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Electronic Signature Report

Project Name: Kings Highway Commerce Park

Job Number: SR21021.0

<u>Kings Highway Commerce Park Concurrency</u>	<u>62</u>
DOCUMENT NAME	# OF SHEETS

Includes: Report, Table 1 a,b,c – Trip Generation, AM/PM, Table 2 a,b– AM/PM Project Percent Impact, Table 3 a,b – Link Analysis AM/PM, Table 4 – Intersection Analysis Results; Figure 1 – Project Location, Figure 2 – Percent Assignment, Figure 3 – Driveway Volumes.

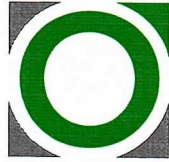
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42684
LICENSE NUMBER

5/04/2021
DATE



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ENGINEERING & PLANNING

TRAFFIC ANALYSIS

FOR

**Kings Highway Commerce Park
Concurrency**

Prepared for:

**Mr. Ken Morin
Kings Highway Development Partners, LLC
4923 W. Cypress St.
Tampa, FL 33607**

Prepared by:

**O'Rourke Engineering & Planning
22 SE Seminole Street
Stuart, Florida 34994
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**March 11, 2021
SR21021.0**

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Susan E O'Rourke State of Florida, Professional Engineer, License No. 42684

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ENGINEERING & PLANNING

March 11, 2021

Mr. Ken Morin
Kings Highway Development Partners, LLC
4923 W. Cypress St.
Tampa, FL 33607

Re: Kings Highway Commerce Park

Dear Mr. Morin:

O'Rourke Engineering & Planning has completed the analysis of the proposed development located east of Kings Highway and south of White Road in Ft. Pierce, 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

C6 – Concurrency Report – Kings Highway Commerce Park – 2.12.21



O'ROURKE
ENGINEERING & PLANNING

March 11, 2021

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Kings Highway Development Partners, LLC
4923 W. Cypress St.
Tampa, FL 33607

Re: Kings Highway Commerce Park

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O'Rourke Engineering & Planning has completed the analysis of the proposed development located east of Kings Highway and south of White Road in Ft. Pierce, 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.

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C6 – Concurrency Report – Kings Highway Commerce Park – 2.12.21

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INTRODUCTION

O'Rourke Engineering & Planning was retained to prepare a traffic analysis for the proposed development consisting of warehousing and office located east of Kings Highway and south of White Road in Ft. Pierce, St. Lucie County, Florida. The purpose of this report is to determine the projects impact on the surrounding roadway system.

In order to make the determination that the project complies with County Concurrency Guidelines, the following analytical steps were taken:

- summary of the project
- summary of existing lane geometries
- summary of the existing traffic volumes
- assessment of project traffic
- determination of impact area
- summary of buildout cumulative traffic volumes
- summary of levels of service with the project traffic added

Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed development located east of Kings Highway and south of White Road in Ft. Pierce, St. Lucie County, Florida, will consist of 1,770,000 square feet of warehouse and 130,000 square feet of office. The site is currently vacant. The project location is shown in **Figure 1**.

Appendix A includes the project site plan.

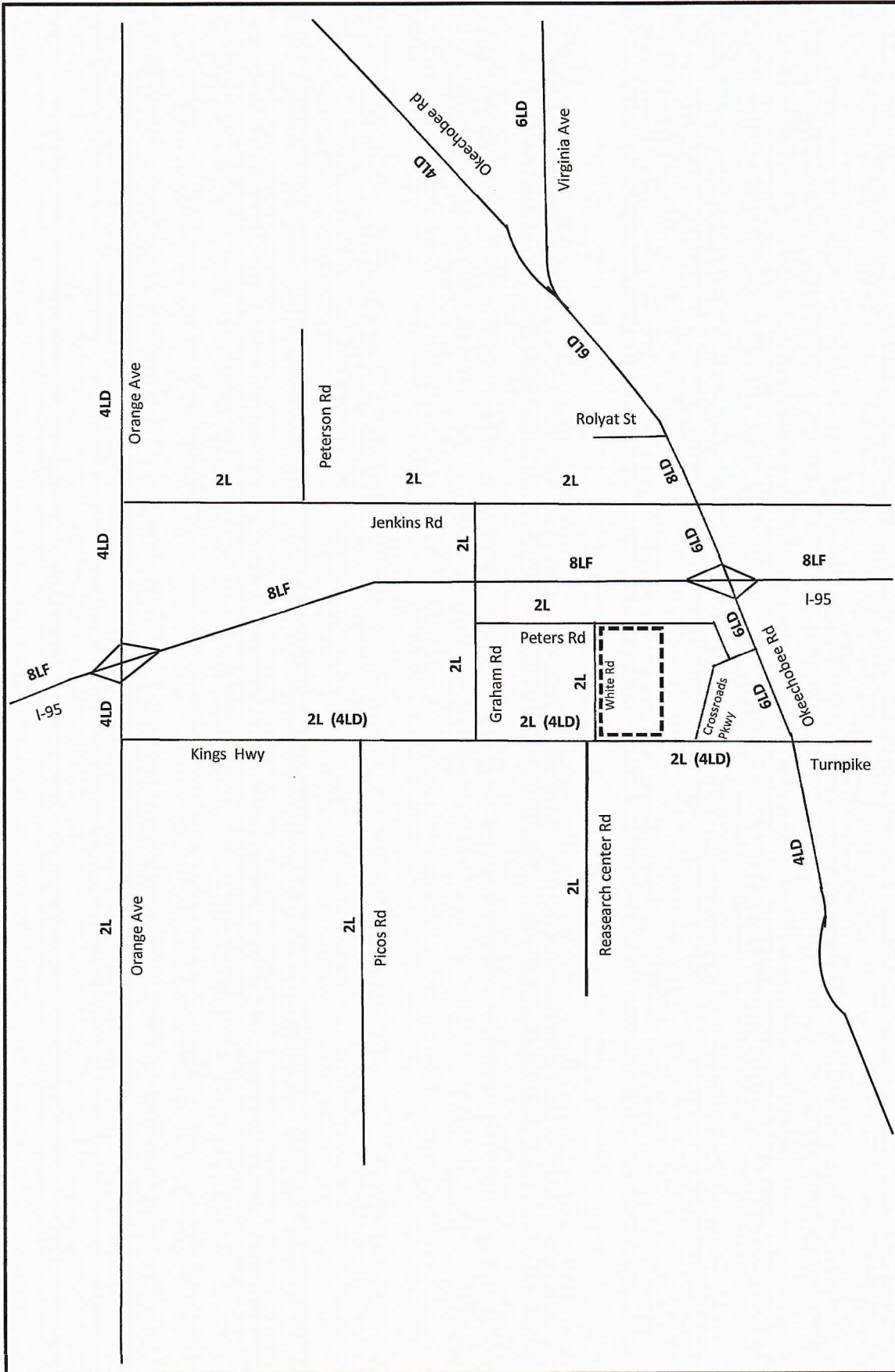


Figure 1
Project Location
Kings Highway Commerce Park

Legend
 = Project Location
 2L = Existing Lanes
 (4LD) = Committed Lanes


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 Stuart, FL 34994
 NTS
 Job Number: SR20121.0
 Date: 2/12/2021

EXISTING CONDITIONS

The study area is defined as the roadways upon which the project has an impact of 3% of the level of service capacity of the roadway and 1% on the adjacent link. 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 lane geometrics and existing traffic volumes.

Existing/Proposed Lane Geometrics and Traffic Control

The study area was reviewed to determine the existing number and type of lanes, and the traffic control along the roadway. Each roadway is described below.

- Peters Road is a two-lane local road with a general north/south alignment.
- S. Jenkins Road is a two-lane arterial with a north/south alignment.
- Graham Road is a two-lane local roadway with an east/west alignment.
- Okeechobee Road is a multi-lane divided arterial roadway with an east/west alignment. It is four-lane divided west of Kings Highway and east of Virginia Avenue. It is six-lane divided from Rolyat Street to Virginia Avenue and from Kings Highway to I-95. There is an eight-lane divided section from east of I-95 to Rolyat Street. There are numerous extended turn lanes and freeway auxiliary lanes.
- Orange Avenue is a four-lane divided arterial with an east/ west alignment.
- Kings Highway is a two-lane arterial with a north/south alignment and is under construction in portions and included in the 5-year TIP to be widened to a four-lane divided roadway.

Existing Traffic Volumes/ Service Volume

Traffic volumes were obtained from the St. Lucie County TPO and FDOT. The count data along with the number of lanes and the associated peak hour/peak direction service volumes will be summarized in the upcoming sections of the report. The service volumes were developed based on the functional classification contained in the County Comprehensive Plan and the St. Lucie County Traffic Counts and Level of Service Report. The 2020 FDOT Quality Level of Service and St. Lucie TPO 2019/2020 Level of Service Report were used to establish capacity. These documents are included in **Appendix B**.

PROJECT TRAFFIC

To estimate future traffic generated by the development, the ITE Trip Generation, 10th Edition trip rates for Warehouse (Land Use Code 150) and Office (Land Use Code 710) were applied to estimate the trips generated by the proposed development. These calculations are shown in **Tables 1a, 1b, and 1c**.

As shown, the project will generate 4,108 new daily trips. There will be 452 AM peak hour trips with 362 entering the project and 90 trips exiting the project. The project will generate 486 new PM peak hour trips. There will be 115 trips entering the project and 371 trips exiting the project in the PM peak hour.

Table 1 - Trip Generation -Kings Highway Commerce Park

Table 1a: Daily

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
General Office	710	130,000	Sft	$T=9.74(X)$	50%	50%	633	633	1,266
Warehousing	150	1,770,000	Sft	$T = 1.58(X) + 45.54$	50%	50%	1,421	1,421	2,842
TOTALS							2,054	2,054	4,108

Source: ITE 10th Edition Trip Generation Rates

Table 1b: AM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
General Office	710	130,000	Sft	$T = 1.16(X)$	86%	14%	130	21	151
Warehousing	150	1,770,000	Sft	$T = 0.17(X)$	77%	23%	232	69	301
TOTALS							362	90	452

Source: ITE 10th Edition Trip Generation Rates

Table 1c: PM Peak Hour

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Net New Trips		
					In	Out	In	Out	Total
General Office	710	130,000	Sft	$T = 1.15(X)$	16%	84%	24	126	150
Warehousing	150	1,770,000	Sft	$T = 0.19(X)$	27%	73%	91	245	336
TOTALS							115	371	486

Source: ITE 10th Edition Trip Generation Rates

PROJECT DISTRIBUTION/ ASSIGNMENT/IMPACT

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

Distribution/ Assignment – This general distribution led to an assignment of trips based on the anticipated ultimate destinations and the roadway paths used to reach those destinations. The project assignment is shown in **Figure 2**.

Impact – **Tables 2a and 2b** summarize the project impact as a percent of service volume capacity. Significant is defined as 1% or more on an adjacent link and 3% or more on all other links. As shown, the project is significant on several links.

OTHER PROJECT TRAFFIC/GROWTH RATE

Existing traffic volumes were grown using a 4-year area wide historical growth rate of 2.25%. Other project data includes committed traffic from 39 Acre Residential Development, Kings Center, Village of Sunset Lakes, Mariner Cove, Bent Creek, Celebration Pointe, Whispering Oaks, St. Lucie Commerce Center, Walsh Crossroads, Project Hurricane, and the Treasure Coast Research Park.

Details of the background traffic and growth rate are included in **Appendix C**.

LINK ANALYSIS / REVIEW

The project is significant on several links, these links were analyzed further to ensure they will meet concurrency. **Table 3a and 3b** summarizes the results of the link analysis. As shown, all roadways will operate at acceptable levels of service at project buildout. Jenkins Road exceeds the theoretical capacity, a detailed analysis using ArtPlan was used to demonstrate concurrency.

The detailed analysis is included in **Appendix D**.

INTERSECTION ANALYSIS/SIGNAL WARRANT

The intersection of White Road at Kings Highway was analyzed for the AM and PM peak hours using HCS for unsignalized intersections. As part of the Kings Highway widening project, Research Center Road and White Road will be aligned. The intersection will operate at a level of service C at project build out. A signal warrant for the intersection was also conducted using the 8-hour, 4-hour and peak hour warrants. At project buildout the intersection of Kings Highway and White Road would satisfy the 8-hour, 4-hour, and peak hour signal warrants at 70%.

The intersection data and signal warrant are shown in **Appendix E**. The LOS results are included in the next section of the report.

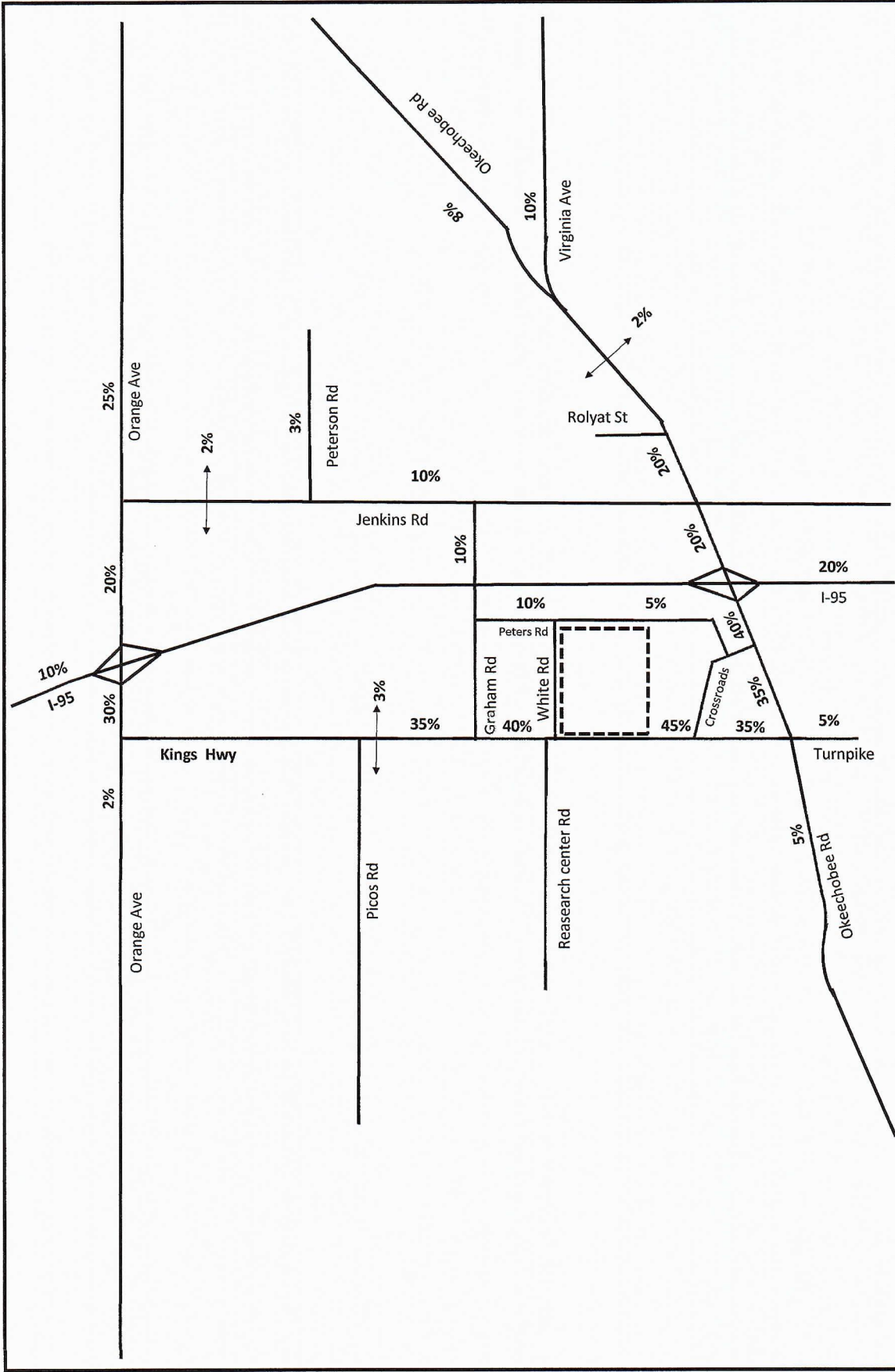


Figure 2
Percent Assignment
Kings Highway Commerce Park

Legend
 = Project Location



22 SE Seminole Street
Stuart, FL 34994

Date: 2/12/2021



NTS

Job Number: SR20121.0

TABLE 2a - Project Percent Impact - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% [1% on Adjacent Links] ⁽²⁾	Peak Hour Service Capacity (E+C) ⁽¹⁾	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment	
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	YES	920	18	1.96%	5%	
	Crossroads Pkwy	White Rd	SB	OUT	NO	920	5	0.54%	5%	
	White Rd	Graham Rd	NB	OUT	NO	920	9	0.98%	10%	
	White Rd	Graham Rd	SB	IN	YES	920	36	3.91%	10%	
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	YES	1800	163	9.06%	45%	
	Okeechobee Rd	Crossroads Pkwy	SB	OUT	NO	1800	41	2.28%	45%	
	Crossroads Pkwy	Project Entrance	NB	IN	YES	1800	163	9.06%	45%	
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	1800	41	2.28%	45%	
	Project Entrance	Graham Rd	NB	OUT	YES	1800	36	2.00%	40%	
	Project Entrance	Graham Rd	SB	IN	YES	1800	145	8.06%	40%	
	Graham Rd	Picos Rd	NB	OUT	NO	1800	32	1.78%	35%	
	Graham Rd	Picos Rd	SB	IN	YES	1800	127	7.06%	35%	
	Picos Rd	Orange Ave	NB	OUT	NO	1800	29	1.61%	32%	
	Picos Rd	Orange Ave	SB	IN	YES	1800	116	6.44%	32%	
Graham Rd	Kings Hwy	Jenkins Rd	EB	OUT	NO	630	9	1.43%	10%	
	Kings Hwy	Jenkins Rd	WB	IN	YES	630	36	5.71%	10%	
Virginia Ave	Okeechobee Rd	Hartman Rd	EB	OUT	NO	3020	9	0.30%	10%	
	Okeechobee Rd	Hartman Rd	WB	IN	NO	3020	36	1.19%	10%	
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	NO	2000	23	1.15%	25%	
	Jenkins Rd	Hartman Rd	WB	IN	YES	2000	91	4.55%	25%	
I-95	I-95	Jenkins Rd	EB	IN	YES	2000	72	3.60%	20%	
	I-95	Jenkins Rd	WB	OUT	NO	2000	18	0.90%	20%	
	Kings Hwy	I - 95	EB	OUT	NO	2000	27	1.35%	30%	
	Kings Hwy	I - 95	WB	IN	YES	2000	109	5.45%	30%	
	Campbell Rd	Kings Hwy	EB	IN	NO	1070	7	0.65%	2%	
	Campbell Rd	Kings Hwy	WB	OUT	NO	1070	2	0.19%	2%	
	Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	NO	630	9	1.43%	10%
		Graham Rd	Peterson Rd	SB	IN	YES	630	36	5.71%	10%
		Peterson Rd	Orange Ave	NB	OUT	NO	920	9	0.98%	10%
		Peterson Rd	Orange Ave	SB	IN	YES	920	36	3.91%	10%
Okeechobee Rd	McCarty Rd	Florida Turnpike	EB	IN	NO	1810	18	0.99%	5%	
	McCarty Rd	Florida Turnpike	WB	OUT	NO	1810	5	0.28%	5%	
	Florida Turnpike	Kings Hwy	EB	IN	NO	2010	18	0.90%	5%	
	Florida Turnpike	Kings Hwy	WB	OUT	NO	2010	5	0.25%	5%	
	Kings Hwy	I - 95	EB	OUT	NO	4170	36	0.86%	40%	
	Kings Hwy	I - 95	WB	IN	YES	4170	145	3.48%	40%	
	I - 95	Jenkins Rd	EB	OUT	NO	4240	18	0.42%	20%	
	I - 95	Jenkins Rd	WB	IN	NO	4240	72	1.70%	20%	
	Jenkins Rd	McNeill Ave	EB	OUT	NO	4040	18	0.45%	20%	
	Jenkins Rd	McNeill Ave	WB	IN	NO	4040	72	1.78%	20%	
I-95	Midway Rd	Okeechobee Rd	NB	IN	NO	7320	72	0.98%	20%	
	Midway Rd	Okeechobee Rd	SB	OUT	NO	7320	18	0.25%	20%	
	Orange Ave	Indrio Rd	NB	OUT	NO	7320	9	0.12%	10%	
	Orange Ave	Indrio Rd	SB	IN	NO	7320	36	0.49%	10%	

(1) FDOT 2020 Service Capacity Tables & St. Lucie TPO

(2) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 452
Net In: 362
Net Out: 90

TABLE 2b - Project Percent Impact - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% [1% on Adjacent Links] ⁽²⁾	Peak Hour Service Capacity (E+C) ⁽¹⁾	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment	
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	NO	920	6	0.65%	5%	
	Crossroads Pkwy	White Rd	SB	OUT	YES	920	19	2.07%	5%	
	White Rd	Graham Rd	NB	OUT	YES	920	37	4.02%	10%	
	White Rd	Graham Rd	SB	IN	NO	920	12	1.30%	10%	
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	NO	1800	52	2.89%	45%	
	Okeechobee Rd	Crossroads Pkwy	SB	OUT	YES	1800	167	9.28%	45%	
	Crossroads Pkwy	Project Entrance	NB	IN	YES	1800	52	2.89%	45%	
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	1800	167	9.28%	45%	
	Project Entrance	Graham Rd	NB	OUT	YES	1800	148	8.22%	40%	
	Project Entrance	Graham Rd	SB	IN	YES	1800	46	2.56%	40%	
	Graham Rd	Picos Rd	NB	OUT	YES	1800	130	7.22%	35%	
	Graham Rd	Picos Rd	SB	IN	NO	1800	40	2.22%	35%	
	Picos Rd	Orange Ave	NB	OUT	YES	1800	119	6.61%	32%	
	Picos Rd	Orange Ave	SB	IN	NO	1800	37	2.06%	32%	
Graham Rd	Kings Hwy	Jenkins Rd	EB	OUT	YES	630	37	5.87%	10%	
	Kings Hwy	Jenkins Rd	WB	IN	NO	630	12	1.90%	10%	
Virginia Ave	Okeechobee Rd	Hartman Rd	EB	OUT	NO	3020	37	1.23%	10%	
	Okeechobee Rd	Hartman Rd	WB	IN	NO	3020	12	0.40%	10%	
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	YES	2000	93	4.65%	25%	
	Jenkins Rd	Hartman Rd	WB	IN	NO	2000	29	1.45%	25%	
I-95	I-95	Jenkins Rd	EB	OUT	YES	2000	74	3.70%	20%	
	I-95	Jenkins Rd	WB	IN	NO	2000	23	1.15%	20%	
	Kings Hwy	I - 95	EB	OUT	YES	2000	111	5.55%	30%	
	Kings Hwy	I - 95	WB	IN	NO	2000	35	1.75%	30%	
	Campbell Rd	Kings Hwy	EB	IN	NO	1070	2	0.19%	2%	
	Campbell Rd	Kings Hwy	WB	OUT	NO	1070	7	0.65%	2%	
	Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	YES	630	37	5.87%	10%
		Graham Rd	Peterson Rd	SB	IN	NO	630	12	1.90%	10%
		Peterson Rd	Orange Ave	NB	OUT	YES	920	37	4.02%	10%
		Peterson Rd	Orange Ave	SB	IN	NO	920	12	1.30%	10%
Okeechobee Rd	McCarty Rd	Florida Turnpike	EB	IN	NO	1810	6	0.33%	5%	
	McCarty Rd	Florida Turnpike	WB	OUT	NO	1810	19	1.05%	5%	
	Florida Turnpike	Kings Hwy	EB	IN	NO	2010	6	0.30%	5%	
	Florida Turnpike	Kings Hwy	WB	OUT	NO	2010	19	0.95%	5%	
	Kings Hwy	I - 95	EB	OUT	YES	4170	148	3.55%	40%	
	Kings Hwy	I - 95	WB	IN	NO	4170	46	1.10%	40%	
	I - 95	Jenkins Rd	EB	OUT	NO	4240	74	1.75%	20%	
	I - 95	Jenkins Rd	WB	IN	NO	4240	23	0.54%	20%	
	Jenkins Rd	Virginia Ave	EB	OUT	NO	4040	74	1.83%	20%	
	Jenkins Rd	Virginia Ave	WB	IN	NO	4040	23	0.57%	20%	
I-95	Midway Rd	Okeechobee Rd	NB	IN	NO	7320	23	0.31%	20%	
	Midway Rd	Okeechobee Rd	SB	OUT	NO	7320	74	1.01%	20%	
	Orange Ave	Indrio Rd	NB	OUT	NO	7320	37	0.51%	10%	
	Orange Ave	Indrio Rd	SB	IN	NO	7320	12	0.16%	10%	

(1) FDOT 2020 Service Capacity Tables & St. Lucie TPO

(2) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 486
Net In: 115
Net Out: 371

TABLE 3a - Link Analysis - AM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2017	D Factor	2017 Peak Hour Directional Volumes	Growth Rate (2)	2023 AM Peak Hour + Growth	AM Peak Hour Committed Projects Directional	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (1)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Satisfy Concurrency?	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	NB	IN	YES	2000 (4)	0.562	100 (6)	2.25%	107	23	130	920	18	148	1.96%	YES	5%
	White Rd	Graham Rd	SB	IN	YES	2000 (4)	0.438	78 (4)	2.25%	83	36	96	920	36	132	3.91%	YES	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	NB	IN	YES	8234	0.562	361	2.25%	413	38	451	1800	163	614	9.06%	YES	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	8234	0.562	361	2.25%	413	38	451	1800	163	614	9.06%	YES	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	8234	0.438	281	2.25%	321	14	335	1800	41	376	2.28%	YES	45%
	Project Entrance	Graham Rd	NB	OUT	YES	8234	0.562	361	2.25%	413	38	451	1800	36	487	2.00%	YES	40%
	Project Entrance	Graham Rd	SB	IN	YES	8234	0.438	281	2.25%	321	14	335	1800	145	480	8.06%	YES	40%
	Graham Rd	Picos Rd	SB	IN	YES	8216	0.438	315	2.25%	360	14	374	1800	127	501	7.06%	YES	35%
	Picos Rd	Orange Ave	SB	IN	YES	8216	0.438	315	2.25%	360	45	405	1800	116	521	6.44%	YES	32%
Graham Rd	Kings Hwy	Jenkins Rd	WB	OUT	YES	3733	0.509	255	2.25%	291	0	291	630	9	300	1.43%	YES	10%
Orange Ave	Jenkins Rd	Hartman Rd	WB	IN	YES	14189	0.509	764	2.25%	873	68	941	2000	91	1032	4.55%	YES	25%
	I-95	Jenkins Rd	EB	IN	YES	14009	0.491	737	2.25%	842	145	987	2000	72	1059	3.60%	YES	20%
	Kings Hwy	I-95	WB	IN	YES	18112	0.562	780	2.25%	891	144	1035	2000	109	1144	5.45%	YES	30%
Jenkins Rd	Graham Rd	Peterson Rd	SB	IN	YES	10500 (3)	0.509	593 (6)	2.25%	634	101	735	630	36	771	5.71%	YES (9)	10%
	Peterson Rd	Orange Ave	SB	IN	YES	10500 (3)	0.509	593 (6)	2.25%	634	123	757	920	36	793	3.91%	YES	10%
Okeechobee Rd	Kings Hwy	I-95	WB	OUT	YES	24585	0.562	1063	2.25%	1215	33	1248	4170	145	1393	3.48%	YES	40%

(1) St. Lucie County 2019/2020 Traffic Counts and LOS Report

(2) Area wide growth rate calculated from FDOT Historical AADT

(3) 2020 Count

(4) Estimated Existing 2020 Traffic

(5) Detailed Analysis used to demonstrate Concurrency

Two-Way: 452

Net In: 362

Net Out: 90

Years Growth: 6

TABLE 3b - Link Analysis - PM

Segment	From	To	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	AADT 2017	D Factor	2017 Peak Hour Directional Volumes	Growth Rate (2)	2023 PM Peak Hour + Growth	PM Peak Hour Committed Projects Directional	2023 Growth + Committed Peak Direction	Peak Hour Service Capacity (1)	Project Volume Peak Direction	Total Traffic (Peak Direction)	% Project of Capacity- Peak Hour	Does Project Satisfy Concurrency?	Project Percent Assignment
Peters Rd	Crossroads Pkwy	White Rd	SB	OUT	YES	2000 (4)	0.562	100 (6)	2.25%	107	24	131	920	19	150	2.07%	YES	5%
	White Rd	Graham Rd	NB	OUT	YES	2000 (4)	0.438	78 (4)	2.25%	83	13	96	920	37	133	4.02%	YES	10%
Kings Hwy	Okeechobee Rd	Crossroads Pkwy	SB	OUT	YES	8234	0.562	369	2.25%	422	43	465	1800	167	632	9.28%	YES	45%
	Crossroads Pkwy	Project Entrance	NB	IN	YES	8234	0.438	288	2.25%	329	38	367	1800	52	419	2.89%	YES	45%
	Crossroads Pkwy	Project Entrance	SB	OUT	YES	8234	0.562	369	2.25%	422	43	465	1800	167	632	9.28%	YES	45%
	Project Entrance	Graham Rd	NB	OUT	YES	8234	0.438	288	2.25%	329	38	367	1800	148	515	8.22%	YES	40%
	Project Entrance	Graham Rd	SB	IN	YES	8234	0.562	369	2.25%	422	43	465	1800	46	511	2.56%	YES	40%
	Graham Rd	Picos Rd	NB	OUT	YES	8216	0.438	303	2.25%	346	38	384	1800	130	514	7.22%	YES	35%
	Picos Rd	Orange Ave	NB	OUT	YES	8216	0.438	303	2.25%	346	114	460	1800	119	579	6.61%	YES	32%
Graham Rd	Kings Hwy	Jenkins Rd	EB	IN	YES	3733	0.509	243	2.25%	278	0	278	630	37	315	5.87%	YES	10%
Orange Ave	Jenkins Rd	Hartman Rd	EB	OUT	YES	14189	0.509	710	2.25%	811	79	890	2000	93	983	4.65%	YES	25%
	I-95	Jenkins Rd	EB	OUT	YES	14009	0.509	505	2.25%	1034	163	1197	2000	74	1271	3.70%	YES	20%
	Kings Hwy	I-95	EB	OUT	YES	18112	0.562	786	2.25%	898	96	994	2000	111	1105	5.55%	YES	30%
Jenkins Rd	Graham Rd	Peterson Rd	NB	OUT	YES	10500 (3)	0.509	569 (6)	2.25%	608	96	704	630	37	741	5.87%	YES (5)	10%
	Peterson Rd	Orange Ave	NB	OUT	YES	10500 (3)	0.509	569 (6)	2.25%	608	177	785	920	37	822	4.02%	YES	10%
Okeechobee Rd	Kings Hwy	I-95	EB	IN	YES	24585	0.562	1086	2.25%	1241	51	1292	4170	148	1440	3.55%	YES	40%

(1) St. Lucie County 2019 Traffic Counts and LOS Report

(2) Area wide growth rate calculated from FDOT Historical AADT

(3) 2020 Count

(4) Estimated Existing 2020 Traffic

(5) Detailed Analysis used to demonstrate Concurrency

Two-Way: 486

Net In: 115

Net Out: 371

Years Growth: 6

DRIVEWAY ANALYSIS

The project will have a total of 5 driveways. Driveway 1 will be a directional access driveway on Kings Highway with right-in/left-in/right-out access. Driveways 2, 3, and 4 will be full access driveways located on White Road. Driveway 5 will be a full access driveway located on Peters Road. **Figure 3** shows the driveway volumes for the AM and PM peak hours. These driveways were analyzed using HCS. The analysis shows all 5 driveways will operate at an acceptable level of service at project buildout.

Table 4 summarizes the results. The driveway analysis is shown in **Appendix F**.

Table 4: Intersection Analysis Results

Intersection	2023 with Project			
	AM		PM	
	Delay (s)	LOS	Delay (s)	LOS
Kings Highway & White Road	EB - 14.4 WB - 16.4	EB - B WB - C	EB - 13.8 WB - 28.6	EB - B WB - D
Kings Highway & Driveway 1	10.1	B	10.1	B
White Road & Driveway 2	9.6	A	10.6	B
White Road & Driveway 3	9.2	A	9.7	A
White Road & Driveway 4	8.9	A	9.1	A
Peters Road & Driveway 5	9.6	A	9.6	A

CONCLUSION

With 452 net new AM peak hour trips and 486 net new PM peak hour trips, all links and intersections operate at acceptable levels of service with the existing roadway network. Therefore, the project meets the requirements for concurrency.

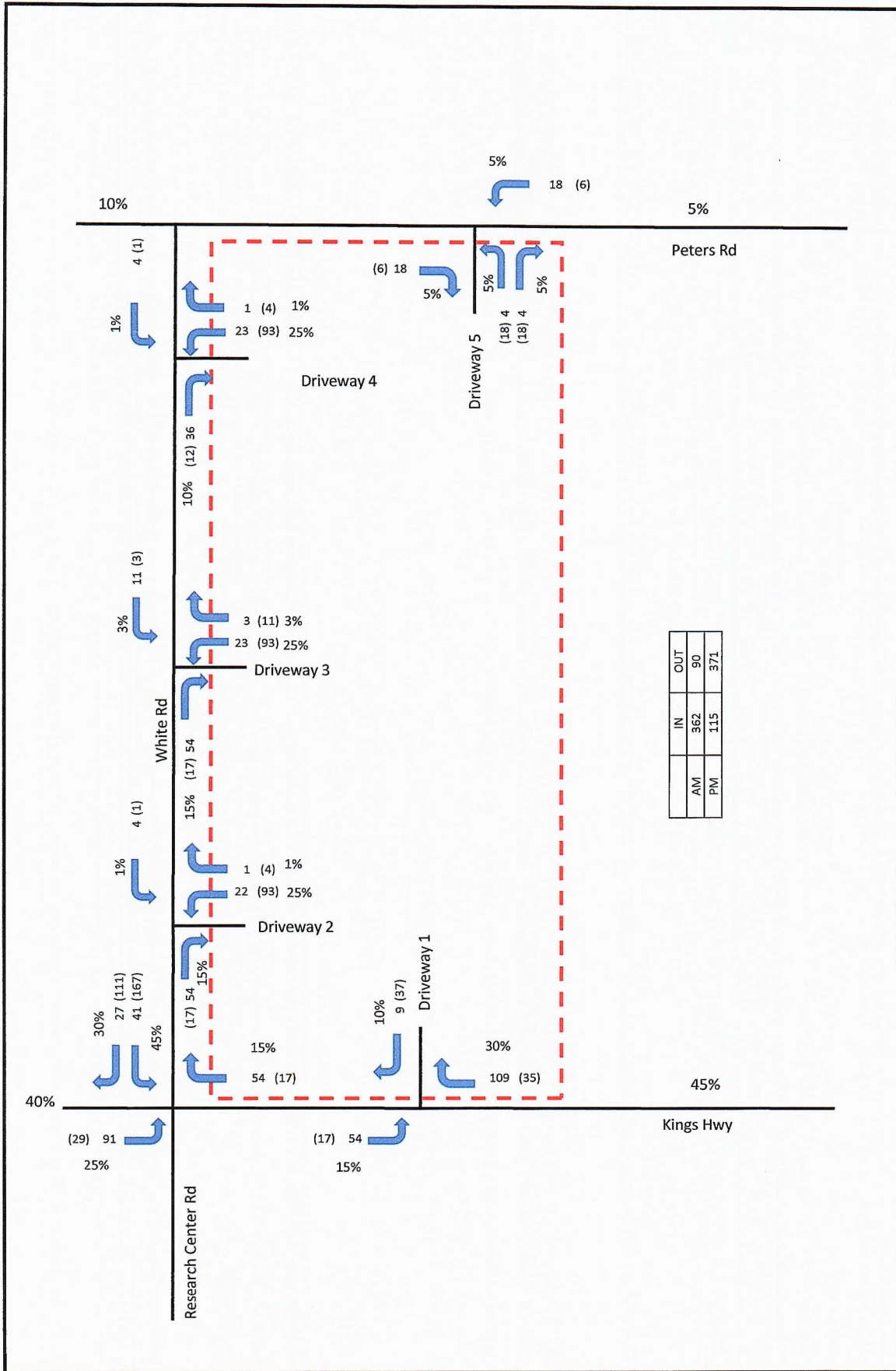


Figure 3
 Driveway Volumes
 Kings Highway Commerce Center

Legend
 [Red dashed box] = Project Location
 XX (XX) = AM (PM)



O'ROURKE
 ENGINEERING & PLANNING
 22 SE Seminole Street
 Stuart, FL 34994



NTS

Job Number: SR2012.1.0
 Date:

APPENDIX A

SITE PLAN

APPENDIX B

**ST. LUCIE COUNTY 2019/2020 LEVEL OF SERVICE REPORT
&
FDOT 2020 QUALITY LEVEL OF SERVICE**



**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
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

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						Volume	LOS	V/C	Volume	LOS	V/C
I-95	ORANGE AVE to INDRIO 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 KOBLEGGARD RD	940038	10,455	2017	3,240	598	B	0.330	629	B	0.348
INDRIO RD	KOBLEGGARD 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 OKEECHOBEE RD	133	10,500	2020	880	549	C	0.661	553	C	0.666
JENKINS RD	OKEECHOBEE 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 INDRIO RD	675	2,233	2017	1,070	142	B	0.374	138	B	0.363
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	9,600	2020	1,070	544	C	0.716	545	C	0.717

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						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	1.0	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

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						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

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						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

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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 INDRIO RD	940009	17,126	2017	2,100	1,020	C	0.507	978	C	0.487
US 1	INDRIO 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 LYNAGATE 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.

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's
Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	830	880	**	2	2,230	3,100	3,740	4,080	
2	Divided	*	1,910	2,000	**	3	3,280	4,570	5,620	6,130	
3	Divided	*	2,940	3,020	**	4	4,310	6,030	7,490	8,170	
4	Divided	*	3,970	4,040	**	5	5,390	7,430	9,370	10,220	
						6	6,380	8,990	11,510	12,760	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	370	750	800	2	2,270	3,100	3,890	4,230	
2	Divided	*	730	1,630	1,700	3	3,410	4,650	5,780	6,340	
3	Divided	*	1,170	2,520	2,560	4	4,550	6,200	7,680	8,460	
4	Divided	*	1,610	3,390	3,420	5	5,690	7,760	9,520	10,570	
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						Freeway Adjustments					
Median & Turn Lane Adjustments						Auxiliary Lane + 1,000 Ramp Metering + 5%					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		UNINTERRUPTED FLOW HIGHWAYS					
1	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
1	Undivided	No	No	-20%		1	Undivided	580	890	1,200	1,610
Multi	Undivided	Yes	No	-5%		2	Divided	1,800	2,600	3,280	3,730
Multi	Undivided	No	No	-25%		3	Divided	2,700	3,900	4,920	5,600
-	-	-	Yes	+ 5%		Uninterrupted Flow Highway Adjustments					
One-Way Facility Adjustment Multiply the corresponding directional volumes in this table by 1.2						Lanes	Median	Exclusive left lanes	Adjustment factors		
						1	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						¹ Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						² Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%		*	150	390	1,000	* Cannot be achieved using table input value defaults.					
50-84%		110	340	1,000	>1,000	** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%		470	1,000	>1,000	**	Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/					
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage											
		B	C	D	E						
0-49%		*	*	140	480						
50-84%		*	80	440	800						
85-100%		200	540	880	>1,000						
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)											
Sidewalk Coverage											
		B	C	D	E						
0-84%		> 5	≥ 4	≥ 3	≥ 2						
85-100%		> 4	≥ 3	≥ 2	≥ 1						

APPENDIX C

OTHER PROJECT DATA/GROWTH RATE

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Historical Growth Rate Calculation

Segment	From	To	2015 AADT	2019 AADT	4 Year Historical Growth Rate
Okeechobee Blvd	I-95	McNeil Rd	28,500	33,000	3.73%
	McNeil Rd	Virginia Ave	26,500	30,500	3.58%
Jenkins Rd	Okeechobee Blvd	Orange Ave	9,600	9,200	-1.06%
Kings Hwy	Okeechobee Blvd	Graham Rd	6,300	7,600	4.80%
	Graham Rd	Orange Ave	8,400	7,000	-4.46%
Orange Ave	Kings Hwy	I-95	17,300	19,800	3.43%
	I-95	Jenkins Rd	13,600	15,300	2.99%
Virginia Ave	Okeechobee Blvd	35th St	21,000	21,000	0.00%
Total			131,200	143,400	2.25%

*Source FDOT Historical Traffic Counts

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COUNTY: 94 - ST. LUCIE

SITE: 0030 - SR 70/VIRGINIA AVE - E OF OKEECHOBEE RD (COUNTY 30)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	21000 C	E 10500	W 10500	9.00	51.00	7.10
2018	21500 C	E 11000	W 10500	9.00	51.30	3.60
2017	20300 C	E 10500	W 9800	9.00	50.90	3.60
2016	22500 C	E 12000	W 10500	9.00	50.90	3.60
2015	21000 C	E 11000	W 10000	9.00	51.00	3.30
2014	20400 C	E 10500	W 9900	9.00	50.80	3.90
2013	21000 C	E 10500	W 10500	9.00	50.80	3.90
2012	21000 C	E 10500	W 10500	9.00	56.80	4.50
2011	23500 C	E 11500	W 12000	9.00	57.20	4.50
2010	22000 C	E 11500	W 10500	10.32	55.40	4.50
2009	22000 C	E 11000	W 11000	10.27	57.35	5.20
2007	16900 C	E 8900	W 8000	10.31	58.74	5.20
2006	20500 C	E 11000	W 9500	10.73	65.89	5.00
2005	22000 C	E 11500	W 10500	10.80	60.70	5.00
2004	20300 C	E 10500	W 9800	10.30	57.70	5.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0041 - SR 68 / ORANGE AVE - W OF SR 9/I-95 (COUNTY 41)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	19800 C	E 10500	W 9300	9.00	54.30	22.40
2018	21000 C	E 10500	W 10500	9.00	55.20	22.40
2017	19000 C	E 9800	W 9200	9.00	56.20	22.40
2016	21300 C	E 11500	W 9800	9.00	57.10	25.00
2015	17300 C	E 8500	W 8800	9.00	56.30	25.00
2014	15700 S	E 8000	W 7700	9.00	54.70	16.40
2013	15500 F	E 7900	W 7600	9.00	57.20	16.40
2012	15700 C	E 8000	W 7700	9.00	57.00	16.40
2011	17900 C	E 9000	W 8900	9.00	56.50	24.40
2010	18600 C	E 9400	W 9200	11.51	57.07	24.40
2009	16300 C	E 8200	W 8100	11.11	58.68	24.40
2008	26000 C	E 13000	W 13000	11.51	54.38	22.30
2007	27000 C	E 13500	W 13500	11.51	58.16	22.30
2006	18100 C	E 8700	W 9400	10.78	56.96	22.30
2005	18800 C	E 9700	W 9100	11.10	56.60	20.90
2004	18000 C	E 9000	W 9000	11.10	60.50	20.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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COUNTY: 94 - ST. LUCIE

SITE: 0035 - SR 68 / ORANGE AVE - E OF SR 9/I-95 (COUNTY 35)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	15300 C	E 7600	W 7700	9.00	51.00	16.60
2018	13100 C	E 7000	W 6100	9.00	51.30	16.60
2017	15400 C	E 7300	W 8100	9.00	50.90	10.80
2016	13900 C	E 6700	W 7200	9.00	50.90	10.80
2015	13600 C	E 6700	W 6900	9.00	51.00	10.80
2014	12600 F	E 6200	W 6400	9.00	50.80	10.40
2013	12600 C	E 6200	W 6400	9.00	50.80	10.40
2012	13700 C	E 6700	W 7000	9.00	56.80	10.40
2011	12900 C	E 6600	W 6300	9.00	57.20	16.30
2010	13800 C	E 6800	W 7000	10.32	55.40	16.30
2009	12200 C	E 6000	W 6200	10.27	57.35	16.30
2008	13200 C	E 6600	W 6600	10.45	58.06	9.70
2007	15100 C	E 7500	W 7600	10.31	58.74	16.60
2006	12800 C	E 6300	W 6500	10.73	65.89	10.20
2005	13000 C	E 6700	W 6300	10.80	60.70	10.20
2004	12700 C	E 6500	W 6200	10.30	57.70	10.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0742 - SR 70/OKEECHOBEE RD - SW OF SR 70/VIRGINIA AVE (COUNTY 742)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	30500 C	E 14500	W 16000	9.00	51.00	4.60
2018	31500 C	E 16500	W 15000	9.00	51.30	4.60
2017	31500 C	E 15500	W 16000	9.00	50.90	12.00
2016	26000 C	E 15500	W 10500	9.00	50.90	12.00
2015	26500 C	E 11500	W 15000	9.00	51.00	12.00
2014	30000 C	E 15000	W 15000	9.00	50.80	6.10
2013	27000 C	E 12500	W 14500	9.00	50.80	3.80
2012	33000 C	E 16500	W 16500	9.00	56.80	3.80
2008	32500 C	E 16500	W 16000	10.45	58.06	6.70
2007	31500 C	E 15000	W 16500	10.31	58.74	7.40
2006	35500 C	E 18500	W 17000	10.73	65.89	5.00
2005	32500 C	E 16500	W 16000	10.80	60.70	5.70
2004	30000 C	E 15500	W 14500	10.30	57.70	5.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0029 - SR 70 / OKEECHOBEE RD - E OF SR 9/I-95 (COUNTY 29)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	33000 C	E 17000	W 16000	9.00	51.00	11.00
2018	31000 C	E 15000	W 16000	9.00	51.30	4.70
2017	34500 C	E 17500	W 17000	9.00	50.90	12.30
2016	28500 F	E 14000	W 14500	9.00	50.90	12.30
2015	28500 C	E 14000	W 14500	9.00	51.00	12.30
2014	25500 F	E 14000	W 11500	9.00	50.80	4.90
2013	25500 C	E 14000	W 11500	9.00	50.80	4.90
2012	28000 C	E 14000	W 14000	9.00	56.80	4.90
2011	30500 C	E 15500	W 15000	9.00	57.20	10.90
2010	30500 C	E 15500	W 15000	10.32	55.40	10.90
2009	26500 C	E 13000	W 13500	10.27	57.35	10.90
2008	29500 C	E 15500	W 14000	10.45	58.06	6.70
2007	33000 C	E 17000	W 16000	10.31	58.74	5.20
2006	31000 C	E 16000	W 15000	10.73	65.89	16.00
2005	26500 C	E 13500	W 13000	10.80	60.70	16.00
2004	28000 C	E 14000	W 14000	10.30	57.70	16.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0757 - SR 713 / KINGS HWY - N OF SR 70/OKEECHOBEE RD (COUNTY 757)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2019	7600	C	N 3700	S 3900	9.00	54.30	23.40
2018	13600	C	N 6500	S 7100	9.00	55.20	23.90
2017	12800	C	N 6100	S 6700	9.00	56.20	23.90
2016	6400	C	N 3100	S 3300	9.00	57.10	23.90
2015	6300	C	N 3000	S 3300	9.00	56.30	26.90
2014	9100	C	N 3900	S 5200	9.00	54.70	46.50
2013	6000	C	N 3000	S 3000	9.00	57.20	17.40
2012	5400	C	N 2700	S 2700	9.00	57.00	17.40
2011	6200	C	N 3200	S 3000	9.00	56.50	22.90
2010	13500	C	N 6800	S 6700	11.51	57.07	22.90
2009	8000	C	N 4000	S 4000	11.11	58.68	22.90
2008	7400	C	N 3500	S 3900	11.51	54.38	23.20
2007	8900	C	N 4400	S 4500	11.51	58.16	25.50
2006	7300	C	N 3600	S 3700	10.78	56.96	25.50
2005	7900	C	N 3900	S 4000	11.10	56.60	18.10
2004	7200	C	N 3500	S 3700	11.10	60.50	18.10

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0076 - SR 713/KINGS HWY - S OF SR 68/ORANGE AVE (COUNTY 76)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2019	7000	C	N 3500	S 3500	9.00	54.30	22.80
2018	9700	C	N 4600	S 5100	9.00	55.20	22.80
2017	9500	C	N 4700	S 4800	9.00	56.20	22.80
2016	9600	C	N 4600	S 5000	9.00	57.10	32.40
2015	8400	C	N 4100	S 4300	9.00	56.30	32.40
2014	7900	C	N 3800	S 4100	9.00	54.70	19.90
2013	7200	C	N 3400	S 3800	9.00	57.20	14.20
2012	7100	C	N 3400	S 3700	9.00	57.00	14.20
2011	8000	C	N 3900	S 4100	9.00	56.50	17.20
2010	8900	C	N 4400	S 4500	11.51	57.07	17.20
2009	8000	C	N 3800	S 4200	11.11	58.68	17.20
2008	10600	C	N 5200	S 5400	11.51	54.38	11.20
2007	11100	C	N 5400	S 5700	11.51	58.16	7.90
2006	10600	C	N 5300	S 5300	10.78	56.96	17.30
2005	9900	C	N 4800	S 5100	11.10	56.60	17.30
2004	9400	C	N 4600	S 4800	11.10	60.50	17.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

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COUNTY: 94 - ST. LUCIE

SITE: 0273 - CR 611/JENKINS RD - N. OF SR 70/OKEECHOBEE RD (COUNTY 131)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	9200 C	N 4600	S 4600	9.00	51.00	7.80
2018	10000 V	N 4400	S 5600	9.00	51.30	5.80
2017	9900 R	N 4400	S 5500	9.00	50.90	10.00
2016	9700 T	N 4300	S 5400	9.00	50.90	6.20
2015	9600 S	N 4300	S 5300	9.00	51.00	41.80
2014	9600 F	N 4300	S 5300	9.00	50.80	49.50
2013	9600 C	N 4300	S 5300	9.00	50.80	11.90
2012	7100 S	N 3600	S 3500	9.00	56.80	4.80
2011	7100 F	N 3600	S 3500	9.00	57.20	4.80
2010	7100 C	N 3600	S 3500	10.32	55.40	4.80
2009	8500 C	N 4200	S 4300	10.27	57.35	10.70
2008	9100 C	N 4500	S 4600	10.45	58.06	6.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

[Administration](#)[Airport](#)[Legislative Affairs](#)[Port of Fort Pierce](#)[TCERDA](#)[Sunshine Kitchen](#)[Sunshine Kitchen Tenants](#)[Tourism](#)[Citizens Academy](#)[Innovation and Performance](#)[National Community Survey](#)[Strategic Plan](#)[State and Federal Awards](#)[Departments & Services » A-Z » Administration](#)

Treasure Coast Research Park

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St. Lucie County is actively sowing the seeds of the future by creating a Research, Education and Development Park (Research Park) in Fort Pierce, Florida. It currently comprised of 356 acres with future additions bringing the total acreage to more than 1,000 acres.

The St. Lucie Board of County Commissioners and the University of Florida collectively created this agriculturally-and-biotechnologically-focused Research Park on Florida's east coast. The county created Treasure Coast Education and Research Development Authority, comprised of local agricultural experts, real estate investors, financial advisors and educators, to help manage and develop the park.

The Research and Biotech Park is anchored by the USDA's 170,000-square-foot Horticultural Research Laboratory and the 90,000-square-foot University of Florida's Institute of Food and Agricultural Sciences' Research and Education Center. The Treasure Coast Research Park is home to more than 200 multi-disciplinary researchers, scientists, educators and staff.

The Sunshine Kitchen, a 10,000-square-foot facility, located inside the Research Park, is a professionally equipped, commercial kitchen and research lab designed to help entrepreneurs in the development of commercially viable food ventures.

With over three square miles of land, the park is planned for 3.3 million square feet of research and advanced manufacturing development and 800 acres of agricultural test fields. Since its formation in 2005, the Treasure Coast Education and Research & Development Authority (TCERDA) has guided the planning and operation of the Park.

In recent years, the county has invested millions in state and federal grants to make sure the park has the infrastructure it needs to be shovel ready for expansion. The Research Park is located at off Kings Highway and Pruitt Road in Fort Pierce.

For more information contact TCERDA Coordinator Regina McCants at 772-467-3107 or McCantsRe@stlucieco.org.

APPENDIX D

ARTERIAL ANALYSIS

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	Arterial Name	Jenkins Road	Study Period	Dir Hr Demand Vol
Date Prepared	2/17/2021 11:00:15 AM	From	Orange Ave	Modal Analysis	Auto Only
Agency	O'Rourke Engineering & Planning	To	Okeechobee Rd	Program	ARTPLAN 2012
Area Type	Other Urbanized	Peak Direction	Southbound	Version Date	12/12/2012
Arterial Class	1				
File Name	C:\Users\SOR2\Documents\Projects\St. Lucie County\JHI Acreage\Artplan Analysis\Jenkins Rd - AM - SB.xap				
User Notes	SB - AM Peak Hour				

Arterial Data

K	0.09	PHF	0.95	Control Type	Fully Actuated
D	0.565	% Heavy Vehicles	2	Base Sat. Flow Rate	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Okeechobee Rd	160	0.18	3	2	45	9	Yes	Protected	2	470	0.16	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Okeechobee Rd)	10824	10500	793	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS			
1 (to Okeechobee Rd)	384	3018	0.023	54.02	D	0.51	35.08	B			
Arterial Length	2.0614	Weighted g/C	0.18	FFS Delay	63.97	Threshold Delay	0.00	Auto Speed	35.08	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	510	840	***	***	***
2	1050	1640	***	***	***
3	1680	2460	***	***	***
4	2280	3300	***	***	***
*	510	840	***	***	***
Lanes	Hourly Volume In Both Directions				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	Annual Average Daily Traffic				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

* Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.

** Cannot be achieved based on input data provided.

*** Not applicable for that level of service letter grade. See generalized tables notes for more details.

Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.

Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.

Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

ARTPLAN 2012 Conceptual Planning Analysis

Project Information

Analyst	James Kemp	Arterial Name	Jenkins Road	Study Period	Dir Hr Demand Vol
Date Prepared	2/17/2021 11:00:15 AM	From	Okeechobee Rd	Modal Analysis	Auto Only
Agency	O'Rourke Engineering & Planning	To	Orange Ave	Program	ARTPLAN 2012
Area Type	Other Urbanized	Peak Direction	Northbound	Version Date	12/12/2012
Arterial Class	1				
File Name	C:\Users\SOR2\Documents\Projects\St. Lucie County\JHI Acreage\Artplan Analysis\Jenkins Rd - PM - NB.xap				
User Notes	NB - PM Peak Hour				

Arterial Data

K	0.09	PHF	1	Control Type	FullyActuated
D	0.565	% Heavy Vehicles	2	Base Sat. Flow Rate	1950

Automobile Intersection Data

Cross Street	Cycle Length	Thru g/C	Arr. Type	INT # Dir.Lanes	% Left Turns	% Right Turns	Left Turn Lanes	Left Turn Phasing	# Left Turn Lanes	LT Storage Length	Left g/C	Right Turn Lanes
Orange Ave	90	0.25	3	1	37	26	Yes	ProtPerm	1	275	0.16	Yes

Automobile Segment Data

Segment #	Length	AADT	Hourly Vol.	SEG # Dir.Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
1 (to Orange Ave)	10824	10500	822	1	45	50	None	No	N/A

Automobile LOS

Segment #	Thru Mvmt Flow Rate	Adj. Sat. Flow Rate	v/c	Control Delay	Int. Approach LOS	Queue Ratio	Speed (mph)	Segment LOS			
1 (to Orange Ave)	304	1246	0.976	47.76	D	0.92	36.18	B			
Arterial Length	2.0614	Weighted g/C	0.25	FFS Delay	57.51	Threshold Delay	0.00	Auto Speed	36.18	Auto LOS	B

Automobile Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1000 veh/h/ln.

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	510	840	***	***	***
2	1050	1640	***	***	***
3	1680	2460	***	***	***
4	2280	3300	***	***	***
*	510	840	***	***	***
Lanes	Hourly Volume In Both Directions				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A
Lanes	Annual Average Daily Traffic				
2	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
*	N/A	N/A	N/A	N/A	N/A

* Service Volumes for the specific facility being analyzed, based on # of lanes from the intersection and segment data screens.

** Cannot be achieved based on input data provided.

*** Not applicable for that level of service letter grade. See generalized tables notes for more details.

Under the given conditions, left turn lane storage is highly likely to overflow. The number of directional thru lanes should be reduced accordingly.

Facility weighted g/C exceeds normally acceptable upper range (0.5); verify that g/C inputs are correct.

Intersection capacity (ies) are exceeded for the full hour; an operational level analysis tool is more appropriate for this situation.

APPENDIX E

INTERSECTION ANALYSIS

HCS7 Two-Way Stop-Control Report

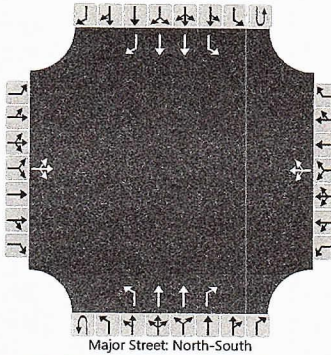
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/15/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & White Rd
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Kings Hwy
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	0		0	1	0	0	1	2	1	0	1	2	1	
Configuration			LTR				LTR			L	T	R		L	T	R	
Volume (veh/h)		10	0	10		41	0	27	0	20	458	54	0	91	477	20	
Percent Heavy Vehicles (%)		3	3	3		10	10	10	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)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.70	6.70	7.10		4.16				4.16		
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		3.60	4.10	3.40		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			21				72				21				96		
Capacity, c (veh/h)			402				387				1033				1019		
v/c Ratio			0.05				0.18				0.02				0.09		
95% Queue Length, Q ₉₅ (veh)			0.2				0.7				0.1				0.3		
Control Delay (s/veh)			14.4				16.4				8.6				8.9		
Level of Service (LOS)			B				C				A				A		
Approach Delay (s/veh)		14.4				16.4				0.3				1.4			
Approach LOS		B				C											

HCS7 Two-Way Stop-Control Report

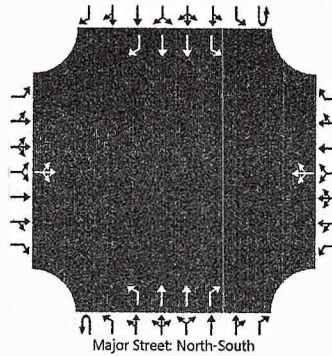
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/15/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Kings Hwy & White Rd
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Kings Hwy
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	0		0	1	0		0	1	2	1		0	1	2	1
Configuration			LTR				LTR			L	T	R		L	T	R		
Volume (veh/h)		20	0	20		167	0	111		0	10	485	17		0	29	475	10
Percent Heavy Vehicles (%)		3	3	3		10	10	10		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)		7.5	6.5	6.9		7.5	6.5	6.9		4.1					4.1			
Critical Headway (sec)		7.56	6.56	6.96		7.70	6.70	7.10		4.16					4.16			
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		3.60	4.10	3.40		2.23					2.23			

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			42				293				11					31		
Capacity, c (veh/h)			452				436				1044					1028		
v/c Ratio			0.09				0.67				0.01					0.03		
95% Queue Length, Q ₉₅ (veh)			0.3				4.8				0.0					0.1		
Control Delay (s/veh)			13.8				28.6				8.5					8.6		
Level of Service (LOS)			B				D				A					A		
Approach Delay (s/veh)	13.8				28.6				0.2				0.5					
Approach LOS	B				D													

Table 1: Major Approach Volumes

Time	NB/SB Volumes 2019 Existing	NB/SB Volumes 2023 Background	NB/SB Committed Project Volumes (1)	NB/SB Project Volumes	Total 2023 Volume
6-7 AM	618	676	33	68	777
7-8 AM	701	766	52	96	914
8-9 AM	647	707	48	92	847
9-10 AM	602	658	37	82	777
10-11 AM	583	637	40	84	761
11-12 PM	686	750	45	105	900
12-1 PM	701	766	49	122	937
1-2 PM	681	744	47	95	886
2-3 PM	662	724	51	95	870
3-4 PM	768	839	60	123	1022
4-5 PM	813	889	66	114	1069
5-6 PM	730	798	63	104	965
6-7 PM	475	519	44	34	597
7-8 PM	290	317	30	16	363
8-9 PM	260	284	27	10	321
9-10 PM	198	216	20	10	246

Source: FDOT Hourly Volume 2019 - Kings Hwy (Station 0076)

(1) Includes traffic from Walsh Kings Crossing, Village of Sunset Lakes, Whispering Oaks, Bent Creek, Celebration Pointe, and BHT Distribution

Table 2: Daily Trip Generation

Land Use	Directional Split		Net External Trips		
	In	Out	In	Out	Total
General Office	50%	50%	633	633	1,266
Warehousing	50%	50%	1,421	1,421	2,842
TOTALS			2,054	2,054	4,108

Source: ITE 10th Edition Trip Generation Rates

Table 3: Minor Approach Volumes

Hourly	Percent of Daily Traffic				External Volumes		Lefts		Rights		Project Hurricane Rights	Total WB Volume(1)
	Office	Warehouse	Auto Service Center	Single-Family Housing	JHI Acreage		Office	Warehouse	Office	Warehouse		
					Office	Warehouse	45%	45%	30.0%	30.0%	15.0%	
6-7 AM	2.2%	6.3%	0.1%	3.8%	14	90	6	41	4	27	0	63
7-8 AM	7.0%	7.3%	5.7%	6.7%	44	104	20	47	13	31	24	101
8-9 AM	8.8%	6.0%	9.3%	6.2%	56	85	25	38	17	26	39	104
9-10 AM	5.4%	6.5%	9.0%	4.3%	34	92	15	41	10	28	38	94
10-11 AM	5.9%	6.5%	9.7%	4.8%	37	92	17	41	11	28	41	98
11-12 PM	8.4%	7.6%	10.0%	5.2%	53	108	24	49	16	32	42	118
12-1 PM	10.4%	8.6%	9.4%	5.5%	66	122	30	55	20	37	40	134
1-2 PM	8.2%	6.6%	9.3%	6.0%	52	94	23	42	16	28	39	107
2-3 PM	7.5%	7.0%	8.8%	6.6%	47	99	21	45	14	30	37	107
3-4 PM	7.4%	10.0%	7.0%	7.2%	47	142	21	64	14	43	30	129
4-5 PM	10.1%	7.8%	10.2%	9.0%	64	111	29	50	19	33	43	127
5-6 PM	10.4%	6.6%	7.7%	8.8%	66	94	30	42	20	28	32	112
6-7 PM	2.4%	2.7%	2.3%	7.2%	15	38	7	17	5	11	10	37
7-8 PM	1.7%	0.9%	0.8%	5.2%	11	13	5	6	3	4	3	16
8-9 PM	1.0%	0.6%	0.6%	4.7%	6	9	3	4	2	3	3	11
9-10 PM	1.0%	0.7%	0.0%	3.4%	6	10	3	5	2	3	0	11

(1) 50% of External Right Trips used in Total

COUNTY: 94
 STATION: 0076
 DESCRIPTION: SR 713/KINGS HWY - S OF SR 68/ORANGE AVE (COUNTY 7)
 START DATE: 02/12/2019
 START TIME: 2345

TIME	DIRECTION: N				TOTAL	DIRECTION: S				COMBINED TOTAL		
	1ST	2ND	3RD	4TH		1ST	2ND	3RD	4TH			
0000	18	6	9	9	42	11	10	10	6	37	79	
0100	11	9	15	15	50	8	8	3	11	30	80	
0200	2	12	6	6	26	14	7	7	9	37	63	
0300	5	10	7	5	27	7	10	16	10	43	70	
0400	5	14	8	18	45	14	24	17	29	84	129	
0500	15	34	33	28	110	31	39	42	53	165	275	
0600	52	74	89	85	300	52	72	94	100	318	618	
0700	91	81	100	90	362	81	76	101	81	339	701	
0800	86	88	80	55	309	93	91	63	91	338	647	
0900	70	76	63	70	279	93	88	57	85	323	602	
1000	59	61	80	82	282	78	65	79	79	301	583	
1100	87	85	95	103	370	62	98	81	75	316	686	
1200	101	76	91	82	350	77	93	91	90	351	701	
1300	101	78	78	78	335	94	81	81	90	346	681	
1400	80	75	81	89	325	71	96	74	96	337	662	
1500	98	93	77	118	386	67	92	98	125	382	768	
1600	88	116	95	85	384	89	111	103	126	429	813	
1700	102	91	98	71	362	109	99	92	68	368	730	
1800	70	69	63	57	259	67	70	44	35	216	475	
1900	37	52	35	48	172	32	36	31	19	118	290	
2000	33	39	42	29	143	36	44	14	23	117	260	
2100	29	31	28	16	104	21	17	24	32	94	198	
2200	19	24	14	27	84	19	10	6	12	47	131	
2300	16	14	11	9	50	6	14	14	23	57	107	
24-HOUR TOTALS:					5156						5193	10349

DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
hour	volume	hour	volume	hour	volume
A.M. 730	364	730	366	730	730
P.M. 1545	417	1615	449	1615	847
DAILY 1545	417	1615	449	1615	847

State of Florida Department of Transportation
TRAFFIC SIGNAL WARRANT SUMMARY

City: Stuart
County: 89 – Martin
District: Four

Engineer: James Kemp
Date: February 15, 2021

Major Street: Kings Highway Lanes: 2 Major Approach Speed: 50
Minor Street: White Road Lanes: 1 Minor Approach Speed: 35

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? Yes No
 2. Is the intersection in a built-up area of an isolated community with a population < 10,000? Yes No
 "70%" volume level may be used if Question 1 or 2 above is answered "Yes" 70% 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied for eight hours. Yes No

Warrant 1 is also satisfied if both Condition A and Condition B are "80%" satisfied (should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems). Yes No

Condition A - Minimum Vehicular Volume

Condition A is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.
 100% Satisfied: Yes No
 80% Satisfied: Yes No
 70% Satisfied: Yes No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	Minor	100% ^a	80% ^b	70% ^c	100% ^a	80% ^b	70% ^c
1	1	500	400	350	150	120	105
2 or more	1	600	480	420	150	120	105
2 or more	2 or more	600	480	420	200	160	140
1	2 or more	500	400	350	200	160	140

^a Basic Minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Street	Eight Highest Hours							
	7:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Major	914	900	937	886	870	1,022	1,069	965
Minor	101	118	134	107	107	129	127	112

Existing Volumes

State of Florida Department of Transportation
TRAFFIC SIGNAL WARRANT SUMMARY

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where Condition A is not satisfied and the traffic volume on a major street is so heavy that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

Applicable: Yes No
 100% Satisfied: Yes No
 80% Satisfied: Yes No
 70% Satisfied: Yes No

Number of Lanes for moving traffic on each approach		Vehicles per hour on major-street (total of both approaches)			Vehicles per hour on minor-street (one direction only)		
Major	Minor	100% ^a	80% ^b	70% ^c	100% ^a	80% ^b	70% ^c
1	1	750	600	525	75	60	53
2 or more	1	900	720	630	75	60	53
2 or more	2 or more	900	720	630	100	80	70
1	2 or more	750	600	525	100	80	70

^a Basic Minimum hourly volume

^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Record 8 highest hours and the corresponding major-street and minor-street volumes in the Instructions Sheet.

Eight Highest Hours								
Street	7:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM
Major	914	900	937	886	870	1,022	1,069	965
Minor	101	118	134	107	107	129	127	112

Existing Volumes

State of Florida Department of Transportation
TRAFFIC SIGNAL WARRANT SUMMARY

Form 750-020-01
TRAFFIC ENGINEERING
10/15

City: Stuart
County: 89 – Martin
District: Four

Engineer: James Kemp
Date: February 15, 2021

Major Street: Kings Highway Lanes: 2 Major Approach Speed: 50
Minor Street: White Road Lanes: 1 Minor Approach Speed: 35

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? Yes No
 2. Is the intersection in a built-up area of an isolated community with a population < 10,000? Yes No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes" Yes No

WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME

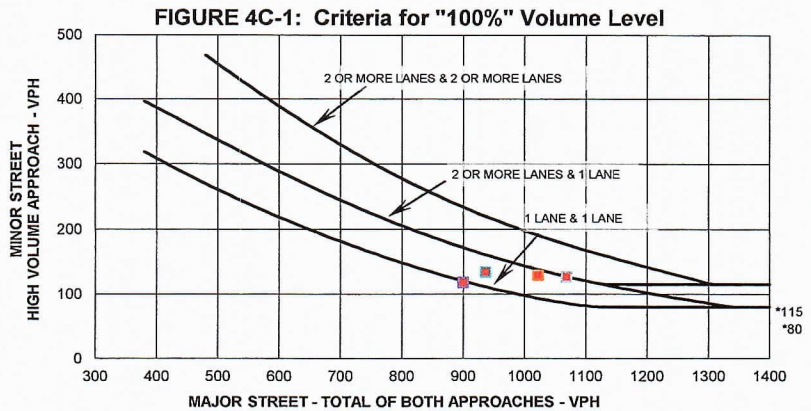
If all four points lie above the appropriate line, then the warrant is satisfied.

Applicable: Yes No
Satisfied: Yes No

Plot four volume combinations on the applicable figure below.

100% Volume Level

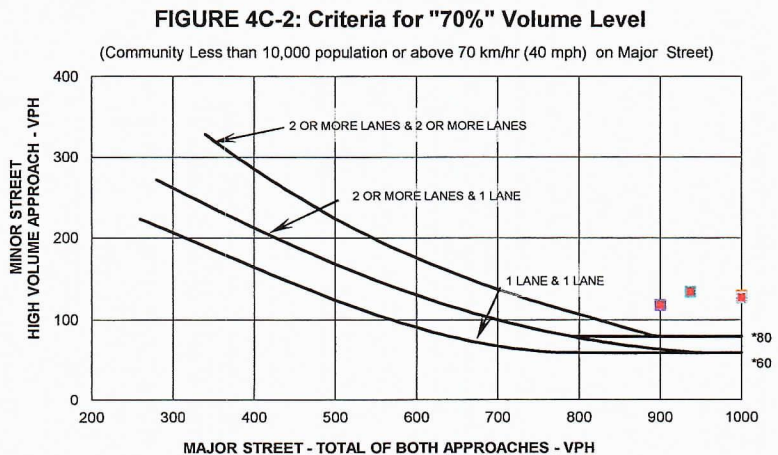
Four Highest Hours	Volumes	
	Major Street	Minor Street
11:00 AM	900	118
12:00 PM	937	134
3:00 PM	1022	129
4:00 PM	1069	127



* Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

70% Volume Level

Four Highest Hours	Volumes	
	Major Street	Minor Street
11:00 AM	900	118
12:00 PM	937	134
3:00 PM	1022	129
4:00 PM	1069	127



* Note: 80 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 60 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

State of Florida Department of Transportation
TRAFFIC SIGNAL WARRANT SUMMARY

Form 750-020-01
TRAFFIC ENGINEERING
10/15

City: Stuart
County: 89 – Martin
District: Four

Engineer: James Kemp
Date: February 15, 2021

Major Street: Kings Highway
Minor Street: White Road

Lanes: 2 Major Approach Speed: 50
Lanes: 1 Minor Approach Speed: 35

MUTCD Electronic Reference to Chapter 4: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf>

Volume Level Criteria

1. Is the posted speed or 85th-percentile of major street > 40 mph (70 km/h)? Yes No
 2. Is the intersection in a built-up area of an isolated community with a population < 10,000? Yes No
- "70%" volume level may be used if Question 1 or 2 above is answered "Yes" 70% 100%

WARRANT 3 - PEAK HOUR

If all three criteria are fulfilled or the plotted point lies above the appropriate line, then the warrant is satisfied.

Applicable: Yes No
Satisfied: Yes No

Unusual condition justifying use of warrant:

Record hour when criteria are fulfilled and the corresponding delay or volume in boxes provided.

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.
3:00 PM	1022	129

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
3:00 PM	1022	129

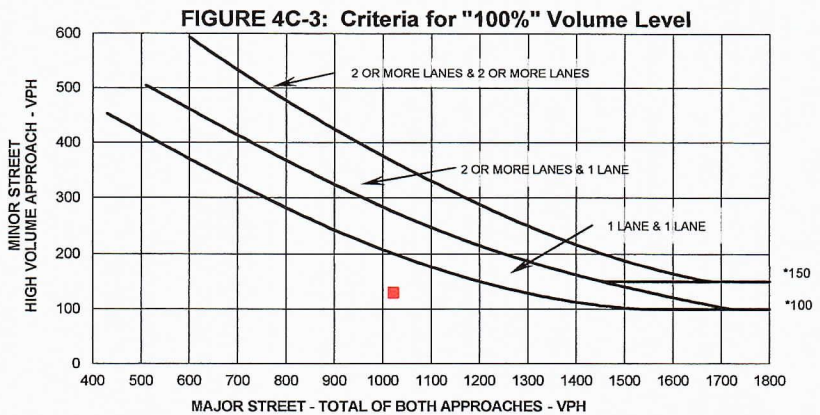
Criteria

1. Delay on Minor Approach *(vehicle-hours)		
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	2.1	
Fulfilled?:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

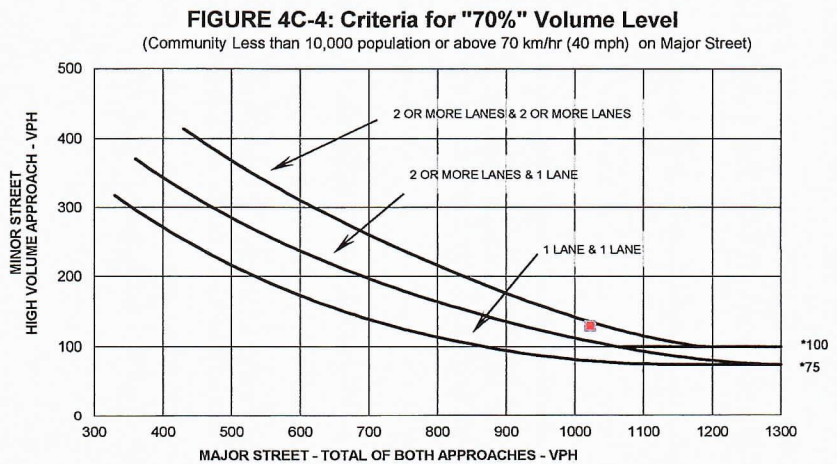
2. Volume on Minor Approach One-Direction *(vehicles per hour)		
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	129	
Fulfilled?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

3. Total Intersection Entering Volume *(vehicles per hour)		
No. of Approaches	3	4
Volume Criteria*	650	800
Volume*	1,151	
Fulfilled?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Plot volume combination on the applicable figure below.



* Note: 150 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 100 vph applies as the lower threshold volume threshold for a minor street approach with one lane.



* Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume threshold for a minor street approach with one lane.

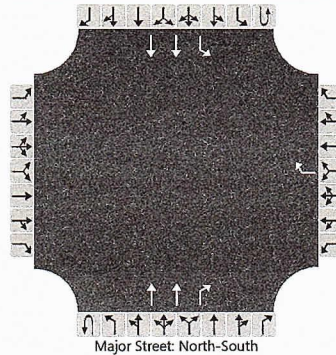
APPENDIX F

DRIVEWAY ANALYSIS

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Kings Hwy & DW 1
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	Driveway 1
Analysis Year	2023	North/South Street	Kings Highway
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Buildout		

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		0	0	1	0	0	2	1	0	1	2	0
Configuration								R			T	R		L	T	
Volume (veh/h)								9			503	109	0	54	464	
Percent Heavy Vehicles (%)								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)								6.9								4.1
Critical Headway (sec)								6.96								4.16
Base Follow-Up Headway (sec)								3.3								2.2
Follow-Up Headway (sec)								3.33								2.23

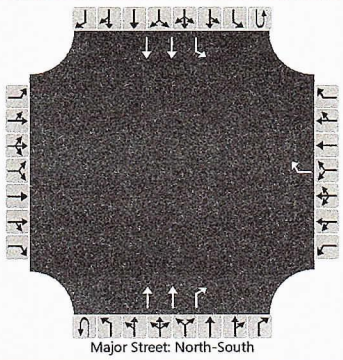
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								10								59
Capacity, c (veh/h)								721								913
v/c Ratio								0.01								0.06
95% Queue Length, Q ₉₅ (veh)								0.0								0.2
Control Delay (s/veh)								10.1								9.2
Level of Service (LOS)								B								A
Approach Delay (s/veh)	10.1								1.0							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Kings Hwy & DW 1
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	Driveway 1
Analysis Year	2023	North/South Street	Kings Highway
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Buildout		

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
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	2	1	0	1	2	0
Configuration								R			T	R		L	T	
Volume (veh/h)								37			465	35	0	17	625	
Percent Heavy Vehicles (%)								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)								6.9								4.1
Critical Headway (sec)								6.96								4.16
Base Follow-Up Headway (sec)								3.3								2.2
Follow-Up Headway (sec)								3.33								2.23

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								40								18
Capacity, c (veh/h)								744								1015
v/c Ratio								0.05								0.02
95% Queue Length, Q ₉₅ (veh)								0.2								0.1
Control Delay (s/veh)								10.1								8.6
Level of Service (LOS)								B								A
Approach Delay (s/veh)								10.1								0.2
Approach LOS								B								

HCS7 Two-Way Stop-Control Report

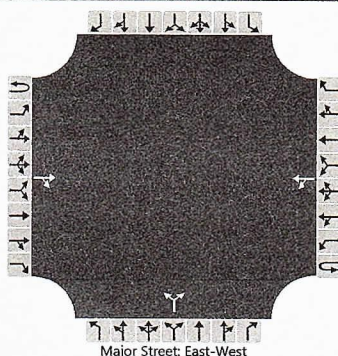
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 2
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 2
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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			90	54		4	46			22		1				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1					7.1		6.2				
Critical Headway (sec)					4.13					6.43		6.23				
Base Follow-Up Headway (sec)					2.2					3.5		3.3				
Follow-Up Headway (sec)					2.23					3.53		3.33				

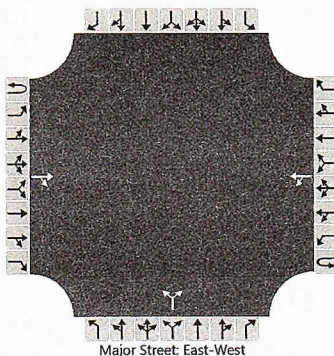
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					4					25						
Capacity, c (veh/h)					1417					803						
v/c Ratio					0.00					0.03						
95% Queue Length, Q ₉₅ (veh)					0.0					0.1						
Control Delay (s/veh)					7.5					9.6						
Level of Service (LOS)					A					A						
Approach Delay (s/veh)					0.6				9.6							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	White Rd & DW 2
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	White Road
Analysis Year	2023	North/South Street	Driveway 2
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Buildout		

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	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			29	17		1	186			93		4				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type Storage						Undivided										

Critical and Follow-up Headways

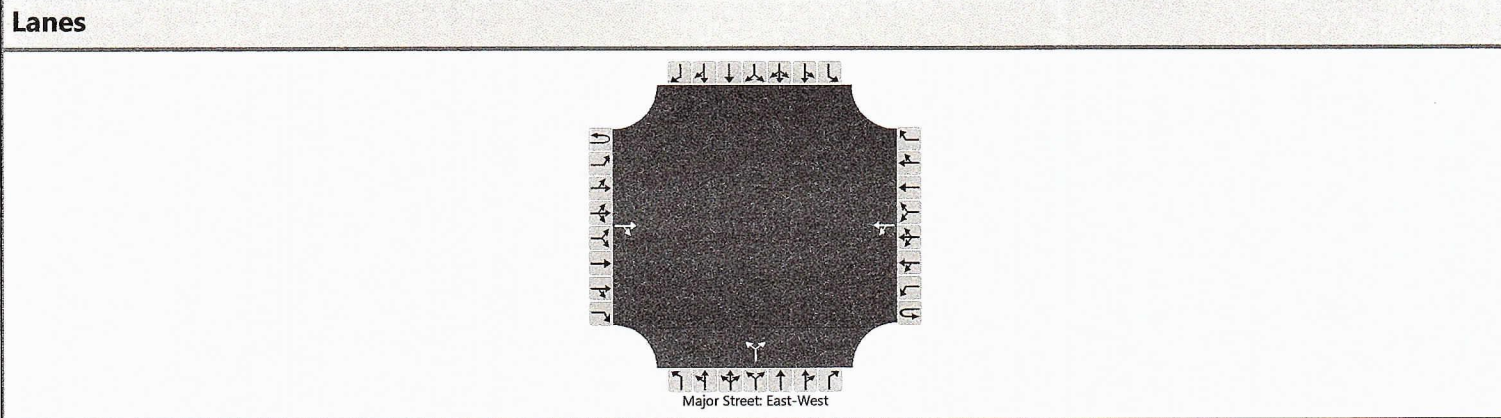
Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1					105					
Capacity, c (veh/h)						1550					749					
v/c Ratio						0.00					0.14					
95% Queue Length, Q ₉₅ (veh)						0.0					0.5					
Control Delay (s/veh)						7.3					10.6					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)						0.0				10.6						
Approach LOS										B						

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	White Rd & DW 3
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	White Road
Analysis Year	2023	North/South Street	Driveway 3
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Buildout		



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	1	0	0	0	1	0	0	1	0		0	0	0	
Configuration				TR		LT					LR					
Volume (veh/h)			37	54		11	27		23		3					
Percent Heavy Vehicles (%)						3			3		3					
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2					
Critical Headway (sec)					4.13				6.43		6.23					
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)					12				28							
Capacity, c (veh/h)					1488				876							
v/c Ratio					0.01				0.03							
95% Queue Length, Q ₉₅ (veh)					0.0				0.1							
Control Delay (s/veh)					7.4				9.2							
Level of Service (LOS)					A				A							
Approach Delay (s/veh)					2.2				9.2							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

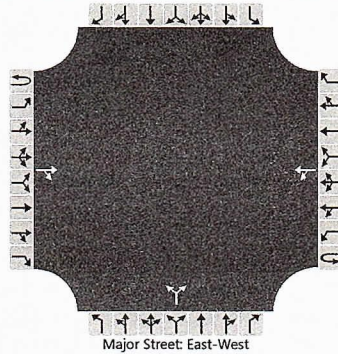
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	PM Peak Hour
Intersection Orientation	East-West
Project Description	Buildout

Site Information

Intersection	White Rd & DW 3
Jurisdiction	St. Lucie County
East/West Street	White Road
North/South Street	Driveway 3
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	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			16	17		3	94			93		11				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1					7.1		6.2				
Critical Headway (sec)					4.13					6.43		6.23				
Base Follow-Up Headway (sec)					2.2					3.5		3.3				
Follow-Up Headway (sec)					2.23					3.53		3.33				

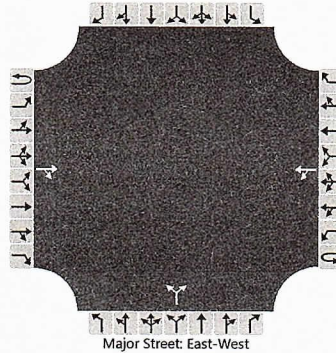
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					3					113						
Capacity, c (veh/h)					1569					871						
v/c Ratio					0.00					0.13						
95% Queue Length, Q ₉₅ (veh)					0.0					0.4						
Control Delay (s/veh)					7.3					9.7						
Level of Service (LOS)					A					A						
Approach Delay (s/veh)					0.2				9.7							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	James Kemp			Intersection	White Rd & DW 4		
Agency/Co.	O'Rourke Engineering			Jurisdiction	St. Lucie County		
Date Performed	2/17/2021			East/West Street	White Road		
Analysis Year	2023			North/South Street	Driveway 4		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Buildout						

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	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			4	36		4	15			23		1				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.13					6.43		6.23			
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)						4						26				
Capacity, c (veh/h)						1559						959				
v/c Ratio						0.00						0.03				
95% Queue Length, Q ₉₅ (veh)						0.0						0.1				
Control Delay (s/veh)						7.3						8.9				
Level of Service (LOS)						A						A				
Approach Delay (s/veh)					1.6				8.9							
Approach LOS					A				A							

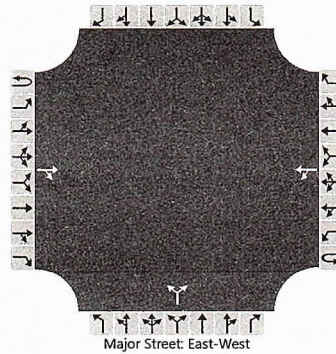
HCS7 Two-Way Stop-Control Report

General Information

Site Information

Analyst	James Kemp	Intersection	White Rd & DW 4
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	White Road
Analysis Year	2023	North/South Street	Driveway 4
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Buildout		

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	1	0	0	0	1	0	0	1	0		0	0	0	
Configuration				TR		LT				LR						
Volume (veh/h)			15	12		1	4			93		4				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.13					6.43		6.23			
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)						1					105					
Capacity, c (veh/h)						1577					985					
v/c Ratio						0.00					0.11					
95% Queue Length, Q ₉₅ (veh)						0.0					0.4					
Control Delay (s/veh)						7.3					9.1					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					1.5				9.1							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

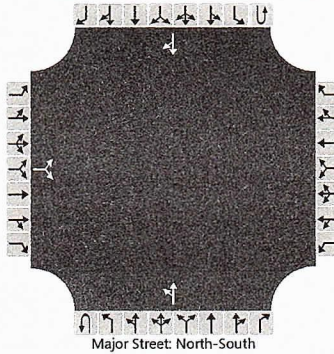
General Information

Analyst	James Kemp
Agency/Co.	O'Rourke Engineering
Date Performed	2/17/2021
Analysis Year	2023
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	Buildout

Site Information

Intersection	Peters Rd & DW 5
Jurisdiction	St. Lucie County
East/West Street	Driveway 5
North/South Street	Peters Road
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	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		4		4						18	107				107	18
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
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						

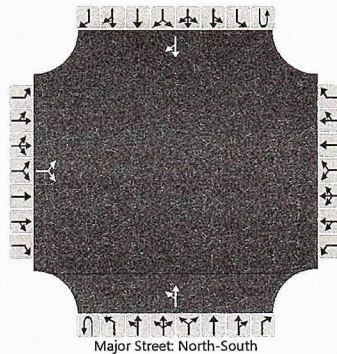
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			9							20						
Capacity, c (veh/h)			793							1442						
v/c Ratio			0.01							0.01						
95% Queue Length, Q ₉₅ (veh)			0.0							0.0						
Control Delay (s/veh)			9.6							7.5						
Level of Service (LOS)			A							A						
Approach Delay (s/veh)	9.6								1.2							
Approach LOS	A															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	James Kemp	Intersection	Peters Rd & DW 5
Agency/Co.	O'Rourke Engineering	Jurisdiction	St. Lucie County
Date Performed	2/17/2021	East/West Street	Driveway 5
Analysis Year	2023	North/South Street	Peters Road
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Buildout		

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	0		0	0	0	0	0	1	0	0	0	1	0	
Configuration			LR							LT						TR	
Volume (veh/h)		18		18						6	107					107	6
Percent Heavy Vehicles (%)		3		3						3							
Proportion Time Blocked																	
Percent Grade (%)		0															
Right Turn Channelized																	
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)			39							7							
Capacity, c (veh/h)			820							1458							
v/c Ratio			0.05							0.00							
95% Queue Length, Q ₉₅ (veh)			0.2							0.0							
Control Delay (s/veh)			9.6							7.5							
Level of Service (LOS)			A							A							
Approach Delay (s/veh)		9.6								0.4							
Approach LOS		A															