		0.00		0.92		0.14				0.00			
Movement Group Results				EB			WB			NB			SB						
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R				
Assigned Movement				3	8	18	7	4	14	1	6	16	5	2	12				
Adjusted Flow Rate (v), veh/h				227	1302	205	112	784	771	383	291	274	102	173	157				
Adjusted Saturation Flow Rate (s), veh/h/ln				1757	1809	1610	1810	1900	1854	1757	1900	1772	1810	1900	1615				
Queue Service Time (g s), s				7.5	36.5	9.5	7.2	47.1	47.8	12.8	17.8	18.1	6.6	10.4	11.2				
Cycle Queue Clearance Time (g c), s				7.5	36.5	9.5	7.2	47.1	47.8	12.8	17.8	18.1	6.6	10.4	11.2				
Green Ratio (g/C)				0.10	0.46	0.46	0.08	0.44	0.44	0.13	0.18	0.18	0.08	0.13	0.13				
Capacity (c), veh/h				351	1661	739	147	837	817	447	340	317	146	251	213				
Volume-to-Capacity Ratio (X)				0.647	0.784	0.278	0.758	0.936	0.944	0.856	0.856	0.866	0.700	0.687	0.735				
Back of Queue (Q), ft/ln (95 th percentile)				149.9	540.2	153.8	150.4	802	804.9	249.3	391	379.7	136.1	244	237.1				
Back of Queue (Q), veh/ln (95 th percentile)				6.0	21.6	6.2	6.0	32.1	32.2	10.0	15.6	15.2	5.4	9.8	9.5				
Queue Storage Ratio (RQ) (95 th percentile)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Uniform Delay (d 1), s/veh				52.0	27.4	20.1	54.0	32.0	32.2	51.3	47.8	47.9	53.8	49.7	50.1				
Incremental Delay (d 2), s/veh				2.4	2.2	0.1	3.0	16.8	18.5	7.6	23.2	25.7	2.3	14.3	20.1				
Initial Queue Delay (d 3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Control Delay (d), s/veh				54.4	29.6	20.2	57.0	48.8	50.6	58.9	70.9	73.6	56.0	64.0	70.1				
Level of Service (LOS)				D	C	C	E	D	D	E	E	E	E	E	E				
Approach Delay, s/veh / LOS				31.7	C		50.2	D		66.9	E		64.3	E					
Intersection Delay, s/veh / LOS				48.1						D									
Multimodal Results				EB			WB			NB			SB						
Pedestrian LOS Score / LOS				2.43	B		2.27	B		2.31	B		2.60	C					
Bicycle LOS Score / LOS				1.92	B		1.86	B		1.27	A		0.84	A					

HCS7 Signalized Intersection Input Data

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Selvitz Rd	File Name	Selvitz & Midway - AM - 2035 with Project - 7.9.20...				
Project Description	with Project						



Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				216	1237	195	106	1375	102	364	432	105	97	167	146

Signal Information				Phase Diagram							
Cycle, s	120.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	No	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								
Green	9.7	5.6	15.9	9.8	2.2	52.9					
Yellow	4.0	0.0	4.0	4.0	0.0	4.0					
Red	2.0	0.0	2.0	2.0	0.0	2.0					

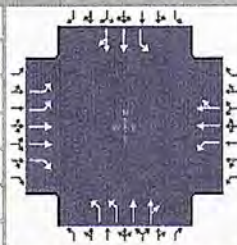
Traffic Information												
Approach Movement												
EB				WB			NB			SB		
L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), veh/h	216	1237	195	106	1375	102	364	432	105	97	167	146
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information									
	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Maximum Green (G _{max}) or Phase Split, s	19.0	44.0	34.0	59.0	25.0	16.0	26.0	17.0	
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Minimum Green (G _{min}), s	12	10	10	10	10	10	10	10	
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min	
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes	
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Multimodal Information												
EB				WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Selvitz Rd	File Name	Selvitz Midway - PM - 2035 with Project - 7.21.20...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120

Signal Information				Signal Timing Diagram														
Cycle, s	140.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On															
Force Mode	Fixed	Simult. Gap N/S	On															
		Green		9.8	3.8	28.9	12.0	0.4	61.1									
		Yellow		4.0	0.0	4.0	4.0	0.0	4.0									
		Red		2.0	0.0	2.0	2.0	0.0	2.0									

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	18.0	67.1	18.4	67.5	19.6	38.7	15.8	34.9
Change Period, (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (gs), s	9.9	58.8	12.3	52.0	13.4		9.4	
Green Extension Time (ge), s	0.2	2.3	0.2	6.6	0.2	0.0	0.0	0.0
Phase Call Probability	1.00	1.00	0.99	1.00	1.00		0.98	
Max Out Probability	0.01	1.00	0.00	0.71	0.87		0.95	

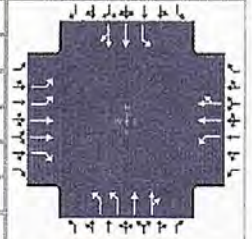
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	205	1514	463	135	736	728	289	153	144	98	247	231
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1810	1900	1870	1757	1900	1705	1810	1900	1729
Queue Service Time (gs), s	7.9	56.8	31.9	10.3	49.7	50.0	11.4	9.4	9.9	7.4	16.6	17.1
Cycle Queue Clearance Time (gc), s	7.9	56.8	31.9	10.3	49.7	50.0	11.4	9.4	9.9	7.4	16.6	17.1
Green Ratio (g/C)	0.09	0.44	0.44	0.09	0.44	0.44	0.10	0.23	0.23	0.07	0.21	0.21
Capacity (c), veh/h	301	1578	703	160	835	822	341	444	399	126	393	358
Volume-to-Capacity Ratio (X)	0.682	0.959	0.659	0.840	0.882	0.886	0.850	0.344	0.362	0.775	0.630	0.645
Back of Queue (Q), ft/ln (95th percentile)	158.8	886.4	450.5	211.2	812	808.4	234.4	203.5	196.5	170.8	334.6	319.9
Back of Queue (Q), veh/ln (95th percentile)	6.4	35.5	18.0	8.4	32.5	32.3	9.4	8.1	7.9	6.8	13.4	12.8
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	62.1	38.2	31.2	62.8	35.9	36.0	62.2	44.7	44.9	64.0	50.6	50.8
Incremental Delay (d2), s/veh	1.0	13.9	1.8	4.4	10.4	10.9	11.4	2.1	2.5	12.0	7.5	8.7
Initial Queue Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	63.2	52.1	33.0	67.3	46.3	46.9	73.6	46.8	47.4	76.0	58.1	59.5
Level of Service (LOS)	E	D	C	E	D	D	E	D	D	E	E	E
Approach Delay, s/veh / LOS	49.1		D	48.4		D	60.2		E	61.7		E
Intersection Delay, s/veh / LOS	51.6						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.28	B	2.31	B	2.60	C
Bicycle LOS Score / LOS	2.29	B	1.81	B	0.97	A	0.96	A

HCS7 Signalized Intersection Input Data

General Information

Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	Apr 15, 2020	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Selvitz Rd	File Name	Selvitz Midway - PM - 2035 with Project - 7.21.20...		
Project Description	with Project				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120

Signal Information

Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap EW	On										
Force Mode	Fixed	Simult. Gap N/S	On										
		Green		9.8	3.8	28.9	12.0	0.4	61.1				
		Yellow		4.0	0.0	4.0	4.0	0.0	4.0				
		Red		2.0	0.0	2.0	2.0	0.0	2.0				

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	195	1438	440	128	1330	61	275	195	87	93	334	120
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0	0	0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	23.0	37.0	49.0	63.0	22.0	36.0	18.0	32.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	12	10	10	10	10	10	10	10
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

N/S STREET: 5350 St Willow Lakes
 FILENAME: 2/18/2020
 COUNT DATE: 2/18/2020
 REPORT DATE: 2/18/2020

DAY: Tuesday
 ANALYSIS YEAR: 2020

EW STREET: Midway Rd
 CITY: St Lucie

CONTROL: Signalized

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM
	NBL	NBR	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
7:00-7:15	15	133	37	36	83	55	84	82	7	9	85	17	703
7:15-7:30	15	201	35	23	101	68	91	104	9	10	104	19	790
7:30-7:45	15	233	46	30	133	71	34	108	10	18	94	13	805
7:45-8:00	23	180	39	16	67	47	50	124	9	21	116	7	709
8:00-8:15	5	121	34	23	92	41	50	137	14	34	113	10	674
8:15-8:30	18	159	55	25	87	39	50	91	18	40	101	12	695
8:30-8:45	12	121	44	18	79	25	62	101	3	27	101	16	609
8:45-9:00	12	133	35	21	104	36	58	103	4	23	72	16	617

AM

718 ← 712 →

259 ↑ 418 → 35 ↓

730 ↓ 1122 ↑

241 ↓ 384 ↓ 105 ↓

56 ↓ 409 ↓ 68 ↓

533 ← 680 →

487 ↓ 1032 ↑

PHF: 0.934
 Seasonal Factor: 1
 Growth Rate: 1
 Years Crown: 0

Trips In Trips Out

Total

15 Min Period Lanes	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM
	NBL	NBR	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	
4:00-4:15	11	97	42	22	122	56	42	132	19	43	114	15	715
4:15-4:30	11	87	49	23	141	63	50	137	27	45	105	12	750
4:30-4:45	20	114	48	20	171	62	41	110	14	31	98	14	743
4:45-5:00	10	100	43	20	179	53	50	141	23	42	103	17	781
5:00-5:15	14	90	24	25	166	48	42	148	16	50	106	6	735
5:15-5:30	14	92	38	20	214	52	58	118	12	51	110	22	801
5:30-5:45	9	134	47	28	227	63	54	103	16	45	88	15	835
5:45-6:00	11	109	44	27	121	37	57	103	17	40	92	17	675

PM

670 ← 786 →

204 ↑ 515 → 67 ↓

1095 ↓ 681 ↑

216 ↓ 786 ↓ 93 ↓

61 ↓ 407 ↓ 188 ↓

656 ← 760 →

1041 ↓ 615 ↑

PHF: 0.944
 Seasonal Factor: 1
 Growth Rate: 1
 Years Crown: 0

Trips In Trips Out

Total

HCS7 Signalized Intersection Results Summary

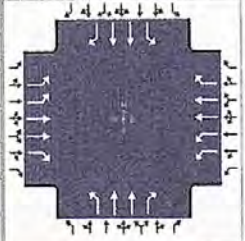
#8 EAM

General Information

Agency	O'Rourke Engineering & Planning		
Analyst	James Kemp	Analysis Date	4/15/2020
Jurisdiction	St. Lucie	Time Period	AM Peak Hour
Urban Street	Midway Rd	Analysis Year	2020
Intersection	25th St	File Name	25th St & Midway - AM - Existing - 7.9.2020 (2).xus
Project Description	Existing		

Intersection Information

Duration, h	0.25
Area Type	Other
PHF	0.93
Analysis Period	1> 7:00



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241

Signal Information

Cycle, s	67.5	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	5.3	0.9	21.1	5.3	2.5	12.0	1.0	4.0	4.0
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	0.0	4.0	1.0	4.0	4.0
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0	1.5	1.0	0.0	1.0	1.0	1.0	1.0

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	12.7	19.4	10.3	17.0	10.3	26.6	11.2	27.5
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g _s), s	7.2	9.6	3.3	9.7	4.6	16.7	6.1	10.7
Green Extension Time (g _e), s	0.5	2.2	0.1	2.2	0.1	4.3	0.1	4.3
Phase Call Probability	0.99	1.00	0.75	1.00	0.75	1.00	0.88	1.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Movement Group Results

Approach Movement	EB			WB			NB			SB					
	L	T	R	L	T	R	L	T	R	L	T	R			
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12			
Adjusted Flow Rate (v), veh/h	278	449	38	73	440	60	73	868	169	113	413	259			
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1810	1809	1610	1810	1809	1610			
Queue Service Time (g _s), s	5.2	7.6	1.3	1.3	7.7	2.2	2.6	14.7	5.4	4.1	5.9	8.7			
Cycle Queue Clearance Time (g _c), s	5.2	7.6	1.3	1.3	7.7	2.2	2.6	14.7	5.4	4.1	5.9	8.7			
Green Ratio (g/C)	0.11	0.21	0.21	0.08	0.18	0.18	0.08	0.31	0.31	0.09	0.33	0.33			
Capacity (c), veh/h	403	776	345	274	643	286	141	1134	505	166	1183	527			
Volume-to-Capacity Ratio (X)	0.691	0.579	0.109	0.267	0.684	0.211	0.518	0.765	0.335	0.681	0.349	0.492			
Back of Queue (Q), ft/ln (95 th percentile)	90.9	130.7	19.6	23.5	136.1	33.9	49.1	230.4	80	77.1	95.7	127.8			
Back of Queue (Q), veh/ln (95 th percentile)	3.6	5.2	0.8	0.9	5.4	1.4	2.0	9.2	3.2	3.1	3.8	5.1			
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Uniform Delay (d ₁), s/veh	28.8	23.9	21.4	29.4	26.1	23.8	30.0	21.0	17.8	29.8	17.3	18.3			
Incremental Delay (d ₂), s/veh	0.8	0.3	0.1	0.2	0.5	0.1	1.1	0.4	0.1	1.8	0.1	0.3			
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Control Delay (d), s/veh	29.6	24.1	21.5	29.6	26.6	23.9	31.1	21.4	18.0	31.6	17.4	18.6			
Level of Service (LOS)	C	C	C	C	C	C	C	C	B	C	B	B			
Approach Delay, s/veh / LOS	26.0			C	26.7			C	21.5			C	19.8		B
Intersection Delay, s/veh / LOS	23.1						C								

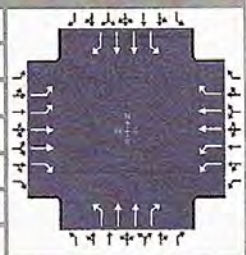
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.43	B		2.44	B		2.56	C		2.56	C	
Bicycle LOS Score / LOS	1.12	A		0.96	A		1.40	A		1.14	A	

HCS7 Signalized Intersection Input Data

#8 E AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.93		
Urban Street	Midway Rd	Analysis Year	2020	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St & Midway - AM - Existing - 7.9.2020.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241

Signal Information				Green Time (s)						Signal Phases				
Cycle, s	67.5	Reference Phase	2	Green	5.3	0.9	21.1	5.3	2.5	12.0	1	2	3	4
Offset, s	0	Reference Point	End	Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8
Uncoordinated	Yes	Simult. Gap E/W	On	Red	1.0	0.0	1.5	1.0	0.0	1.0				
Force Mode	Fixed	Simult. Gap N/S	On											

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	259	418	35	68	409	56	68	807	157	105	384	241
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h		None			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

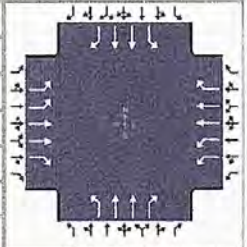
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	24.0	70.0	24.0	70.0	20.0	90.0	20.0	90.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l _f), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

8 E PM

General Information					Intersection Information			
Agency	O'Rourke Engineering & Planning				Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020		Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour		PHF	0.94		
Urban Street	Midway Rd	Analysis Year	2020		Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St & Midway - PM - Existing - 7.9.2020.xus					
Project Description	Existing							



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216

Signal Information				Signal Timing (s)																				
Cycle, s	65.1	Reference Phase	2	Green	4.2	1.7	18.2	6.9	13.7	0.0	Yellow	4.0	0.0	4.0	4.0	4.0	0.0	Red	1.0	0.0	1.5	1.0	1.0	0.0
Offset, s	0	Reference Point	End																					
Uncoordinated	Yes	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					

Timer Results	EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT	
	3	8	7	4	1	6	5	2								
Assigned Phase	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0		
Phase Duration, s	11.9	18.8	11.8	18.7	9.2	23.7	10.9	25.4								
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5								
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0								
Queue Clearance Time (g _s), s	5.8	11.2	5.5	9.0	3.7	8.6	5.4	15.6								
Green Extension Time (g _e), s	0.4	2.5	0.4	2.5	0.0	4.1	0.1	4.1								
Phase Call Probability	0.98	1.00	0.97	1.00	0.60	1.00	0.83	1.00								
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								

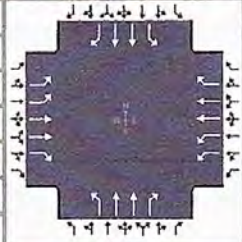
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	217	548	71	200	433	65	50	443	162	99	836	230
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1810	1809	1610	1810	1809	1610
Queue Service Time (g _s), s	3.8	9.2	2.4	3.5	7.0	2.2	1.7	6.6	5.2	3.4	13.6	7.6
Cycle Queue Clearance Time (g _c), s	3.8	9.2	2.4	3.5	7.0	2.2	1.7	6.6	5.2	3.4	13.6	7.6
Green Ratio (g/C)	0.11	0.21	0.21	0.10	0.21	0.21	0.06	0.28	0.28	0.09	0.31	0.31
Capacity (c), veh/h	370	765	341	367	763	339	117	1013	451	163	1105	492
Volume-to-Capacity Ratio (X)	0.587	0.716	0.209	0.544	0.568	0.191	0.428	0.437	0.358	0.608	0.757	0.467
Back of Queue (Q), ft/ln (95th percentile)	67.2	158.1	36.4	61.5	120	33.1	32.3	108.3	77.8	63.8	215.8	110.4
Back of Queue (Q), veh/ln (95th percentile)	2.7	6.3	1.5	2.5	4.8	1.3	1.3	4.3	3.1	2.6	8.6	4.4
Queue Storage Ratio (RQ) (95th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	27.9	23.9	21.2	27.8	23.1	21.2	29.4	19.3	18.8	28.6	20.5	18.4
Incremental Delay (d ₂), s/veh	0.6	0.5	0.1	0.5	0.2	0.1	0.9	0.1	0.2	1.4	0.4	0.3
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	28.4	24.4	21.4	28.2	23.4	21.3	30.3	19.4	19.0	30.0	20.9	18.6
Level of Service (LOS)	C	C	C	C	C	C	C	B	B	C	C	B
Approach Delay, s/veh / LOS	25.2 C			24.6 C			20.1 C			21.2 C		
Intersection Delay, s/veh / LOS	22.7 C											

Multimodal Results	EB		WB		NB		SB	
	Pedestrian LOS Score / LOS	2.43	B	2.43	B	2.56	C	2.56
Bicycle LOS Score / LOS	1.18	A	1.06	A	1.03	A	1.45	A

HCS7 Signalized Intersection Input Data

8 E PM

General Information					Intersection Information				
Agency	O'Rourke Engineering & Planning				Duration, h	0.25			
Analyst	James Kemp	Analysis Date	4/15/2020		Area Type	Other			
Jurisdiction	St. Lucie	Time Period	PM Peak Hour		PHF	0.94			
Urban Street	Midway Rd	Analysis Year	2020		Analysis Period	1> 7:00			
Intersection	25th St	File Name	25th St & Midway - PM - Existing - 7.9.2020.xus						
Project Description	Existing								



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216

Signal Information				Signal Timing (s)										
Cycle, s	65.1	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	Yes	Simult. Gap E/W	On	Green	4.2	1.7	18.2	6.9	13.7	0.0				
				Yellow	4.0	0.0	4.0	4.0	4.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0	1.5	1.0	1.0	0.0				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	204	515	67	188	407	61	47	416	152	93	786	216
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	24.0	70.0	24.0	70.0	20.0	90.0	20.0	90.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (I), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (PC), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

#8 w/o

TURNING MOVEMENT VOLUME COUNTS

W/1 STREET: 1234 St; W/2nd Street: 5678 St; DATE: Tuesday 2/27/20; CITY: St. Louis; CONTROL: Signalized

Table with columns: 15 Min Period, Northbound, Southbound, Eastbound, Westbound, and OMK. Rows include 7:00-7:15, 7:15-7:30, 7:30-7:45, 7:45-8:00, 8:00-8:15, 8:15-8:30, 8:30-8:45, 8:45-9:00.

Summary table for 7:00AM TO 9:00AM. Columns: Metric (Volumes, Season Factor, Growth Rate, etc.), Value, and Unit. Includes seasonal factor of 1 and growth rate of 1.00%.

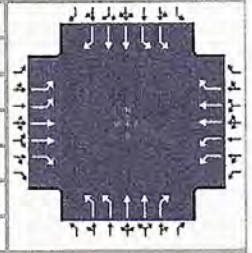
Table with columns: 15 Min Period, Northbound, Southbound, Eastbound, Westbound, and OMK. Rows include 4:00-4:15, 4:15-4:30, 4:30-4:45, 4:45-5:00, 5:00-5:15, 5:15-5:30, 5:30-5:45, 5:45-6:00.

Summary table for 4:00PM TO 6:00PM. Columns: Metric (Volumes, Season Factor, Growth Rate, etc.), Value, and Unit. Includes seasonal factor of 1 and growth rate of 1.00%.

HCS7 Signalized Intersection Results Summary

8 W/O AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St Midway - AM - 2035 w.o. Project - 7.9.20....				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468

Signal Information												
Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green		6.8	1.0	44.8	6.5	6.0	29.5			
		Yellow		4.0	0.0	4.0	4.0	4.0	4.0			
		Red		1.0	0.0	1.5	1.0	1.0	1.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	22.4	45.5	11.5	34.5	11.8	50.3	12.8	51.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	17.2	23.1	4.5	26.2	5.4		7.5	
Green Extension Time (g _e), s	0.2	4.1	0.1	3.3	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	0.92	1.00	0.97		1.00	
Max Out Probability	1.00	0.01	0.00	0.18	0.00		0.00	

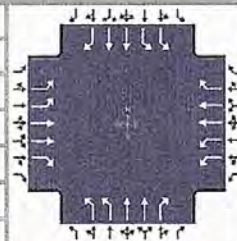
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	453	759	68	77	762	100	102	917	178	165	438	493
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g _s), s	15.2	21.1	3.5	2.5	24.2	6.0	3.4	25.5	9.3	5.5	10.2	32.7
Cycle Queue Clearance Time (g _c), s	15.2	21.1	3.5	2.5	24.2	6.0	3.4	25.5	9.3	5.5	10.2	32.7
Green Ratio (g/C)	0.15	0.34	0.34	0.05	0.25	0.25	0.06	0.37	0.37	0.06	0.38	0.38
Capacity (c), veh/h	510	1219	543	189	889	396	198	1351	601	228	1381	615
Volume-to-Capacity Ratio (X)	0.887	0.622	0.126	0.406	0.857	0.253	0.515	0.679	0.296	0.725	0.317	0.801
Back of Queue (Q), ft/ln (95 th percentile)	299.3	346.5	59.8	50	411.8	104.1	67	415.3	165.3	110.2	194.4	500.3
Back of Queue (Q), veh/ln (95 th percentile)	12.0	13.9	2.4	2.0	16.5	4.2	2.7	16.6	6.6	4.4	7.8	20.0
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	50.3	33.4	27.5	54.9	43.2	36.4	55.0	31.6	26.5	55.1	26.1	33.0
Incremental Delay (d ₂), s/veh	14.3	0.3	0.0	0.5	4.9	0.1	0.8	2.8	1.3	1.7	0.6	10.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	64.6	33.7	27.6	55.4	48.1	36.5	55.8	34.3	27.7	56.7	26.7	43.6
Level of Service (LOS)	E	C	C	E	D	D	E	C	C	E	C	D
Approach Delay, s/veh / LOS	44.3			D			47.5			D		
Intersection Delay, s/veh / LOS	41.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.59	C	2.58	C	2.58	C
Bicycle LOS Score / LOS	1.54	B	1.26	A	1.47	A	1.39	A

HCS7 Signalized Intersection Input Data

8 W/O AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St & Midway - AM - 2035 w.o. Project - 7.9.2...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	6.8	1.0	44.8	6.5	6.0	29.5			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	4.0			
				Red	1.0	0.0	1.5	1.0	1.0	1.0			

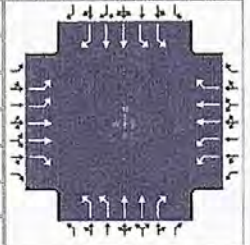
Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	430	721	65	73	724	95	97	871	169	157	416	468
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	24.0	40.0	24.0	40.0	20.0	36.0	20.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
	0	No	25	0	No	25	0	No	25	0	No	25
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50

HCS7 Signalized Intersection Results Summary # 8 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St Midway - PM - 2035 w.o. Project - 7.21.2...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447

Signal Information				Phase Diagrams							
Cycle, s	140.0	Reference Phase	2								
Offset, s	0	Reference Point	End								
Uncoordinated	No	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								
Green	6.8	0.9	48.3	10.8	9.2	38.5					
Yellow	4.0	0.0	4.0	4.0	4.0	4.0					
Red	1.0	0.0	1.5	1.0	1.0	1.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	30.0	57.7	15.8	43.5	11.8	53.8	12.7	54.7
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	23.7	37.3	10.4	32.3	5.5		7.4	
Green Extension Time (g _e), s	1.3	6.3	0.5	6.2	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		1.00	
Max Out Probability	0.00	0.00	0.00	0.01	0.00		0.00	

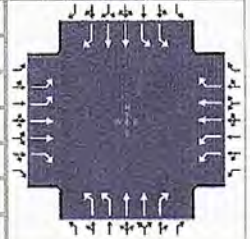
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	558	1042	117	214	833	200	89	479	173	138	893	471
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g _s), s	21.7	35.3	6.8	8.4	30.3	14.4	3.5	14.0	11.0	5.4	29.8	37.5
Cycle Queue Clearance Time (g _c), s	21.7	35.3	6.8	8.4	30.3	14.4	3.5	14.0	11.0	5.4	29.8	37.5
Green Ratio (g/C)	0.18	0.38	0.38	0.08	0.28	0.28	0.05	0.35	0.35	0.05	0.35	0.35
Capacity (c), veh/h	627	1362	606	272	996	443	170	1248	556	192	1271	566
Volume-to-Capacity Ratio (X)	0.889	0.765	0.193	0.786	0.836	0.451	0.525	0.384	0.311	0.718	0.703	0.832
Back of Queue (Q), ft/ln (95 th percentile)	366.1	540	117.6	168.7	485.8	238.8	70.1	256.9	198	109.5	485.7	579.4
Back of Queue (Q), veh/ln (95 th percentile)	14.6	21.6	4.7	6.7	19.4	9.6	2.8	10.3	7.9	4.4	19.4	23.2
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	56.1	38.2	29.3	63.4	47.7	42.0	65.0	34.6	33.6	65.1	39.1	41.6
Incremental Delay (d ₂), s/veh	1.8	0.3	0.1	1.9	0.7	0.3	0.9	0.9	1.5	1.9	3.3	13.4
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.9	38.6	29.4	65.4	48.5	42.2	66.0	35.5	35.1	67.0	42.4	55.0
Level of Service (LOS)	E	D	C	E	D	D	E	D	D	E	D	E
Approach Delay, s/veh / LOS	44.2		D	50.4		D	39.1		D	48.6		D
Intersection Delay, s/veh / LOS	46.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.60	C	2.59	C	2.59	C
Bicycle LOS Score / LOS	1.90	B	1.52	B	1.10	A	1.73	B

HCS7 Signalized Intersection Input Data

8 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St Midway - PM - 2035 w.o. Project - 7.21.2...				
Project Description	without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447

Signal Information													
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	6.8	0.9	48.3	10.8	9.2	38.5			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	4.0			
				Red	1.0	0.0	1.5	1.0	1.0	1.0			

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	530	990	111	203	791	190	85	455	164	131	848	447
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h		None			None			None		0	L	
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

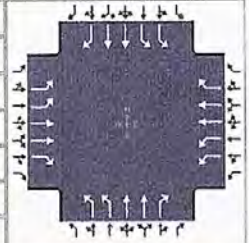
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	59.0	36.0	70.0	47.0	16.0	18.0	16.0	18.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

8 WIP AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	25th St	File Name	25th St & Midway - AM - 2035 with Project - 7.9.2...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	451	892	75	73	941	95	111	871	169	157	416	495

Signal Information				Signal Timing (s)													
Cycle, s	120.0	Reference Phase	2	Green	6.9	0.8	38.5	6.5	6.6	35.2	Yellow	4.0	0.0	4.0	4.0	4.0	4.0
Offset, s	0	Reference Point	End	Red	1.0	0.0	1.5	1.0	1.0	1.0	Diagrammatic Signal Phases 1-8						
Uncoordinated	No	Simult. Gap E/W	On														
Force Mode	Fixed	Simult. Gap N/S	On														

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	23.1	51.9	11.5	40.2	11.9	44.0	12.7	44.8
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	17.9	27.6	4.5	34.0	5.9		7.5	
Green Extension Time (g _e), s	0.2	5.5	0.1	1.3	0.1	0.0	0.2	0.0
Phase Call Probability	1.00	1.00	0.92	1.00	0.98		1.00	
Max Out Probability	1.00	0.07	0.00	1.00	0.00		0.00	

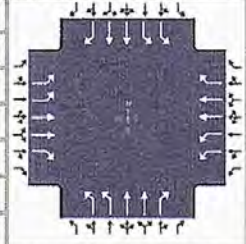
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	475	939	79	77	991	100	117	917	178	165	438	521
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g _s), s	15.9	25.6	3.8	2.5	32.0	5.6	3.9	27.7	10.1	5.5	11.1	38.6
Cycle Queue Clearance Time (g _c), s	15.9	25.6	3.8	2.5	32.0	5.6	3.9	27.7	10.1	5.5	11.1	38.6
Green Ratio (g/C)	0.15	0.39	0.39	0.05	0.29	0.29	0.06	0.32	0.32	0.06	0.33	0.33
Capacity (c), veh/h	530	1413	629	189	1062	473	201	1160	516	226	1186	528
Volume-to-Capacity Ratio (X)	0.896	0.665	0.126	0.406	0.933	0.212	0.582	0.790	0.345	0.732	0.369	0.987
Back of Queue (Q), ft/ln (95 th percentile)	315.1	404.6	62.8	50	553.3	96.2	77.1	460.7	183.5	110.3	211	678
Back of Queue (Q), veh/ln (95 th percentile)	12.6	16.2	2.5	2.0	22.1	3.8	3.1	18.4	7.3	4.4	8.4	27.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	50.0	30.1	23.4	54.9	41.2	31.9	55.2	37.1	31.1	55.1	30.9	40.1
Incremental Delay (d ₂), s/veh	16.0	0.9	0.0	0.5	13.6	0.1	1.0	5.5	1.8	1.7	0.9	36.2
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	66.0	31.0	23.5	55.4	54.9	32.0	56.2	42.6	33.0	56.9	31.7	76.3
Level of Service (LOS)	E	C	C	E	D	C	E	D	C	E	C	E
Approach Delay, s/veh / LOS	41.8			53.0			42.5			56.1		
Intersection Delay, s/veh / LOS	47.8											

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.58	C	2.59	C	2.58	C	2.58	C
Bicycle LOS Score / LOS	1.72	B	1.45	A	1.49	A	1.42	A

HCS7 Signalized Intersection Input Data

#8 W/P AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St & Midway - AM - 2035 with Project - 7.9.2...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	451	892	75	73	941	95	111	871	169	157	416	495

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	6.9	0.8	38.5	6.5	6.6	35.2			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	4.0			
				Red	1.0	0.0	1.5	1.0	1.0	1.0			

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	451	892	75	73	941	95	111	871	169	157	416	495
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

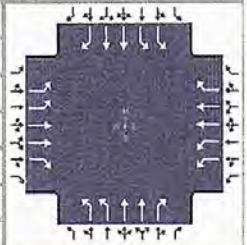
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	24.0	40.0	24.0	40.0	20.0	36.0	20.0	36.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#8 w/p PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St Midway - PM - 2035 with Project - 7.21.2...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476

Signal Information				Phase Diagrams															
Cycle, s	140.0	Reference Phase	2																
Offset, s	0	Reference Point	End																
Uncoordinated	No	Simult. Gap E/W	On																
Force Mode	Fixed	Simult. Gap N/S	On																
		Green		6.8	0.9	42.2	10.7	10.1	43.8										
		Yellow		4.0	0.0	4.0	4.0	4.0	4.0										
		Red		1.0	0.0	1.5	1.0	1.0	1.0										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	30.9	63.9	15.7	48.8	11.8	47.7	12.7	48.5
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.5
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	0.0	3.0	0.0
Queue Clearance Time (g _s), s	24.5	43.1	10.4	42.8	5.5		7.4	
Green Extension Time (g _e), s	1.3	6.8	0.4	1.1	0.2	0.0	0.3	0.0
Phase Call Probability	1.00	1.00	1.00	1.00	0.97		1.00	
Max Out Probability	0.00	0.25	0.00	1.00	0.00		0.00	

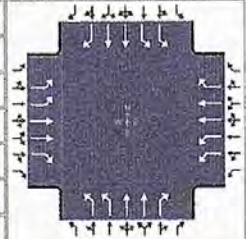
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	579	1217	127	214	1077	200	89	479	173	138	893	501
Adjusted Saturation Flow Rate (s), veh/h/ln	1757	1809	1610	1757	1809	1610	1757	1809	1610	1757	1809	1610
Queue Service Time (g _s), s	22.5	41.1	7.0	8.4	40.8	13.6	3.5	14.9	11.7	5.4	31.8	43.0
Cycle Queue Clearance Time (g _c), s	22.5	41.1	7.0	8.4	40.8	13.6	3.5	14.9	11.7	5.4	31.8	43.0
Green Ratio (g/C)	0.18	0.42	0.42	0.08	0.31	0.31	0.05	0.30	0.30	0.05	0.31	0.31
Capacity (c), veh/h	649	1523	678	269	1132	504	170	1090	485	192	1112	495
Volume-to-Capacity Ratio (X)	0.892	0.799	0.188	0.793	0.951	0.397	0.525	0.440	0.356	0.718	0.803	1.012
Back of Queue (Q), ft/ln (95 th percentile)	377.2	623.6	118.2	169	690.9	227.4	70.1	273.9	211.2	109.5	527.7	768.8
Back of Queue (Q), veh/ln (95 th percentile)	15.1	24.9	4.7	6.8	27.6	9.1	2.8	11.0	8.4	4.4	21.1	30.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	55.7	35.4	25.5	63.5	47.0	37.7	65.0	39.4	38.3	65.1	44.6	48.5
Incremental Delay (d ₂), s/veh	1.8	2.8	0.0	2.0	16.0	0.2	0.9	1.3	2.0	1.9	6.2	43.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	57.5	38.2	25.5	65.6	63.0	37.9	66.0	40.7	40.3	67.0	50.7	92.0
Level of Service (LOS)	E	D	C	E	E	D	E	D	D	E	D	F
Approach Delay, s/veh / LOS	43.2		D	60.0		E	43.7		D	65.7		E
Intersection Delay, s/veh / LOS	53.7						D					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.58		C	2.59		C	2.59		C	2.59		C
Bicycle LOS Score / LOS	2.07		B	1.72		B	1.10		A	1.75		B

HCS7 Signalized Intersection Input Data

8 W/O PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/15/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Midway Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	25th St	File Name	25th St Midway - PM - 2035 with Project - 7.21.2...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476

Signal Information													
Cycle, s	140.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	6.8	0.9	42.2	10.7	10.1	43.8			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0	4.0	4.0	4.0	4.0			
				Red	1.0	0.0	1.5	1.0	1.0	1.0			

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	550	1156	121	203	1023	190	85	455	164	131	848	476
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h		None			None			None		0	L	
Heavy Vehicles (P _{HV}), %	0	0	0	0	0	0	0	0	0	0	0	0
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0	0	0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	55.0	51.0	29.0	25.0	35.0	15.0	45.0	25.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5
Minimum Green (G _{min}), s	7	7	7	7	7	7	7	7
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Off	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

#95

TURNING MOVEMENT VOLUME COUNTS

CONTROL: Signal

E/W STREET: Overchobee Rd.

Jenkins Rd.

15 Min Period

PROJECT: 5/15/2017
 PRENAME: 5/5/2017
 COUNT DATE: 5/5/2017
 REPORT DATE: 5/5/2017
 DAY: Wednesday
 ANALYSIS YEAR: 2017
 CITY: Ft. Pierce

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EET	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	36	19	1	23	25	6	20	154	47	47	2	107	5	445	2349	
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524		
7:30-7:45	48	25	1	54	41	7	59	224	35	3	115	14	614	2658		
7:45-8:00	48	31	5	35	43	8	25	306	37	6	141	14	700	2533		
8:00-8:15	48	29	2	45	31	6	24	244	49	5	113	23	620	2410		
8:15-8:30	26	16	5	39	38	9	22	253	40	6	151	19	624			
8:30-8:45	43	24	8	34	31	3	16	218	43	8	150	21	579			
8:45-9:00	37	21	12	31	17	6	22	226	55	15	128	7	577			

AM
 ← 810 →
 ← 138 →
 ← 1140 →
 ← 172 →
 ← 689 →
 ← 588 →
 ← 22 →
 ← 1349 →
 ← 397 →
 ← 328 →
 ← 33 →
 ← 170 →
 ← 194 →
 ← 189 →
 ← 112 →
 ← 14 →
 ← 364 →
 ← 315 →

PHF: 0.917
 Seasonal Factor: 1.11
 Trip In: 0
 Trip Out: 0
 Growth Rate: 1.005
 Years Growth:

AM PEAK HOUR IS FROM:
 7:50 AM TO 8:00 AM
 Volumes: 170 101 13 175 153 30 124 2027 155 20 530 70 2468
 Season Factor: 1.09 112 14 184 170 33 138 1140 172 22 588 78 2850
 Growth: 1.08 112 14 184 170 33 138 1140 172 22 588 78 2850
 In/Out: - - - - - - - - - - - - - - - -
 Percentage: 0% 0% 0% 30% 20% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBL	EET	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	45	19	3	57	31	11	20	160	30	6	210	15	647	2253		
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	15	683	2810		
4:30-4:45	35	23	0	50	32	10	36	228	52	6	240	28	742	2943		
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	18	701	2940		
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29	764	2859		
5:15-5:30	45	28	2	54	31	3	32	184	45	4	271	34	793			
5:30-5:45	38	24	2	65	28	8	37	175	35	3	245	39	742			
5:45-6:00	34	23	4	46	34	7	23	188	33	2	188	38	620			

PM
 ← 1304 →
 ← 127 →
 ← 877 →
 ← 180 →
 ← 1183 →
 ← 425 →
 ← 385 →
 ← 29 →
 ← 153 →
 ← 243 →
 ← 175 →
 ← 103 →
 ← 16 →
 ← 349 →
 ← 294 →

PHF: 0.962
 Seasonal Factor: 1.11
 Growth Rate: 1.005
 Trip In: 0
 Trip Out: 0
 Years Growth:

PM PEAK HOUR IS FROM:
 5:00 PM TO 5:00 PM
 Volumes: 158 91 14 219 136 26 114 790 162 34 591 140 2859
 Season Factor: 1.09 103 16 243 153 29 127 877 180 16 1100 155 3173
 Growth: 1.07 103 16 243 153 29 127 877 180 16 1100 155 3173
 In/Out: 0% 0% 0% 30% 20% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%
 Percentage: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 PROJECT: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

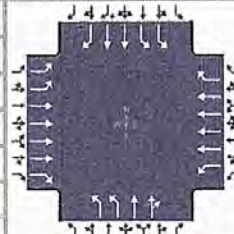
Total 189 112 14 194 170 33 138 1140 172 22 588 78 2851

Total 175 103 16 243 153 29 127 877 180 16 1100 155 3173

HCS7 Signalized Intersection Results Summary

9 E Am

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - AM Existing 6.11.20 (...)				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33

Signal Information																	
Cycle, s	160.0	Reference Phase	2	Green		Yellow		Red		1		2		3		4	
Offset, s	0	Reference Point	End	6.5	3.4	96.9	11.7	0.2	15.0	5		6		7		8	
Uncoordinated	No	Simult. Gap E/W	On	4.3	0.0	4.3	4.3	0.0	4.3								
Force Mode	Fixed	Simult. Gap N/S	On	2.0	0.0	2.0	2.5	0.0	2.5								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	16.3	106.6	12.8	103.2	18.5	21.8	18.7	22.1
Change Period, (Y+R c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g s), s	8.8		4.1		11.3	7.7	11.5	9.9
Green Extension Time (g e), s	0.6	0.0	0.1	0.0	0.4	1.3	0.4	1.3
Phase Call Probability	1.00		0.65		1.00		1.00	
Max Out Probability	0.00		0.00		0.10		0.00	

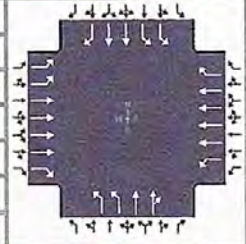
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	150	1239	187	24	639	85	205	69	68	211	185	36
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1798	1730	1781	1585
Queue Service Time (g s), s	6.8	13.3	8.0	2.1	6.6	3.6	9.3	5.5	5.7	9.5	7.9	3.4
Cycle Queue Clearance Time (g c), s	6.8	13.3	8.0	2.1	6.6	3.6	9.3	5.5	5.7	9.5	7.9	3.4
Green Ratio (g/C)	0.06	0.63	0.63	0.04	0.61	0.61	0.08	0.09	0.09	0.08	0.10	0.10
Capacity (c), veh/h	216	4259	994	73	4113	960	274	175	169	280	339	151
Volume-to-Capacity Ratio (X)	0.695	0.291	0.188	0.328	0.155	0.088	0.748	0.393	0.404	0.753	0.544	0.237
Back of Queue (Q), ft/ln (95 th percentile)	142	219.2	131.1	45.7	113.7	59.4	193.2	123	120.3	197.6	166.3	63
Back of Queue (Q), veh/ln (95 th percentile)	5.6	8.6	5.2	1.8	4.5	2.3	7.6	4.8	4.8	7.8	6.5	2.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d 1), s/veh	73.5	13.6	12.6	74.6	13.7	13.2	72.1	68.2	68.3	72.0	69.1	67.0
Incremental Delay (d 2), s/veh	4.0	0.2	0.4	2.6	0.1	0.2	4.1	1.4	1.6	4.3	1.4	0.8
Initial Queue Delay (d 3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	77.5	13.8	13.0	77.2	13.8	13.3	76.2	69.6	69.8	76.3	70.4	67.8
Level of Service (LOS)	E	B	B	E	B	B	E	E	E	E	E	E
Approach Delay, s/veh / LOS	19.8	B		15.8	B		73.6	E		73.1	E	
Intersection Delay, s/veh / LOS	32.2						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.41	B		2.55	C		2.99	C		3.10	C	
Bicycle LOS Score / LOS	1.14	A		0.80	A		0.77	A		0.84	A	

HCS7 Signalized Intersection Input Data

9 E P M

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - AM Existing 6.11.20....				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33

Signal Information												
Cycle, s	160.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	6.5	3.4	96.9	11.7	0.2	15.0				
		Yellow	4.3	0.0	4.3	4.3	0.0	4.3				
		Red	2.0	0.0	2.0	2.5	0.0	2.5				

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

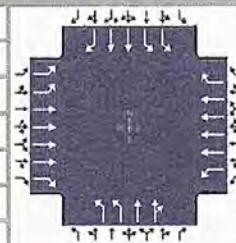
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G _{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		7.0		7.0		5.0		5.0
Pedestrian Clearance Time (PC), s		37.0		37.0		35.0		34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary

#9 E PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - PM Existing.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29

Signal Information														
Cycle, s	160.0	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	No	Simult. Gap E/W	On											
Force Mode	Fixed	Simult. Gap N/S	On											
				Green	5.4	4.6	94.5	11.0	3.4	15.0				
				Yellow	4.3	0.0	4.3	4.3	0.0	4.3				
				Red	2.0	0.0	2.0	2.5	0.0	2.5				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	16.3	105.4	11.7	100.8	17.8	21.8	21.1	25.2
Change Period, (Y+R _c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g _s), s	8.2		3.5		10.6	7.4	14.0	8.9
Green Extension Time (g _e), s	0.5	0.0	0.0	0.0	0.4	1.2	0.4	1.2
Phase Call Probability	1.00		0.54		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		0.05	0.00	0.86	0.00

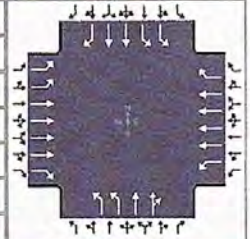
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	138	953	196	17	1196	168	190	65	64	264	166	32
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1784	1730	1781	1585
Queue Service Time (g _s), s	6.2	9.9	8.6	1.5	14.0	7.8	8.6	5.2	5.4	12.0	6.9	2.9
Cycle Queue Clearance Time (g _c), s	6.2	9.9	8.6	1.5	14.0	7.8	8.6	5.2	5.4	12.0	6.9	2.9
Green Ratio (g/C)	0.06	0.62	0.62	0.03	0.59	0.59	0.07	0.09	0.09	0.10	0.11	0.11
Capacity (c), veh/h	216	4206	981	60	4011	936	259	175	167	332	408	182
Volume-to-Capacity Ratio (X)	0.640	0.227	0.199	0.290	0.298	0.180	0.734	0.371	0.384	0.796	0.407	0.173
Back of Queue (Q), ft/ln (95 th percentile)	129.7	171.2	141.9	33.6	232.8	131	179.4	116	113.2	241.5	144.4	53.6
Back of Queue (Q), veh/ln (95 th percentile)	5.1	6.7	5.6	1.3	9.2	5.2	7.1	4.6	4.5	9.5	5.7	2.1
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	73.3	13.5	13.2	75.4	16.3	15.0	72.4	68.1	68.2	70.8	65.8	64.0
Incremental Delay (d ₂), s/veh	3.1	0.1	0.5	2.6	0.2	0.4	4.0	1.3	1.4	8.4	0.7	0.4
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	76.4	13.6	13.7	78.1	16.5	15.4	76.4	69.4	69.6	79.1	66.4	64.4
Level of Service (LOS)	E	B	B	E	B	B	E	E	E	E	E	E
Approach Delay, s/veh / LOS	20.4		C	17.1		B	73.6		E	73.6		E
Intersection Delay, s/veh / LOS	31.1						C					

Multimodal Results	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.41		B	2.56		C	2.99		C	3.10		C
Bicycle LOS Score / LOS	1.02		A	1.06		A	0.75		A	0.87		A

HCS7 Signalized Intersection Input Data

#9EPM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee & Jenkins - PM Existing.xus				
Project Description	Existing						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29

Signal Information												
Cycle, s	160.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
	Green	5.4	4.6	94.5	11.0	3.4	15.0					
	Yellow	4.3	0.0	4.3	4.3	0.0	4.3					
	Red	2.0	0.0	2.0	2.5	0.0	2.5					

Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (Pg), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G _{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	7.0		7.0		5.0		5.0	
Pedestrian Clearance Time (PC), s	37.0		37.0		35.0		34.0	

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

CONTROL: Signal

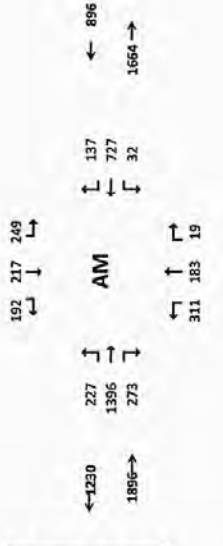
E/W STREET, Onocobbee Rd.

Jenkins Rd.

PROJECT NAME: Jenkins Rd.
COUNT DATE: 6/15/2017
REPORT DATE: 5/9/2020

DATE: Wednesday
ANALYSIS YEAR: 2035

CITY: Ft. Pierce



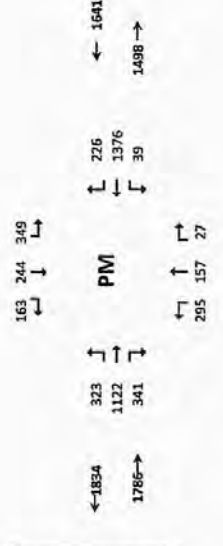
15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EEL	EBT	EBR	WEL	WBT	WBR		TOTAL
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2369
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14	614	2568
7:45-8:00	48	31	5	36	49	8	25	306	37	6	141	14	700	2533
8:00-8:15	48	29	2	46	31	6	24	244	49	5	113	23	620	2410
8:15-8:30	26	16	5	39	38	9	22	253	40	6	161	19	634	
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579	
8:45-9:00	37	21	12	31	31	6	22	226	55	15	128	7	577	

AM PEAK HOUR IS FROM:

7:50 AM TO 8:00 AM

Seasonal Factor: 1.11
Trips Origin: 18
Growth Rate: 1.005
Years Crown: 18

Volume	170	101	13	175	153	30	124	1077	155	20	530	70	2548
Season Factor	189	123	14	194	170	33	138	1160	172	22	588	78	2850
Growth	206	123	16	212	188	36	151	1247	188	24	644	85	3118
In/Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0
Mariner Cove	36	8	16	0	2	0	0	0	7	3	0	0	0
Camping World	0	0	0	4	0	2	8	0	0	0	0	13	0
39 Acre Residential	36	7	3	0	1	0	0	0	0	8	1	0	0
Whispering Oaks	0	5	0	17	35	9	0	0	0	0	0	0	5
SILCC	0	28	0	5	5	0	0	5	0	0	28	28	0
WWVs	11	3	0	4	3	0	4	2	0	0	4	12	4
Palm Swazes	0	0	0	7	0	4	2	0	0	0	0	2	0
Celebration Pointe	0	0	0	0	0	72	24	0	0	0	0	0	0
Bent Creek	0	0	0	0	0	36	12	0	0	0	0	0	0
Sedona	15	9	0	0	3	0	0	0	44	0	0	0	0
Creekside	7	0	0	0	0	7	21	126	21	0	43	0	0
Total	311	183	19	269	217	192	237	1396	273	32	727	137	3963



15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EEL	EBT	EBR	WEL	WBT	WBR		TOTAL
4:00-4:15	45	19	3	57	31	11	20	180	30	6	210	35	647	2753
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	663	2870
4:30-4:45	35	23	0	50	32	10	36	228	52	8	240	28	742	2340
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	38	701	2940
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29	764	3183
5:15-5:30	45	28	2	54	31	3	32	184	45	4	271	34	733	
5:30-5:45	38	24	2	65	28	8	37	195	35	3	263	39	742	
5:45-6:00	34	23	4	46	34	7	23	190	33	2	189	30	620	

PM PEAK HOUR IS FROM:

5:00 PM TO 6:00 PM

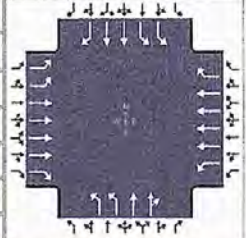
Seasonal Factor: 1.11
Trips Origin: 18
Growth Rate: 1.005
Years Crown: 18

Volume	158	91	14	229	138	26	114	790	162	14	991	140	2859
Season Factor	175	103	16	243	153	22	127	877	180	16	1100	155	3173
Growth	192	113	17	266	168	22	138	959	197	17	1203	170	3472
In/Out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PROJECT	0	0	0	0	0	0	0	0	0	0	0	0	0
Mariner Cove	17	4	8	0	8	0	0	0	34	15	0	0	0
Camping World	0	0	0	24	0	16	13	0	0	0	0	20	0
39 Acre Residential	17	3	2	0	6	0	0	0	35	3	0	0	0
Whispering Oaks	0	17	0	9	9	20	36	0	0	0	10	10	0
SILCC	0	10	0	39	39	0	0	39	0	0	10	10	0
WWVs	13	6	0	4	0	0	15	93	15	0	150	6	0
Palm Swazes	2	0	0	7	0	3	5	0	0	0	5	0	0
Sedona	31	6	0	0	10	0	0	0	52	0	0	0	0
Bent Creek	0	0	0	0	0	22	38	0	0	0	0	0	0
Celebration Pointe	0	0	0	0	0	45	78	0	0	0	0	0	0
Total	295	157	27	349	244	163	323	1322	341	39	1376	226	4862

HCS7 Signalized Intersection Results Summary

9 W/O A M

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - Backgrou...				
Project Description	Background without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192

Signal Information				Signal Timing (s)								Signal Phases			
Cycle, s	160.0	Reference Phase	2	Green	7.9	6.2	77.5	14.6	2.8	24.8	1	2	3	4	
Offset, s	0	Reference Point	End	Yellow	4.3	0.0	4.3	4.3	0.0	4.3	5	6	7	8	
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	0.0	2.0	2.5	0.0	2.5					
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	20.4	90.0	14.2	83.8	24.3	34.4	21.4	31.6
Change Period, (Y+R _c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g _s), s	13.2		5.0		17.3	10.5	14.3	22.5
Green Extension Time (g _e), s	0.9	0.0	0.1	0.0	0.1	2.5	0.4	2.2
Phase Call Probability	1.00		0.79		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.02

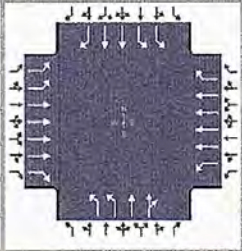
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	247	1517	297	35	790	149	338	111	109	271	236	209
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1809	1730	1781	1585
Queue Service Time (g _s), s	11.2	21.9	17.6	3.0	10.9	8.6	15.3	8.3	8.5	12.3	9.6	20.5
Cycle Queue Clearance Time (g _c), s	11.2	21.9	17.6	3.0	10.9	8.6	15.3	8.3	8.5	12.3	9.6	20.5
Green Ratio (g/C)	0.09	0.52	0.52	0.05	0.48	0.48	0.12	0.17	0.17	0.10	0.15	0.15
Capacity (c), veh/h	304	3554	829	88	3291	768	399	322	312	338	551	245
Volume-to-Capacity Ratio (X)	0.811	0.427	0.358	0.397	0.240	0.194	0.847	0.343	0.350	0.801	0.428	0.851
Back of Queue (Q), ft/ln (95 th percentile)	224.7	343.9	278.5	66	197.9	150.9	304.9	181.1	176.1	246.8	196.8	349.2
Back of Queue (Q), veh/ln (95 th percentile)	8.8	13.5	11.0	2.6	7.8	5.9	12.0	7.1	7.0	9.7	7.7	13.7
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	71.7	23.4	22.4	73.8	24.1	23.5	69.4	58.2	58.3	70.7	61.2	65.8
Incremental Delay (d ₂), s/veh	5.2	0.4	1.2	2.9	0.2	0.6	14.6	0.6	0.7	8.9	0.5	10.2
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	76.8	23.8	23.6	76.7	24.2	24.0	84.0	58.9	59.0	79.5	61.7	76.0
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	E	E	E
Approach Delay, s/veh / LOS	30.1		C	26.1		C	74.1		E	72.6		E
Intersection Delay, s/veh / LOS	42.0						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.43	B	2.57	C	2.98	C	3.10	C
Bicycle LOS Score / LOS	1.34	A	0.89	A	0.95	A	1.08	A

HCS7 Signalized Intersection Input Data

9 w/d AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - Backgrou...				
Project Description	Background without Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192

Signal Information													
Cycle, s	160.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	7.9	6.2	77.5	14.6	2.8	24.8			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.3	0.0	4.3	4.3	0.0	4.3			
				Red	2.0	0.0	2.0	2.5	0.0	2.5			

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	227	1396	273	32	727	137	311	183	19	249	217	192
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	None			None			None			None		
Heavy Vehicles (P _{HV}), %	2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0
Grade (P _g), %	0			0			0			0		
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45

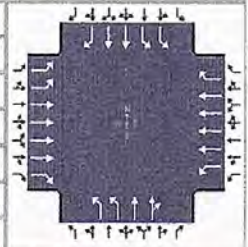
Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G _{min}), s	10	15	10	15	10	15	10	15
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (PC), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary # 9 w/o PM

General Information

Agency	O'Rourke Engineering & Planning			Duration, h	0.25
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - Backgrou...		
Project Description	Background without Project				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	323	1122	341	39	1376	226	295	157	27	349	244	163

Signal Information

Cycle, s	160.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
Green	8.5	4.4	76.2	16.8	1.4	20.2						
Yellow	4.3	4.3	4.3	4.3	0.0	4.3						
Red	2.0	2.0	2.0	2.5	0.0	2.5						

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	25.5	93.2	14.8	82.5	23.6	27.0	25.0	28.5
Change Period, (Y+R _c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g _s), s	17.9		5.7		16.5		19.3	
Green Extension Time (g _e), s	1.3	0.0	0.1	0.0	0.2	2.4	0.0	2.3
Phase Call Probability	1.00		0.85		1.00		1.00	
Max Out Probability	0.00		0.00		1.00		0.00	

Movement Group Results

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	351	1220	371	42	1496	246	321	101	99	379	265	177
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1776	1730	1781	1585
Queue Service Time (g _s), s	15.9	16.0	22.3	3.7	23.7	15.4	14.5	8.0	8.3	17.3	11.1	17.4
Cycle Queue Clearance Time (g _c), s	15.9	16.0	22.3	3.7	23.7	15.4	14.5	8.0	8.3	17.3	11.1	17.4
Green Ratio (g/C)	0.12	0.54	0.54	0.05	0.48	0.48	0.11	0.13	0.13	0.12	0.14	0.14
Capacity (c), veh/h	415	3688	861	94	3233	754	384	237	225	415	483	215
Volume-to-Capacity Ratio (X)	0.846	0.331	0.431	0.449	0.463	0.326	0.835	0.427	0.441	0.914	0.549	0.825
Back of Queue (Q), ft/ln (95 th percentile)	295.5	264.4	336.7	80.4	371.6	253.6	289.6	175.8	170.3	352.9	222.4	301.7
Back of Queue (Q), veh/ln (95 th percentile)	11.6	10.4	13.3	3.2	14.6	10.0	11.4	6.9	6.8	13.9	8.8	11.9
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	69.0	20.4	21.8	73.5	28.2	26.0	69.7	64.5	64.6	69.6	64.6	67.3
Incremental Delay (d ₂), s/veh	4.8	0.2	1.6	3.3	0.5	1.1	13.0	1.2	1.4	24.4	1.0	7.7
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.8	20.6	23.4	76.8	28.6	27.1	82.7	65.7	66.0	94.0	65.6	75.1
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	F	E	E
Approach Delay, s/veh / LOS	30.8	C		29.6	C		76.2	E		80.7	F	
Intersection Delay, s/veh / LOS	43.1						D					

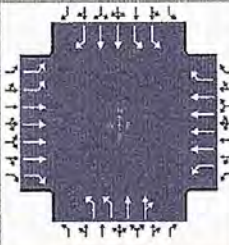
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.42	B		2.58	C		2.99	C		3.10	C	
Bicycle LOS Score / LOS	1.29	A		1.22	A		0.92	A		1.17	A	

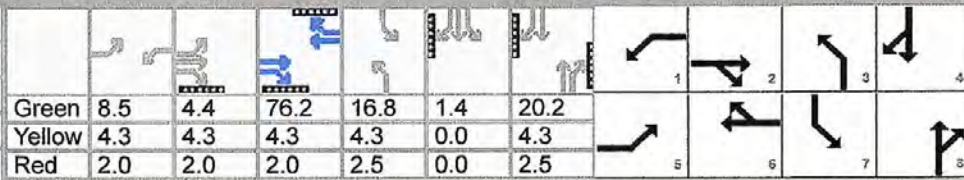
HCS7 Signalized Intersection Input Data

9 w/o PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - Backgrou...				
Project Description	Background without Project						



Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				323	1122	341	39	1376	226	295	157	27	349	244	163

Signal Information				Signal Timing Diagram														
Cycle, s	160.0	Reference Phase	2															
Offset, s	0	Reference Point	End															
Uncoordinated	No	Simult. Gap E/W	On															
Force Mode	Fixed	Simult. Gap N/S	On															
Green	8.5	4.4	76.2	16.8	1.4	20.2												
Yellow	4.3	4.3	4.3	4.3	0.0	4.3												
Red	2.0	2.0	2.0	2.5	0.0	2.5												

Traffic Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				323	1122	341	39	1376	226	295	157	27	349	244	163
Initial Queue (Q _b), veh/h				0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h				1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h				None			None			None			None		
Heavy Vehicles (P _{HV}), %				2	2	2	2	2	2	2	2		2	2	2
Ped / Bike / RTOR, /h				0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h				0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)				3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft				12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Turn Bay Length, ft				0	0	0	0	0	0	0	0		0	0	0
Grade (P _g), %				0			0			0			0		
Speed Limit, mi/h				45	45	45	45	45	45	45	45	45	45	45	45

Phase Information		EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s		25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0
Yellow Change Interval (Y), s		4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Red Clearance Interval (R _c), s		2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5
Minimum Green (G _{min}), s		10	15	10	15	10	15	10	15
Start-Up Lost Time (l), s		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s		2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0
Passage (PT), s		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode		Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry		No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s		0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0
Pedestrian Clearance Time (PC), s		0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0

Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius				0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft				9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb				0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft				12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking				No	0.50		No	0.50		No	0.50		No	0.50	

TURNING MOVEMENT VOLUME COUNTS

449 w/

7/16/2020

N/S STREET: Jenkins Rd. CONTROL: Signal
 E/W STREET: Obocchioni Rd. CITY: Ft. Pierce
 DAY: Wednesday
 ANALYSIS YEAR: 2025

REPORT DATE: 5/5/2020
 COUNTY DATE: 6/15/2017
 COUNTY NAME: FLEMING

15 Min Period	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM	
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2349		
7:15-7:30	40	22	6	31	25	8	22	254	28	4	132	18	590	2524		
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14	614	2568		
7:45-8:00	48	31	5	36	43	8	25	306	37	6	141	14	700	2533		
8:00-8:15	48	29	2	46	31	6	24	244	40	5	113	23	620	2410		
8:15-8:30	26	16	5	39	38	9	22	253	40	6	161	19	634			
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579			
8:45-9:00	37	21	12	31	17	6	22	226	55	15	128	7	577			

AM PEAK HOUR IS FROM: 7:00 AM TO 8:00 AM
 Volumes: 170 101 13 13 175 153 30 124 1027 155 20 530 70 2568
 Season Factor: 1.11
 Growth: 1.005
 Years Crowned: 18
 Trips In: 1327
 Trips Out: 1052
 Growth Rate: 1.005
 Years Crowned: 18

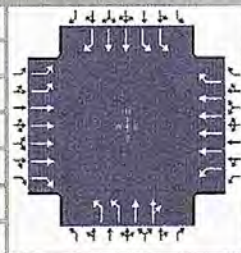
15 Min Period lanes	Northbound				Southbound				Eastbound				Westbound			
	NBL	NBT	NBR	NBL	SBL	SBT	SBR	SBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM	
4:00-4:15	45	19	3	57	31	11	20	180	30	6	210	35	647	2753		
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	663	2870		
4:30-4:45	35	21	0	59	32	10	36	238	52	8	240	28	742	2940		
4:45-5:00	46	19	4	63	37	7	31	200	34	4	213	38	701	2840		
5:00-5:15	41	18	6	54	45	8	22	223	49	5	254	29	764	2859		
5:15-5:30	45	28	2	54	31	3	32	194	45	4	271	34	713			
5:30-5:45	38	24	2	65	28	8	37	156	35	3	268	30	742			
5:45-6:00	34	23	4	46	34	7	23	188	33	2	160	36	620			

PM PEAK HOUR IS FROM: 5:00 PM TO 6:00 PM
 Volumes: 158 99 14 219 118 26 114 790 162 14 991 140 2859
 Season Factor: 1.11
 Growth: 1.005
 Years Crowned: 18
 Trips In: 1441
 Trips Out: 1037
 Growth Rate: 1.005
 Years Crowned: 18

HCS7 Signalized Intersection Results Summary

9 W/P AM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - with Proje...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206

Signal Information																	
Cycle, s	160.0	Reference Phase	2	Green		Yellow		Red		1		2		3		4	
Offset, s	0	Reference Point	End														
Uncoordinated	No	Simult. Gap E/W	On	7.9	0.4	74.9	14.6	3.4	26.2	5		6		7		8	
Force Mode	Fixed	Simult. Gap N/S	On	4.3	4.3	4.3	4.3	0.0	4.3								
				2.0	2.0	2.0	2.5	0.0	2.5								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0
Phase Duration, s	20.9	88.0	14.2	81.2	24.9	36.4	21.4	33.0
Change Period, (Y+R _c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0
Queue Clearance Time (g _s), s	13.7		5.0		18.0	10.4	14.3	24.0
Green Extension Time (g _e), s	0.9	0.0	0.1	0.0	0.0	2.6	0.4	2.2
Phase Call Probability	1.00		0.79		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.04

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	258	1815	309	35	1165	149	353	111	109	271	236	224
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1809	1730	1781	1585
Queue Service Time (g _s), s	11.7	28.6	18.9	3.0	17.6	8.8	16.0	8.2	8.4	12.3	9.5	22.0
Cycle Queue Clearance Time (g _c), s	11.7	28.6	18.9	3.0	17.6	8.8	16.0	8.2	8.4	12.3	9.5	22.0
Green Ratio (g/C)	0.09	0.51	0.51	0.05	0.47	0.47	0.12	0.19	0.19	0.10	0.16	0.16
Capacity (c), veh/h	315	3467	809	88	3182	742	412	347	335	338	584	260
Volume-to-Capacity Ratio (X)	0.817	0.524	0.382	0.397	0.366	0.201	0.857	0.319	0.325	0.801	0.404	0.862
Back of Queue (Q), ft/ln (95 th percentile)	232.3	430.8	297.4	66	292.3	156.4	318.5	177.6	172.8	246.8	194.9	375.7
Back of Queue (Q), veh/ln (95 th percentile)	9.1	17.0	11.7	2.6	11.5	6.2	12.5	7.0	6.9	9.7	7.7	14.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	71.4	26.2	23.8	73.8	27.3	24.9	69.1	56.4	56.5	70.7	59.9	65.1
Incremental Delay (d ₂), s/veh	5.2	0.6	1.4	2.9	0.3	0.6	16.1	0.5	0.6	8.9	0.5	12.8
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	76.6	26.7	25.2	76.7	27.6	25.6	85.2	57.0	57.1	79.5	60.3	77.9
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	E	E	E
Approach Delay, s/veh / LOS	31.9		C	28.7		C	74.4		E	72.8		E
Intersection Delay, s/veh / LOS	41.8						D					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS	2.43	B	2.58	C
Bicycle LOS Score / LOS	1.47	A	1.04	A

HCS7 Signalized Intersection Input Data

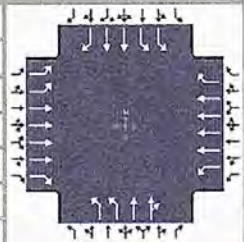
#9 w/P AM

General Information				Intersection Information																				
Agency	O'Rourke Engineering & Planning			Duration, h	0.25																			
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other																			
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.92																			
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1 > 7:00																			
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - AM - 2035 - with Proje...																					
Project Description	with Project																							
Demand Information				EB			WB			NB			SB											
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R												
Demand (v), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206												
Signal Information																								
Cycle, s	160.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On	Green	7.9	0.4	74.9	14.6	3.4	26.2	Yellow	4.3	4.3	4.3	4.3	0.0	4.3	Red	2.0	2.0	2.0	2.5	0.0	2.5
Traffic Information				EB			WB			NB			SB											
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R												
Demand (v), veh/h	237	1670	284	32	1072	137	325	183	19	249	217	206												
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0												
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Parking (N _m), man/h	None			None			None			None														
Heavy Vehicles (P _{HV}), %	2	2	2	2	2	2	2	2		2	2	2												
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0												
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0												
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3												
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0												
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0												
Grade (Pg), %	0			0			0			0														
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45												
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT													
Maximum Green (G _{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0																
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3																
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5																
Minimum Green (G _{min}), s	10	15	10	15	10	15	10	15																
Start-Up Lost Time (l), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0																
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0																
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0																
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off																
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes																
Walk (Walk), s	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0																
Pedestrian Clearance Time (PC), s	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0																
Multimodal Information				EB			WB			NB			SB											
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25												
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0												
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No												
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0												
Pedestrian Signal / Occupied Parking	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50														

HCS7 Signalized Intersection Results Summary

9 WSP PM

General Information				Intersection Information			
Agency	O'Rourke Engineering & Planning			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92		
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - with Proje...				
Project Description	with Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177

Signal Information													
Cycle, s	160.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
				Green	8.5	4.9	73.5	17.4	0.8	22.4			
				Yellow	4.3	4.3	4.3	4.3	0.0	4.3			
				Red	2.0	2.0	2.0	2.5	0.0	2.5			

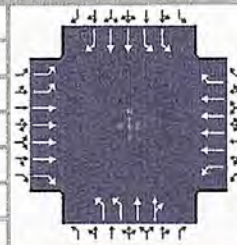
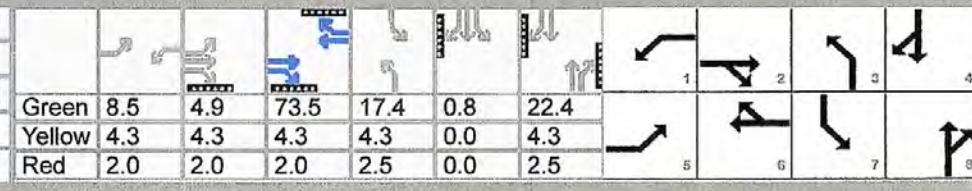
Timer Results	EBL		EBT		WBL		WBT		NBL		NBT		SBL		SBT	
	5	2	1	6	3	8	7	4								
Assigned Phase	5	2	1	6	3	8	7	4								
Case Number	2.0	3.0	2.0	3.0	2.0	4.0	2.0	3.0								
Phase Duration, s	26.0	91.1	14.8	79.8	24.2	29.2	25.0	30.0								
Change Period, (Y+R _c), s	6.3	6.3	6.3	6.3	6.8	6.8	6.8	6.8								
Max Allow Headway (MAH), s	4.0	0.0	4.0	0.0	4.0	4.0	4.0	4.0								
Queue Clearance Time (g _s), s	18.4		5.7		17.2	10.1	19.3	20.9								
Green Extension Time (g _e), s	1.3	0.0	0.1	0.0	0.1	2.5	0.0	2.3								
Phase Call Probability	1.00		0.85		1.00	1.00	1.00	1.00								
Max Out Probability	0.00		0.00		1.00	0.00	1.00	0.01								

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	363	1510	382	42	1903	246	336	101	99	379	265	192
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1585	1781	1698	1585	1730	1870	1776	1730	1781	1585
Queue Service Time (g _s), s	16.4	21.5	23.9	3.7	33.7	15.9	15.2	7.9	8.1	17.3	11.0	18.9
Cycle Queue Clearance Time (g _c), s	16.4	21.5	23.9	3.7	33.7	15.9	15.2	7.9	8.1	17.3	11.0	18.9
Green Ratio (g/C)	0.12	0.53	0.53	0.05	0.46	0.46	0.11	0.14	0.14	0.12	0.14	0.14
Capacity (c), veh/h	427	3598	840	94	3121	728	397	261	248	415	516	230
Volume-to-Capacity Ratio (X)	0.851	0.420	0.454	0.449	0.610	0.337	0.845	0.386	0.399	0.914	0.514	0.837
Back of Queue (Q), ft/ln (95 th percentile)	303.5	337.7	357.4	80.4	502.6	261.3	302.8	172.4	166.9	352.9	219.9	322.4
Back of Queue (Q), veh/ln (95 th percentile)	11.9	13.3	14.1	3.2	19.8	10.3	11.9	6.8	6.7	13.9	8.7	12.7
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	68.7	22.7	23.3	73.5	32.5	27.7	69.4	62.6	62.7	69.6	63.2	66.6
Incremental Delay (d ₂), s/veh	4.9	0.4	1.8	3.3	0.9	1.3	14.4	0.9	1.0	24.4	0.8	7.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.6	23.1	25.1	76.8	33.4	28.9	83.8	63.5	63.7	94.0	64.0	74.4
Level of Service (LOS)	E	C	C	E	C	C	F	E	E	F	E	E
Approach Delay, s/veh / LOS	31.6		C	33.7		C	76.3		E	80.0		E
Intersection Delay, s/veh / LOS	43.5						D					

Multimodal Results	EB		WB		NB		SB	
	Score	LOS	Score	LOS	Score	LOS	Score	LOS
Pedestrian LOS Score / LOS	2.43	B	2.58	C	2.99	C	3.10	C
Bicycle LOS Score / LOS	1.42	A	1.39	A	0.93	A	1.18	A

HCS7 Signalized Intersection Input Data

9 w/ P PM

General Information				Intersection Information											
Agency	O'Rourke Engineering & Planning			Duration, h	0.25										
Analyst	James Kemp	Analysis Date	May 5, 2020	Area Type	Other										
Jurisdiction	St. Lucie County	Time Period	PM	PHF	0.92										
Urban Street	Okeechobee Road	Analysis Year	2035	Analysis Period	1> 7:00										
Intersection	Okeechobee & Jenkins	File Name	C3 Okeechobee Jenkins - PM - 2035 - with Proje...												
Project Description	with Project														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177			
Signal Information															
Cycle, s	160.0	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	No	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	8.5	4.9	73.5	17.4	0.8	22.4									
Yellow	4.3	4.3	4.3	4.3	0.0	4.3									
Red	2.0	2.0	2.0	2.5	0.0	2.5									
Traffic Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand (v), veh/h	334	1389	351	39	1751	226	309	157	27	349	244	177			
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0			
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Parking (N _m), man/h	None			None			None			None					
Heavy Vehicles (P _{HV}), %	2	2	2	2	2	2	2	2		2	2	2			
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0			
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0			
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3			
Upstream Filtering (I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Lane Width (W), ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0			
Turn Bay Length, ft	0	0	0	0	0	0	0	0		0	0	0			
Grade (Pg), %	0			0			0			0					
Speed Limit, mi/h	45	45	45	45	45	45	45	45	45	45	45	45			
Phase Information				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Maximum Green (G _{max}) or Phase Split, s	25.0	65.0	25.0	65.0	25.0	65.0	25.0	45.0	25.0	45.0					
Yellow Change Interval (Y), s	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3					
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.5	2.5	2.5					
Minimum Green (G _{min}), s	10	15	10	15	10	15	10	15	10	15					
Start-Up Lost Time (I), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0					
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	2.0					
Passage (PT), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0					
Recall Mode	Off	Min	Off	Min	Off	Min	Off	Off	Off	Off					
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes					
Walk (Walk), s	0.0	7.0	0.0	7.0	0.0	7.0	0.0	5.0	0.0	5.0					
Pedestrian Clearance Time (PC), s	0.0	37.0	0.0	37.0	0.0	37.0	0.0	35.0	0.0	34.0					
Multimodal Information				EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25			
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0			
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No			
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0			
Pedestrian Signal / Occupied Parking	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50	No	0.50			

TURNING MOVEMENT VOLUME COUNTS

#10 E

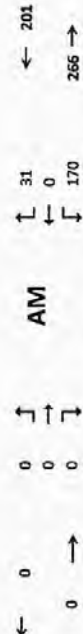
N/S STREET: Glades Cutoff Rd
 FILENAME: Willow Lakes
 COUNT DATE: 2/20/2020
 REPORT DATE:

E/W STREET: Commerce Centre Dr
 CITY: St Lucie

CONTROL: TWSC

DAY: Thursday
 ANALYSIS YEAR: 2020

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
7:00-7:15	0	69	53	9	63	0	0	0	0	69	0	6	269	913
7:15-7:30	0	72	78	15	57	0	0	0	0	46	0	11	279	794
7:30-7:45	0	60	43	24	39	0	0	0	0	24	0	6	196	644
7:45-8:00	0	40	35	9	46	0	0	0	0	31	0	8	169	557
8:00-8:15	0	38	32	7	42	0	0	0	0	27	0	4	150	499
8:15-8:30	0	35	27	6	35	0	0	0	0	23	0	3	129	
8:30-8:45	0	37	27	8	21	0	0	0	0	20	0	6	119	
8:45-9:00	0	21	21	7	26	0	0	0	0	23	0	3	101	



AM PEAK HOUR IS FROM:
 Volumes: 241 209 57 205
 Season Factor: 1
 Growth Rate: 1
 Years Growth: 0
 PHF: 0.818
 Trips In: 1,327
 Trips Out: 1,052
 Willow Lakes:

Total: 0 241 209 57 205 0 0 0 0 0 170 0 0 31 913

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
4:00-4:15	0	32	20	11	21	0	0	0	0	25	0	8	117	524
4:15-4:30	0	33	18	14	34	0	0	0	0	19	0	12	130	564
4:30-4:45	0	35	24	7	26	0	0	0	0	28	0	21	141	564
4:45-5:00	0	21	34	6	30	0	0	0	0	29	0	16	136	580
5:00-5:15	0	36	31	9	31	0	0	0	0	40	0	10	157	547
5:15-5:30	0	39	24	3	22	0	0	0	0	35	0	7	130	
5:30-5:45	0	45	38	14	25	0	0	0	0	32	0	3	157	
5:45-6:00	0	22	25	4	20	0	0	0	0	23	0	5	103	

PM PEAK HOUR IS FROM:
 Volumes: 141 127 32 108
 Season Factor: 1
 Growth Rate: 1
 Years Growth: 0
 PHF: 0.924
 Trips In: 1,327
 Trips Out: 1,052
 Willow Lakes:

Total: 0 141 127 32 108 0 0 0 0 0 136 0 0 36 580

F-179

St. Lucie County



00022 - MIDWAY RD @ GLADES CUT OFF - - Econolite Type - Cobalt

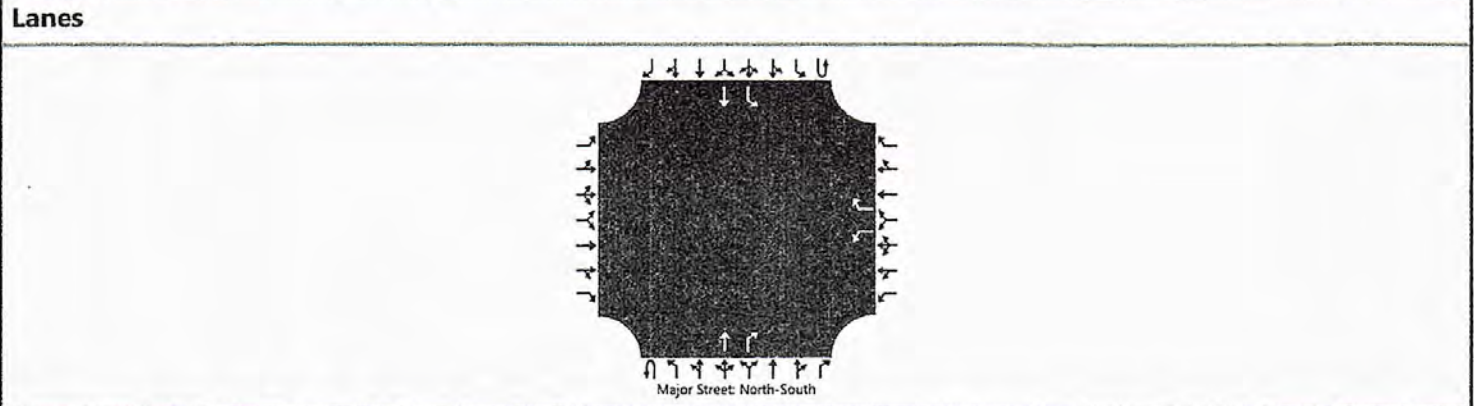
Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Min Green	15	10	7	7	10	10	7	7	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	0	0	7	0	0	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	20	0	0	0	0	0	20	0	0	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	25	60	20	25	25	60	10	25	35	35	35	35	35	35	35	35
Max2	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	5.0	5.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Glades Cut Off & Commerce
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie
Date Performed	4/1/2020	East/West Street	Commerce Centre Dr
Analysis Year	2020	North/South Street	Glades Cut Off Rd
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Existing		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		1	0	1		0	1	1		0	1	1	
Configuration						L		R			T	R		L	T		
Volume (veh/h)						170		31			241	209		57	205		
Percent Heavy Vehicles (%)						3		3						3			
Proportion Time Blocked																	
Percent Grade (%)						0											
Right Turn Channelized						No					No						
Median Type Storage						Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.43		6.23							4.13	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.53		3.33							2.23	

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						179		33							60	
Capacity, c (veh/h)						443		783							1083	
v/c Ratio						0.40		0.04							0.06	
95% Queue Length, Q ₉₅ (veh)						1.9		0.1							0.2	
Control Delay (s/veh)						18.5		9.8							8.5	
Level of Service (LOS)						C		A							A	
Approach Delay (s/veh)						17.2									1.9	
Approach LOS						C										

HCS7 Two-Way Stop-Control Report

General Information

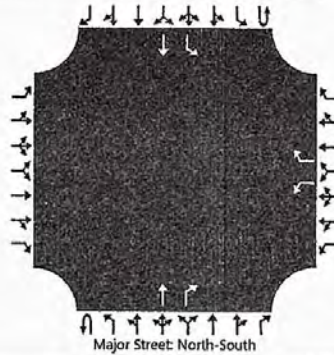
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2020
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Existing

Site Information

#10 E PM

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		1	0	1		0	1	1		0	1	0
Configuration						L		R			T	R		L		T
Volume (veh/h)						136		36			141	127		32		108
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized							No				No					
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.43		6.23							4.13	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.53		3.33							2.23	

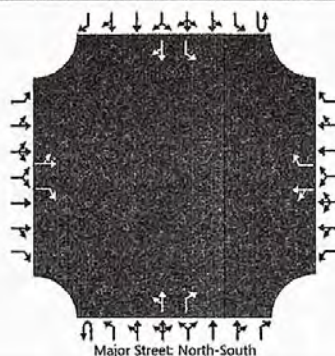
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						148		39							35	
Capacity, c (veh/h)						636		890							1265	
v/c Ratio						0.23		0.04							0.03	
95% Queue Length, Q ₉₅ (veh)						0.9		0.1							0.1	
Control Delay (s/veh)						12.4		9.2							7.9	
Level of Service (LOS)						B		A							A	
Approach Delay (s/veh)							11.7									1.8
Approach LOS							B									

HCS7 Two-Way Stop-Control Report

General Information				Site Information #10 w/o AM			
Analyst	James Kemp			Intersection	Glades Cut Off & Commerce		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie		
Date Performed	4/1/2020			East/West Street	Commerce Centre Dr		
Analysis Year	2035			North/South Street	Glades Cut Off Rd		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	without Project						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound					
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R		
Movement																		
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6		
Number of Lanes		0	1	1		0	1	1		0	1	1		0	1	1		
Configuration		LT		R		LT		R		LT		R		L		TR		
Volume (veh/h)		0	245	57		183	282	33		95	454	225		61	383	0		
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3				
Proportion Time Blocked																		
Percent Grade (%)		0				0												
Right Turn Channelized		No				No					No							
Median Type Storage		Undivided																

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

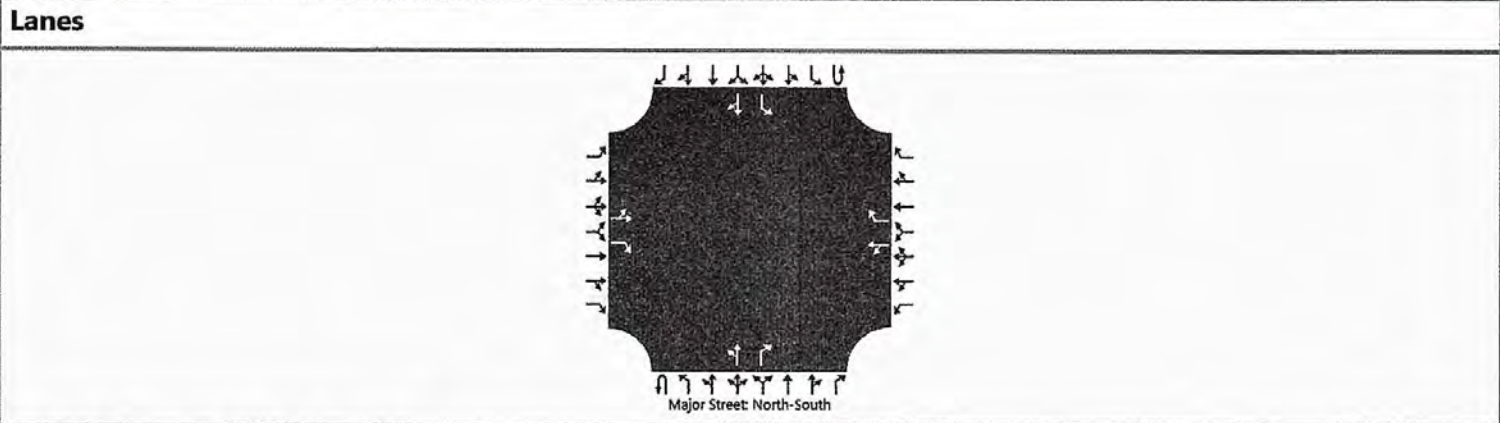
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		258		60		489		35		100				64		
Capacity, c (veh/h)				645				585		1150				881		
v/c Ratio				0.09				0.06		0.09				0.07		
95% Queue Length, Q ₉₅ (veh)				0.3				0.2		0.3				0.2		
Control Delay (s/veh)				11.2				11.5		8.4				9.4		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										1.6				1.3		
Approach LOS																

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	Glades Cut Off & Commerce		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie		
Date Performed	4/1/2020			East/West Street	Commerce Centre Dr		
Analysis Year	2035			North/South Street	Glades Cut Off Rd		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.95		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	without Project						

#10 w/o PM



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	1		0	1	1	0	0	1	1	0	1	1	0	
Configuration		LT		R		LT		R		LT		R		L		TR	
Volume (veh/h)		0	455	132		147	348	39		75	386	137		34	403	0	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No					No						
Median Type Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

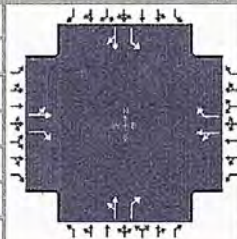
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		479		139		521		41		79				36		
Capacity, c (veh/h)				628				642		1130				1014		
v/c Ratio				0.22				0.06		0.07				0.04		
95% Queue Length, Q ₉₅ (veh)				0.8				0.2		0.2				0.1		
Control Delay (s/veh)				12.4				11.0		8.4				8.7		
Level of Service (LOS)				B				B		A				A		
Approach Delay (s/veh)										1.5						0.7
Approach LOS																

HCS7 Signalized Intersection Results Summary

10 w.o. + 1 Imp AM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 w.o. Pro...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	245	57	183	282	33	95	454	225	61	383	0

Signal Information				EB				WB				NB				SB			
Cycle, s	95.0	Reference Phase	2	Green	40.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Offset, s	0	Reference Point	End	Yellow	5.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Uncoordinated	Yes	Simult. Gap E/W	On	Red	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On																

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		6		2
Case Number		7.0		7.0		7.0		6.0
Phase Duration, s		47.0		47.0		48.0		48.0
Change Period, (Y+R c), s		7.0		7.0		8.0		8.0
Max Allow Headway (MAH), s		3.2		3.2		3.2		3.2
Queue Clearance Time (g s), s		10.6		40.6		42.0		42.0
Green Extension Time (g e), s		1.8		0.0		0.0		0.0
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		1.00		1.00		1.00

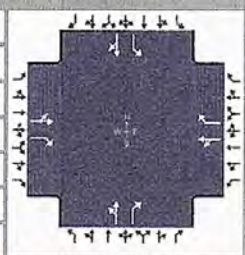
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	0	60		489	35		578	237		64	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	0	1610		1197	1610		1263	1610		931	0	
Queue Service Time (g s), s		0.0	2.1	30.0	1.2		25.2	9.5		0.0	0.0	
Cycle Queue Clearance Time (g c), s		0.0	2.1	38.6	1.2		40.0	9.5		40.0	0.0	
Green Ratio (g/C)			0.42	0.42	0.42		0.42	0.42		0.42		
Capacity (c), veh/h			678	557	678		576	678		76		
Volume-to-Capacity Ratio (X)		0.000	0.089	0.879	0.051		1.003	0.349		0.847	0.000	
Back of Queue (Q), ft/ln (95 th percentile)		0	34.2	479.3	20.6		660.4	152.8		117.7	0	
Back of Queue (Q), veh/ln (95 th percentile)		0.0	1.4	19.2	0.8		26.4	6.1		4.7	0.0	
Queue Storage Ratio (RQ) (95 th percentile)		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (d 1), s/veh			16.5	31.0	16.3		31.7	18.7		47.5		
Incremental Delay (d 2), s/veh		0.0	0.0	17.7	0.1		38.1	0.1		53.3	0.0	
Initial Queue Delay (d 3), s/veh		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (d), s/veh			16.6	48.8	16.4		69.8	18.8		100.8		
Level of Service (LOS)			B	D	B		F	B		F		
Approach Delay, s/veh / LOS	18.1		B	46.6		D	55.0		D	31.5		C
Intersection Delay, s/veh / LOS	42.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.01	A	1.35	A	1.83	B	1.26	A

HCS7 Signalized Intersection Results Summary

#10 w/o imp PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Glades Cut Off Rd		Analysis Year	2035	Analysis Period	1> 7:00	
Intersection	Commerce Centre Dr	File Name	Glades Cut Off Commerce - PM - 2035 w.o. Proj...				
Project Description	without Project + Imp						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	455	132	147	348	39	75	386	137	34	403	0

Signal Information																
Cycle, s	100.0	Reference Phase	2													
Offset, s	0	Reference Point	End													
Uncoordinated	Yes	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
				Green	40.0	45.0	0.0	0.0	0.0	0.0						
				Yellow	5.0	4.0	0.0	0.0	0.0	0.0						
				Red	3.0	3.0	0.0	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		8		4		6		2
Case Number		7.0		7.0		7.0		6.0
Phase Duration, s		52.0		52.0		48.0		48.0
Change Period, (Y+R _c), s		7.0		7.0		8.0		8.0
Max Allow Headway (MAH), s		3.3		3.3		3.2		3.2
Queue Clearance Time (g _s), s		20.5		47.0		40.9		42.0
Green Extension Time (g _e), s		2.8		0.0		0.0		0.0
Phase Call Probability		1.00		1.00		1.00		1.00
Max Out Probability		0.00		1.00		1.00		1.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	0	139		521	41		485	144		36	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	0	1449		923	1610		1246	1610		995	0	
Queue Service Time (g _s), s	0.0	5.8		26.5	1.4		21.6	5.9		1.1	0.0	
Cycle Queue Clearance Time (g _c), s	0.0	5.8		45.0	1.4		38.9	5.9		40.0	0.0	
Green Ratio (g/C)		0.45		0.45	0.45		0.40	0.40		0.40		
Capacity (c), veh/h		652		462	725		540	644		83		
Volume-to-Capacity Ratio (X)	0.000	0.213		1.127	0.057		0.898	0.224		0.430	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	0	84.6		800.3	24.4		496.6	97.1		41	0	
Back of Queue (Q), veh/ln (95 th percentile)	0.0	3.4		32.0	1.0		19.9	3.9		1.6	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh		16.7		36.0	15.5		31.9	19.8		49.8		
Incremental Delay (d ₂), s/veh		0.0	0.1	81.6	0.1		17.3	0.1		1.3	0.0	
Initial Queue Delay (d ₃), s/veh		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (d), s/veh		16.8		117.6	15.7		49.2	19.8		51.1		
Level of Service (LOS)		B		F	B		D	B		D		
Approach Delay, s/veh / LOS	19.8	B		110.1	F		42.5	D		25.9	C	
Intersection Delay, s/veh / LOS	49.7						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.91	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.51	B	1.42	A	1.53	B	1.25	A

HCS7 Two-Way Stop-Control Report

General Information

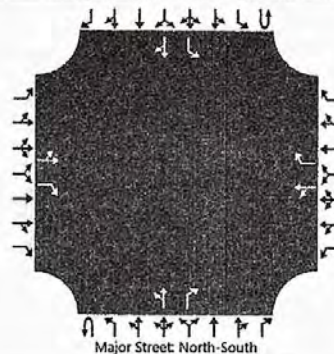
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2035
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	with Project

Site Information

#10 W/ P A-M

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound					
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R		
Movement																		
Priority		10	11	12		7	8	9		1U	1	2	3		4U	4	5	6
Number of Lanes		0	1	1		0	1	1		0	0	1	1		0	1	1	0
Configuration		LT		R		LT		R		LT		R		L			TR	
Volume (veh/h)		0	245	78		183	282	33		122	454	225		61	383	0		
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3				
Proportion Time Blocked																		
Percent Grade (%)		0				0												
Right Turn Channelized		No				No					No							
Median Type Storage		Undivided																

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1						4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13						4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2						2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		258		82		489		35		128						64		
Capacity, c (veh/h)				645				585		1150						881		
v/c Ratio				0.13				0.06		0.11						0.07		
95% Queue Length, Q ₉₅ (veh)				0.4				0.2		0.4						0.2		
Control Delay (s/veh)				11.4				11.5		8.5						9.4		
Level of Service (LOS)				B				B		A						A		
Approach Delay (s/veh)										2.0				1.3				
Approach LOS																		

HCS7 Two-Way Stop-Control Report

General Information

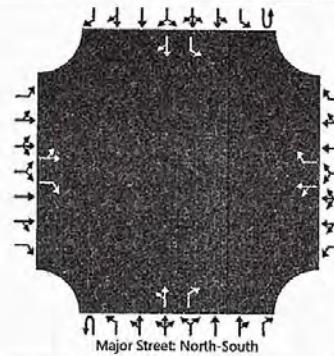
Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	4/1/2020
Analysis Year	2035
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	with Project

Site Information

Intersection	Glades Cut Off & Commerce
Jurisdiction	St. Lucie
East/West Street	Commerce Centre Dr
North/South Street	Glades Cut Off Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

#10 W/P PM

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	1	1		0	1	1		0	1	1		0	1	1	
Configuration		LT		R		LT		R		LT		R		L		TR	
Volume (veh/h)		0	455	153		147	348	39		104	386	137		34	403	0	
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3			
Proportion Time Blocked																	
Percent Grade (%)		0				0											
Right Turn Channelized		No				No					No						
Median Type Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13				4.13		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

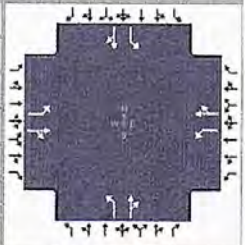
Flow Rate, v (veh/h)		479		161		521		41		109				36			
Capacity, c (veh/h)				628				642		1130				1014			
v/c Ratio				0.26				0.06		0.10				0.04			
95% Queue Length, Q ₉₅ (veh)				1.0				0.2		0.3				0.1			
Control Delay (s/veh)				12.7				11.0		8.5				8.7			
Level of Service (LOS)				B				B		A				A			
Approach Delay (s/veh)										2.1				0.7			
Approach LOS																	

HCS7 Signalized Intersection Results Summary

#10 WIP + imp AM

General Information

Agency	O'Rourke Engineering			Intersection Information	
Analyst	James Kemp	Analysis Date	4/17/2020	Duration, h	0.25
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	Area Type	Other
Urban Street	Glades Cut Off Rd	Analysis Year	2035	PHF	0.95
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 with Pro...		
Project Description	with Project + Improvements				



Demand Information

	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	245	78	183	282	33	122	454	225	61	383	0

Signal Information

Cycle, s	120.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	5.3	1.2	53.5	0.0	7.0	29.0				
		Yellow	4.0	0.0	4.0	4.0	4.0	4.0				
		Red	2.0	0.0	2.0	2.0	2.0	2.0				

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	0.0	35.0	13.0	48.0	12.5	60.7	11.3	59.5
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	0.0	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		22.9	9.0	18.9	6.6		4.3	
Green Extension Time (g _e), s	0.0	0.9	0.0	1.3	0.0	0.0	0.1	0.0
Phase Call Probability		1.00	1.00	1.00	0.99		0.88	
Max Out Probability		0.23	1.00	0.00	1.00		0.00	

Movement Group Results

	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	0	340		193	332		128	715		64	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1821		1810	1865		1810	1793		1810	0	
Queue Service Time (g _s), s	0.0	20.9		7.0	16.9		4.6	43.3		2.3	0.0	
Cycle Queue Clearance Time (g _c), s	0.0	20.9		7.0	16.9		4.6	43.3		2.3	0.0	
Green Ratio (g/C)	0.19	0.24		0.32	0.35		0.50	0.46		0.49		
Capacity (c), veh/h	266	440		236	653		454	818		199		
Volume-to-Capacity Ratio (X)	0.000	0.773		0.815	0.508		0.283	0.874		0.323	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	0	385.8		156.7	315.9		84.8	703.9		42.4	0	
Back of Queue (Q), veh/ln (95 th percentile)	0.0	15.4		6.3	12.6		3.4	28.2		1.7	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	0.0	42.4		39.6	30.8		17.7	29.5		25.0		
Incremental Delay (d ₂), s/veh	0.0	7.5		18.1	2.8		0.1	12.5		0.3	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	0.0	50.0		57.7	33.7		17.8	42.1		25.4		
Level of Service (LOS)		D		E	C		B	D		C		
Approach Delay, s/veh / LOS	50.0		D	42.5		D	38.4		D	25.3		C
Intersection Delay, s/veh / LOS	38.4			38.4			D			D		

Multimodal Results

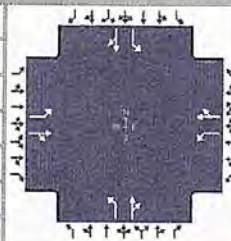
	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.94	B	1.93	B	1.91	B	1.91	B
Bicycle LOS Score / LOS	1.05	A	1.35	A	1.88	B	1.26	A

HCS7 Signalized Intersection Input Data

#10 WIP + IMA AM

General Information

Agency	O'Rourke Engineering			Intersection Information	
Analyst	James Kemp	Analysis Date	4/17/2020	Duration, h	0.25
Jurisdiction	St. Lucie	Time Period	AM Peak Hour	Area Type	Other
Urban Street	Glades Cut Off Rd	Analysis Year	2035	PHF	0.95
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - AM - 2035 with Pro...		
Project Description	with Project + Improvements				



Demand Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	245	78	183	282	33	122	454	225	61	383	0

Signal Information

Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End	Green	5.3	1.2	53.5	0.0	7.0	29.0	Yellow	4.0	0.0	4.0	4.0	4.0	4.0	Red	2.0	0.0	2.0	2.0	2.0	2.0
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					

Traffic Information

Approach Movement	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	0	245	78	183	282	33	122	454	225	61	383	0
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h	0	L			None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information

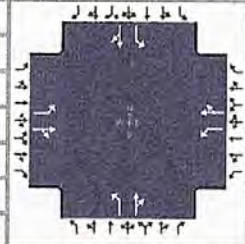
	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G _{max}) or Phase Split, s	13.0	35.0	13.0	35.0	15.0	16.0	56.0	57.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	7	6	7	6	10	6	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Max	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information

	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS7 Signalized Intersection Results Summary #10 WIP + IMP PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Commerce Centre Dr	File Name	Glades Cut Off Commerce - PM - 2035 with Proj...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	455	153	147	348	39	104	386	137	34	403	0

Signal Information				Signal Timing (s)													
Cycle, s	140.0	Reference Phase	2	Green	4.5	2.5	44.0	0.0	9.6	55.5	Yellow	4.0	0.0	4.0	4.0	4.0	4.0
Offset, s	0	Reference Point	End	Red	2.0	0.0	2.0	2.0	2.0	2.0	Force Mode	Fixed	Simult. Gap N/S	On			
Uncoordinated	No	Simult. Gap EW	On														

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	3	8	7	4	1	6	5	2
Case Number	1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	0.0	61.5	15.6	77.0	13.0	52.5	10.5	50.0
Change Period, (Y+R _c), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Allow Headway (MAH), s	0.0	3.1	3.1	3.1	3.1	0.0	3.1	0.0
Queue Clearance Time (g _s), s		56.3	9.3	21.3	7.7		3.8	
Green Extension Time (g _e), s	0.0	0.0	0.3	2.2	0.0	0.0	0.0	0.0
Phase Call Probability		1.00	1.00	1.00	0.99		0.75	
Max Out Probability		1.00	0.00	0.00	1.00		0.99	

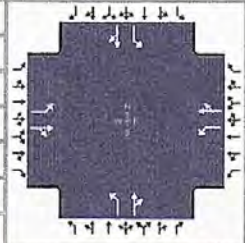
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h	0	640		155	407		109	551		36	0	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1636		1810	1866		1810	1814		1810	0	
Queue Service Time (g _s), s	0.0	54.3		7.3	19.3		5.7	40.7		1.8	0.0	
Cycle Queue Clearance Time (g _c), s	0.0	54.3		7.3	19.3		5.7	40.7		1.8	0.0	
Green Ratio (g/C)	0.35	0.40		0.48	0.51		0.36	0.33		0.35		
Capacity (c), veh/h	404	648		181	947		257	602		134		
Volume-to-Capacity Ratio (X)	0.000	0.987		0.853	0.430		0.426	0.914		0.266	0.000	
Back of Queue (Q), ft/ln (95 th percentile)	0	893.4		151.4	339.6		114.6	728.8		37.3	0	
Back of Queue (Q), veh/ln (95 th percentile)	0.0	35.7		6.1	13.6		4.6	29.2		1.5	0.0	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	0.0	41.9		35.5	21.7		33.2	44.9		36.5		
Incremental Delay (d ₂), s/veh	0.0	32.0		4.3	1.4		0.4	20.7		0.4	0.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	0.0	73.9		39.8	23.2		33.6	65.6		36.9		
Level of Service (LOS)		E		D	C		C	E		D		
Approach Delay, s/veh / LOS	73.9	E		27.7	C		60.3	E		48.6		D
Intersection Delay, s/veh / LOS	53.8						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.93	B	1.91	B	1.94	B	1.94	B
Bicycle LOS Score / LOS	1.54	B	1.42	A	1.58	B	1.25	A

HCS7 Signalized Intersection Input Data

#10 W1 + IMP PM

General Information				Intersection Information			
Agency	O'Rourke Engineering			Duration, h	0.25		
Analyst	James Kemp	Analysis Date	4/17/2020	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Glades Cut Off Rd	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Commerce Centre Dr	File Name	Glades Cut Off & Commerce - PM - 2035 with Pro...				
Project Description	with Project + Improvements						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	455	153	147	348	39	104	386	137	34	403	0

Signal Information				Signal Timing (s)															
Cycle, s	140.0	Reference Phase	2	Green	4.5	2.5	44.0	0.0	9.6	55.5	Green	4.5	2.5	44.0	0.0	9.6	55.5		
Offset, s	0	Reference Point	End	Yellow	4.0	0.0	4.0	4.0	4.0	4.0	Yellow	4.0	0.0	4.0	4.0	4.0	4.0		
Uncoordinated	No	Simult. Gap E/W	On	Red	2.0	0.0	2.0	2.0	2.0	2.0	Red	2.0	0.0	2.0	2.0	2.0	2.0		
Force Mode	Fixed	Simult. Gap N/S	On																

Traffic Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	0	455	153	147	348	39	104	386	137	34	403	0
Initial Queue (Q _b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s ₀), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N _m), man/h		R	0		None			None			None	
Heavy Vehicles (P _{HV}), %	0	0		0	0		0	0		0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	
Buses (N _b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (AT)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (f)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (W), ft	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Turn Bay Length, ft	0	0		0	0		0	0		0	0	
Grade (Pg), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
	Maximum Green (G _{max}) or Phase Split, s	63.0	14.0	63.0	14.0	13.0	50.0	13.0
Yellow Change Interval (Y), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R _c), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Minimum Green (G _{min}), s	6	7	6	7	6	10	6	10
Start-Up Lost Time (l _t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (e), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (PT), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Off	Off	Off	Max	Off	Min	Off	Min
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (Walk), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Clearance Time (PC), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0	No	25	0	No	25	0	No	25	0	No	25
Walkway / Crosswalk Width / Length, ft	9.0	12	0	9.0	12	0	9.0	12	0	9.0	12	0
Street Width / Island / Curb	0	0	No	0	0	No	0	0	No	0	0	No
Width Outside / Bike Lane / Shoulder, ft	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0	12	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	