

Project Traffic Analysis Report

**US 98 / SR 35 / SR 700
From CR 54 to US 301 / SR 39**

Project Development & Environment (PD&E) Study



Florida Department of Transportation

District 7

Work Program Item Segment No. 443368-2

ETDM Project No. 14374

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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**Work Program Item Segment No. 443368-2
ETDM Project No. 14374
Pasco County, Florida**

Prepared for:



Florida Department of Transportation District Seven

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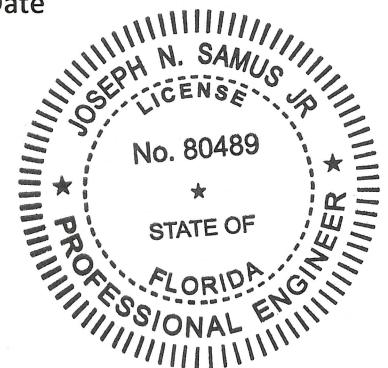
September 2022


Joseph N Samus Jr.

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9/13/2022

Date



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROJECT TRAFFIC ASSUMPTION FORM

650-050-39
ENVIRONMENTAL
MANAGEMENT
06/17

Traffic forecast for the project was developed using:	
Travel Demand Model	Growth Rates
Type of Travel Demand Model Used: <input checked="" type="checkbox"/> Metropolitan Planning Model <input type="checkbox"/> Other Model (specify) <hr/>	No-Build: 5.3% to 8.0% Build: 5.3% to 8.0%
Is the travel demand model based on the latest adopted Long Range Transportation Plan?	
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
<u>12-11-19 (amended 6-10-21)</u> Date when MPO adopted the latest Long Range Transportation Plan	Explain why
<u>2015</u> Base Year of Travel Demand Model	
<u>2045</u> Horizon Year of Travel Demand Model	
Long Range Transportation Plan documentation is available at (provide web address): https://pascocountyfl.net/DocumentCenter/View/61429/Pasco-MPO-PPP-Minor-Updates-Adoption-6-10-21	
Traffic Data and Factors	
Standard K = <u>9.0 %</u> D Factor = <u>51.5% to 69.3%</u> T _{Daily} = <u>13.5% to 23.9%</u>	Data Collection Year = <u>2019</u> Opening Year = <u>2025</u> Interim Year = Design Year = <u>2045</u>
<p>Discuss any changes in land use, economics, population and employment data since the model was built.</p> <p>Changes between the base year (2015) and horizon year (2045) include the widening of US 98 to four lanes within the project limits to determine horizon year (2045) unrestricted demand. Employment modifications from the SR 56 ACER Study were incorporated into the travel demand model. This includes an additional 26,993 jobs along SR 56 in Wesley Chapel.</p>	
Traffic Analysis Assumptions	
<p>Discuss study area, data calibration/validation parameters, analysis tools, analysis periods and MOEs.</p> <p>Refer to the remainder of this Project Traffic Analysis Report.</p>	

Executive Summary

This Project Development and Environment (PD&E) Study, conducted by the Florida Department of Transportation (FDOT) District Seven, determines the need of widening US 98 from two to four lanes, from the Polk County Line/CR 54 to US 301, for the purpose of relieving traffic congestion and improving safety. The primary focus of this study examines the effectiveness of realigning US 98 recommended as part of an Alternative Corridor Evaluation (ACE) process, within the US 301/US 98/Clinton Avenue Intersection Realignment Study. As a result of evaluating the realignment of US 98 to meet Clinton Avenue, east of US 301, it is necessary to modify the US 98 and US 301 intersection. The following intersections were evaluated to address transportation demand needs:

- 1 US 98 and CR 54 (Stop Controlled)
- 2 US 98 Access and Old Lakeland Highway (Planned Signal)
- 3 US 98 and US 98 Access (Stop Controlled)
- 4 US 98 and US 301 (Existing Signal)
- 5 US 301 and Clinton Avenue (Existing Signal)
- 6 US 98 and Townsend Road (Stop Controlled)
- 7 US 98 and Old US 98 (New Intersection)
- 8 US 98 and Crossroads Development entrance (New Intersection)
- 9 US 98 and Clinton Avenue (New Intersection)

No-Build Alternative

In order to quantify the benefit of the proposed improvements, a No-Build Alternative was also assessed for the study area. The No-Build Alternative maintains the existing year (2019) lane configuration and traffic control at most study intersections and maintains the existing lanes and alignment of US 98 within the study area. The only variation from the existing year (2019) conditions under the No-Build Alternative is the inclusion of a signal at the intersection of Old Lakeland Highway and US 98 Access which was designed by others and planned by Pasco County.

The results of the operational analysis indicate that both the intersection of US 301 at Clinton Avenue and US 301 at US 98 fail to meet the LOS target of D in both the AM and PM peak hour under design year (2045) No-Build conditions. The eastbound approach at US 98 and CR 54 intersection and northbound approach at US 98 and US 98 Access Road are also expected to experience LOS F during both AM and PM peak hours. The results of the segment analysis indicate that US 98 from CR 54 to US 98 Access Road fails to meet the LOS target C for the rural segments during both AM and PM peak hour under design year (2045) No-Build conditions.

Build Alternative

The Build Alternative incorporates the widening of US 98 from two to four lanes and its realignment with the intersection of US 301 and Clinton Avenue along with several proposed developments that contribute to additional demand within the study area. The results indicate that all study intersection will operate at LOS D or better in both the AM and PM peak hour. The intersection of US 98 Access and Old Lakeland Highway goes from LOS B in the AM and PM peak hours under the No-Build Alternative to LOS C in the AM and PM peak hours under the Build Alternative due to the proposed signalization. Segmental analysis indicates that the proposed US 98 realignment will operate at LOS D or better under the design year (2045). Overall, the analysis results indicated that corridor delay is reduced under the Build Alternative in

the design year (2045) due to the widening and realignment of US 98 and improvements of the study intersections when compared to the No-Build Alternative.

Conclusion

Table E.1 summarizes the intersection analysis results for the No-Build and Build Alternatives for the nine impacted intersections and **Table E.2** summarizes the segment analysis results for the segments along US 98 within the study area. The realignment and widening of US 98 from US 301 to Clinton Avenue is expected to:

- Allow for all study intersections to operate at LOS D or better;
- While the delay at the intersection of US 98 Access and Old Lakeland Highway does increase slightly between No Build and Build scenarios, this is due to the inclusion of new signal control aimed at improving safety for turning movements;
- Mitigate increased traffic congestion at the intersections of US 301 at US 98 and US 301 at Clinton Avenue, addressing current intersection safety concerns;
- Address capacity needs for the segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor); as well as
- Provide operational improvements to the intersection of US 98 and US 301, ultimately resulting in enhanced transportation network connectivity.

Table E.1: Intersection Analysis Summary

ID	Intersection	No-Build (2045) Operations				Build (2045) Operations			
		AM Peak Hour Delay (s/veh)	LOS	PM Peak Hour Delay (s/veh)	LOS	AM Peak Hour Delay (s/veh)	LOS	PM Peak Hour Delay (s/veh)	LOS
1	US 98 and CR 54+	7323.2*	F	7574.0*	F	40.2	D	19.2	B
2	US 98 Access and Old Lakeland Highway	15.6	B	16.8	B	20.1	C	23.2	C
3	US 98 and US 98 Access	307.3*	F	155.6*	F	18.6	B	14.0	B
4	US 301 and US 98	54.1	D	68.9	E	8.9	A	11.4	B
5	US 301 and Clinton Avenue/US 98	332.8	F	167.5	F	51.6	D	54.1	D
6	US 98 and Townsend Road	-	-	-	-	8.8	A	9.9	A
7	US 98 and Old US 98	-	-	-	-	7.8	A	8.5	A
8	US 98 and Crossroads Development	-	-	-	-	8.8	A	10.6	B
9	US 98 and Clinton Avenue	-	-	-	-	12.0	B	13.2	B

+Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table E.2: Design Year (2045) Segment Analysis Summary

From	To	No Build								Build							
		AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB														
US 98																	
CR 54	US 98 Access Road	D	E	1.42	1.97	E	D	1.97	1.42	B	B	0.37	0.61	B	B	0.63	0.43
US 98 Access Road	Townsend Road									C	C	0.40	0.65	C	C	0.67	0.47
Townsend Road	Old US 98									C	C	0.44	0.61	C	C	0.65	0.51
Old US 98	Crossroads Development	B	C	0.46	0.59	C	B	0.59	0.46	C	C	0.41	0.53	C	C	0.58	0.48
Crossroads Development	Clinton Avenue									C	C	0.47	0.45	C	C	0.53	0.51
Clinton Avenue	US 301									C	C	0.68	0.64	C	C	0.71	0.71
US 301																	
South of US 98	Old US 98	C	C	0.58	0.77	C	C	0.77	0.58	C	C	0.60	0.80	C	C	0.81	0.60
Old US 98	Clinton Avenue	C	E	0.80	1.03	E	C	1.03	0.80	C	C	0.61	0.76	C	C	0.76	0.62
Clinton Avenue	North of Clinton Avenue	C	C	0.83	0.70	C	C	0.70	0.83	C	C	0.89	0.73	C	C	0.74	0.90

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

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Glossary of Terms

Term	Definition
AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
ACE	Alternative Corridor Evaluation
ACER	Alternative Corridor Evaluation Report
ACF	Axle Correction Factors
BEBR	Bureau of Economic and Business Research
CARS	Crash Analysis Reporting System
D1RPM	District One Regional Planning Model
DDHV	Directional Design Hour Volume
DHT	Design Hour Truck Factor
DRI	Development of Regional Impact
ETAT	Environmental Technical Advisory Team
ETDM	Efficient Transportation Decision Making
FDM	FDOT Design Manual
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FPC	Floodplain Compensation
FSUTMS	Florida Statewide Urban Transportation Modeling Structure
FTO	Florida Traffic Online
GLOS	Generalized Level of Service
HCM	Highway Capacity Manual
HCS	Highway Capacity Software
ICE	Intersection Control Evaluation
ITE	Institute of Transportation Engineers
LOS	Level of Service
LRTP	Long Range Transportation Plan
MEV	Million Entering Vehicles
MOCF	Model Output Conversion Factor
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MPUD	Master Planned Unit Development
MVMT	Million Vehicle Miles Traveled
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act
OEM	Office of Environmental Management
PD&E	Project Development and Environment
PTAR	Project Traffic Analysis Report
PSWADT	Peak Season Weekday Average Daily Traffic
SF	Seasonal Factors
SMF	Stormwater Management Facility
TAZ	Traffic Analysis Zone
TBRPM	Tampa Bay Regional Planning Model
TMC	Turning Movement Count
USDOT	United States Department of Transportation

1.0 Introduction

1.1 PD&E Study Purpose

The objective of the PD&E study is to assist the FDOT's Office of Environmental Management (OEM) in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of US Highway 98 (US 98), including stormwater management facility (SMF) and floodplain compensation (FPC) sites. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvements.

The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases (design, right of way acquisition, and construction). This project was screened through the FDOT's Efficient Transportation Decision Making (ETDM) process as ETDM Project No. 14374. The ETDM Programming Screen Summary Report was published on February 24, 2021, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. A Type 2 Categorical Exclusion will be prepared as part of this PD&E study.

The project is in Sections 11, 12, 13, and 14, Township 25S, and Range 21E; and Sections 18, 19, 20, 27, 28, 29, 34 and 35, Township 25S, and Range 22E; Pasco County, Florida. The project study area is shown in Figure 1.1 and is bounded by the following intersections:

- US 98 at CR 54
- US 98 Access Road at Old Lakeland Highway
- US 98 at US 98 Access Road
- US 98 at US 301
- US 301 at Clinton Avenue



Figure 1.1: Project Location Map

1.2 Project Purpose and Need

Purpose

The purpose of this project is to evaluate the capacity improvements of the corridor, including the realigned intersection of US 98/Clinton Ave at US 301 which will enhance safety and provide system linkage/regional connectivity.

Need

A realignment of US 98 to Clinton Avenue intersection is needed to eliminate the existing closely spaced intersections of US 301 at US 98 and US 301 at Clinton Avenue, to reduce crashes, and to enhance safety. Construction of the realignment of SR 52 from east of McKendree Road to east of US 301 began in 2019 and will serve as an additional east/west route in the regional transportation network. When completed, this improvement will increase traffic at the US 301 at US 98 and US 301 at Clinton Avenue intersections, exacerbating the current intersection safety concerns. Also, plans are currently underway for the widening of US 98 from north of West Socrum Loop Road to South of CR 54 (Financial Management (FM) No.: 436673-1-22-01). This project will address capacity needs for the final segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor) as well as operational improvements to the intersection of US 98 and US 301 ultimately resulting in enhanced transportation network connectivity.

Project Status

In April 2019, FDOT District Seven initiated the Alternatives Corridor Evaluation (ACE) process for the US 301/US 98/Clinton Avenue Intersection Realignment Study in Pasco County, Florida. The ACE completed in January 2021 and recommended the Alternative B alignment. The widening and realignment of US 98 is listed in both the Needs Plan and the Cost Feasible Plan of the Pasco County MPO's 2045 Long Range Transportation Plan (LRTP). The project is funded for ROW and design-build construction (WPI Segment #443368-3 and -4) on the Pasco County Metropolitan Planning Organization's (MPO's) 2023-2027 Transportation Improvement Program (TIP) Project List. The project is also listed on the current State Transportation Improvement Program (STIP) for ROW and design-build construction.

System Linkage

US 98 is a regional corridor which provides a connecting link between Polk and Pasco Counties and, within the area, provides a connection to the cities of Lakeland and Bartow to the south.

US 98 is the longest road in Florida and spans from Pensacola to Palm Beach primarily traveling along the Gulf Coast. Plans are currently underway for the widening of US 98 from north of West Socrum Loop Road to South of CR 54 (FM No.: 436673-1-22-01). This project will provide additional capacity for the final segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor) as well as operational improvements to the intersection of US 98 and US 301 ultimately resulting in enhanced transportation network connectivity. Currently, this segment of US 98 experiences truck volumes in excess of 23% of annual average daily traffic (AADT) which illustrates this facility's importance to the overall freight network within the State of Florida.

Also, the SR 52/Clinton Avenue extension from I-75 to West of Fort King Road (FM No.: 435142-1) is currently under construction. This extension will provide direct linkage to I-75 from this project.

Safety

The closely spaced intersections of US 301 at US 98 and US 301 at Clinton Avenue have crash rates that exceed the statewide average. Between 2014 and 2018, the intersection of US 301 at US 98 experienced a total of 63 crashes. The predominant crash types were angle crashes (58%) followed by rear end crashes (29%). This intersection exhibited a crash rate (0.816 crashes per million entering vehicles) that was

consistently higher than the statewide average (0.270) for a similar type of intersection resulting in a crash ratio of 3.022 (crash rate divided by statewide average crash rate).

Between 2014 and 2018, the intersection of US 301 and Clinton Avenue experienced a total of 65 crashes. The predominant crash types were rear end crashes (55%) followed by angle crashes (25%). This intersection exhibited a crash rate (1.259) that was consistently higher than the statewide average (0.526) for a similar type of intersection resulting in a crash ratio of 2.394. A realignment of US 98 to Clinton Avenue to eliminate high traffic volumes at one of the two closely spaced intersections has the potential to reduce crashes and enhance safety.

Capacity

US 98 operates at Level of Service (LOS) C under the existing conditions. However, the US 301 at Clinton Avenue intersection fails to meet the LOS target D. In the design year (2045), US 98 from CR 54 to Old Lakeland Highway will fail to meet the LOS target C and both the intersections of US 301 at Clinton Avenue and US 301 at US 98 will fail to meet the LOS target of D with no improvements. Proposed improvements are expected to increase LOS along the corridor and at intersections to an acceptable LOS.

1.3 Project Background

FDOT District Seven conducted an Alternative Corridor Evaluation (ACE) process as part of the US 301/US 98/Clinton Avenue Intersection Realignment Study. An ACE is performed as part of the Efficient Transportation Decision Making (ETDM) screening efforts that precede the PD&E phase and is used to identify, evaluate, and eliminate alternatives.

The ACE Report (ACER) recommended to realign US 98 to meet Clinton Avenue, east of US 301. This realignment will include two additional intersections along the new US 98 with Old US 98 and Clinton Avenue as well as deemphasizing, but not modifying, the existing intersection of US 301 and Old US 98. This will allow most of the traffic using US 98, US 301, and SR 52 to navigate through only one major intersection, thereby necessitating fewer turning movements and conflict points. With this proposed realignment, safety will be improved by shifting the traffic demand from the closely spaced intersections along US 301 at US 98 and at Clinton Avenue. Additionally, the realignment will reduce the potential weaving movements and turning movements between the two intersections. Figure 1.2 shows the recommended corridor that was evaluated in the ACER.

US 98 is a two-lane undivided rural typical section with 12-foot travel lanes and is functionally classified as an Urban Principal Arterial from US 301 to Old Lakeland Highway and a Rural Principal Arterial from Old Lakeland Highway to CR 54. This PD&E Study evaluates the possibility of widening US 98 from two to four lanes from the Polk County Line/CR 54 to US 301 in Pasco County, Florida.

1.4 Methodology

This report will be conducted utilizing methodologies and principles established as best practice by the FDOT. The FDOT approved methodology for this report can be found in Appendix A.

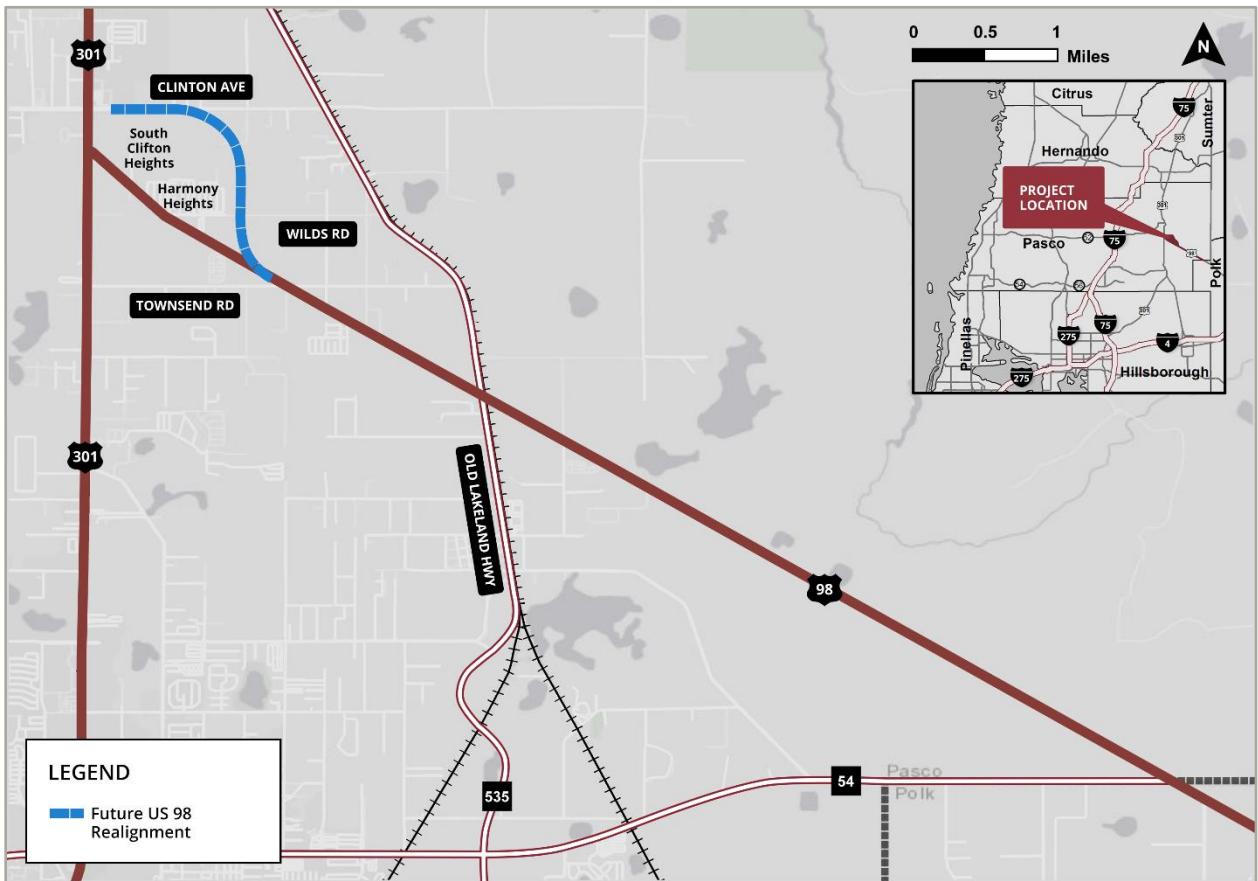


Figure 1.2: Recommended Corridor in the ACER

2.0 Existing Conditions

2.1 Data Collection

Roadway Characteristics

Roadway characteristics for each facility being analyzed in the study area can be found in Table 2.1. US 98 is classified as an Urban/Rural Principal Arterial Other, and US 301 is classified as an Urban Principal Arterial Other. Both are owned and maintained by FDOT. Clinton Avenue and Old Lakeland Highway are owned and maintained by Pasco County. Old Lakeland Highway is classified as an Urban Minor Arterial and Clinton Avenue is classified as an Urban/Rural Major Collector. CR 54 is classified as a Rural Minor Arterial from Lumberton Road to US 98. West of US 301, outside of the project study limits, Clinton Avenue is classified as an Urban Major Collector and will be designated as SR 52 after completion of construction of the SR 52 Realignment from I-75 to west of Fort King Road (WPI Segment #435142-1). The straight-line diagrams for this information can be found in Appendix B. The existing lane geometry for each of the study intersections is shown in Figure 2.1.

Table 2.1: Roadway Characteristics

Segment	Functional Classification	Length (mi)	Speed Limit (mph)	Typical Section	Directionality
US 98					
From CR 54 to Old Lakeland Highway	Rural Principal Arterial Other	5.100	60	Two-Lane Undivided	Two-Way
From Old Lakeland Highway to West of Jim Jordan Road	Urban Principal Arterial Other	1.300	60	Two-Lane Undivided	Two-Way
From West of Jim Jordan Road to US 301	Urban Principal Arterial Other	1.800	55	Two-Lane Undivided	Two-Way
Clinton Avenue					
From US 301 to Curtis Lane	Urban Major Collector	0.500	45	Two-Lane Undivided	Two-Way
From Curtis Lane to Old Lakeland Highway	Rural Major Collector	0.900	45	Two-Lane Undivided	Two-Way
US 301					
From US 98 to Clinton Avenue	Urban Principal Arterial Other	0.200	50	Four-Lane Divided	Two-Way
Old Lakeland Highway					
From US 98 to Townsend Road	Urban Minor Arterial	0.800	55	Two-Lane Undivided	Two-Way
CR 54					
From Lumberton Road to US 98	Rural Minor Arterial	3.400	55	Two-Lane Undivided	Two-Way

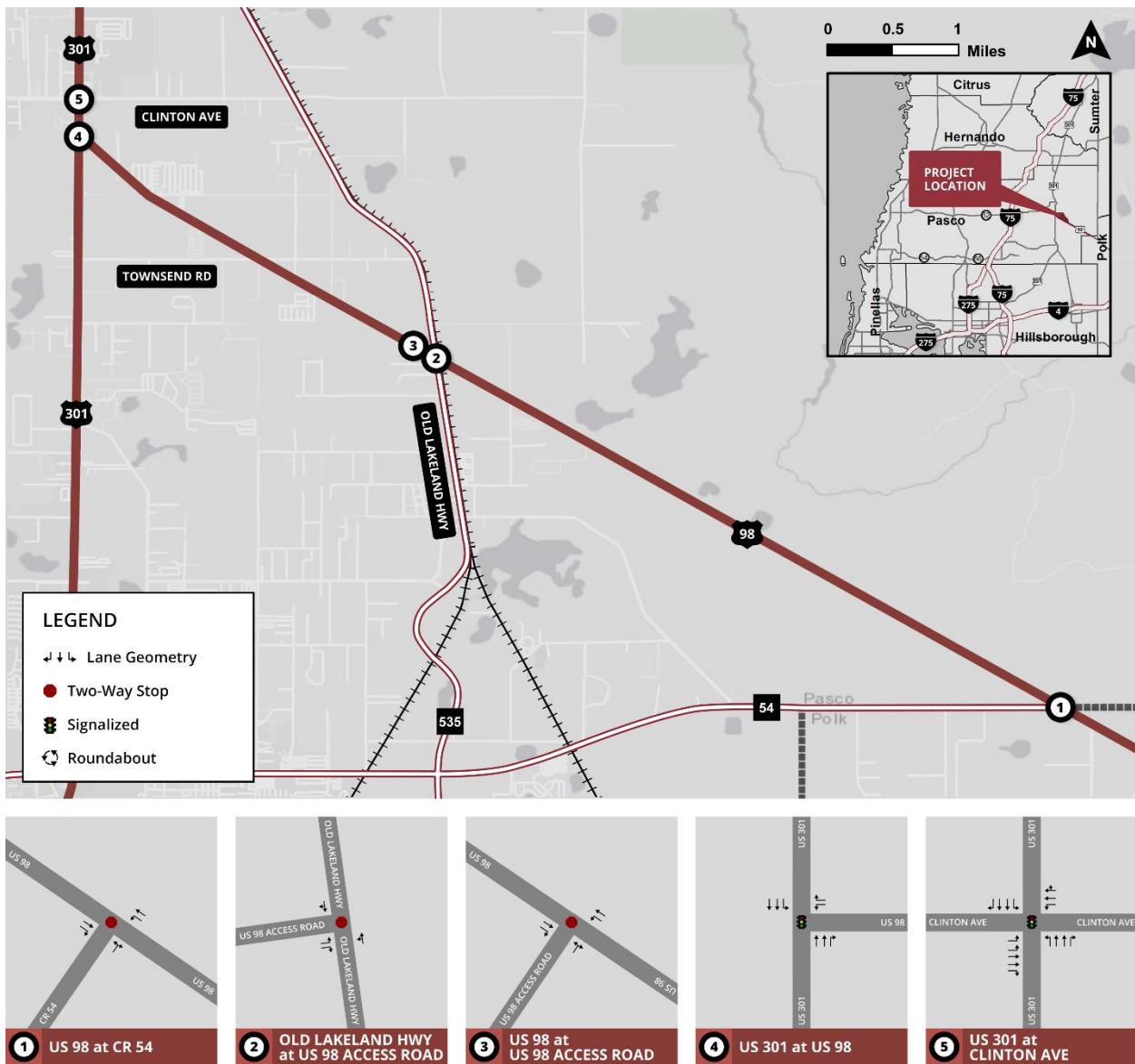


Figure 2.1: Existing Intersection Geometries

Crash Reporting

Historical crash data within the study area was obtained from FDOT's Crash Analysis Reporting System (CARS) Online and the University of Florida's Signal Four Analytic database for the five-year period from 2014 to 2018. The historical crash data included crashes that occurred on US 98 from the Polk/Pasco County line to US 301 and US 301 from US 98 to Clinton Avenue. The data collected includes crash frequency, type, severity, lighting conditions (day versus night), and pavement surface conditions (wet versus dry). Crash data, Florida Crash Costs, and 5-year Statewide Average Crash Rates for intersections and segments can be found in Appendix C.

Traffic Data Collection

Traffic count data was collected for the US 301/US 98/SR 35/SR 700 study area for the development of existing year (2019) traffic volumes. As part of the previously conducted ACE Study, 72-hour bi-directional (approach and departure volumes at 15-minute increments) machine classification counts, 48-hour bi-directional (approach and departure volumes at 15-minute increments) machine counts, 2-hour AM (from 7:00 AM to 9:00 AM) and PM (from 4:15 PM to 6:15 PM) turning movement counts (TMCs), pedestrian, and bicycle counts were collected in April and May of 2019 at the following intersection locations:

- US 98 Access Road at Old Lakeland Highway
- US 98 at US 301
- US 301 at Clinton Avenue

Additionally, 2-hour AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) TMCs were collected at the US 98 and CR 54 intersection on March 4, 2021. Figure 2.2 shows the locations of the traffic count data collection. The traffic count data can be found in Appendix D. Signal timing data was obtained from Pasco County and can be found in Appendix E.

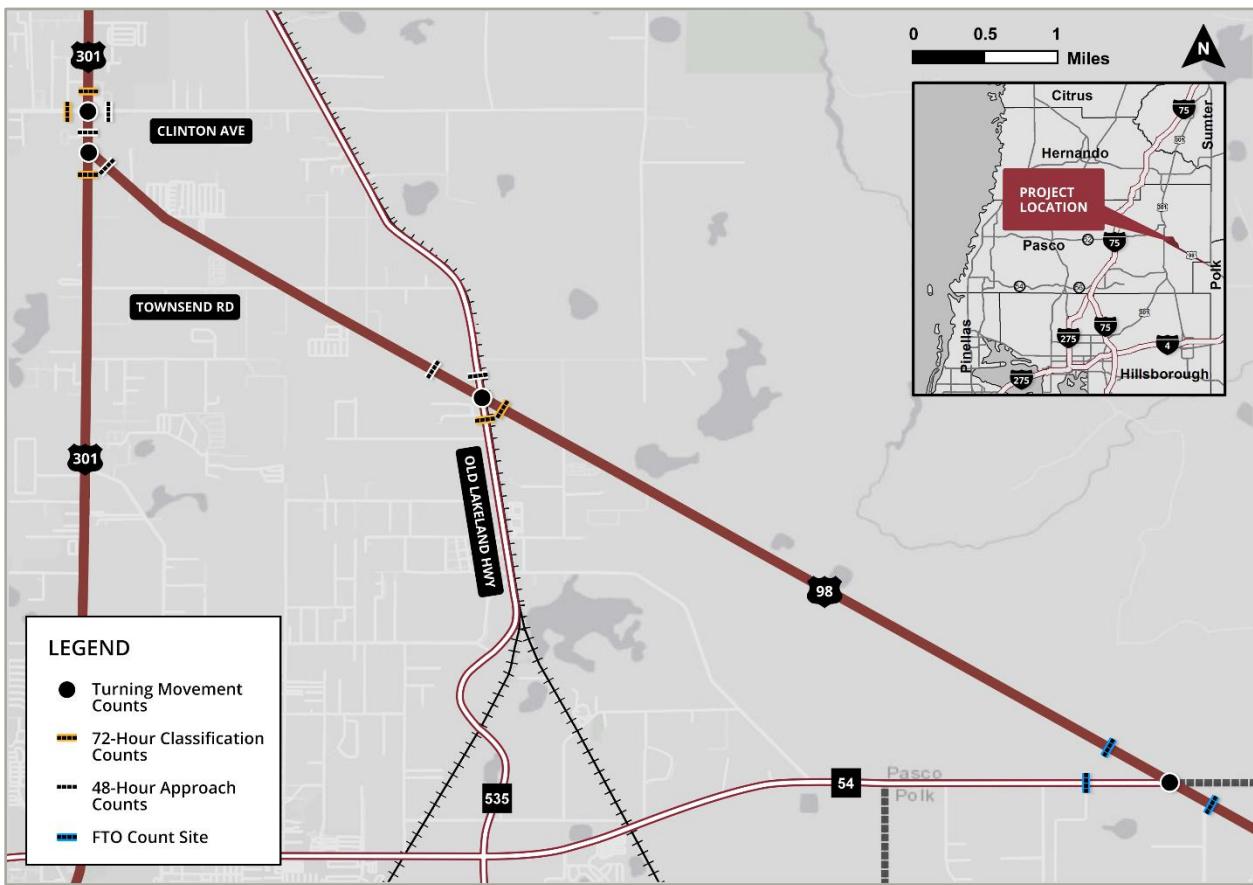


Figure 2.2: Traffic Count Locations

2.2 Safety Analysis

Crash Analysis

Crash data is summarized in Table 2.2. Approximately 36 percent of the 211 total crashes over the five-year period were rear end crashes, which is a crash type typically related to "stop-and-go driving" conditions and is indicative of traffic congestion. Left turn movement crashes also made up a significant proportion of total crashes at 29.9%. This is primarily due to the presence of permitted left turns at multiple intersections, including the southbound left turn at US 301 at US 98, and the eastbound US 98 Access Road to northbound Old Lakeland Highway.

Of the 211 total crashes, there were three fatal crashes, 109 crashes involving personal injury, and 99 crashes that were property damage only. All three of the fatal crashes occurred on US 98 between Old Lakeland Highway and the Polk/Pasco County line in close proximity to each other. One fatal crash was the result of a drunk driver striking a motorcycle while attempting to overtake it. Both of the other fatal crashes resulted in the at-fault vehicles coming to rest after striking a tree off of the roadway. In one of these crashes, the vehicle lost control after driving onto the shoulder while attempting to overtake a slower vehicle, and the cause for the other crash was unknown, having involved only a single vehicle with no witnesses. Of the 109 injury crashes, 31 crashes involved severe injury. The intersection of US 301 at US 98 reported 12 severe injury crashes. The second high severity intersection reported 4 severe crashes at US 98 and Old Lakeland Highway.

Roadway segment and spot crash rates were calculated and compared with statewide averages for similar highway facilities throughout the State of Florida. The highest crash locations within the US 98 PD&E study area include US 301 from US 98 to Clinton Avenue and the intersections of US 301 at Clinton Avenue, and US 301 at US 98. Figure 2.3 shows the crash heat map for crashes within the study area.

Table 2.2: Crash Data Summary

Category	2014	2015	2016	2017	2018	Total	Mean	Percentage
<i>Type</i>								
Angle	1	1	1	5	1	9	1.8	4.27%
Bicycle	0	0	0	0	0	0	0.0	0.00%
Head On	0	0	1	0	2	3	0.6	1.42%
Hit Fixed Object	1	3	1	3	3	11	2.2	5.21%
Hit Non-Fixed Object	1	2	0	0	1	4	0.8	1.90%
Left Turn	20	12	10	11	10	63	12.6	29.86%
Other	2	2	2	2	3	11	2.2	5.21%
Overtake/Rollover	2	2	2	1	1	8	1.6	3.79%
Pedestrian	0	0	1	0	0	1	0.2	0.47%
Ran Off Road	0	0	0	1	1	2	0.4	0.95%
Rear End	18	18	13	11	16	76	15.2	36.02%
Right Turn	0	1	1	1	2	5	1.0	2.37%
Sideswipe	5	3	2	1	4	15	3.0	7.11%
Single Vehicle	1	0	1	0	1	3	0.6	1.42%
Unknown	0	0	0	0	0	0	0.0	0.00%
Total	51	44	35	36	45	211	42.2	100.00%
<i>Severity</i>								
Fatal	0	2	0	0	1	3	0.6	1.42%
Severe Injury	7	7	7	5	5	31	6.2	14.69%
Moderate Injury	11	5	4	4	9	33	6.6	15.64%
Minor Injury	10	14	4	10	7	45	9.0	21.33%
Property Damage Only	23	16	20	17	23	99	19.8	46.92%
Total	51	44	35	36	45	211	42.2	100.00%
<i>Lighting Condition</i>								
Day	42	29	25	28	32	156	31.2	73.93%
Dawn	0	1	0	1	2	4	0.8	1.90%
Dusk	1	0	0	0	2	3	0.6	1.42%
Dark - Lighted	5	4	5	4	4	22	4.4	10.43%
Dark - Not Lighted	3	10	5	3	5	26	5.2	12.32%
Total	51	44	35	36	45	211	42.2	100.00%
<i>Surface Condition</i>								
Dry	49	39	33	29	39	189	38	89.57%
Wet	2	5	2	7	6	22	4	10.43%
Total	51	44	35	36	45	211	42	100.00%

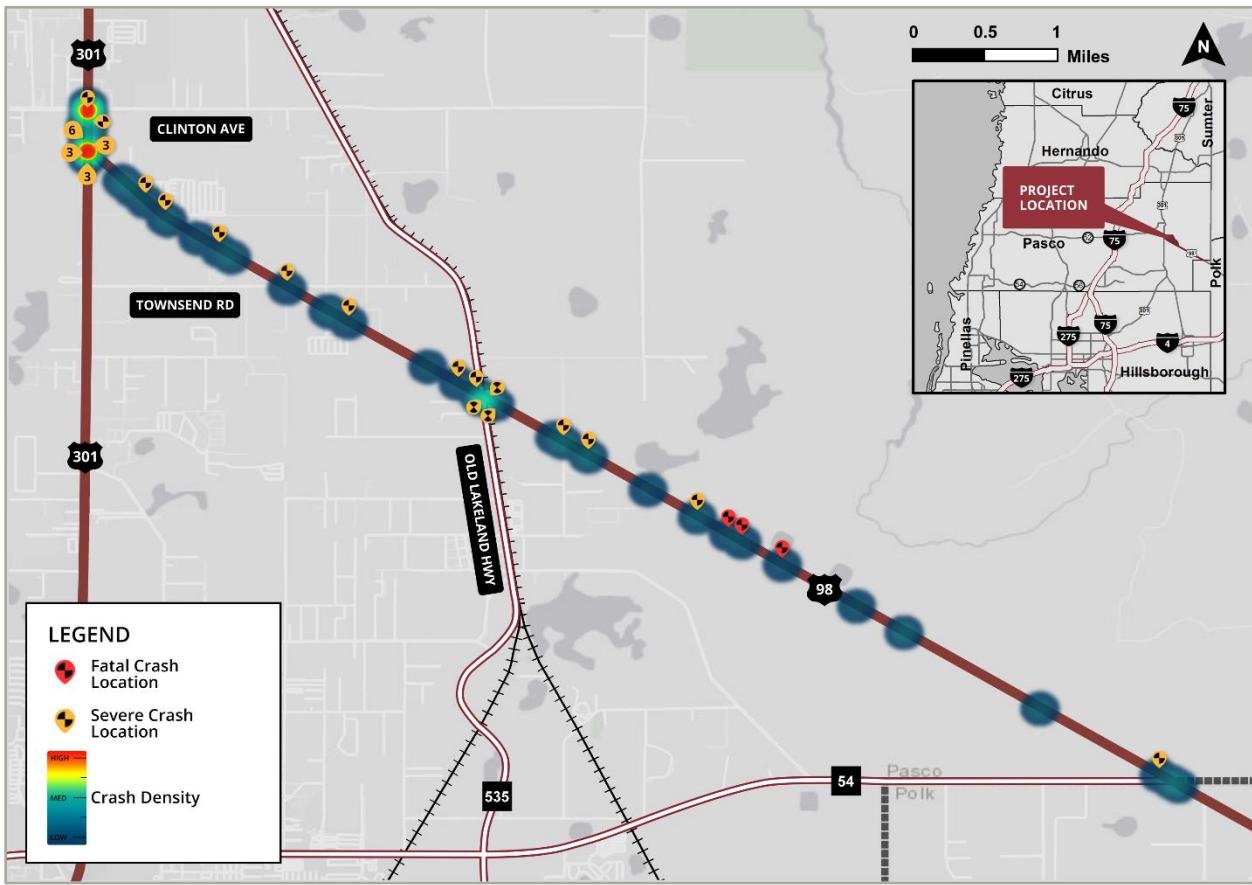


Figure 2.3: Crash Heat Map (2014 to 2018)

Segment Crash Rate

The roadway segment crash rates for the US 98 PD&E study area are shown in Table 2.3. The segment crash rates exclude crashes that occurred within 250 feet of study area intersections. The segment crash rates range from a low of 0.532 crashes per million vehicle miles traveled (MVMT) along US 98 from Old Lakeland Highway to the Polk/Pasco County Line to a high of 1.241 crashes per MVMT along US 301 from US 98 to Clinton Avenue. The calculated segment crash rates reveal that all segments in the study area have a crash rate that is lower than the statewide average.

Table 2.3: Segment Crash Rates

Location	Total Crashes (5 Years)	Crash Rate*	Statewide Average**	Crash Ratio
<i>Segment: Suburban 4-5 Lane 2-way Divided Raised</i>				
US 301 from US 98 to Clinton Ave	14	1.241	1.746	0.711
<i>Segment: Suburban 2-3 Lane 2-way Divided Paved</i>				
US 98 from US 301 to Old Lakeland Hwy	16	0.551	2.792	0.197
<i>Segment: Rural 2-3 Lane 2-way Undivided</i>				
US 98 from Old Lakeland Hwy to Polk/Pasco County Line	24	0.532	0.788	0.675

*Segment crash rate = number of crashes per million vehicle miles traveled

**Source: FDOT Crash Analysis Reporting System (CARS) Online Database

Intersection Crash Rate

The intersection crash rates for the US 98 PD&E study area are shown in Table 2.4. The intersection crash rates range from a low of 0.101 crashes per million entering vehicles (MEV) at US 98 at US 98 access road to a high of 1.826 crashes per MEV at US 98 access road at Old Lakeland Highway. The crash rate at the US 98 access road at Old Lakeland Highway is 1.216 times greater than the statewide average for similar intersection types throughout the State of Florida. The higher-than-expected number of crashes at this location is likely due to the lack of a traffic signal regulating the eastbound left turn, combined with the high speed and poor visibility of oncoming southbound traffic due to bridge supports and structures.

The crash rate at the US 98 and US 301 intersection is 3.022 times greater than the statewide average. The higher-than-expected number of crashes at this location may be due to permitted southbound left turns prior to 2016, after which the southbound left turn was modified to be protected left turn only. Another contributing factor may be congestion at the intersection in the northbound direction combined with high approach speeds to the south of the intersection and spillback queuing into the intersection influence area from the Clinton Avenue intersection to the north.

The crash rate at the Clinton Avenue and US 301 intersection is 2.394 times greater than the statewide average. The higher-than-expected number of crashes at this location may be due to congestion at the intersection contributing to a higher number of rear end crashes along with the close proximity of the US 98 intersection to the south leading to aggressive driving behavior as people attempt to weave between US 98 and Clinton Avenue.

The crash rate at US 98 at County Road 54 is approximately 1.769 times greater than the statewide average. However, there are too few crashes at this intersection to infer meaningful crash patterns indicating operational or design issues.

Table 2.4: Intersection Crash Rates

ID	Location	Total Crashes (5 Years)	Crash Rate*	Statewide Average**	Crash Ratio
1	US 98 at CR 54 (Rural 2-3 Lanes 2 way Divided Paved 3 legs)	6	0.483	0.273	1.769
2	US 98 Access Road at Old Lakeland Highway (Rural Ramp 3 Legs)	22	1.826	1.502	1.216
3	US 98 at US 98 Access Road (Suburban 2-3 Lanes 2 way Divided Paved 3 legs)	1	0.101	0.276	0.366
4	US 301 at US 98 (Suburban 4-5 Lanes 2 way Divided Raised 3 legs)	63	0.816	0.270	3.022
5	US 301 at Clinton Avenue (Suburban 4-5 Lanes 2 way Divided Raised 4 legs)	65	1.259	0.526	2.394

*Intersection crash rate = number of crashes per million entering vehicles

**Source: FDOT Crash Analysis Reporting System (CARS) Online Database

Note: Red highlight indicates crash rate higher than the statewide crash average

Economic Loss

Monetary estimates of property damage and economic loss due to injury or a fatality were calculated using average unit costs from the United States Department of Transportation (USDOT)/Federal Highway Administration (FHWA) KABCO (K-Fatal; A-Incapacitating injury; B-Non incapacitating injury; C-Possible injury; and O-No injury) injury classification scale. FDOT's CARS Online provides unit costs for calculating the cost of crashes and injuries. Based on these unit costs that are documented in Table 122.6.2 of the *FDOT Design Manual* (FDM), the crashes in the study area during the five-year period from 2014-2018 resulted in an estimated economic loss of approximately \$71.6 million as shown in Table 2.5.

Table 2.5: Estimated Crash Economic Loss

Crash Severity	KABCO Cost ¹	Number of Crashes	Economic Loss
Fatal	\$10,890,000	3	\$32,670,000
Severe Injury (Incapacitating)	\$888,030	31	\$27,528,930
Moderate Injury (Non-incapacitating)	\$180,180	33	\$5,945,940
Minor Injury	\$103,950	45	\$4,677,750
Property Damage Only	\$7,700	99	\$762,300
Total		211	\$71,584,920

¹Source: FDOT State Safety Office's CARS Online, analysis years 2014 to 2018. Published 11/20/20

2.3 Existing Year (2019) Volume Development

Design Traffic Factors

Design traffic factors, including design hour factor (K), directional factor (D), and design hour truck factor (DHT), were determined using historical traffic data obtained from the FDOT 2020 Florida Traffic Online (FTO) database and field collected counts. DHT is identified by the *FDOT Project Traffic Forecasting Handbook (2019)* as half of the 24-hour truck percentage (T_{24}). Historical traffic data and traffic parameters can be found in Appendix F. Reported K and D factors and DHT for use in all analysis can be found in Table 2.6 and Table 2.7, respectively.

Table 2.6: Design Traffic Factors

Factor	
Design Hour Factor (K-Factor)	0.09
Directional Factor (D-Factor)	51.5% to 69.3%

Table 2.7: Design Hour Truck Factors

Segment	T_{24}	DHT
<i>US 98</i>		
East of CR 54	13.5%	7.0%
West of CR 54	23.5%	12.0%
East of Old Lakeland Highway	23.9%	12.0%
West of Old Lakeland Highway	15.2%	8.0%
East of US 301	15.2%	8.0%
<i>US 301</i>		
South of US 98	7.1%	4.0%
Between US 98 and Clinton Avenue	5.9%	3.0%
North of Clinton Avenue	6.4%	3.0%
<i>Clinton Avenue</i>		
West of US 301	8.1%	4.0%
East of US 301	5.1%	3.0%
<i>Old Lakeland Highway</i>		
South of US 98	22.7%	11.0%
North of US 98	20.8%	10.0%
<i>CR 54</i>		
West of US 98	5.1%	3.0%

The AM and PM global peak hours were determined through observation of the collected field data and occur from 7:30 AM to 8:30 AM and 4:45 PM to 5:45 PM, respectively.

Existing Year (2019) Demand Volume Calculations

The existing year (2019) Annual Average Daily Traffic (AADT) volumes were developed through an iterative process, beginning with using the 48-hour and 72-hour machine counts and calculating their daily average to develop the Average Daily Traffic (ADT) throughout the corridor. To normalize the ADT to AADT, two adjustment factors, axle correction factors (ACF) and seasonal factors (SF) were applied to ADT to yield initial existing year (2019) AADTs.

FDOT 2020 FTO database counts were used to supplement the collected field data and a point of comparison to provide a reasonability check to the field data collection effort. AADTs were reviewed throughout the study area to ensure demand throughout the network did not represent any unreasonable imbalance. Traffic patterns within the study area consisted largely of pass-through trips during AM and PM peak hours, which do not traditionally yield a returning trip due to the study area's rural nature and high truck percentage. Future travel patterns are expected to shift to a more suburban condition where trips are expected to reciprocate between the AM and PM peak hours more uniformly. Due to travel patterns exhibited by the future suburban condition, all design level volumes will be developed to reciprocate movement level demand between the AM and PM peak hours. The existing year (2019) AADTs yielded by this additional review will serve as the basis for the development of AM and PM Directional Design Hour Volume (DDHV) and turning movement volumes.

The existing year (2019) AADT volumes were then multiplied by K and D to obtain existing year (2019) AM and PM DDHVs. The resultant DDHVs from this method were smoothed to ensure reasonable network assignment and then compared to field collected data. The DDHVs were adjusted to account for situations where resultant volumes were lower than the measured count data. The turning movement counts at US 98 and US 98 Access Road were developed using an iterative proportional function (Fratar) using AADT, K, and D factors and assumed distribution at the intersection. These calculations are provided in [Appendix G](#).

DDHVs were distributed by field measured turning movement percentages and then checked for reasonableness. Smoothing ensured reciprocation of the highest volume movement between the AM and PM peak hours. These existing year (2019) DDHVs will be used as the basis for future volume development. Figure 2.4, Figure 2.5, and Figure 2.6 show the existing year (2019) AADT, field turning movement counts, and DDHVs for both the AM and PM peak hours, respectively.

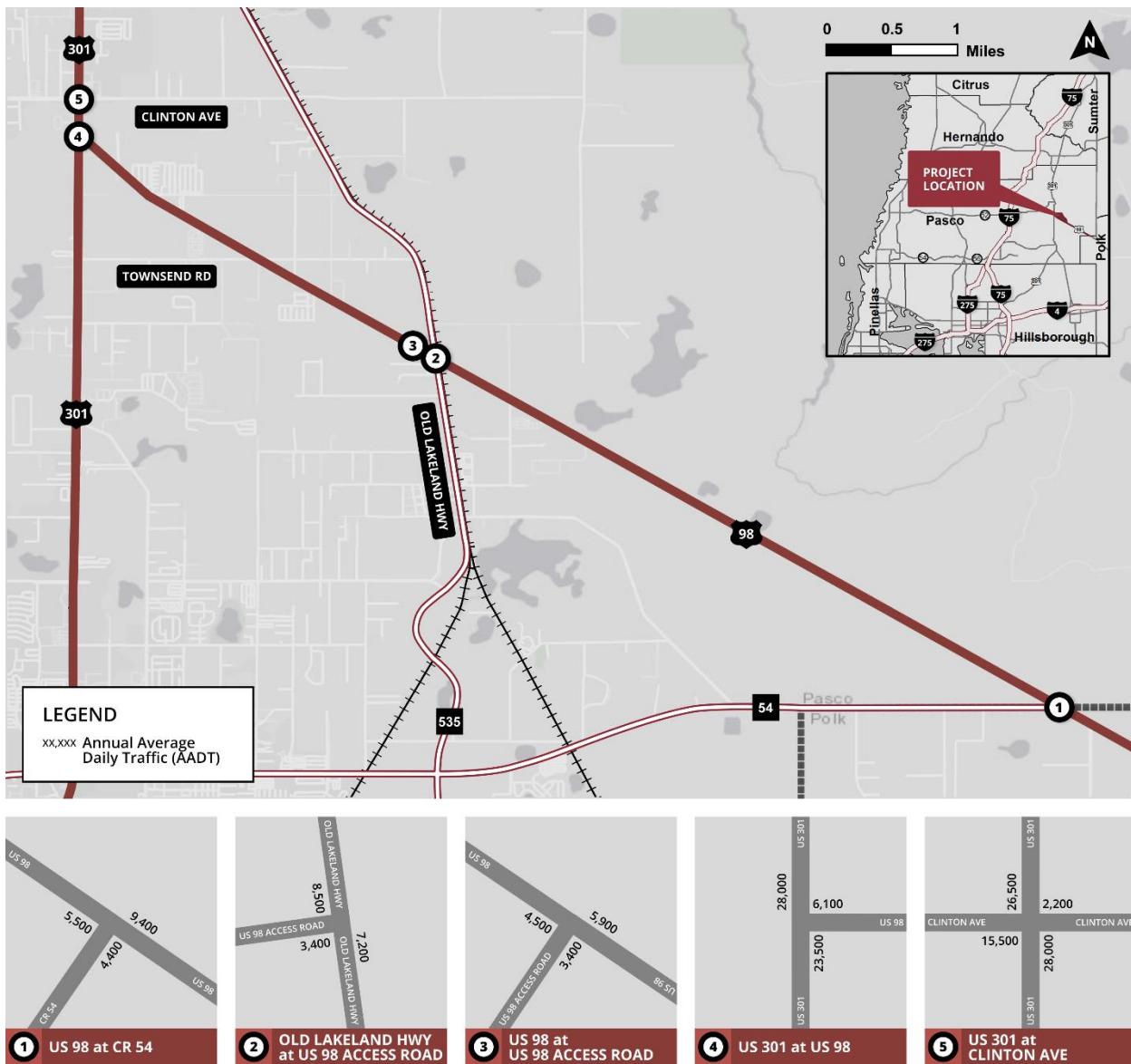


Figure 2.4: Existing Year (2019) AADTs

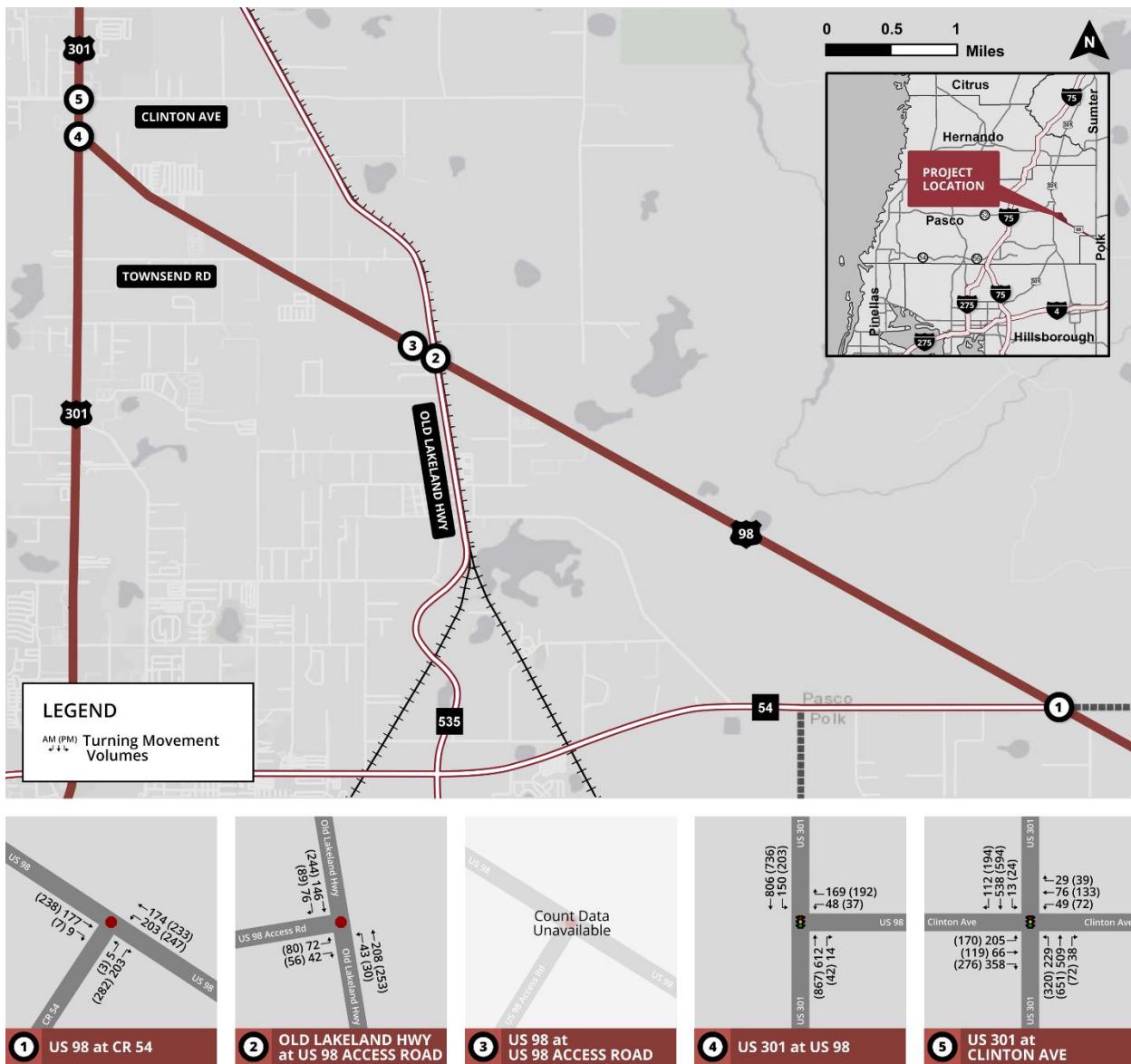


Figure 2.5: Existing Year (2019) Field Turning Movement Volumes

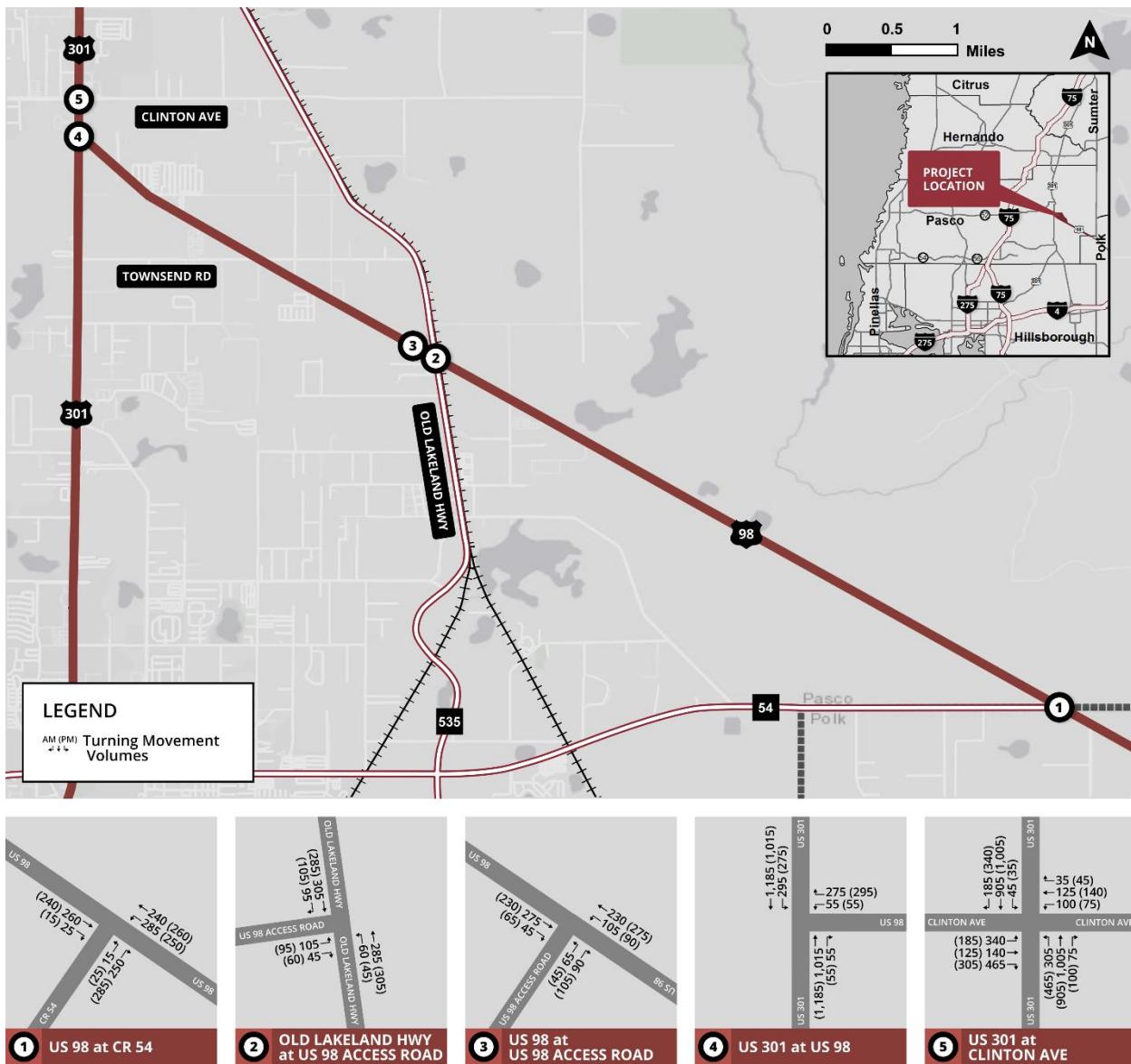


Figure 2.6: Existing Year (2019) Design Turning Movement Volumes

2.4 Existing Year (2019) Operational Analysis

To evaluate the existing year (2019) operational characteristics of the US 301/US 98/SR 35/SR 700 study area, an operational analysis using Synchro 10 for signalized intersections, Highway Capacity Software, version 7 (HCS7) for stop-controlled intersections, and *FDOT 2020 Generalized Level of Service (GLOS) Tables* for segments was conducted. The operational analysis consists of intersection delay, level of service (LOS), and queue analysis. *Highway Capacity Manual* (HCM) methodologies were used to estimate the LOS for each study intersection based on the intersection delay resulting from the Synchro and HCS analyses. The following sections document the results of the existing year (2019) operational analysis for the US 301/US 98/SR 35/SR 700 PD&E Study. Additionally, the existing year (2019) analysis results can be found in Appendix H.

Intersection Analysis

Intersection operational analysis was conducted at each of the signalized and stop-controlled intersections in the study area for the existing year (2019). The results of the existing year (2019) intersection analysis for the AM and PM peak hours are shown in Table 2.8 and Table 2.9, respectively.

The results of the analysis indicate that most of the study intersections meet the LOS target D and C, as defined for urbanized and rural areas, in the *FDOT 2020 Quality/Level of Service Handbook*, in the AM and PM peak hours, respectively. The US 301 at Clinton Avenue intersection was the only study intersection that does not meet the LOS target D, failing during the AM peak hour due to the eastbound left turning movement. Though the intersection meets the LOS target D during the PM peak hour, the eastbound and westbound leg experienced LOS F and LOS E, respectively, due to the left turn operations on both sides. The US 301 at US 98 intersection, while meeting the overall LOS target D for the urbanized areas, also experienced LOS E operations along the westbound leg of the intersection, due to westbound left turn operations, in the PM peak hours.

Table 2.8: Existing Year (2019) AM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	15.6	C	-	-	8.7*	A	7.9*	A	-	-
2	US 98 Access and Old Lakeland Highway	22.2*	C	-	-	8.5*	A	-	-	-	-
3	US 98 and US 98 Access	18.7*	C	-	-	8.3*	A	-	-	-	-
4	US 301 and US 98	-	-	39.5	D	16.7	B	2.7	A	12.1	B
5	US 301 and Clinton Avenue	357.6	F	50.7	D	3.7	A	20.3	C	101.8	F

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural

+Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 2.9: Existing Year (2019) PM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	17.7*	C	-	-	8.5*	A	7.9*	A	-	-
2	US 98 Access and Old Lakeland Highway	20.2*	C	-	-	8.4*	A	-	-	-	-
3	US 98 and US 98 Access	16.8*	C	-	-	8.1*	A	-	-	-	-
4	US 301 and US 98	-	-	42.8	D	19.2	B	4.1	A	15.3	B
5	US 301 and Clinton Avenue	186.4	F	57.0	E	11.8	B	30.4	C	50.7	D

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural

+Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Queue Analysis

Queue analysis was conducted at each of the signalized and stop-controlled intersections in the study area for the existing year (2019). The available turning bay storage length and results of the existing year (2019) queue analysis for the AM and PM peak hours, rounded to the nearest 25 feet, are shown in Table 2.10, Table 2.11, and Table 2.12, respectively. Reported queues are based on Synchro and HCS 95th percentile queues. The Synchro HCM 6th and HCS queues are reported as vehicles, and were therefore multiplied by 25 and rounded to the nearest 25 feet. The result of the analysis indicates that the eastbound right queue of US 301 at Clinton Avenue intersection exceeds the storage lengths and spills back into the through lanes and may block the through movements along eastbound Clinton Avenue during the AM and PM peak hours. The results also indicates that the westbound right queue of US 301 at US 98 also exceeds the storage length during the AM and PM peak hours. This may impact the westbound left movements of the intersection of US 301 at US 98.

Table 2.10: Existing Condition Storage Lengths (ft)

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	+	-	+	-	-	-	400	-	-	-	-	425
2	US 98 Access and Old Lakeland Highway	-	-	-	-	-	-	+	-	-	-	-	+
3	US 98 and US 98 Access	-	-	375	350	-	-	-	-	-	-	-	-
4	US 301 and US 98	-	-	-	-	-	375	-	-	450	950	-	-
5	US 301 and Clinton Avenue	500	-	600	275	-	+	550	-	400	425	-	425

+Shared Lanes

Table 2.11: Existing Year (2019) AM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	75	-	+	-	-	-	25	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	50	-	25	-	-	-	25	-	-	-	-	+
3	US 98 and US 98 Access	25	-	25	-	-	-	25	-	-	-	-	-
4	US 301 and US 98	-	-	-	75	-	325	-	350	50	100	25	-
5	US 301 and Clinton Avenue	325	100	1675	150	125	+	150	25	25	25	350	150

Red highlight where queues exceed available storage

+Shared Lanes

Table 2.12: Existing Year (2019) PM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	100	-	+	-	-	-	25	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	50	-	25	-	-	-	25	-	-	-	-	+
3	US 98 and US 98 Access	25	-	25	-	-	-	25	-	-	-	-	-
4	US 301 and US 98	-	-	-	75	-	350	-	450	50	175	25	-
5	US 301 and Clinton Avenue	175	100	900	125	150	+	300	25	25	25	500	350

Red highlight where queues exceed available storage

+Shared Lanes

Segment Analysis

Segment analysis was conducted along US 98 and US 301 for the existing year (2019) AM and PM peak hour directional volume and is shown in Table 2.13 and Table 2.14. This analysis is based upon the thresholds provided by the *FDOT 2020 Generalized Level of Service (GLOS) Tables*, which can be found in Appendix I. The result of the analysis indicates that both facilities operate at LOS D and C targets under the existing condition.

Table 2.13: Existing Year (2019) AM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
US 98											
CR 54	US 98 Access Road	255	285	1	450	Rural	Uninterrupted Flow Highways (Rural)	C	C	0.57	0.63
US 98 Access Road	US 301	295	320	1	1200	Urbanized	Uninterrupted Flow Highways	B	B	0.25	0.27
US 301											
South of US 98	US 98	1070	1240	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.54	0.62
US 98	Clinton Avenue	1290	1480	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.65	0.74
Clinton Avenue	North of Clinton Avenue	1380	1135	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.69	0.57

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Table 2.14: Existing Year (2019) PM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
US 98											
CR 54	US 98 Access Road	285	255	1	450	Rural	Uninterrupted Flow Highways (Rural)	C	C	0.63	0.57
US 98 Access Road	US 301	320	295	1	1200	Urbanized	Uninterrupted Flow Highways	B	B	0.27	0.25
US 301											
South of US 98	US 98	1240	1070	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.62	0.54
US 98	Clinton Avenue	1480	1290	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.74	0.65
Clinton Avenue	North of Clinton Avenue	1135	1380	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.57	0.69

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

3.0 Future Travel Demand

3.1 Trend Analysis

BEBR Growth Trends

Data was gathered for the Bureau of Economic and Business Research's (BEBR) *'Projections of Florida Population by County, 2019-2045'* and is summarized in Table 3.1. BEBR population forecasts provide a useful metric in measuring growth trends within counties by providing low, medium, and high forecast rates. With a design year of 2045 and the anticipated development within the study area, BEBR data indicates that medium to high population growth should range from 1.3 percent to 2.2 percent per year.

Table 3.1: Pasco County BEBR Population Forecasts 2019 to 2045

2019		2025		2030		2035		2040		2045	
527,122	Pop	Growth									
Low	545,800	0.6%	569,400	0.7%	585,600	0.7%	597,100	0.6%	605,200	0.6%	
Medium	586,100	1.9%	626,800	1.7%	659,200	1.6%	686,700	1.4%	711,000	1.3%	
High	623,100	3.0%	685,200	2.7%	738,300	2.5%	787,600	2.4%	833,900	2.2%	

Historical Count Trends

Historical count data was obtained from the FDOT FTO count stations located within or near the study area and growth rates were plotted for the most recent five years of available data and can be found in Table 3.2. The coefficient of determination (R^2) for the five-year range of data is provided to indicate the statistical fit of the observed growth trend to the available sample. While these metrics provide a reasonable metric by which to compare growth, historical count data can be heavily impacted by major events such as the Coronavirus (COVID-19) pandemic that resulted in a national shut down in March 2020 and a three phase Florida State Recovery Plan. The average weighted annual historical growth rate for the study area is 1.9 percent. Historical Count data can be found in Appendix F.

Table 3.2: Historical FTO Growth Trends

Count ID	Location	2015	2016	2017	2018	2019	Linear Growth	R ²
<i>US 98</i>								
161003	East of CR 54	7,900	8,300	8,900	10,200	9,400	4.9%	0.73
140055	West of CR 54	4,500	4,500	4,700	5,300	5,500	5.1%	0.89
140054	East of US 301	5,500	5,200	5,400	5,900	6,100	3.2%	0.66
<i>US 301</i>								
140053	South of US 98	23,000	23,000	24,000	22,500	23,500	0.2%	0.02
140052	Between US 98 and Clinton Avenue	28,500	30,500	32,500	33,000	28,000	0.5%	0.01
<i>Clinton Avenue</i>								
146038	West of US 301	-	-	-	15,300	15,700	2.5%	1.00
149103	East of US 301	1,800	1,900	2,000	2,100	2,200	4.5%	1.00
<i>CR 54</i>								
149080	West of US 98	3,800	4,000	4,200	4,300	4,400	3.4%	0.97

TBRPM Socio-Economic Data Growth

The socio-economic data was compared between the base year (2015) and horizon year (2045) model scenarios using Traffic Analysis Zone (TAZ) contained within the model sub-area. The TAZ level overall growth in population and employment within the model sub-area can be found in Table 3.3.

Table 3.3: Sub-Area TAZ Population and Employment

Metric	2015 Model	2045 Model	Annual Growth Rate
Population	76,418	132,641	2.5%
Employment	28,545	40,903	1.4%

To provide additional context to growth centers within the model sub-area, population and employment growth is presented by TAZ in Figure 3.1 and Figure 3.2, respectively. Based on the observed growth patterns presented by the TBRPM, residential development is expected along the US 98 study corridor. Special attention was paid to ensure all Developments of Regional Impact (DRIs) and Master Planned Unit Developments (MPUDs) were accounted for in the zonal data used for this forecast. Additional modifications to the horizon year 2045 employment growth were made under the SR 56 ACER study, which added 26,993 additional jobs around SR 56 in Wesley Chapel. That study overlaps the south of this sub-area, and changes were incorporated into the model. That study did not recommend any further population changes than what is already expected.

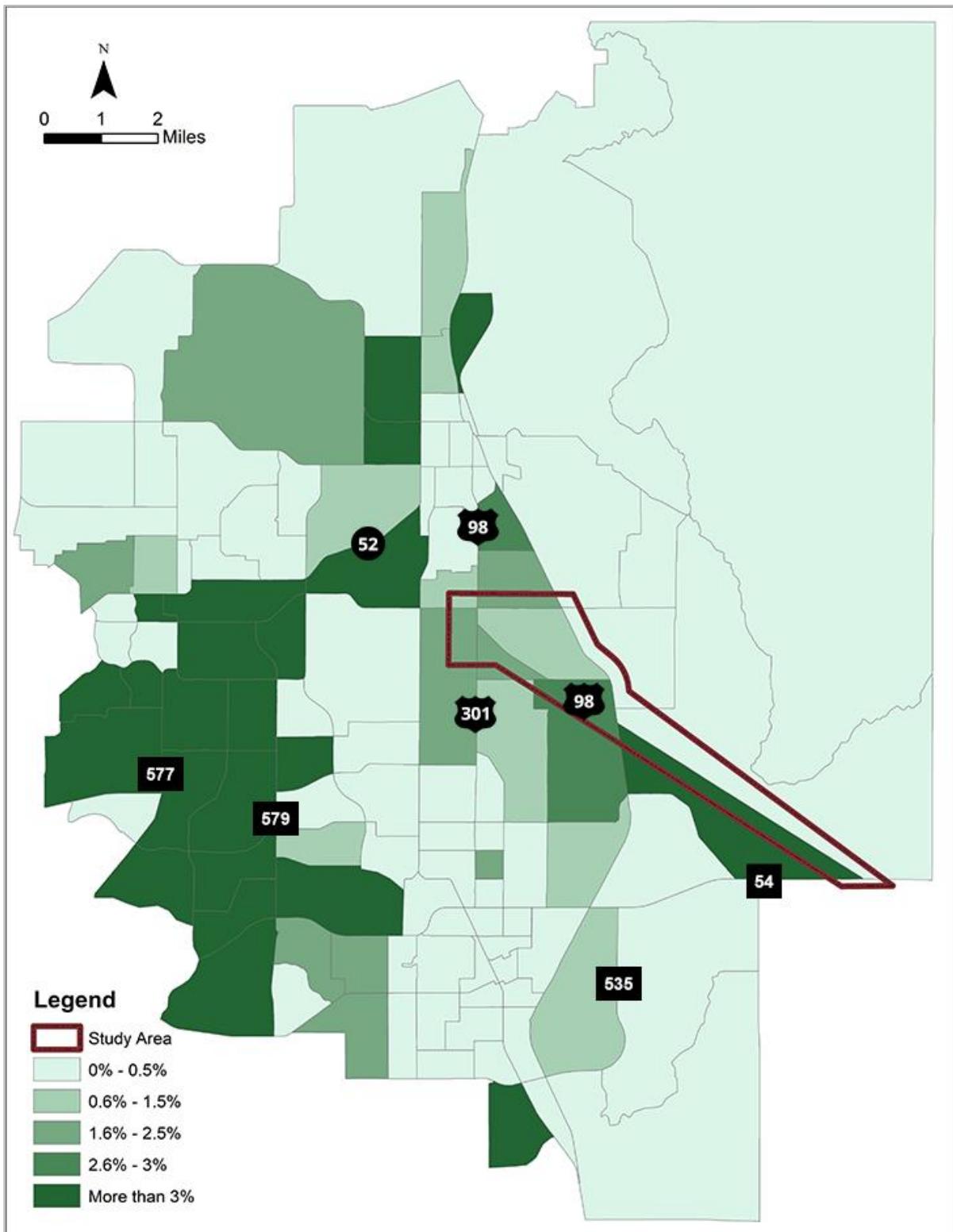


Figure 3.1: TBRPM 9.1 TAZ Level Population Growth

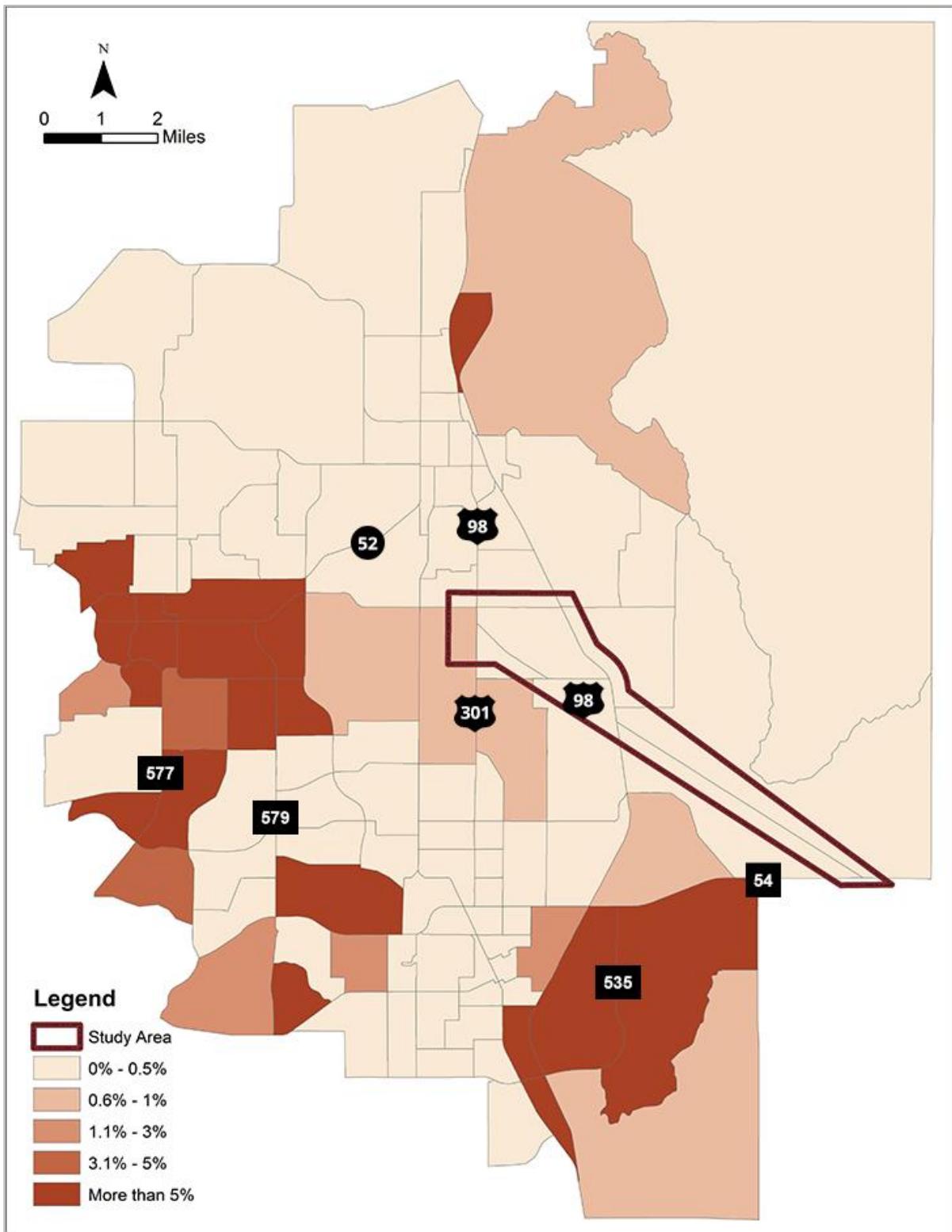


Figure 3.2: TBRPM 9.1 TAZ Level Employment Growth

3.2 Tampa Bay Regional Planning Model (TBRPM) Trend Analysis

TBRPM Network Checks and Calibration

The travel demand modeling efforts for this analysis utilized the State Road 56 ACER (WPI Segment No: 443367-1) and were based on the Tampa Bay Regional Planning Model (TBRPM), Version 9.1 with a calibrated base year of 2015 and horizon year of 2045. This analysis began with further refinement of the TBRPM, with an emphasis placed on the area surrounding the US 98 PD&E study area and the resulting forecast AADTs from which the design year (2045) volumes were developed.

Base year (2015) model volumes were compared with FDOT and Pasco County recorded traffic counts within the model sub-area as indicated in Figure 3.3. The TBRPM was initially validated regional for a 2015 base year. However, it is customary to review model performance at project locations, and if necessary, calibrate models to improve statistical confidence in forecasts. Adjustments to the model were made to improve sub-area accuracy without compromising regional validation and adhere to the guidelines set forth for the Florida Statewide Urban Transportation Modeling Structure (FSUTMS) in the *2019 FDOT Project Traffic Forecasting Handbook*. The comprehensive base year model refinement of the TBPRM v9.1 for this study is documented in FDOT approved Base Year Model Refinement Technical Memorandum and can be found in Appendix J.

TBRPM Volume Growth

Based upon the network enhancements made to the base year (2015) model refinement efforts, the horizon year (2045) cost-feasible model scenario was updated with calibration metric enhancements and reviewed for consistency with the Pasco County Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP). This includes the widening of US 98 to four lanes within the project limits to determine horizon year (2045) unrestricted demand. Demand was also checked for consistency at the TBRPM and District One Regional Planning Model (D1RPM v1.0.6).

The resulting horizon year (2045) model volume output was converted from Peak Season Weekday Average Daily Traffic (PSWADT) to design year (2045) AADTs using a Model Output Conversion Factor (MOCF) of 0.95, as indicated by FDOT FTO for Pasco County. The resulting design year (2045) AADTs were reviewed for reasonableness and forecasting consistency. Adjustments to the forecasts were made utilizing the difference and ratio method procedures from the *2019 FDOT Project Traffic Forecasting Handbook*. Adjusted design year (2045) AADTs comparisons to existing year (2019) AADTs and their associated growth rate can be found in Table 3.4.

Demand was also checked for consistency at the TBRPM and District One Regional Planning Model (D1RPM v1.0.6). For consistency with the forecasting efforts conducted by FDOT District One for the US 98 PD&E Study (WPI Segment No: 436673-1) from north of West Socrum Loop to SR 471, it was determined to set the AADT on US 98 south of CR 54 to 28,500 AADT in the design year (2045). This AADT was multiplied by K and D and then distributed through the network by the existing turning movement percentages and then smoothed to ensure individual movement growth consistency. All resulting AADTs from this smoothing process were also reviewed to ensure the resulting design year (2045) AADT was higher than the observed growth present in the calibrated TBRPM 9.1. The final design year (2045) AADTs were then calculated after this smoothing and can be found along with a comparison to the TBRPM 9.1 forecasted AADTs in Table 3.5.

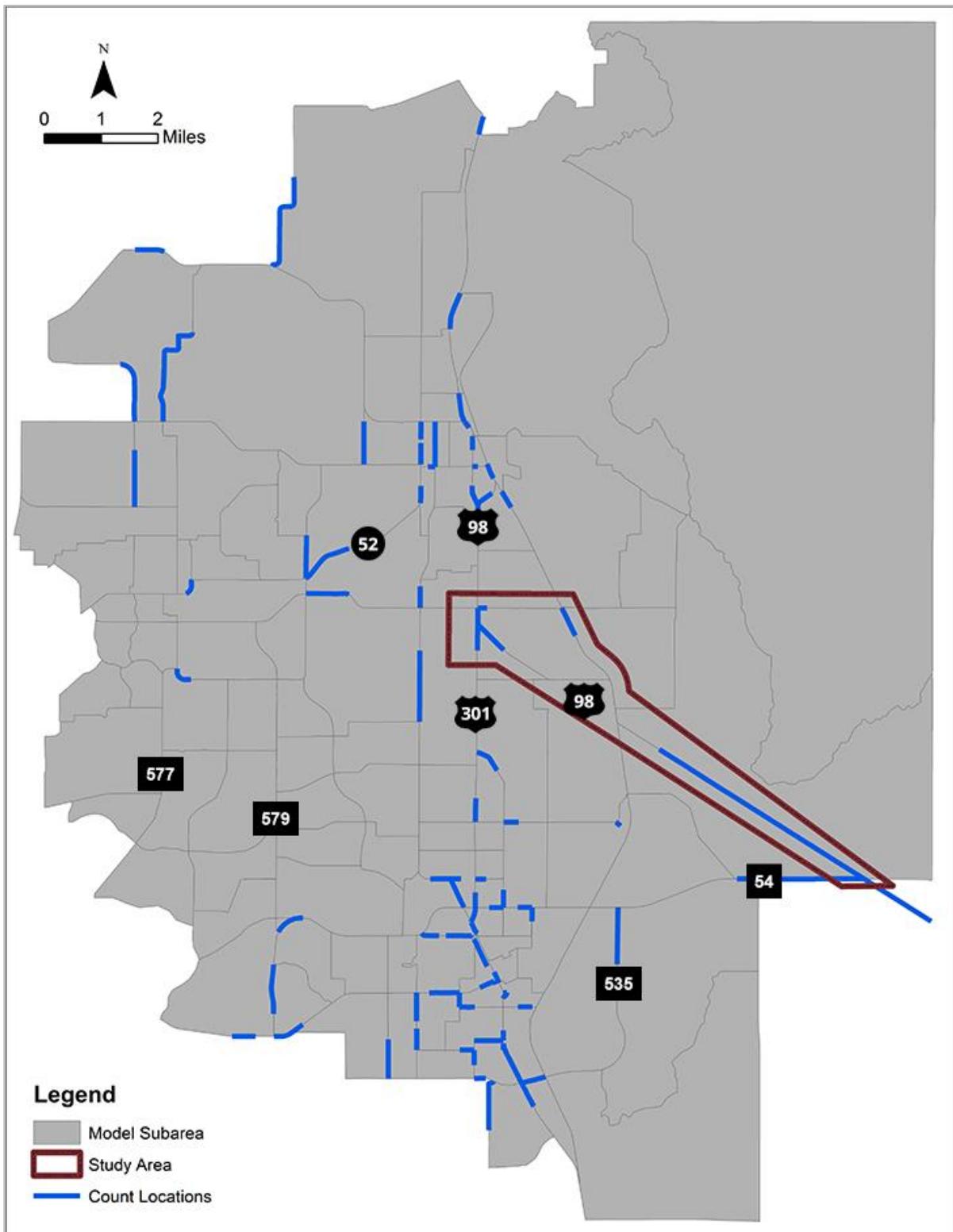


Figure 3.3: TBRPM 9.1 Model Calibration Subarea

Table 3.4: TBRPM 9.1 NCHRP 765 Adjustments

Segment	Existing		TBRPM 9.1 Output			Difference Method		Ratio Method		Forecast (2045)	
	2019 AADT	2015 AADT	2045 AADT	AGR	2019 AADT	Difference	2045 AADT	Ratio	2045 AADT	2045 AADT	AGR
<i>US 98</i>											
East of CR 54	9,400	7,700	18,900	4.8%	9,200	9,700	19,100	2.05	19,300	19,200	4.0%
West of CR 54	5,500	5,000	9,600	3.1%	5,600	4,000	9,500	1.71	9,400	9,500	2.8%
East of Old Lakeland Highway	5,900	5,000	9,600	3.1%	5,600	4,000	9,900	1.71	10,100	10,000	2.7%
West of Old Lakeland Highway	4,500	4,800	7,500	1.9%	5,200	2,300	6,800	1.44	6,500	6,700	1.9%
East of US 301	6,100	4,800	7,500	1.9%	5,200	2,300	8,400	1.44	8,800	8,600	1.6%
<i>US 301</i>											
South of US 98	23,500	25,900	33,200	0.9%	26,900	6,300	29,800	1.23	29,000	29,400	1.0%
Between US 98 and Clinton Avenue	28,000	25,900	33,200	0.9%	26,900	6,300	34,300	1.23	34,600	34,500	0.9%
North of Clinton Avenue	26,500	26,000	32,700	0.9%	26,900	5,800	32,300	1.22	32,200	32,300	0.8%
<i>Clinton Avenue</i>											
West of US 301	15,500	10,700	20,400	3.0%	12,000	8,400	23,900	1.70	26,400	25,200	2.4%
East of US 301	2,200	1,100	2,400	3.9%	1,300	1,100	3,300	1.85	4,100	3,700	2.6%
<i>US 98 Access Road</i>											
South of US 98	3,400	-	-	-	-	-	-	-	-	6,300	3.3%
<i>Old Lakeland Highway</i>											
South of US 98	7,200	4,500	6,000	1.1%	4,700	1,300	8,500	1.28	9,200	8,900	0.9%
North of US 98	8,500	4,500	6,000	1.1%	4,700	1,300	9,800	1.28	10,900	10,400	0.9%
<i>CR 54</i>											
West of US 98	4400	3400	9800	6.3%	4,300	5,500	9,900	2.28	10,000	10,000	4.9%

TBRPM 2019 AADTs are calculated using linear interpolation between the TBRPM Base Year (2015) and Horizon Year (2045) TBRPM outputs.

Difference 2045 AADTs are yielded by applying the difference between the 2019 and 2045 TBRPM AADTs to the Existing Year (2019) AADTs.

Ratio 2045 AADTs are yielded by applying the ratio between the 2019 and 2045 TBRPM AADTs to the Existing Year (2019) AADTs.

Forecast (2045) AADTs are an average between the Delta and Ratio yielded 2045 AADTs as described in the 2019 Project Traffic Forecasting Manual.

Table 3.5: Forecasted Design Year (2045) AADTs

Segment	Existing Year (2019)		Forecast (2045)		D1 Consistency	Design Year (2045)	
	AADT	AADT	AGR	Adjustment	AADT	AGR	
<i>US 98</i>							
East of CR 54	9,400	19,200	4.0%	9,300	28,500	7.8%	
West of CR 54	5,500	9,500	2.8%	7,400	16,900	8.0%	
East of Old Lakeland Highway	5,900	10,000	2.7%	7,600	17,600	7.6%	
West of Old Lakeland Highway	4,500	6,700	1.9%	7,200	13,900	8.0%	
East of US 301	6,100	8,600	1.6%	5,900	14,500	5.3%	
<i>US 301</i>							
South of Old US 98	23,500	29,400	1.0%	600	30,000	1.1%	
North of Old US 98	28,000	34,500	0.9%	6,200	40,700	1.7%	
South of Clinton Avenue	28,000	34,500	0.9%	7,000	41,500	1.9%	
North of Clinton Avenue	26,500	32,300	0.8%	1,600	33,900	1.1%	
<i>Clinton Avenue</i>							
West of US 301	15,500	25,200	2.4%	4,300	29,500	3.5%	
East of US 301	2,200	3,700	2.6%	3,700	7,400	9.1%	
<i>US 98 Access Road</i>							
South of US 98	3,400	6,300	3.3%	0	6,300	3.3%	
<i>Old Lakeland Highway</i>							
South of US 98	7,200	8,900	0.2%	100	9,000	0.2%	
North of US 98	8,500	10,400	1.7%	2,200	12,600	2.9%	
<i>CR 54</i>							
West of US 98	4,400	10,000	4.9%	2,500	12,500	7.1%	

Split of the AADT adjustment along CR 54 and US 98 is consistent with the FDOT District 1 US 98 PD&E Study (WPI Segment No: 436673-1).

3.3 Development of Future Demand

The design year (2045) DDHVs were calculated by applying K and D to the design year (2045) AADTs. The resulting DDHVs were distributed throughout the existing study area network by turning movement percentages observed in the existing year (2019) turning movements. The resulting DDHVs were examined and smoothed to ensure growth for every movement and establish the No-Build scenario design year (2045) AADTs and turning movement volumes. Opening year (2025 AADTs and DDHVs were developed using linear interpolation. No-Build opening year (2025) and design year (2045) AADTs and DDHVs can be found in Figure 3.4, Figure 3.5, Figure 3.6, and Figure 3.7, respectively.

While the Build scenario does include substantial network adjustment, it does not prohibit any movements from being present under the No-Build scenario. As such, to develop Build scenario design year (2045) turning movement volumes, No-Build demand was logically reassigned throughout the network. The redistributed No-Build demand will serve to establish background traffic by which to assign additional demand based on the proposed development plans along the study corridor. All background traffic volume development can be found in the Volume Development memorandum in Appendix K.

Several developments are currently planned along the project corridor. Due to no existing traffic impact analysis associated with these developments being available, Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition, was utilized to understand the additional demand that these developments would place on the corridor under both the opening year (2025) and design year (2045) volume scenarios. The proposed development plans, associated trip generation calculations, and network distribution can be found in Appendix L. The resulting Build opening year (2025) and design year (2045) AADTs and DDHVs can be found in Figure 3.8, Figure 3.9, Figure 3.10, and Figure 3.11, respectively.

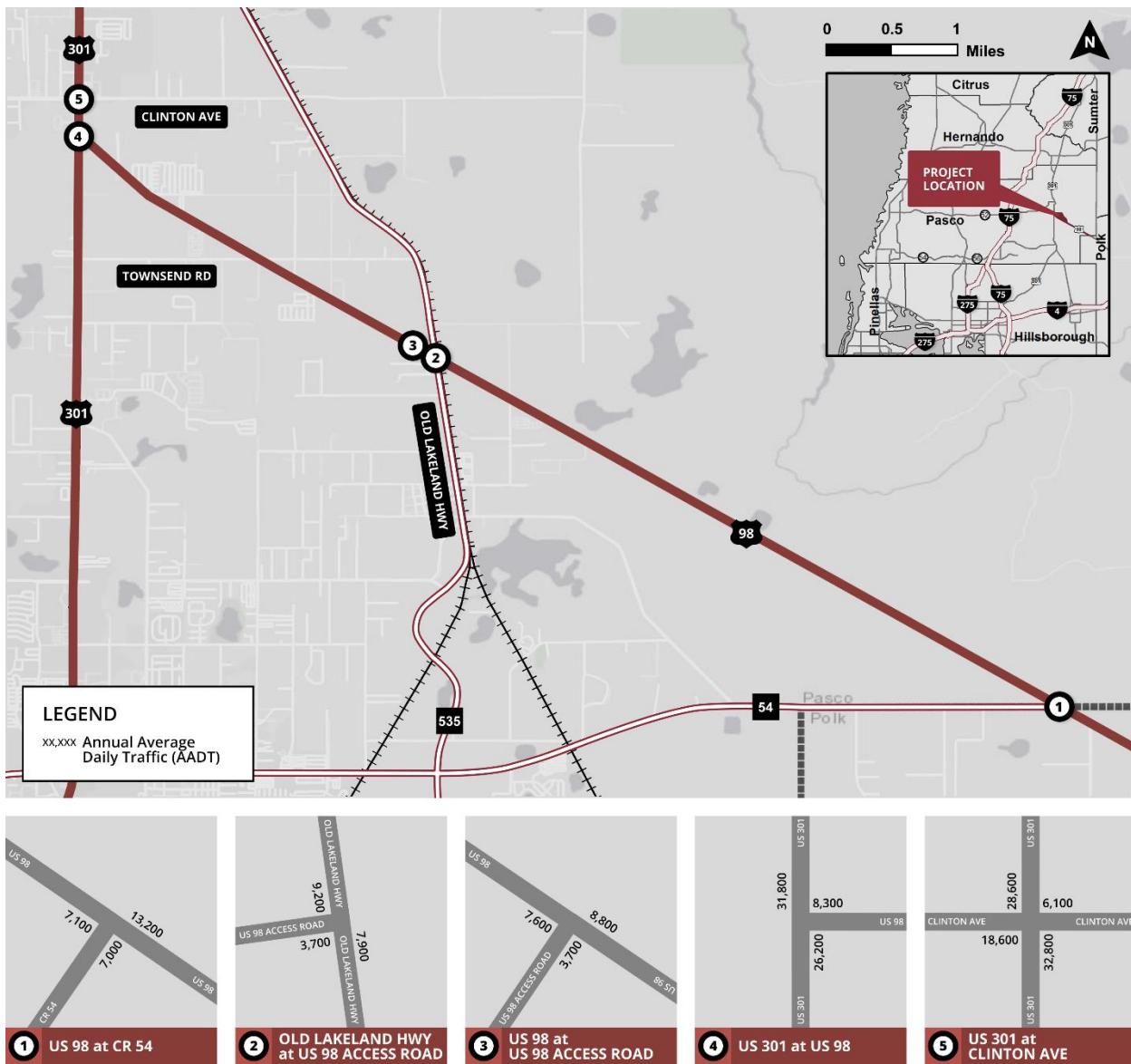


Figure 3.4: Opening Year (2025) No-Build AADTs

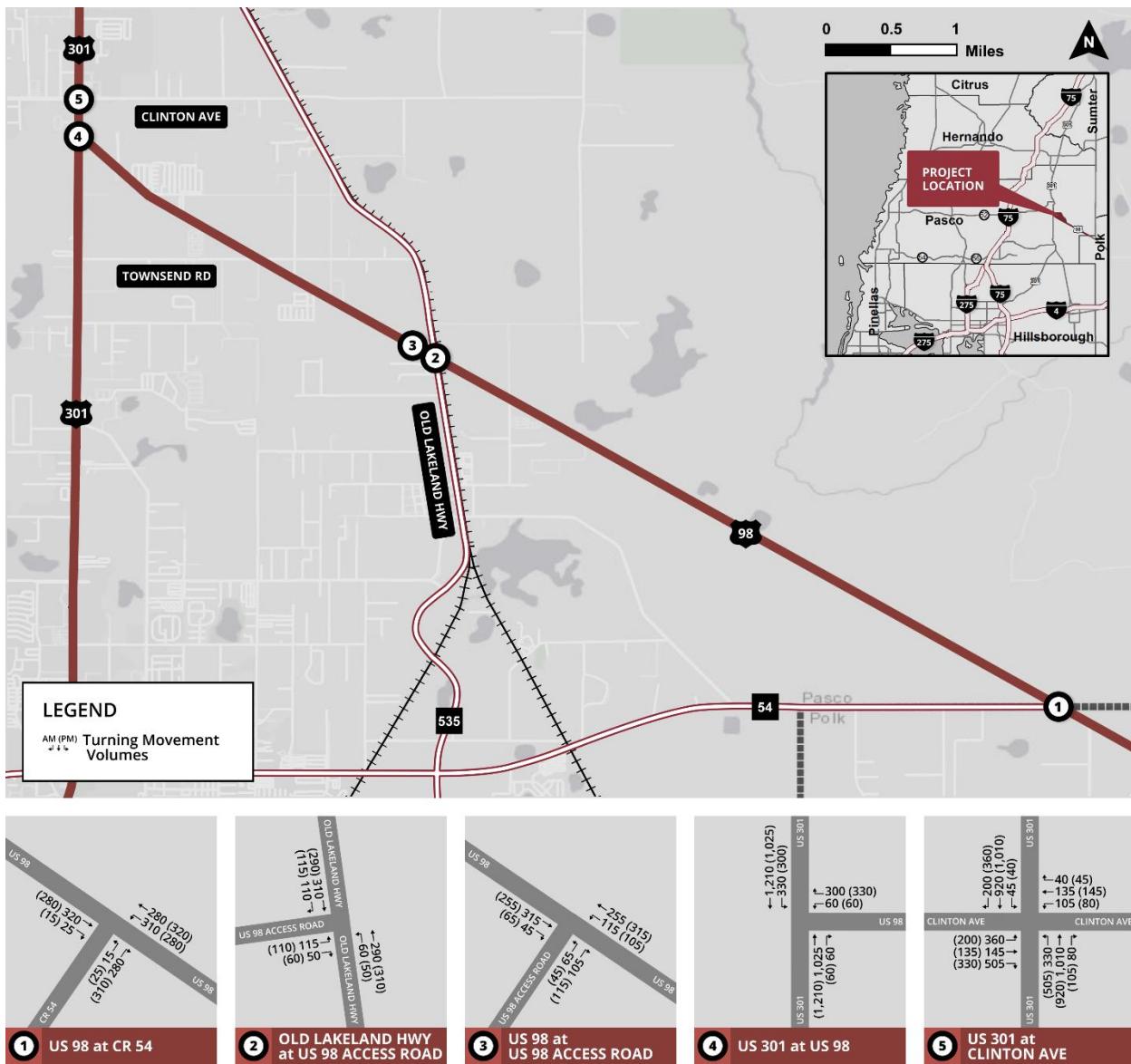


Figure 3.5: Opening Year (2025) No-Build Turning Movement Volumes

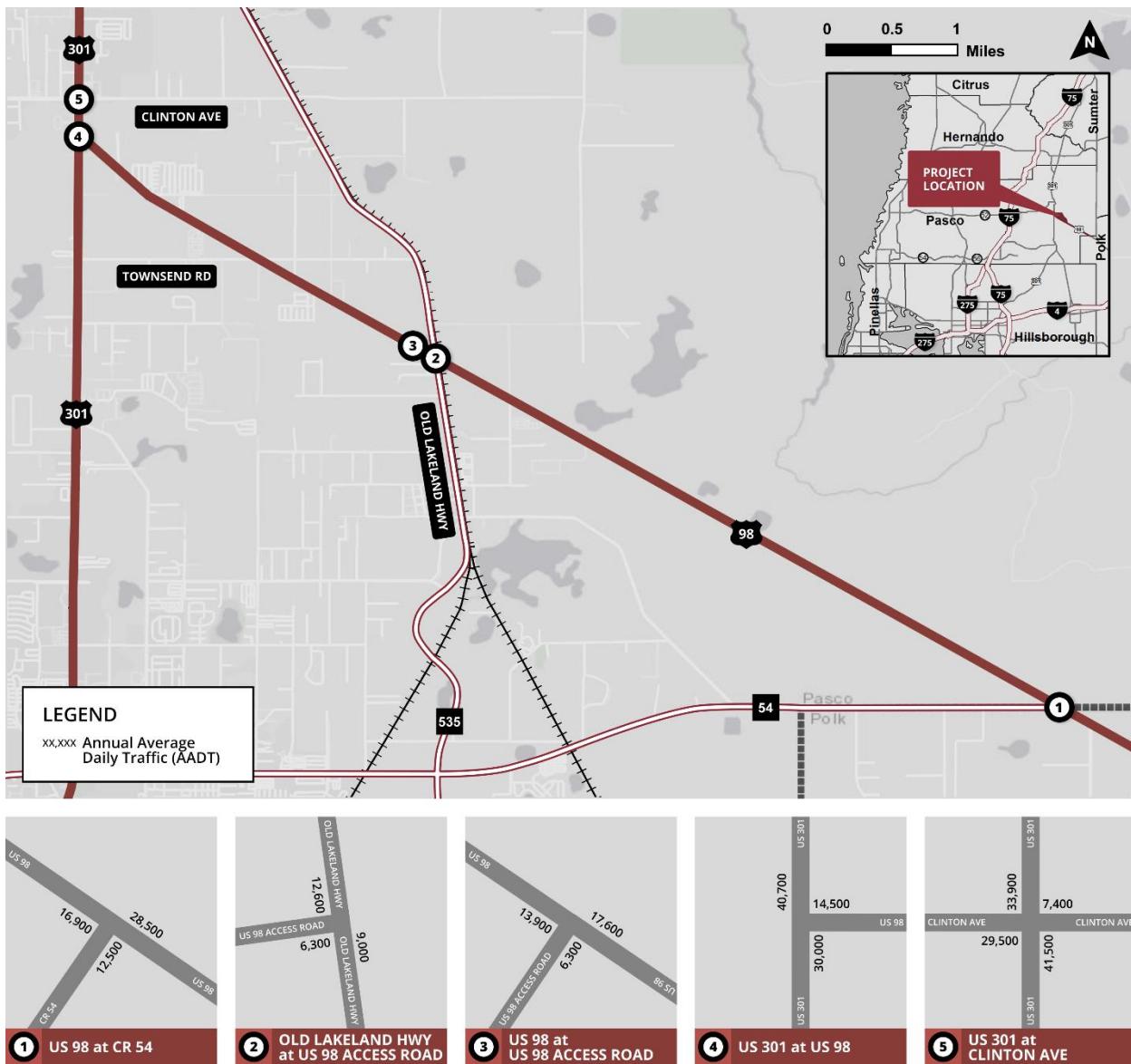


Figure 3.6: Design Year (2045) No-Build AADTs

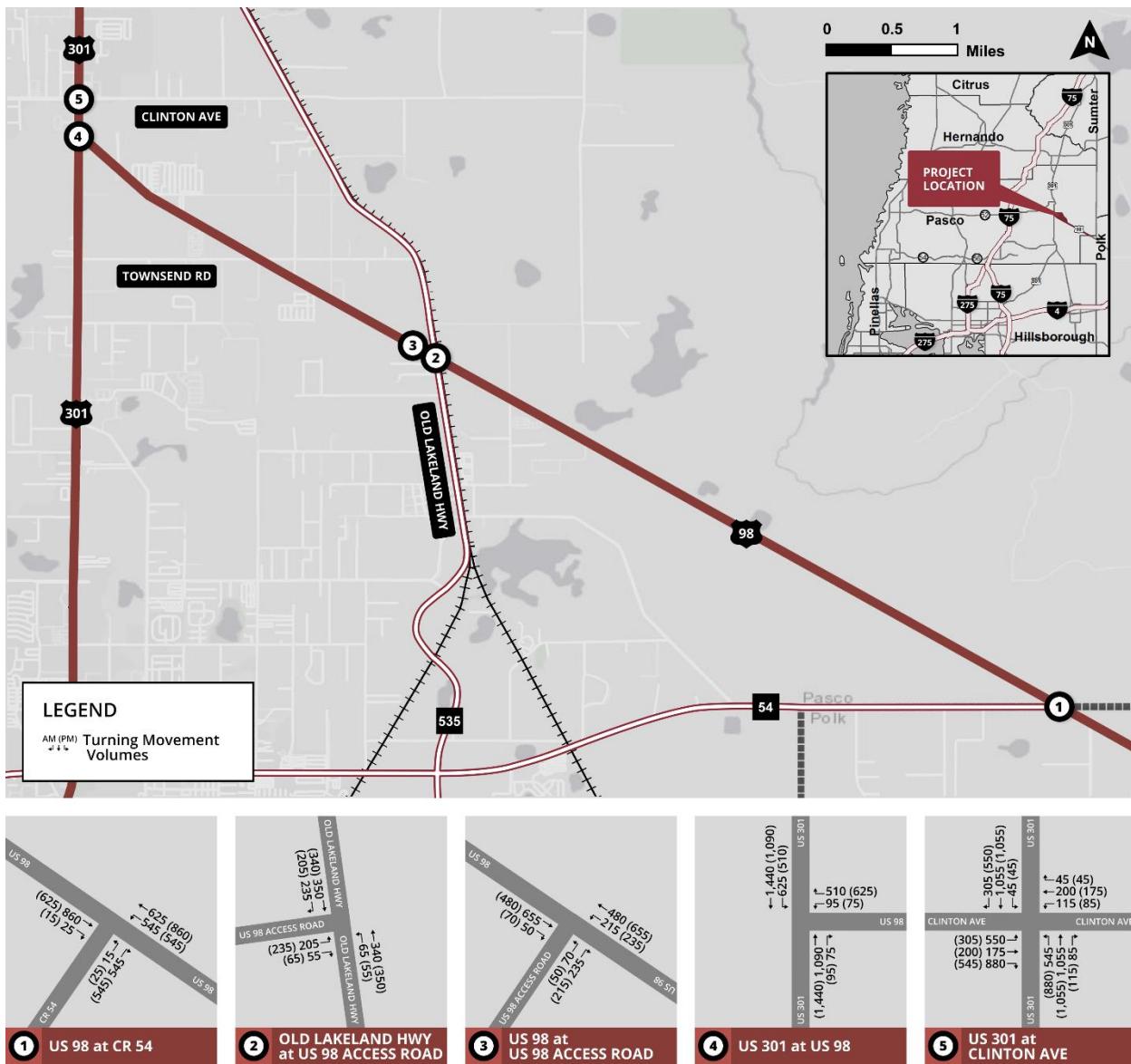


Figure 3.7: Design Year (2045) No-Build Turning Movement Volumes

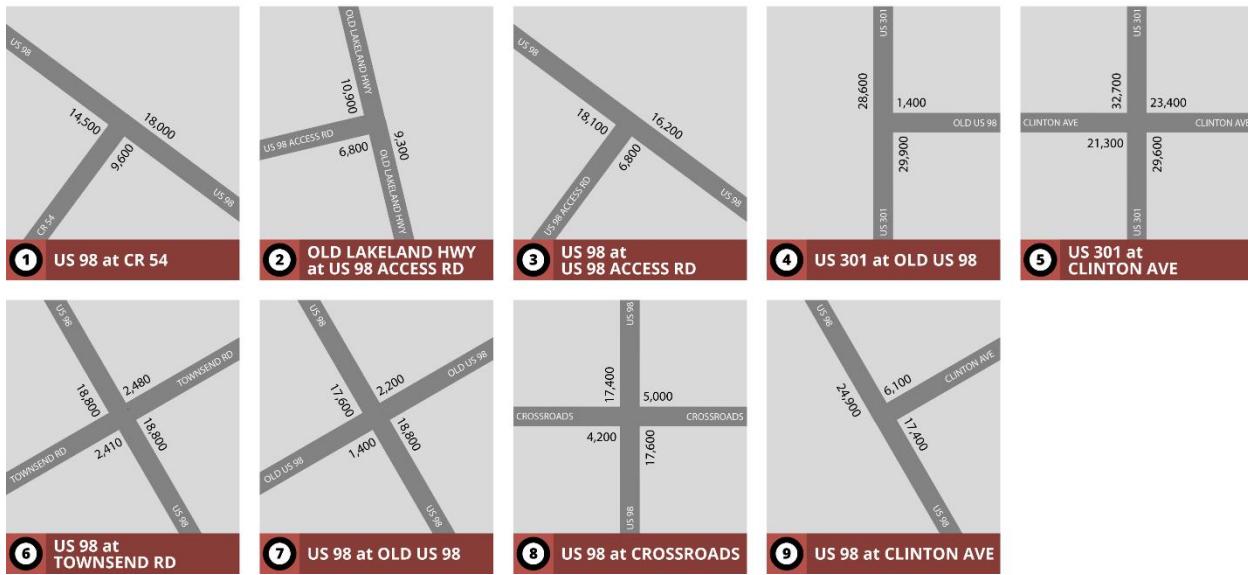
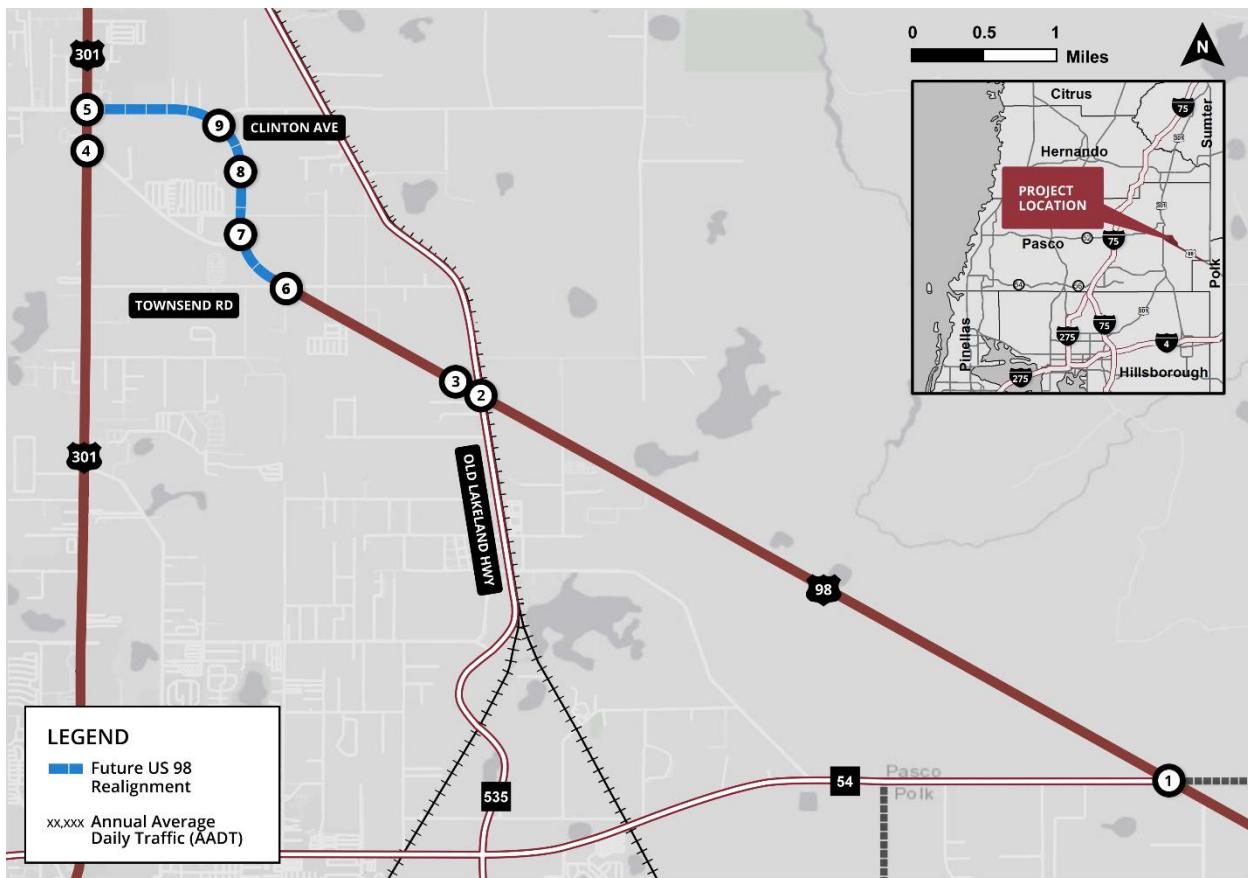


Figure 3.8: Opening Year (2025) Build AADTs

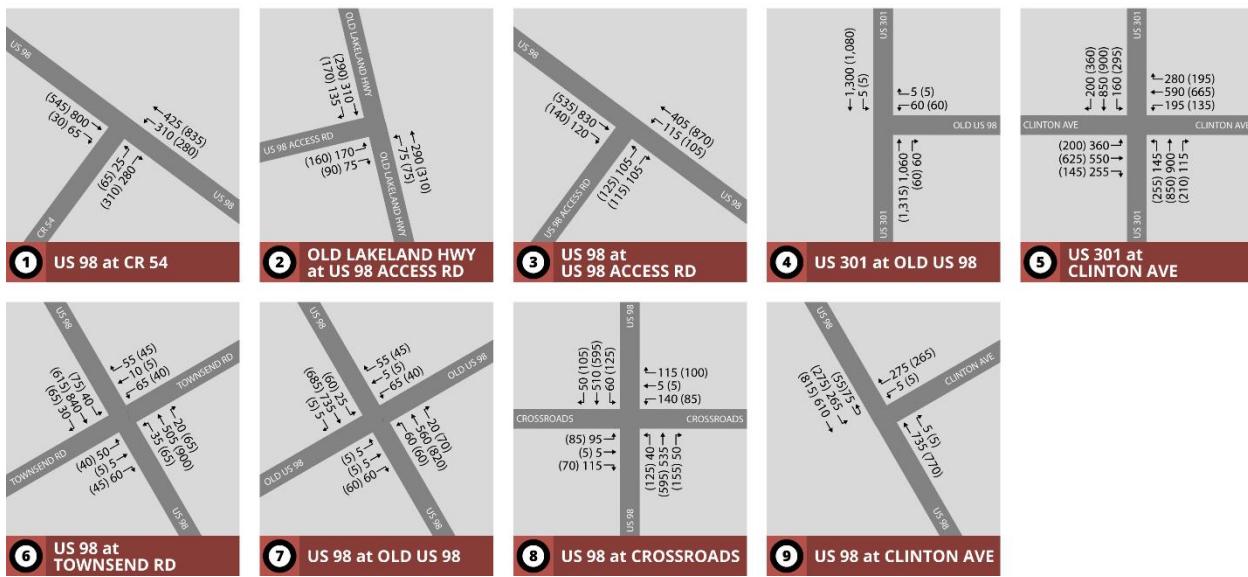
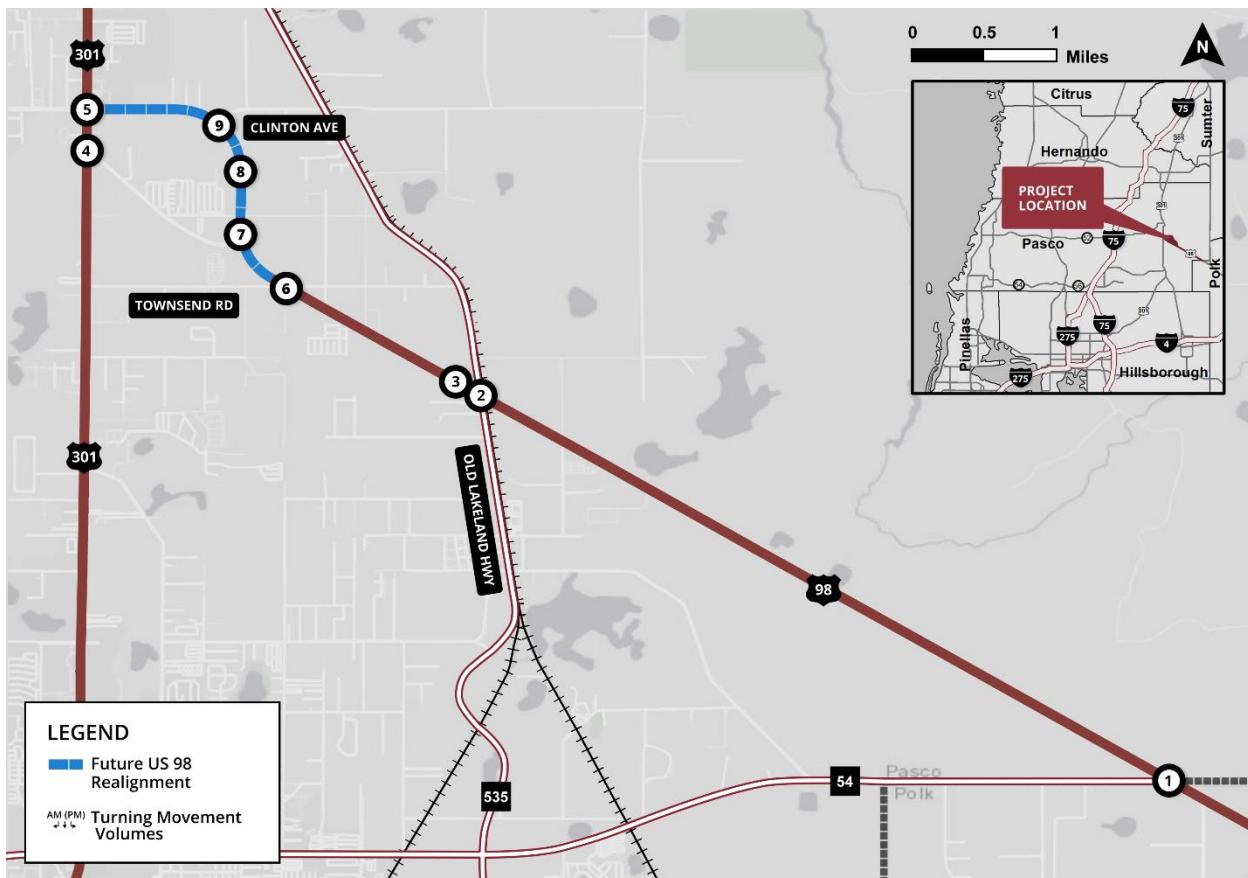


Figure 3.9: Opening Year (2025) Build Turning Movement Volumes

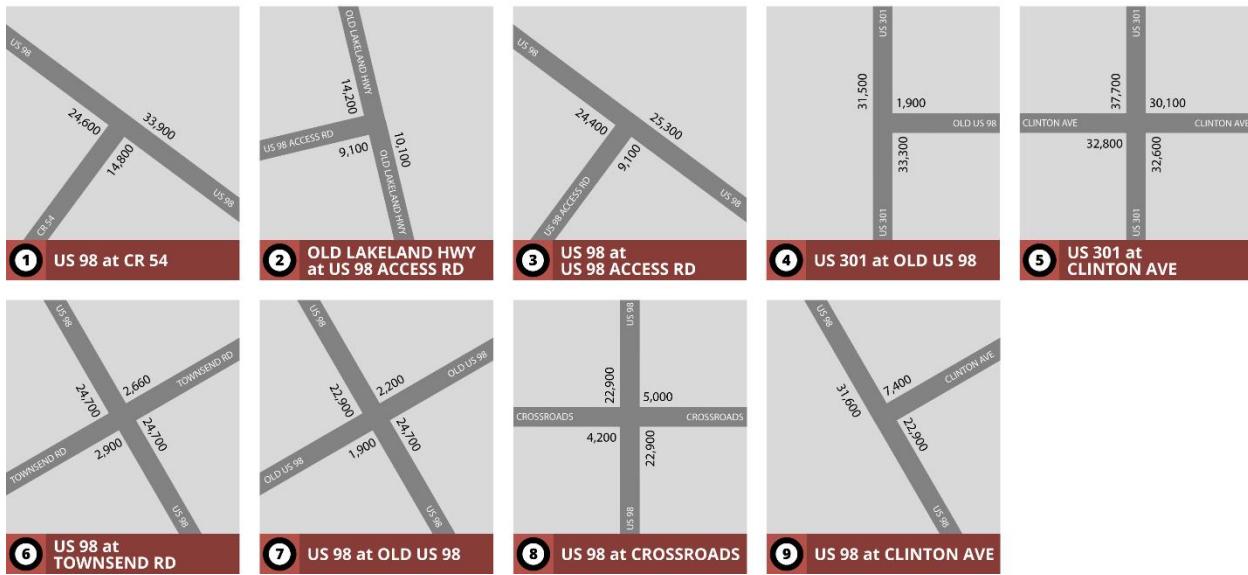
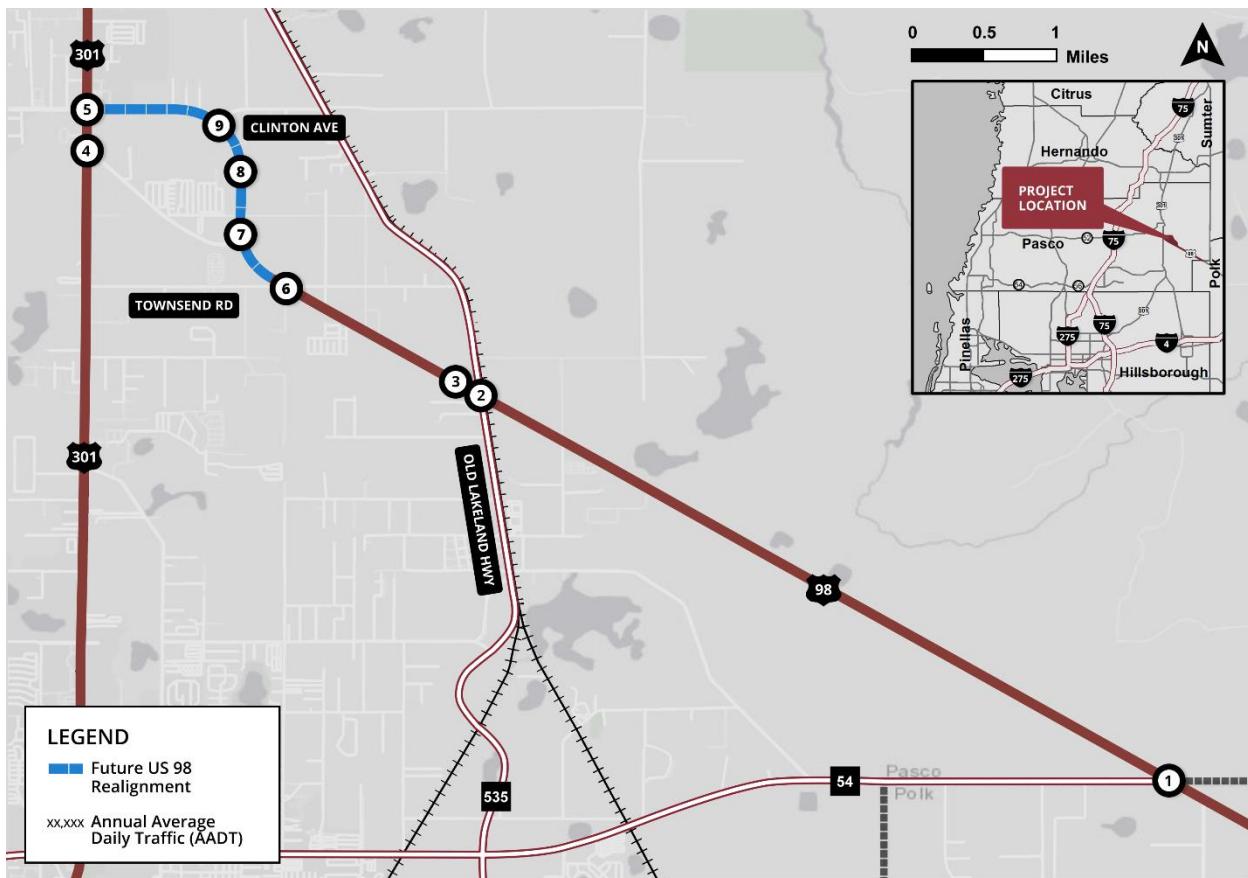


Figure 3.10: Design Year (2045) Build AADTs

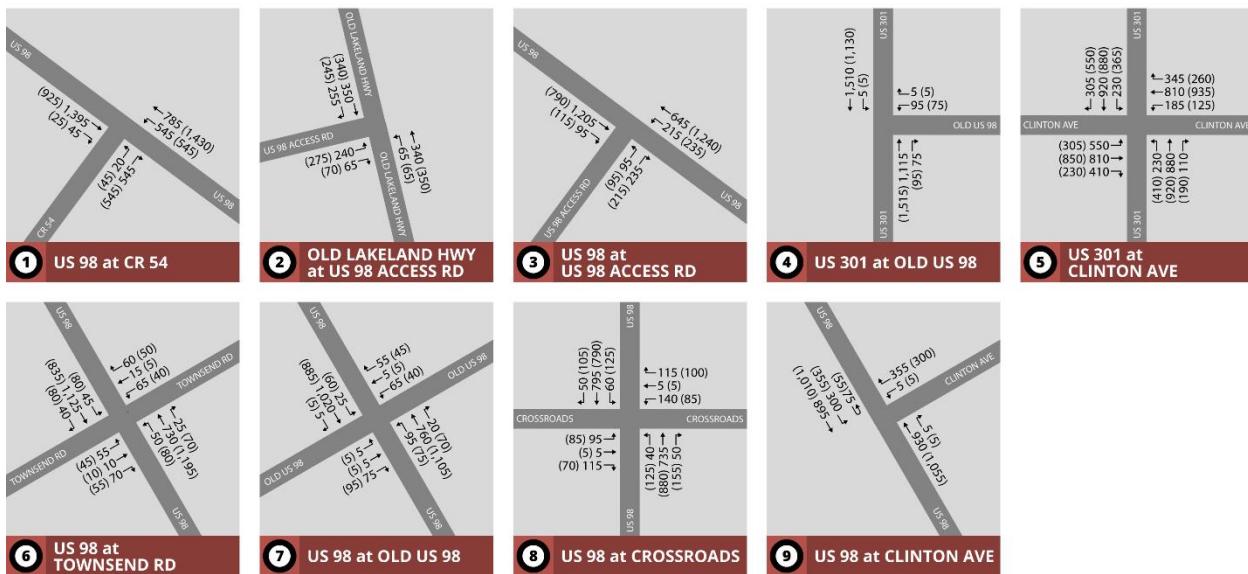
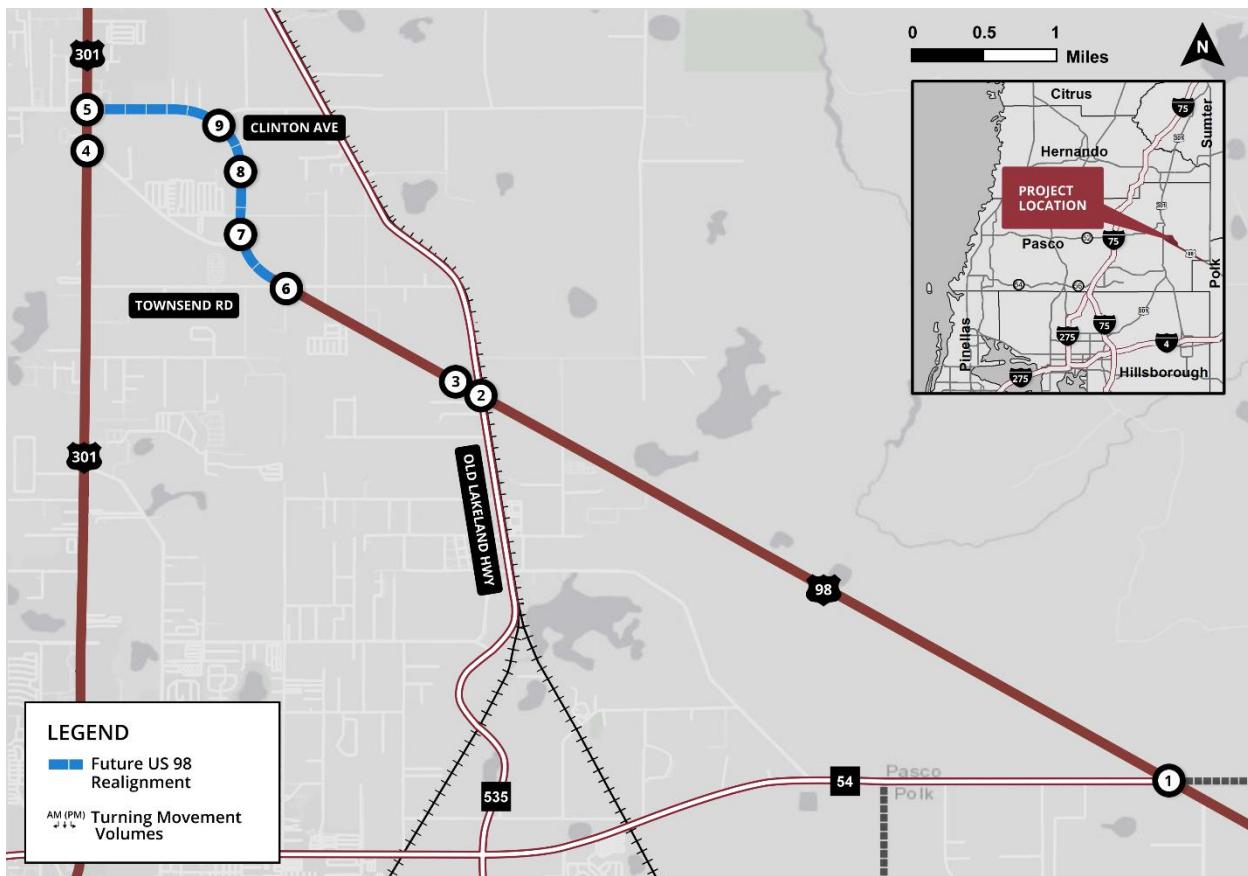


Figure 3.11: Design Year (2045) Build Turning Movement Volumes

4.0 Alternatives Development

4.1 No-Build Alternative

The No-Build Alternative maintains the existing year (2019) lane configuration and traffic control at most study intersections and maintains the existing lanes and alignment of US 98 within the study area. The only variation from the existing year (2019) conditions under the No-Build Alternative is the inclusion of a signal at the intersection of Old Lakeland Highway and US 98 Access which was designed by others and planned by Pasco County. The No-Build Alternative lane geometry and intersection control can be found in Figure 4.1.

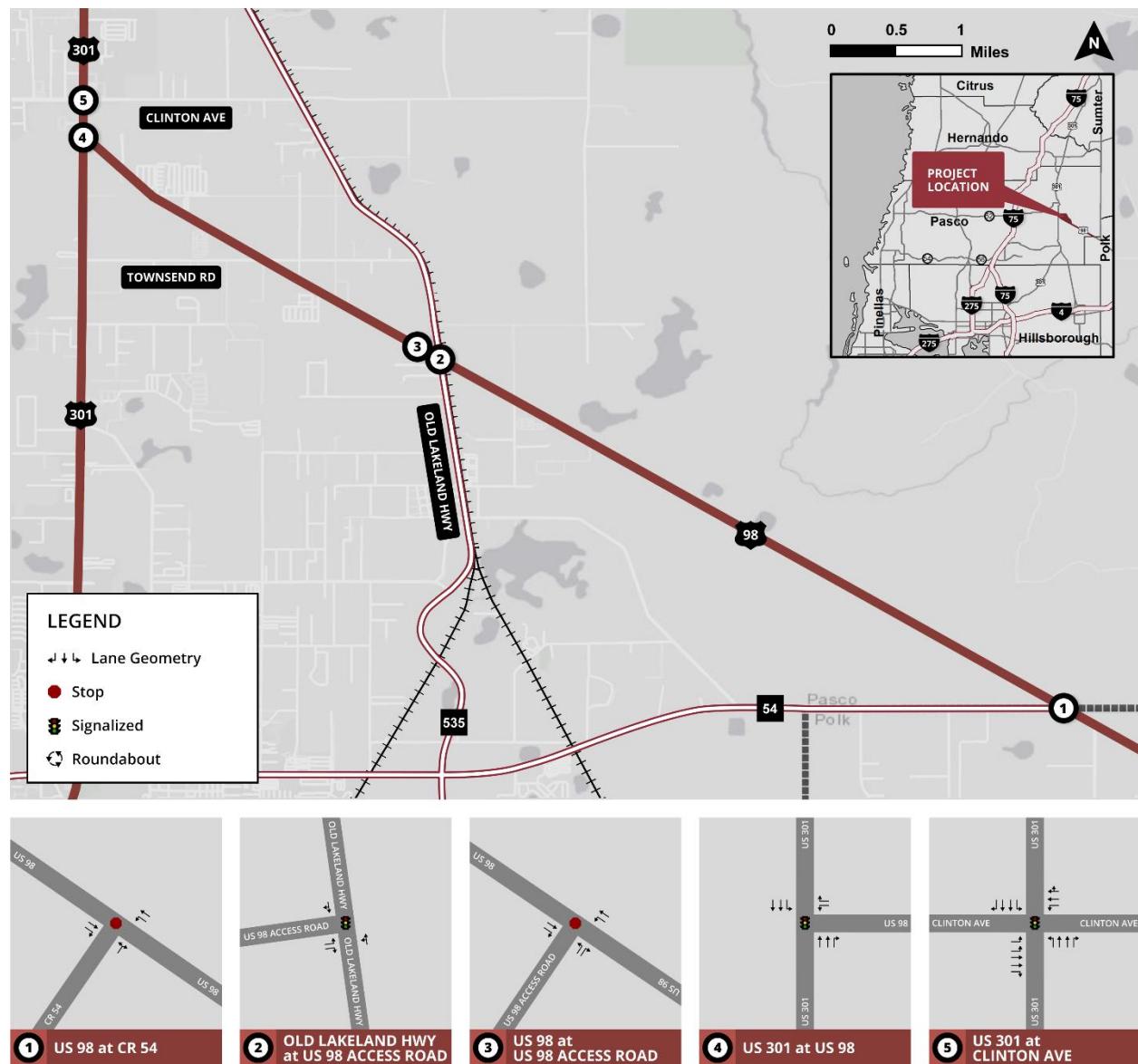


Figure 4.1: No-Build Alternative Lane Geometry

4.2 Build Alternative

The Build Alternative incorporates the widening of US 98 from two to four lanes and its realignment with the intersection of US 301 and Clinton Avenue. The proposed capacity and alignment improvements to US 98 is intended to improve safety and provide the necessary capacity within the study area to allow for forecasted growth and development within the study area. All study intersections under the Build Alternative will also be examined for geometry and control enhancements to improve operations. Intersections with existing or approved signals will retain their timing plans, but intersection geometrics will be examined for improvement. Based on coordination with FDOT District 7, US 98 at CR 54 will only be assessed using signal control and geometric improvements at the intersection. The remaining five existing and proposed intersections will be assessed using Intersection Control Evaluation (ICE) procedures. Through additional coordination with FDOT District 7, ICE analysis will only consider the following intersection control types:

- Two-way stop-control;
- Signalization; and
- 2x1 Roundabout.

Intersection control recommendations for this analysis are summarized in Table 4.1. Software used to accompany those analyses can be found in Table 4.2. The proposed Build alternative lane geometry and associated queue lengths can be found in Figure 4.2 and Table 4.3, respectively.

Table 4.1: Build Alternative Intersection Control

ID	Intersection	Two-Way Stop Control	Traffic Signal	2L x 1L Roundabout
1	US 98 and CR 54		X	
2	US 98 Access and Old Lakeland Highway		X	
3	US 98 and US 98 Access+		X	
4	US 301 and US 98/Old US 98		X	
5	US 301 and Clinton Avenue/US 98		X	
6	US 98 and Townsend Road+			X
7	US 98 and Old US 98+			X
8	US 98 and Crossroads Development+			X
9	US 98 and Clinton Avenue+			X

+Control determined through ICE procedures found in Appendix M

Table 4.2: Intersection Alternative Analysis Software

Software		Intersection		
Name	Version	Two-Way Stop	Signal	Roundabout
HCS/HCM	7.0	X		
Synchro	11.0		X	
SIDRA	9.0			X

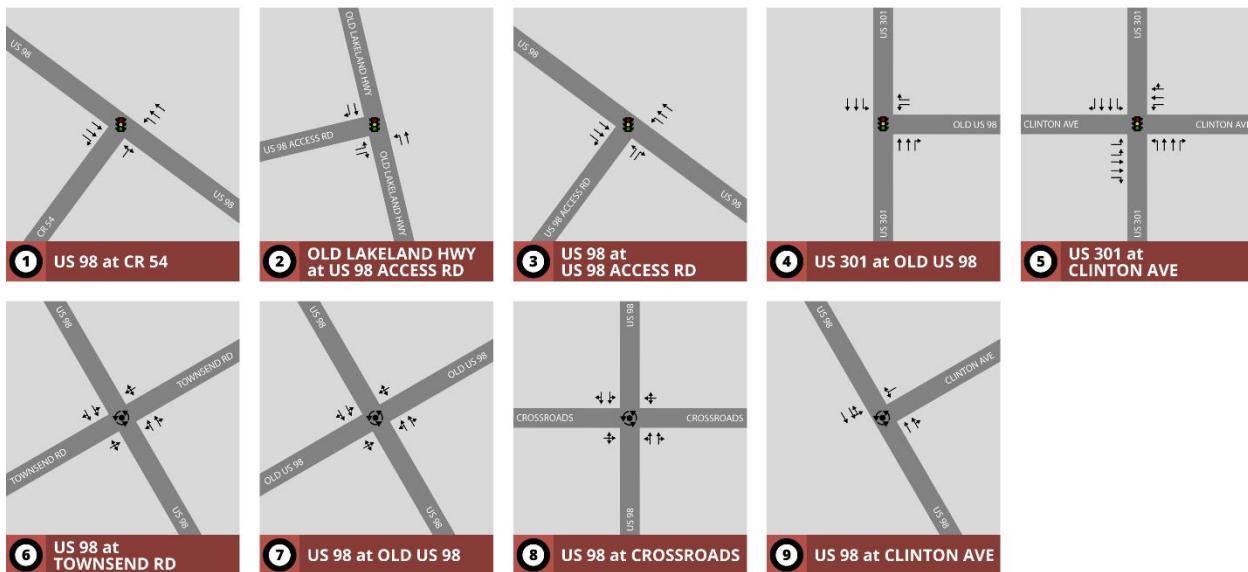
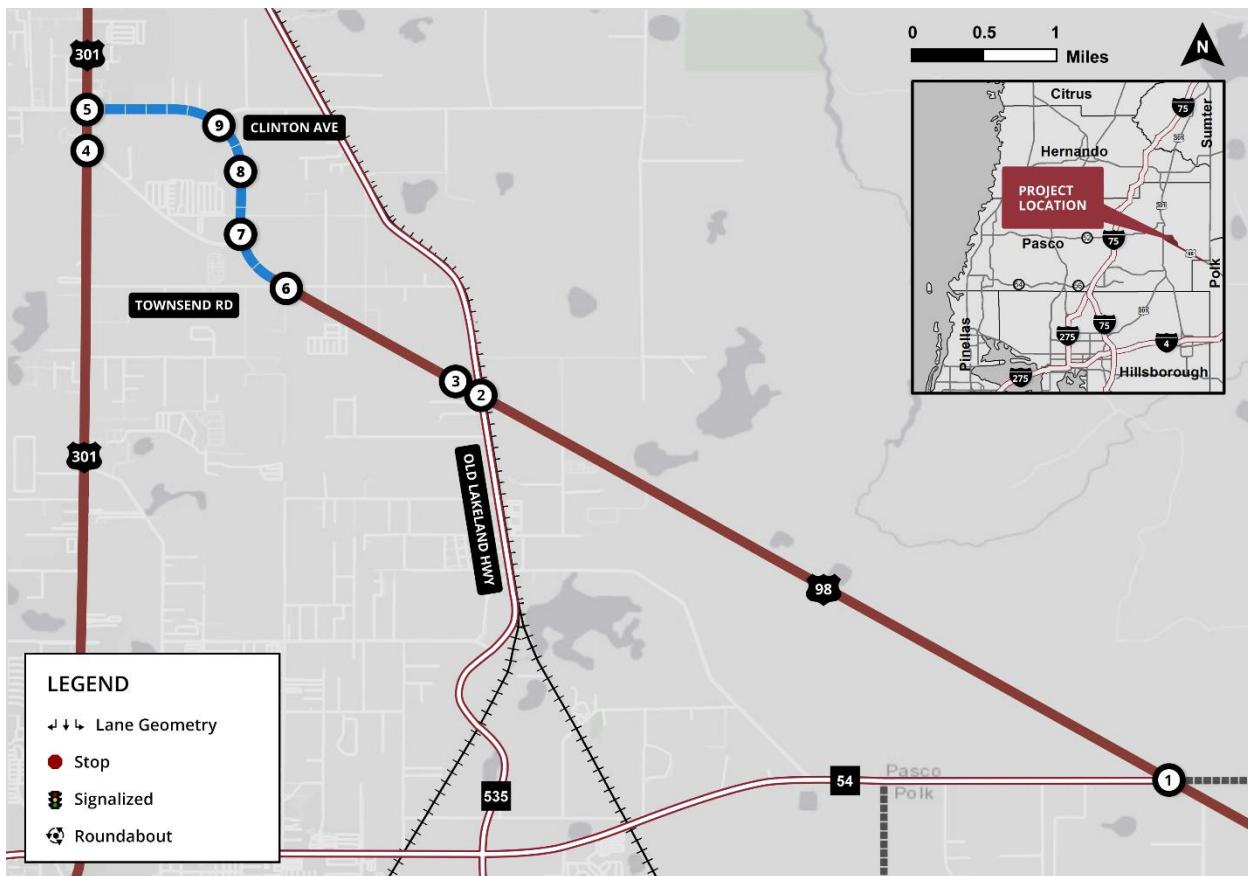


Figure 4.2: Build Alternative Lane Geometry

Table 4.3: Build Storage Lengths (ft)

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	+	-	+	-	-	-	400	-	-	-	-	425
2	US 98 Access and Old Lakeland Highway	-	-	-	-	-	-	250	-	-	-	-	+
3	US 98 and US 98 Access	150	-	150	-	-	-	300	-	-	-	-	200
4	US 301 and Old US 98	-	-	-	-	-	375	-	-	450	950	-	-
5	US 301 and Clinton Avenue/US 98	500	-	600	275	-	+	550	-	400	425	-	425
6	US 98 and Townsend Road	+	1500	+	+	1200	+	+	1500	+	+	1000	+
7	US 98 and Old US 98	+	500	+	+	1170	+	+	1170	+	+	1900	+
8	US 98 and Crossroads Development	+	200	+	+	1170	+	+	1170	+	+	1900	+
9	US 98 and Clinton Avenue	-	-	-	+	1500	+	+	2700	+	+	2400	+

+Shared Lanes

5.0 Future Conditions Analysis

5.1 Opening Year (2025) Operational Analysis

An analysis of the US 98 study corridor was conducted to examine the No-Build and Build Alternatives under the opening year (2025) of the proposed improvements. Intersection control analysis at study intersections will include queue, LOS, and delay. Segment analysis along US 98 and US 301 will include LOS and volume to capacity ratios.

Opening Year (2025) No-Build Alternative Analysis

The No-Build alternative includes all the intersection control and capacity present under the existing year (2019) condition with No-Build opening year (2025) volume, and includes a signal at the intersection of US 98 Access Road and Old Lakeland Highway. Opening year (2025) No-Build alternative analysis summarized in this section can be found in Appendix N.

Opening Year (2025) No-Build Intersection Analysis

The analysis results for the study area for the AM and PM peak hour can be found in Table 5.1 and Table 5.2, respectively. The results indicate that the intersection of US 301 at Clinton Avenue fails to meet the LOS target of D in both the AM and PM peak hour. Queuing associated with the observed AM and PM peak hour delays can be found in Table 5.3 and Table 5.4.

Table 5.1: Opening Year (2025) No-Build AM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	19.7*	C	-	-	9.1*	A	8.0*	A	-	-
2	US 98 Access and Old Lakeland Highway	53.3	D	-	-	3.1	A	2.8	A	10.4	B
3	US 98 and US 98 Access	21.3*	C	-	-	8.4*	A	-	-	-	-
4	US 301 and US 98	-	-	32.5	C	24.4	C	3.4	A	14.5	B
5	US 301 and Clinton Avenue	412.1	F	50.6	D	10.9	B	21.1	C	121.5	F

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 5.2: Opening Year (2025) No-Build PM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	23.4*	C	-	-	8.8*	A	8.1*	A	-	-
2	US 98 Access and Old Lakeland Highway	50.6	D	-	-	3.1	A	2.6	A	9.8	A
3	US 98 and US 98 Access	19.1*	C	-	-	8.2*	A	-	-	-	-
4	US 301 and US 98	-	-	36.1	D	27.3	C	5.1	A	18.6	B
5	US 301 and Clinton Avenue	212.7	F	57.3	E	12.1	B	35.3	D	58.1	E

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 5.3: Opening Year (2025) No-Build AM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	100	-	+	-	-	-	50	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	175	-	25	-	-	-	75	-	-	-	50	+
3	US 98 and US 98 Access	25	-	25	-	-	-	25	-	-	-	-	-
4	US 301 and US 98	-	-	-	75	-	300	-	425	50	150	25	-
5	US 301 and Clinton Avenue	350	100	1875	150	125	+	175	175	25	25	375	175

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Table 5.4: Opening Year (2025) No-Build PM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	150	-	+	-	-	-	25	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	150	-	25	-	-	-	75	-	-	-	50	+
3	US 98 and US 98 Access	25	-	25	-	-	-	25	-	-	-	-	-
4	US 301 and US 98	-	-	-	100	-	350	-	550	50	200	25	-
5	US 301 and Clinton Avenue	175	100	1025	125	150	+	425	25	25	50	550	400

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Opening Year (2025) No-Build Segment Analysis

Segment analysis was conducted along US 98 and US 301 for the opening year (2025) AM and PM peak hour directional volume under No-Build condition and is shown in Table 5.5 and Table 5.6. The result of the analysis indicates that both facilities operate at LOS D and C targets under the No-Build condition.

Table 5.5: Opening Year (2025) No-Build AM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table Area Type	Arterial LOS		Arterial V/C		
		NB/EB	SB/WB			Classification	NB/EB	SB/WB	NB/EB	SB/WB	
US 98											
CR 54	US 98 Access Road	295	345	1	450	Rural	Uninterrupted Flow Highways (Rural)	C	C	0.66	0.77
US 98 Access Road	US 301	290	360	1	1200	Urbanized	Uninterrupted Flow Highways	B	B	0.24	0.30
US 301											
South of US 98	US 98	1085	1270	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.54	0.64
US 98	Clinton Avenue	1325	1540	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.66	0.77
Clinton Avenue	North of Clinton Avenue	1410	1165	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.71	0.58

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Table 5.6: Opening Year (2025) No-Build PM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table Area Type	Arterial LOS		Arterial V/C		
		NB/EB	SB/WB			Classification	NB/EB	SB/WB	NB/EB	SB/WB	
US 98											
CR 54	US 98 Access Road	345	295	1	450	Rural	Uninterrupted Flow Highways (Rural)	C	C	0.77	0.66
US 98 Access Road	US 301	360	320	1	1200	Urbanized	Uninterrupted Flow Highways	B	B	0.30	0.27
US 301											
South of US 98	US 98	1270	1085	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.64	0.54
US 98	Clinton Avenue	1540	1325	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.77	0.66
Clinton Avenue	North of Clinton Avenue	1165	1410	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.58	0.71

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Opening Year (2025) Build Alternative Analysis

The Build Alternative incorporates the widening of US 98 from two to four lanes and its realignment with the intersection of US 301 and Clinton Avenue along with the inclusion of several proposed developments that will contribute additional demand along the corridor. Opening year (2025) Build alternative analysis summarized in this section can be found in Appendix O.

Opening Year (2025) Build Intersection Analysis

The analysis results for the study area for the AM and PM peak hour can be found in Table 5.7 and Table 5.8, respectively. The results indicate that all study intersection operate at LOS D or better and delays reduced significantly in the Build conditions compared to the No-Build conditions. Some approaches do experience increased delay under the Build alternative. This is due to additional demand generated by the proposed developments. Queuing associated with the observed AM and PM peak hour delays can be found in Table 5.9 and Table 5.10.

Table 5.7: Opening Year (2025) Build AM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	52.8	D	-	-	24.0	C	10.0	A	21.5	C
2	US 98 Access and Old Lakeland Highway	57.7	E	-	-	3.8	A	8.4	A	16.3	B
3	US 98 and US 98 Access	56.1	E	-	-	2.6	A	7.1	A	11.9	B
4	US 301 and Old US 98	-	-	55.6	E	14.7	B	0.4	A	8.3	A
5	US 301 and Clinton Avenue/US 98	46.5	D	47.7	D	28.9	C	36.3	D	39.6	D
6	US 98 and Townsend Road	9.3	A	6.4	A	5.2	A	7.2	A	6.6	A
7	US 98 and Old US 98	7.1	A	6.6	A	5.2	A	6.5	A	6.0	A
8	US 98 and Crossroads Development	9.1	A	9.7	A	6.0	A	6.2	A	7.0	A
9	US 98 and Clinton Avenue	-	-	13.0	B	8.8	A	6.4	A	8.2	A

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

Table 5.8: Opening Year (2025) Build PM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	73.1	E	-	-	16.5	B	7.5	A	15.6	B
2	US 98 Access and Old Lakeland Highway	62.8	E	-	-	3.6	A	7.7	A	16.4	B
3	US 98 and US 98 Access	61.1	E	-	-	3.0	A	6.4	A	11.6	B
4	US 301 and Old US 98	-	-	60.9	E	14.6	B	0.3	A	9.6	A
5	US 301 and Clinton Avenue/US 98	51.1	D	50.6	D	30.9	C	39.5	D	41.8	D
6	US 98 and Townsend Road	6.7	A	9.2	A	8.1	A	6.3	A	7.4	A
7	US 98 and Old US 98	6.8	A	8.0	A	7.0	A	6.2	A	6.7	A
8	US 98 and Crossroads Development	8.9	A	9.7	A	8.2	A	7.8	A	8.2	A
9	US 98 and Clinton Avenue	-	-	12.9	B	9.0	A	7.4	A	8.6	A

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 5.9: Opening Year (2025) Build AM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	50	-	300	-	-	-	225	25	-	-	225	-
2	US 98 Access and Old Lakeland Highway	250	-	-	-	-	-	25	75	-	-	150	+
3	US 98 and US 98 Access	175	-	325	-	-	-	25	25	-	-	175	50
4	US 301 and Old US 98	-	-	-	100	-	25	-	350	50	-	25	-
5	US 301 and Clinton Avenue/US 98	250	325	300	225	375	375	100	325	100	125	425	225
6	US 98 and Townsend Road	+	25	+	+	25	+	+	50	+	+	75	+
7	US 98 and Old US 98	+	25	+	+	25	+	+	50	+	+	50	+
8	US 98 and Crossroads Development	+	50	+	+	50	+	+	50	+	+	50	+
9	US 98 and Clinton Avenue	-	-	-	+	75	+	+	75	+	+	75	+

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Table 5.10: Opening Year (2025) Build PM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	125	-	-	-	-	-	225	50	-	-	125	-
2	US 98 Access and Old Lakeland Highway	250	-	-	-	-	-	25	75	-	-	150	+
3	US 98 and US 98 Access	225	-	350	-	-	-	25	100	-	-	125	75
4	US 301 and Old US 98	-	-	-	100	-	25	-	425	50	-	25	-
5	US 301 and Clinton Avenue/US 98	175	400	200	175	450	275	175	300	150	250	475	400
6	US 98 and Townsend Road	+	25	+	+	25	+	+	75	+	+	50	+
7	US 98 and Old US 98	+	25	+	+	25	+	+	75	+	+	50	+
8	US 98 and Crossroads Development	+	25	+	+	50	+	+	75	+	+	75	+
9	US 98 and Clinton Avenue	-	-	-	+	75	+	+	75	+	+	100	+

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Opening Year (2025) Build Segment Analysis

Segment analysis was conducted along US 98 and US 301 for the opening year (2025) AM and PM peak hour directional volume under Build condition and is shown in Table 5.11 and Table 5.12. The result of the analysis indicates that both facilities operate at LOS D and C targets under the Build condition.

Table 5.11: Opening Year (2025) Build AM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS D Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
<i>US 98</i>											
CR 54	US 98 Access Road	520	935	2	2350	Rural	Uninterrupted Flow Highways (Rural)	B	B	0.22	0.40
US 98 Access Road	Townsend Road	560	965	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.28	0.48
Townsend Road	Old US 98	640	910	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.32	0.46
Old US 98	Crossroads Development	625	765	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.31	0.38
Crossroads Development	Clinton Avenue	745	620	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.37	0.31
Clinton Avenue	US 301	1085	1065	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.54	0.53
<i>US 301</i>											
South of US 98	Old US 98	1120	1360	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.56	0.68
Old US 98	Clinton Avenue	1160	1305	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.58	0.65
Clinton Avenue	North of Clinton Avenue	1540	1210	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.77	0.61

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Table 5.12: Opening Year (2025) Build PM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS D Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
US 98											
CR 54	US 98 Access Road	975	650	2	2350	Rural	Uninterrupted Flow Highways (Rural)	B	B	0.41	0.28
US 98 Access Road	Townsend Road	1030	700	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.52	0.35
Townsend Road	Old US 98	985	785	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.49	0.39
Old US 98	Crossroads Development	875	750	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.44	0.38
Crossroads Development	Clinton Avenue	780	825	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.39	0.41
Clinton Avenue	US 301	1090	1145	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.55	0.57
US 301											
South of US 98	Old US 98	1375	1140	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.69	0.57
Old US 98	Clinton Avenue	1320	1180	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.66	0.59
Clinton Avenue	North of Clinton Avenue	1245	1555	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.62	0.78

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

5.2 Design Year (2045) Operational Analysis

An analysis of the US 98 study corridor was conducted to examine the No-Build and Build Alternatives under the design year (2045) of the proposed improvements. Intersection control analysis at study intersections will include queue, LOS, and delay. Segment analysis along US 98 and US 301 will include LOS and volume to capacity ratios.

Design Year (2045) No-Build Alternative Analysis

The No-Build alternative includes all the intersection control and capacity present under the existing year (2019) condition with No-Build design year (2045) volume, and includes a signal at the intersection of US 98 Access and Old Lakeland Highway. Design year (2045) No-Build alternative analysis summarized in this section can be found in Appendix P.

Design Year (2045) No-Build Intersection Analysis

The analysis results for the study area for the AM and PM peak hour can be found in Table 5.13 and Table 5.14, respectively. The results indicate that both the intersection of US 301 at Clinton Avenue and US 301 at US 98 fails to meet the LOS target of D in both the AM and PM peak hour under design year (2045) No-Build conditions. Queuing associated with the observed AM and PM peak hour delays can be found in Table 5.15 and Table 5.16. Queue lengths associated with the failed approaches are also longer than the available storage lengths.

Table 5.13: Design Year (2045) No-Build AM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	7323.2*	F	-	-	27.1*	D	9.1*	A	-	-
2	US 98 Access and Old Lakeland Highway	54.2	D	-	-	5.5	A	4.8	A	15.6	B
3	US 98 and US 98 Access	307.3*	F	-	-	10.7*	B	-	-	-	-
4	US 301 and US 98	-	-	27.9	C	40.6	D	69.5	E	54.1	D
5	US 301 and Clinton Avenue	967.1	F	52.5	D	37.2	D	34.9	C	332.8	F

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 5.14: Design Year (2045) No-Build PM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	7574.0*	F	-	-	15.7*	C	10.1*	B	-	-
2	US 98 Access and Old Lakeland Highway	51.6	D	-	-	6.2	A	5.5	A	16.8	B
3	US 98 and US 98 Access	155.6*	F	-	-	9.7*	A	-	-	-	-
4	US 301 and US 98	-	-	49.9	D	58.9	E	86.8	F	68.9	E
5	US 301 and Clinton Avenue	418.6	F	60.5	E	150.5	F	48.4	D	167.5	F

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 5.15: Design Year (2045) No-Build AM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	6000	-	+	-	-	-	250	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	275	-	-	-	-	-	150	-	-	-	100	+
3	US 98 and US 98 Access	250	-	100	-	-	-	50	-	-	-	-	-
4	US 301 and US 98	-	-	-	100	-	450	-	600	75	1175	25	-
5	US 301 and Clinton Avenue	800	125	3675	150	200	+	800	175	50	50	550	325

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Table 5.16: Design Year (2045) No-Build PM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	6150	-	+	-	-	-	125	-	-	-	-	-
2	US 98 Access and Old Lakeland Highway	300	-	-	-	-	-	175	-	-	-	125	+
3	US 98 and US 98 Access	150	-	75	-	-	-	25	-	-	-	-	-
4	US 301 and US 98	-	-	-	100	-	775	-	950	100	1025	25	-
5	US 301 and Clinton Avenue	250	175	2050	125	200	+	2250	150	50	50	600	750

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Design Year (2045) No-Build Segment Analysis

Segment analysis was conducted along US 98 and US 301 for the design year (2045) AM and PM peak hour directional volume under No-Build condition and is shown in Table 5.17 and Table 5.18. The result of the analysis indicates that US 98 from CR 54 to US 98 Access Road fails to meet the LOS target C during both AM and PM peak hour under design year (2045) No-Build conditions. The segment of US 301 between US 98 and Clinton Avenue fails to meet the LOS target D during the AM peak hour in the southbound direction and during the PM peak hour in the northbound direction.

Table 5.17: Design Year (2045) No-Build AM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table Classification	Arterial LOS		Arterial V/C	
		NB/EB	SB/WB				NB/EB	SB/WB	NB/EB	SB/WB
<i>US 98</i>										
CR 54	US 98 Access Road	640	885	1	450	Rural Uninterrupted Flow Highways (Rural)	D	E	1.42	1.97
US 98 Access Road	US 301	550	705	1	1200	Urbanized Uninterrupted Flow Highways	B	C	0.46	0.59
<i>US 301</i>										
South of US 98	US 98	1165	1535	2	2000	Urbanized State Signalized Arterial (Class I)	C	C	0.58	0.77
US 98	Clinton Avenue	1600	2065	2	2000	Urbanized State Signalized Arterial (Class I)	C	E	0.80	1.03
Clinton Avenue	North of Clinton Avenue	1650	1405	2	2000	Urbanized State Signalized Arterial (Class I)	C	C	0.83	0.70

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Table 5.18: Design Year (2045) No-Build PM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS Threshold	FDOT Generalized LOS Table Classification	Arterial LOS		Arterial V/C	
		NB/EB	SB/WB				NB/EB	SB/WB	NB/EB	SB/WB
<i>US 98</i>										
CR 54	US 98 Access Road	885	640	1	450	Rural Uninterrupted Flow Highways (Rural)	E	D	1.97	1.42
US 98 Access Road	US 301	705	550	1	1200	Urbanized Uninterrupted Flow Highways	C	B	0.59	0.46
<i>US 301</i>										
South of US 98	US 98	1535	1165	2	2000	Urbanized State Signalized Arterial (Class I)	C	C	0.77	0.58
US 98	Clinton Avenue	2065	1600	2	2000	Urbanized State Signalized Arterial (Class I)	E	C	1.03	0.80
Clinton Avenue	North of Clinton Avenue	1405	1650	2	2000	Urbanized State Signalized Arterial (Class I)	C	C	0.70	0.83

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Design Year (2045) Build Alternative Analysis

The Build Alternative incorporates the widening of US 98 from two to four lanes and its realignment with the intersection of US 301 and Clinton Avenue. Design year (2045) Build Alternative analysis summarized in this section can be found in Appendix Q.

Design Year (2045) Build Intersection Analysis

The analysis results for the study area for the AM and PM peak hour can be found in Table 5.19 and Table 5.20, respectively. The results indicate that all study intersection operate at LOS D or better with delays reducing significantly in the Build conditions compared to the No-Build conditions. Queuing associated with the observed AM and PM peak hour delays can be found in Table 5.21 and Table 5.22. The queues in the Build conditions also reduced significantly comparing to the No-Build conditions.

Table 5.19: Design Year (2045) Build AM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	128.5	F	-	-	22.2	C	26.0	C	40.2	D
2	US 98 Access and Old Lakeland Highway	57.5	E	-	-	5.7	A	11.1	B	20.1	C
3	US 98 and US 98 Access	81.6	F	-	-	5.9	A	11.1	B	18.6	B
4	US 301 and Old US 98	-	-	58.7	E	15.5	B	0.4	A	8.9	A
5	US 301 and Clinton Avenue/US 98	48.0	D	55.6	E	51.8	D	52.3	D	51.6	D
6	US 98 and Townsend Road	14.4	B	8.7	A	6.6	A	9.6	A	8.8	A
7	US 98 and Old US 98	10.2	B	8.7	A	6.3	A	8.9	A	7.8	A
8	US 98 and Crossroads Development	13.6	B	13.1	B	7.2	A	8.0	A	8.8	A
9	US 98 and Clinton Avenue	-	-	26.7	D	11.6	B	8.1	A	12.0	B

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

Table 5.20: Design Year (2045) Build PM Peak Hour Intersection Operational Analysis

ID	Intersection	Eastbound		Westbound		Northbound		Southbound		Overall	
		Delay (s/veh)	LOS								
1	US 98 and CR 54+	45.0	D	-	-	17.3	B	15.7	B	19.2	B
2	US 98 Access and Old Lakeland Highway	61.5	E	-	-	6.8	A	12.3	B	23.2	C
3	US 98 and US 98 Access	55.1	E	-	-	6.9	A	11.5	B	14.0	B
4	US 301 and Old US 98	-	-	62.3	E	16.7	B	0.3	A	11.4	B
5	US 301 and Clinton Avenue/US 98	60.8	E	71.9	E	28.3	C	57.6	E	54.1	D
6	US 98 and Townsend Road	9.2	A	13.7	B	11.1	B	7.9	A	9.9	A
7	US 98 and Old US 98	9.4	A	11.4	B	9.0	A	7.5	A	8.5	A
8	US 98 and Crossroads Development	11.4	B	14.5	B	10.8	B	9.4	A	10.6	B
9	US 98 and Clinton Avenue	-	-	25.8	D	14.8	B	9.2	A	13.2	B

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural +Rural intersection with LOS C Target

Table 5.21: Design Year (2045) Build AM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	50	-	875	-	-	-	350	50	-	-	600	-
2	US 98 Access and Old Lakeland Highway	325	-	-	-	-	-	25	125	-	-	200	+
3	US 98 and US 98 Access	150	-	675	-	-	-	100	75	-	-	325	50
4	US 301 and Old US 98	-	-	-	150	-	25	-	375	50	-	25	-
5	US 301 and Clinton Avenue/US 98	400	450	475	200	525	475	175	475	125	225	550	375
6	US 98 and Townsend Road	+	50	+	+	25	+	+	50	+	+	100	+
7	US 98 and Old US 98	+	25	+	+	25	+	+	75	+	+	100	+
8	US 98 and Crossroads Development	+	50	+	+	75	+	+	75	+	+	75	+
9	US 98 and Clinton Avenue	-	-	-	+	150	+	+	125	+	+	100	+

Red indicates turn bay where queue exceeds available storage
+Shared Lanes

Table 5.22: Design Year (2045) Build PM Peak Hour Queue Analysis

ID	Intersection	Eastbound			Westbound			Northbound			Southbound		
		L	T	R	L	T	R	L	T	R	L	T	R
1	US 98 and CR 54	75	-	300	-	-	-	375	125	-	-	325	-
2	US 98 Access and Old Lakeland Highway	400	-	-	-	-	-	25	150	-	-	225	+
3	US 98 and US 98 Access	150	-	575	-	-	-	100	250	-	-	250	75
4	US 301 and Old US 98	-	-	-	125	-	25	-	525	50	25	25	-
5	US 301 and Clinton Avenue/US 98	300	550	300	150	725	350	200	175	75	300	500	825
6	US 98 and Townsend Road	+	25	+	+	25	+	+	125	+	+	75	+
7	US 98 and Old US 98	+	25	+	+	25	+	+	100	+	+	75	+
8	US 98 and Crossroads Development	+	50	+	+	50	+	+	125	+	+	100	+
9	US 98 and Clinton Avenue	-	-	-	+	125	+	+	175	+	+	125	+

Red indicates turn bay where queue exceeds available storage

+Shared Lanes

Design Year (2045) Build Segment Analysis

Segment analysis was conducted along US 98 and US 301 for the design year (2045) AM and PM peak hour directional volume under Build condition and is shown in Table 5.23 and Table 5.24. The result of the analysis indicates that both facilities operate at LOS D and C targets under the design year (2045) Build condition. The LOS improved along the US 98 corridor due to the widening of US 98 from two to four lanes.

Table 5.23: Design Year (2045) Build AM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS D Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
<i>US 98</i>											
CR 54	US 98 Access Road	860	1440	2	2350	Rural+	Uninterrupted Flow Highways (Rural)	B	B	0.37	0.61
US 98 Access Road	Townsend Road	805	1300	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.40	0.65
Townsend Road	Old US 98	875	1210	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.44	0.61
Old US 98	Crossroads Development	825	1050	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.41	0.53
Crossroads Development	Clinton Avenue	945	905	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.47	0.45
Clinton Avenue	US 301	1360	1270	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.68	0.64
<i>US 301</i>											
South of US 98	Old US 98	1190	1605	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.60	0.80
Old US 98	Clinton Avenue	1220	1515	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.61	0.76
Clinton Avenue	North of Clinton Avenue	1775	1455	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.89	0.73

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Table 5.24: Design Year (2045) Build PM Directional Peak Hour Segment Operation Analysis

From	To	Peak Hour Volume		Number of Lanes	LOS D Threshold	FDOT Generalized LOS Table		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB			Area Type	Classification	NB/EB	SB/WB	NB/EB	SB/WB
US 98											
CR 54	US 98 Access Road	1475	1005	2	2350	Rural	Uninterrupted Flow Highways (Rural)	B	B	0.63	0.43
US 98 Access Road	Townsend Road	1345	930	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.67	0.47
Townsend Road	Old US 98	1290	1020	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.65	0.51
Old US 98	Crossroads Development	1160	950	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.58	0.48
Crossroads Development	Clinton Avenue	1065	1020	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.53	0.51
Clinton Avenue	US 301	1410	1420	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.71	0.71
US 301											
South of US 98	Old US 98	1610	1205	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.81	0.60
Old US 98	Clinton Avenue	1520	1235	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.76	0.62
Clinton Avenue	North of Clinton Avenue	1485	1795	2	2000	Urbanized	State Signalized Arterial (Class I)	C	C	0.74	0.90

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

6.0 Summary and Recommendations

Recommended improvements were developed by analyzing the safety and operational performance of US 98 for Existing Year (2019), Opening Year (2025), and Design Year (2045) by considering the following ACER improvements: widening US 98 from two to four lanes, from the Polk County Line/CR 54 to US 301 and the realignment of US 98 to meet Clinton Avenue, east of US 301.

The results for the Build Alternative suggested the following:

- All study intersections meet LOS D or better during AM and PM peak hours for both opening year (2025) and design year (2045) under the proposed build scenario.
- The signalization of the intersections of US 98 at CR 54 and US 98 at US 98 Access Road will also address safety deficiencies, potentially reducing crash rates that reported above statewide average. Traffic signals will serve as a countermeasure against the most frequent crash types left turn and angle (44%) crashes.

Table 6.1 summarizes the intersection analysis of the No-Build and Build scenarios and Table 6.2 summarizes the segment analyses of the No-Build and Build scenarios. The widening of US 98 and proposed intersection configurations will ultimately improve existing capacity on US 98, mitigate projected safety and operational deficiencies and highlight key design roadway and safety enhancements necessary to improve traffic safety and provide system linkage/regional connectivity from the proposed realignment of US 98.

Table 6.1: Intersection Analysis Summary

ID	Intersection	No-Build (2045) Operations				Build (2045) Operations			
		AM Peak Hour Delay (s/veh)	LOS	PM Peak Hour Delay (s/veh)	LOS	AM Peak Hour Delay (s/veh)	LOS	PM Peak Hour Delay (s/veh)	LOS
1	US 98 and CR 54+	7323.2*	F	7574.0*	F	40.2	D	19.2	B
2	US 98 Access and Old Lakeland Highway	15.6	B	16.8	B	20.1	C	23.2	C
3	US 98 and US 98 Access	307.3*	F	155.6*	F	18.6	B	14.0	B
4	US 301 and Old US 98	54.1	D	68.9	E	8.9	A	11.4	B
5	US 301 and Clinton Avenue/US 98	332.8	F	167.5	F	51.6	D	54.1	D
6	US 98 and Townsend Road	-	-	-	-	8.8	A	9.9	A
7	US 98 and Old US 98	-	-	-	-	7.8	A	8.5	A
8	US 98 and Crossroads Development	-	-	-	-	8.8	A	10.6	B
9	US 98 and Clinton Avenue	-	-	-	-	12.0	B	13.2	B

Red highlight indicates that the delay does not meet the LOS targets, D for Urbanized, C for Rural

+Rural intersection with LOS C Target

*Stop controlled left turn movement delay

Table 6.2: Segment Analysis Summary

From	To	No Build								Build							
		AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C		Arterial LOS		Arterial V/C	
		NB/EB	SB/WB														
US 98																	
CR 54	US 98 Access Road	D	E	1.42	1.97	E	D	1.97	1.42	B	B	0.37	0.61	B	B	0.63	0.43
US 98 Access Road	Townsend Road									C	C	0.40	0.65	C	C	0.67	0.47
Townsend Road	Old US 98									C	C	0.44	0.61	C	C	0.65	0.51
Old US 98	Crossroads Development	B	C	0.46	0.59	C	B	0.59	0.46	C	C	0.41	0.53	C	C	0.58	0.48
Crossroads Development	Clinton Avenue									C	C	0.47	0.45	C	C	0.53	0.51
Clinton Avenue	US 301									C	C	0.68	0.64	C	C	0.71	0.71
US 301																	
South of US 98	Old US 98	C	C	0.58	0.77	C	C	0.77	0.58	C	C	0.60	0.80	C	C	0.81	0.60
Old US 98	Clinton Avenue	C	E	0.80	1.03	E	C	1.03	0.80	C	C	0.61	0.76	C	C	0.76	0.62
Clinton Avenue	North of Clinton Avenue	C	C	0.83	0.70	C	C	0.70	0.83	C	C	0.89	0.73	C	C	0.74	0.90

LOS Threshold represents acceptable LOS peak hour demand for LOS C in rural areas and LOS D in urbanized areas

Red highlight indicates that the arterial V/C does not meet the LOS targets

Appendices



Appendix A

Traffic Analysis Methodology

Traffic Methodology Statement (*Draft*)

**Project Development and Environment
(PD&E) Study**

Pasco County, Florida

US 98/SR 35/SR 700 from Polk County Line/CR 54 to US 301/US 98/SR 35/SR 700

Financial Project ID: 443368-2-22-01

Prepared For:

Florida Department of Transportation, District 7
11201 McKinley Drive, Tampa, FL 33612



May, 2021

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1.0 Methodology Statement Purpose

The purpose of this Statement is to summarize the process that will be employed to collect traffic data, develop traffic forecasts, and perform operational and safety analyses for the existing and proposed corridor alternatives developed for the US 98/SR 35/SR 700 from Polk County Line/CR 54 to US 301/US 98/SR 35/SR 700 Project Development and Environment (PD&E) Study and the US 301/US 98/SR 35/SR 700/Clinton Avenue Intersection Realignment Study.

2.0 Existing Analysis

2.1 Study Area

The project study area is shown in **Figure 1.1** and is bounded by the following study intersections:

- US 98 at CR 54 (Stop Controlled)
- US 98/Old Lakeland Highway Access Road at Old Lakeland Highway (Stop Controlled)
- US 98 at US 98/Old Lakeland Highway Access Road (Stop Controlled)
- US 98 at US 301 (Signalized)
- US 301 at Clinton Avenue (Signalized)

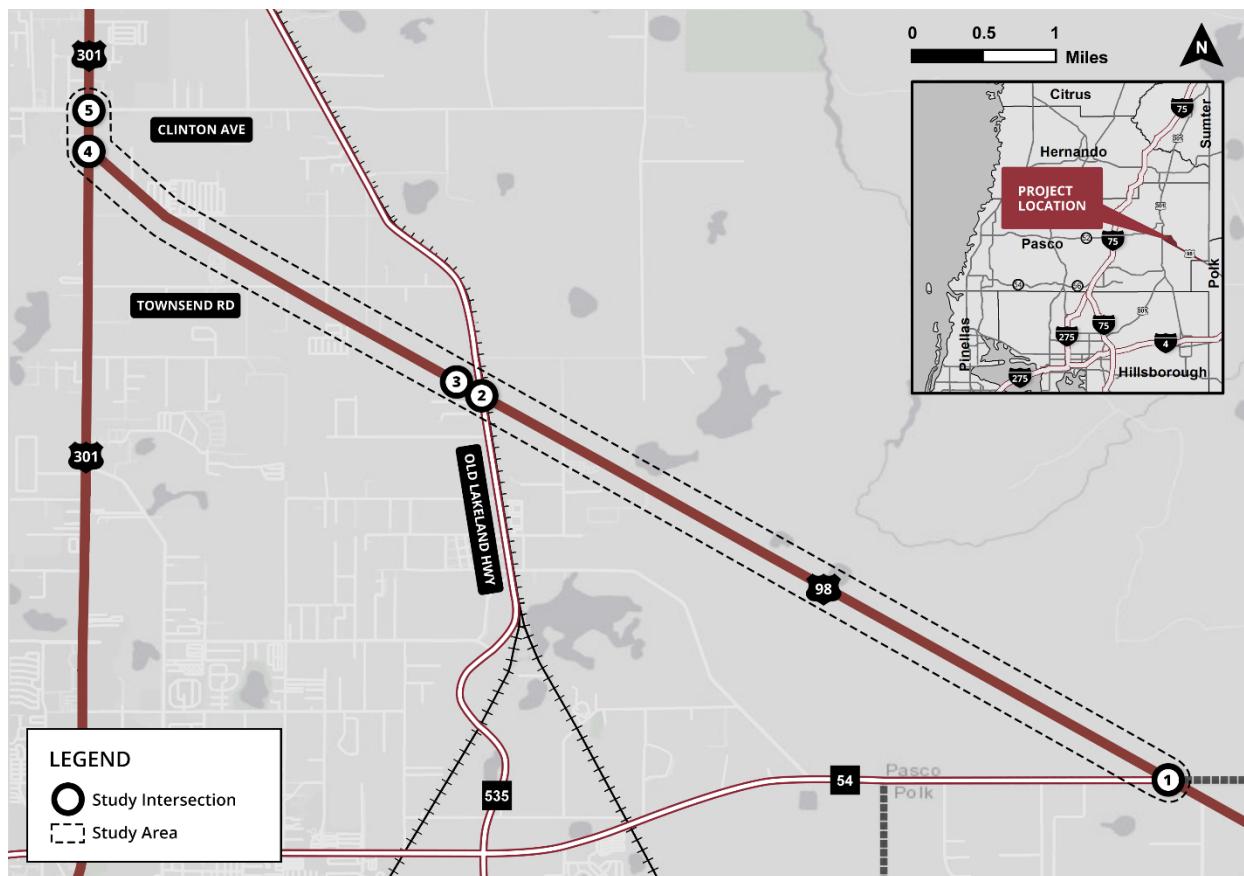


Figure 1.1: Project Location Map

2.2 Traffic Data Collection

As part of the previously conducted Alternative Corridor Evaluation (ACE) Study, 72-hour bi-directional (approach and departure volumes at 15-minute increments) machine classification counts, 48-hour bi-directional (approach and departure volumes at 15-minute increments) approach counts, 2-hour AM (from 7:00 AM to 9:00 AM) and PM (from 4:00 PM to 6:00 PM) turning movement, pedestrian, and bicycle counts were collected between May 7 and May 9 of 2019 unless otherwise denoted. These counts are summarized below and are illustrated in **Figure 2.1**.

72-hour Classification Count Locations:

- US 98, East of Old Lakeland Highway
- Old Lakeland Highway, South of US 98
- US 301, South of US 98
- US 301, North of Clinton Avenue
- Clinton Avenue, West of US 301

48-hour Machine Count Locations

- US 98, West of US 98/Old Lakeland Highway Access Road
- US 98, East of US 301
- Old Lakeland Highway, North of US 98
- US 301, South of Clinton Avenue
- Clinton Avenue, East of US 301

4-hour Turning Movement Count Locations

- US 98 at CR 54 (Collected in March 2021)
- US 98/Old Lakeland Highway Access Road at Old Lakeland Highway
- US 98 at US 301
- US 301 at Clinton Avenue

It should be noted that the US 98 at US 98/Old Lakeland Highway Access Road demand will be estimated based upon field collected data.

While COVID-19 has significantly impacted data collection efforts throughout the country during 2020, this project was able to collect the data in 2019 and largely avoided the impacts of the pandemic on our data collection efforts. Due to this, we intend to use the existing year of 2019 for all analyses.

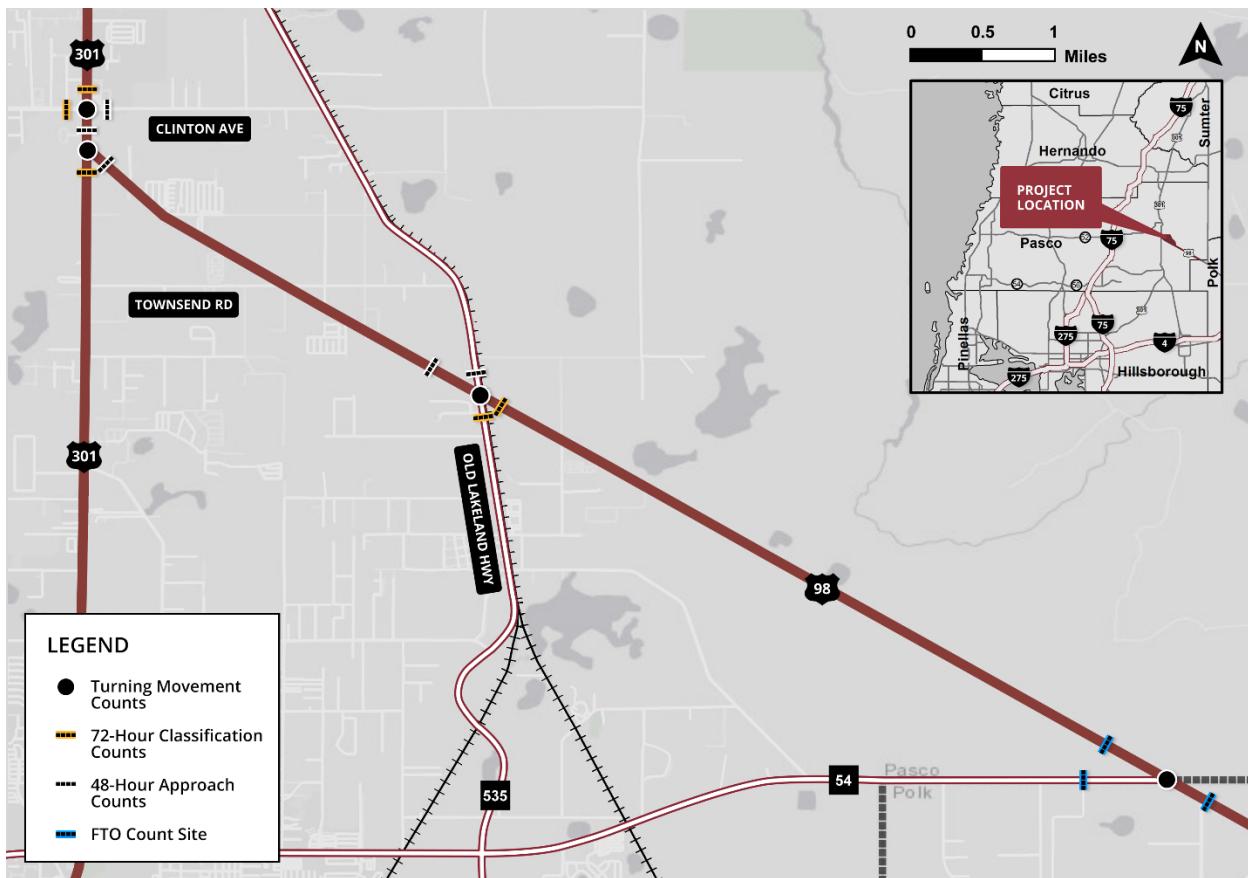


Figure 2.2: Traffic Count Locations

2.3 Design Traffic Factors

2.3.1 K-Factor

In accordance with the FDOT Project Traffic Forecasting Handbook 2019, the standard K-factor of 9.0 percent is recommended for use on this project.

2.3.2 D-Factor

D-factors will be determined based on an observation of the 5-year average from the Florida Traffic Online (FTO) database count locations within the study area. Observed averages will be compared with field data for consistency. If continuous count stations are present within the study area, special emphasis will be placed upon that data. If no FTO count is available, D-factors from the field collected data will be used.

2.3.3 Design Hour Truck Factor

The truck percentage (T_{24}) will be calculated based on the weighted averages from the 72-hour vehicular classification counts for the study area and compared to the FTO database count stations within the study area for reasonableness. The Design Hour Truck (DHT) percentage used for analysis will be calculated as T_{24} divided by 2.

2.3.4 Peak Hour Factor

A peak hour factor (PHF) of 0.95 will be used for all analysis.

2.4 Existing Year (2019) Directional Design Hour Volumes

The existing year (2019) Annual Average Daily Traffic (AADT) volumes will be developed through an iterative process, beginning with taking the 48-hour approach and 72-hour classification counts and taking their daily average to develop the Average Daily Traffic (ADT) throughout the corridor. To normalize the ADT to AADT, two adjustment factors, axle correction factors (ACF) and seasonal factors (SF), will be applied to the ADT to yield AADTs. It should be noted that ACF will not be applied to 72-hour classification count locations.

FDOT FTO database counts will be used to supplement the collected field data and used as a point of comparison as a reasonability check to the field data collection effort. When available, the AADT found in the FTO database will be used. AADTs will be reviewed throughout the study area to ensure demand throughout the network did not represent any unreasonable imbalance.

The existing year (2019) AADTs yielded by this review will serve as the basis for the development of AM and PM Directional Design Hour Volume (DDHV) and turning movement volumes. The existing year (2019) AADT volumes will then be multiplied by K and D factors to obtain existing year (2019) AM and PM DDHVs. The resultant DDHVs from this method will be smoothed and compared to field collected data to check for reasonableness. The DDHVs will be adjusted to account for situations where resultant volumes are lower than the measured count data.

Due to the rural nature and high truck percentages within the study area, it is reasonable to assume a large portion of pass-through trips during AM and PM peak hours, which do not traditionally yield a returning trip. With significant development planned within the study area, future travel patterns are expected to shift to a more suburban condition where trips are expected to reciprocate between the AM and PM peak hours more uniformly. Due to this logic, all design volumes will be developed such that the AM and PM peak hour volumes will be reciprocated.

The intersection turning movement counts contained within the study area will serve as the basis for intersection volume distribution. DDHVs will be distributed by field measured turning movement percentages and then checked for reasonableness. Smoothing will ensure reciprocation of the highest volume movement between the AM and PM peak hours.

3.0 Travel Demand Forecasting

3.1 Travel Demand Model

The modeling efforts for this analysis will build off the FDOT's efforts on the State Road 56 ACER (FPID: 443367-1-22-01) and is based off the Tampa Bay Regional Planning Model (TBRPM), Version 9.1 with the base year 2015 and horizon year 2045.

This study will expand on the 2015 model validation efforts, check the model for reasonableness, and, if necessary, make additional adjustments to improve accuracy. The guidelines of the FDOT Project Traffic Forecasting Handbook 2019 will be used as the criteria for evaluating model validity.

Base year adjustments will be carried over to the 2045 model structure and zonal data (ZDATA) will be reviewed to ensure demand within the project area is reasonable. Special attention to ZDATA will be paid to ensure all surrounding Developments of Regional Impact (DRIs) and Master Planned Unit Developments (MPUDs) are accounted for during forecasting. Additionally, the modeling structure at the District 7/1 boundary will be checked for consistency. The higher of the two forecasts will be used to ensure a conservative estimate during volume development.

Within the TBRPM, US 98 will be widened to four lanes within the project limits to determine horizon year 2045 network unrestricted demand. The resulting forecasted 2045 Peak Season Weekday Average Daily Traffic (PSWADT) will be converted to 2045 AADTs using the appropriate Model Output Conversion Factor (MOCF). The resulting 2045 AADTs will be reviewed for reasonableness and forecasting consistency. If any adjustment is needed, they will be made utilizing processes and procedures found in Section 3 of the FDOT Project Traffic Forecasting Handbook 2019. Design year (2045) AADTs yielded from this process will serve as the basis for volume development under the No-Build and Build scenarios.

3.2 Forecast Directional Design Hour Volume Calculations

The design year (2045) DDHVs will be developed using the same procedure by which the existing year (2019) DDHVs were developed in **Section 2.4** with the process beginning from the forecasted design year (2045) AADTs. The DDHVs that result from this process will be reviewed to ensure growth for every movement within the study area for the No-Build scenario. The Build scenario will include substantial changes to the network, including a new roadway. While the Build scenario does offer changes in the network, no movement from the No-Build scenario will be prohibited. During the development of the Build turning movement volumes, No-Build turning movement percentages will be logically re-assigned throughout the network to redistribute demand while maintaining consistent travel patterns.

Opening year (2025) No-Build DDHVs will be developed through use of linear interpolation under the No-Build scenario. Opening year (2025) Build DDHVs will be developed using the turning movement redistribution of the No-Build demand, consistent with the design year (2045) Build scenario.

4.0 Technical Analysis

4.1 Operational Analysis

Operational analysis will be conducted at the following study intersections:

- US 98 at CR 54
- US 98/Old Lakeland Highway Access Road at Old Lakeland Highway
- US 98 at US 98/Old Lakeland Highway Access Road
- US 98 at Old US 98 (New Intersection – Only during ‘Build’ analysis)
- US 98 at Clinton Avenue (New Intersection – Only during ‘Build’ analysis)
- US 98 at US 301
- US 301 at Clinton Avenue

Signal timing plans will be obtained from the maintaining agencies at the existing signalized intersections. Future operational analysis will consider the existing signal parameters and will not optimize the signal timings. Operational analysis will be performed using the tools outlined in **Table 3.1**.

Table 3.1: Operational Analysis Tools

Software		Intersection		Crossroad	
Name	Version	Stop	Signal	Roundabout	Arterial
HCS/HCM	7.0	X			
Synchro	10.0		X		
SIDRA	9.0			X	
GLOS Tables	2020				X

4.2 Measures of Effectiveness (MOEs)

The LOS target shall be "D" within urbanized areas and "C" within rural areas for proposed improvements through the PD&E Study, consistent with the FDOT 2019 Quality/Level of Service (LOS) Handbook. Per the Planning Boundaries for LOS Standards for Pasco County, the intersection of US 98 at CR 54 is the only study intersection designated as rural.

4.2.1 Intersection MOEs

The MOEs for the study intersections will include:

- Queue and available storage;
- Movement and overall intersection control delay; and
- Movement and overall intersection LOS.

4.2.2 Arterial MOEs

The MOEs for arterial operations will include:

- Arterial speed; and
- Arterial LOS.

4.3 Analysis Years

Travel Demand Model

- Base year – 2015
- Horizon year – 2045

Traffic Operational Analysis

- Existing year – 2019
- Opening year – 2025
- Design year – 2045

4.4 Alternatives Development

Alternatives screening for this study will be conducted using a combination of Synchro 10/HCM methodologies for existing signal-controlled intersections and Intersection Control Evaluation (ICE) Stage 1 analysis for all currently unsignalized study intersections. All alternative development will be conducted under the Build scenario with the assumption that US 98 will be a 4-lane typical and realigned in the design year (2045). Based upon the current context of the facility and development plans along the corridor, only the following intersection control will be considered during the ICE analysis:

- Two-way stop-control;
- Signalization; and
- 2x1 Roundabout.

Analysis at existing signalized intersections will assume no improvements to existing cycle lengths or splits between the existing year (2019) and design year (2045).

4.5 Safety Analysis

Historical crash analysis will be conducted for the most recent five (5) years of data in accordance with the FDOT "PD&E Manual, Section 2.2.8.1". Analysis will be conducted leveraging FDOTs Crash Analysis Reporting (CAR) Online and Signal Four Analytics. Any duplicate crash records between the two databases will be removed.

Historical analysis will be conducted, and existing safety concerns will be identified to serve as a basis for crash countermeasure selection. Special attention will be paid to the US 98 and US 301 intersection as it underwent a traffic control change during the proposed 5-year analysis period.

Crash analysis will be summarized by the following metrics:

- Crash Frequency;
- Crash Severity;
- Crash Type;
- Pavement Condition;
- Lighting Condition;
- Intersection Crash Rates;
- Arterial Crash Rates; and
- Economic Loss.

The FDOT developed SPICE analysis will also be conducted in support of the ICE Stage 1 efforts to provide context during the alternative selection process.

4.6 Planning Consistency and Coordination

Coordination during this study will include the FDOT District 7 project team, Pasco County MPO, and FDOT District 1 to ensure consistency with the Pasco County 2045 Long Range Transportation Plan and the US 98 widening being conducted by FDOT District 1 (FPID: 436673-1) from the Pasco/Polk County line to Socrum Loop Road.

4.7 Documentation

Project submittal for this effort will include:

- Existing Conditions Report;
- Sub-Area Model Validation and Forecast Report; and
- Project Traffic Analysis Report.

Appendix B

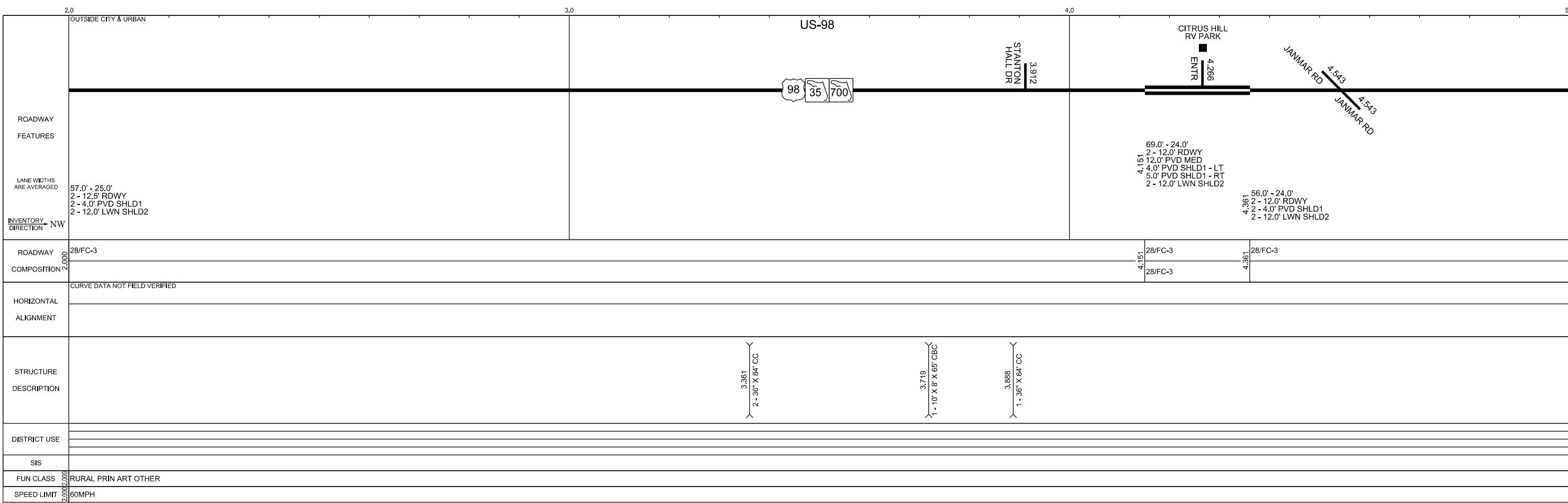
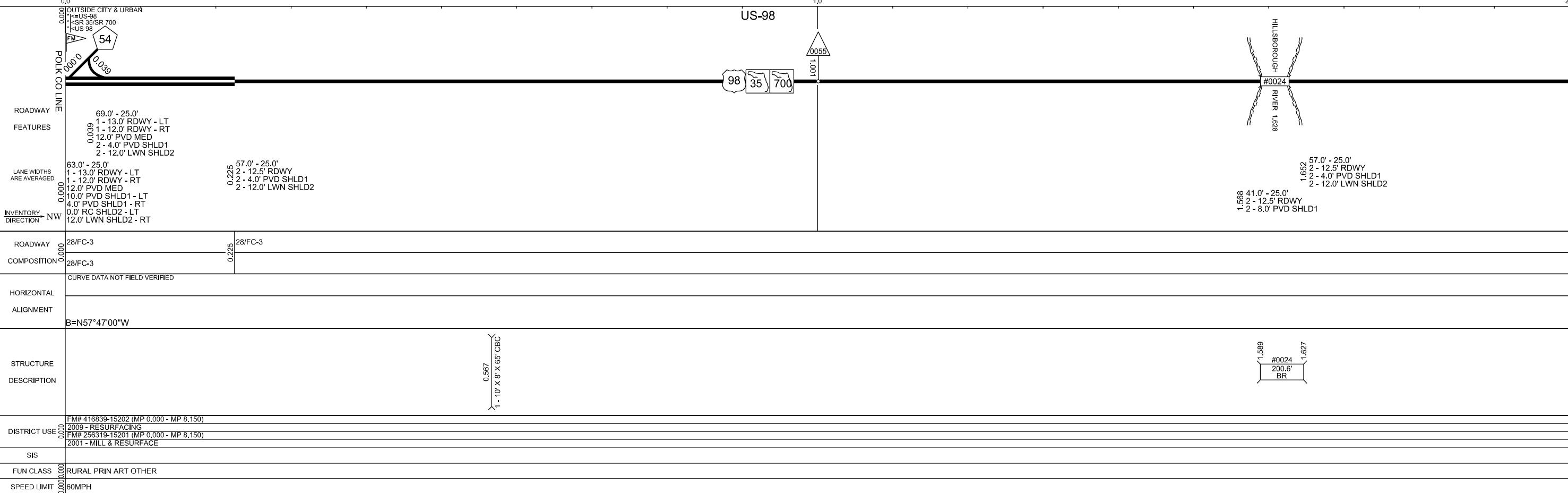
Straight Line Diagrams

	5 YR INV	SLD REV	BMP	EMP	INV	SLD REV
DATE	12/18/2019	03/29/2019	7,250	7,250		03/30/2020
BY	FTE / IM-BK	FTE / KA	INTERSECTION		FTE/KA	
			CORRECTION			

FLORIDA DEPARTMENT OF TRANSPORTATION STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

FDOT

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02	US 98	SR 700/SR 35	PASCO	07	14 070 000	1 OF 2



FLORIDA DEPARTMENT OF TRANSPORTATION **FDOT**

STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

SECTION STATUS	INT. or US ROUTE NO.	STATE ROAD NO.	COUNTY	DISTRICT	ROADWAY ID	SHEET NO:
02	US 98	SR 700/SR 35	PASCO	07	14 070 000	2 OF 2

ROADWAY FEATURES

LANE WIDTHS ARE AVERAGED

INVENTORY DIRECTION → NW

ROADWAY COMPOSITION

HORIZONTAL ALIGNMENT

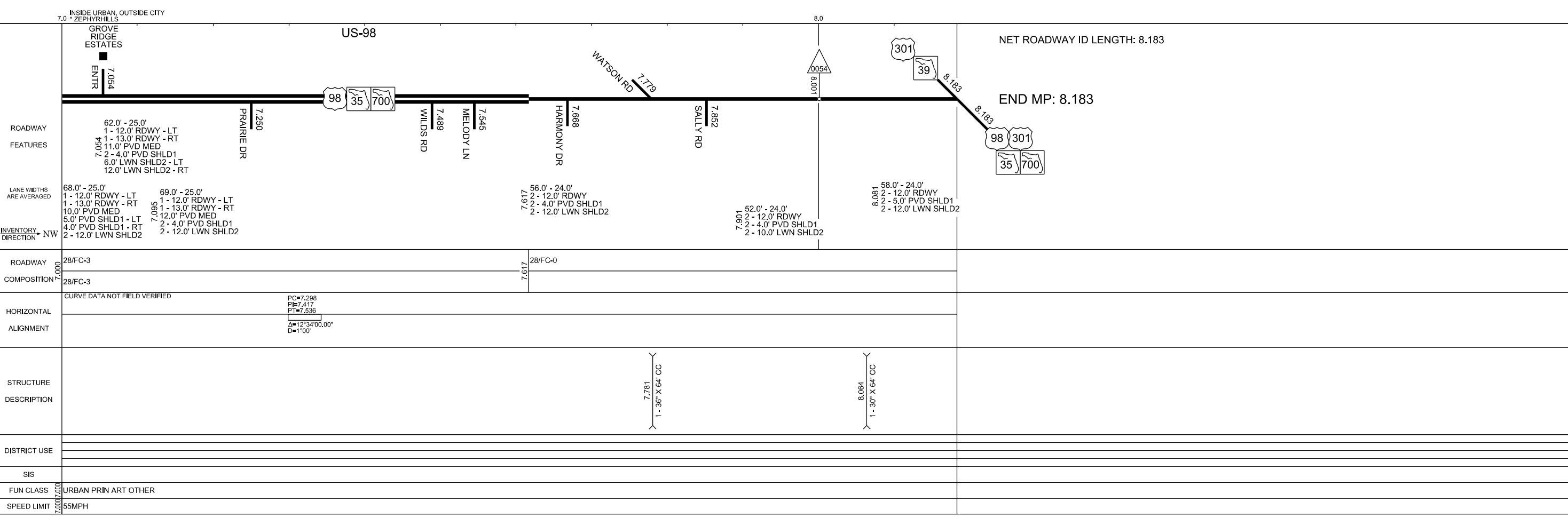
STRUCTURE DESCRIPTION

DISTRICT USE

SIS

FUN CLASS

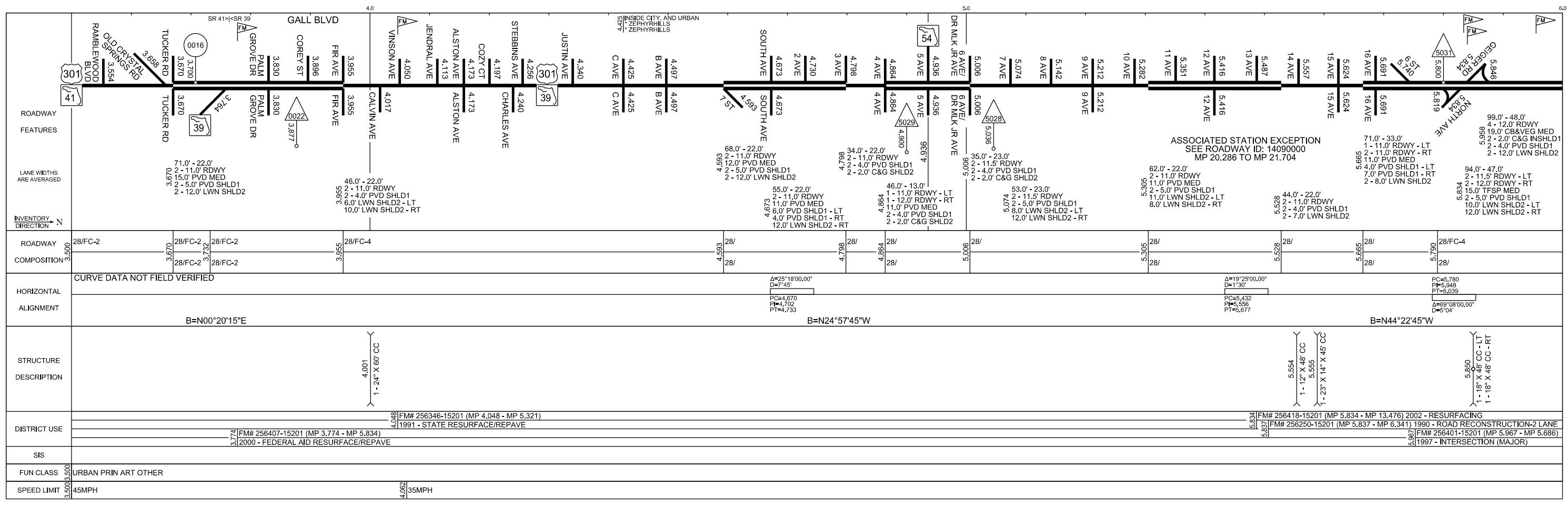
SPEED LIMIT

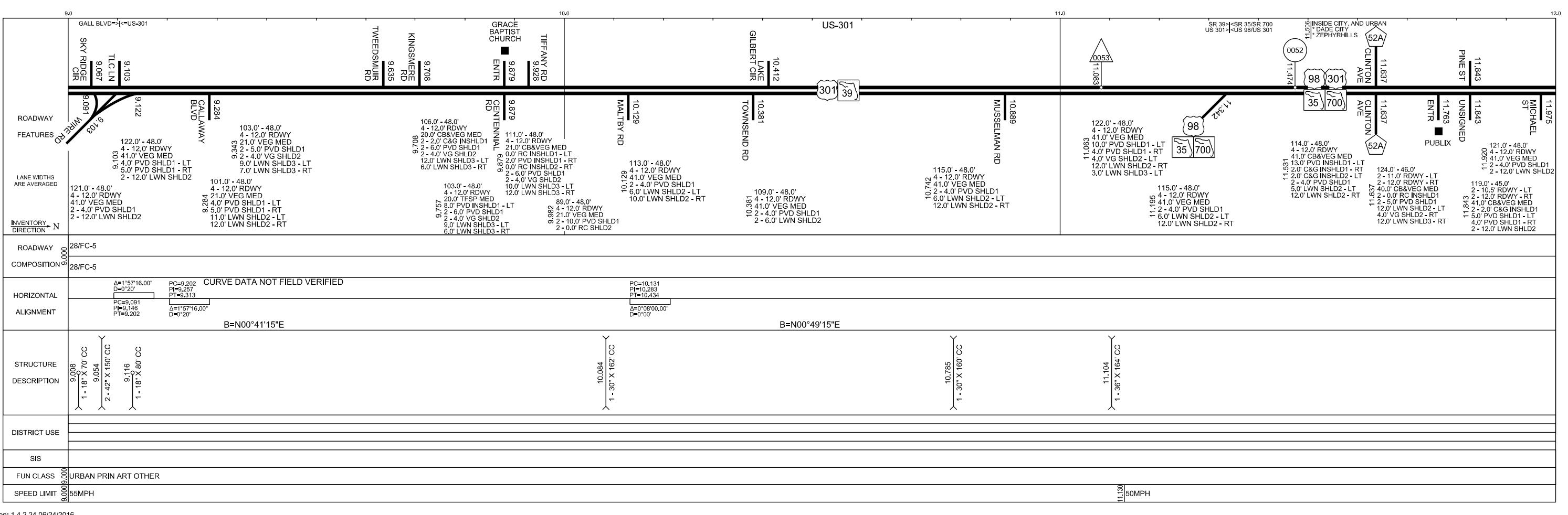


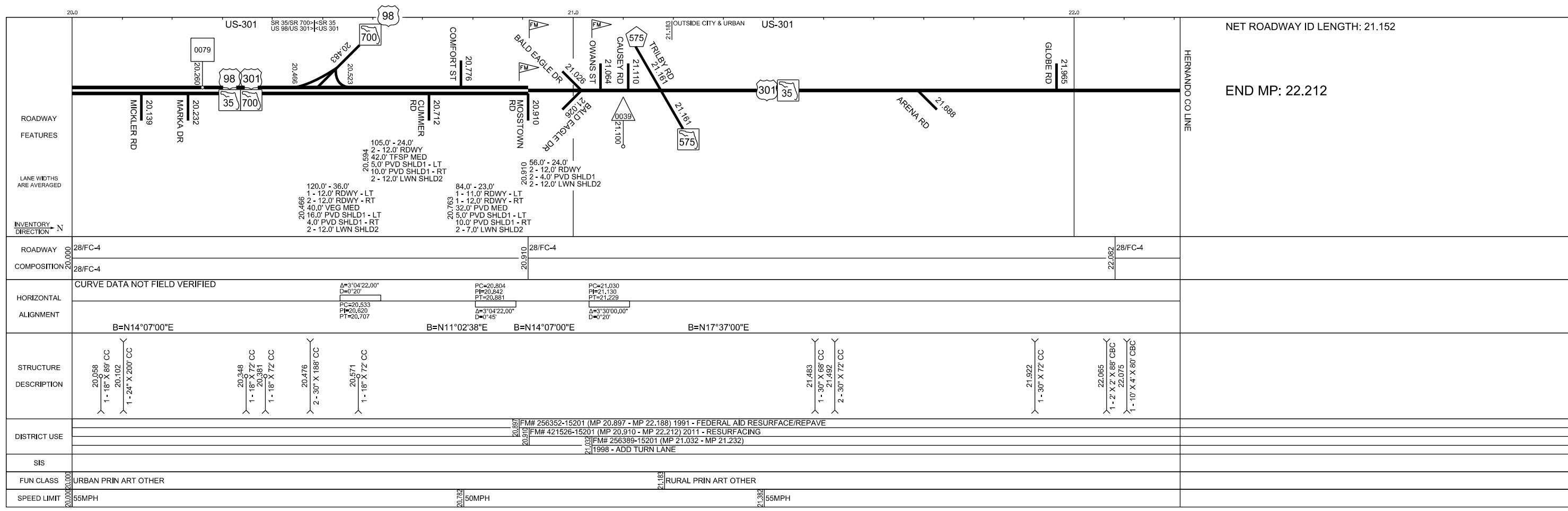
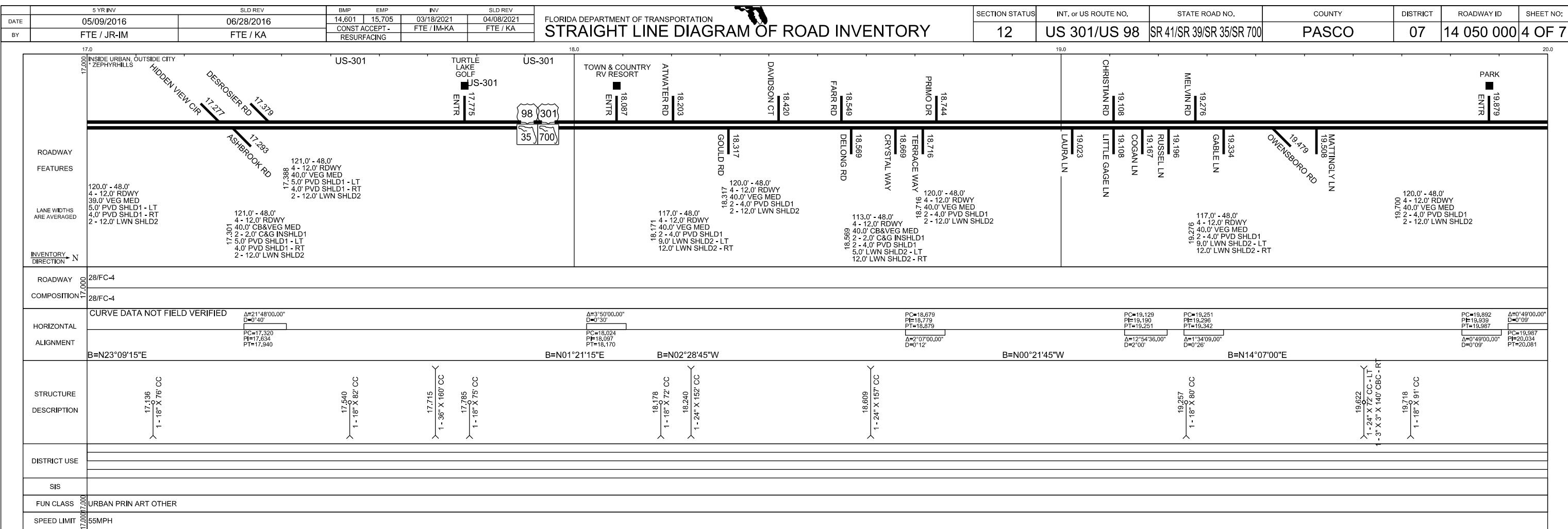
FLORIDA DEPARTMENT OF TRANSPORTATION
STRAIGHT LINE DIAGRAM OF ROAD INVENTORY

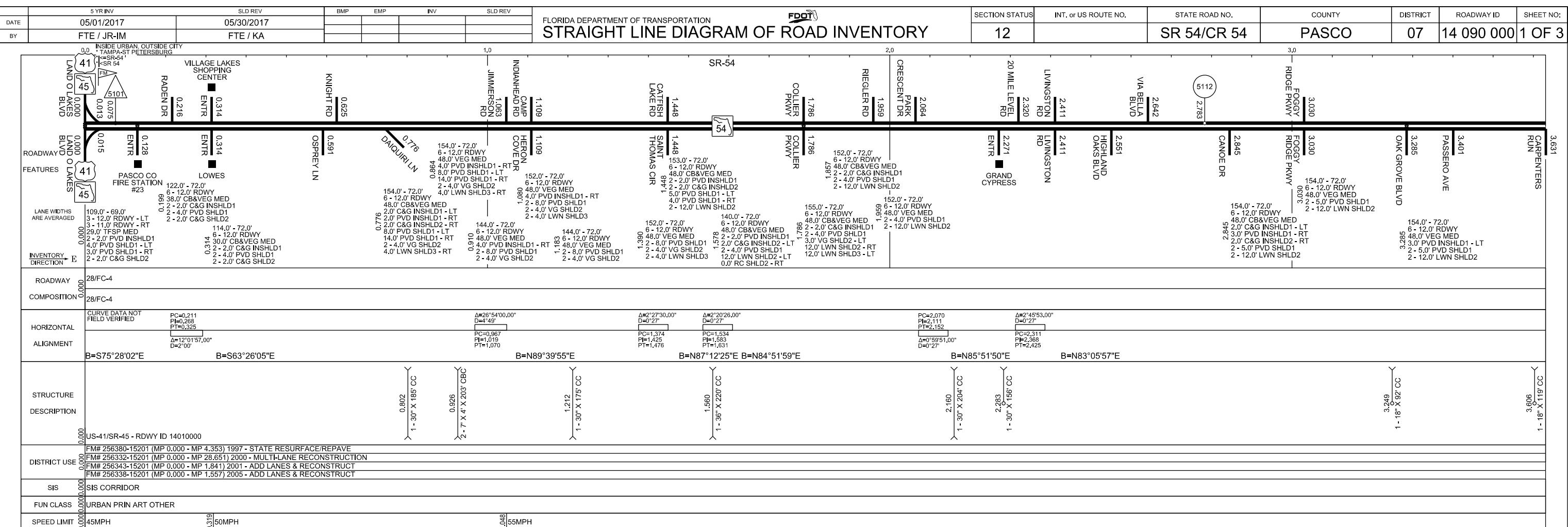
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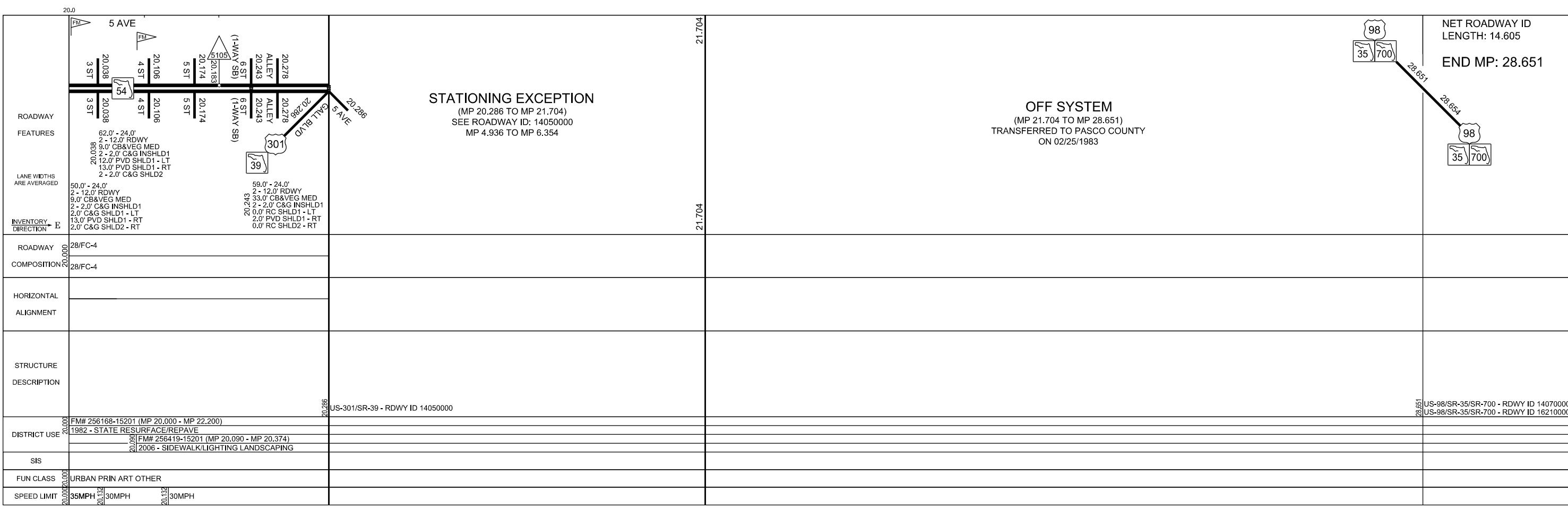
ROADWAY FEATURES	0.000	0.464	1.038	1.612	2.020	2.300	2.487	2.854	3.043	3.277		
HILLSBOROUGH CO LINE	INSIDE URBAN	OUTSIDE CITY										
RAPID RIVER	ZEPHYRHILLS SR 41 US 301											
LANE WIDTHS ARE AVERAGED	56.0' - 24.0' 2 - 12.0' RDWY 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	68.0' - 24.0' 2 - 12.0' RDWY 12.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	68.0' - 24.0' 2 - 12.0' RDWY 12.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	57.0' - 25.0' 2 - 12.5' RDWY 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	64.0' - 24.0' 2 - 12.0' RDWY 12.0' PVD MED 2 - 4.0' PVD SHLD1 12.0' LWN SHLD2 - LT 7.0' LWN SHLD2 - RT	67.0' - 24.0' 2 - 12.0' RDWY 11.0' PVD MED 2 - 4.0' PVD SHLD1 12.0' LWN SHLD2	67.0' - 24.0' 2 - 12.0' RDWY 12.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	68.0' - 24.0' 2 - 12.0' RDWY 12.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	56.0' - 24.0' 2 - 12.0' RDWY 13.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2	56.0' - 24.0' 2 - 12.0' RDWY 13.0' PVD MED 2 - 4.0' PVD SHLD1 2 - 12.0' LWN SHLD2		
INVENTORY DIRECTION → N	0.000	0.464	1.038	1.612	2.020	2.300	2.487	2.854	3.043	3.277		
ROADWAY COMPOSITION	28/FC-2	28/FC-2	28/FC-2	28/FC-2	28/FC-2	28/FC-9.5	28/FC-9.5	28/FC-2	28/FC-2	28/FC-2		
HORIZONTAL ALIGNMENT	CURVE DATA NOT FIELD VERIFIED PC=0.917 PT=1.254 PT=1.582 Δ=22°25'00.00" D=0°38'										Δ=42°45'00.00" D=2°16' PC=3.334 PT=3.521 PT=3.691	
STRUCTURE DESCRIPTION	B=N20°40'15"E B=N43°05'15"E										1 - 4' X 3' X 118' CBC 1 - 4' X 3' X 118' CBC 1 - 4' X 2' X 84' CBC 1 - 30' X 86' CC 2 - 30' X 78' CC 2 - 30' X 78' CC 2 - 4' X 2' X 120' CBC 2 - 4' X 2' X 120' CBC	
DISTRICT USE	FM# 256349-15201 (MP 0.000 - MP 3.845) 1997 - FEDERAL AID RESURFACE/REPAVE FM# 256253-15201 (MP 0.000 - MP 3.900) 1982 - FEDERAL AID RESURFACE/REPAVE										FM# 434765-15201 (MP 1.361 - MP 2.121) 2019 - WIDENING/MEDIAN/TURN LANES	FM# 256308-15201 (MP 3.067 - MP 5.834) 1997 - MULTI-LANE RECONSTRUCTION
SIS											55 MPH	45 MPH
FUN CLASS	URBAN PRIN ART OTHER										55 MPH	45 MPH
SPEED LIMIT	60 MPH										55 MPH	45 MPH











Appendix C

Crash Data

Crash Data

HSMV Report												
Number	Source	Crash Date	Year	Crash Street Location	Cross Street	Assigned Location	Crash Severity	Crash Type	Weather Condition	Lighting Condition	Road Surface Condition	Vehicle 1 Direction
83773738	CARS	4/17/2014	2014	ALT COUNTY ROAD 52	US 301 (STATE ROAD)	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	NB
82108677	CARS	11/19/2014	2014	CLINTON AVENUE	US HWY 301	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Day	Dry	NB
82108471	CARS	6/20/2014	2014	CLINTON AVENUE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Sideswipe	Clear	Dark -	Dry	NB
82108659	CARS	10/24/2014	2014	MORNINGSIDE DR	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Day	Dry	WB
83830131	CARS	7/9/2014	2014	US HWY 301	CLINTON AVE	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	EB
84509742	CARS	10/16/2014	2014	ALT COUNTY ROAD 52	US 301 (STATE ROAD)	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Day	Dry	NB
82108570	CARS	5/27/2014	2014	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
82108513	CARS	6/13/2014	2014	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Dark -	Dry	EB
82108625	CARS	9/11/2014	2014	US 301/ CLINTON AVE	US 301/ CLINTON AVE	US 301 at Clinton Ave	Property Damage Only	Sideswipe	Clear	Day	Dry	SB
82108623	CARS	8/23/2014	2014	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Minor Injury	Angle	Clear	Day	Dry	SB
82108447	CARS	1/22/2014	2014	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Dark - Not	Dry	SB
83787884	CARS	5/5/2014	2014	US-301	CLINTON AVE	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Day	Dry	WB
84514836	CARS	11/15/2014	2014	ALT CR 52 (CLINTON AV)	US 301	US 301 at Clinton Ave	Property Damage Only	Sideswipe	Clear	Dark -	Dry	NB
82108538	CARS	5/11/2014	2014	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Day	Dry	EB
82108823	CARS	6/22/2015	2015	CLINTON AVENUE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	NB
82108969	CARS	11/5/2015	2015	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dark -	Dry	SB
82108841	CARS	5/29/2015	2015	CLINTON AVENUE	US HIGHWAY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
85195948	CARS	9/29/2015	2015	CLINTON AVENUE	U.S. 301	US 301 at Clinton Ave	Moderate Injury	Rear End	Clear	Day	Dry	NB
85182130	CARS	9/17/2015	2015	US 301 (STATE ROAD 39)	ALTERNATE COUNTY	US 301 at Clinton Ave	Minor Injury	Sideswipe	Cloudy	Day	Dry	EB
82108773	CARS	9/19/2015	2015	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Minor Injury	Left Turn	Clear	Day	Dry	SB
85215480	CARS	11/24/2015	2015	CLINTON AVENUE	U.S. 301	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Day	Dry	NB
82108921	CARS	9/2/2015	2015	CLINTON AVE	US 301	US 301 at Clinton Ave	Minor Injury	Left Turn	Clear	Day	Dry	SB
85234064	CARS	11/26/2015	2015	CLINTON AVENUE (ALT	US HIGHWAY 301 (US	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Day	Dry	SB
82108806	CARS	4/24/2015	2015	US 301	CLINTON AVENUE	US 301 at Clinton Ave	Property Damage Only	Overtake/Rollover	Clear	Day	Wet	WB
82108937	CARS	11/12/2015	2015	HWY 301	HWY 301	US 301 at Clinton Ave	Property Damage Only	Sideswipe	Clear	Dark - Not	Dry	SB
84570987	CARS	2/22/2015	2015	CR 52 (CLINTON AV)	US 301 (SR 39)	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dark -	Dry	SB
82109202	CARS	9/12/2016	2016	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
82109125	CARS	7/30/2016	2016	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dark - Not	Dry	SB
82109029	CARS	1/20/2016	2016	HWY 301/ CLINTON AVE	HIGHWAY 301/	US 301 at Clinton Ave	Minor Injury	Left Turn	Rain	Dark -	Wet	SB
85431676	CARS	12/21/2016	2016	US 301 (STATE ROAD 39)	ALT COUNTY RD 52	US 301 at Clinton Ave	Property Damage Only	Rear End	Cloudy	Day	Dry	EB
85274188	CARS	2/7/2016	2016	CLINTON AVE	US 301	US 301 at Clinton Ave	Moderate Injury	Pedestrian	Clear	Day	Dry	EB
82109044	CARS	5/8/2016	2016	US HWY 301	CLINTON AVE	US 301 at Clinton Ave	Minor Injury	Right Turn	Clear	Dark -	Dry	SB
85237711	CARS	2/2/2016	2016	CLINTON AVENUE	U.S. 301	US 301 at Clinton Ave	Severe Injury	Rear End	Clear	Day	Dry	NB
82109167	CARS	7/29/2016	2016	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
85411557	CARS	10/14/2016	2016	CLINTON AVENUE	U.S. 301 (STATE ROAD	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Day	Dry	NB
82109009	CARS	1/11/2016	2016	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	EB
82109097	CARS	4/23/2016	2016	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dark -	Dry	SB
82109428	CARS	7/11/2017	2017	CLINTON AVE	US 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	NB
85432766	CARS	10/24/2017	2017	CLINTON AVENUE	U.S. 301 (STATE ROAD	US 301 at Clinton Ave	Moderate Injury	Rear End	Clear	Day	Dry	NB
85591559	CARS	10/2/2017	2017	U.S. 301	CLINTON AVE	US 301 at Clinton Ave	Moderate Injury	Rear End	Cloudy	Dark - Not	Wet	EB
87127815	CARS	12/30/2017	2017	ALT COUNTY ROAD 52	US HIGHWAY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dark -	Dry	NB
85549912	CARS	7/31/2017	2017	CLINTON AVENUE	U.S. 301	US 301 at Clinton Ave	Minor Injury	Rear End	Cloudy	Day	Wet	NB
82109367	CARS	4/4/2017	2017	CLINTON AVE	US 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
85449328	CARS	2/1/2017	2017	US HIGHWAY 301	CLINTON AVE	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	EB
85557621	CARS	9/3/2017	2017	CLINTON AVE	US HIGHWAY 301	US 301 at Clinton Ave	Property Damage Only	Angle	Clear	Day	Dry	SB
87108357	CARS	12/8/2017	2017	US HIGHWAY 301 (STATE	CLINTON AVE	US 301 at Clinton Ave	Minor Injury	Left Turn	Clear	Dark -	Dry	EB
82109448	CARS	7/5/2017	2017	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Minor Injury	Right Turn	Clear	Dark -	Dry	SB
85495032	CARS	4/6/2017	2017	U.S. 301	CLINTON AVENUE	US 301 at Clinton Ave	Minor Injury	Rear End	Cloudy	Day	Wet	EB
82109466	CARS	7/26/2017	2017	CLINTON AVE.	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Left Turn	Clear	Day	Dry	EB
82109715	CARS	7/21/2018	2018	CLINTON AVE	US HIGHWAY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB
82109675	CARS	5/27/2018	2018	CLINTON AVE	US HWY 301/ CLINTON	US 301 at Clinton Ave	Minor Injury	Rear End	Rain	Day	Wet	SB
87281088	CARS	11/8/2018	2018	ALT COUNTY ROAD 52	US 301 (STATE ROAD	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	NB
82109608	CARS	2/15/2018	2018	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Dusk	Dry	SB
82109738	CARS	10/2/2018	2018	CLINTON AVE	US 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	SB

Crash Data

HSMV Report												
Number	Source	Crash Date	Year	Crash Street Location	Cross Street	Assigned Location	Crash Severity	Crash Type	Weather Condition	Lighting Condition	Road Surface Condition	Vehicle 1 Direction
82109606	CARS	1/28/2018	2018	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Moderate Injury	Rear End	Rain	Dusk	Wet	NB
82109615	CARS	1/26/2018	2018	CLINTON AVENUE	US HIGHWAY 301	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Dark -	Dry	SB
82109665	CARS	8/20/2018	2018	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Clear	Day	Dry	EB
87282917	CARS	11/30/2018	2018	CLINTON AVE	U.S. 301	US 301 at Clinton Ave	Minor Injury	Rear End	Clear	Dark -	Dry	SB
82109678	CARS	7/23/2018	2018	CLINTON AVE	US HWY 301	US 301 at Clinton Ave	Property Damage Only	Rear End	Cloudy	Day	Dry	SB
82109567	CARS	1/3/2018	2018	CLINTON AVE	US 301	US 301 at Clinton Ave	Moderate Injury	Angle	Cloudy	Day	Wet	NB
87111212	CARS	1/5/2018	2018	ALT COUNTY RD 52	US-301 (STATE ROAD)	US 301 at Clinton Ave	Property Damage Only	Sideswipe	Clear	Dark -	Dry	NB
83717968	CARS	2/11/2014	2014	CLINTON AVENUE	U.S. 301 (S.R. 35)	US 301 at Clinton Ave	Minor Injury	Other	Clear	Day	Dry	SB
83748349	CARS	2/27/2014	2014	US 301	CR 52 (CLINTON AV)	US 301 at Clinton Ave	Moderate Injury	Other	Clear	Dark -	Dry	WB
84049243	CARS	3/17/2015	2015	US 301	CR 52	US 301 at Clinton Ave	Property Damage Only	Other	Clear	Day	Dry	U
87269539	CARS	9/18/2018	2018	U.S. 301	CLINTON AVE	US 301 at Clinton Ave	Property Damage Only	Other	Clear	Day	Dry	WB
85258581	CARS	2/20/2016	2016	US HWY 98	US HWY 301	US 301 at US 98	Severe Injury	Left Turn	Clear	Dark -	Dry	SB
84515216	CARS	10/10/2014	2014	US-98	US-301	US 301 at US 98	Minor Injury	Left Turn	Clear	Day	Dry	NB
83732815	CARS	1/11/2014	2014	US 98	US 301	US 301 at US 98	Severe Injury	Rear End	Clear	Day	Dry	SB
82022916	CARS	1/15/2014	2014	US 98	US 301	US 301 at US 98	Severe Injury	Sideswipe	Clear	Day	Dry	NB
83767198	CARS	3/13/2014	2014	U.S. 98	U.S. 301	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	NB
83753469	CARS	1/28/2014	2014	U.S. 98	U.S. 301	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	SB
84510291	CARS	10/17/2014	2014	US 98 (SR 700)	US 301 (SR 35)	US 301 at US 98	Property Damage Only	Left Turn	Clear	Dark -	Dry	EB
83786915	CARS	4/19/2014	2014	U.S. 98	U.S. 301	US 301 at US 98	Property Damage Only	Sideswipe	Cloudy	Day	Dry	NB
84506727	CARS	11/7/2014	2014	US 98 (STATE ROAD 35)	US 301 (STATE ROAD 39)	US 301 at US 98	Property Damage Only	Left Turn	Clear	Dusk	Dry	NB
83741707	CARS	1/6/2014	2014	US 98	US 301	US 301 at US 98	Minor Injury	Left Turn	Cloudy	Day	Dry	NB
84480010	CARS	8/31/2014	2014	US HIGHWAY 98 (STATE)	US HIGHWAY 301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
83710339	CARS	1/10/2014	2014	US 98	US 301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	SB
83836464	CARS	7/15/2014	2014	US 98 (STATE ROAD 35)	US-301 (STATE ROAD)	US 301 at US 98	Moderate Injury	Rear End	Clear	Day	Dry	SB
84529009	CARS	12/25/2014	2014	US HIGHWAY 98 (STATE)	US HIGHWAY 301	US 301 at US 98	Severe Injury	Left Turn	Clear	Day	Dry	NB
84482112	CARS	9/9/2014	2014	US HIGHWAY 98 (STATE)	US HIGHWAY 301	US 301 at US 98	Severe Injury	Rear End	Cloudy	Day	Wet	NB
83707060	CARS	1/7/2014	2014	US98	US301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
83769415	CARS	3/10/2014	2014	US98	US301	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	SB
83719559	CARS	1/17/2014	2014	US 98	US 301	US 301 at US 98	Property Damage Only	Rear End	Clear	Day	Dry	NB
83767190	CARS	3/7/2014	2014	U.S. 98	U.S. 301	US 301 at US 98	Minor Injury	Rear End	Clear	Dark - Not	Dry	SB
84867368	CARS	3/12/2015	2015	US98	US301	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	SB
82108977	CARS	11/17/2015	2015	US 98 BYPASS	US HWY 301	US 301 at US 98	Property Damage Only	Angle	Clear	Dark -	Dry	NB
85196191	CARS	9/19/2015	2015	US HIGHWAY 98 (STATE)	US HIGHWAY 301	US 301 at US 98	Minor Injury	Left Turn	Clear	Dark - Not	Dry	SB
85195933	CARS	9/20/2015	2015	U.S. 98 SOUTH	U.S. 301	US 301 at US 98	Severe Injury	Left Turn	Clear	Day	Dry	NB
84905057	CARS	5/11/2015	2015	US 98	US 301	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	SB
82108928	CARS	9/28/2015	2015	98 BYPASS	US HWY 301	US 301 at US 98	Minor Injury	Left Turn	Clear	Day	Dry	SB
85192145	CARS	11/26/2015	2015	US-98	US-301 SR-39	US 301 at US 98	Minor Injury	Rear End	Cloudy	Day	Dry	NB
84886105	CARS	4/21/2015	2015	US 98 (STATE ROAD 35)	US 301 (STATE ROAD)	US 301 at US 98	Moderate Injury	Left Turn	Cloudy	Dark - Not	Dry	SB
85155316	CARS	9/14/2015	2015	U.S.98	U.S.301	US 301 at US 98	Minor Injury	Rear End	Clear	Day	Dry	NB
85215424	CARS	10/26/2015	2015	U.S. 98 SOUTH	U.S. 301	US 301 at US 98	Minor Injury	Rear End	Clear	Day	Dry	NB
85155354	CARS	11/27/2015	2015	U.S. 98 (S.R. 35)	U.S. 301 (S.R. 39)	US 301 at US 98	Property Damage Only	Rear End	Clear	Day	Dry	WB
84883576	CARS	4/21/2015	2015	US 98 (STATE ROAD 35)	US 301 (STATE ROAD)	US 301 at US 98	Property Damage Only	Left Turn	Clear	Dark - Not	Dry	SB
85153666	CARS	8/7/2015	2015	U.S. 98 (SOUTH)	U.S. 301	US 301 at US 98	Property Damage Only	Rear End	Rain	Day	Wet	SB
84570986	CARS	2/22/2015	2015	US 98 (SR 35)	US 301 (SR 39)	US 301 at US 98	Minor Injury	Left Turn	Clear	Day	Dry	SB
85257164	CARS	2/9/2016	2016	US 301 (US 98)	20212 US 301	US 301 at US 98	Severe Injury	Overtake/Rollover	Cloudy	Dark - Not	Dry	NB
85411606	CARS	11/2/2016	2016	U.S. 98	U.S. 301	US 301 at US 98	Property Damage Only	Rear End	Clear	Day	Dry	SB
85418680	CARS	12/17/2016	2016	US-301 (SR-39)	US-98 (SR-35)	US 301 at US 98	Property Damage Only	Rear End	Clear	Day	Dry	WB
85353973	CARS	6/25/2016	2016	US-98	US-301	US 301 at US 98	Minor Injury	Left Turn	Clear	Day	Dry	SB
85423325	CARS	11/22/2016	2016	U.S. 98 (STATE ROAD 35)	U.S. 301 (STATE ROAD)	US 301 at US 98	Property Damage Only	Left Turn	Clear	Dark -	Dry	SB
85950767	CARS	1/11/2016	2016	US HIGHWAY 98	US HIGHWAY 301	US 301 at US 98	Property Damage Only	Rear End	Clear	Day	Dry	U
84890375	CARS	2/19/2016	2016	US98	US301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
85325459	CARS	6/4/2016	2016	US 98 (STATE ROAD 35)	US 301 (STATE ROAD)	US 301 at US 98	Property Damage Only	Sideswipe	Clear	Day	Dry	SB
85366374	CARS	8/10/2016	2016	U.S. 98 (STATE ROAD 35)	U.S. 301 (STATE ROAD)	US 301 at US 98	Property Damage Only	Left Turn	Clear	Dark - Not	Dry	NB
85229317	CARS	1/1/2016	2016	US HWY 98	US HWY 301	US 301 at US 98	Severe Injury	Left Turn	Clear	Dark - Not	Dry	SB

Crash Data

HSMV Report												
Number	Source	Crash Date	Year	Crash Street Location	Cross Street	Assigned Location	Crash Severity	Crash Type	Weather Condition	Lighting Condition	Road Surface Condition	Vehicle 1 Direction
85528807	CARS	7/29/2017	2017	U.S. 98	U.S. 301 (S.R. 39)	US 301 at US 98	Severe Injury	Rear End	Cloudy	Day	Dry	NB
85476100	CARS	2/1/2017	2017	US HIGHWAY 98 (STATE	US HIGHWAY 301	US 301 at US 98	Severe Injury	Left Turn	Other Inclement	Dawn	Dry	NB
85552041	CARS	7/11/2017	2017	US-98	SR-39 (US-301)	US 301 at US 98	Minor Injury	Rear End	Rain	Day	Wet	NB
82109337	CARS	3/10/2017	2017	98 BYPASS	US 301	US 301 at US 98	Moderate Injury	Angle	Clear	Day	Dry	NB
85521058	CARS	4/25/2017	2017	U.S. 98 SOUTH	U.S. 301	US 301 at US 98	Severe Injury	Left Turn	Clear	Day	Dry	NB
82109457	CARS	7/4/2017	2017	98 BYPASS	US HIGHWAY 301	US 301 at US 98	Minor Injury	Angle	Clear	Day	Dry	SB
87258437	CARS	7/17/2018	2018	US 98	US-301 (GALL BLVD)	US 301 at US 98	Property Damage Only	Rear End	Cloudy	Day	Wet	NB
87243229	CARS	8/3/2018	2018	US 98 (STATE ROAD 35)	US 301 (STATE ROAD	US 301 at US 98	Moderate Injury	Left Turn	Clear	Day	Dry	SB
87259611	CARS	7/26/2018	2018	US 98 SOUTH	US 301	US 301 at US 98	Moderate Injury	Rear End	Clear	Day	Dry	NB
87170901	CARS	2/24/2018	2018	U.S. 98	U.S. 301	US 301 at US 98	Moderate Injury	Rear End	Clear	Day	Dry	NB
87208935	CARS	5/29/2018	2018	U.S. HWY 98(SR-35)	U.S. HWY 301(SR- 39)	US 301 at US 98	Minor Injury	Right Turn	Rain	Day	Wet	WB
87276631	CARS	9/6/2018	2018	US 98 (STATE ROAD 35)	US 301 (STATE ROAD	US 301 at US 98	Property Damage Only	Hit Fixed Object	Clear	Dark - Not	Dry	WB
87228717	CARS	6/15/2018	2018	U.S. 98	U.S. 301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
88050906	CARS	12/30/2018	2018	US HIGHWAY 98	US HIGHWAY 301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
87195837	CARS	3/28/2018	2018	U.S.98 (STATE ROAD 35)	U.S.301 (STATE ROAD	US 301 at US 98	Severe Injury	Left Turn	Clear	Day	Dry	SB
82109630	CARS	2/9/2018	2018	US HWY 98 BYPASS	US 301	US 301 at US 98	Minor Injury	Sideswipe	Clear	Day	Dry	NB
82109703	CARS	7/30/2018	2018	US 98 BYPASS	US HWY 301	US 301 at US 98	Property Damage Only	Left Turn	Clear	Day	Dry	NB
88053234	CARS	12/22/2018	2018	U.S. 98 SOUTH	U.S. 301	US 301 at US 98	Property Damage Only	Right Turn	Clear	Day	Dry	NB
85418993	CARS	11/14/2016	2016	US 98 (STATE ROAD 35)	US 301 (STATE ROAD	US 301 at US 98	Property Damage Only	Other	Clear	Day	Dry	SB
82022920	CARS	10/5/2016	2016	US 98	US-301	US 301 at US 98	Property Damage Only	Single Vehicle	Clear	Day	Dry	NB
83764027	CARS	4/7/2014	2014	ALT COUNTY ROAD 52	US 301 (STATE ROAD	US 301 from US 98 to Clinton	Property Damage Only	Rear End	Clear	Day	Dry	NB
83759398	CARS	3/4/2014	2014	CR52A(CLINTON AVE)	US301(SR35)	US 301 from US 98 to Clinton	Moderate Injury	Rear End	Cloudy	Day	Dry	NB
83732823	CARS	1/17/2014	2014	CLINTON AVE	US HWY 301	US 301 from US 98 to Clinton	Severe Injury	Rear End	Clear	Day	Dry	NB
83763426	CARS	4/17/2014	2014	ALT COUNTY ROAD 52	US HIGHWAY 301 (US	US 301 from US 98 to Clinton	Moderate Injury	Rear End	Cloudy	Day	Dry	NB
85202658	CARS	10/3/2015	2015	ALTERNATE 52 (CLINTON	US 301	US 301 from US 98 to Clinton	Minor Injury	Rear End	Clear	Day	Dry	NB
85148515	CARS	10/5/2015	2015	US 98	US 301	US 301 from US 98 to Clinton	Moderate Injury	Rear End	Cloudy	Day	Dry	SB
84568081	CARS	1/23/2015	2015	CLINTON AVE.	U.S. 301(S.R. 35)	US 301 from US 98 to Clinton	Property Damage Only	Rear End	Cloudy	Day	Dry	NB
85195956	CARS	10/2/2015	2015	CLINTON AVENUE	U.S. 301	US 301 from US 98 to Clinton	Minor Injury	Rear End	Clear	Day	Dry	NB
85306289	CARS	8/26/2016	2016	CLINTON AVENUE	US HIGHWAY 301	US 301 from US 98 to Clinton	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	NB
85440312	CARS	12/23/2016	2016	ALT CR 52 (CLINTON	US 301 (SR 39)	US 301 from US 98 to Clinton	Severe Injury	Other	Clear	Day	Dry	NB
87170920	CARS	3/6/2018	2018	CLINTON AVE	U.S. 301	US 301 from US 98 to Clinton	Property Damage Only	Rear End	Clear	Day	Dry	NB
87131255	CARS	1/17/2018	2018	U.S. HWY 98(SR-35)	U.S. HWY 301(U.S. HWY	US 301 from US 98 to Clinton	Minor Injury	Sideswipe	Clear	Day	Dry	SB
85440020	CARS	1/11/2017	2017	CLINTON AVENUE	U.S. 301	US 301 from US 98 to Clinton	Property Damage Only	Other	Clear	Day	Dry	SB
88009494	CARS	11/19/2018	2018	ALTERNATE C.R. 52	US HIGHWAY 301	US 301 from US 98 to Clinton	Severe Injury	Other	Clear	Dark - Not	Dry	NB
83768827	CARS	3/18/2014	2014	US HIGHWAY 98	COUNTY ROAD 54	US 98 at CR 54	Property Damage Only	Rear End	Clear	Day	Dry	EB
83786760	CARS	5/27/2014	2014	STATE ROAD 700	STATE ROAD 54	US 98 at CR 54	Moderate Injury	Overturn/Rollover	Clear	Day	Dry	NB
85203752	CARS	12/4/2015	2015	U.S. HIGHWAY 98 (STATE	COUNTY ROAD 54 EAST	US 98 at CR 54	Minor Injury	Rear End	Clear	Dark - Not	Dry	EB
87223899	CARS	5/20/2018	2018	COUNTY ROAD 54	US HIGHWAY 98	US 98 at CR 54	Property Damage Only	Hit Fixed Object	Rain	Dawn	Wet	SB
88751839	CARS	11/7/2018	2018	COUNTY ROAD 54	HIGHWAY 98 NORTH	US 98 at CR 54	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	SB
87123151	CARS	2/16/2018	2018	SR 700 (US HWY 98)	CR 54	US 98 at CR 54	Property Damage Only	Rear End	Cloudy	Day	Dry	EB
84540461	CARS	12/12/2014	2014	U.S. 98 (S.R. 700)	OLD LAKELAND	US 98 at Old Lakeland Hwy	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	SB
83773746	CARS	4/25/2014	2014	US 98 (COUNTY ROAD	ALT CR-35 (OLD	US 98 at Old Lakeland Hwy	Moderate Injury	Left Turn	Clear	Day	Dry	EB
83722400	CARS	2/22/2014	2014	US HIGHWAY 98	COUNTY ROAD 35 ALT	US 98 at Old Lakeland Hwy	Moderate Injury	Left Turn	Cloudy	Day	Dry	EB
83836497	CARS	8/11/2014	2014	CR 35 A	ALT 35 (OLD LAKELAND	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Cloudy	Day	Dry	EB
83768579	CARS	3/5/2014	2014	U.S. 98 SOUTH	OLD LAKELAND HWY	US 98 at Old Lakeland Hwy	Minor Injury	Left Turn	Clear	Day	Dry	SB
85274200	CARS	2/15/2016	2016	US 98	COUNTY ROAD 35 (OLD	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Day	Dry	EB
85280588	CARS	3/3/2016	2016	US 98 (STATE ROAD 35)	COUNTY ROAD 35 (OLD	US 98 at Old Lakeland Hwy	Severe Injury	Angle	Clear	Day	Dry	EB
87108446	CARS	11/11/2017	2017	U.S. 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Day	Dry	SB
85461798	CARS	2/14/2017	2017	US 98	COUNTY ROAD 35 (OLD	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Dark -	Dry	NB
85462873	CARS	2/20/2017	2017	US 98 (STATE ROAD 35)	ALT COUNTY RD 35	US 98 at Old Lakeland Hwy	Property Damage Only	Rear End	Clear	Day	Dry	NB
85551325	CARS	6/27/2017	2017	U.S. 98 (STATE ROAD 35)	COUNTY ROAD 35 (OLD	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Day	Dry	SB
87108423	CARS	10/28/2017	2017	U.S. 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Severe Injury	Left Turn	Clear	Day	Dry	EB
85440055	CARS	2/8/2017	2017	U.S. 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Minor Injury	Left Turn	Clear	Day	Dry	EB
85579557	CARS	9/5/2017	2017	US-98	CR-35A (OLD LAKELAND	US 98 at Old Lakeland Hwy	Minor Injury	Left Turn	Clear	Day	Dry	EB

Crash Data

HSMV Report												
Number	Source	Crash Date	Year	Crash Street Location	Cross Street	Assigned Location	Crash Severity	Crash Type	Weather Condition	Lighting Condition	Road Surface Condition	Vehicle 1 Direction
85557616	CARS	9/1/2017	2017	US HIGHWAY 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Minor Injury	Angle	Rain	Day	Wet	EB
87221054	CARS	6/18/2018	2018	OLD LAKELAND	U.S. 98	US 98 at Old Lakeland Hwy	Property Damage Only	Sideswipe	Clear	Day	Dry	EB
87258426	CARS	7/7/2018	2018	US 98 EXIT/ ENTRANCE	COUNTY ROAD 35 A	US 98 at Old Lakeland Hwy	Severe Injury	Left Turn	Clear	Dark -	Dry	EB
87281056	CARS	8/26/2018	2018	US 98	OLD LAKELAND HWY	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Day	Dry	EB
87258315	CARS	8/14/2018	2018	US-98	CR-35A(OLD LAKELAND)	US 98 at Old Lakeland Hwy	Property Damage Only	Left Turn	Clear	Dawn	Dry	EB
87170898	CARS	2/23/2018	2018	U.S. 98	OLD LAKELAND HWY	US 98 at Old Lakeland Hwy	Moderate Injury	Left Turn	Clear	Day	Dry	EB
87107444	CARS	11/17/2017	2017	U.S. 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Property Damage Only	Other	Clear	Day	Dry	EB
87272047	CARS	10/6/2018	2018	US HIGHWAY 98	OLD LAKELAND	US 98 at Old Lakeland Hwy	Severe Injury	Other	Clear	Day	Dry	EB
84502245	CARS	9/8/2014	2014	COUNTY ROAD 54	U.S. HIGHWAY 98	US 98 from Old Lakeland Hwy	Minor Injury	Hit Non-Fixed Object	Clear	Dark - Not	Dry	SB
85250700	CARS	12/21/2015	2015	COUNTY ROAD 54	US HIGHWAY 98 (STATE	US 98 from Old Lakeland Hwy	Property Damage Only	Hit Non-Fixed Object	Clear	Dark - Not	Dry	NB
87133206	SignalFour	1/14/2018	2018	COUNTY ROAD 54	U.S. 98	US 98 from Old Lakeland Hwy	Minor Injury	Hit Non-Fixed Object	Clear	Day	Dry	SB
87168966	SignalFour	4/4/2018	2018	COUNTY ROAD 54	US HIGHWAY 98 (STATE	US 98 from Old Lakeland Hwy	Moderate Injury	Single Vehicle	Clear	Dark - Not	Dry	SB
83768627	CARS	4/30/2014	2014	COUNTY ROAD 54	U.S. 98(S.R. 700)	US 98 from Old Lakeland Hwy	Severe Injury	Overturn/Rollover	Cloudy	Day	Wet	NB
83786849	CARS	5/30/2014	2014	STANTON HALL DR	US HWY 98	US 98 from Old Lakeland Hwy	Moderate Injury	Rear End	Clear	Day	Dry	NB
85215099	CARS	11/26/2015	2015	COUNTY ROAD 35 (OLD	US HWY 98 (STATE	US 98 from Old Lakeland Hwy	Property Damage Only	Hit Non-Fixed Object	Clear	Dark - Not	Dry	SB
84524674	CARS	1/3/2015	2015	COUNTY RD 35A (OLD	US HWY 98 (STATE	US 98 at Old Lakeland Hwy	Severe Injury	Left Turn	Clear	Dark -	Dry	NB
85215100	CARS	11/26/2015	2015	COUNTY ROAD 535 (OLD	US HWY 98 (STATE	US 98 from Old Lakeland Hwy	Severe Injury	Sideswipe	Clear	Dark - Not	Dry	NB
84554359	CARS	1/26/2015	2015	JANMAR ROAD	US HWY 98 (STATE	US 98 from Old Lakeland Hwy	Property Damage Only	Right Turn	Rain	Dark - Not	Wet	EB
85152381	CARS	11/22/2015	2015	STANTON RD	U.S. HIGHWAY 98	US 98 from Old Lakeland Hwy	Fatal	Hit Fixed Object	Cloudy	Dark - Not	Wet	NB
84879863	CARS	3/11/2015	2015	JAMMER RD	US HWY 98 (STATE	US 98 from Old Lakeland Hwy	Severe Injury	Overturn/Rollover	Clear	Dawn	Dry	NB
85202670	CARS	10/16/2015	2015	JAMAR RD	US 98	US 98 from Old Lakeland Hwy	Severe Injury	Rear End	Clear	Day	Dry	NB
83759822	CARS	10/5/2015	2015	STANTON HALL ROAD	U.S.98(STATE ROAD 35)	US 98 from Old Lakeland Hwy	Fatal	Hit Fixed Object	Clear	Day	Dry	SB
85434417	CARS	12/8/2016	2016	JANMAR ROAD	US HIGHWAY 98	US 98 from Old Lakeland Hwy	Moderate Injury	Head On	Clear	Day	Dry	NB
85303556	CARS	4/14/2016	2016	JANMAR RD	U.S. 98	US 98 from Old Lakeland Hwy	Property Damage Only	Rear End	Rain	Day	Wet	WB
83705453	CARS	10/27/2016	2016	COUNTY ROAD 54	US 98 (STATE 35)	US 98 from Old Lakeland Hwy	Moderate Injury	Sideswipe	Clear	Day	Dry	EB
85543156	CARS	6/6/2017	2017	JANMAR ROAD	US 98 (SR 35)	US 98 from Old Lakeland Hwy	Property Damage Only	Angle	Rain	Day	Wet	SB
85495022	CARS	4/1/2017	2017	JANMAR ROAD	U.S. 98	US 98 from Old Lakeland Hwy	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	NB
85501044	CARS	4/23/2017	2017	ALT COUNTY RD 35 (OLD	US-98 (STATE ROAD 35)	US 98 from Old Lakeland Hwy	Property Damage Only	Hit Fixed Object	Clear	Day	Dry	NB
82109624	CARS	3/2/2018	2018	35A	US HIGHWAY 98	US 98 from Old Lakeland Hwy	Moderate Injury	Head On	Clear	Dark - Not	Dry	SB
87236586	CARS	6/22/2018	2018	STANTON HALL DR	U.S.HWY.98	US 98 from Old Lakeland Hwy	Fatal	Head On	Clear	Day	Dry	NB
87169072	CARS	2/8/2018	2018	OLD LAKELAND	U.S. 98	US 98 from Old Lakeland Hwy	Severe Injury	Left Turn	Clear	Day	Dry	NB
87111207	CARS	1/2/2018	2018	JANMAR ROAD	US-98 (STATE ROAD 35)	US 98 from Old Lakeland Hwy	Property Damage Only	Ran Off Road	Clear	Dark - Not	Dry	NB
85528803	SignalFour	7/11/2017	2017	COUNTY ROAD 54	U.S. 98 (S.R. 35)	US 98 from Old Lakeland Hwy	Property Damage Only	Ran Off Road	Rain	Day	Wet	NB
83772268	CARS	4/9/2014	2014	TOWNSEND RD	US HWY 98	US 98 from US 301 to Old	Severe Injury	Single Vehicle	Clear	Day	Dry	SB
83787849	CARS	5/20/2014	2014	ALT STATE ROAD 52	US HIGHWAY 301 (US	US 98 from US 301 to Old	Minor Injury	Rear End	Clear	Day	Dry	SB
83719562	CARS	1/22/2014	2014	SALLY RD	US 98	US 98 from US 301 to Old	Property Damage Only	Rear End	Clear	Day	Dry	EB
85133631	CARS	7/20/2015	2015	HAMP DR	US98	US 98 from US 301 to Old	Severe Injury	Left Turn	Clear	Day	Dry	NB
84566577	CARS	2/14/2015	2015	JIM JORDAN ROAD	US 98 (STATE ROAD 35)	US 98 from US 301 to Old	Property Damage Only	Rear End	Clear	Day	Dry	WB
85268742	CARS	3/12/2016	2016	TUMBLEWEED DRIVE	US HWY 98 (STATE	US 98 from US 301 to Old	Minor Injury	Overturn/Rollover	Clear	Day	Dry	SB
85360333	CARS	7/27/2016	2016	JIM JORDAN ROAD	US HIGHWAY 98 (STATE	US 98 from US 301 to Old	Property Damage Only	Left Turn	Clear	Day	Dry	NB
85411568	CARS	10/16/2016	2016	JANMAR ROAD	U.S. 98 (STATE ROAD	US 98 from US 301 to Old	Moderate Injury	Rear End	Clear	Dark - Not	Dry	EB
85284803	CARS	7/21/2016	2016	CONNERY RD	US HWY 98 (SR-35)	US 98 from US 301 to Old	Severe Injury	Rear End	Cloudy	Day	Dry	NB
85562488	CARS	8/5/2017	2017	PRAIRIE DRIVE	US 98 (SR 35)	US 98 from US 301 to Old	Property Damage Only	Sideswipe	Clear	Dark - Not	Dry	NB
85571794	CARS	8/16/2017	2017	SALLY ROAD	U.S. 98 (STATE ROAD	US 98 from US 301 to Old	Minor Injury	Hit Fixed Object	Clear	Day	Dry	NB
85431696	CARS	1/4/2017	2017	SALLY ROAD	US-98 (STATE ROAD 35)	US 98 from US 301 to Old	Moderate Injury	Left Turn	Clear	Day	Dry	EB
85481112	CARS	4/10/2017	2017	SALLY ROAD	US HIGHWAY 98 (STATE	US 98 from US 301 to Old	Severe Injury	Overturn/Rollover	Clear	Dark - Not	Dry	NB
87281956	CARS	9/10/2018	2018	WATSON RD	US-98	US 98 from US 301 to Old	Property Damage Only	Rear End	Clear	Day	Dry	NB
87166663	CARS	2/28/2018	2018	PRAIRE DR	US HWY 98 (SR-35)	US 98 from US 301 to Old	Moderate Injury	Overturn/Rollover	Clear	Day	Dry	NB
85128798	CARS	8/9/2015	2015	WILDS RD	US 98	US 98 from US 301 to Old	Severe Injury	Other	Rain	Day	Wet	SB

Average Crash Costs by Facility Type for 2014-2018 as of 11/5/2020						
	Divided			Undivided		
	Urban	Suburban	Rural	Urban	Suburban	Rural
2-3 Lanes	\$ 107,732	\$ 201,527	\$ 355,183	\$ 124,618	\$ 267,397	\$ 523,727
4-5 Lanes	\$ 123,406	\$ 225,315	\$ 473,637	\$ 112,896	\$ 190,276	N/A
6+ Lanes	\$ 123,598	\$ 166,258	\$ 451,492	\$ 41,650	N/A	N/A
Interstate	\$ 153,130	N/A	\$ 327,385	N/A	N/A	N/A
Turnpike	\$ 132,199	N/A	\$ 274,012	N/A	N/A	N/A

All Roads Average Cost/Crash: \$159,093.00

SOURCE: Florida Department of Transportation State Safety Office's Crash Analysis Reporting (CAR) System, analysis years 2014 through 2018. Published by FDOT State Safety Office on 11/5/2020.

The above values were derived from 2014 through 2018 traffic crash and injury severity data for crashes on state roads in Florida using the formulation described in FHWA Technical Advisory 'Motor Vehicle Accident Costs', T7570.2, dated October 31, 1994. Base costs derived from a memorandum from USDOT: 'Guidance on Treatment of the Economic Value of a Statistical Life (VSL) in U.S. Department of Transportation Analyses', dated August 8, 2016 updating the value of a life saved from \$9.4 million to \$9.6 million for 2015 data with a growth factor applied to increase the base cost to \$9.7 million in the current analyses. Costs are computed for the actively state-maintained State Highway System (SHS) only.

NOTE: The information contained within or attached to this message has been compiled from information collected for the purpose of identifying, evaluating or planning safety enhancements. It is used to develop highway safety construction improvements projects which may be implemented utilizing Federal Aid Highway funds. Any document displaying this notice shall be used only for the purposes deemed appropriate by the Florida Department of Transportation. See Title 23, United States Code, Section 409. Pursuant to Title 23 U.S.C Section 409, the information provided to you is not subject to discovery and is not admissible into evidence.

FDOT KABCO Crash Costs 2014-2018 as of 11/5/2020

Crash Severity	Comprehensive Crash Cost
Fatal (K)	\$ 10,890,000
Severe Injury (A)	\$ 888,030
Moderate Injury (B)	\$ 180,180
Minor Injury (C)	\$ 103,950
Property Damage Only (O)	\$ 7,700

SOURCE: Florida Department of Transportation State Safety Office's Crash Analysis Reporting (CAR) System, analysis years 2014 through 2018. Published by FDOT State Safety Office on 11/5/2020.

NOTE: The information contained within or attached to this message has been compiled from information collected for the purpose of identifying, evaluating or planning safety enhancements. It is used to develop highway safety construction improvements projects which may be implemented utilizing Federal Aid Highway funds. Any document displaying this notice shall be used only for the purposes deemed appropriate by the Florida Department of Transportation. See Title 23, United States Code, Section 409. Pursuant to Title 23 U.S.C Section 409, the information provided to you is not subject to discovery and is not admissible into evidence.

REPORT CARPJ96
DATE 11/10/2020

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
INTERSECTION CRASH RATE CATEGORY LISTING

PAGE NO 0

1 YEAR RATES - - - - -
2 YEAR RATES - - - - -
3 YEAR RATES - - - - -
4 YEAR RATES - - - - -
5 YEAR RATES X - -

STATE WIDE: STATEWIDE BY DISTRICT BY COUNTY

DISTRICTS: - - - - - BY DISTRICT BY COUNTY

COUNTIES: -

COMMENTS: USERID: SF945BJ

REPORT CARPJ96
DATE 11/10/2020
TIME 09:43:35

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
CRASHES PER MILLION VEHICLES ENTERING BY INTERSECTION TYPE
STATEWIDE FOR 2014 - 2018

PAGE NO 1
AS OF 11/04/2020 21:11:47

COMMENTS: _____

USERID: SF945BJ

CC - CRASH RATE CATEGORY CODE DESCRIPTION	3 LEGS		4 LEGS		5 LEGS		6+ LEGS	
	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH
01 - INTERSTATE URBAN	0.169 3169	103789/ 613713.757	0.135 36	1004/ 7442.352				
02 - INTERSTATE RURAL	0.117 1516	12435/ 106451.728	0.046 16	69/ 1503.975				
03 - TOLL ROAD URBAN	0.141 1866	33783/ 240414.144	0.183 21	385/ 2108.714				
04 - TOLL ROAD RURAL	0.115 392	2436/ 21231.383	0.043 9	19/ 442.846				
05 - URBAN OTHER LIMITED ACCESS	0.295 719	24723/ 83813.465	0.763 37	2415/ 3164.724	3.906 1	206/ 52.742		
06 - RURAL OTHER LIMITED ACCESS	0.061 9	10/ 163.921	0.189 3	2/ 10.603				
07 - RAMP URBAN	1.534 696	16053/ 10463.767	1.732 4	232/ 133.955	4.143 2	199/ 48.034		
08 - RAMP RURAL	1.502 2688	33559/ 22341.286	2.069 67	1606/ 776.055	4.658 1	85/ 18.250		
10 - URBAN 2-3LN 2WY DIVD RASD	0.682 432	6877/ 10085.425	0.621 178	2628/ 4232.904	0.337 6	24/ 71.248	0.388 4	22/ 56.684
11 - URBAN 2-3LN 2WY DIVD PAVD	0.474 1172	12600/ 26563.257	0.684 741	11413/ 16695.537	1.270 11	398/ 313.316	1	7.336
12 - URBAN 2-3LN 2WY UNDIVD	0.343 1367	6732/ 19638.946	0.375 924	5013/ 13362.368	0.465 19	129/ 277.235		
13 - SUBURBAN 2-3LN 2WY DIVD RASD	0.500 300	3662/ 7321.003	0.728 84	1700/ 2335.422				
14 - SUBURBAN 2-3LN 2WY DIVD PAVD	0.276 2699	17786/ 64355.859	0.516 748	10527/ 20417.192	1.327 4	110/ 82.903		
15 - SUBURBAN 2-3LN 2WY UNDIVD	0.197 5247	15917/ 80656.304	0.287 1124	5186/ 18068.551	0.539 9	71/ 131.692	0.044 1	2/ 45.260
16 - RURAL 2-3LN 2WY DIVD RASD	0.465 113	501/ 1076.745	0.257 21	79/ 307.895				

REPORT CARPJ96
DATE 11/10/2020
TIME 09:43:35

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
CRASHES PER MILLION VEHICLES ENTERING BY INTERSECTION TYPE
STATEWIDE FOR 2014 - 2018

PAGE NO 2
AS OF 11/04/2020 21:11:47

COMMENTS: _____

USERID: SF945BJ

CC - CRASH RATE CATEGORY CODE DESCRIPTION	3 LEGS		4 LEGS		5 LEGS		6+ LEGS	
	RATE # INTS	# CRASHES/ MILL VEH						
17 - RURAL 2-3LN 2WY DIVD PAVD	0.273 807	2795/ 10238.913	0.409 179	1688/ 4128.083	0.270 3	9/ 33.378		
18 - RURAL 2-3LN 2WY UNDIVD	0.198 6210	9771/ 49293.692	0.244 1191	2769/ 11362.930	0.303 7	12/ 39.639	0.130 1	1/ 7.665
20 - URBAN 4-5LN 2WY DIVD RASD	0.431 6425	125550/ 291140.174	0.649 2685	85413/ 131685.448	0.609 38	1097/ 1801.358	1.273 6	538/ 422.615
21 - URBAN 4-5LN 2WY DIVD PAVD	0.579 4172	105099/ 181551.869	0.809 2162	79688/ 98473.531	1.269 25	1751/ 1380.299	0.889 10	437/ 491.837
22 - URBAN 4-5LN 2WY UNDIVD	0.587 780	14381/ 24517.017	0.835 519	13929/ 16677.507	0.795 8	252/ 316.956	1	28.762
23 - SUBURBAN 4-5LN 2WY DIVD RASD	0.270 4911	62906/ 232885.051	0.526 1364	36548/ 69482.246	0.911 18	960/ 1053.955	1.821 1	121/ 66.430
24 - SUBURBAN 4-5LN 2WY DIVD PAVD	0.314 450	7367/ 23461.023	0.552 159	4173/ 7565.823	0.188 1	8/ 42.559		
25 - SUBURBAN 4-5LN 2WY UNDIVD	0.223 83	488/ 2190.949	0.188 36	195/ 1037.914				
26 - RURAL 4-5LN 2WY DIVD RASD	0.213 1718	8142/ 38196.872	0.210 489	3523/ 16756.609	0.530 2	30/ 56.611		
27 - RURAL 4-5LN 2WY DIVD PAVD	0.209 24	94/ 449.096	0.406 3	49/ 120.664				
28 - RURAL 4-5LN 2WY UNDIVD								
30 - URBAN 6+LN 2WY DIVD RASD	0.510 9387	381835/ 748377.408	0.925 3184	245060/ 264857.742	1.174 34	4067/ 3463.909	1.006 6	509/ 505.776
31 - URBAN 6+LN 2WY DIVD PAVD	0.537 526	20149/ 37535.562	0.727 248	12773/ 17573.552	0.897 4	354/ 394.528		
32 - URBAN 6+LN 2WY UNDIVD	2.972 6	117/ 39.368	2.750 3	246/ 89.443				
33 - SUBURBAN 6+LN 2WY DIVD RASD	0.345 1877	54125/ 156910.682	0.744 638	41514/ 55767.833	2.020 9	1608/ 796.031		

REPORT CARPJ96
DATE 11/10/2020
TIME 09:43:35

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
CRASHES PER MILLION VEHICLES ENTERING BY INTERSECTION TYPE
STATEWIDE FOR 2014 - 2018

PAGE NO 3
AS OF 11/04/2020 21:11:47

COMMENTS: _____

USERID: SF945BJ

CC - CRASH RATE CATEGORY CODE DESCRIPTION	3 LEGS		4 LEGS		5 LEGS		6+ LEGS	
	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH	RATE # INTS	# CRASHES/ MILL VEH
34 - SUBURBAN 6+LN 2WY DIVD PAVD	0.148 164	3185/ 21542.358	0.412 25	1021/ 2480.124				
35 - SUBURBAN 6+LN 2WY UNDIVD	5							
36 - RURAL 6+LN 2WY DIVD RASD	0.108 20	50/ 464.688	0.136 19	80/ 590.015				
37 - RURAL 6+LN 2WY DIVD PAVD	1							
38 - RURAL 6+LN 2WY UNDIVD	2							
40 - URBAN ONE WAY	1.060 1374	26352/ 24849.873	1.129 1042	27012/ 23927.265	1.439 14	715/ 496.755	0.296 1	8/ 27.010
41 - SUBURBAN ONE WAY	0.716 395	7254/ 10134.726	0.836 129	3424/ 4095.970				
42 - RURAL ONE WAY	1.083 130	703/ 648.846	2.714 16	92/ 33.892	3			
77 - UNDEFINED	0.184 735	842/ 4569.932	0.062 343	121/ 1936.142	5	33.142	1	8.285
TOTALS:	0.354 62587	1122068/ 3167289.089	0.733 18447	601596/ 819645.826	1.108 224	12085/ 10904.540	0.982 33	1638/ 1667.660

REPORT..CARPJ85-
DATE....11/10/2020
TIME....10:38:37

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
SEGMENT BASED CRASH RATE STATISTICS

PAGE NO 0
AS OF: 2020-11-04

COMMENT: SF945BJ

CC - CRASH RATE CATEGORY CODE DESCRIPTIONS AVG/YEAR \$/CRASH@CRA C-NO-INJ C-POSSIBLE C-N-INCAP C-INCAP C-FATAL C-NT-FATAL
 I/A CRASH CRASHES MV MILES CRASH RATE CL MILES \$/CRASH@INJ P-NO-INJ P-POSSIBLE P-N-INCAP P-INCAP P-FATAL P-NT-FATAL

DETAIL PRINT LINE LEGEND - REFER TO SHORT TITLES IN THE HEADING LINES ABOVE

CC	- CRASH RATE CATEGORY CODE AND DESCRIPTION
CRASHES	- TOTAL NUMBER OF CRASHES
I/A CRASH	- TOTAL NUMBER OF "INFLUENCE AREA" CRASHES
MV MILES	- MILLION VEHICLE MILES
CRASH RATE	- AVERAGE SEGMENT CRASH RATE
CL MILES	- ROADWAY CENTER LINE MILES
\$ PER CRASH	- AVERAGE ECONOMIC LOSS PER CRASH
C-NO-INJ	- CRASHES WITH PROPERTY DAMAGE ONLY
C-POSSIBLE	- CRASHES WITH POSSIBLE INJURIES
C-N-INCAP	- CRASHES WITH NON-INCAPACITATE INJURIES
C-INCAP	- CRASHES WITH INCAPACITATE INJURIES
C-FATAL	- CRASHES WITH FATALITIES
C-NT-FATAL	- CRASHES WITH NON-TRAFFIC FATALITIES
\$ PER INJURY	- AVERAGE ECONOMIC LOSS PER INJURY
P-NO-INJ	- PEOPLE WITH NO INJURIES
P-POSS-INJ	- PEOPLE WITH POSSIBLE INJURIES
P-N-INCAP	- PEOPLE WITH NON-INCAPACITATING INJURIES
P-INCAP	- PEOPLE WITH INCAPACITATING INJURIES
P-FATAL	- FATALITIES
P-NT-FATAL	- NON-TRAFFIC FATALITIES

CURRENT BASE CALENDAR YEAR:	2018
CARPJ81 CRASH EXTRACT DATE:	2020-11-04 21:15:49
CARPJ82 FREEZE BREAK EXTRACT DATE:	2020-11-04 21:34:29
CARPJ84 YEARLY ROLLUPS AND WEIGHTS DATE:	2020-11-04 21:35:05

CRASH DOLLAR VALUE WEIGHTS 1 THROUGH 6: 7,700 103,950 180,180 888,030 10,890,000 7,700
 INJURY DOLLAR VALUE WEIGHTS 1 THROUGH 6: 0 69,300 138,600 683,100 9,900,000 0

AVAILABLE YEARS	2018	2017	2016	2015	2014
1 YEAR RATES	—	—	—	—	—
2 YEAR RATES	—	—	—	—	—
3 YEAR RATES	—	—	—	—	—
4 YEAR RATES	—	—	—	—	—
5 YEAR RATES	X	—	—	—	—

STATE WIDE: X STATE WIDE BY DISTRICT BY COUNTY

DISTRICTS: **BY DISTRICT** **BY COUNTY**

COUNTIES: _____

REPORT..CARPJ85-
DATE....11/10/2020
TIME....10:38:37

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
SEGMENT BASED CRASH RATE STATISTICS
DISTRICT: ALL COUNTY: ALL FOR 2014 - 2018
COMMENT:
=====

PAGE NO 1
AS OF: 2020-11-04

CC - CRASH RATE CATEGORY CODE DESCRIPTIONS	I/A CRASH CRASHES	MV MILES	CRASH RATE	AVG/YEAR CL MILES	\$/CRASH@CRA CL MILES	C-NO-INJ \$/CRASH@INJ	C-POSSIBLE P-NO-INJ	C-N-INCAP P-POSSIBLE	C-INCAP P-N-INCAP	C-FATAL P-INCAP	C-NT-FATAL P-FATAL	P-NT-FATAL
01 - INTERSTATE URBAN	876	146,983	148,904.327	0.992	842.348	137,082 141,452	94,544 304,866	31,048 55,749	16,051 22,564	5,364 7,123	795 915	57 78
02 - INTERSTATE RURAL	31	21,512	47,095.034	0.457	670.240	271,928 296,012	13,769 42,083	3,425 7,185	2,748 4,418	1,239 1,826	349 406	13 18
03 - TOLL ROAD URBAN	867	43,899	57,729.432	0.775	495.117	120,991 120,586	30,353 87,154	8,244 14,157	4,870 6,706	1,050 1,352	231 259	18 24
04 - TOLL ROAD RURAL	18	4,268	9,447.056	0.453	180.980	244,062 273,409	2,690 8,126	747 1,539	582 985	201 316	61 72	5 6
05 - URBAN OTHER LIMITED ACCESS	3,753	23,747	13,706.206	2.006	120.474	94,711 89,333	19,432 58,599	5,434 9,196	1,990 2,704	535 680	97 99	12 14
06 - RURAL OTHER LIMITED ACCESS	20	31	36.533	1.395	7.491	277,111 261,670	34 89	8 12	7 9	1 2	1 1	0 0
07 - RAMP URBAN	63,197	17,988	4,497.152	0.000	225.255	103,887 98,817	54,529 159,148	16,632 27,226	7,756 10,239	1,960 2,441	289 308	19 23
08 - RAMP RURAL	63,521	42,087	11,034.699	0.000	895.970	118,892 116,008	68,836 214,953	22,230 37,345	10,904 14,963	3,160 3,980	454 492	24 31
10 - URBAN 2-3LN 2WY DIVD RASD	3,069	3,326	806.162	7.932	36.186	107,758 102,789	3,992 13,800	1,478 2,428	730 1,006	175 222	20 20	0 0
11 - URBAN 2-3LN 2WY DIVD PAVD	4,896	12,161	2,663.719	6.403	122.052	105,429 99,414	11,115 37,026	3,533 5,802	1,904 2,522	442 527	56 59	7 8
12 - URBAN 2-3LN 2WY UNDIVD	2,543	6,165	2,262.600	3.848	166.344	138,050 130,073	5,518 18,358	1,784 2,994	1,075 1,406	278 330	49 51	4 5
13 - SUBURBAN 2-3LN 2WY DIVD RASD	1,141	2,757	970.725	4.015	44.073	181,248 185,351	2,311 8,526	901 1,626	458 680	197 262	31 34	0 0
14 - SUBURBAN 2-3LN 2WY DIVD PAVD	4,815	21,995	9,602.125	2.792	407.712	187,761 196,404	15,026 56,658	6,453 12,498	3,839 5,642	1,257 1,716	224 247	11 14
15 - SUBURBAN 2-3LN 2WY UNDIVD	2,222	19,975	17,616.868	1.259	1,164.912	251,418 263,677	12,216 44,089	4,932 9,169	3,457 5,174	1,282 1,791	295 331	15 21
16 - RURAL 2-3LN 2WY DIVD RASD	126	506	474.390	1.332	27.256	354,521 367,349	328 1,203	131 273	107 164	53 76	13 14	0 0

REPORT..CARPJ85-
DATE....11/10/2020
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FLORIDA - DEPARTMENT OF TRANSPORTATION
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DISTRICT: ALL COUNTY: ALL FOR 2014 - 2018
COMMENT:
=====

PAGE NO 2
AS OF: 2020-11-04

CC - CRASH RATE CATEGORY CODE DESCRIPTIONS	I/A CRASH CRASHES	MV MILES	CRASH RATE	AVG/YEAR CL MILES	\$/CRASH@CRA CL MILES	C-NO-INJ P-NO-INJ	C-POSSIBLE P-POSSIBLE	C-N-INCAP P-N-INCAP	C-INCAP P-INCAP	C-FATAL P-FATAL	C-NT-FATAL P-NT-FATAL	
17 - RURAL 2-3LN 2WY DIVD PAVD	754	4,521	2,882.268	1.830	191.656	295,973 335,708	2,843 9,929	1,080 2,265	889 1,372	372 548	86 106	5 9
18 - RURAL 2-3LN 2WY UNDIVD	1,468	20,340	27,657.185	0.788	3,602.481	483,488 535,806	11,468 33,680	3,973 7,873	3,774 5,870	1,873 2,942	707 840	13 22
20 - URBAN 4-5LN 2WY DIVD RASD	24,135	117,038	37,288.637	3.785	857.339	137,102 131,515	86,645 308,110	31,944 53,911	17,151 23,357	4,652 5,725	748 776	33 47
21 - URBAN 4-5LN 2WY DIVD PAVD	23,570	99,075	20,074.326	6.109	475.134	113,962 108,246	82,180 271,602	24,397 41,018	12,320 16,444	3,196 3,879	528 556	24 33
22 - URBAN 4-5LN 2WY UNDIVD	2,621	16,321	2,683.858	7.057	88.307	115,588 106,477	12,867 42,145	3,544 5,824	1,922 2,599	519 617	84 84	6 7
23 - SUBURBAN 4-5LN 2WY DIVD RASD	6,150	82,263	50,609.880	1.746	1,123.984	226,380 229,317	48,290 180,776	21,170 38,539	13,138 19,255	4,774 6,429	995 1,065	46 64
24 - SUBURBAN 4-5LN 2WY DIVD PAVD	1,194	9,619	4,466.643	2.420	84.773	178,772 173,384	6,717 23,335	2,393 4,079	1,251 1,725	346 459	101 105	5 8
25 - SUBURBAN 4-5LN 2WY UNDIVD	51	384	202.753	2.145	7.584	231,239 211,609	237 1,046	107 166	61 86	25 28	5 5	0 0
26 - RURAL 4-5LN 2WY DIVD RASD	447	13,694	19,246.801	0.734	920.400	410,716 440,219	7,353 22,928	2,774 5,464	2,503 3,974	1,131 1,651	368 421	12 20
27 - RURAL 4-5LN 2WY DIVD PAVD	3	237	432.178	0.555	25.502	378,697 400,125	137 376	45 69	36 45	15 23	6 7	1 1
28 - RURAL 4-5LN 2WY UNDIVD	0	39	17.531	2.224	1.788	47,601 49,753	26 158	9 12	4 8	0 0	0 0	0 0
30 - URBAN 6+LN 2WY DIVD RASD	52,981	313,825	74,813.222	4.902	946.430	122,055 117,108	239,500 811,959	78,040 129,538	36,829 50,768	10,626 13,297	1,721 1,804	90 126
31 - URBAN 6+LN 2WY DIVD PAVD	3,780	21,294	4,640.786	5.402	65.208	152,382 145,622	15,635 55,751	5,410 9,574	2,772 3,820	1,095 1,367	153 154	9 10
32 - URBAN 6+LN 2WY UNDIVD	48	296	4.681	73.488	0.275	51,893 42,995	276 752	38 53	21 26	9 11	0 0	0 0
33 - SUBURBAN 6+LN 2WY DIVD RASD	6,147	73,654	28,977.482	2.753	348.277	159,578 159,979	46,562 176,266	20,001 35,587	9,286 13,259	3,420 4,519	513 543	19 36

REPORT..CARPJ85-
DATE....11/10/2020
TIME....10:38:37

FLORIDA - DEPARTMENT OF TRANSPORTATION
C A R - CRASH ANALYSIS REPORTING SYSTEM
SEGMENT BASED CRASH RATE STATISTICS
DISTRICT: ALL COUNTY: ALL FOR 2014 - 2018
COMMENT:
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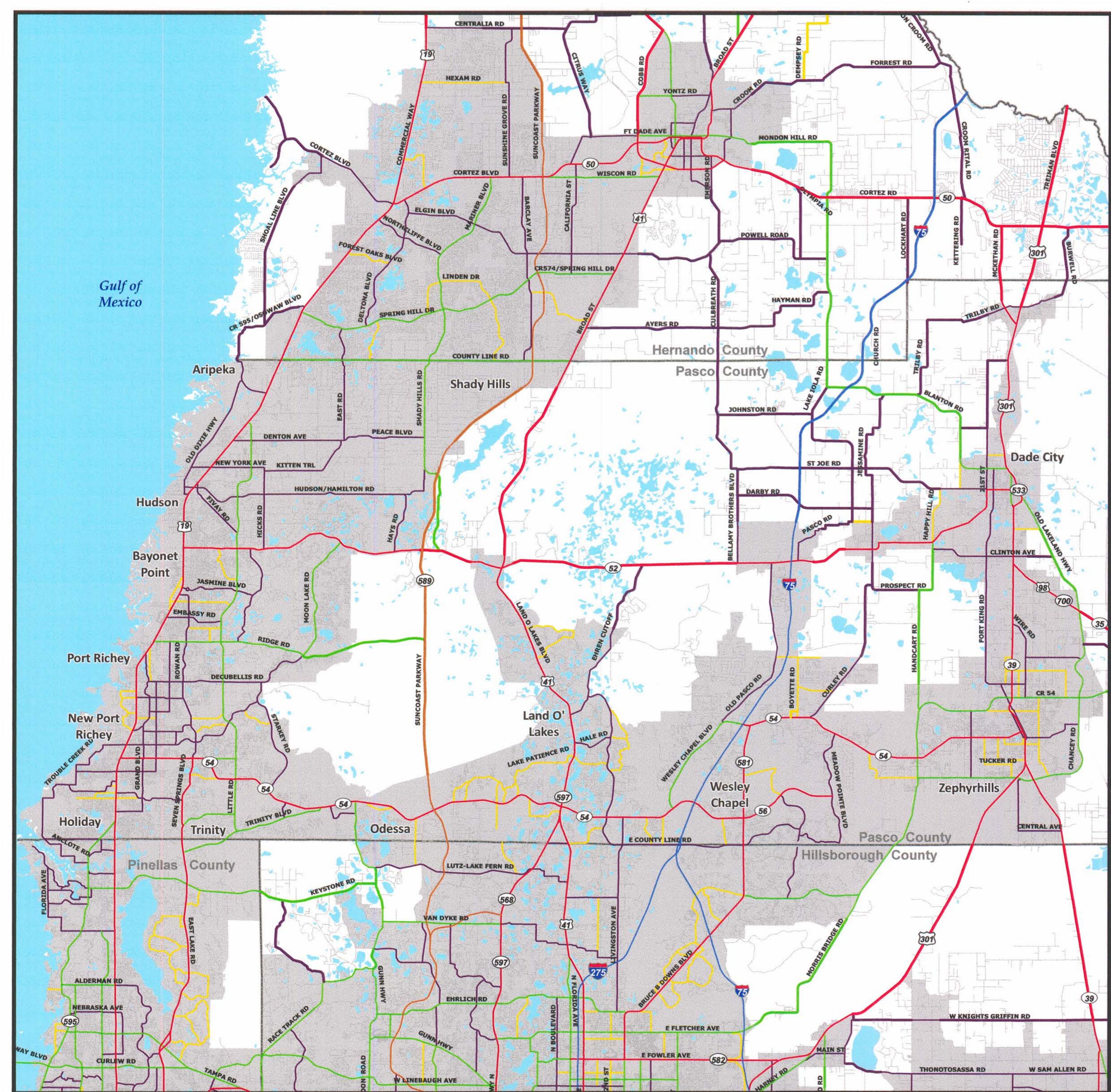
PAGE NO 3
AS OF: 2020-11-04

CC - CRASH RATE CATEGORY CODE DESCRIPTIONS	I/A CRASH CRASHES	MV MILES	CRASH RATE	AVG/YEAR CL MILES	\$/CRASH@CRA CL MILES	C-NO-INJ P-NO-INJ	C-POSSIBLE P-POSSIBLE	C-N-INCAP P-N-INCAP	C-INCAP P-INCAP	C-FATAL P-FATAL	C-NT-FATAL P-NT-FATAL	
34 - SUBURBAN 6+LN 2WY DIVD PAVD	302	2,854	2,685.456	1.175	21.775	133,308 124,157	2,127 7,010	553 876	359 480	97 112	18 19	
35 - SUBURBAN 6+LN 2WY UNDIVD	0	10	0.000	0.000	0.023	24,948 13,860	9 30	0 0	1 1	0 0	0 0	
36 - RURAL 6+LN 2WY DIVD RASD	3	107	187.472	0.586	10.174	432,869 874,530	56 195	23 45	18 41	10 12	3 8	
37 - RURAL 6+LN 2WY DIVD PAVD	15	0	0.000	0.000	0.016	38,448 27,720	11 34	3 4	1 1	0 0	0 0	
38 - RURAL 6+LN 2WY UNDIVD	0	0	0.000	0.000	0.086	0 0	0 0	0 0	0 0	0 0	0 0	
40 - URBAN ONE WAY	11,110	31,206	3,694.423	11.454	189.961	84,161 75,434	30,982 95,754	6,842 10,788	3,497 4,632	870 1,001	111 113	
41 - SUBURBAN ONE WAY	2,212	5,412	3,168.963	2.405	107.218	138,599 128,316	5,305 16,996	1,359 2,274	714 938	190 243	53 53	
42 - RURAL ONE WAY	752	442	351.254	3.399	34.831	122,333 114,189	777 2,354	265 416	114 150	30 40	6 6	
77 - UNDEFINED	10,811	5,819	0.000	0.000	0.000	106,803 105,529	11,053 35,046	3,470 5,918	1,608 2,214	436 563	60 66	
ALL CRASH RATE CATEGORIES	38,041	1185,850	610,932.826	2.003	14,509.642	153,698 153,120	770,221 2586,702	261,042 451,510	139,825 195,987	44,056 57,408	8,331 9,064	416 580

END OF REPORT

Appendix D

Count Data



2010 Urban Area Boundaries and Federal Functional Classification Pasco County



Henry O. Williams
Chair, Pasco Metropolitan Planning Organization
Debbie Hart
FDOT District Director of Transportation

12/16/13
Date
12/20/13
Date

PDOI District Director of Transportation

APPROVED BY:

Carol M. Shriver
Federal Highway Administration

01/23/2014
Date

LEGEND



Functional Classification

-  01 - Principal Arterial-Interstate RURAL
 -  02 - Principal Arterial-Expressway RURAL
 -  04 - Principal Arterial-Other RURAL
 -  06 - Minor Arterial RURAL
 -  07 - Major Collector RURAL
 -  08 - Minor Collector RURAL
 -  11 - Principal Arterial-Interstate URBAN
 -  12 - Principal Arterial-Freeway and Expressway URBAN
 -  14 - Principal Arterial-Other URBAN
 -  16 - Minor Arterial URBAN
 -  17 - Major Collector URBAN
 -  18 - Minor Collector (Fed Aid) URBAN

 -  Local Road

[Learn more about our services](#)

2010 FHWA Urban Area

A scale bar with tick marks at 0, 1, 2, 3, 4, and 5 miles. The first mile is divided into two segments, and the fifth mile is also divided into two segments.

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1401 I75, HILLS CO - SUMT	1402 US 301	1403 SR41, SR52 - HERNAND	1404 US19, SR52 - HERNAND
1	01/01/2019 - 01/05/2019	0.90	0.96	0.92	0.98
2	01/06/2019 - 01/12/2019	0.90	0.96	0.92	0.98
3	01/13/2019 - 01/19/2019	0.89	0.96	0.92	0.98
4	01/20/2019 - 01/26/2019	0.89	0.96	0.92	0.98
5	01/27/2019 - 02/02/2019	0.89	0.96	0.92	0.98
6	02/03/2019 - 02/09/2019	0.89	0.96	0.92	0.98
7	02/10/2019 - 02/16/2019	0.89	0.96	0.92	0.98
8	02/17/2019 - 02/23/2019	0.89	0.96	0.92	0.98
9	02/24/2019 - 03/02/2019	0.89	0.96	0.92	0.98
10	03/03/2019 - 03/09/2019	0.89	0.96	0.92	0.98
11	03/10/2019 - 03/16/2019	0.89	0.96	0.92	0.98
12	03/17/2019 - 03/23/2019	0.89	0.96	0.92	0.98
13	03/24/2019 - 03/30/2019	0.89	0.96	0.92	0.98
14	03/31/2019 - 04/06/2019	0.89	0.96	0.92	0.98
15	04/07/2019 - 04/13/2019	0.89	0.96	0.92	0.98
16	04/14/2019 - 04/20/2019	0.89	0.96	0.92	0.98
17	04/21/2019 - 04/27/2019	0.89	0.96	0.92	0.98
18	04/28/2019 - 05/04/2019	0.89	0.96	0.92	0.98
19	05/05/2019 - 05/11/2019	0.89	0.96	0.92	0.98
20	05/12/2019 - 05/18/2019	0.89	0.96	0.92	0.98
21	05/19/2019 - 05/25/2019	0.89	0.96	0.92	0.98
22	05/26/2019 - 06/01/2019	0.89	0.96	0.92	0.98
23	06/02/2019 - 06/08/2019	0.89	0.96	0.92	0.98
24	06/09/2019 - 06/15/2019	0.89	0.96	0.92	0.98
25	06/16/2019 - 06/22/2019	0.89	0.96	0.92	0.98
26	06/23/2019 - 06/29/2019	0.89	0.96	0.92	0.98
27	06/30/2019 - 07/06/2019	0.89	0.96	0.92	0.98
28	07/07/2019 - 07/13/2019	0.89	0.96	0.92	0.98
29	07/14/2019 - 07/20/2019	0.89	0.96	0.92	0.98
30	07/21/2019 - 07/27/2019	0.89	0.96	0.92	0.98
31	07/28/2019 - 08/03/2019	0.89	0.96	0.92	0.98
32	08/04/2019 - 08/10/2019	0.88	0.96	0.92	0.98
33	08/11/2019 - 08/17/2019	0.88	0.96	0.92	0.98
34	08/18/2019 - 08/24/2019	0.88	0.96	0.92	0.98
35	08/25/2019 - 08/31/2019	0.88	0.96	0.92	0.98
36	09/01/2019 - 09/07/2019	0.88	0.96	0.92	0.98
37	09/08/2019 - 09/14/2019	0.88	0.96	0.92	0.98
38	09/15/2019 - 09/21/2019	0.88	0.96	0.92	0.98
39	09/22/2019 - 09/28/2019	0.88	0.96	0.92	0.98
40	09/29/2019 - 10/05/2019	0.88	0.96	0.92	0.98
41	10/06/2019 - 10/12/2019	0.88	0.96	0.92	0.98
42	10/13/2019 - 10/19/2019	0.88	0.96	0.92	0.98
43	10/20/2019 - 10/26/2019	0.88	0.96	0.92	0.98
44	10/27/2019 - 11/02/2019	0.89	0.96	0.92	0.98
45	11/03/2019 - 11/09/2019	0.89	0.96	0.92	0.98
46	11/10/2019 - 11/16/2019	0.89	0.96	0.92	0.98
47	11/17/2019 - 11/23/2019	0.89	0.96	0.92	0.98
48	11/24/2019 - 11/30/2019	0.89	0.96	0.92	0.98
49	12/01/2019 - 12/07/2019	0.90	0.96	0.92	0.98
50	12/08/2019 - 12/14/2019	0.90	0.96	0.92	0.98
51	12/15/2019 - 12/21/2019	0.90	0.96	0.92	0.98
52	12/22/2019 - 12/28/2019	0.90	0.96	0.92	0.98
53	12/29/2019 - 12/31/2019	0.89	0.96	0.92	0.98

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1405 ALT19, PINE - US 19	1406 SR597, HILLS CO/L -	1407 SR41, HILLS - SR 52	1408 US19, PINE - SR 52
1	01/01/2019 - 01/05/2019	0.99	0.90	0.97	0.99
2	01/06/2019 - 01/12/2019	0.99	0.90	0.97	0.99
3	01/13/2019 - 01/19/2019	0.99	0.89	0.97	0.99
4	01/20/2019 - 01/26/2019	0.99	0.89	0.97	0.99
5	01/27/2019 - 02/02/2019	0.99	0.89	0.97	0.99
6	02/03/2019 - 02/09/2019	0.99	0.89	0.97	0.99
7	02/10/2019 - 02/16/2019	0.99	0.89	0.97	0.99
8	02/17/2019 - 02/23/2019	0.99	0.89	0.97	0.99
9	02/24/2019 - 03/02/2019	0.99	0.90	0.97	0.99
10	03/03/2019 - 03/09/2019	0.99	0.90	0.97	0.99
11	03/10/2019 - 03/16/2019	0.99	0.90	0.97	0.99
12	03/17/2019 - 03/23/2019	0.99	0.90	0.97	0.99
13	03/24/2019 - 03/30/2019	0.99	0.90	0.97	0.99
14	03/31/2019 - 04/06/2019	0.99	0.89	0.97	0.99
15	04/07/2019 - 04/13/2019	0.99	0.89	0.97	0.99
16	04/14/2019 - 04/20/2019	0.99	0.89	0.97	0.99
17	04/21/2019 - 04/27/2019	0.99	0.89	0.97	0.99
18	04/28/2019 - 05/04/2019	0.99	0.89	0.97	0.99
19	05/05/2019 - 05/11/2019	0.99	0.89	0.97	0.99
20	05/12/2019 - 05/18/2019	0.99	0.89	0.97	0.99
21	05/19/2019 - 05/25/2019	0.99	0.89	0.97	0.99
22	05/26/2019 - 06/01/2019	0.99	0.89	0.97	0.99
23	06/02/2019 - 06/08/2019	0.99	0.89	0.97	0.99
24	06/09/2019 - 06/15/2019	0.99	0.89	0.97	0.99
25	06/16/2019 - 06/22/2019	0.99	0.89	0.97	0.99
26	06/23/2019 - 06/29/2019	0.99	0.89	0.97	0.99
27	06/30/2019 - 07/06/2019	0.99	0.89	0.97	0.99
28	07/07/2019 - 07/13/2019	0.99	0.89	0.97	0.99
29	07/14/2019 - 07/20/2019	0.99	0.89	0.97	0.99
30	07/21/2019 - 07/27/2019	0.99	0.89	0.97	0.99
31	07/28/2019 - 08/03/2019	0.99	0.89	0.97	0.99
32	08/04/2019 - 08/10/2019	0.99	0.89	0.97	0.99
33	08/11/2019 - 08/17/2019	0.99	0.89	0.97	0.99
34	08/18/2019 - 08/24/2019	0.99	0.89	0.97	0.99
35	08/25/2019 - 08/31/2019	0.99	0.89	0.97	0.99
36	09/01/2019 - 09/07/2019	0.99	0.89	0.97	0.99
37	09/08/2019 - 09/14/2019	0.99	0.89	0.97	0.99
38	09/15/2019 - 09/21/2019	0.99	0.89	0.97	0.99
39	09/22/2019 - 09/28/2019	0.99	0.89	0.97	0.99
40	09/29/2019 - 10/05/2019	0.99	0.89	0.97	0.99
41	10/06/2019 - 10/12/2019	0.99	0.89	0.97	0.99
42	10/13/2019 - 10/19/2019	0.99	0.89	0.97	0.99
43	10/20/2019 - 10/26/2019	0.99	0.89	0.97	0.99
44	10/27/2019 - 11/02/2019	0.99	0.90	0.97	0.99
45	11/03/2019 - 11/09/2019	0.99	0.90	0.97	0.99
46	11/10/2019 - 11/16/2019	0.99	0.90	0.97	0.99
47	11/17/2019 - 11/23/2019	0.99	0.90	0.97	0.99
48	11/24/2019 - 11/30/2019	0.99	0.90	0.97	0.99
49	12/01/2019 - 12/07/2019	0.99	0.90	0.97	0.99
50	12/08/2019 - 12/14/2019	0.99	0.90	0.97	0.99
51	12/15/2019 - 12/21/2019	0.99	0.90	0.97	0.99
52	12/22/2019 - 12/28/2019	0.99	0.90	0.97	0.99
53	12/29/2019 - 12/31/2019	0.99	0.89	0.97	0.99

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1409 US98, POLK - US 301	1410 SR54, US41 - PASCO R	1411 SR54, PASCO RD-CR581	1412 SR54, CR581 - US301
1	01/01/2019 - 01/05/2019	0.90	0.97	0.99	0.99
2	01/06/2019 - 01/12/2019	0.90	0.97	0.99	0.99
3	01/13/2019 - 01/19/2019	0.89	0.97	0.99	0.99
4	01/20/2019 - 01/26/2019	0.89	0.97	0.99	0.99
5	01/27/2019 - 02/02/2019	0.89	0.97	0.99	0.99
6	02/03/2019 - 02/09/2019	0.89	0.97	0.99	0.99
7	02/10/2019 - 02/16/2019	0.89	0.97	0.99	0.99
8	02/17/2019 - 02/23/2019	0.89	0.97	0.99	0.99
9	02/24/2019 - 03/02/2019	0.90	0.97	0.99	0.99
10	03/03/2019 - 03/09/2019	0.90	0.97	0.99	0.99
11	03/10/2019 - 03/16/2019	0.90	0.97	0.99	0.99
12	03/17/2019 - 03/23/2019	0.90	0.97	0.99	0.99
13	03/24/2019 - 03/30/2019	0.90	0.97	0.99	0.99
14	03/31/2019 - 04/06/2019	0.89	0.97	0.99	0.99
15	04/07/2019 - 04/13/2019	0.89	0.97	0.99	0.99
16	04/14/2019 - 04/20/2019	0.89	0.97	0.99	0.99
17	04/21/2019 - 04/27/2019	0.89	0.97	0.99	0.99
18	04/28/2019 - 05/04/2019	0.89	0.97	0.99	0.99
19	05/05/2019 - 05/11/2019	0.89	0.97	0.99	0.99
20	05/12/2019 - 05/18/2019	0.89	0.97	0.99	0.99
21	05/19/2019 - 05/25/2019	0.89	0.97	0.99	0.99
22	05/26/2019 - 06/01/2019	0.89	0.97	0.99	0.99
23	06/02/2019 - 06/08/2019	0.89	0.97	0.99	0.99
24	06/09/2019 - 06/15/2019	0.89	0.97	0.99	0.99
25	06/16/2019 - 06/22/2019	0.89	0.97	0.99	0.99
26	06/23/2019 - 06/29/2019	0.89	0.97	0.99	0.99
27	06/30/2019 - 07/06/2019	0.89	0.97	0.99	0.99
28	07/07/2019 - 07/13/2019	0.89	0.97	0.99	0.99
29	07/14/2019 - 07/20/2019	0.89	0.97	0.99	0.99
30	07/21/2019 - 07/27/2019	0.89	0.97	0.99	0.99
31	07/28/2019 - 08/03/2019	0.89	0.97	0.99	0.99
32	08/04/2019 - 08/10/2019	0.89	0.97	0.99	0.99
33	08/11/2019 - 08/17/2019	0.89	0.97	0.99	0.99
34	08/18/2019 - 08/24/2019	0.89	0.97	0.99	0.99
35	08/25/2019 - 08/31/2019	0.89	0.97	0.99	0.99
36	09/01/2019 - 09/07/2019	0.89	0.97	0.99	0.99
37	09/08/2019 - 09/14/2019	0.89	0.97	0.99	0.99
38	09/15/2019 - 09/21/2019	0.89	0.97	0.99	0.99
39	09/22/2019 - 09/28/2019	0.89	0.97	0.99	0.99
40	09/29/2019 - 10/05/2019	0.89	0.97	0.99	0.99
41	10/06/2019 - 10/12/2019	0.89	0.97	0.99	0.99
42	10/13/2019 - 10/19/2019	0.89	0.97	0.99	0.99
43	10/20/2019 - 10/26/2019	0.89	0.97	0.99	0.99
44	10/27/2019 - 11/02/2019	0.90	0.97	0.99	0.99
45	11/03/2019 - 11/09/2019	0.90	0.97	0.99	0.99
46	11/10/2019 - 11/16/2019	0.90	0.97	0.99	0.99
47	11/17/2019 - 11/23/2019	0.90	0.97	0.99	0.99
48	11/24/2019 - 11/30/2019	0.90	0.97	0.99	0.99
49	12/01/2019 - 12/07/2019	0.90	0.97	0.99	0.99
50	12/08/2019 - 12/14/2019	0.90	0.97	0.99	0.99
51	12/15/2019 - 12/21/2019	0.90	0.97	0.99	0.99
52	12/22/2019 - 12/28/2019	0.90	0.97	0.99	0.99
53	12/29/2019 - 12/31/2019	0.89	0.97	0.99	0.99

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1413 SR52, US19 - CR587	1414 SR52, CR587 - CR581	1415 SR52, CR581 - CR577	1416 SR52, CR577 - SR533
1	01/01/2019 - 01/05/2019	0.98	0.90	0.90	0.98
2	01/06/2019 - 01/12/2019	0.98	0.90	0.90	0.98
3	01/13/2019 - 01/19/2019	0.98	0.89	0.89	0.98
4	01/20/2019 - 01/26/2019	0.98	0.89	0.89	0.98
5	01/27/2019 - 02/02/2019	0.98	0.89	0.89	0.98
6	02/03/2019 - 02/09/2019	0.98	0.89	0.89	0.98
7	02/10/2019 - 02/16/2019	0.98	0.89	0.89	0.98
8	02/17/2019 - 02/23/2019	0.98	0.89	0.89	0.98
9	02/24/2019 - 03/02/2019	0.98	0.90	0.90	0.98
10	03/03/2019 - 03/09/2019	0.98	0.90	0.90	0.98
11	03/10/2019 - 03/16/2019	0.98	0.90	0.90	0.98
12	03/17/2019 - 03/23/2019	0.98	0.90	0.90	0.98
13	03/24/2019 - 03/30/2019	0.98	0.90	0.90	0.98
14	03/31/2019 - 04/06/2019	0.98	0.89	0.89	0.98
15	04/07/2019 - 04/13/2019	0.98	0.89	0.89	0.98
16	04/14/2019 - 04/20/2019	0.98	0.89	0.89	0.98
17	04/21/2019 - 04/27/2019	0.98	0.89	0.89	0.98
18	04/28/2019 - 05/04/2019	0.98	0.89	0.89	0.98
19	05/05/2019 - 05/11/2019	0.98	0.89	0.89	0.98
20	05/12/2019 - 05/18/2019	0.98	0.89	0.89	0.98
21	05/19/2019 - 05/25/2019	0.98	0.89	0.89	0.98
22	05/26/2019 - 06/01/2019	0.98	0.89	0.89	0.98
23	06/02/2019 - 06/08/2019	0.98	0.89	0.89	0.98
24	06/09/2019 - 06/15/2019	0.98	0.89	0.89	0.98
25	06/16/2019 - 06/22/2019	0.98	0.89	0.89	0.98
26	06/23/2019 - 06/29/2019	0.98	0.89	0.89	0.98
27	06/30/2019 - 07/06/2019	0.98	0.89	0.89	0.98
28	07/07/2019 - 07/13/2019	0.98	0.89	0.89	0.98
29	07/14/2019 - 07/20/2019	0.98	0.89	0.89	0.98
30	07/21/2019 - 07/27/2019	0.98	0.89	0.89	0.98
31	07/28/2019 - 08/03/2019	0.98	0.89	0.89	0.98
32	08/04/2019 - 08/10/2019	0.98	0.89	0.89	0.98
33	08/11/2019 - 08/17/2019	0.98	0.89	0.89	0.98
34	08/18/2019 - 08/24/2019	0.98	0.89	0.89	0.98
35	08/25/2019 - 08/31/2019	0.98	0.89	0.89	0.98
36	09/01/2019 - 09/07/2019	0.98	0.89	0.89	0.98
37	09/08/2019 - 09/14/2019	0.98	0.89	0.89	0.98
38	09/15/2019 - 09/21/2019	0.98	0.89	0.89	0.98
39	09/22/2019 - 09/28/2019	0.98	0.89	0.89	0.98
40	09/29/2019 - 10/05/2019	0.98	0.89	0.89	0.98
41	10/06/2019 - 10/12/2019	0.98	0.89	0.89	0.98
42	10/13/2019 - 10/19/2019	0.98	0.89	0.89	0.98
43	10/20/2019 - 10/26/2019	0.98	0.89	0.89	0.98
44	10/27/2019 - 11/02/2019	0.98	0.90	0.90	0.98
45	11/03/2019 - 11/09/2019	0.98	0.90	0.90	0.98
46	11/10/2019 - 11/16/2019	0.98	0.90	0.90	0.98
47	11/17/2019 - 11/23/2019	0.98	0.90	0.90	0.98
48	11/24/2019 - 11/30/2019	0.98	0.90	0.90	0.98
49	12/01/2019 - 12/07/2019	0.98	0.90	0.90	0.98
50	12/08/2019 - 12/14/2019	0.98	0.90	0.90	0.98
51	12/15/2019 - 12/21/2019	0.98	0.90	0.90	0.98
52	12/22/2019 - 12/28/2019	0.98	0.90	0.90	0.98
53	12/29/2019 - 12/31/2019	0.98	0.89	0.89	0.98

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1417 SR533, US301 - US301	1418 US41, HILLS - CR 583	1419 SR575, US301 - HERN	1420 SR54, US19 - GUNN HW
1	01/01/2019 - 01/05/2019	0.94	0.93	0.90	0.99
2	01/06/2019 - 01/12/2019	0.94	0.93	0.90	0.99
3	01/13/2019 - 01/19/2019	0.94	0.93	0.89	0.99
4	01/20/2019 - 01/26/2019	0.94	0.93	0.89	0.99
5	01/27/2019 - 02/02/2019	0.94	0.93	0.89	0.99
6	02/03/2019 - 02/09/2019	0.94	0.93	0.89	0.99
7	02/10/2019 - 02/16/2019	0.94	0.93	0.89	0.99
8	02/17/2019 - 02/23/2019	0.94	0.93	0.89	0.99
9	02/24/2019 - 03/02/2019	0.94	0.93	0.90	0.99
10	03/03/2019 - 03/09/2019	0.94	0.93	0.90	0.99
11	03/10/2019 - 03/16/2019	0.94	0.93	0.90	0.99
12	03/17/2019 - 03/23/2019	0.94	0.93	0.90	0.99
13	03/24/2019 - 03/30/2019	0.94	0.93	0.90	0.99
14	03/31/2019 - 04/06/2019	0.94	0.93	0.89	0.99
15	04/07/2019 - 04/13/2019	0.94	0.93	0.89	0.99
16	04/14/2019 - 04/20/2019	0.94	0.93	0.89	0.99
17	04/21/2019 - 04/27/2019	0.94	0.93	0.89	0.99
18	04/28/2019 - 05/04/2019	0.94	0.93	0.89	0.99
19	05/05/2019 - 05/11/2019	0.94	0.93	0.89	0.99
20	05/12/2019 - 05/18/2019	0.94	0.93	0.89	0.99
21	05/19/2019 - 05/25/2019	0.94	0.93	0.89	0.99
22	05/26/2019 - 06/01/2019	0.94	0.93	0.89	0.99
23	06/02/2019 - 06/08/2019	0.94	0.93	0.89	0.99
24	06/09/2019 - 06/15/2019	0.94	0.93	0.89	0.99
25	06/16/2019 - 06/22/2019	0.94	0.93	0.89	0.99
26	06/23/2019 - 06/29/2019	0.94	0.93	0.89	0.99
27	06/30/2019 - 07/06/2019	0.94	0.93	0.89	0.99
28	07/07/2019 - 07/13/2019	0.94	0.93	0.89	0.99
29	07/14/2019 - 07/20/2019	0.94	0.93	0.89	0.99
30	07/21/2019 - 07/27/2019	0.94	0.93	0.89	0.99
31	07/28/2019 - 08/03/2019	0.94	0.93	0.89	0.99
32	08/04/2019 - 08/10/2019	0.94	0.93	0.89	0.99
33	08/11/2019 - 08/17/2019	0.94	0.93	0.89	0.99
34	08/18/2019 - 08/24/2019	0.94	0.93	0.89	0.99
35	08/25/2019 - 08/31/2019	0.94	0.93	0.89	0.99
36	09/01/2019 - 09/07/2019	0.94	0.93	0.89	0.99
37	09/08/2019 - 09/14/2019	0.94	0.93	0.89	0.99
38	09/15/2019 - 09/21/2019	0.94	0.93	0.89	0.99
39	09/22/2019 - 09/28/2019	0.94	0.93	0.89	0.99
40	09/29/2019 - 10/05/2019	0.94	0.93	0.89	0.99
41	10/06/2019 - 10/12/2019	0.94	0.93	0.89	0.99
42	10/13/2019 - 10/19/2019	0.94	0.93	0.89	0.99
43	10/20/2019 - 10/26/2019	0.94	0.93	0.89	0.99
44	10/27/2019 - 11/02/2019	0.94	0.93	0.90	0.99
45	11/03/2019 - 11/09/2019	0.94	0.93	0.90	0.99
46	11/10/2019 - 11/16/2019	0.94	0.93	0.90	0.99
47	11/17/2019 - 11/23/2019	0.94	0.93	0.90	0.99
48	11/24/2019 - 11/30/2019	0.94	0.93	0.90	0.99
49	12/01/2019 - 12/07/2019	0.94	0.93	0.90	0.99
50	12/08/2019 - 12/14/2019	0.94	0.93	0.90	0.99
51	12/15/2019 - 12/21/2019	0.94	0.93	0.90	0.99
52	12/22/2019 - 12/28/2019	0.94	0.93	0.90	0.99
53	12/29/2019 - 12/31/2019	0.94	0.93	0.89	0.99

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1421 SR54, PLAYER - US 41	1422 US41, CR583 - HERN	1423 SR 700, US 301-PASCO	1424 SR 39, HILLS-US 301
1	01/01/2019 - 01/05/2019	0.98	0.90	0.90	0.89
2	01/06/2019 - 01/12/2019	0.98	0.90	0.90	0.89
3	01/13/2019 - 01/19/2019	0.98	0.89	0.89	0.89
4	01/20/2019 - 01/26/2019	0.98	0.89	0.89	0.89
5	01/27/2019 - 02/02/2019	0.98	0.89	0.89	0.89
6	02/03/2019 - 02/09/2019	0.98	0.89	0.89	0.89
7	02/10/2019 - 02/16/2019	0.98	0.89	0.89	0.89
8	02/17/2019 - 02/23/2019	0.98	0.89	0.89	0.89
9	02/24/2019 - 03/02/2019	0.98	0.90	0.90	0.89
10	03/03/2019 - 03/09/2019	0.98	0.90	0.90	0.89
11	03/10/2019 - 03/16/2019	0.98	0.90	0.90	0.89
12	03/17/2019 - 03/23/2019	0.98	0.90	0.90	0.89
13	03/24/2019 - 03/30/2019	0.98	0.90	0.90	0.89
14	03/31/2019 - 04/06/2019	0.98	0.89	0.89	0.89
15	04/07/2019 - 04/13/2019	0.98	0.89	0.89	0.89
16	04/14/2019 - 04/20/2019	0.98	0.89	0.89	0.89
17	04/21/2019 - 04/27/2019	0.98	0.89	0.89	0.89
18	04/28/2019 - 05/04/2019	0.98	0.89	0.89	0.89
19	05/05/2019 - 05/11/2019	0.98	0.89	0.89	0.89
20	05/12/2019 - 05/18/2019	0.98	0.89	0.89	0.89
21	05/19/2019 - 05/25/2019	0.98	0.89	0.89	0.89
22	05/26/2019 - 06/01/2019	0.98	0.89	0.89	0.89
23	06/02/2019 - 06/08/2019	0.98	0.89	0.89	0.89
24	06/09/2019 - 06/15/2019	0.98	0.89	0.89	0.89
25	06/16/2019 - 06/22/2019	0.98	0.89	0.89	0.89
26	06/23/2019 - 06/29/2019	0.98	0.89	0.89	0.89
27	06/30/2019 - 07/06/2019	0.98	0.89	0.89	0.89
28	07/07/2019 - 07/13/2019	0.98	0.89	0.89	0.89
29	07/14/2019 - 07/20/2019	0.98	0.89	0.89	0.89
30	07/21/2019 - 07/27/2019	0.98	0.89	0.89	0.89
31	07/28/2019 - 08/03/2019	0.98	0.89	0.89	0.89
32	08/04/2019 - 08/10/2019	0.98	0.89	0.89	0.89
33	08/11/2019 - 08/17/2019	0.98	0.89	0.89	0.89
34	08/18/2019 - 08/24/2019	0.98	0.89	0.89	0.89
35	08/25/2019 - 08/31/2019	0.98	0.89	0.89	0.89
36	09/01/2019 - 09/07/2019	0.98	0.89	0.89	0.89
37	09/08/2019 - 09/14/2019	0.98	0.89	0.89	0.89
38	09/15/2019 - 09/21/2019	0.98	0.89	0.89	0.89
39	09/22/2019 - 09/28/2019	0.98	0.89	0.89	0.89
40	09/29/2019 - 10/05/2019	0.98	0.89	0.89	0.89
41	10/06/2019 - 10/12/2019	0.98	0.89	0.89	0.89
42	10/13/2019 - 10/19/2019	0.98	0.89	0.89	0.89
43	10/20/2019 - 10/26/2019	0.98	0.89	0.89	0.89
44	10/27/2019 - 11/02/2019	0.98	0.90	0.90	0.89
45	11/03/2019 - 11/09/2019	0.98	0.90	0.90	0.89
46	11/10/2019 - 11/16/2019	0.98	0.90	0.90	0.89
47	11/17/2019 - 11/23/2019	0.98	0.90	0.90	0.89
48	11/24/2019 - 11/30/2019	0.98	0.90	0.90	0.89
49	12/01/2019 - 12/07/2019	0.98	0.90	0.90	0.89
50	12/08/2019 - 12/14/2019	0.98	0.90	0.90	0.89
51	12/15/2019 - 12/21/2019	0.98	0.90	0.90	0.89
52	12/22/2019 - 12/28/2019	0.98	0.90	0.90	0.89
53	12/29/2019 - 12/31/2019	0.98	0.89	0.89	0.89

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1425 PASCO EASTERN HPMS 1	1426 PASCO EASTERN HPMS 2	1427 PASCO CENTRAL HPMS	1428 PASCO WESTERN HPMS 1
1	01/01/2019 - 01/05/2019	0.90	0.90	0.90	0.90
2	01/06/2019 - 01/12/2019	0.90	0.90	0.90	0.90
3	01/13/2019 - 01/19/2019	0.89	0.89	0.89	0.89
4	01/20/2019 - 01/26/2019	0.89	0.89	0.89	0.89
5	01/27/2019 - 02/02/2019	0.89	0.89	0.89	0.89
6	02/03/2019 - 02/09/2019	0.89	0.89	0.89	0.89
7	02/10/2019 - 02/16/2019	0.89	0.89	0.89	0.89
8	02/17/2019 - 02/23/2019	0.89	0.89	0.89	0.89
9	02/24/2019 - 03/02/2019	0.90	0.90	0.90	0.90
10	03/03/2019 - 03/09/2019	0.90	0.90	0.90	0.90
11	03/10/2019 - 03/16/2019	0.90	0.90	0.90	0.90
12	03/17/2019 - 03/23/2019	0.90	0.90	0.90	0.90
13	03/24/2019 - 03/30/2019	0.90	0.90	0.90	0.90
14	03/31/2019 - 04/06/2019	0.89	0.89	0.89	0.89
15	04/07/2019 - 04/13/2019	0.89	0.89	0.89	0.89
16	04/14/2019 - 04/20/2019	0.89	0.89	0.89	0.89
17	04/21/2019 - 04/27/2019	0.89	0.89	0.89	0.89
18	04/28/2019 - 05/04/2019	0.89	0.89	0.89	0.89
19	05/05/2019 - 05/11/2019	0.89	0.89	0.89	0.89
20	05/12/2019 - 05/18/2019	0.89	0.89	0.89	0.89
21	05/19/2019 - 05/25/2019	0.89	0.89	0.89	0.89
22	05/26/2019 - 06/01/2019	0.89	0.89	0.89	0.89
23	06/02/2019 - 06/08/2019	0.89	0.89	0.89	0.89
24	06/09/2019 - 06/15/2019	0.89	0.89	0.89	0.89
25	06/16/2019 - 06/22/2019	0.89	0.89	0.89	0.89
26	06/23/2019 - 06/29/2019	0.89	0.89	0.89	0.89
27	06/30/2019 - 07/06/2019	0.89	0.89	0.89	0.89
28	07/07/2019 - 07/13/2019	0.89	0.89	0.89	0.89
29	07/14/2019 - 07/20/2019	0.89	0.89	0.89	0.89
30	07/21/2019 - 07/27/2019	0.89	0.89	0.89	0.89
31	07/28/2019 - 08/03/2019	0.89	0.89	0.89	0.89
32	08/04/2019 - 08/10/2019	0.89	0.89	0.89	0.89
33	08/11/2019 - 08/17/2019	0.89	0.89	0.89	0.89
34	08/18/2019 - 08/24/2019	0.89	0.89	0.89	0.89
35	08/25/2019 - 08/31/2019	0.89	0.89	0.89	0.89
36	09/01/2019 - 09/07/2019	0.89	0.89	0.89	0.89
37	09/08/2019 - 09/14/2019	0.89	0.89	0.89	0.89
38	09/15/2019 - 09/21/2019	0.89	0.89	0.89	0.89
39	09/22/2019 - 09/28/2019	0.89	0.89	0.89	0.89
40	09/29/2019 - 10/05/2019	0.89	0.89	0.89	0.89
41	10/06/2019 - 10/12/2019	0.89	0.89	0.89	0.89
42	10/13/2019 - 10/19/2019	0.89	0.89	0.89	0.89
43	10/20/2019 - 10/26/2019	0.89	0.89	0.89	0.89
44	10/27/2019 - 11/02/2019	0.90	0.90	0.90	0.90
45	11/03/2019 - 11/09/2019	0.90	0.90	0.90	0.90
46	11/10/2019 - 11/16/2019	0.90	0.90	0.90	0.90
47	11/17/2019 - 11/23/2019	0.90	0.90	0.90	0.90
48	11/24/2019 - 11/30/2019	0.90	0.90	0.90	0.90
49	12/01/2019 - 12/07/2019	0.90	0.90	0.90	0.90
50	12/08/2019 - 12/14/2019	0.90	0.90	0.90	0.90
51	12/15/2019 - 12/21/2019	0.90	0.90	0.90	0.90
52	12/22/2019 - 12/28/2019	0.90	0.90	0.90	0.90
53	12/29/2019 - 12/31/2019	0.89	0.89	0.89	0.89

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 14 - PASCO

WEEK	DATES	1429		1430		1431	
		PASCO	WESTERN	HPMS	COUNTY	WIDE	SR 56
1	01/01/2019 - 01/05/2019	0.90			0.98		0.90
2	01/06/2019 - 01/12/2019	0.90			0.98		0.90
3	01/13/2019 - 01/19/2019	0.89			0.98		0.89
4	01/20/2019 - 01/26/2019	0.89			0.98		0.89
5	01/27/2019 - 02/02/2019	0.89			0.98		0.89
6	02/03/2019 - 02/09/2019	0.89			0.98		0.89
7	02/10/2019 - 02/16/2019	0.89			0.98		0.89
8	02/17/2019 - 02/23/2019	0.89			0.98		0.90
9	02/24/2019 - 03/02/2019	0.90			0.98		0.92
10	03/03/2019 - 03/09/2019	0.90			0.98		0.93
11	03/10/2019 - 03/16/2019	0.90			0.98		0.94
12	03/17/2019 - 03/23/2019	0.90			0.98		0.93
13	03/24/2019 - 03/30/2019	0.90			0.98		0.92
14	03/31/2019 - 04/06/2019	0.89			0.98		0.91
15	04/07/2019 - 04/13/2019	0.89			0.98		0.90
16	04/14/2019 - 04/20/2019	0.89			0.98		0.89
17	04/21/2019 - 04/27/2019	0.89			0.98		0.89
18	04/28/2019 - 05/04/2019	0.89			0.98		0.89
19	05/05/2019 - 05/11/2019	0.89			0.98		0.89
20	05/12/2019 - 05/18/2019	0.89			0.98		0.89
21	05/19/2019 - 05/25/2019	0.89			0.98		0.89
22	05/26/2019 - 06/01/2019	0.89			0.98		0.89
23	06/02/2019 - 06/08/2019	0.89			0.98		0.89
24	06/09/2019 - 06/15/2019	0.89			0.98		0.89
25	06/16/2019 - 06/22/2019	0.89			0.98		0.89
26	06/23/2019 - 06/29/2019	0.89			0.98		0.89
27	06/30/2019 - 07/06/2019	0.89			0.98		0.89
28	07/07/2019 - 07/13/2019	0.89			0.98		0.89
29	07/14/2019 - 07/20/2019	0.89			0.98		0.89
30	07/21/2019 - 07/27/2019	0.89			0.98		0.89
31	07/28/2019 - 08/03/2019	0.89			0.98		0.89
32	08/04/2019 - 08/10/2019	0.89			0.98		0.89
33	08/11/2019 - 08/17/2019	0.89			0.98		0.89
34	08/18/2019 - 08/24/2019	0.89			0.98		0.89
35	08/25/2019 - 08/31/2019	0.89			0.98		0.89
36	09/01/2019 - 09/07/2019	0.89			0.98		0.89
37	09/08/2019 - 09/14/2019	0.89			0.98		0.89
38	09/15/2019 - 09/21/2019	0.89			0.98		0.89
39	09/22/2019 - 09/28/2019	0.89			0.98		0.89
40	09/29/2019 - 10/05/2019	0.89			0.98		0.89
41	10/06/2019 - 10/12/2019	0.89			0.98		0.89
42	10/13/2019 - 10/19/2019	0.89			0.98		0.89
43	10/20/2019 - 10/26/2019	0.89			0.98		0.89
44	10/27/2019 - 11/02/2019	0.90			0.98		0.90
45	11/03/2019 - 11/09/2019	0.90			0.98		0.90
46	11/10/2019 - 11/16/2019	0.90			0.98		0.90
47	11/17/2019 - 11/23/2019	0.90			0.98		0.90
48	11/24/2019 - 11/30/2019	0.90			0.98		0.90
49	12/01/2019 - 12/07/2019	0.90			0.98		0.90
50	12/08/2019 - 12/14/2019	0.90			0.98		0.90
51	12/15/2019 - 12/21/2019	0.90			0.98		0.90
52	12/22/2019 - 12/28/2019	0.90			0.98		0.90
53	12/29/2019 - 12/31/2019	0.89			0.98		0.89

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 1400 PASCO COUNTYWIDE

MOCF: 0.95
 PSCF

WEEK	DATES	SF	
=====			
1	01/01/2019 - 01/05/2019	0.98	1.03
2	01/06/2019 - 01/12/2019	1.00	1.05
3	01/13/2019 - 01/19/2019	1.03	1.08
4	01/20/2019 - 01/26/2019	1.01	1.06
5	01/27/2019 - 02/02/2019	1.00	1.05
* 6	02/03/2019 - 02/09/2019	0.98	1.03
* 7	02/10/2019 - 02/16/2019	0.97	1.02
* 8	02/17/2019 - 02/23/2019	0.96	1.01
* 9	02/24/2019 - 03/02/2019	0.95	1.00
*10	03/03/2019 - 03/09/2019	0.94	0.99
*11	03/10/2019 - 03/16/2019	0.93	0.98
*12	03/17/2019 - 03/23/2019	0.93	0.98
*13	03/24/2019 - 03/30/2019	0.94	0.99
*14	03/31/2019 - 04/06/2019	0.94	0.99
*15	04/07/2019 - 04/13/2019	0.95	1.00
*16	04/14/2019 - 04/20/2019	0.96	1.01
*17	04/21/2019 - 04/27/2019	0.97	1.02
*18	04/28/2019 - 05/04/2019	0.98	1.03
19	05/05/2019 - 05/11/2019	0.99	1.04
20	05/12/2019 - 05/18/2019	1.01	1.06
21	05/19/2019 - 05/25/2019	1.01	1.06
22	05/26/2019 - 06/01/2019	1.02	1.07
23	06/02/2019 - 06/08/2019	1.02	1.07
24	06/09/2019 - 06/15/2019	1.03	1.08
25	06/16/2019 - 06/22/2019	1.03	1.08
26	06/23/2019 - 06/29/2019	1.04	1.09
27	06/30/2019 - 07/06/2019	1.04	1.09
28	07/07/2019 - 07/13/2019	1.04	1.09
29	07/14/2019 - 07/20/2019	1.05	1.11
30	07/21/2019 - 07/27/2019	1.05	1.11
31	07/28/2019 - 08/03/2019	1.05	1.11
32	08/04/2019 - 08/10/2019	1.06	1.12
33	08/11/2019 - 08/17/2019	1.06	1.12
34	08/18/2019 - 08/24/2019	1.06	1.12
35	08/25/2019 - 08/31/2019	1.07	1.13
36	09/01/2019 - 09/07/2019	1.07	1.13
37	09/08/2019 - 09/14/2019	1.08	1.14
38	09/15/2019 - 09/21/2019	1.08	1.14
39	09/22/2019 - 09/28/2019	1.06	1.12
40	09/29/2019 - 10/05/2019	1.05	1.11
41	10/06/2019 - 10/12/2019	1.03	1.08
42	10/13/2019 - 10/19/2019	1.01	1.06
43	10/20/2019 - 10/26/2019	1.00	1.05
44	10/27/2019 - 11/02/2019	1.00	1.05
45	11/03/2019 - 11/09/2019	0.99	1.04
46	11/10/2019 - 11/16/2019	0.99	1.04
47	11/17/2019 - 11/23/2019	0.98	1.03
48	11/24/2019 - 11/30/2019	0.98	1.03
49	12/01/2019 - 12/07/2019	0.98	1.03
50	12/08/2019 - 12/14/2019	0.98	1.03
51	12/15/2019 - 12/21/2019	0.98	1.03
52	12/22/2019 - 12/28/2019	1.00	1.05
53	12/29/2019 - 12/31/2019	1.03	1.08

* PEAK SEASON

14-FEB-2020 15:39:31

830UPD

7_1400_PKSEASON.TXT

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 1475 PASCO I75

MOCF: 0.97
 PSCF

WEEK	DATES	SF	
=====			
1	01/01/2019 - 01/05/2019	0.96	0.99
2	01/06/2019 - 01/12/2019	1.01	1.04
3	01/13/2019 - 01/19/2019	1.05	1.08
4	01/20/2019 - 01/26/2019	1.04	1.07
5	01/27/2019 - 02/02/2019	1.03	1.06
6	02/03/2019 - 02/09/2019	1.01	1.04
7	02/10/2019 - 02/16/2019	1.00	1.03
* 8	02/17/2019 - 02/23/2019	0.99	1.02
* 9	02/24/2019 - 03/02/2019	0.97	1.00
*10	03/03/2019 - 03/09/2019	0.96	0.99
*11	03/10/2019 - 03/16/2019	0.94	0.97
*12	03/17/2019 - 03/23/2019	0.94	0.97
*13	03/24/2019 - 03/30/2019	0.95	0.98
*14	03/31/2019 - 04/06/2019	0.95	0.98
*15	04/07/2019 - 04/13/2019	0.96	0.99
*16	04/14/2019 - 04/20/2019	0.96	0.99
*17	04/21/2019 - 04/27/2019	0.97	1.00
*18	04/28/2019 - 05/04/2019	0.98	1.01
*19	05/05/2019 - 05/11/2019	0.99	1.02
*20	05/12/2019 - 05/18/2019	1.00	1.03
21	05/19/2019 - 05/25/2019	1.00	1.03
22	05/26/2019 - 06/01/2019	1.00	1.03
23	06/02/2019 - 06/08/2019	1.00	1.03
24	06/09/2019 - 06/15/2019	1.00	1.03
25	06/16/2019 - 06/22/2019	1.00	1.03
26	06/23/2019 - 06/29/2019	1.00	1.03
27	06/30/2019 - 07/06/2019	1.01	1.04
28	07/07/2019 - 07/13/2019	1.01	1.04
29	07/14/2019 - 07/20/2019	1.01	1.04
30	07/21/2019 - 07/27/2019	1.02	1.05
31	07/28/2019 - 08/03/2019	1.04	1.07
32	08/04/2019 - 08/10/2019	1.05	1.08
33	08/11/2019 - 08/17/2019	1.06	1.09
34	08/18/2019 - 08/24/2019	1.07	1.10
35	08/25/2019 - 08/31/2019	1.07	1.10
36	09/01/2019 - 09/07/2019	1.08	1.11
37	09/08/2019 - 09/14/2019	1.08	1.11
38	09/15/2019 - 09/21/2019	1.09	1.12
39	09/22/2019 - 09/28/2019	1.07	1.10
40	09/29/2019 - 10/05/2019	1.05	1.08
41	10/06/2019 - 10/12/2019	1.03	1.06
42	10/13/2019 - 10/19/2019	1.01	1.04
43	10/20/2019 - 10/26/2019	1.00	1.03
44	10/27/2019 - 11/02/2019	1.00	1.03
45	11/03/2019 - 11/09/2019	0.99	1.02
46	11/10/2019 - 11/16/2019	0.98	1.01
47	11/17/2019 - 11/23/2019	0.98	1.01
48	11/24/2019 - 11/30/2019	0.97	1.00
49	12/01/2019 - 12/07/2019	0.97	1.00
50	12/08/2019 - 12/14/2019	0.96	0.99
51	12/15/2019 - 12/21/2019	0.96	0.99
52	12/22/2019 - 12/28/2019	1.01	1.04
53	12/29/2019 - 12/31/2019	1.05	1.08

* PEAK SEASON

14-FEB-2020 15:39:31

830UPD

7_1475_PKSEASON.TXT

COUNTY: 16
 STATION: 1003
 DESCRIPTION: SR35/700/US 98 , NW OF SR 471 N OF LAKELAND
 START DATE: 01/15/2019
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL	
0000	3	8	13	8	32	8	5	9	6	28	60	
0100	8	8	4	8	28	9	8	5	6	28	56	
0200	7	8	9	5	29	6	7	7	5	25	54	
0300	9	3	9	8	29	13	11	13	10	47	76	
0400	13	17	16	18	64	21	9	19	32	81	145	
0500	32	29	50	62	173	47	58	63	65	233	406	
0600	47	79	74	65	265	65	92	82	70	309	574	
0700	70	83	96	87	336	73	111	108	90	382	718	
0800	79	78	70	89	316	92	94	80	79	345	661	
0900	92	97	69	63	321	68	77	73	65	283	604	
1000	82	73	67	68	290	57	83	71	63	274	564	
1100	61	74	66	71	272	88	103	69	49	309	581	
1200	73	71	67	78	289	72	77	64	58	271	560	
1300	90	83	89	86	348	65	90	88	69	312	660	
1400	80	75	96	85	336	97	70	77	42	286	622	
1500	68	97	91	103	359	69	85	95	89	338	697	
1600	116	99	80	107	402	88	76	86	93	343	745	
1700	112	99	114	110	435	99	136	110	74	419	854	
1800	98	93	73	53	317	79	63	79	46	267	584	
1900	55	47	42	48	192	46	29	45	39	159	351	
2000	47	33	37	29	146	31	35	20	19	105	251	
2100	26	30	26	36	118	25	14	16	23	78	196	
2200	21	18	17	16	72	24	12	15	10	61	133	
2300	12	20	15	9	56	10	8	16	12	46	102	

24-HOUR TOTALS: 5225 5029 10254

PEAK VOLUME INFORMATION											
DIRECTION: N				DIRECTION: S				COMBINED DIRECTIONS			
HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	830	348	715	401	715	746					
P.M.	1700	435	1645	438	1645	870					
DAILY	1700	435	1645	438	1645	870					

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 16 - POLK

SITE: 1003 - SR35/700/US 98, NW OF SR 471 N OF LAKELAND

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	9400 C	N 4800	S 4600	9.50	56.00	13.50
2018	10200 C	N 5200	S 5000	9.50	54.50	13.10
2017	8900 C	N 4300	S 4600	9.50	54.50	20.80
2016	8300 F	N 4200	S 4100	9.50	53.30	20.80
2015	7900 C	N 4000	S 3900	9.50	55.70	20.80
2014	7300 S	N 3700	S 3600	9.50	55.60	19.50
2013	7100 F	N 3600	S 3500	9.50	55.90	19.50
2012	7100 C	N 3600	S 3500	9.50	55.80	19.50
2011	8000 S	N 4000	S 4000	9.50	55.70	17.50
2010	8000 F	N 4000	S 4000	9.55	56.07	17.50
2009	8000 C	N 4000	S 4000	9.36	56.35	17.50
2008	7500 C	N 3700	S 3800	9.78	55.29	21.80
2007	8100 C	N 4000	S 4100	9.66	55.30	17.50
2006	8400 C	N 4200	S 4200	9.62	55.83	20.90
2005	7700 C	N 3800	S 3900	9.30	54.80	20.10
2004	8100 C	N 4000	S 4100	9.50	55.70	20.10

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

Start Date: 3/4/2021

Start Time: 7:00:00 AM & 4:00:00 PM

Site Code:

Comment 1: City/County: Dade City/Pasco

Comment 2: Weather: Clear

Comment 3:

Comment 4: Passenger Vehicles

Start Time	US 98 Southbound				US 98 Northbound				CR 54 Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	32	0	0	33	31	0	0	1	0	34	0
07:30 AM	0	42	4	0	47	36	0	0	0	0	58	0
07:45 AM	0	35	0	0	45	28	0	0	3	0	48	0
08:00 AM	0	41	2	0	29	41	0	0	1	0	37	0
08:15 AM	0	28	1	0	38	33	0	0	0	0	36	0
08:30 AM	0	37	1	0	32	33	0	0	0	0	30	0
08:45 AM	0	30	1	0	29	27	0	0	1	0	32	0
09:00 AM	0	26	0	0	51	29	0	0	0	0	18	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	44	1	0	45	39	0	0	2	0	63	0
04:30 PM	0	42	5	0	43	67	0	0	0	0	59	0
04:45 PM	0	48	1	0	59	43	0	0	2	0	63	0
05:00 PM	0	44	2	0	54	62	0	0	0	0	53	0
05:15 PM	0	55	1	0	54	45	0	0	1	0	69	0
05:30 PM	0	70	2	0	63	46	0	0	0	0	77	0
05:45 PM	0	53	1	0	63	67	0	0	1	0	58	0
06:00 PM	0	54	2	0	48	50	0	0	2	0	54	0

Start Date: 3/4/2021

Start Time: 7:00:00 AM & 4:00:00 PM

Site Code:

Comment 1: City/County: Dade City/Pasco

Comment 2: Weather: Clear

Comment 3:

Comment 4: Heavy vehicles

Start Time	US 98 Southbound				US 98 Northbound				CR 54 Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	12	0	0	9	12	0	0	0	0	10	0
07:30 AM	0	7	0	0	17	15	0	0	0	0	6	0
07:45 AM	0	5	1	0	8	9	0	0	0	0	5	0
08:00 AM	0	12	1	0	10	7	0	0	0	0	5	0
08:15 AM	0	8	0	0	11	6	0	0	1	0	8	0
08:30 AM	0	6	0	0	8	11	0	0	0	0	11	0
08:45 AM	0	11	0	0	8	8	0	0	0	0	7	0
09:00 AM	0	14	0	0	8	11	0	0	0	0	6	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	6	0	0	3	3	0	0	4	0	12	0
04:30 PM	0	4	0	0	4	5	0	0	0	0	4	0
04:45 PM	0	5	0	0	5	10	0	0	0	0	9	0
05:00 PM	0	4	0	0	5	10	0	0	0	0	5	0
05:15 PM	0	6	1	0	7	6	0	0	0	0	6	0
05:30 PM	0	7	0	0	4	6	0	0	0	0	3	0
05:45 PM	0	4	0	0	5	8	0	0	0	0	6	0
06:00 PM	0	9	0	0	3	6	0	0	0	0	4	0

Start Date: 3/4/2021

Start Time: 7:00:00 AM & 4:00:00 PM

Site Code:

Comment 1: City/County: Dade City/Pasco

Comment 2: Weather: Clear

Comment 3:

Comment 4: Motorcycles

Start Time	US 98 Southbound				US 98 Northbound				CR 54 Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
09:00 AM	0	0	0	0	0	1	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	0	0	1	0	0	0	0	0	0
05:00 PM	0	1	0	0	0	8	0	0	0	0	1	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	0	0	0	0	0	0	0	0
06:00 PM	0	2	0	0	0	1	0	0	0	0	1	0

Start Date: 3/4/2021

Start Time: 7:00:00 AM & 4:00:00 PM

Site Code:

Comment 1: City/County: Dade City/Pasco

Comment 2: Weather: Clear

Comment 3:

Comment 4: All Cars

Start Time	US 98				US 98				CR 54			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	32	0	0	33	31	0	0	1	0	34	0
07:30 AM	0	42	4	0	47	36	0	0	0	0	58	0
07:45 AM	0	35	0	0	45	28	0	0	3	0	48	0
08:00 AM	0	41	2	0	29	41	0	0	1	0	37	0
08:15 AM	0	28	1	0	38	33	0	0	0	0	38	0
08:30 AM	0	37	1	0	32	33	0	0	0	0	31	0
08:45 AM	0	30	1	0	29	27	0	0	1	0	33	0
09:00 AM	0	26	0	0	51	30	0	0	0	0	18	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	44	1	0	45	39	0	0	2	0	64	0
04:30 PM	0	42	5	0	43	67	0	0	0	0	59	0
04:45 PM	0	49	1	0	59	44	0	0	2	0	63	0
05:00 PM	0	45	2	0	54	70	0	0	0	0	54	0
05:15 PM	0	55	1	0	54	45	0	0	1	0	69	0
05:30 PM	0	70	2	0	63	46	0	0	0	0	77	0
05:45 PM	0	55	1	0	63	67	0	0	1	0	58	0
06:00 PM	0	56	2	0	48	51	0	0	2	0	55	0

Start Date: 3/4/2021
Start Time: 7:00:00 AM & 4:00:00 PM
Site Code:
Comment 1: City/County: Dade City/Pasco
Comment 2: Weather: Clear
Comment 3:
Comment 4: HT type:

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - UTurns

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Start Time													
07:00 AM	0	53	22	75	9	39	0	48	13	0	20	33	156
07:15 AM	0	44	17	61	10	56	0	66	16	0	15	31	158
07:30 AM	0	43	19	62	6	53	0	59	12	0	12	24	145
07:45 AM	0	42	18	60	8	59	0	67	20	0	11	31	158
Total	0	182	76	258	33	207	0	240	61	0	58	119	617
08:00 AM	0	33	18	51	20	44	0	64	24	0	3	27	142
08:15 AM	0	28	21	49	9	55	0	64	16	0	16	32	145
08:30 AM	0	52	21	73	10	51	0	61	21	0	13	34	168
08:45 AM	0	48	16	64	13	41	0	54	15	0	18	33	151
Total	0	161	76	237	52	191	0	243	76	0	50	126	606

*** BREAK ***

04:15 PM	0	49	20	69	7	63	0	70	15	0	16	31	170
04:30 PM	0	49	19	68	10	59	0	69	16	0	20	36	173
04:45 PM	0	46	16	62	7	54	0	61	28	0	15	43	166
Total	0	144	55	199	24	176	0	200	59	0	51	110	509
05:00 PM	0	78	17	95	11	61	0	72	12	0	10	22	189
05:15 PM	0	64	35	99	2	61	0	63	19	0	15	34	196
05:30 PM	0	59	21	80	10	81	0	91	21	0	16	37	208
05:45 PM	0	45	13	58	10	62	0	72	25	0	19	44	174
Total	0	246	86	332	33	265	0	298	77	0	60	137	767
06:00 PM	0	57	18	75	5	62	0	67	15	0	19	34	176
Grand Total	0	790	311	1101	147	901	0	1048	288	0	238	526	2675
Apprch %	0	71.8	28.2		14	86	0		54.8	0	45.2		
Total %	0	29.5	11.6	41.2	5.5	33.7	0	39.2	10.8	0	8.9	19.7	
Passenger Vehicles	0	674	263	937	118	790	0	908	228	0	190	418	2263
% Passenger Vehicles	0	85.3	84.6	85.1	80.3	87.7	0	86.6	79.2	0	79.8	79.5	84.6
Heavy Vehicles	0	116	48	164	29	111	0	140	58	0	48	106	410
% Heavy Vehicles	0	14.7	15.4	14.9	19.7	12.3	0	13.4	20.1	0	20.2	20.2	15.3
UTurns	0	0	0	0	0	0	0	0	2	0	0	2	2
% UTurns	0	0	0	0	0	0	0	0	0.7	0	0	0.4	0.1

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	53	22	75	9	39	0	48	13	0	20	33	156
07:15 AM	0	44	17	61	10	56	0	66	16	0	15	31	158
07:30 AM	0	43	19	62	6	53	0	59	12	0	12	24	145
07:45 AM	0	42	18	60	8	59	0	67	20	0	11	31	158
Total Volume	0	182	76	258	33	207	0	240	61	0	58	119	617
% App. Total	0	70.5	29.5		13.8	86.2	0		51.3	0	48.7		
PHF	.000	.858	.864	.860	.825	.877	.000	.896	.763	.000	.725	.902	.976
Passenger Vehicles	0	145	67	212	31	175	0	206	45	0	35	80	498
% Passenger Vehicles	0	79.7	88.2	82.2	93.9	84.5	0	85.8	73.8	0	60.3	67.2	80.7
Heavy Vehicles	0	37	9	46	2	32	0	34	14	0	23	37	117
% Heavy Vehicles	0	20.3	11.8	17.8	6.1	15.5	0	14.2	23.0	0	39.7	31.1	19.0
UTurns	0	0	0	0	0	0	0	0	2	0	0	2	2
% UTurns	0	0	0	0	0	0	0	0	3.3	0	0	1.7	0.3

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 2

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour Analysis From 04:15 PM to 06:00 PM - The Peak Hour for Entire Intersection Begins at 05:00 PM

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour Analysis From 04:15 PM to 06:00 PM
Peak Hour for Each Approach Begins at:

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Passenger Vehicles

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
07:00 AM	0	44	20	64	8	33	0	41	8	0	13	21	126
07:15 AM	0	35	15	50	9	45	0	54	13	0	9	22	126
07:30 AM	0	31	16	47	6	46	0	52	10	0	6	16	115
07:45 AM	0	35	16	51	8	51	0	59	14	0	7	21	131
Total	0	145	67	212	31	175	0	206	45	0	35	80	498
08:00 AM	0	27	15	42	10	34	0	44	20	0	3	23	109
08:15 AM	0	16	16	32	4	49	0	53	11	0	9	20	105
08:30 AM	0	39	18	57	4	41	0	45	15	0	6	21	123
08:45 AM	0	32	12	44	12	29	0	41	7	0	14	21	106
Total	0	114	61	175	30	153	0	183	53	0	32	85	443

*** BREAK ***

	04:15 PM	0	45	18	63	6	58	0	64	13	0	14	27	154
	04:30 PM	0	46	14	60	8	51	0	59	14	0	19	33	152
	04:45 PM	0	43	13	56	7	45	0	52	24	0	13	37	145
Total		0	134	45	179	21	154	0	175	51	0	46	97	451
05:00 PM	0	75	14	89	10	60	0	70	10	0	10	20	179	
05:15 PM	0	61	30	91	2	55	0	57	17	0	14	31	179	
05:30 PM	0	55	17	72	10	78	0	88	18	0	16	34	194	
05:45 PM	0	41	12	53	10	56	0	66	23	0	19	42	161	
Total		0	232	73	305	32	249	0	281	68	0	59	127	713
06:00 PM	0	49	17	66	4	59	0	63	11	0	18	29	158	
Grand Total		0	674	263	937	118	790	0	908	228	0	190	418	2263
Apprch %		0	71.9	28.1		13	87	0		54.5	0	45.5		
Total %		0	29.8	11.6	41.4	5.2	34.9	0	40.1	10.1	0	8.4	18.5	

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	44	20	64	8	33	0	41	8	0	13	21	126
07:15 AM	0	35	15	50	9	45	0	54	13	0	9	22	126
07:30 AM	0	31	16	47	6	46	0	52	10	0	6	16	115
07:45 AM	0	35	16	51	8	51	0	59	14	0	7	21	131
Total Volume	0	145	67	212	31	175	0	206	45	0	35	80	498
% App. Total	0	68.4	31.6		15	85	0		56.2	0	43.8		
PHF	.000	.824	.838	.828	.861	.858	.000	.873	.804	.000	.673	.909	.950

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM	07:15 AM	07:45 AM
+0 mins.	0	44	20
+15 mins.	0	35	15
+30 mins.	0	31	16
+45 mins.	0	35	16
Total Volume	0	145	67
% App. Total	0	68.4	31.6
PHF	.000	.824	.838
	.828	.861	.858
	.000	.000	.000

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

	05:00 PM	05:15 PM	05:30 PM	05:45 PM
05:00 PM	0	75	14	89
05:15 PM	0	61	30	91
05:30 PM	0	55	17	72
05:45 PM	0	41	12	53
Total Volume	0	232	73	305
% App. Total	0	76.1	23.9	
PHF	.000	.773	.608	.838
	.838	.800	.798	.000
	.000	.000	.000	

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 2

Start Time	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	43	13	56	10	60	0	70	17	0	14	31		
+15 mins.	0	75	14	89	2	55	0	57	18	0	16	34		
+30 mins.	0	61	30	91	10	78	0	88	23	0	19	42		
+45 mins.	0	55	17	72	10	56	0	66	11	0	18	29		
Total Volume	0	234	74	308	32	249	0	281	69	0	67	136		
% App. Total	0	76	24		11.4	88.6	0		50.7	0	49.3			
PHF	.000	.780	.617	.846	.800	.798	.000	.798	.750	.000	.882	.810		

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Heavy Vehicles

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total	
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM		0	9	2	11	1	6	0	7	3	0	7	10	28
07:15 AM		0	9	2	11	1	11	0	12	3	0	6	9	32
07:30 AM		0	12	3	15	0	7	0	7	2	0	6	8	30
07:45 AM		0	7	2	9	0	8	0	8	6	0	4	10	27
Total		0	37	9	46	2	32	0	34	14	0	23	37	117
08:00 AM		0	6	3	9	10	10	0	20	4	0	0	4	33
08:15 AM		0	12	5	17	5	6	0	11	5	0	7	12	40
08:30 AM		0	13	3	16	6	10	0	16	6	0	7	13	45
08:45 AM		0	16	4	20	1	12	0	13	8	0	4	12	45
Total		0	47	15	62	22	38	0	60	23	0	18	41	163

*** BREAK ***

	04:15 PM	0	4	2	6	1	5	0	6	2	0	2	4	16
	04:30 PM	0	3	5	8	2	8	0	10	2	0	1	3	21
	04:45 PM	0	3	3	6	0	9	0	9	4	0	2	6	21
Total		0	10	10	20	3	22	0	25	8	0	5	13	58
05:00 PM		0	3	3	6	1	1	0	2	2	0	0	2	10
05:15 PM		0	3	5	8	0	6	0	6	2	0	1	3	17
05:30 PM		0	4	4	8	0	3	0	3	3	0	0	3	14
05:45 PM		0	4	1	5	0	6	0	6	2	0	0	2	13
Total		0	14	13	27	1	16	0	17	9	0	1	10	54
06:00 PM		0	8	1	9	1	3	0	4	4	0	1	5	18
Grand Total		0	116	48	164	29	111	0	140	58	0	48	106	410
Apprch %		0	70.7	29.3		20.7	79.3	0		54.7	0	45.3		
Total %		0	28.3	11.7	40	7.1	27.1	0	34.1	14.1	0	11.7	25.9	

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total	
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 08:00 AM														
08:00 AM		0	6	3	9	10	10	0	20	4	0	0	4	33
08:15 AM		0	12	5	17	5	6	0	11	5	0	7	12	40
08:30 AM		0	13	3	16	6	10	0	16	6	0	7	13	45
08:45 AM		0	16	4	20	1	12	0	13	8	0	4	12	45
Total Volume		0	47	15	62	22	38	0	60	23	0	18	41	163
% App. Total		0	75.8	24.2		36.7	63.3	0		56.1	0	43.9		
PHF		.000	.734	.750	.775	.550	.792	.000	.750	.719	.000	.643	.788	.906

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM	08:00 AM	08:00 AM
+0 mins.	0	6	3
+15 mins.	0	12	5
+30 mins.	0	13	3
+45 mins.	0	16	4
Total Volume	0	47	15
% App. Total	0	75.8	24.2
PHF	.000	.734	.750
			.775

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

	04:30 PM	04:45 PM	05:00 PM	05:15 PM
04:30 PM	0	3	5	8
04:45 PM	0	3	3	6
05:00 PM	0	3	3	6
05:15 PM	0	3	5	8
Total Volume	0	12	16	28
% App. Total	0	42.9	57.1	
PHF	.000	1.00	.800	.875
				.375
				.667
				.000
				.675
				.625
				.500
				.583
				.821

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

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	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				Int. Total		
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	05:15 PM	0	3	5	8	04:15 PM	1	5	0	6	04:15 PM	2	0	2	4
+15 mins.		0	4	4	8		2	8	0	10		2	0	1	3
+30 mins.		0	4	1	5		0	9	0	9		4	0	2	6
+45 mins.		0	8	1	9		1	1	0	2		2	0	0	2
Total Volume		0	19	11	30		4	23	0	27		10	0	5	15
% App. Total		0	63.3	36.7		14.8	85.2	0			66.7	0	33.3		
PHF		.000	.594	.550	.833		.500	.639	.000	.675		.625	.000	.625	.625

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : OldHighway&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- UTurns														
	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total	
07:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	2	
*** BREAK ***														
Total	0	0	0	0	0	0	0	0	2	0	0	2	2	
*** BREAK ***														
Grand Total	0	0	0	0	0	0	0	0	2	0	0	2	2	
Apprch %	0	0	0	0	0	0	0	0	100	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	100	0	0	0	100	

	OLD LAKELAND HIGHWAY Southbound				OLD LAKELAND HIGHWAY Northbound				US 98 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	2
% App. Total	0	0	0	0	0	0	0	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	2	0	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2
% App. Total	0	0	0	0	0	0	0	0	100	0	0	100
PHE	000	000	000	000	000	000	000	000	250	000	000	250

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour Analysis From 04:15 PM to 06:00 PM - 10

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Intersection Pedestrian & Bicycle Count

Date: 5/8/19

Day: Wednesday

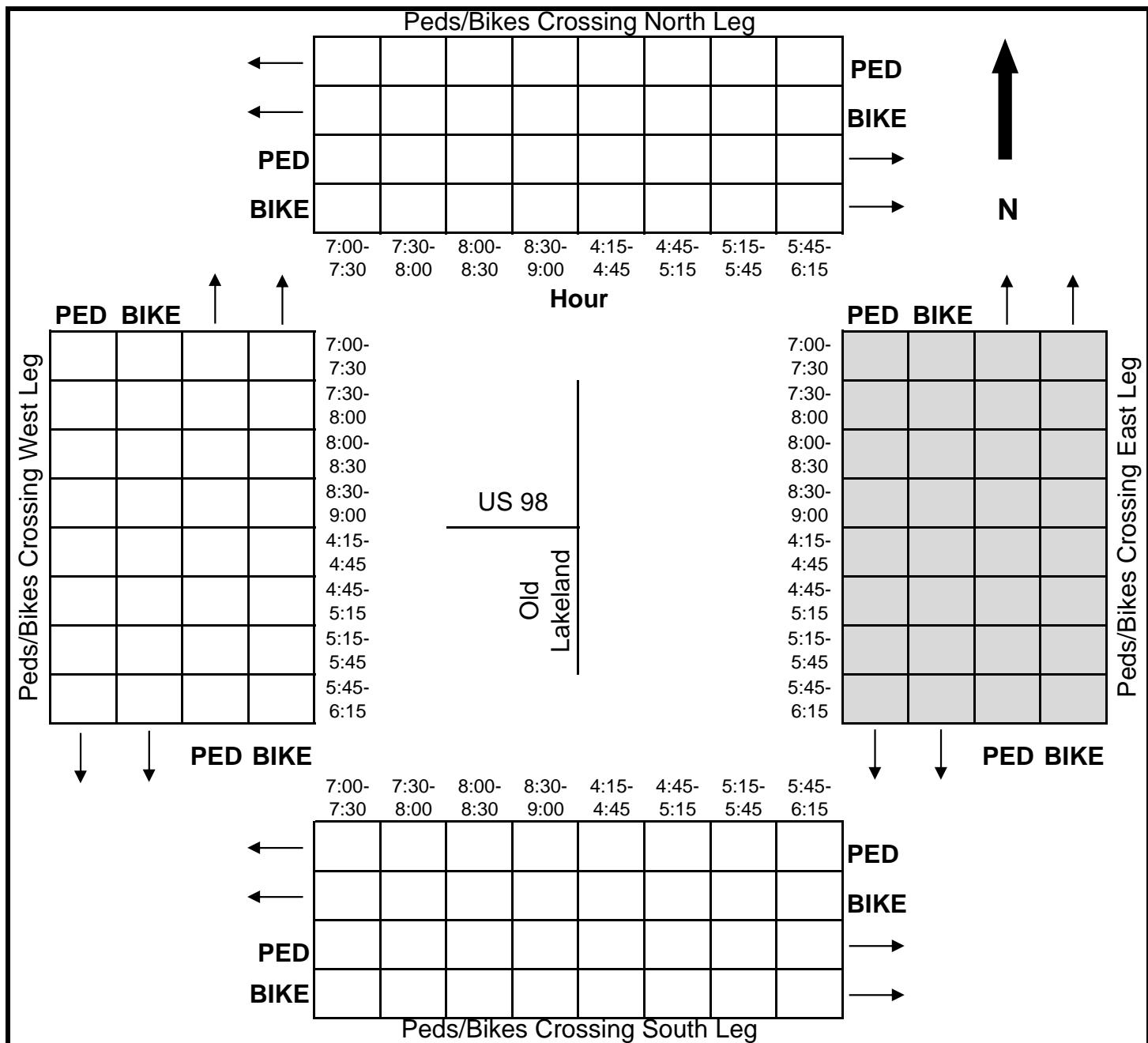
Count Times: 7-9am & 4:15-6:15pm

Weather: Clear

Intersection: Old Lakeland Highway at US 98

Comments: **NO PEDESTRIANS/BIKES CROSSED INTERSECTION DURING COUNT**

C - Children under 12; S - Seniors 65 or over; D - Physical Disability



Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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Groups Printed- Passenger Vehicles - Heavy Vehicles - UTurns

	US 301 Southbound				US 98 Westbound					US 301 Northbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	54	153	0	207	6	0	9	36	51	0	116	0	0	116	374
07:15 AM	61	177	0	238	5	0	7	34	46	0	154	3	5	162	446
07:30 AM	44	207	0	251	13	0	6	37	56	0	124	1	1	126	433
07:45 AM	38	208	0	246	11	0	9	37	57	0	172	0	2	174	477
Total	197	745	0	942	35	0	31	144	210	0	566	4	8	578	1730
08:00 AM	36	202	0	238	8	0	19	26	53	0	152	1	1	154	445
08:15 AM	37	197	0	234	16	0	8	27	51	0	171	4	4	179	464
08:30 AM	35	199	0	234	11	0	16	33	60	0	156	5	3	164	458
08:45 AM	34	202	0	236	14	0	15	32	61	0	153	5	0	158	455
Total	142	800	0	942	49	0	58	118	225	0	632	15	8	655	1822

*** BREAK ***

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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	US 301 Southbound				US 98 Westbound					US 301 Northbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour Analysis From 04:15 PM to 06:00 PM

Peak Hour for Each Approach Begins at:

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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Groups Printed- Passenger Vehicles

Start Time	US 301 Southbound				US 98 Westbound					US 301 Northbound					App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
07:00 AM	51	151	0	202	6	0	8	31	45	0	113	0	0	113	360	
07:15 AM	57	173	0	230	4	0	6	31	41	0	149	3	5	157	428	
07:30 AM	39	201	0	240	12	0	2	30	44	0	121	1	1	123	407	
07:45 AM	29	202	0	231	11	0	7	34	52	0	164	0	2	166	449	
Total	176	727	0	903	33	0	23	126	182	0	547	4	8	559	1644	
08:00 AM	29	194	0	223	7	0	16	21	44	0	147	1	1	149	416	
08:15 AM	34	185	0	219	14	0	7	27	48	0	156	4	4	164	431	
08:30 AM	26	190	0	216	11	0	13	28	52	0	149	5	3	157	425	
08:45 AM	28	189	0	217	14	0	14	28	56	0	144	5	0	149	422	
Total	117	758	0	875	46	0	50	104	200	0	596	15	8	619	1694	

*** BREAK ***

04:15 PM	47	161	0	208	6	0	6	34	46	0	241	3	4	248	502
04:30 PM	49	162	0	211	6	0	5	33	44	0	165	13	2	180	435
04:45 PM	54	155	0	209	4	0	13	29	46	0	188	6	3	197	452
Total	150	478	0	628	16	0	24	96	136	0	594	22	9	625	1389
05:00 PM	50	196	0	246	9	0	8	33	50	0	216	4	3	223	519
05:15 PM	41	223	0	264	13	0	27	34	74	0	239	12	2	253	591
05:30 PM	49	152	0	201	8	0	21	19	48	0	219	8	3	230	479
05:45 PM	54	149	0	203	2	0	14	37	53	0	201	9	3	213	469
Total	194	720	0	914	32	0	70	123	225	0	875	33	11	919	2058
06:00 PM	33	129	0	162	9	0	6	19	34	0	169	6	7	182	378
Grand Total	670	2812	0	3482	136	0	173	468	777	0	2781	80	43	2904	7163
Apprch %	19.2	80.8	0		17.5	0	22.3	60.2		0	95.8	2.8	1.5		
Total %	9.4	39.3	0	48.6	1.9	0	2.4	6.5	10.8	0	38.8	1.1	0.6	40.5	

Start Time	US 301 Southbound				US 98 Westbound					US 301 Northbound					App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:45 AM																
07:45 AM	29	202	0	231	11	0	7	34	52	0	164	0	2	166	449	
08:00 AM	29	194	0	223	7	0	16	21	44	0	147	1	1	149	416	
08:15 AM	34	185	0	219	14	0	7	27	48	0	156	4	4	164	431	
08:30 AM	26	190	0	216	11	0	13	28	52	0	149	5	3	157	425	
Total Volume	118	771	0	889	43	0	43	110	196	0	616	10	10	636	1721	
% App. Total	13.3	86.7	0		21.9	0	21.9	56.1		0	96.9	1.6	1.6			
PHF	.868	.954	.000	.962	.768	.000	.672	.809	.942	.000	.939	.500	.625	.958	.958	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

+0 mins.	07:15 AM	57	173	0	230	7	0	16	21	44	0	164	0	2	166
+15 mins.		39	201	0	240	14	0	7	27	48	0	147	1	1	149
+30 mins.		29	202	0	231	11	0	13	28	52	0	156	4	4	164
+45 mins.		29	194	0	223	14	0	14	28	56	0	149	5	3	157
Total Volume		154	770	0	924	46	0	50	104	200	0	616	10	10	636
% App. Total		16.7	83.3	0		23	0	25	52		0	96.9	1.6	1.6	
PHF		.675	.953	.000	.963	.821	.000	.781	.929	.893	.000	.939	.500	.625	.958

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	07:45 AM	50	196	0	246	9	0	8	33	50	0	216	4	3	223
05:15 PM		41	223	0	264	13	0	27	34	74	0	239	12	2	253
05:30 PM		49	152	0	201	8	0	21	19	48	0	219	8	3	230
05:45 PM		54	149	0	203	2	0	14	37	53	0	201	9	3	213
Total Volume		194	720	0	914	32	0	70	123	225	0	875	33	11	919
% App. Total		21.2	78.8	0		14.2	0	31.1	54.7		0	95.2	3.6	1.2	
PHF		.898	.807	.000	.866	.615	.000	.648	.831	.760	.000	.915	.688	.917	.908

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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Start Time	US 301 Southbound				US 98 Westbound				US 301 Northbound				App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR		

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				05:00 PM				05:00 PM					
+0 mins.	49	162	0	211	9	0	8	33	50	0	216	4	3	223
+15 mins.	54	155	0	209	13	0	27	34	74	0	239	12	2	253
+30 mins.	50	196	0	246	8	0	21	19	48	0	219	8	3	230
+45 mins.	41	223	0	264	2	0	14	37	53	0	201	9	3	213
Total Volume	194	736	0	930	32	0	70	123	225	0	875	33	11	919
% App. Total	20.9	79.1	0		14.2	0	31.1	54.7		0	95.2	3.6	1.2	
PHF	.898	.825	.000	.881	.615	.000	.648	.831	.760	.000	.915	.688	.917	.908

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Heavy Vehicles

Start Time	US 301 Southbound				US 98 Westbound					US 301 Northbound					App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
07:00 AM	2	2	0	4	0	0	1	5	6	0	3	0	0	3	13	
07:15 AM	4	4	0	8	1	0	1	3	5	0	5	0	0	5	18	
07:30 AM	5	6	0	11	1	0	4	7	12	0	3	0	0	3	26	
07:45 AM	7	6	0	13	0	0	2	3	5	0	8	0	0	8	26	
Total	18	18	0	36	2	0	8	18	28	0	19	0	0	19	83	
08:00 AM	6	8	0	14	1	0	3	5	9	0	5	0	0	5	28	
08:15 AM	1	12	0	13	2	0	1	0	3	0	15	0	0	15	31	
08:30 AM	8	9	0	17	0	0	3	5	8	0	7	0	0	7	32	
08:45 AM	6	13	0	19	0	0	1	4	5	0	9	0	0	9	33	
Total	21	42	0	63	3	0	8	14	25	0	36	0	0	36	124	

*** BREAK ***

04:15 PM	4	4	0	8	0	0	1	1	2	0	6	0	0	6	16	
04:30 PM	2	5	0	7	0	0	2	0	2	0	3	2	0	5	14	
04:45 PM	6	7	0	13	2	0	3	0	5	0	7	1	0	8	26	
Total	12	16	0	28	2	0	6	1	9	0	16	3	0	19	56	
05:00 PM	4	2	0	6	1	0	0	1	2	0	3	0	0	3	11	
05:15 PM	1	4	0	5	0	0	2	1	3	0	3	0	0	3	11	
05:30 PM	0	5	0	5	0	0	0	2	2	0	0	0	0	0	7	
05:45 PM	2	7	0	9	1	0	2	1	4	0	3	0	0	3	16	
Total	7	18	0	25	2	0	4	5	11	0	9	0	0	9	45	
06:00 PM	5	3	0	8	0	0	0	4	4	0	0	0	0	0	12	
Grand Total	63	97	0	160	9	0	26	42	77	0	80	3	0	83	320	
Apprch %	39.4	60.6	0		11.7	0	33.8	54.5		0	96.4	3.6	0			
Total %	19.7	30.3	0	50	2.8	0	8.1	13.1	24.1	0	25	0.9	0	25.9		

Start Time	US 301 Southbound				US 98 Westbound					US 301 Northbound					App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 08:00 AM																
08:00 AM	6	8	0	14	1	0	3	5	9	0	5	0	0	5	28	
08:15 AM	1	12	0	13	2	0	1	0	3	0	15	0	0	15	31	
08:30 AM	8	9	0	17	0	0	3	5	8	0	7	0	0	7	32	
08:45 AM	6	13	0	19	0	0	1	4	5	0	9	0	0	9	33	
Total Volume	21	42	0	63	3	0	8	14	25	0	36	0	0	36	124	
% App. Total	33.3	66.7	0		12	0	32	56		0	100	0	0			
PHF	.656	.808	.000	.829	.375	.000	.667	.700	.694	.000	.600	.000	.000	.600	.939	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

+0 mins.	08:00 AM	6	8	0	14	1	0	1	3	5	0	5	0	0	5	28
+15 mins.		1	12	0	13	1	0	4	7	12	0	15	0	0	15	31
+30 mins.		8	9	0	17	0	0	2	3	5	0	7	0	0	7	32
+45 mins.		6	13	0	19	1	0	3	5	9	0	9	0	0	9	33
Total Volume		21	42	0	63	3	0	10	18	31	0	36	0	0	36	124
% App. Total		33.3	66.7	0		9.7	0	32.3	58.1		0	100	0	0		
PHF		.656	.808	.000	.829	.750	.000	.625	.643	.646	.000	.600	.000	.000	.600	.644

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	4	4	0	8	0	0	1	1	2	0	6	0	0	6	16
04:30 PM	2	5	0	7	0	0	2	0	2	0	3	2	0	5	14
04:45 PM	6	7	0	13	2	0	3	0	5	0	7	1	0	8	26
05:00 PM	4	2	0	6	1	0	0	1	2	0	3	0	0	3	11
Total Volume	16	18	0	34	3	0	6	2	11	0	19	3	0	22	67
% App. Total	47.1	52.9	0		27.3	0	54.5	18.2		0	86.4	13.6	0		
PHF	.667	.643	.000	.654	.375	.000	.500	.500	.550	.000	.679	.375	.000	.688	

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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Start Time	US 301 Southbound				US 98 Westbound				US 301 Northbound				App. Total	Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR		

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				05:15 PM				04:15 PM					
+0 mins.	4	4	0	8	0	0	2	1	3	0	6	0	0	6
+15 mins.	2	5	0	7	0	0	0	2	2	0	3	2	0	5
+30 mins.	6	7	0	13	1	0	2	1	4	0	7	1	0	8
+45 mins.	4	2	0	6	0	0	0	4	4	0	3	0	0	3
Total Volume	16	18	0	34	1	0	4	8	13	0	19	3	0	22
% App. Total	47.1	52.9	0		7.7	0	30.8	61.5		0	86.4	13.6	0	
PHF	.667	.643	.000	.654	.250	.000	.500	.500	.813	.000	.679	.375	.000	.688

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

File Name : 00001
Site Code : 19002

Start Date : 5/8/2019

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour Analysis From 07:00 AM to 08:45 AM -
Peak Hour for Each Approach Begins at:

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&US98

Site Code : 19002

Start Date : 5/8/2019

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	US 301 Southbound				US 98 Westbound					US 301 Northbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Intersection Pedestrian & Bicycle Count

Date: 5/8/19

Day: Wednesday

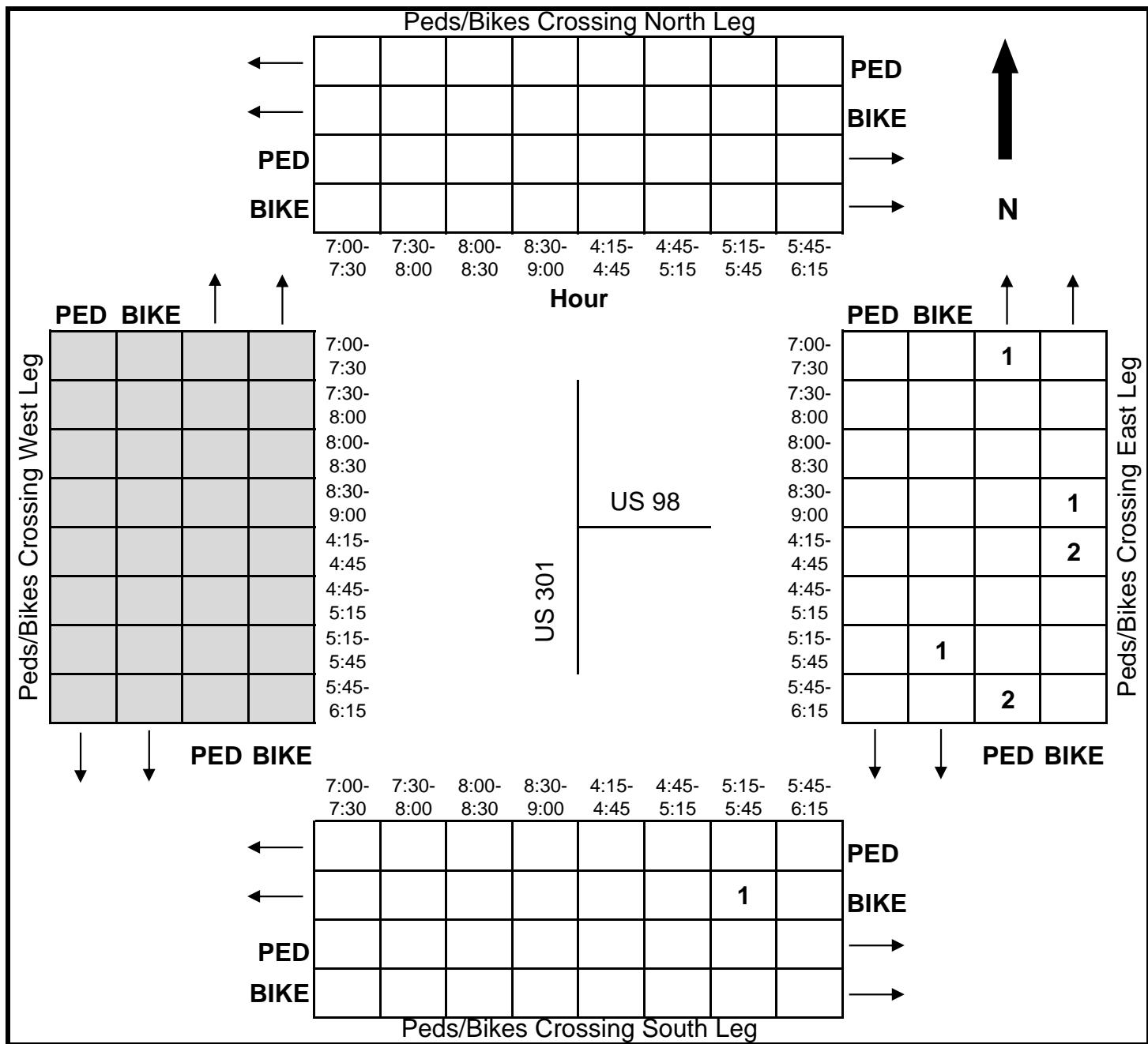
Count Times: 7-9am & 4:15-6:15pm

Weather: Clear

Intersection: US 301 at US 98

Comments:

C - Children under 12; S - Seniors 65 or over; D - Physical Disability



Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - UTurns

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	3	98	5	6	112	2	30	5	2	39	79	87	5	2	173	36	17	13	64	130	454
07:15 AM	2	126	9	8	145	12	20	1	4	37	81	106	1	5	193	46	19	27	72	164	539
07:30 AM	4	147	18	14	183	10	19	2	4	35	42	131	6	0	179	50	18	30	65	163	560
07:45 AM	1	147	14	10	172	14	27	5	5	51	60	145	9	2	216	55	22	12	61	150	589
Total	10	518	46	38	612	38	96	13	15	162	262	469	21	9	761	187	76	82	262	607	2142
08:00 AM	1	114	17	9	141	13	15	5	1	34	74	125	5	3	207	55	19	25	79	178	560
08:15 AM	7	134	12	18	171	12	15	2	5	34	68	112	11	2	193	56	7	21	69	153	551
08:30 AM	9	147	17	12	185	12	9	6	5	32	68	140	6	2	216	32	21	10	56	119	552
08:45 AM	3	138	10	16	167	18	16	5	3	42	63	121	8	5	197	54	16	12	54	136	542
Total	20	533	56	55	664	55	55	18	14	142	273	498	30	12	813	197	63	68	258	586	2205

*** BREAK ***

04:15 PM	5	121	18	28	172	21	22	5	7	55	103	167	25	4	299	66	24	15	51	156	682
04:30 PM	8	132	31	20	191	13	19	5	3	40	63	143	9	1	216	49	31	13	63	156	603
04:45 PM	12	136	17	20	185	19	35	10	5	69	88	148	12	2	250	55	30	14	56	155	659
Total	25	389	66	68	548	53	76	20	15	164	254	458	46	7	765	170	85	42	170	467	1944
05:00 PM	5	169	30	32	236	22	36	11	0	69	86	173	11	3	273	56	29	15	51	151	729
05:15 PM	3	169	22	31	225	21	31	3	4	59	86	174	15	5	280	43	33	14	65	155	719
05:30 PM	5	126	17	27	175	12	31	0	6	49	87	163	14	10	274	42	27	16	49	134	632
05:45 PM	6	104	25	20	155	16	42	5	2	65	78	165	16	3	262	59	32	17	47	155	637
Total	19	568	94	110	791	71	140	19	12	242	337	675	56	21	1089	200	121	62	212	595	2717
06:00 PM	5	106	22	21	154	13	29	7	5	54	60	125	11	5	201	44	19	7	49	119	528
Grand Total	79	2114	284	292	2769	230	396	77	61	764	1186	2225	164	54	3629	798	364	261	951	2374	9536
Apprch %	2.9	76.3	10.3	10.5		30.1	51.8	10.1	8		32.7	61.3	4.5	1.5		33.6	15.3	11	40.1		
Total %	0.8	22.2	3	3.1	29	2.4	4.2	0.8	0.6	8	12.4	23.3	1.7	0.6	38.1	8.4	3.8	2.7	10	24.9	
Passenger Vehicles	74	2021	280	286	2661	209	368	76	59	712	1076	2132	156	51	3415	726	335	246	912	2219	9007
% Passenger Vehicles	93.7	95.6	98.6	97.9	96.1	90.9	92.9	98.7	96.7	93.2	90.7	95.8	95.1	94.4	94.1	91	92	94.3	95.9	93.5	94.5
Heavy Vehicles	1	93	4	6	104	15	28	1	2	46	42	93	8	3	146	13	29	15	39	96	392
% Heavy Vehicles	1.3	4.4	1.4	2.1	3.8	6.5	7.1	1.3	3.3	6	3.5	4.2	4.9	5.6	4	1.6	8	5.7	4.1	4	4.1
UTurns	4	0	0	0	4	6	0	0	0	6	68	0	0	0	68	59	0	0	0	59	137
% UTurns	5.1	0	0	0	0.1	2.6	0	0	0	0.8	5.7	0	0	0	1.9	7.4	0	0	0	2.5	1.4

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

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Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	4	147	18	14	183	10	19	2	4	35	42	131	6	0	179	50	18	30	65	163	560
07:45 AM	1	147	14	10	172	14	27	5	5	51	60	145	9	2	216	55	22	12	61	150	589
08:00 AM	1	114	17	9	141	13	15	5	1	34	74	125	5	3	207	55	19	25	79	178	560
08:15 AM	7	134	12	18	171	12	15	2	5	34	68	112	11	2	193	56	7	21	69	153	551
Total Volume	13	542	61	51	667	49	76	14	15	154	244	513	31	7	795	216	66	88	274	644	2260
% App. Total	1.9	81.3	9.1	7.6		31.8	49.4	9.1	9.7		30.7	64.5	3.9	0.9		33.5	10.2	13.7	42.5		
PHF	.464	.922	.847	.708	.911	.875	.704	.700	.750	.755	.824	.884	.705	.583	.920	.964	.750	.733	.867	.904	.959
Passenger Vehicles	12	516	60	49	637	46	59	14	14	133	212	485	26	6	729	206	59	84	259	608	2107
% Passenger Vehicles	92.3	95.2	98.4	96.1	95.5	93.9	77.6	100	93.3	86.4	86.9	94.5	83.9	85.7	91.7	95.4	89.4	95.5	94.5	94.4	93.2
Heavy Vehicles	1	26	1	2	30	3	17	0	1	21	20	28	5	1	54	2	7	4	15	28	133
% Heavy Vehicles	7.7	4.8	1.6	3.9	4.5	6.1	22.4	0	6.7	13.6	8.2	5.5	16.1	14.3	6.8	0.9	10.6	4.5	5.5	4.3	5.9
UTurns	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12	8	0	0	0	8	20
% UTurns	0	0	0	0	0	0	0	0	0	0	4.9	0	0	0	1.5	3.7	0	0	0	1.2	0.9

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					07:00 AM					07:45 AM					07:15 AM				
+0 mins.	1	147	14	10	172	2	30	5	2	39	60	145	9	2	216	46	19	27	72	164
+15 mins.	1	114	17	9	141	12	20	1	4	37	74	125	5	3	207	50	18	30	65	163
+30 mins.	7	134	12	18	171	10	19	2	4	35	68	112	11	2	193	55	22	12	61	150
+45 mins.	9	147	17	12	185	14	27	5	5	51	68	140	6	2	216	55	19	25	79	178
Total Volume	18	542	60	49	669	38	96	13	15	162	270	522	31	9	832	206	78	94	277	655
% App. Total	2.7	81	9	7.3		23.5	59.3	8	9.3		32.5	62.7	3.7	1.1		31.5	11.9	14.4	42.3	
PHF	.500	.922	.882	.681	.904	.679	.800	.650	.750	.794	.912	.900	.705	.750	.963	.936	.886	.783	.877	.920
Passenger Vehicles	16	512	59	46	633	36	83	13	15	147	238	491	26	8	763	199	68	86	263	616
% Passenger Vehicles	88.9	94.5	98.3	93.9	94.6	94.7	86.5	100	100	90.7	88.1	94.1	83.9	88.9	91.7	96.6	87.2	91.5	94.9	94
Heavy Vehicles	0	30	1	3	34	2	13	0	0	15	18	31	5	1	55	3	10	8	14	35
% Heavy Vehicles	0	5.5	1.7	6.1	5.1	5.3	13.5	0	0	9.3	6.7	5.9	16.1	11.1	6.6	1.5	12.8	8.5	5.1	5.3
UTurns	2	0	0	0	2	0	0	0	0	0	14	0	0	0	14	4	0	0	0	4
% UTurns	11.1	0	0	0	0.3	0	0	0	0	0	5.2	0	0	0	1.7	1.9	0	0	0	0.6

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

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Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	12	136	17	20	185	19	35	10	5	69	88	148	12	2	250	55	30	14	56	155	659
05:00 PM	5	169	30	32	236	22	36	11	0	69	86	173	11	3	273	56	29	15	51	151	729
05:15 PM	3	169	22	31	225	21	31	3	4	59	86	174	15	5	280	43	33	14	65	155	719
05:30 PM	5	126	17	27	175	12	31	0	6	49	87	163	14	10	274	42	27	16	49	134	632
Total Volume	25	600	86	110	821	74	133	24	15	246	347	658	52	20	1077	196	119	59	221	595	2739
% App. Total	3	73.1	10.5	13.4		30.1	54.1	9.8	6.1		32.2	61.1	4.8	1.9		32.9	20	9.9	37.1		
PHF	.521	.888	.717	.859	.870	.841	.924	.545	.625	.891	.986	.945	.867	.500	.962	.875	.902	.922	.850	.960	.939
Passenger Vehicles	24	583	85	110	802	71	130	24	15	240	317	645	51	20	1033	169	111	57	216	553	2628
% Passenger Vehicles	96.0	97.2	98.8	100	97.7	95.9	97.7	100	100	97.6	91.4	98.0	98.1	100	95.9	86.2	93.3	96.6	97.7	92.9	95.9
Heavy Vehicles	0	17	1	0	18	1	3	0	0	4	7	13	1	0	21	1	8	2	5	16	59
% Heavy Vehicles	0	2.8	1.2	0	2.2	1.4	2.3	0	0	1.6	2.0	2.0	1.9	0	1.9	0.5	6.7	3.4	2.3	2.7	2.2
UTurns	1	0	0	0	1	2	0	0	0	2	23	0	0	0	23	26	0	0	0	26	52
% UTurns	4.0	0	0	0	0.1	2.7	0	0	0	0.8	6.6	0	0	0	2.1	13.3	0	0	0	4.4	1.9
Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:45 PM					05:00 PM					04:15 PM					
+0 mins.	8	132	31	20	191	19	35	10	5	69	86	173	11	3	273	66	24	15	51	156	
+15 mins.	12	136	17	20	185	22	36	11	0	69	86	174	15	5	280	49	31	13	63	156	
+30 mins.	5	169	30	32	236	21	31	3	4	59	87	163	14	10	274	55	30	14	56	155	
+45 mins.	3	169	22	31	225	12	31	0	6	49	78	165	16	3	262	56	29	15	51	151	
Total Volume	28	606	100	103	837	74	133	24	15	246	337	675	56	21	1089	226	114	57	221	618	
% App. Total	3.3	72.4	11.9	12.3		30.1	54.1	9.8	6.1		30.9	62	5.1	1.9		36.6	18.4	9.2	35.8		
PHF	.583	.896	.806	.805	.887	.841	.924	.545	.625	.891	.968	.970	.875	.525	.972	.856	.919	.950	.877	.990	
Passenger Vehicles	28	590	98	102	818	71	130	24	15	240	312	662	55	21	1050	196	107	54	214	571	
% Passenger Vehicles	100	97.4	98	99	97.7	95.9	97.7	100	100	97.6	92.6	98.1	98.2	100	96.4	86.7	93.9	94.7	96.8	92.4	
Heavy Vehicles	0	16	2	1	19	1	3	0	0	4	4	13	1	0	18	4	7	3	7	21	
% Heavy Vehicles	0	2.6	2	1	2.3	1.4	2.3	0	0	1.6	1.2	1.9	1.8	0	1.7	1.8	6.1	5.3	3.2	3.4	
UTurns	0	0	0	0	0	2	0	0	0	2	21	0	0	0	21	26	0	0	0	26	
% UTurns	0	0	0	0	0	2.7	0	0	0	0.8	6.2	0	0	0	1.9	11.5	0	0	0	4.2	

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

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Groups Printed- Passenger Vehicles

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	3	98	5	5	111	2	30	5	2	39	71	82	4	2	159	32	13	13	60	118	427
07:15 AM	2	120	9	8	139	11	20	1	4	36	76	100	1	5	182	44	16	23	70	153	510
07:30 AM	3	142	18	14	177	9	15	2	4	30	33	124	6	0	163	49	15	30	63	157	527
07:45 AM	1	142	14	10	167	14	18	5	5	42	55	136	8	2	201	55	20	11	55	141	551
Total	9	502	46	37	594	36	83	13	15	147	235	442	19	9	705	180	64	77	248	569	2015
08:00 AM	1	109	17	9	136	12	13	5	1	31	65	116	4	3	188	51	17	22	75	165	520
08:15 AM	7	123	11	16	157	11	13	2	4	30	59	109	8	1	177	51	7	21	66	145	509
08:30 AM	7	138	17	11	173	11	8	5	5	29	59	130	6	2	197	29	17	9	50	105	504
08:45 AM	3	123	9	16	151	15	11	5	3	34	57	108	8	4	177	50	14	12	53	129	491
Total	18	493	54	52	617	49	45	17	13	124	240	463	26	10	739	181	55	64	244	544	2024

*** BREAK ***

04:15 PM	5	116	18	27	166	16	21	5	6	48	97	161	25	3	286	59	23	14	50	146	646
04:30 PM	8	129	30	19	186	10	19	5	3	37	56	139	8	1	204	42	31	13	61	147	574
04:45 PM	12	129	17	20	178	17	34	10	5	66	78	143	12	2	235	47	26	13	54	140	619
Total	25	374	65	66	530	43	74	20	14	151	231	443	45	6	725	148	80	40	165	433	1839
05:00 PM	5	168	29	32	234	21	36	11	0	68	80	171	11	3	265	48	27	14	49	138	705
05:15 PM	3	164	22	31	220	21	29	3	4	57	80	169	15	5	269	36	31	14	65	146	692
05:30 PM	4	122	17	27	170	12	31	0	6	49	79	162	13	10	264	38	27	16	48	129	612
05:45 PM	5	97	25	20	147	14	41	5	2	62	73	160	16	3	252	53	32	15	47	147	608
Total	17	551	93	110	771	68	137	19	12	236	312	662	55	21	1050	175	117	59	209	560	2617
06:00 PM	5	101	22	21	149	13	29	7	5	54	58	122	11	5	196	42	19	6	46	113	512
Grand Total	74	2021	280	286	2661	209	368	76	59	712	1076	2132	156	51	3415	726	335	246	912	2219	9007
Apprch %	2.8	75.9	10.5	10.7		29.4	51.7	10.7	8.3		31.5	62.4	4.6	1.5		32.7	15.1	11.1	41.1		
Total %	0.8	22.4	3.1	3.2	29.5	2.3	4.1	0.8	0.7	7.9	11.9	23.7	1.7	0.6	37.9	8.1	3.7	2.7	10.1	24.6	

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	120	9	8	139	11	20	1	4	36	76	100	1	5	182	44	16	23	70	153	510
07:30 AM	3	142	18	14	177	9	15	2	4	30	33	124	6	0	163	49	15	30	63	157	527
07:45 AM	1	142	14	10	167	14	18	5	5	42	55	136	8	2	201	55	20	11	55	141	551
08:00 AM	1	109	17	9	136	12	13	5	1	31	65	116	4	3	188	51	17	22	75	165	520
Total Volume	7	513	58	41	619	46	66	13	14	139	229	476	19	10	734	199	68	86	263	616	2108
% App. Total	1.1	82.9	9.4	6.6		33.1	47.5	9.4	10.1		31.2	64.9	2.6	1.4		32.3	11	14	42.7		
PHF	.583	.903	.806	.732	.874	.821	.825	.650	.700	.827	.753	.875	.594	.500	.913	.905	.850	.717	.877	.933	.956

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

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Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:00 AM					07:45 AM					07:15 AM				
+0 mins.	3	142	18	14	177	2	30	5	2	39	55	136	8	2	201	44	16	23	70	153
+15 mins.	1	142	14	10	167	11	20	1	4	36	65	116	4	3	188	49	15	30	63	157
+30 mins.	1	109	17	9	136	9	15	2	4	30	59	109	8	1	177	55	20	11	55	141
+45 mins.	7	123	11	16	157	14	18	5	5	42	59	130	6	2	197	51	17	22	75	165
Total Volume	12	516	60	49	637	36	83	13	15	147	238	491	26	8	763	199	68	86	263	616
% App. Total	1.9	81	9.4	7.7		24.5	56.5	8.8	10.2		31.2	64.4	3.4	1		32.3	11	14	42.7	
PHF	.429	.908	.833	.766	.900	.643	.692	.650	.750	.875	.915	.903	.813	.667	.949	.905	.850	.717	.877	.933

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

	04:45 PM					05:00 PM					05:15 PM					05:30 PM				
04:45 PM	12	129	17	20	178	17	34	10	5	66	78	143	12	2	235	47	26	13	54	140
05:00 PM	5	168	29	32	234	21	36	11	0	68	80	171	11	3	265	48	27	14	49	138
05:15 PM	3	164	22	31	220	21	29	3	4	57	80	169	15	5	269	36	31	14	65	146
05:30 PM	4	122	17	27	170	12	31	0	6	49	79	162	13	10	264	38	27	16	48	129
Total Volume	24	583	85	110	802	71	130	24	15	240	317	645	51	20	1033	169	111	57	216	553
% App. Total	3	72.7	10.6	13.7		29.6	54.2	10	6.2		30.7	62.4	4.9	1.9		30.6	20.1	10.3	39.1	
PHF	.500	.868	.733	.859	.857	.845	.903	.545	.625	.882	.991	.943	.850	.500	.960	.880	.895	.891	.831	.947

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:45 PM					05:00 PM					04:15 PM				
+0 mins.	8	129	30	19	186	17	34	10	5	66	80	171	11	3	265	59	23	14	50	146
+15 mins.	12	129	17	20	178	21	36	11	0	68	80	169	15	5	269	42	31	13	61	147
+30 mins.	5	168	29	32	234	21	29	3	4	57	79	162	13	10	264	47	26	13	54	140
+45 mins.	3	164	22	31	220	12	31	0	6	49	73	160	16	3	252	48	27	14	49	138
Total Volume	28	590	98	102	818	71	130	24	15	240	312	662	55	21	1050	196	107	54	214	571
% App. Total	3.4	72.1	12	12.5		29.6	54.2	10	6.2		29.7	63	5.2	2		34.3	18.7	9.5	37.5	
PHF	.583	.878	.817	.797	.874	.845	.903	.545	.625	.882	.975	.968	.859	.525	.976	.831	.863	.964	.877	.971

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- Heavy Vehicles

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	1	1	0	0	0	0	0	3	5	1	0	9	2	4	0	4	10	20
07:15 AM	0	6	0	0	6	1	0	0	0	1	2	6	0	0	8	2	3	4	2	11	26
07:30 AM	1	5	0	0	6	1	4	0	0	5	6	7	0	0	13	0	3	0	2	5	29
07:45 AM	0	5	0	0	5	0	9	0	0	9	2	9	1	0	12	0	2	1	6	9	35
Total	1	16	0	1	18	2	13	0	0	15	13	27	2	0	42	4	12	5	14	35	110
08:00 AM	0	5	0	0	5	1	2	0	0	3	4	9	1	0	14	1	2	3	4	10	32
08:15 AM	0	11	1	2	14	1	2	0	1	4	8	3	3	1	15	1	0	0	3	4	37
08:30 AM	0	9	0	1	10	1	1	1	0	3	4	10	0	0	14	0	4	1	6	11	38
08:45 AM	0	15	1	0	16	2	5	0	0	7	3	13	0	1	17	1	2	0	1	4	44
Total	0	40	2	3	45	5	10	1	1	17	19	35	4	2	60	3	8	4	14	29	151

*** BREAK ***

04:15 PM	0	5	0	1	6	5	1	0	1	7	1	6	0	1	8	1	1	1	1	4	25
04:30 PM	0	3	1	1	5	2	0	0	0	2	1	4	1	0	6	3	0	0	2	5	18
04:45 PM	0	7	0	0	7	0	1	0	0	1	4	5	0	0	9	0	4	1	2	7	24
Total	0	15	1	2	18	7	2	0	1	10	6	15	1	1	23	4	5	2	5	16	67
05:00 PM	0	1	1	0	2	1	0	0	0	1	1	2	0	0	3	0	2	1	2	5	11
05:15 PM	0	5	0	0	5	0	2	0	0	2	1	5	0	0	6	1	2	0	0	3	16
05:30 PM	0	4	0	0	4	0	0	0	0	0	1	1	1	0	3	0	0	0	1	1	8
05:45 PM	0	7	0	0	7	0	1	0	0	1	1	5	0	0	6	1	0	2	0	3	17
Total	0	17	1	0	18	1	3	0	0	4	4	13	1	0	18	2	4	3	3	12	52
06:00 PM	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	1	3	4	12
Grand Total	1	93	4	6	104	15	28	1	2	46	42	93	8	3	146	13	29	15	39	96	392
Apprch %	1	89.4	3.8	5.8		32.6	60.9	2.2	4.3		28.8	63.7	5.5	2.1		13.5	30.2	15.6	40.6		
Total %	0.3	23.7	1	1.5	26.5	3.8	7.1	0.3	0.5	11.7	10.7	23.7	2	0.8	37.2	3.3	7.4	3.8	9.9	24.5	

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	5	0	0	5	1	2	0	0	3	4	9	1	0	14	1	2	3	4	10	32
08:15 AM	0	11	1	2	14	1	2	0	1	4	8	3	3	1	15	1	0	0	3	4	37
08:30 AM	0	9	0	1	10	1	1	1	0	3	4	10	0	0	14	0	4	1	6	11	38
08:45 AM	0	15	1	0	16	2	5	0	0	7	3	13	0	1	17	1	2	0	1	4	44
Total Volume	0	40	2	3	45	5	10	1	1	17	19	35	4	2	60	3	8	4	14	29	151
% App. Total	0	88.9	4.4	6.7		29.4	58.8	5.9	5.9		31.7	58.3	6.7	3.3		10.3	27.6	13.8	48.3		
PHF	.000	.667	.500	.375	.703	.625	.500	.250	.250	.607	.594	.673	.333	.500	.882	.750	.500	.333	.583	.659	.858

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

Page No : 2

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM					07:30 AM					08:00 AM					07:00 AM				
+0 mins.	0	5	0	0	5	1	4	0	0	5	4	9	1	0	14	2	4	0	4	10
+15 mins.	0	11	1	2	14	0	9	0	0	9	8	3	3	1	15	2	3	4	2	11
+30 mins.	0	9	0	1	10	1	2	0	0	3	4	10	0	0	14	0	3	0	2	5
+45 mins.	0	15	1	0	16	1	2	0	1	4	3	13	0	1	17	0	2	1	6	9
Total Volume	0	40	2	3	45	3	17	0	1	21	19	35	4	2	60	4	12	5	14	35
% App. Total	0	88.9	4.4	6.7		14.3	81	0	4.8		31.7	58.3	6.7	3.3		11.4	34.3	14.3	40	
PHF	.000	.667	.500	.375	.703	.750	.472	.000	.250	.583	.594	.673	.333	.500	.882	.500	.750	.313	.583	.795

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

	04:15 PM					04:30 PM					04:45 PM					05:00 PM				
04:15 PM	0	5	0	1	6	5	1	0	1	7	1	6	0	1	8	1	1	1	1	4
04:30 PM	0	3	1	1	5	2	0	0	0	2	1	4	1	0	6	3	0	0	2	5
04:45 PM	0	7	0	0	7	0	1	0	0	1	4	5	0	0	9	0	4	1	2	7
05:00 PM	0	1	1	0	2	1	0	0	0	1	1	2	0	0	3	0	2	1	2	5
Total Volume	0	16	2	2	20	8	2	0	1	11	7	17	1	1	26	4	7	3	7	21
% App. Total	0	80	10	10		72.7	18.2	0	9.1		26.9	65.4	3.8	3.8		19	33.3	14.3	33.3	
PHF	.000	.571	.500	.500	.714	.400	.500	.000	.250	.393	.438	.708	.250	.250	.722	.333	.438	.750	.875	.750

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:15 PM					04:15 PM					04:15 PM					04:15 PM				
+0 mins.	0	5	0	0	5	5	1	0	1	7	1	6	0	1	8	1	1	1	1	4
+15 mins.	0	4	0	0	4	2	0	0	0	2	1	4	1	0	6	3	0	0	2	5
+30 mins.	0	7	0	0	7	0	1	0	0	1	4	5	0	0	9	0	4	1	2	7
+45 mins.	0	5	0	0	5	1	0	0	0	1	1	2	0	0	3	0	2	1	2	5
Total Volume	0	21	0	0	21	8	2	0	1	11	7	17	1	1	26	4	7	3	7	21
% App. Total	0	100	0	0		72.7	18.2	0	9.1		26.9	65.4	3.8	3.8		19	33.3	14.3	33.3	
PHF	.000	.750	.000	.000	.750	.400	.500	.000	.250	.393	.438	.708	.250	.250	.722	.333	.438	.750	.875	.750

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

Page No : 1

Groups Printed- UTURNS

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	2	0	0	0	2	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14	3	0	0	0	3	17
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	5
08:30 AM	2	0	0	0	2	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	10
08:45 AM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	7
Total	2	0	0	0	2	1	0	0	0	1	14	0	0	0	14	13	0	0	0	13	30

*** BREAK ***

04:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	6	0	0	0	6	11
04:30 PM	0	0	0	0	0	1	0	0	0	1	6	0	0	0	6	4	0	0	0	4	11
04:45 PM	0	0	0	0	0	2	0	0	0	2	6	0	0	0	6	8	0	0	0	8	16
Total	0	0	0	0	0	3	0	0	0	3	17	0	0	0	17	18	0	0	0	18	38
05:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	8	0	0	0	8	13
05:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	6	0	0	0	6	11
05:30 PM	1	0	0	0	1	0	0	0	0	0	7	0	0	0	7	4	0	0	0	4	12
05:45 PM	1	0	0	0	1	2	0	0	0	2	4	0	0	0	4	5	0	0	0	5	12
Total	2	0	0	0	2	2	0	0	0	2	21	0	0	0	21	23	0	0	0	23	48
06:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	2	4
Grand Total	4	0	0	0	4	6	0	0	0	6	68	0	0	0	68	59	0	0	0	59	137
Apprch %	100	0	0	0	100	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	
Total %	2.9	0	0	0	2.9	4.4	0	0	0	4.4	49.6	0	0	0	49.6	43.1	0	0	0	43.1	

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	5
08:30 AM	2	0	0	0	2	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	10
08:45 AM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	7
Total Volume	2	0	0	0	2	1	0	0	0	1	14	0	0	0	14	13	0	0	0	13	30
% App. Total	100	0	0	0	100	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	
PHF	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.700	.000	.000	.000	.700	.813	.000	.000	.000	.813	.750

Intersection Turning Movement Count

City/County: Dade City/Pasco

Weather: Clear

Comments:

File Name : US301&Clinton

Site Code : 19002

Start Date : 5/8/2019

Page No : 2

Start Time	US 301 Southbound					CLINTON AVENUE Westbound					US 301 Northbound					CLINTON AVENUE Eastbound					App. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR			

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					08:00 AM					07:00 AM					08:00 AM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	3	0	0	0	3	
+15 mins.	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	4	0	0	0	4	
+30 mins.	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	0	3	
+45 mins.	2	0	0	0	2	1	0	0	0	1	3	0	0	0	3	3	0	0	0	3	
Total Volume	2	0	0	0	2	1	0	0	0	1	14	0	0	0	14	13	0	0	0	13	
% App. Total	100	0	0	0		100	0	0	0		100	0	0	0		100	0	0	0		
PHF	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.700	.000	.000	.000	.700	.813	.000	.000	.000	.813	

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

	04:45 PM					05:00 PM					05:15 PM					05:30 PM					
04:45 PM	0	0	0	0	0	2	0	0	0	2	6	0	0	0	6	8	0	0	0	8	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	8	0	0	0	8	13
05:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	6	0	0	0	6	11
05:30 PM	1	0	0	0	1	0	0	0	0	0	7	0	0	0	7	4	0	0	0	4	12
Total Volume	1	0	0	0	1	2	0	0	0	2	23	0	0	0	23	26	0	0	0	26	52
% App. Total	100	0	0	0		100	0	0	0		100	0	0	0		100	0	0	0		
PHF	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250	.821	.000	.000	.000	.821	.813	.000	.000	.000	.813	

Peak Hour Analysis From 04:15 PM to 06:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM					04:15 PM					04:45 PM					04:15 PM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	6	0	0	0	6	
+15 mins.	0	0	0	0	0	1	0	0	0	1	5	0	0	0	5	4	0	0	0	4	
+30 mins.	1	0	0	0	1	2	0	0	0	2	5	0	0	0	5	8	0	0	0	8	
+45 mins.	1	0	0	0	1	0	0	0	0	0	7	0	0	0	7	8	0	0	0	8	
Total Volume	2	0	0	0	2	3	0	0	0	3	23	0	0	0	23	26	0	0	0	26	
% App. Total	100	0	0	0		100	0	0	0		100	0	0	0		100	0	0	0		
PHF	.500	.000	.000	.000	.500	.375	.000	.000	.000	.375	.821	.000	.000	.000	.821	.813	.000	.000	.000	.813	

Intersection Pedestrian & Bicycle Count

Date: 5/8/19

Day: Wednesday

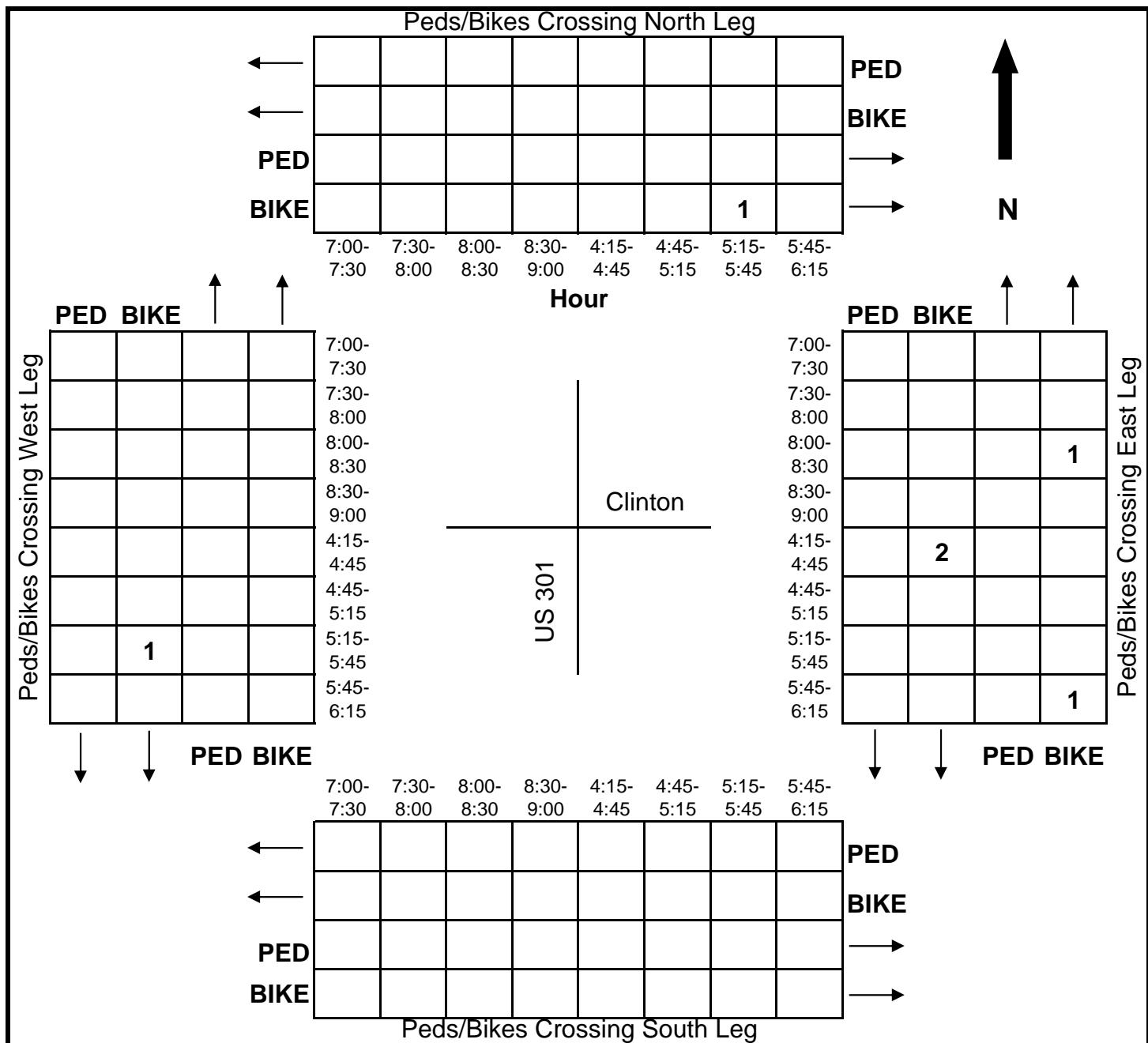
Count Times: 7-9am & 4:15-6:15pm

Weather: Clear

Intersection: US 301 at Clinton Avenue

Comments:

C - Children under 12; S - Seniors 65 or over; D - Physical Disability



CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Northbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	5
30	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	7
45	0	3	1	0	0	0	0	1	2	0	0	0	0	0	0	7
100	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	3
Hourly Total	1	11	5	0	0	0	0	1	4	0	0	0	0	0	0	22
115	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2
130	0	4	1	0	0	0	0	0	0	0	1	0	0	0	0	6
145	0	2	1	0	0	0	0	0	2	0	0	1	0	0	0	6
200	1	2	0	0	0	1	0	0	1	0	0	0	0	0	0	5
Hourly Total	1	8	3	0	0	1	0	0	3	0	1	2	0	0	0	19
215	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	6
230	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	4
245	0	2	0	0	2	0	0	0	1	0	0	0	0	0	0	5
300	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	1	11	4	0	2	0	0	0	2	0	0	0	0	0	0	20
315	0	1	0	0	0	0	0	0	2	1	1	0	0	0	0	5
330	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	4
345	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
400	0	3	2	0	0	0	0	0	1	0	0	0	0	0	0	6
Hourly Total	0	5	3	0	0	0	0	0	6	1	1	0	0	0	0	16
415	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
430	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	6
445	3	3	4	0	0	5	0	0	0	0	0	0	0	0	0	15
500	0	10	0	0	0	2	0	0	0	0	0	0	0	0	0	12
Hourly Total	3	19	5	0	0	7	0	1	0	0	0	0	0	0	0	35
515	1	4	3	0	1	1	0	0	2	0	0	0	0	0	0	12
530	0	15	5	0	2	2	0	0	2	0	0	0	0	0	0	27
545	3	12	4	0	3	2	0	0	0	1	0	0	0	0	0	25
600	2	11	16	0	0	2	0	0	2	1	0	0	0	0	0	34
Hourly Total	6	42	28	0	6	7	0	0	6	2	0	0	0	0	1	98
615	0	13	7	1	1	1	0	0	1	0	0	0	0	0	0	24
630	2	25	8	0	3	5	0	0	0	0	0	0	0	0	0	43
645	1	20	17	0	4	5	1	3	0	0	0	0	0	0	0	52
700	0	22	11	0	3	1	0	1	5	0	0	0	0	0	0	43
Hourly Total	3	80	43	1	11	12	1	4	6	0	0	0	0	0	1	162
715	1	20	12	0	3	3	0	0	2	0	0	0	0	0	0	41
730	6	25	25	0	4	5	0	1	3	0	0	0	0	0	0	70
745	1	21	26	0	4	4	0	1	6	0	0	0	0	0	0	63
800	1	35	16	0	4	4	0	3	3	0	0	0	0	0	0	68
Hourly Total	9	101	79	0	15	16	0	5	14	0	0	0	0	0	3	242
815	5	24	15	0	5	10	0	1	5	0	0	0	0	0	0	65
830	1	26	18	0	6	6	0	1	4	0	0	0	0	0	0	62
845	1	24	17	0	1	5	0	0	2	0	0	0	0	0	0	50
900	4	27	14	0	1	5	1	1	2	0	0	0	0	0	0	55
Hourly Total	11	101	64	0	13	26	1	3	13	0	0	0	0	0	2	232
915	5	16	10	0	0	10	0	1	3	1	0	0	0	0	0	46
930	5	20	11	0	1	11	0	1	2	0	0	0	0	0	0	51
945	2	21	13	0	2	6	1	1	9	0	0	0	0	0	0	55
1000	1	13	12	0	0	5	1	0	6	2	0	0	0	0	0	42
Hourly Total	13	70	46	0	3	32	2	3	20	3	0	0	0	0	2	194
1015	1	19	12	0	3	6	0	3	4	1	0	0	0	0	0	49
1030	2	13	13	0	3	9	0	0	8	1	0	0	0	0	0	49
1045	1	18	11	0	1	5	0	2	5	0	0	0	0	0	0	43
1100	5	17	15	0	2	11	0	2	7	0	0	0	0	0	0	59
Hourly Total	9	67	51	0	9	31	0	7	24	2	0	0	0	0	0	200
1115	1	14	12	1	2	7										

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Southbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	2	1	0	0	0	1	0	0	0	0	0	0	0	5
30	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
45	1	2	2	1	0	0	0	1	0	0	0	0	0	0	1	8
100	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	2
Hourly Total	1	6	6	2	1	0	0	4	0	0	1	0	0	0	8	29
115	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
130	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
145	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	4
200	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	4	2	1	0	0	0	2	0	0	0	0	0	0	1	10
215	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	1
230	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
245	4	0	0	1	2	2	0	1	0	0	0	0	0	0	0	10
300	1	0	2	0	1	1	0	0	0	0	0	0	0	0	0	6
Hourly Total	5	1	4	1	4	0	1	0	0	0	0	0	0	0	2	22
315	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
330	0	1	2	0	1	2	0	0	0	0	0	0	0	0	0	8
345	0	4	2	0	0	0	0	1	0	0	0	0	0	0	0	7
400	1	2	3	1	0	0	0	2	0	0	0	0	0	0	0	11
Hourly Total	1	9	9	1	1	2	0	3	0	0	0	0	0	0	4	30
415	0	2	5	0	1	0	0	1	0	0	0	0	0	0	0	10
430	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5
445	1	3	8	0	1	1	0	0	0	0	0	0	0	0	0	14
500	1	6	5	0	0	2	0	3	0	0	0	0	0	0	0	17
Hourly Total	2	12	22	0	2	3	0	4	0	0	0	0	0	0	1	46
515	1	9	5	1	5	1	0	2	0	0	0	0	0	0	0	24
530	0	10	2	0	5	0	0	4	0	0	1	0	0	0	0	22
545	0	25	9	0	6	0	0	4	0	0	0	0	0	0	0	44
600	0	19	10	0	6	0	1	1	0	0	0	0	0	0	0	37
Hourly Total	1	63	26	1	22	1	1	11	0	0	1	0	0	0	0	127
615	5	36	6	1	10	0	0	1	0	0	0	0	0	0	0	59
630	0	27	7	0	6	1	0	6	0	0	0	0	0	0	0	47
645	0	28	26	2	9	1	0	7	0	0	0	0	0	0	0	73
700	0	45	6	0	4	0	0	5	0	0	0	0	0	0	0	60
Hourly Total	5	136	45	3	29	2	0	19	0	239						
715	1	33	12	1	5	3	0	2	0	0	0	0	0	0	0	57
730	3	34	10	3	18	2	0	8	0	0	0	0	0	0	0	78
745	1	30	11	0	9	3	0	5	0	0	0	0	0	0	0	59
800	0	34	6	3	9	4	0	15	0	0	0	0	0	0	0	71
Hourly Total	5	131	39	7	41	12	0	30	0	265						
815	7	29	20	1	15	3	0	10	1	0	0	0	0	0	0	86
830	0	32	13	0	3	2	0	13	0	0	0	0	0	0	0	63
845	1	27	11	0	2	4	0	15	0	0	0	0	0	0	0	61
900	0	25	10	5	7	0	0	11	0	0	0	0	0	0	0	58
Hourly Total	8	113	54	6	27	9	0	49	1	0	0	0	0	0	1	268
915	1	27	18	1	6	1	0	10	1	0	1	0	0	0	0	67
930	1	19	14	1	7	1	1	8	1	0	0	0	0	0	0	53
945	4	15	15	1	7	0	1	9	0	0	0	0	0	0	0	52
1000	0	23	12	0	5	2	1	11	0	0	0	0	0	0	0	54
Hourly Total	6	84	59	3	25	4	3	38	2	0	1	0	0	0	1	226
1015	1	15	11	0	3	2	0	10	0	0	0	0	0	0	0	42
1030	1	12	15	2	4	2	0	15	0	0	1	0	0	0	0	52
1045	1	20	8	0	6	4	0	10	0	0	1	0	0	0	0	50
1100	3	17	13	1	2	3	2	8	0	0	1	0	0	0	0	50
Hourly Total	6	64	47	3	15	11	2	43	0	0	3	0	0	0	0	194
1115	0	24	17	1	7</td											

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Combined
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total	
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass		
15	0	6	4	1	0	0	0	1	1	0	0	0	0	0	0	5	18
30	1	5	1	0	0	0	0	1	0	0	1	0	0	0	0	0	9
45	1	5	3	1	0	0	0	2	2	0	0	0	0	0	0	1	15
100	0	1	3	0	1	0	0	1	1	0	0	0	0	0	0	2	9
Hourly Total	2	17	11	2	1	0	0	5	4	0	1	0	0	0	0	8	51
115	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	4
130	0	4	2	0	0	0	0	1	0	0	1	0	0	0	0	0	8
145	0	3	2	1	0	0	0	1	2	0	0	0	1	0	0	0	10
200	1	4	0	0	0	1	0	0	1	0	0	0	0	0	0	0	7
Hourly Total	1	12	5	1	0	1	0	2	3	0	1	2	0	0	0	1	29
215	1	4	3	0	1	1	0	0	0	0	0	0	0	0	0	1	11
230	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5
245	4	2	0	1	4	2	0	1	1	0	0	0	0	0	0	0	15
300	1	2	5	0	1	1	0	0	0	0	0	0	0	0	0	1	11
Hourly Total	6	12	8	1	6	4	0	1	2	0	0	0	0	0	0	2	42
315	0	3	2	0	0	0	0	0	2	1	1	0	0	0	0	0	9
330	0	1	3	0	1	2	0	0	3	0	0	0	0	0	0	2	12
345	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	0	8
400	1	5	5	1	0	0	0	2	1	0	0	0	0	0	0	2	17
Hourly Total	1	14	12	1	1	2	0	3	6	1	1	0	0	0	0	4	46
415	0	3	6	0	1	0	0	1	0	0	0	0	0	0	0	1	12
430	0	6	4	0	0	0	0	1	0	0	0	0	0	0	0	0	11
445	4	6	12	0	1	6	0	0	0	0	0	0	0	0	0	0	29
500	1	16	5	0	0	4	0	3	0	0	0	0	0	0	0	0	29
Hourly Total	5	31	27	0	2	10	0	5	0	0	0	0	0	0	0	1	81
515	2	13	8	1	6	2	0	2	2	0	0	0	0	0	0	0	36
530	0	25	7	0	7	2	0	4	2	0	1	0	0	0	0	1	49
545	3	37	13	0	9	2	0	4	0	1	0	0	0	0	0	0	69
600	2	30	26	0	6	2	1	1	2	1	0	0	0	0	0	0	71
Hourly Total	7	105	54	1	28	8	1	11	6	2	1	0	0	0	0	1	225
615	5	49	13	2	11	1	0	1	1	0	0	0	0	0	0	0	83
630	2	52	15	0	9	6	0	6	0	0	0	0	0	0	0	0	90
645	1	48	43	2	13	6	1	10	0	0	0	0	0	0	0	1	125
700	0	67	17	0	7	1	0	6	5	0	0	0	0	0	0	0	103
Hourly Total	8	216	88	4	40	14	1	23	6	0	0	0	0	0	0	1	401
715	2	53	24	1	8	6	0	2	2	0	0	0	0	0	0	0	98
730	9	59	35	3	22	7	0	9	3	0	0	0	0	0	0	1	148
745	2	51	37	0	13	7	0	6	6	0	0	0	0	0	0	0	122
800	1	69	22	3	13	8	0	18	3	0	0	0	0	0	0	2	139
Hourly Total	14	232	118	7	56	28	0	35	14	0	0	0	0	0	0	3	507
815	12	53	35	1	20	13	0	11	6	0	0	0	0	0	0	0	151
830	1	58	31	0	9	8	0	14	4	0	0	0	0	0	0	0	125
845	2	51	28	0	3	9	0	15	2	0	0	0	0	0	0	1	111
900	4	52	24	5	8	5	1	12	2	0	0	0	0	0	0	0	113
Hourly Total	19	214	118	6	40	35	1	52	14	0	0	0	0	0	0	1	500
915	6	43	28	1	6	11	0	11	4	1	1	0	0	0	0	1	113
930	6	39	25	1	8	12	1	9	3	0	0	0	0	0	0	0	104
945	6	36	28	1	9	6	2	10	9	0	0	0	0	0	0	0	107
1000	1	36	24	0	5	7	2	11	6	2	0	0	0	0	0	2	96
Hourly Total	19	154	105	3	28	36	5	41	22	3	1	0	0	0	0	3	420
1015	2	34	23	0	6	8	0	13	4	1	0	0	0	0	0	0	91
1030	3	25	28	2	7	11	0	15	8	1	1	0	0	0	0	0	101
1045	2	38	19	0													

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Northbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
30	1	2	4	0	1	1	0	0	0	0	0	0	0	0	0	9
45	0	3	1	0	0	1	0	0	1	0	0	0	0	0	0	6
100	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	11
Hourly Total	1	12	14	0	2	1	0	0	1	0	0	0	0	0	0	31
115	0	2	1	0	1	0	0	0	1	0	0	1	0	0	0	6
130	0	3	0	0	2	0	0	0	0	0	0	1	0	0	0	6
145	1	1	2	0	0	1	0	0	1	0	1	0	0	0	0	7
200	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	1	8	3	0	3	1	0	0	2	0	1	2	0	0	0	21
215	0	2	3	0	0	0	0	0	1	0	0	0	0	0	0	6
230	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	6
245	0	5	1	0	0	0	0	0	1	0	0	0	0	0	0	7
300	0	2	0	0	0	0	0	0	1	1	1	0	0	0	0	5
Hourly Total	0	13	5	0	0	0	1	4	1	0	0	0	0	0	0	24
315	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	4
330	1	0	2	0	0	1	0	0	1	0	0	0	0	0	0	5
345	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	4
400	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	4
Hourly Total	1	4	2	0	1	2	0	0	6	0	1	0	0	0	0	17
415	0	1	3	0	0	0	0	0	1	0	0	0	0	0	0	5
430	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
445	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
500	1	9	1	0	0	1	0	0	0	0	0	0	0	0	0	12
Hourly Total	1	19	6	0	0	1	0	0	1	0	0	0	0	0	0	28
515	0	10	2	0	2	0	0	0	3	0	0	0	0	0	0	17
530	0	11	5	0	1	1	0	0	2	0	0	0	0	0	0	20
545	0	11	7	0	3	1	0	0	1	0	0	0	0	0	0	23
600	0	14	7	0	1	0	0	0	2	0	0	0	0	0	0	24
Hourly Total	0	46	21	0	7	2	0	0	8	0	0	0	0	0	0	84
615	0	7	11	0	2	2	1	0	3	0	0	0	0	0	0	26
630	3	10	14	0	2	3	0	1	1	0	0	0	0	0	0	34
645	0	30	13	0	3	2	1	0	4	0	0	0	0	0	0	53
700	1	24	23	0	1	2	0	2	1	0	0	0	0	0	0	54
Hourly Total	4	71	61	0	8	9	2	3	9	0	0	0	0	0	0	167
715	1	15	15	0	2	4	1	1	1	2	0	0	0	0	0	42
730	9	34	18	0	2	10	0	0	1	0	0	0	0	0	0	74
745	0	22	23	0	5	2	0	1	4	0	0	0	0	0	0	57
800	1	27	20	0	5	1	0	2	4	0	0	0	0	0	0	60
Hourly Total	11	98	76	0	14	17	1	4	10	2	0	0	0	0	0	233
815	3	24	13	0	3	14	0	1	3	0	0	1	0	0	0	62
830	2	32	17	0	2	7	0	0	3	0	0	0	0	0	0	63
845	1	21	17	0	3	8	0	1	6	0	0	0	0	0	0	57
900	4	20	13	0	3	4	0	1	6	0	0	0	0	0	0	51
Hourly Total	10	97	60	0	11	33	0	3	18	0	0	1	0	0	0	233
915	1	24	12	2	1	6	0	1	5	0	0	0	0	0	0	52
930	3	22	8	1	1	10	0	0	4	0	0	0	0	0	0	49
945	1	20	10	0	0	9	0	0	4	0	0	0	0	0	0	44
1000	0	12	11	0	0	2	0	0	4	0	0	0	0	0	0	29
Hourly Total	5	78	41	3	27	0	1	17	0	0	0	0	0	0	0	174
1015	1	17	14	0	0	6	1	3	3	0	0	0	0	0	0	45
1030	1	23	14	0	2	10	1	2	5	0	0	0	0	0	0	59
1045	0	13	13	1	1	9	0	2	1	0	0	0	0	0	0	40
1100	3	20	10	0	0	5	0	0	3	0	0	0	0	0	0	41
Hourly Total	5	73	51	1	3	30	2	7	12	0	0	0	0	0	0	185
1115	1	18	17	1	1	4	0									

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Southbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	6	1	0	1	0	0	0	4	0	0	0	0	0	0	13
30	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
45	0	3	1	0	0	0	0	0	3	0	1	0	0	0	0	8
100	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	1	17	2	0	1	0	0	0	7	0	1	0	0	0	0	29
115	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	4
130	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	5
145	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
200	1	0	1	0	0	0	0	1	3	0	0	0	0	0	0	6
Hourly Total	1	4	5	0	1	0	0	1	6	0	0	0	0	0	0	18
215	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
230	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
245	0	2	2	0	0	0	0	0	5	0	0	0	0	0	0	9
300	0	2	2	0	0	1	0	0	4	0	0	0	0	0	0	9
Hourly Total	0	9	5	0	0	1	0	0	12	0	0	0	0	0	0	27
315	0	2	4	0	0	0	0	0	1	0	0	0	0	0	0	7
330	0	2	4	0	0	0	0	1	0	0	0	0	0	0	0	7
345	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
400	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
Hourly Total	0	8	9	0	0	0	0	1	4	0	0	0	0	0	0	22
415	0	4	6	0	2	0	0	0	2	0	0	0	0	0	0	14
430	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
445	0	7	5	0	0	1	0	1	4	0	0	0	0	0	0	18
500	1	14	9	0	0	1	0	0	3	0	0	0	0	0	0	29
Hourly Total	1	29	22	0	2	0	1	9	0	0	0	0	0	0	1	67
515	2	5	5	0	2	0	0	0	1	0	0	0	0	0	0	15
530	1	12	12	0	1	0	1	0	4	1	0	1	0	0	0	33
545	1	11	18	0	7	0	0	1	1	0	0	0	0	0	0	39
600	0	18	19	0	0	1	0	0	5	0	0	0	0	0	0	43
Hourly Total	4	46	54	0	11	0	1	1	11	1	0	1	0	0	0	130
615	0	24	16	0	2	0	0	2	3	1	0	0	0	0	0	48
630	0	29	19	0	3	0	0	1	4	1	0	0	0	0	0	57
645	1	28	24	0	5	0	0	1	1	0	0	0	0	0	0	60
700	0	33	30	0	6	1	0	0	3	0	0	0	0	0	0	73
Hourly Total	1	114	89	0	16	1	0	4	11	2	0	0	0	0	0	238
715	1	27	23	0	5	2	5	2	6	1	0	0	0	0	0	72
730	2	36	21	0	5	2	7	2	4	0	0	0	0	0	0	79
745	2	24	13	0	3	5	5	2	6	1	0	0	0	0	0	61
800	1	29	15	0	1	4	3	0	2	0	0	0	0	0	0	55
Hourly Total	6	116	72	0	14	13	20	6	18	2	0	0	0	0	0	267
815	2	18	9	1	4	2	0	0	4	2	0	0	0	0	1	43
830	1	19	11	0	1	5	5	0	7	0	0	0	0	0	1	50
845	1	25	15	0	5	4	7	2	6	1	0	0	0	0	0	66
900	0	33	16	0	4	1	2	2	7	5	0	0	0	0	0	70
Hourly Total	4	95	51	1	14	12	14	4	24	8	0	0	0	0	0	229
915	2	18	15	0	6	3	2	6	0	0	0	0	0	0	1	53
930	3	14	11	0	4	5	6	1	5	1	0	0	0	0	0	50
945	3	18	9	0	4	7	6	3	2	2	0	0	0	0	0	54
1000	2	29	12	0	2	4	6	3	1	0	0	0	0	0	1	60
Hourly Total	10	79	47	0	16	19	20	13	8	3	0	0	0	0	2	217
1015	2	17	9	0	2	3	1	1	2	0	0	0	0	0	1	38
1030	0	15	12	0	1	2	3	3	4	1	0	0	0	0	0	41
1045	1	18	13	0	5	2	5	2	4	0	0	0	0	0	0	50
1100	1	22	9	0	2	3	4	1	6	0	0	0	0	0	0	48
Hourly Total	4	72	43	0	10	10	13	7	16	1	0	0	0	0	1	177
1115	1	18	11	0	2											

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Combined
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	8	4	0	1	0	0	0	4	0	0	0	0	0	0	0
30	1	6	4	0	1	1	0	0	0	0	0	0	0	0	0	13
45	0	6	2	0	0	1	0	0	4	0	1	0	0	0	0	14
100	0	9	6	0	0	0	0	0	0	0	0	0	0	0	0	15
Hourly Total	2	29	16	0	3	1	0	0	8	0	1	0	0	0	0	60
115	0	3	1	0	2	0	0	0	3	0	0	1	0	0	0	10
130	0	5	2	0	2	0	0	0	1	0	0	1	0	0	0	11
145	1	2	4	0	0	1	0	0	1	0	1	0	0	0	0	10
200	1	2	1	0	0	0	0	1	3	0	0	0	0	0	0	8
Hourly Total	2	12	8	0	4	1	0	1	8	0	1	2	0	0	0	39
215	0	5	3	0	0	0	0	0	3	0	0	0	0	0	0	11
230	0	6	2	0	0	0	0	0	2	0	0	0	0	0	0	10
245	0	7	3	0	0	0	0	0	6	0	0	0	0	0	0	16
300	0	4	2	0	0	1	0	1	5	1	0	0	0	0	0	14
Hourly Total	0	22	10	0	0	1	0	1	16	1	0	0	0	0	0	51
315	0	3	4	0	0	0	0	0	3	0	1	0	0	0	0	11
330	1	2	6	0	0	1	0	1	1	0	0	0	0	0	0	12
345	0	5	1	0	0	0	0	0	3	0	0	0	0	0	0	9
400	0	2	0	0	1	1	0	0	3	0	0	0	0	0	0	7
Hourly Total	1	12	11	0	1	2	0	1	10	0	1	0	0	0	0	39
415	0	5	9	0	2	0	0	0	3	0	0	0	0	0	0	19
430	0	10	3	0	0	0	0	0	0	0	0	0	0	0	0	13
445	0	10	6	0	0	1	0	1	4	0	0	0	0	0	0	22
500	2	23	10	0	0	2	0	0	3	0	0	0	0	0	1	41
Hourly Total	2	48	28	0	2	3	0	1	10	0	0	0	0	0	1	95
515	2	15	7	0	4	0	0	0	4	0	0	0	0	0	0	32
530	1	23	17	0	2	1	1	0	6	1	0	1	0	0	0	53
545	1	22	25	0	10	1	0	1	2	0	0	0	0	0	0	62
600	0	32	26	0	2	0	0	0	7	0	0	0	0	0	0	67
Hourly Total	4	92	75	0	18	2	1	1	19	1	0	1	0	0	0	214
615	0	31	27	0	4	2	1	2	6	1	0	0	0	0	0	74
630	3	39	33	0	5	3	0	2	5	1	0	0	0	0	0	91
645	1	58	37	0	8	2	1	1	5	0	0	0	0	0	0	113
700	1	57	53	0	7	3	0	2	4	0	0	0	0	0	0	127
Hourly Total	5	185	150	0	24	10	2	7	20	2	0	0	0	0	0	405
715	2	42	38	0	7	6	6	3	7	3	0	0	0	0	0	114
730	11	70	39	0	7	12	7	2	5	0	0	0	0	0	0	153
745	2	46	36	0	8	7	5	3	10	1	0	0	0	0	0	118
800	2	56	35	0	6	5	3	2	6	0	0	0	0	0	0	115
Hourly Total	17	214	148	0	28	30	21	10	28	4	0	0	0	0	0	500
815	5	42	22	1	7	16	0	1	7	2	0	1	0	0	1	105
830	3	51	28	0	3	12	5	0	10	0	0	0	0	0	1	113
845	2	46	32	0	8	12	7	3	12	1	0	0	0	0	0	123
900	4	53	29	0	7	5	2	3	13	5	0	0	0	0	0	121
Hourly Total	14	192	111	1	25	45	14	7	42	8	0	1	0	0	2	462
915	3	42	27	2	7	9	2	7	5	0	0	0	0	0	1	105
930	6	36	19	1	5	15	6	1	9	1	0	0	0	0	0	99
945	4	38	19	0	4	16	6	3	6	2	0	0	0	0	0	98
1000	2	41	23	0	2	6	6	3	5	0	0	0	0	0	1	89
Hourly Total	15	157	88	3	18	46	20	14	25	3	0	0	0	0	2	391
1015	3	34	23	0	2	9	2	4	5	0	0	0	0	0	1	83
1030	1	38	26	0	3	12	4	5	9	1	0	0	0	0	1	100
1045	1	31	26	1	6	11	5	4	5	0	0	0	0	0	0	90
1100	4	42	19	0	2	8	4	1	9	0	0	0	0	0	0	89
Hourly Total	9	145	94	1	13	40	15	14	28	1	0	0	0	0		

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Northbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	4	4	0	0	1	0	0	1	0	0	0	0	0	0	11
30	1	1	3	0	0	0	0	0	1	0	0	0	0	0	1	7
45	0	2	2	0	0	0	0	0	0	0	0	2	0	0	0	6
100	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	6
Hourly Total	2	11	10	0	0	1	0	0	3	0	0	2	0	0	1	30
115	0	4	2	0	0	0	0	0	2	0	0	1	0	0	0	9
130	0	6	0	0	0	0	0	0	1	0	1	0	0	0	0	8
145	0	3	1	0	0	0	0	0	0	0	0	1	0	0	0	5
200	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
Hourly Total	0	14	3	0	0	0	1	3	0	1	2	0	0	0	0	24
215	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
230	0	6	3	0	0	0	0	0	2	0	0	0	0	0	1	12
245	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
300	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	3
Hourly Total	1	15	5	0	0	1	0	0	2	0	0	0	0	0	1	25
315	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	4
330	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
345	1	1	1	0	0	1	0	0	0	0	1	0	0	0	0	5
400	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	1	7	1	0	1	0	0	1	1	1	0	0	0	0	0	14
415	0	2	4	0	1	0	0	0	0	0	0	0	0	0	0	7
430	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
445	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
500	0	7	0	0	0	2	0	0	4	0	0	0	0	0	1	14
Hourly Total	0	19	6	0	3	0	0	4	0	0	0	0	0	0	1	33
515	0	11	3	0	1	1	0	0	1	0	0	0	0	0	0	17
530	0	11	4	0	2	0	1	0	2	0	0	0	0	0	0	20
545	1	10	7	0	4	2	0	0	0	0	0	0	0	0	0	24
600	2	14	7	0	2	3	0	0	3	0	0	0	0	0	0	31
Hourly Total	3	46	21	0	9	6	1	0	6	0	0	0	0	0	0	92
615	2	10	10	0	2	2	0	0	0	0	0	0	0	0	0	26
630	1	14	10	0	0	1	0	0	2	0	0	0	0	0	0	28
645	3	18	15	0	4	5	1	1	3	0	0	0	0	0	0	50
700	1	21	21	0	4	3	0	1	4	0	0	0	0	0	0	55
Hourly Total	7	63	56	0	10	11	1	2	9	0	0	0	0	0	0	159
715	0	22	15	0	5	3	0	1	3	1	0	0	0	0	0	50
730	1	29	15	0	1	3	0	1	2	1	0	0	0	0	0	53
745	0	19	18	0	4	2	1	2	4	0	0	0	0	0	0	50
800	5	33	11	1	2	8	1	1	4	0	0	0	0	0	1	67
Hourly Total	6	103	59	1	12	16	2	5	13	2	0	0	0	0	1	220
815	1	24	22	0	2	8	0	1	4	0	0	0	0	0	0	62
830	2	19	22	0	3	8	0	3	3	0	0	0	0	0	0	60
845	3	17	19	1	1	6	0	0	1	0	0	0	0	0	0	48
900	2	25	12	0	1	8	2	2	0	0	0	0	0	0	0	54
Hourly Total	8	85	75	1	7	30	2	6	10	0	0	0	0	0	0	224
915	5	24	7	0	0	9	1	0	2	0	0	0	0	0	0	48
930	1	15	14	0	0	9	0	0	5	0	0	0	0	0	0	44
945	1	19	8	0	1	5	0	2	3	0	0	0	0	0	0	39
1000	4	26	14	0	2	11	2	1	1	0	0	0	0	0	1	63
Hourly Total	11	84	43	0	3	34	3	1	11	1	0	0	0	0	1	194
1015	0	14	8	0	0	6	0	1	3	0	0	0	0	0	0	32
1030	0	9	5	0	3	3	1	1	6	1	0	0	0	0	1	30
1045	2	18	17	0	2	9	0	0	4	2	0	0	0	0	0	54
1100	3	17	14	0	4	9	1	0	4	0	0	0	0	0	0	52
Hourly Total	5	58	44	0	9	27	2	17	3	0	0	0	0	0	1	168
1115	2	16	16	0	1	9	0	0								

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98
 Direction: Southbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
30	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	4
45	0	1	1	0	0	0	0	0	2	0	1	0	0	0	0	5
100	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	11	2	0	0	0	0	0	3	0	1	0	0	0	0	17
115	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	6
130	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	5
145	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	5
200	0	3	0	0	0	0	0	1	4	0	0	0	0	0	0	8
Hourly Total	0	15	1	0	0	0	0	2	6	0	0	0	0	0	0	24
215	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
230	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8
245	0	2	2	0	1	0	0	0	3	0	0	0	0	0	0	8
300	0	2	0	0	1	0	0	0	2	0	0	0	0	0	0	5
Hourly Total	0	11	5	0	2	0	0	0	7	0	0	0	0	0	0	25
315	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	6
330	0	1	3	0	0	0	0	0	1	0	0	0	0	0	0	5
345	0	10	2	0	2	0	0	1	0	0	0	0	0	0	0	15
400	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	4
Hourly Total	0	13	9	0	2	0	0	2	4	0	0	0	0	0	0	30
415	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	7
430	0	3	3	0	1	0	0	0	5	0	0	0	0	0	0	12
445	2	9	6	0	0	2	0	0	1	0	0	1	0	0	0	21
500	2	6	8	0	1	0	0	0	3	1	0	0	0	0	0	21
Hourly Total	4	22	20	0	2	2	0	0	9	1	0	1	0	0	0	61
515	0	2	8	0	3	0	1	1	3	4	0	0	0	0	0	22
530	3	14	13	0	2	2	1	1	3	2	0	0	0	0	0	41
545	0	11	17	0	4	1	0	2	2	0	0	0	0	0	0	37
600	0	22	13	0	2	1	0	1	1	2	0	0	0	0	0	42
Hourly Total	3	49	51	0	11	4	2	5	9	8	0	0	0	0	0	142
615	0	19	24	0	1	2	0	1	5	1	0	0	0	0	0	53
630	0	27	21	0	3	0	0	1	1	1	0	0	0	0	0	54
645	0	38	20	0	3	1	1	1	1	0	0	0	0	0	0	65
700	0	34	25	0	6	1	0	3	2	3	0	0	0	0	0	75
Hourly Total	0	118	90	0	13	4	1	6	9	5	0	0	0	0	1	247
715	1	28	15	0	2	3	3	4	4	0	0	0	0	0	0	60
730	3	26	19	0	5	6	5	1	3	0	0	0	0	0	0	68
745	2	20	15	0	3	3	4	5	3	0	1	0	0	0	0	56
800	4	33	15	0	6	5	4	3	7	1	0	1	0	0	0	79
Hourly Total	10	107	64	0	16	17	16	13	17	1	1	1	0	0	0	263
815	1	17	13	0	6	3	5	3	6	1	0	0	0	0	0	55
830	3	22	21	0	4	7	3	2	4	0	0	0	0	0	0	66
845	3	25	13	0	4	6	5	4	3	1	0	0	0	0	0	64
900	0	24	9	0	7	2	4	3	7	0	0	0	0	0	0	56
Hourly Total	7	88	56	0	21	18	17	12	20	2	0	0	0	0	0	241
915	1	17	20	0	5	3	3	2	2	1	0	0	0	0	0	54
930	1	16	12	0	5	2	4	1	4	0	0	0	0	0	0	45
945	2	15	9	0	0	5	6	3	4	2	0	0	0	0	0	46
1000	2	23	6	0	0	5	4	2	3	2	0	0	0	0	0	47
Hourly Total	6	71	47	0	10	15	17	8	13	5	0	0	0	0	0	192
1015	1	18	15	0	4	2	4	0	5	0	0	0	0	0	0	49
1030	1	18	12	0	3	2	3	3	4	0	0	0	0	0	0	47
1045	2	14	8	0	2	5	5	2	3	1	0	0	0	0	0	42
1100	1	19	8	0	1	1	5	0	1	0	0	0	0	0	0	36
Hourly Total	5	69	43	0	10	10	17	5	13	1	0	0	0	0	1	174
1115	0	18	7	0	0											

CLASS COUNT REPORT

Location: Old Lakeland Hwy south of US 98 City/County: Dade City/Pasco
 Direction: Combined Start Date: 5/9/2019 Start Time: 00:00
 Stop Date: 5/9/2019 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	9	5	0	0	1	0	0	1	0	0	0	0	0	0	0
30	1	4	3	0	0	0	0	0	2	0	0	0	0	0	1	11
45	0	3	3	0	0	0	0	0	2	0	1	2	0	0	0	11
100	0	6	1	0	0	0	0	0	1	0	0	0	0	0	0	8
Hourly Total	2	22	12	0	0	1	0	0	6	0	1	2	0	0	1	47
115	0	8	3	0	0	0	0	1	2	0	0	1	0	0	0	15
130	0	10	0	0	0	0	0	0	2	0	1	0	0	0	0	13
145	0	7	1	0	0	0	0	0	1	0	0	1	0	0	0	10
200	0	4	0	0	0	0	0	2	4	0	0	0	0	0	0	10
Hourly Total	0	29	4	0	0	0	0	3	9	0	1	2	0	0	0	48
215	0	6	1	0	0	0	0	0	2	0	0	0	0	0	0	9
230	0	12	5	0	0	0	0	0	2	0	0	0	0	0	1	20
245	0	6	3	0	1	0	0	0	3	0	0	0	0	0	0	13
300	1	2	1	0	1	1	0	0	2	0	0	0	0	0	0	8
Hourly Total	1	26	10	0	2	1	0	0	9	0	0	0	0	0	1	50
315	0	3	2	0	1	0	0	1	2	1	0	0	0	0	0	10
330	0	3	3	0	0	0	0	0	1	0	0	0	0	0	0	7
345	1	11	3	0	2	1	0	1	0	0	1	0	0	0	0	20
400	0	3	2	0	0	0	0	0	2	0	0	0	0	0	0	7
Hourly Total	1	20	10	0	3	1	0	2	5	1	1	0	0	0	0	44
415	0	6	7	0	1	0	0	0	0	0	0	0	0	0	0	14
430	0	7	4	0	1	0	0	0	5	0	0	0	0	0	0	17
445	2	15	7	0	0	2	0	0	1	0	0	1	0	0	0	28
500	2	13	8	0	3	0	0	0	7	1	0	0	0	1	1	35
Hourly Total	4	41	26	0	5	2	0	0	13	1	0	1	0	0	1	94
515	0	13	11	0	4	1	1	1	4	4	0	0	0	0	0	39
530	3	25	17	0	4	2	2	1	5	2	0	0	0	0	0	61
545	1	21	24	0	8	3	0	2	2	0	0	0	0	0	0	61
600	2	36	20	0	4	4	0	1	4	2	0	0	0	0	0	73
Hourly Total	6	95	72	0	20	10	3	5	15	8	0	0	0	0	0	234
615	2	29	34	0	3	4	0	1	5	1	0	0	0	0	0	79
630	1	41	31	0	3	1	0	1	3	1	0	0	0	0	0	82
645	3	56	35	0	7	6	2	2	4	0	0	0	0	0	0	115
700	1	55	46	0	10	4	0	4	6	3	0	0	0	0	1	130
Hourly Total	7	181	146	0	23	15	2	8	18	5	0	0	0	0	1	406
715	1	50	30	0	7	6	3	5	7	1	0	0	0	0	0	110
730	4	55	34	0	6	9	5	2	5	1	0	0	0	0	0	121
745	2	39	33	0	7	5	5	7	7	0	1	0	0	0	0	106
800	9	66	26	1	8	13	5	4	11	1	0	1	0	0	1	146
Hourly Total	16	210	123	1	28	33	18	18	30	3	1	1	0	0	1	483
815	2	41	35	0	8	11	5	4	10	1	0	0	0	0	0	117
830	5	41	43	0	7	15	3	5	7	0	0	0	0	0	0	126
845	6	42	32	1	5	12	5	4	4	1	0	0	0	0	0	112
900	2	49	21	0	8	10	6	5	9	0	0	0	0	0	0	110
Hourly Total	15	173	131	1	28	48	19	18	30	2	0	0	0	0	0	465
915	6	41	27	0	5	12	4	2	4	1	0	0	0	0	0	102
930	2	31	26	0	5	11	4	1	9	0	0	0	0	0	0	89
945	3	34	17	0	1	10	6	5	7	2	0	0	0	0	0	85
1000	6	49	20	0	2	16	6	3	4	3	0	0	0	0	1	110
Hourly Total	17	155	90	0	13	49	20	11	24	6	0	0	0	0	1	386
1015	1	32	23	0	4	8	4	1	8	0	0	0	0	0	0	81
1030	1	27	17	0	6	5	4	4	10	1	0	0	0	0	2	77
1045	4	32	25	0	4	14	5	2	7	3	0	0	0	0	0	96
1100	4	36	22	0	5	10	6	0	5	0	0	0	0	0	0	88
Hourly Total	10	127	87	0	19	37	19	7	30	4	0	0	0	0	2	342
1115																

Volume Count Report

Start Date: May 7, 2019
 Stop Date: May 8, 2019
 City: Dade City
 Location Old Lakeland Hwy north of US 98

Northbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	16	11	13	8	19	38	50	103	66	75	68
30	9	11	5	14	7	41	49	88	74	54	74	49
45	14	10	9	4	21	29	66	88	68	74	62	66
00	13	10	6	10	21	53	66	87	74	72	91	83
Hr Total	40	47	31	41	57	142	219	313	319	266	302	266

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	71	71	75	73	98	82	93	48	46	32	18	13
30	80	64	64	74	79	102	61	47	39	16	13	14
45	65	73	62	106	116	83	59	37	28	28	23	11
00	91	76	73	62	86	79	64	38	23	20	12	7
Hr Total	307	284	274	315	379	346	277	170	136	96	66	45

24 Hour Total: 4,738
 AM Peak Hour begins: 7:15 AM Peak Volume: 366 AM Peak Hour Factor: 0.89
 PM Peak Hour begins: 16:30 PM Peak Volume: 386 PM Peak Hour Factor: 0.83

Southbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	16	7	9	11	13	56	65	66	105	79	57	61
30	9	8	6	10	9	61	78	93	98	69	77	85
45	9	6	18	15	29	42	97	77	87	61	74	63
00	9	7	16	15	34	61	74	102	71	69	57	74
Hr Total	43	28	49	51	85	220	314	338	361	278	265	283

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	75	66	75	72	99	102	70	37	51	33	19	12
30	64	96	60	87	97	84	54	29	31	32	19	11
45	66	55	72	80	77	82	73	34	22	26	16	11
00	55	57	68	84	75	58	48	42	51	29	15	17
Hr Total	260	274	275	323	348	326	245	142	155	120	69	51

24 Hour Total: 4,903
 AM Peak Hour begins: 7:45 AM Peak Volume: 392 AM Peak Hour Factor: 0.93
 PM Peak Hour begins: 15:30 PM Peak Volume: 360 PM Peak Hour Factor: 0.91

Total Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	20	23	20	24	21	75	103	116	208	145	132	129
30	18	19	11	24	16	102	127	181	172	123	151	134
45	23	16	27	19	50	71	163	165	155	135	136	129
00	22	17	22	25	55	114	140	189	145	141	148	157
Hr Total	83	75	80	92	142	362	533	651	680	544	567	549

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	146	137	150	145	197	184	163	85	97	65	37	25
30	144	160	124	161	176	186	115	76	70	48	32	25
45	131	128	134	186	193	165	132	71	50	54	39	22
00	146	133	141	146	161	137	112	80	74	49	27	24
Hr Total	567	558	549	638	727	672	522	312	291	216	135	96

24 Hour Total: 9,641
 AM Peak Hour begins: 7:15 AM Peak Volume: 743 AM Peak Hour Factor: 0.89
 PM Peak Hour begins: 16:00 PM Peak Volume: 727 PM Peak Hour Factor: 0.92

Volume Count Report

Start Date: May 8, 2019
 Stop Date: May 9, 2019
 City: Dade City
 Location: Old Lakeland Hwy north of US 98

Northbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	6	12	8	13	11	27	46	63	86	72	58	81
30	7	14	7	12	9	30	54	96	83	75	73	64
45	7	11	9	11	6	34	73	75	88	60	53	60
00	11	4	12	5	14	32	78	92	83	54	61	64
Hr Total	31	41	36	41	40	123	251	326	340	261	245	269

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	42	63	67	73	83	76	81	53	32	23	18	10
30	74	78	53	84	79	92	73	47	56	17	22	14
45	75	83	73	84	88	108	73	41	28	19	20	1
00	62	81	83	91	101	103	62	46	33	13	7	9
Hr Total	253	305	276	332	351	379	289	187	149	72	67	34

24 Hour Total: 4,698
 AM Peak Hour begins: 7:15 AM Peak Volume: 349 AM Peak Hour Factor: 0.91
 PM Peak Hour begins: 17:15 PM Peak Volume: 384 PM Peak Hour Factor: 0.89

Southbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	15	6	10	14	20	37	79	91	61	79	56	64
30	7	12	7	14	6	57	71	80	76	59	64	77
45	14	3	18	13	29	53	79	76	94	78	70	59
00	5	17	15	9	41	55	78	70	90	69	65	70
Hr Total	41	38	50	50	96	202	307	317	321	285	255	270

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	79	65	81	63	86	108	89	43	32	28	16	14
30	61	59	69	81	72	107	61	57	25	25	23	5
45	68	70	73	99	81	89	54	33	38	25	23	13
00	59	62	56	89	63	56	52	26	38	18	26	9
Hr Total	267	256	279	332	302	360	256	159	133	96	88	41

24 Hour Total: 4,801
 AM Peak Hour begins: 8:15 AM Peak Volume: 339 AM Peak Hour Factor: 0.90
 PM Peak Hour begins: 16:45 PM Peak Volume: 367 PM Peak Hour Factor: 0.85

Total Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	21	18	18	27	31	64	125	154	147	151	114	145
30	14	26	14	26	15	87	125	176	159	134	137	141
45	21	14	27	24	35	87	152	151	182	138	123	119
00	16	21	27	14	55	87	156	162	173	123	126	134
Hr Total	72	79	86	91	136	325	558	643	661	546	500	539

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	121	128	148	136	169	184	170	96	64	51	34	24
30	135	137	122	165	151	199	134	104	81	42	45	19
45	143	153	146	183	169	197	127	74	66	44	43	14
00	121	143	139	180	164	159	114	72	71	31	33	18
Hr Total	520	561	555	664	653	739	545	346	282	168	155	75

24 Hour Total: 9,499
 AM Peak Hour begins: 8:15 AM Peak Volume: 665 AM Peak Hour Factor: 0.91
 PM Peak Hour begins: 16:45 PM Peak Volume: 744 PM Peak Hour Factor: 0.93

Volume Count Report

Start Date: May 7, 2019
 Stop Date: May 8, 2019
 City: Dade City
 Location US 98 west of Old Lakeland Hwy

Eastbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	10	0	0	0	2	16	49	60	35	35	29	28
30	1	6	6	6	7	28	47	52	45	23	28	22
45	6	3	1	4	9	28	44	40	46	51	47	25
00	2	6	1	5	14	33	33	47	39	43	23	29
Hr Total	19	15	8	15	32	105	173	199	165	152	127	104

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	35	24	34	59	34	47	51	25	20	21	14	8
30	33	43	36	46	46	54	32	16	18	11	12	9
45	29	26	42	39	46	51	30	27	15	20	11	9
00	23	27	40	41	49	38	22	23	10	5	4	14
Hr Total	120	120	152	185	175	190	135	91	63	57	41	40

24 Hour Total: 2,483
 AM Peak Hour begins: 7:00 AM Peak Volume: 199 AM Peak Hour Factor: 0.83
 PM Peak Hour begins: 16:45 PM Peak Volume: 201 PM Peak Hour Factor: 0.93

Westbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	3	4	0	3	9	28	37	63	43	42	28
30	5	5	1	4	6	13	34	39	48	40	36	40
45	2	2	1	2	3	23	39	55	47	38	32	33
00	4	3	1	9	13	13	45	62	33	28	28	38
Hr Total	15	13	7	15	25	58	146	193	191	149	138	139

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	46	53	40	33	47	43	45	22	23	18	11	14
30	34	34	34	41	36	47	35	23	26	8	9	6
45	41	44	36	42	52	74	36	19	25	12	5	6
00	64	47	37	55	41	44	39	27	19	15	12	5
Hr Total	185	178	147	171	176	208	155	91	93	53	37	31

24 Hour Total: 2,614
 AM Peak Hour begins: 7:30 AM Peak Volume: 228 AM Peak Hour Factor: 0.90
 PM Peak Hour begins: 17:15 PM Peak Volume: 210 PM Peak Hour Factor: 0.71

Total Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	14	3	4	0	5	25	77	97	98	78	71	56
30	6	11	7	10	13	41	81	91	93	63	64	62
45	8	5	2	6	12	51	83	95	93	89	79	58
00	6	9	2	14	27	46	78	109	72	71	51	67
Hr Total	34	28	15	30	57	163	319	392	356	301	265	243

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	81	77	74	92	81	90	96	47	43	39	25	22
30	67	77	70	87	82	101	67	39	44	19	21	15
45	70	70	78	81	98	125	66	46	40	32	16	15
00	87	74	77	96	90	82	61	50	29	20	16	19
Hr Total	305	298	299	356	351	398	290	182	156	110	78	71

24 Hour Total: 5,097
 AM Peak Hour begins: 7:30 AM Peak Volume: 395 AM Peak Hour Factor: 0.91
 PM Peak Hour begins: 16:45 PM Peak Volume: 406 PM Peak Hour Factor: 0.81

Volume Count Report

Start Date: May 8, 2019
 Stop Date: May 9, 2019
 City: Dade City
 Location US 98 west of Old Lakeland Hwy

Eastbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	3	1	7	7	10	36	64	34	28	30	27
30	3	3	5	7	3	26	51	60	40	52	26	29
45	4	3	3	4	14	27	49	57	46	47	32	33
00	0	1	4	8	9	31	43	50	48	38	24	31
Hr Total	14	10	13	26	33	94	179	231	168	165	112	120

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	24	22	37	40	55	42	44	26	9	12	12	5
30	31	27	23	34	44	38	34	24	18	13	18	8
45	26	31	27	41	52	52	30	23	11	24	10	2
00	18	28	41	45	61	44	35	17	22	14	9	5
Hr Total	99	108	128	160	212	176	143	90	60	63	49	20

24 Hour Total: 2,473
 AM Peak Hour begins: 7:00 AM Peak Volume: 231 AM Peak Hour Factor: 0.90
 PM Peak Hour begins: 16:00 PM Peak Volume: 212 PM Peak Hour Factor: 0.87

Westbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	1	3	0	6	28	32	49	51	46	41	29
30	5	7	0	3	5	8	32	42	39	35	54	32
45	11	1	2	5	9	19	38	60	45	28	26	39
00	5	12	0	5	13	14	40	57	40	31	44	42
Hr Total	28	21	5	13	33	69	142	208	175	140	165	142

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	42	37	43	33	58	42	23	21	32	16	12	5
30	50	42	28	52	44	58	34	36	25	9	8	4
45	36	39	45	44	35	45	28	19	24	17	11	10
00	45	35	32	54	46	58	27	23	16	10	5	5
Hr Total	173	153	148	183	183	203	112	99	97	52	36	24

24 Hour Total: 2,604
 AM Peak Hour begins: 7:15 AM Peak Volume: 210 AM Peak Hour Factor: 0.88
 PM Peak Hour begins: 15:15 PM Peak Volume: 208 PM Peak Hour Factor: 0.90

Total Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	14	4	4	7	13	38	68	113	85	74	71	56
30	8	10	5	10	8	34	83	102	79	87	80	61
45	15	4	5	9	23	46	87	117	91	75	58	72
00	5	13	4	13	22	45	83	107	88	69	68	73
Hr Total	42	31	18	39	66	163	321	439	343	305	277	262

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	66	59	80	73	113	84	67	47	41	28	24	10
30	81	69	51	86	88	96	68	60	43	22	26	12
45	62	70	72	85	87	97	58	42	35	41	21	12
00	63	63	73	99	107	102	62	40	38	24	14	10
Hr Total	272	261	276	343	395	379	255	189	157	115	85	44

24 Hour Total: 5,077
 AM Peak Hour begins: 7:00 AM Peak Volume: 439 AM Peak Hour Factor: 0.94
 PM Peak Hour begins: 16:00 PM Peak Volume: 395 PM Peak Hour Factor: 0.87

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Eastbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	3	0	0	0	0	0	2	0	0	0	0	0	0	9
30	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
45	0	2	1	0	0	0	0	0	2	0	0	0	0	0	0	5
100	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	10	5	1	0	0	0	0	4	0	0	0	0	0	0	20
115	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
130	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
145	0	0	1	0	0	1	0	0	3	0	0	0	0	0	0	5
200	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	4
Hourly Total	0	5	1	0	0	1	0	0	8	0	0	0	0	0	0	15
215	0	1	1	0	0	2	0	0	1	0	0	0	0	0	0	5
230	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
245	0	0	1	0	3	0	0	0	1	0	0	0	0	0	0	5
300	0	2	1	0	1	0	0	0	2	0	0	0	0	0	0	6
Hourly Total	0	4	3	0	4	2	0	0	6	0	0	0	0	0	0	19
315	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
330	0	3	2	0	0	0	0	0	2	0	0	0	0	0	0	7
345	2	2	0	0	1	2	0	0	1	0	0	0	0	0	0	8
400	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Hourly Total	2	5	5	0	1	2	0	0	5	0	0	0	0	0	0	20
415	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	6
430	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0	7
445	0	2	6	0	0	0	0	0	2	2	0	0	0	0	0	12
500	1	7	9	0	3	0	0	0	2	0	0	0	0	0	0	22
Hourly Total	1	16	16	0	3	3	0	0	6	2	0	0	0	0	0	47
515	0	9	8	0	4	0	0	0	6	0	0	0	0	0	0	27
530	1	20	9	0	3	3	1	0	4	5	0	0	0	0	0	46
545	2	10	12	0	2	2	0	1	2	0	0	0	0	0	0	31
600	1	21	17	0	0	4	1	2	1	0	0	0	0	0	0	47
Hourly Total	4	60	46	0	9	9	2	3	13	5	0	0	0	0	0	151
615	1	18	13	0	3	4	1	0	3	0	0	0	0	0	0	43
630	1	26	19	0	2	5	0	0	3	0	0	0	0	0	0	56
645	1	26	16	0	9	7	0	0	3	1	0	0	0	0	0	63
700	0	27	18	0	2	0	0	0	0	0	0	0	0	0	0	47
Hourly Total	3	97	66	0	16	16	1	0	9	1	0	0	0	0	0	209
715	0	31	20	0	2	2	0	0	5	0	0	0	0	0	0	60
730	2	42	14	0	1	2	0	3	1	1	0	0	0	0	0	66
745	0	29	13	0	1	3	0	0	2	2	0	0	0	0	0	50
800	1	23	18	0	4	2	0	1	5	1	0	0	0	0	0	55
Hourly Total	3	125	65	0	8	9	0	4	13	4	0	0	0	0	0	231
815	1	20	12	0	2	8	0	1	2	0	0	0	0	0	0	46
830	0	22	15	0	2	7	0	0	6	2	0	0	0	0	0	54
845	2	32	8	0	1	5	0	1	3	1	0	0	0	0	0	53
900	3	17	8	0	1	6	0	3	4	0	0	0	0	0	0	42
Hourly Total	6	91	43	0	6	26	0	5	15	3	0	0	0	0	0	195
915	0	17	17	0	1	7	0	2	3	1	0	0	0	0	0	48
930	0	18	5	0	1	5	0	2	2	0	0	0	0	0	1	34
945	0	24	17	0	2	5	0	1	5	0	0	0	0	0	0	54
1000	2	16	3	0	2	8	0	1	6	1	0	0	0	0	0	39
Hourly Total	2	75	42	0	6	25	0	6	16	2	0	0	0	0	1	175
1015	1	17	4	0	0	5	0	0	1	0	0	0	0	0	0	29
1030	0	30	13	0	1	6	0	3	3	0	0	0	0	0	0	56
1045	1	17	15	0	1	5	0	1	5	0	0	0	0	0	0	45
1100	0	19	7	0	1	5	1	3	2	0	0	0	0	0	0	39
Hourly Total	2	83	39	0	3	21	1	7	11	0	0	0	0	0	2	169
1115	0	13	10	0	0	5	0	0								

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Westbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	5
30	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	4
45	0	1	1	0	1	0	0	0	1	0	0	0	0	0	0	4
100	1	5	2	0	1	0	0	0	2	0	0	0	0	0	0	11
Hourly Total	1	13	3	0	2	0	0	0	5	0	0	0	0	0	0	24
115	0	5	0	0	0	1	0	0	3	0	0	0	0	0	0	9
130	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0	5
145	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
200	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
Hourly Total	1	10	1	0	0	1	0	0	6	0	0	0	0	0	0	19
215	0	2	1	0	0	0	0	0	2	0	0	0	0	0	0	5
230	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
245	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
300	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	7	3	0	0	0	0	0	3	0	0	0	0	0	0	13
315	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
330	1	3	1	0	1	1	0	0	0	0	0	0	0	0	0	7
345	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
400	0	2	0	0	0	1	0	1	2	1	0	0	0	0	0	7
Hourly Total	1	9	2	0	1	2	0	1	2	1	0	0	0	0	0	19
415	0	3	1	0	1	0	0	0	0	1	0	0	0	0	0	6
430	0	3	4	0	0	0	0	0	1	0	0	0	0	0	0	8
445	0	3	0	1	3	0	0	0	1	0	0	0	0	0	0	8
500	0	6	2	0	1	1	0	0	2	1	0	0	0	0	0	13
Hourly Total	0	15	7	1	5	1	0	0	4	2	0	0	0	0	0	35
515	1	3	3	0	0	0	0	1	2	0	0	0	0	0	0	10
530	1	5	5	1	1	2	1	0	1	2	0	0	0	0	0	19
545	0	11	5	0	1	0	0	1	4	1	0	0	0	0	0	23
600	0	10	3	0	0	3	0	0	4	1	0	0	0	0	0	21
Hourly Total	2	29	16	1	5	2	1	2	11	4	0	0	0	0	0	73
615	1	12	9	0	4	1	0	0	2	0	0	0	0	0	0	29
630	0	25	16	0	1	1	0	2	2	0	0	0	0	0	0	47
645	2	14	20	0	0	2	0	0	2	0	0	0	0	0	0	40
700	2	29	14	1	1	0	0	0	4	0	0	0	0	0	0	51
Hourly Total	5	80	59	1	6	4	0	2	10	0	0	0	0	0	0	167
715	1	23	13	0	1	0	3	0	0	1	0	0	0	0	0	42
730	0	18	13	0	6	0	5	0	2	0	0	0	0	0	0	45
745	2	25	8	0	1	2	3	2	7	0	0	0	0	0	0	50
800	1	31	18	0	5	0	5	0	4	1	0	0	0	0	0	65
Hourly Total	4	97	52	0	13	2	16	2	13	2	0	0	0	0	0	202
815	2	36	15	1	7	0	4	1	9	0	0	0	0	0	0	75
830	0	24	12	0	1	1	5	2	4	0	0	0	0	0	0	49
845	0	27	11	1	3	1	6	1	4	0	0	0	0	0	0	54
900	0	19	14	0	1	3	2	2	0	2	0	0	0	0	0	43
Hourly Total	2	106	52	2	12	5	17	6	17	2	0	0	0	0	0	221
915	1	24	9	0	2	1	3	2	6	0	0	0	0	0	0	48
930	0	16	10	1	2	1	3	1	3	0	0	0	0	0	0	37
945	0	10	9	0	1	0	5	0	6	1	0	0	0	0	0	32
1000	1	20	13	1	1	2	4	0	1	1	0	0	0	0	0	44
Hourly Total	2	70	41	2	6	4	15	3	16	2	0	0	0	0	0	161
1015	3	17	7	0	3	6	3	1	8	1	0	0	0	0	0	49
1030	0	21	13	1	6	0	3	0	5	0	0	0	0	0	0	50
1045	0	20	9	1	2	1	2	1	2	0	0	0	0	0	0	38
1100	0	23	9	0	3	0	4	0	4	1	0	0	0	0	0	44
Hourly Total	3	81	38	2	14	7	12	2	19	2	0	0	0	0	0	181
1115	0	12	9	0	1	1	4	1	4</td							

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Combined
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	8	3	0	0	0	0	0	3	0	0	0	0	0	0	14
30	0	5	0	1	0	0	0	0	1	0	0	0	0	0	0	7
45	0	3	2	0	1	0	0	0	3	0	0	0	0	0	0	9
100	1	7	3	0	1	0	0	0	2	0	0	0	0	0	0	14
Hourly Total	1	23	8	1	2	0	0	0	9	0	0	0	0	0	0	44
115	0	6	0	0	0	1	0	0	5	0	0	0	0	0	0	12
130	1	4	0	0	0	0	0	0	3	0	0	0	0	0	0	8
145	0	1	1	0	0	1	0	0	3	0	0	0	0	0	0	6
200	0	4	1	0	0	0	0	0	3	0	0	0	0	0	0	8
Hourly Total	1	15	2	0	0	2	0	0	14	0	0	0	0	0	0	34
215	0	3	2	0	0	2	0	0	3	0	0	0	0	0	0	10
230	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	4
245	0	3	2	0	3	0	0	0	2	0	0	0	0	0	0	10
300	0	3	2	0	1	0	0	0	2	0	0	0	0	0	0	8
Hourly Total	0	11	6	0	4	2	0	0	9	0	0	0	0	0	0	32
315	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
330	1	6	3	0	1	1	0	0	2	0	0	0	0	0	0	14
345	2	4	1	0	1	2	0	0	1	0	0	0	0	0	0	11
400	0	2	2	0	0	1	0	1	3	1	0	0	0	0	0	10
Hourly Total	3	14	7	0	2	4	0	1	7	1	0	0	0	0	0	39
415	0	5	2	0	1	3	0	0	0	1	0	0	0	0	0	12
430	0	8	4	0	0	0	0	0	3	0	0	0	0	0	0	15
445	0	5	6	1	3	0	0	0	3	2	0	0	0	0	0	20
500	1	13	11	0	4	1	0	0	4	1	0	0	0	0	0	35
Hourly Total	1	31	23	1	8	4	0	0	10	4	0	0	0	0	0	82
515	1	12	11	0	4	0	0	1	8	0	0	0	0	0	0	37
530	2	25	14	1	4	5	2	0	5	7	0	0	0	0	0	65
545	2	21	17	0	3	2	0	2	6	1	0	0	0	0	0	54
600	1	31	20	0	3	4	1	2	5	1	0	0	0	0	0	68
Hourly Total	6	89	62	1	14	11	3	5	24	9	0	0	0	0	0	224
615	2	30	22	0	7	5	1	0	5	0	0	0	0	0	0	72
630	1	51	35	0	3	6	0	2	5	0	0	0	0	0	0	103
645	3	40	36	0	9	9	0	0	5	1	0	0	0	0	0	103
700	2	56	32	1	3	0	0	0	4	0	0	0	0	0	0	98
Hourly Total	8	177	125	1	22	20	1	2	19	1	0	0	0	0	0	376
715	1	54	33	0	3	2	3	0	5	1	0	0	0	0	0	102
730	2	60	27	0	7	2	5	3	3	1	0	0	0	0	1	111
745	2	54	21	0	2	5	3	2	9	2	0	0	0	0	0	100
800	2	54	36	0	9	2	5	1	9	2	0	0	0	0	0	120
Hourly Total	7	222	117	0	21	11	16	6	26	6	0	0	0	0	1	433
815	3	56	27	1	9	8	4	2	11	0	0	0	0	0	0	121
830	0	46	27	0	3	8	5	2	10	2	0	0	0	0	0	103
845	2	59	19	1	4	6	6	2	7	1	0	0	0	0	0	107
900	3	36	22	0	2	9	2	5	4	2	0	0	0	0	0	85
Hourly Total	8	197	95	2	18	31	17	11	32	5	0	0	0	0	0	416
915	1	41	26	0	3	8	3	4	9	1	0	0	0	0	0	96
930	0	34	15	1	3	6	3	3	5	0	0	0	0	0	1	71
945	0	34	26	0	3	5	5	1	11	1	0	0	0	0	0	86
1000	3	36	16	1	3	10	4	1	7	2	0	0	0	0	0	83
Hourly Total	4	145	83	2	12	29	15	9	32	4	0	0	0	0	1	336
1015	4	34	11	0	3	11	3	1	9	1	0	0	0	0	0	78
1030	0	51	26	1	7	6	3	3	8	0	0	0	0	0	1	106
1045	1	37	24	1	3	6	2	2	7	0	0	0	0	0	0	83
1100	0	42	16	0	4	5	3	6	1	0	0	0	0	0	0	83
Hourly Total	5	164	77	2	17	28	13	9	30	2	0	0	0	0	3	350

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Eastbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
30	0	3	0	0	1	1	0	0	1	0	0	0	0	0	0	6
45	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2
100	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	6	3	0	1	1	0	0	3	0	0	0	0	0	0	14
115	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
130	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
145	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
200	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	3	2	0	0	0	0	0	4	0	0	0	0	0	0	9
215	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
230	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	4
245	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	3
300	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	4
Hourly Total	0	4	1	0	1	2	0	0	6	0	0	0	0	0	0	14
315	0	4	1	0	0	0	0	0	3	0	0	0	0	0	0	8
330	0	4	1	0	0	1	0	0	2	0	0	0	0	0	0	8
345	0	1	0	0	1	1	0	0	3	0	0	0	0	0	0	6
400	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
Hourly Total	0	10	3	0	1	2	0	0	10	0	0	0	0	0	0	26
415	1	4	0	0	0	1	0	0	2	0	0	0	0	0	0	8
430	0	2	3	0	0	0	0	0	1	0	0	0	0	0	0	6
445	1	10	6	0	0	1	0	0	0	0	0	0	0	0	0	18
500	1	5	12	0	0	0	0	0	0	0	0	0	0	0	0	18
Hourly Total	3	21	21	0	0	2	0	0	3	0	0	0	0	0	0	50
515	0	5	4	0	3	1	0	1	2	2	0	0	0	0	0	18
530	0	13	14	0	3	2	0	3	1	1	0	0	0	0	0	37
545	0	16	8	0	1	2	0	0	4	1	0	0	0	0	0	32
600	0	16	17	0	0	0	0	0	4	0	0	0	0	0	0	37
Hourly Total	0	50	43	0	7	5	0	4	11	4	0	0	0	0	0	124
615	1	18	14	0	2	4	0	1	6	0	1	0	0	0	0	47
630	1	21	26	0	4	1	1	4	5	0	0	0	0	0	0	63
645	0	20	19	0	2	4	0	0	6	2	0	0	0	0	0	53
700	0	21	12	0	3	2	0	0	5	0	0	0	0	0	0	43
Hourly Total	2	80	71	0	11	11	1	5	22	2	1	0	0	0	0	206
715	1	42	15	0	2	3	0	0	2	0	0	0	0	0	0	65
730	0	31	14	1	5	2	0	2	3	0	0	0	0	0	0	58
745	0	32	21	0	5	0	0	5	3	0	0	0	0	0	0	66
800	0	27	16	0	5	0	0	1	3	2	0	0	0	0	0	54
Hourly Total	1	132	66	1	17	5	0	8	11	2	0	0	0	0	0	243
815	0	25	13	0	1	10	0	0	2	0	0	0	0	0	0	51
830	0	30	12	0	4	8	0	0	6	0	0	0	0	0	0	60
845	2	15	16	0	4	7	0	1	6	0	0	0	0	0	0	51
900	1	23	10	0	3	2	0	0	5	0	0	0	0	0	0	39
Hourly Total	3	93	51	0	12	27	0	4	19	0	0	0	0	0	0	209
915	0	25	11	0	2	4	0	1	5	0	0	0	0	0	0	48
930	3	21	9	1	2	7	0	1	7	0	0	0	0	0	0	52
945	1	21	7	0	3	8	0	1	7	0	0	0	0	0	0	48
1000	0	12	13	0	2	3	0	1	8	0	0	0	0	0	0	39
Hourly Total	4	79	40	1	9	22	0	4	27	0	0	0	0	0	0	187
1015	0	14	11	0	2	6	0	1	2	1	0	0	0	0	0	38
1030	1	15	7	0	1	10	0	3	5	0	0	0	0	0	0	42
1045	1	14	13	0	1	6	0	1	4	0	0	0	0	0	0	40
1100	1	13	12	0	4	5	0	2	0	0	0	0	0	0	0	37
Hourly Total	3	56	43	0	8	27	0	7	11	1	0	0	0	0	0	157
1115	1	13	7	0	1	4	0</td									

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Westbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	2	0	0	0	0	0	1	0	0	0	0	0	0	7
30	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	5
45	1	5	1	0	1	0	0	0	1	0	0	0	0	0	0	9
100	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	6
Hourly Total	1	16	4	0	3	0	0	1	2	0	0	0	0	0	0	27
115	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
130	0	3	1	0	0	0	0	0	2	0	0	0	0	0	0	6
145	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
200	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	4
Hourly Total	0	5	2	0	0	0	0	0	9	0	0	0	0	0	0	16
215	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
230	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
245	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
300	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hourly Total	0	4	0	0	1	0	0	0	2	0	0	0	0	0	0	8
315	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3
330	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	4
345	0	2	2	0	2	0	0	0	1	0	0	0	0	0	0	7
400	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Hourly Total	0	7	2	0	0	0	0	0	3	2	0	0	0	0	0	16
415	0	6	1	0	1	1	0	0	1	0	0	0	0	0	0	10
430	0	3	0	0	0	1	0	0	2	0	0	0	0	0	0	6
445	0	3	2	0	0	1	0	0	1	1	0	0	0	0	0	8
500	0	2	3	0	0	2	0	0	1	1	1	0	0	0	0	10
Hourly Total	0	14	6	0	3	3	0	1	5	2	0	0	0	0	0	34
515	0	7	6	1	1	0	1	1	6	2	0	0	0	0	0	25
530	0	5	5	0	0	0	0	0	1	0	0	0	0	0	0	11
545	0	3	7	0	0	0	0	1	5	2	0	0	0	0	0	18
600	0	9	6	0	0	2	0	0	3	0	0	0	0	0	0	20
Hourly Total	0	24	24	1	3	0	1	2	15	4	0	0	0	0	0	74
615	0	14	6	0	2	0	0	2	5	1	0	0	0	0	0	30
630	0	23	13	0	3	0	0	0	2	2	0	0	0	0	0	43
645	0	22	14	1	2	0	0	0	3	2	0	0	0	0	0	44
700	2	30	13	1	0	1	1	0	0	0	0	0	0	0	0	49
Hourly Total	2	89	46	2	8	0	1	3	10	5	0	0	0	0	0	166
715	1	12	14	1	5	3	4	2	7	0	0	0	0	0	0	49
730	1	17	12	1	1	1	5	1	8	0	0	0	0	0	0	47
745	2	26	9	0	1	3	3	2	4	4	0	0	0	0	0	54
800	1	25	22	0	2	1	4	3	4	1	0	0	0	0	0	63
Hourly Total	5	80	57	2	9	8	16	8	23	5	0	0	0	0	0	213
815	5	46	10	1	2	6	0	0	5	0	0	0	0	0	0	75
830	1	17	10	0	4	4	5	0	3	0	0	0	0	0	0	44
845	0	32	7	0	3	0	6	4	7	0	0	0	0	0	0	59
900	3	18	9	0	3	3	1	1	8	2	0	0	0	0	0	48
Hourly Total	9	113	36	1	12	13	12	5	23	2	0	0	0	0	0	226
915	0	16	10	2	0	3	3	2	7	0	0	0	0	0	0	43
930	1	17	10	0	1	2	6	0	2	2	0	0	0	0	0	41
945	0	19	10	0	2	1	5	1	1	0	0	0	1	0	0	40
1000	1	15	6	0	0	2	5	3	8	1	0	0	0	0	0	41
Hourly Total	2	67	36	2	3	8	19	6	18	3	0	1	0	0	0	165
1015	0	15	8	0	3	3	1	2	3	1	0	0	0	0	0	36
1030	1	19	9	0	2	3	4	2	6	3	0	0	0	0	0	49
1045	0	9	8	0	2	3	5	1	4	1	0	0	0	0	0	33
1100	1	18	7	0	0	3	5	1	8	1	0	0	0	0	1	45
Hourly Total	2	61	32	0	7	12	15	6	21	6	0	0	0	0	0	163
1115	1	18	12	0	2	3	4	1	2	0</td						

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Combined
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	6	3	0	0	0	0	0	2	0	0	0	0	0	0	11
30	0	6	0	0	3	1	0	0	1	0	0	0	0	0	0	11
45	1	5	2	0	1	0	0	0	2	0	0	0	0	0	0	11
100	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	8
Hourly Total	1	22	7	0	4	1	0	1	5	0	0	0	0	0	0	41
115	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	4
130	0	4	2	0	0	0	0	0	4	0	0	0	0	0	0	10
145	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	5
200	0	1	2	0	0	0	0	0	3	0	0	0	0	0	0	6
Hourly Total	0	8	4	0	0	0	0	0	13	0	0	0	0	0	0	25
215	0	4	0	0	0	0	0	0	2	0	0	0	0	0	0	6
230	0	2	1	0	0	1	0	0	1	0	0	0	0	0	0	5
245	0	1	0	0	1	1	0	0	2	0	0	0	0	0	1	6
300	0	1	0	0	1	0	0	0	3	0	0	0	0	0	0	5
Hourly Total	0	8	1	0	2	2	0	0	8	0	0	0	0	0	1	22
315	0	6	1	0	0	0	0	0	4	0	0	0	0	0	0	11
330	0	6	1	0	0	1	0	0	3	1	0	0	0	0	0	12
345	0	3	2	0	3	1	0	0	4	0	0	0	0	0	0	13
400	0	2	1	0	0	0	0	0	2	1	0	0	0	0	0	6
Hourly Total	0	17	5	0	3	2	0	0	13	2	0	0	0	0	0	42
415	1	10	1	0	1	2	0	0	3	0	0	0	0	0	0	18
430	0	5	3	0	0	1	0	0	3	0	0	0	0	0	0	12
445	1	13	8	0	0	2	0	0	1	1	0	0	0	0	0	26
500	1	7	15	0	2	0	0	1	1	0	0	0	0	0	0	28
Hourly Total	3	35	27	0	3	5	0	1	8	2	0	0	0	0	0	84
515	0	12	10	1	4	1	1	2	8	4	0	0	0	0	0	43
530	0	18	19	0	3	2	0	3	2	1	0	0	0	0	0	48
545	0	19	15	0	1	2	0	0	1	9	3	0	0	0	0	50
600	0	25	23	0	2	0	0	0	7	0	0	0	0	0	0	57
Hourly Total	0	74	67	1	10	5	1	6	26	8	0	0	0	0	0	198
615	1	32	20	0	4	4	0	3	11	1	1	0	0	0	0	77
630	1	44	39	0	7	1	1	4	7	2	0	0	0	0	0	106
645	0	42	33	1	4	4	0	0	9	4	0	0	0	0	0	97
700	2	51	25	1	4	2	1	1	5	0	0	0	0	0	0	92
Hourly Total	4	169	117	2	19	11	2	8	32	7	1	0	0	0	0	372
715	2	54	29	1	7	6	4	2	9	0	0	0	0	0	0	114
730	1	48	26	2	6	3	5	3	11	0	0	0	0	0	0	105
745	2	58	30	0	6	3	3	7	7	4	0	0	0	0	0	120
800	1	52	38	0	7	1	4	4	7	3	0	0	0	0	0	117
Hourly Total	6	212	123	3	26	13	16	16	34	7	0	0	0	0	0	456
815	5	71	23	1	3	16	0	0	7	0	0	0	0	0	0	126
830	1	47	22	0	8	12	5	0	9	0	0	0	0	0	0	104
845	2	47	23	0	7	7	6	5	13	0	0	0	0	0	0	110
900	4	41	19	0	6	5	1	4	13	2	0	0	0	0	0	95
Hourly Total	12	206	87	1	24	40	12	9	42	2	0	0	0	0	0	435
915	0	41	21	2	2	7	3	3	12	0	0	0	0	0	0	91
930	4	38	19	1	3	9	6	1	9	2	0	0	0	0	1	93
945	1	40	17	0	5	9	5	2	8	0	0	1	0	0	0	88
1000	1	27	19	0	2	5	5	4	16	1	0	0	0	0	0	80
Hourly Total	6	146	76	3	12	30	19	10	45	3	0	1	0	0	1	352
1015	0	29	19	0	5	9	1	3	5	2	0	0	0	0	1	74
1030	2	34	16	0	3	13	4	5	11	3	0	0	0	0	0	91
1045	1	23	21	0	3	9	5	2	8	1	0	0	0	0	0	73
1100	2	31	19	0	4	8	5	3	8	1	0	0	0	0	1	82
Hourly Total	5	117	75	0	15	39	15	13	32	7	0	0	0	0	2	320

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Eastbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
30	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
45	1	3	2	0	1	1	0	0	1	0	0	0	0	0	0	9
100	0	3	2	0	0	0	0	0	1	0	0	0	0	0	0	6
Hourly Total	1	10	6	0	1	1	0	0	3	0	0	0	0	0	0	22
115	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
130	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
145	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	3
200	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	4
Hourly Total	0	6	1	0	0	1	0	0	7	0	0	0	0	0	0	15
215	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
230	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3
245	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
300	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	2	1	0	1	0	0	0	4	0	0	0	0	0	0	9
315	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
330	0	3	1	0	0	0	0	0	3	0	0	0	0	0	0	7
345	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	6
400	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	9	2	0	0	0	0	0	9	0	0	0	0	0	0	20
415	1	6	0	0	1	0	0	1	0	2	0	0	0	0	0	11
430	0	2	4	0	0	0	0	1	3	0	0	0	0	0	0	10
445	0	2	1	0	0	0	0	0	3	1	0	0	0	0	0	7
500	1	9	9	0	0	1	0	0	1	3	2	0	0	0	0	26
Hourly Total	2	19	14	0	2	0	0	3	9	5	0	0	0	0	0	54
515	0	9	9	0	1	1	0	2	6	1	0	0	0	0	0	29
530	1	15	9	0	3	0	0	0	2	0	0	0	1	0	0	31
545	0	10	15	0	3	1	0	2	3	0	0	0	0	0	0	34
600	0	14	16	0	0	3	2	0	1	4	0	0	0	0	0	40
Hourly Total	1	48	49	0	10	4	0	5	15	1	0	0	1	0	0	134
615	2	18	15	0	4	0	0	2	1	1	0	0	0	0	0	43
630	2	23	25	0	1	4	0	2	8	0	0	0	0	0	0	65
645	0	27	17	0	2	4	0	1	5	1	0	0	0	0	0	57
700	0	19	15	0	5	1	0	0	4	0	0	0	0	0	0	44
Hourly Total	4	87	72	0	12	9	0	5	18	2	0	0	0	0	0	209
715	0	29	14	0	6	3	0	0	0	0	0	0	0	0	0	52
730	2	36	17	0	0	5	0	3	4	1	0	0	0	0	0	68
745	0	35	19	0	3	0	0	3	7	1	0	0	0	0	0	68
800	2	21	17	0	6	3	0	3	8	1	0	0	0	0	1	62
Hourly Total	4	121	67	0	15	11	0	9	19	3	0	0	0	0	1	250
815	0	32	18	0	0	2	0	0	6	2	0	0	0	0	0	60
830	2	24	14	0	2	7	0	0	2	4	0	0	0	0	0	55
845	1	14	17	0	2	4	0	1	1	2	0	0	0	0	0	42
900	2	16	3	0	3	7	0	1	6	0	0	0	0	0	0	38
Hourly Total	5	86	52	0	7	20	0	2	15	8	0	0	0	0	0	195
915	0	23	16	0	1	7	0	1	8	0	0	0	0	0	0	56
930	0	13	13	0	2	6	0	0	5	0	0	0	0	0	0	39
945	0	23	13	0	0	6	0	3	7	0	0	0	0	0	0	54
1000	0	21	7	0	3	3	0	1	3	0	0	0	0	0	0	38
Hourly Total	0	80	49	0	6	22	0	5	23	0	0	0	0	0	0	187
1015	0	24	12	0	1	4	0	2	2	0	0	0	0	0	0	45
1030	1	14	14	0	0	6	0	0	7	1	0	0	0	0	0	43
1045	5	23	6	0	1	4	0	0	1	0	0	0	0	0	0	40
1100	1	19	16	0	3	6	0	0	3	0	0	0	0	0	0	48
Hourly Total	7	80	48	0	5	20	0	2	13	1	0	0	0	0	0	176
1115	2	16	14	0	2	2	0									

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Westbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
30	0	5	2	0	1	0	0	0	2	0	0	0	0	0	0	10
45	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
100	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	3
Hourly Total	0	9	4	0	1	0	0	1	4	0	0	0	0	0	0	19
115	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0	7
130	0	6	1	0	1	0	0	0	0	0	0	0	0	0	0	8
145	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	5
200	0	2	1	0	1	0	0	0	1	0	0	0	0	0	0	5
Hourly Total	0	18	2	0	2	0	0	1	2	0	0	0	0	0	0	25
215	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
230	0	3	4	1	0	0	0	0	1	0	0	0	0	0	0	9
245	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
300	0	1	2	0	2	0	0	0	3	0	0	0	0	0	0	8
Hourly Total	0	8	7	1	2	0	0	0	6	0	0	0	0	0	0	24
315	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
330	0	2	0	0	1	0	0	0	1	3	0	0	0	0	0	7
345	0	3	2	0	2	1	0	0	2	0	0	0	0	0	0	10
400	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4
Hourly Total	0	10	3	0	3	1	0	1	7	0	0	0	0	0	0	25
415	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	6
430	0	7	0	0	0	0	0	0	2	1	0	0	0	0	0	10
445	0	3	0	0	1	0	0	0	4	0	0	0	0	0	0	8
500	1	4	3	0	0	1	1	1	0	0	0	0	0	0	0	11
Hourly Total	1	19	3	0	1	1	1	2	6	1	0	0	0	0	0	35
515	0	8	5	0	0	0	0	0	0	0	0	0	0	0	0	13
530	0	10	6	0	0	0	0	0	2	2	0	0	0	0	0	20
545	1	5	7	0	1	2	0	0	1	3	1	0	0	0	0	21
600	0	9	6	0	2	0	0	0	4	1	0	0	0	0	0	22
Hourly Total	1	32	24	0	3	2	0	3	9	2	0	0	0	0	0	76
615	0	8	8	0	3	0	0	0	2	1	0	0	0	0	0	22
630	0	22	9	0	2	0	0	1	2	0	0	0	0	0	0	36
645	0	30	7	1	3	0	0	0	3	1	0	0	0	0	0	45
700	5	23	18	0	4	1	0	0	1	0	0	0	0	0	0	52
Hourly Total	5	83	42	1	12	1	0	1	8	2	0	0	0	0	0	155
715	0	19	17	1	2	0	2	0	5	0	0	0	0	0	0	46
730	0	15	12	1	3	0	3	3	4	0	0	0	0	0	0	41
745	2	30	20	0	5	3	4	0	5	1	0	0	0	0	0	70
800	1	23	14	1	0	1	4	1	5	0	0	0	0	0	0	50
Hourly Total	3	87	63	3	10	4	13	4	19	1	0	0	0	0	0	207
815	0	25	8	2	4	0	5	2	5	2	0	0	0	0	0	53
830	2	31	12	0	3	3	3	0	3	0	0	0	0	0	0	57
845	0	22	9	0	4	2	4	4	1	1	0	0	0	0	0	47
900	0	23	11	0	2	2	3	1	3	0	0	0	0	0	0	45
Hourly Total	2	101	40	2	13	7	15	7	12	3	0	0	0	0	0	202
915	0	17	17	0	1	1	4	2	3	1	0	0	0	0	0	46
930	1	17	11	1	3	1	3	1	7	2	0	0	0	0	0	47
945	3	17	16	0	2	4	4	0	2	0	0	0	0	0	0	48
1000	0	13	5	0	3	0	5	1	2	1	0	0	0	0	0	30
Hourly Total	4	64	49	1	9	6	16	4	14	4	0	0	0	0	0	171
1015	0	14	4	0	3	3	2	0	1	0	0	0	0	0	0	27
1030	1	23	7	0	3	2	3	0	8	1	0	0	0	0	0	48
1045	2	17	13	0	1	1	5	0	3	0	0	0	0	0	0	42
1100	1	15	11	0	1	0	4	1	5	1	0	0	0	0	0	39
Hourly Total	4	69	35	0	8	6	14	1	17	2	0	0	0	0	0	156
1115	0	12	5	0	3	1	0	3	7	0						

CLASS COUNT REPORT

Location: US 98 east of Old Lakeland Hwy
 Direction: Combined
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
30	0	8	3	0	1	0	0	0	3	0	0	0	0	0	0	15
45	1	5	3	0	1	1	0	0	2	0	0	0	0	0	0	13
100	0	3	3	0	0	0	0	0	1	2	0	0	0	0	0	9
Hourly Total	1	19	10	0	2	1	0	1	7	0	0	0	0	0	0	41
115	0	7	0	0	0	0	0	0	3	0	0	0	0	0	0	10
130	0	9	2	0	1	0	0	0	1	0	0	0	0	0	0	13
145	0	5	0	0	0	1	0	1	1	0	0	0	0	0	0	8
200	0	3	1	0	1	0	0	0	4	0	0	0	0	0	0	9
Hourly Total	0	24	3	0	2	1	0	1	9	0	0	0	0	0	0	40
215	0	3	0	0	0	1	0	0	3	0	0	0	0	0	0	7
230	0	4	4	1	0	0	0	0	3	0	0	0	0	0	0	12
245	0	1	1	0	1	0	0	0	1	0	0	0	0	0	0	4
300	0	2	3	0	2	0	0	0	3	0	0	0	0	0	0	10
Hourly Total	0	10	8	1	3	1	0	0	10	0	0	0	0	0	0	33
315	0	4	0	0	0	0	0	0	3	0	0	0	0	0	0	7
330	0	5	1	0	1	0	0	0	1	6	0	0	0	0	0	14
345	0	6	2	0	2	1	0	0	5	0	0	0	0	0	0	16
400	0	4	2	0	0	0	0	0	2	0	0	0	0	0	0	8
Hourly Total	0	19	5	0	3	1	0	1	16	0	0	0	0	0	0	45
415	1	11	0	0	1	0	0	2	0	2	0	0	0	0	0	17
430	0	9	4	0	0	0	0	1	5	1	0	0	0	0	0	20
445	0	5	1	0	1	0	0	0	7	1	0	0	0	0	0	15
500	2	13	12	0	1	1	1	2	3	2	0	0	0	0	0	37
Hourly Total	3	38	17	0	3	1	1	5	15	6	0	0	0	0	0	89
515	0	17	14	0	1	1	0	2	6	1	0	0	0	0	0	42
530	1	25	15	0	3	0	0	2	4	0	0	0	1	0	0	51
545	1	15	22	0	4	3	0	3	6	1	0	0	0	0	0	55
600	0	23	22	0	5	2	0	0	5	0	0	0	0	0	0	62
Hourly Total	2	80	73	0	13	6	0	8	24	3	0	0	1	0	0	210
615	2	26	23	0	7	0	0	2	3	2	0	0	0	0	0	65
630	2	45	34	0	3	4	0	3	10	0	0	0	0	0	0	101
645	0	57	24	1	5	4	0	1	8	2	0	0	0	0	0	102
700	5	42	33	0	9	2	0	0	5	0	0	0	0	0	0	96
Hourly Total	9	170	114	1	24	10	0	6	26	4	0	0	0	0	0	364
715	0	48	31	1	8	3	2	0	5	0	0	0	0	0	0	98
730	2	51	29	1	3	5	3	6	8	1	0	0	0	0	0	109
745	2	65	39	0	8	3	4	3	12	2	0	0	0	0	0	138
800	3	44	31	1	6	4	4	4	13	1	0	0	0	0	1	112
Hourly Total	7	208	130	3	25	15	13	13	38	4	0	0	0	0	1	457
815	0	57	26	2	4	2	5	2	11	4	0	0	0	0	0	113
830	4	55	26	0	5	10	3	0	5	4	0	0	0	0	0	112
845	1	36	26	0	6	6	4	5	2	3	0	0	0	0	0	89
900	2	39	14	0	5	9	3	2	9	0	0	0	0	0	0	83
Hourly Total	7	187	92	2	20	27	15	9	27	11	0	0	0	0	0	397
915	0	40	33	0	2	8	4	3	11	1	0	0	0	0	0	102
930	1	30	24	1	5	7	3	1	12	2	0	0	0	0	0	86
945	3	40	29	0	2	10	4	3	9	0	0	0	0	0	2	102
1000	0	34	12	0	6	3	5	2	5	1	0	0	0	0	0	68
Hourly Total	4	144	98	1	15	28	16	9	37	4	0	0	0	0	2	358
1015	0	38	16	0	4	7	2	2	3	0	0	0	0	0	0	72
1030	2	37	21	0	3	8	3	0	15	2	0	0	0	0	0	91
1045	7	40	19	0	2	5	5	0	4	0	0	0	0	0	0	82
1100	2	34	27	0	4	6	4	1	8	1	0	0	0	0	0	87
Hourly Total	11	149	83	0	13	26	14	3	30	3	0	0	0	0	0	332

Volume Count Report

Start Date: May 7, 2019
 Stop Date: May 8, 2019
 City: Dade City
 Location US 301 between US 98 & Clinton Ave

Northbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	15	16	12	3	24	33	76	177	236	178	183	239
30	14	20	7	13	17	45	95	175	232	180	214	204
45	7	9	6	7	21	70	137	196	196	238	206	228
00	10	8	5	22	29	51	163	216	178	241	252	217
Hr Total	46	53	30	45	91	199	471	764	842	837	855	888

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	241	258	248	325	298	298	233	152	132	94	74	43
30	226	204	226	247	283	252	185	164	119	76	49	31
45	235	237	255	268	288	260	169	114	104	77	40	27
00	251	244	215	276	273	259	176	110	106	52	36	23
Hr Total	953	943	944	1,116	1,142	1,069	763	540	461	299	199	124

24 Hour Total: 13,674
 AM Peak Hour begins: 10:45 AM Peak Volume: 923 AM Peak Hour Factor: 0.92
 PM Peak Hour begins: 15:45 PM Peak Volume: 1,145 PM Peak Hour Factor: 0.96

Southbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	20	12	4	6	13	48	121	181	227	218	201	246
30	15	6	8	13	31	69	139	219	276	222	202	216
45	12	6	8	13	33	74	162	242	225	218	226	200
00	8	10	6	10	40	94	205	277	242	220	192	227
Hr Total	55	34	26	42	117	285	627	919	970	878	821	889

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	230	192	232	244	211	254	230	130	111	61	77	29
30	210	218	250	237	230	215	190	106	101	78	39	27
45	209	236	261	291	236	221	151	106	103	75	49	34
00	221	223	253	255	194	224	143	121	96	53	28	19
Hr Total	870	869	996	1,027	871	914	714	463	411	267	193	109

24 Hour Total: 13,367
 AM Peak Hour begins: 7:30 AM Peak Volume: 1,022 AM Peak Hour Factor: 0.92
 PM Peak Hour begins: 15:00 PM Peak Volume: 1,027 PM Peak Hour Factor: 0.88

Total Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	35	28	16	9	37	81	197	358	463	396	384	485
30	29	26	15	26	48	114	234	394	508	402	416	420
45	19	15	14	20	54	144	299	438	421	456	432	428
00	18	18	11	32	69	145	368	493	420	461	444	444
Hr Total	101	87	56	87	208	484	1,098	1,683	1,812	1,715	1,676	1,777

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	471	450	480	569	509	552	463	282	243	155	151	72
30	436	422	476	484	513	467	375	270	220	154	88	58
45	444	473	516	559	524	481	320	220	207	152	89	61
00	472	467	468	531	467	483	319	231	202	105	64	42
Hr Total	1,823	1,812	1,940	2,143	2,013	1,983	1,477	1,003	872	566	392	233

24 Hour Total: 27,041
 AM Peak Hour begins: 7:30 AM Peak Volume: 1,902 AM Peak Hour Factor: 0.94
 PM Peak Hour begins: 15:00 PM Peak Volume: 2,143 PM Peak Hour Factor: 0.94

Volume Count Report

Start Date: May 8, 2019
 Stop Date: May 9, 2019
 City: Dade City
 Location: US 301 between US 98 & Clinton Ave

Northbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	28	17	9	4	19	44	63	178	210	174	182	209
30	15	9	14	9	19	40	93	198	210	228	238	208
45	17	11	7	7	29	62	119	191	210	224	226	238
00	20	13	11	16	25	61	175	240	212	182	218	208
Hr Total	80	50	41	36	92	207	450	807	842	808	864	863

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	237	242	225	276	322	266	188	149	125	97	51	48
30	231	246	242	239	296	286	188	156	127	76	53	31
45	220	224	234	236	214	267	206	111	114	55	41	27
00	204	232	227	277	243	271	173	143	114	59	26	23
Hr Total	892	944	928	1,028	1,075	1,090	755	559	480	287	171	129

24 Hour Total: 13,478
 AM Peak Hour begins: 11:30 AM Peak Volume: 914 AM Peak Hour Factor: 0.96
 PM Peak Hour begins: 15:30 PM Peak Volume: 1,131 PM Peak Hour Factor: 0.88

Southbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	12	6	20	25	45	105	203	249	196	179	214
30	16	11	12	17	10	61	121	233	247	223	189	216
45	17	10	13	16	30	72	158	287	244	247	203	240
00	11	5	7	17	34	101	206	252	237	250	209	192
Hr Total	52	38	38	70	99	279	590	975	977	916	780	862

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	194	180	219	219	195	249	176	123	93	97	49	26
30	238	197	206	261	223	255	196	134	131	81	65	21
45	191	219	238	231	224	212	161	116	101	84	35	25
00	210	230	260	235	226	222	154	110	105	61	38	19
Hr Total	833	826	923	946	868	938	687	483	430	323	187	91

24 Hour Total: 13,211
 AM Peak Hour begins: 7:30 AM Peak Volume: 1,035 AM Peak Hour Factor: 0.90
 PM Peak Hour begins: 14:30 PM Peak Volume: 978 PM Peak Hour Factor: 0.94

Total Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	36	29	15	24	44	89	168	381	459	370	361	423
30	31	20	26	26	29	101	214	431	457	451	427	424
45	34	21	20	23	59	134	277	478	454	471	429	478
00	31	18	18	33	59	162	381	492	449	432	427	400
Hr Total	132	88	79	106	191	486	1,040	1,782	1,819	1,724	1,644	1,725

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	431	422	444	495	517	515	364	272	218	194	100	74
30	469	443	448	500	519	541	384	290	258	157	118	52
45	411	443	472	467	438	479	367	227	215	139	76	52
00	414	462	487	512	469	493	327	253	219	120	64	42
Hr Total	1,725	1,770	1,851	1,974	1,943	2,028	1,442	1,042	910	610	358	220

24 Hour Total: 26,689
 AM Peak Hour begins: 7:30 AM Peak Volume: 1,886 AM Peak Hour Factor: 0.96
 PM Peak Hour begins: 17:00 PM Peak Volume: 2,028 PM Peak Hour Factor: 0.94

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Eastbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
30	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	6
45	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
100	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	0	24	3	0	0	0	0	0	1	0	0	0	0	0	0	28
115	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
130	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
145	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	3
200	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Hourly Total	0	10	0	0	0	1	0	1	1	0	0	0	0	0	0	13
215	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
230	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	4
245	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
300	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	9	7	1	1	0	0	0	0	0	0	0	0	0	0	18
315	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	3
330	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
345	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	6
400	0	3	3	0	0	2	0	0	0	0	0	0	0	0	0	8
Hourly Total	0	12	7	0	1	3	0	0	0	0	0	0	0	0	0	23
415	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	11
430	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
445	0	7	4	0	1	0	0	0	1	0	0	0	0	0	0	13
500	2	12	10	0	1	0	0	0	0	0	0	0	0	0	0	25
Hourly Total	2	30	18	0	2	0	0	0	1	0	0	0	0	0	0	53
515	0	14	10	0	0	0	0	0	0	0	0	0	0	0	0	24
530	0	15	18	0	2	2	0	1	1	0	0	0	0	0	0	39
545	0	18	14	0	0	0	0	0	2	0	0	0	0	0	0	34
600	0	35	19	0	3	2	0	0	0	0	0	0	0	0	0	59
Hourly Total	0	82	61	0	5	4	0	1	3	0	0	0	0	0	0	156
615	2	34	25	2	4	2	0	0	4	0	0	0	0	0	0	73
630	2	48	23	0	6	5	0	0	0	0	0	0	0	0	1	85
645	1	49	24	0	5	1	0	0	1	0	0	0	0	0	0	81
700	1	90	39	1	7	2	0	1	1	0	0	0	0	0	0	142
Hourly Total	6	221	111	3	22	10	0	1	6	0	0	0	0	0	1	381
715	3	76	39	0	8	6	0	1	0	0	0	0	0	0	1	134
730	1	110	47	0	14	4	0	0	3	0	0	0	0	0	0	179
745	0	105	51	1	6	0	0	0	1	0	0	0	0	0	0	164
800	0	106	48	0	6	0	0	0	2	0	0	0	0	0	0	162
Hourly Total	4	397	185	1	34	10	0	1	6	0	0	0	0	0	1	639
815	0	85	38	0	5	3	0	5	0	0	0	0	0	0	1	137
830	1	121	45	1	11	2	0	5	0	0	0	0	0	0	0	186
845	1	64	34	0	8	1	0	2	3	0	0	0	0	0	0	113
900	1	91	39	0	4	3	0	2	1	0	0	0	0	0	0	141
Hourly Total	3	361	156	1	28	9	0	14	4	0	0	0	0	0	1	577
915	0	64	32	0	9	3	0	4	2	0	0	0	0	0	0	114
930	1	70	22	0	6	2	0	8	2	0	0	0	0	0	0	111
945	1	69	30	0	4	3	0	3	5	0	0	0	0	0	0	115
1000	1	79	28	0	6	3	0	0	0	0	0	0	0	0	1	118
Hourly Total	3	282	112	0	25	11	0	15	9	0	0	0	0	0	1	458
1015	1	59	29	0	6	5	0	3	0	0	0	0	0	0	0	103
1030	3	83	36	0	2	2	0	3	3	0	0	0	0	0	1	133
1045	1	67	32	0	4	4	0	2	2	0	0	0	0	0	0	112
1100	0	64	34	0	2	2	0	1	0	0	0	0	0	0	0	103
Hourly Total	5	273	131	0	14	13	0	9	5	0	0	0	0	0	1	451
1115	0</															

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Westbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	7	1	0	0	0	0	0	1	0	0	0	0	0	0	9
30	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	5
45	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	7
100	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	18	4	1	1	0	0	0	2	0	0	0	0	0	0	26
115	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	5
130	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
145	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
200	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	12	5	0	0	0	0	0	1	0	0	0	0	0	0	18
215	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	4
230	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
245	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
300	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	1	10	4	0	0	0	0	0	0	0	0	0	0	0	0	15
315	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
330	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
345	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	7
400	0	5	1	0	1	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	1	15	1	0	0	1	0	0	0	0	0	0	0	0	0	19
415	0	3	2	0	0	0	0	0	0	1	0	0	0	0	0	6
430	0	4	1	0	1	0	0	0	0	0	0	0	0	0	0	6
445	0	6	5	0	1	0	0	0	0	0	0	0	0	0	0	12
500	0	3	2	2	1	1	0	1	0	0	0	0	0	0	0	10
Hourly Total	0	16	10	2	3	1	0	1	0	1	0	0	0	0	0	34
515	0	12	6	0	0	0	0	0	0	0	0	0	0	0	0	20
530	0	19	3	0	1	0	1	1	0	0	0	0	0	0	0	1
545	0	23	11	2	1	1	0	1	0	0	0	0	0	0	0	40
600	0	27	9	0	0	0	0	1	0	0	0	0	0	0	0	39
Hourly Total	0	81	29	2	2	1	2	2	1	0	0	0	0	0	0	125
615	0	25	14	0	0	0	0	0	1	2	0	0	0	0	0	42
630	2	37	20	0	1	0	0	2	0	0	0	0	0	0	0	62
645	1	46	30	2	1	1	0	1	1	0	0	0	0	0	0	84
700	1	59	33	1	5	1	0	2	0	0	0	0	0	0	0	106
Hourly Total	4	167	97	3	7	2	0	5	2	2	0	0	0	0	0	294
715	0	91	17	1	7	0	0	1	0	1	0	0	0	0	0	2
730	0	82	34	1	5	2	0	2	0	0	0	0	0	0	0	127
745	2	52	22	1	3	4	0	2	3	0	0	0	0	0	0	89
800	0	60	22	2	6	3	0	3	0	1	0	0	0	0	0	98
Hourly Total	2	285	95	5	21	9	0	8	3	2	0	0	0	0	0	434
815	1	80	27	4	7	0	0	5	1	1	0	0	0	0	0	129
830	1	65	21	1	9	2	1	3	2	0	0	0	2	0	0	107
845	1	77	19	1	5	2	0	0	0	0	0	0	0	0	0	106
900	0	60	19	1	7	0	1	2	1	1	0	0	0	0	0	94
Hourly Total	3	282	86	7	28	4	2	10	4	2	0	0	0	0	0	436
915	1	61	12	0	3	3	1	1	2	0	0	0	0	0	0	87
930	2	59	9	0	6	3	0	2	2	0	0	0	0	0	0	83
945	2	61	19	1	12	2	0	1	3	0	0	0	0	0	0	103
1000	3	63	16	1	4	4	0	2	1	0	0	0	0	0	0	96
Hourly Total	8	244	56	2	25	12	1	6	8	0	0	0	0	0	0	369
1015	2	74	20	0	1	2	0	3	1	0	0	0	0	0	0	105
1030	0	55	11	2	4	0	0	1	1	0	0	0	0	0	0	74
1045	1	63	29	0	2	4	0	3	1	0	0	0	0	0	0	103
1100	3	67	28	1	3	4	0	2	1	0	0	0	0	0	0	111
Hourly Total	6	259	88	3	10	0	9	4	0	393						
1115	1	78	25	0	5	2</td										

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Combined
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total	
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass		
15	0	18	1	0	0	0	0	0	1	0	0	0	0	0	0	20	
30	0	9	0	0	0	0	0	0	2	0	0	0	0	0	0	11	
45	0	7	4	0	1	0	0	0	0	0	0	0	0	0	0	12	
100	0	8	2	1	0	0	0	0	0	0	0	0	0	0	0	11	
Hourly Total	0	42	7	1	1	0	0	0	3	0	0	0	0	0	0	54	
115	0	6	2	0	0	0	0	0	1	0	0	0	0	0	0	9	
130	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	
145	0	4	2	0	0	1	0	1	0	0	0	0	0	0	0	8	
200	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
Hourly Total	0	22	5	0	0	1	0	1	2	0	0	0	0	0	0	31	
215	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	8	
230	0	4	4	0	1	0	0	0	0	0	0	0	0	0	0	9	
245	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6	
300	0	8	1	1	0	0	0	0	0	0	0	0	0	0	0	10	
Hourly Total	1	19	11	1	1	0	0	0	0	0	0	0	0	0	0	33	
315	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	4	
330	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9	
345	1	10	1	0	0	1	0	0	0	0	0	0	0	0	0	13	
400	0	8	4	0	1	2	0	0	0	0	0	0	0	0	0	16	
Hourly Total	1	27	8	0	2	3	0	0	0	0	0	0	1	0	0	42	
415	0	11	5	0	0	0	0	0	0	1	0	0	0	0	0	17	
430	0	7	2	0	1	0	0	0	0	0	0	0	0	0	0	10	
445	0	13	9	0	2	0	0	0	1	0	0	0	0	0	0	25	
500	2	15	12	2	2	1	0	1	0	0	0	0	0	0	0	35	
Hourly Total	2	46	28	2	5	1	0	1	1	0	0	0	0	0	0	87	
515	0	26	16	0	0	0	0	0	0	0	0	0	0	0	0	2	44
530	0	34	21	0	3	2	1	2	1	0	0	0	0	0	1	65	
545	0	41	25	2	1	1	0	3	0	0	0	0	0	0	0	74	
600	0	62	28	0	3	2	0	1	0	0	0	0	0	0	0	2	98
Hourly Total	0	163	90	2	7	5	2	3	4	0	0	0	0	0	5	281	
615	2	59	39	2	4	2	0	0	5	2	0	0	0	0	0	115	
630	4	85	43	0	7	5	0	2	0	0	0	0	0	0	1	147	
645	2	95	54	2	6	2	0	1	2	0	0	0	0	0	1	165	
700	2	149	72	2	12	3	0	3	1	0	0	0	0	0	0	248	
Hourly Total	10	388	208	6	29	12	0	6	8	2	0	0	0	0	6	675	
715	3	167	56	1	15	6	0	2	0	1	0	0	0	0	3	254	
730	1	192	81	1	19	6	0	2	3	0	0	0	0	0	1	306	
745	2	157	73	2	9	4	0	2	4	0	0	0	0	0	0	253	
800	0	166	70	2	12	3	0	3	2	1	0	0	0	0	1	260	
Hourly Total	6	682	280	6	55	19	0	9	9	2	0	0	0	0	5	1073	
815	1	165	65	4	12	3	0	10	1	1	0	0	0	0	4	266	
830	2	186	66	2	20	4	1	8	2	0	0	0	0	2	0	293	
845	2	141	53	1	13	3	0	2	3	0	0	0	0	0	1	219	
900	1	151	58	1	11	3	1	4	2	1	0	0	0	0	2	235	
Hourly Total	6	643	242	8	56	13	2	24	8	2	0	0	2	0	7	1013	
915	1	125	44	0	12	6	1	5	4	0	0	0	0	0	3	201	
930	3	129	31	0	12	5	0	10	4	0	0	0	0	0	0	194	
945	3	130	49	1	16	5	0	4	8	0	0	0	0	0	2	218	
1000	4	142	44	1	10	7	0	2	1	0	0	0	0	0	3	214	
Hourly Total	11	526	168	2	50	23	1	21	17	0	0	0	0	0	8	827	
1015	3	133	49	0	7	7	0	6	1	0	0	0	0	0	2	208	
1030	3	138	47	2	6	2	0	4	4	0	0	0	0	0	1	207	
1045	2	130	61	0	6	8	0	5	3	0	0	0	0	0	0	215	
1100	3	131	62	1	5	6	0	3	1	0	0	0	0	0	2	214	
Hourly Total	11	532	219	3	24	23	0	18	9	0	0	0 </td					

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
Direction: Eastbound
Start Date: 5/8/2019
Stop Date: 5/8/2019

City/County: Dade City/Pasco
Start Time: 00:00
End Time: 04:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
30	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
45	0	3	2	0	1	0	0	0	0	0	0	0	0	0	0	6
100	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	17	4	0	2	0	0	0	0	0	0	0	0	0	0	23
115	0	2	1	0	2	0	0	0	0	0	0	0	0	0	0	5
130	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
145	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
200	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	9	5	0	2	0	0	0	0	0	0	0	0	0	0	16
215	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
230	0	5	2	0	0	0	0	0	1	0	0	0	0	0	0	8
245	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	3
300	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	1	6	5	0	1	1	0	0	1	0	0	0	0	0	0	15
315	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7
330	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	4
345	0	5	0	0	1	1	0	0	0	0	0	0	0	0	0	7
400	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	4
Hourly Total	0	14	4	0	1	2	0	1	0	0	0	0	0	0	0	22
415	0	9	2	0	0	0	0	0	0	0	0	0	0	0	0	11
430	0	5	3	0	1	0	0	0	0	0	0	0	0	0	0	9
445	0	7	6	0	1	0	0	0	0	0	0	0	0	0	0	14
500	1	8	11	0	0	0	0	0	0	0	0	0	0	0	0	21
Hourly Total	1	29	22	0	2	0	0	0	0	0	0	0	0	0	0	55
515	0	8	4	0	2	0	0	1	1	0	0	0	0	0	0	16
530	0	9	21	0	1	1	0	0	1	0	0	0	0	0	0	33
545	0	19	16	0	0	2	0	2	1	0	0	0	0	0	0	40
600	0	34	27	0	3	0	0	1	2	0	0	0	0	0	0	67
Hourly Total	0	70	68	0	6	3	0	4	5	0	0	0	0	0	0	156
615	0	30	22	1	8	1	1	1	4	0	0	0	0	0	0	68
630	1	41	17	1	1	1	0	0	1	0	0	0	0	0	0	63
645	2	52	34	0	7	4	0	0	3	0	0	0	0	0	0	102
700	1	76	48	0	6	1	0	2	3	0	0	0	0	0	0	137
Hourly Total	4	199	121	2	22	7	1	3	11	0	0	0	0	0	0	370
715	3	83	37	0	7	4	1	1	1	0	0	0	0	0	0	137
730	0	113	38	2	10	3	0	5	1	0	0	0	0	0	0	173
745	0	116	45	0	7	1	0	2	2	0	0	0	0	0	0	174
800	1	104	40	1	6	3	1	3	2	0	0	0	0	0	0	161
Hourly Total	4	416	160	3	30	11	2	11	6	0	0	0	0	0	0	645
815	1	106	53	0	9	2	0	6	0	0	0	0	0	0	0	177
830	1	107	36	0	12	0	0	2	3	0	0	0	0	0	0	161
845	1	68	40	0	10	1	0	5	2	0	0	0	0	0	0	127
900	2	84	38	0	2	2	0	3	2	0	0	0	0	0	0	133
Hourly Total	5	365	167	0	33	5	0	16	7	0	0	0	0	0	0	598
915	0	62	28	1	9	2	0	1	0	0	0	0	0	0	0	103
930	0	87	37	0	7	3	0	1	7	0	0	0	0	0	0	143
945	0	88	45	1	3	3	0	3	3	0	0	0	0	0	0	146
1000	2	86	31	0	0	3	0	4	1	0	0	0	0	0	0	127
Hourly Total	2	323	141	2	19	11	0	9	11	0	0	0	0	0	0	519
1015	0	59	26	0	3	1	0	1	1	0	0	0	0	0	0	91
1030	2	76	29	0	4	1	0	3	1	0	0	0	0	0	0	117
1045	0	68	34	0	6	1	0	3	0	0	0	0	0	0	0	113
1100	1	69	31	0	5	5	0	0	0	1	0	0	0	0	0	112
Hourly Total	3	272	120	0	18	8	0	7	3	0	0	0	0	0	0	433
1115	0	64	31	0	3	2	0	1	1	0	0	0	0	0	0	102
1130	3	70	36	0	1	2	0	3	3	0	0	0	0	0	0	118
1145	0	64	24	0	5	6	0	2	1	0	0	0	0	0	0	103
1200	2	61	34	0	4	3	0	3	5	0	0	0	0	0	0	112
Hourly Total	5	259	125	0	13	13	0	9	10	0	0	0	0	0	0	435
1215	3	68	25	1	6	3	0	4	1	0	0	0	0	0	0	111
1230	2	78	40	0	6	1	0	5	1	0	0	0	0	0	0	133
1245	0	67	27	0	1	1	0	1	2	0	0	0	0	0	0	99
1300	1	68	29	0	1	2	0	3	0	0	0	0	0	0	0	104
Hourly Total	6	281	121	1	14	7	0	13	4	0	0	0	0	0	0	447
1315	0	72	32	0	2	1	0	2	0	0	0	0	0	0	0	109
1330	1	68	22	0	4	5	0	2	2	0	0	0	0	0	0	104
1345	0	78	35	0	6	2	1	0	2	0	0	0	0	0	0	124
1400	2	72	30	0	6	2	0	0	4	1	0	0	0	0	0	121
Hourly Total	3	290	119	0	18	10	1	4	8	1	0	0	0	0	0	458
1415	0	85	40	0	5	1	0	2	1	0	0	0	0	0	0	136
1430	1	91	36	0	9	4	0	2	0	0	0	0	0	0	0	143
1445	1	87	31	0	8	3	0	4	1	0	0	0	0	0	0	135
1500	0	91	31	0	6	2	0	4	3	0	0	0	0	0	0	140
Hourly Total	2	354	138	0	28	10	0	12	5	0	0	0	0	0	0	554
1515	0	78	41	0	6	3	0	2	0							

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Westbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	10	1	0	1	1	0	0	0	0	0	0	0	0	0	14
30	0	11	1	0	1	0	0	0	0	0	0	0	0	0	1	14
45	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
100	0	7	2	0	0	0	0	1	0	0	0	0	0	0	0	10
Hourly Total	1	38	4	0	2	1	0	1	0	0	0	0	0	0	1	48
115	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	4
130	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
145	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	6
200	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	11	1	0	3	0	0	0	0	0	0	0	0	0	0	15
215	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
230	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
245	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
300	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	8	4	0	1	0	0	0	0	0	0	0	0	0	0	13
315	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
330	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
345	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
400	1	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	1	8	2	0	1	0	0	0	0	0	0	0	0	0	0	13
415	0	9	1	0	1	0	0	0	0	0	0	0	0	0	0	11
430	0	8	0	0	0	2	0	0	0	0	0	0	0	0	0	10
445	0	7	1	0	0	0	1	0	0	0	0	0	1	0	0	10
500	0	9	1	1	1	1	0	0	0	0	0	0	0	0	0	13
Hourly Total	0	33	3	1	2	3	0	1	0	0	0	0	1	0	0	44
515	0	13	5	4	2	0	2	0	0	0	0	0	0	0	0	26
530	0	20	3	1	2	0	0	0	3	1	0	0	0	0	0	30
545	0	27	12	0	2	0	1	0	1	0	0	0	0	0	0	43
600	0	27	15	0	3	0	0	0	0	1	0	0	0	0	1	47
Hourly Total	0	87	35	5	9	0	3	0	4	2	0	0	0	0	1	146
615	0	27	13	1	5	0	0	0	2	0	0	1	0	1	0	50
630	1	39	29	0	3	0	0	0	0	0	0	0	0	0	0	72
645	1	46	25	0	3	0	0	1	0	0	0	0	1	0	0	77
700	0	56	21	1	4	0	0	3	0	0	0	0	0	0	0	90
Hourly Total	2	168	88	2	15	0	4	0	2	0	0	0	2	0	6	289
715	1	83	23	1	4	0	0	0	1	0	0	0	0	0	1	114
730	2	87	26	0	0	1	0	1	0	0	0	0	0	0	2	119
745	1	53	22	3	7	1	0	2	0	1	0	0	1	0	4	95
800	1	62	27	0	6	2	0	7	0	0	0	0	0	0	3	108
Hourly Total	5	285	98	4	17	4	0	10	1	1	0	0	1	0	10	436
815	4	77	24	5	6	4	0	3	1	0	0	0	1	0	0	125
830	2	81	15	0	11	2	0	3	3	0	0	0	0	0	0	117
845	0	72	22	1	6	1	0	5	1	0	0	0	0	0	0	108
900	0	71	25	1	4	1	0	3	2	1	0	0	0	0	1	109
Hourly Total	6	301	86	7	27	8	0	14	7	1	0	0	1	0	1	459
915	1	79	25	2	5	1	0	2	1	0	0	0	0	0	4	120
930	0	68	19	0	6	0	0	6	3	0	0	0	0	0	1	103
945	2	68	16	0	8	3	0	1	1	0	0	0	0	0	0	99
1000	0	51	19	0	2	3	0	1	0	0	0	0	0	0	1	77
Hourly Total	3	266	79	2	21	7	0	10	5	0	0	0	0	0	6	399
1015	0	75	13	3	3	1	0	2	1	4	0	0	0	0	0	102
1030	2	62	20	2	3	2	0	1	1	2	0	0	0	0	1	96
1045	0	85	20	0	3	3	0	5	2	0	0	0	0	0	0	118
1100	3	87	22	0	0	1	0	1	1	1	0	0	0	0	1	117
Hourly Total	5	309	75	5	9	7	0	9	5	7	0	0	0	0	2	433
1115	1	76	28													

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Combined
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	14	2	0	1	1	0	0	0	0	0	0	0	0	0	0
30	0	18	2	0	1	0	0	0	0	0	0	0	0	0	0	22
45	0	13	2	0	1	0	0	0	0	0	0	0	0	0	0	16
100	0	10	2	0	1	0	0	1	0	0	0	0	0	0	0	14
Hourly Total	1	55	8	0	4	1	0	1	0	0	0	0	0	0	0	71
115	0	4	2	0	3	0	0	0	0	0	0	0	0	0	0	9
130	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8
145	0	5	2	0	2	0	0	0	0	0	0	0	0	0	0	9
200	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	20	6	0	5	0	0	0	0	0	0	0	0	0	0	31
215	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
230	0	8	4	0	0	0	0	0	1	0	0	0	0	0	0	13
245	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	4
300	0	3	3	0	2	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	1	14	9	0	2	1	0	0	1	0	0	0	0	0	0	28
315	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	8
330	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	4
345	0	10	1	0	1	1	0	0	0	0	0	0	0	0	0	13
400	1	5	1	0	1	0	0	1	0	0	0	0	0	0	1	10
Hourly Total	1	22	6	0	2	2	0	1	0	0	0	0	0	0	0	35
415	0	18	3	0	1	0	0	0	0	0	0	0	0	0	0	22
430	0	13	3	0	1	2	0	0	0	0	0	0	0	0	0	19
445	0	14	7	0	1	0	0	1	0	0	0	0	1	0	0	24
500	1	17	12	1	1	1	0	0	0	0	0	0	0	0	1	34
Hourly Total	1	62	25	1	4	3	0	1	0	0	0	0	1	0	1	99
515	0	21	9	4	4	0	2	1	1	0	0	0	0	0	0	42
530	0	29	24	1	3	1	0	0	4	1	0	0	0	0	0	63
545	0	46	28	0	2	2	1	2	2	0	0	0	0	0	0	83
600	0	61	42	0	6	0	0	1	2	1	0	0	0	0	1	114
Hourly Total	0	157	103	5	15	3	3	4	9	2	0	0	0	0	1	302
615	0	57	35	2	13	1	1	1	4	2	0	0	1	0	1	118
630	2	80	46	1	4	1	0	0	1	0	0	0	0	0	0	135
645	3	98	59	0	10	4	0	1	3	0	0	0	1	0	0	179
700	1	132	69	1	10	1	0	5	3	0	0	0	0	0	5	227
Hourly Total	6	367	209	4	37	7	1	7	11	2	0	0	2	0	6	659
715	4	166	60	1	11	4	1	1	2	0	0	0	0	0	0	251
730	2	200	64	2	10	4	0	6	1	0	0	0	0	0	0	292
745	1	169	67	3	14	2	0	4	2	1	0	0	1	0	5	269
800	2	166	67	1	12	5	1	10	2	0	0	0	0	0	3	269
Hourly Total	9	701	258	7	47	15	2	21	7	1	0	0	1	0	12	1081
815	5	183	77	5	15	6	0	9	1	0	0	0	1	0	0	302
830	3	188	51	0	23	2	0	5	6	0	0	0	0	0	0	278
845	1	140	62	1	16	2	0	10	3	0	0	0	0	0	0	235
900	2	155	63	1	6	3	0	6	4	1	0	0	0	0	1	242
Hourly Total	11	666	253	7	60	13	0	30	14	1	0	0	1	0	1	1057
915	1	141	53	3	14	3	0	3	1	0	0	0	0	0	4	223
930	0	155	56	0	13	3	0	7	10	0	0	0	0	0	2	246
945	2	156	61	1	11	6	0	4	4	0	0	0	0	0	0	245
1000	2	137	50	0	2	6	0	5	1	0	0	0	0	0	1	204
Hourly Total	5	589	220	4	40	18	0	19	16	0	0	0	0	0	7	918
1015	0	134	39	3	6	2	0	3	2	4	0	0	0	0	0	193
1030	4	138	49	2	7	3	0	4	2	2	0	0	0	0	2	213
1045	0	153	54	0	9	4	0	8	2	0	0	0	0	0	1	231
1100	4	156	53	0	5	6	0	1	2	1	0	0	0	0	1	229
Hourly Total	8	581	195	5	27	15	0	16	8	7	0	0				

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Eastbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	7
30	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
45	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8
100	1	6	0	0	1	1	0	0	0	0	0	0	0	0	0	9
Hourly Total	1	19	6	0	1	1	0	0	0	0	0	0	0	0	0	28
115	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
130	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3
Hourly Total	0	9	2	0	0	0	0	1	0	0	0	0	0	0	0	12
215	0	0	0	0	2	0	0	1	0	0	0	0	0	0	1	4
230	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
245	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
300	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	5	2	0	0	0	1	0	0	0	0	0	0	0	1	12
315	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
330	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
345	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
400	0	9	1	0	1	0	0	0	0	0	0	0	0	0	0	11
Hourly Total	0	18	6	0	1	0	0	0	0	0	0	0	0	0	0	25
415	0	6	1	0	0	0	0	0	1	0	0	0	0	0	0	8
430	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	7
445	0	12	7	0	0	0	0	1	0	0	0	0	0	0	0	20
500	1	16	11	0	0	0	0	0	1	0	0	0	0	0	0	32
Hourly Total	2	36	23	0	0	0	1	2	0	0	0	0	0	0	3	67
515	1	13	8	0	3	1	0	1	1	0	0	0	0	0	0	28
530	1	9	10	0	3	1	0	1	0	0	0	0	0	0	0	25
545	0	12	20	0	3	1	0	0	0	0	0	0	0	0	0	36
600	1	27	18	0	4	2	0	0	1	0	0	0	0	0	0	53
Hourly Total	3	61	56	0	13	5	0	2	2	0	0	0	0	0	0	142
615	1	25	19	0	11	1	0	3	2	0	0	0	0	0	0	62
630	2	37	33	1	8	6	0	0	2	0	0	0	0	0	0	89
645	1	63	29	0	7	1	1	1	1	0	0	0	0	0	0	104
700	0	69	34	0	6	0	0	2	0	0	0	0	0	0	0	111
Hourly Total	4	194	115	1	32	8	1	6	5	0	0	0	0	0	0	366
715	1	89	39	1	7	7	0	1	1	0	0	0	0	0	1	147
730	2	104	44	1	7	2	0	5	0	0	0	0	0	0	1	166
745	0	99	49	1	10	3	0	1	2	0	0	0	0	0	1	166
800	2	103	52	0	5	1	0	2	1	0	0	0	0	0	0	166
Hourly Total	5	395	184	3	29	13	0	9	4	0	0	0	0	0	3	645
815	1	111	55	0	15	1	0	2	1	0	0	0	0	0	0	186
830	0	107	44	0	12	3	0	2	4	1	0	0	0	0	1	174
845	0	64	33	0	5	0	0	6	3	0	0	0	0	0	1	112
900	0	80	38	0	4	3	0	2	5	0	0	0	0	0	1	133
Hourly Total	1	362	170	0	36	7	0	12	13	1	0	0	0	0	3	605
915	1	70	37	1	9	1	0	0	1	0	0	0	0	0	0	120
930	1	78	39	0	5	3	0	2	1	0	0	0	0	0	0	129
945	0	72	37	0	4	0	0	5	1	0	0	0	0	0	0	119
1000	0	96	28	0	6	3	0	1	2	0	0	0	0	0	0	136
Hourly Total	2	316	141	1	24	7	0	8	5	0	0	0	0	0	0	504
1015	1	63	29	0	6	2	0	0	1	0	0	0	0	0	0	102
1030	0	72	44	0	1	2	0	3	2	0	0	0	0	0	0	124
1045	7	52	18	0	5	0	0	2	1	0	0	0	0	0	0	85
1100	0	72	38	0	5	3	1	4	5	0	0	0	0	0	1	129
Hourly Total	8	259	129	0	17	7	1	9	9	0	0	0	0	0	1	440
1115	1															

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Westbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	5	5	0	1	0	0	0	0	0	0	0	0	0	1	12
45	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7
100	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly Total	0	19	12	0	1	0	0	0	0	0	0	0	0	0	1	33
115	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
130	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
145	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	6
200	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	3
Hourly Total	1	12	0	0	2	0	0	1	0	16						
215	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
230	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	4
245	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	7
300	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	18	5	0	0	0	0	0	0	0	0	0	0	0	2	25
315	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	6
330	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
345	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0	5
400	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	0	13	3	1	2	0	0	0	3	0	0	0	0	0	0	22
415	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
430	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
445	0	7	0	0	0	0	0	0	1	0	0	0	0	0	0	8
500	0	10	6	0	0	0	0	0	1	0	0	0	0	0	1	18
Hourly Total	0	30	6	0	0	0	0	1	1	0	0	0	0	0	1	39
515	0	12	4	0	1	0	1	1	0	0	0	0	0	0	0	19
530	0	19	4	2	1	0	0	0	2	0	0	0	0	0	2	30
545	0	16	11	0	1	0	0	0	0	1	0	0	0	0	1	30
600	0	29	10	0	1	1	0	0	1	1	0	0	0	0	0	43
Hourly Total	0	76	29	2	4	1	1	3	1	2	0	0	0	0	3	122
615	0	24	11	0	5	0	0	0	1	1	0	0	1	0	1	44
630	2	31	14	0	5	0	0	1	0	0	0	0	0	0	2	55
645	1	48	29	1	1	0	0	1	0	0	0	0	0	0	0	81
700	1	69	32	1	5	0	0	1	2	0	0	0	1	0	3	115
Hourly Total	4	172	86	2	16	0	0	3	3	1	0	0	2	0	6	295
715	2	88	30	1	3	1	0	1	1	3	0	0	0	0	3	133
730	1	76	16	0	3	2	0	2	2	0	0	0	1	0	1	104
745	0	58	25	0	7	1	1	2	1	0	0	0	0	0	2	97
800	5	62	33	0	1	5	0	1	0	0	0	0	0	0	4	111
Hourly Total	8	284	104	1	14	9	1	6	4	3	0	0	1	0	10	445
815	3	68	34	0	3	2	0	6	2	0	0	0	1	0	3	122
830	0	63	23	3	9	2	0	3	0	0	0	0	0	0	2	105
845	3	81	21	3	8	3	0	4	1	0	0	0	0	0	1	125
900	1	55	23	1	8	1	0	2	2	0	0	0	0	0	1	94
Hourly Total	7	267	101	7	28	8	0	15	5	0	0	0	1	0	7	446
915	4	55	17	2	3	2	1	4	0	0	0	0	0	0	3	91
930	1	57	21	0	7	3	0	2	3	1	0	0	0	0	0	95
945	0	61	20	0	8	1	0	3	2	2	0	0	0	0	0	97
1000	1	73	19	0	8	1	0	5	2	1	0	0	0	0	0	110
Hourly Total	6	246	77	2	26	7	1	14	7	4	0	0	0	0	3	393
1015	1	58	17	0	3	2	0	1	0	0	0	0	0	0	2	84
1030	1	54	22	2	3	3	0	1	2	0	0	0	0	0	1	89
1045	2	57	35	1	6	2	0	1	2	0	0	0	0	0	0	106
1100	1	74	14	1	3	2	0	1	0	0	0	0	1	0	0	97
Hourly Total	5	243	88	4	15	9	0	4	4	0	0	0	1	0	3	376
1115	2	74	34	2												

CLASS COUNT REPORT

Location: Clinton Ave west of US 301
 Direction: Combined
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	Cycle	VEHICLE CLASS														Total
		Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	11	8	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	8	6	0	1	0	0	0	0	0	0	0	0	0	1	16
45	0	12	3	0	0	0	0	0	0	0	0	0	0	0	0	15
100	1	7	1	0	1	1	0	0	0	0	0	0	0	0	0	11
Hourly Total	1	38	18	0	2	1	0	0	0	0	0	0	0	0	1	61
115	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
130	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
145	1	4	0	0	1	0	0	0	0	0	0	0	0	0	0	6
200	0	3	0	0	1	0	0	1	1	0	0	0	0	0	0	6
Hourly Total	1	21	2	0	2	0	0	1	1	0	0	0	0	0	0	28
215	0	9	1	0	2	0	0	1	0	0	0	0	0	0	1	14
230	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	8
245	0	4	3	0	1	0	0	0	0	0	0	0	0	0	1	9
300	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	0	23	7	0	3	0	0	1	0	0	0	0	0	0	3	37
315	0	4	5	1	2	0	0	0	0	0	0	0	0	0	0	12
330	0	5	3	0	0	0	0	0	1	0	0	0	0	0	0	9
345	0	7	0	0	0	0	0	0	2	0	0	0	0	0	0	9
400	0	15	1	0	1	0	0	0	0	0	0	0	0	0	0	17
Hourly Total	0	31	9	1	3	0	0	0	3	0	0	0	0	0	0	47
415	0	9	1	0	0	0	0	0	1	0	0	0	0	0	0	11
430	1	12	4	0	0	0	0	0	0	0	0	0	0	0	0	17
445	0	19	7	0	0	0	0	1	1	0	0	0	0	0	0	28
500	1	26	17	0	0	0	0	1	1	0	0	0	0	0	4	50
Hourly Total	2	66	29	0	0	0	0	2	3	0	0	0	0	0	4	106
515	1	25	12	0	4	1	1	2	1	0	0	0	0	0	0	47
530	1	28	14	2	4	1	0	3	0	0	0	0	0	0	2	55
545	0	28	31	0	4	1	0	0	0	1	0	0	0	0	1	66
600	1	56	28	0	5	3	0	0	2	1	0	0	0	0	0	96
Hourly Total	3	137	85	2	17	6	1	5	3	2	0	0	0	0	3	264
615	1	49	30	0	16	1	0	3	3	1	0	0	1	0	1	106
630	4	68	47	1	13	6	0	1	2	0	0	0	0	0	2	144
645	2	111	58	1	8	1	1	2	1	0	0	0	0	0	0	185
700	1	138	66	1	11	0	0	3	2	0	0	0	0	1	0	226
Hourly Total	8	366	201	3	48	8	1	9	8	1	0	0	2	0	6	661
715	3	177	69	2	10	8	0	2	2	3	0	0	0	0	4	280
730	3	180	60	1	10	4	0	7	2	0	0	0	1	0	2	270
745	0	157	74	1	17	4	1	3	3	0	0	0	0	0	3	263
800	7	165	85	0	6	6	0	3	1	0	0	0	0	0	4	277
Hourly Total	13	679	288	4	43	22	1	15	8	3	0	0	1	0	13	1090
815	4	179	89	0	18	3	0	8	3	0	0	0	1	0	3	308
830	0	170	67	3	21	5	0	5	4	1	0	0	0	0	3	279
845	3	145	54	3	13	3	0	10	4	0	0	0	0	0	2	237
900	1	135	61	1	12	4	0	4	7	0	0	0	0	0	2	227
Hourly Total	8	629	271	7	64	15	0	27	18	1	0	0	1	0	10	1051
915	5	125	54	3	12	3	1	4	1	0	0	0	0	0	3	211
930	2	135	60	0	12	6	0	4	4	1	0	0	0	0	0	224
945	0	133	57	0	12	1	0	8	3	2	0	0	0	0	0	216
1000	1	169	47	0	14	4	0	6	4	1	0	0	0	0	0	246
Hourly Total	8	562	218	3	50	14	1	22	12	4	0	0	0	0	3	897
1015	2	121	46	0	9	4	0	1	1	0	0	0	0	0	2	186
1030	1	126	66	2	4	5	0	4	4	0	0	0	0	0	1	213
1045	9	109	53	1	11	2	0	3	3	0	0	0	0	0	0	191
1100	1	146	52	1	8	5	1	5	5	0	0	0	0	1	0	226
Hourly Total	13	502	217	4	32	16	1	13	13	0	0					

Volume Count Report

Start Date: May 7, 2019
 Stop Date: May 8, 2019
 City: Dade City
 Location Clinton Ave east of US 301

Eastbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	3	2	4	3	8	16	8	21	19	14
30	1	0	0	0	1	3	6	20	16	13	21	30
45	0	0	1	0	1	8	16	10	22	14	15	15
00	2	0	1	1	5	5	12	15	18	12	8	17
Hr Total	3	0	5	3	11	19	42	61	64	60	63	76

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	17	23	22	20	13	17	22	10	13	7	4	1
30	24	22	25	24	23	24	11	15	8	6	5	2
45	15	11	17	18	14	17	13	10	5	10	1	1
00	18	7	20	16	18	15	11	10	12	7	1	2
Hr Total	74	63	84	78	68	73	57	45	38	30	11	6

24 Hour Total: 1,034
 AM Peak Hour begins: 11:15 AM Peak Volume: 79 AM Peak Hour Factor: 0.66
 PM Peak Hour begins: 14:00 PM Peak Volume: 84 PM Peak Hour Factor: 0.84

Westbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	1	0	0	3	4	16	21	19	28	22	25
30	4	0	3	1	3	5	12	23	18	35	17	22
45	1	2	0	5	5	9	30	30	22	31	18	24
00	1	0	0	1	3	9	22	40	19	19	21	40
Hr Total	6	3	3	7	14	27	80	114	78	113	78	111

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	26	22	22	27	30	37	17	21	17	7	7	3
30	27	22	40	12	19	32	18	15	10	6	4	2
45	20	24	23	27	16	25	20	11	12	3	3	0
00	28	21	22	30	29	22	14	15	4	6	2	0
Hr Total	101	89	107	96	94	116	69	62	43	22	16	5

24 Hour Total: 1,454
 AM Peak Hour begins: 11:30 AM Peak Volume: 117 AM Peak Hour Factor: 0.73
 PM Peak Hour begins: 16:45 PM Peak Volume: 123 PM Peak Hour Factor: 0.83

Total Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	1	3	2	7	7	24	37	27	49	41	39
30	5	0	3	1	4	8	18	43	34	48	38	52
45	1	2	1	5	6	17	46	40	44	45	33	39
00	3	0	1	2	8	14	34	55	37	31	29	57
Hr Total	9	3	8	10	25	46	122	175	142	173	141	187

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	43	45	44	47	43	54	39	31	30	14	11	4
30	51	44	65	36	42	56	29	30	18	12	9	4
45	35	35	40	45	30	42	33	21	17	13	4	1
00	46	28	42	46	47	37	25	25	16	13	3	2
Hr Total	175	152	191	174	162	189	126	107	81	52	27	11

24 Hour Total: 2,488
 AM Peak Hour begins: 11:15 AM Peak Volume: 191 AM Peak Hour Factor: 0.84
 PM Peak Hour begins: 16:45 PM Peak Volume: 199 PM Peak Hour Factor: 0.89

Volume Count Report

Start Date: May 8, 2019
 Stop Date: May 9, 2019
 City: Dade City
 Location Clinton Ave east of US 301

Eastbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	0	1	0	2	3	24	19	9	14	5
30	4	2	3	0	2	1	8	13	9	17	12	15
45	0	1	0	0	0	4	12	14	16	13	13	17
00	1	1	0	3	1	9	14	14	14	15	19	21
Hr Total	6	4	3	4	3	16	37	65	58	54	58	58

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	14	23	21	16	16	14	17	11	9	11	4	6
30	19	19	21	17	21	27	8	14	8	4	3	1
45	15	8	19	24	11	19	11	7	10	5	3	3
00	14	11	20	20	31	18	12	8	6	4	5	2
Hr Total	62	61	81	77	79	78	48	40	33	24	15	12

24 Hour Total: 976
 AM Peak Hour begins: 11:30 AM Peak Volume: 71 AM Peak Hour Factor: 0.85
 PM Peak Hour begins: 16:45 PM Peak Volume: 91 PM Peak Hour Factor: 0.73

Westbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	1	0	1	4	11	29	29	17	23	37
30	2	0	1	0	1	5	21	27	26	26	14	13
45	1	1	0	6	2	5	21	38	18	20	22	27
00	0	0	0	0	5	8	26	38	31	21	19	16
Hr Total	3	1	2	6	9	22	79	132	104	84	78	93

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	24	24	28	26	17	31	21	10	10	13	2	4
30	39	24	17	19	28	38	24	11	10	5	5	1
45	24	31	15	34	15	20	21	12	12	1	2	2
00	25	20	22	18	28	25	22	10	13	5	3	1
Hr Total	112	99	82	97	88	114	88	43	45	24	12	8

24 Hour Total: 1,425
 AM Peak Hour begins: 7:00 AM Peak Volume: 132 AM Peak Hour Factor: 0.87
 PM Peak Hour begins: 16:45 PM Peak Volume: 117 PM Peak Hour Factor: 0.77

Total Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	1	0	1	1	1	6	14	53	48	26	37	42
30	6	2	4	0	3	6	29	40	35	43	26	28
45	1	2	0	6	2	9	33	52	34	33	35	44
00	1	1	0	3	6	17	40	52	45	36	38	37
Hr Total	9	5	5	10	12	38	116	197	162	138	136	151

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	38	47	49	42	33	45	38	21	19	24	6	10
30	58	43	38	36	49	65	32	25	18	9	8	2
45	39	39	34	58	26	39	32	19	22	6	5	5
00	39	31	42	38	59	43	34	18	19	9	8	3
Hr Total	174	160	163	174	167	192	136	83	78	48	27	20

24 Hour Total: 2,401
 AM Peak Hour begins: 7:00 AM Peak Volume: 197 AM Peak Hour Factor: 0.93
 PM Peak Hour begins: 16:45 PM Peak Volume: 208 PM Peak Hour Factor: 0.80

CLASS COUNT REPORT

Location: US 301 south US 98
Direction: Northbound
Start Date: 5/7/2019
Stop Date: 5/7/2019

City/County: Dade City/Pasco
Start Time: 00:00
Stop Time: 24:00

END TIME	VEHICLE CLASS															
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	Total
15	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	10
30	0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	11
45	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	6
100	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	0	25	9	1	0	0	0	0	0	0	0	0	0	0	0	35
115	0	5	4	0	0	0	0	0	1	0	0	0	0	0	0	10
130	0	9	2	0	1	0	0	1	0	0	0	0	0	0	0	13
145	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
200	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	23	9	0	1	0	0	1	1	0	0	0	0	0	0	35
215	1	6	1	0	0	1	0	0	0	0	0	0	0	0	0	9
230	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
245	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4
300	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	1	13	4	0	0	1	0	0	2	0	0	0	0	0	0	21
315	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
330	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0	7
345	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	5
400	0	7	3	0	0	0	0	0	1	0	0	0	0	0	0	11
Hourly Total	0	16	5	0	0	0	0	0	3	0	0	0	0	0	0	24
415	0	11	2	0	0	0	0	1	3	0	0	0	0	0	0	17
430	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	10
445	0	9	8	0	0	0	0	0	0	0	0	0	0	0	0	17
500	0	14	5	0	1	0	0	1	0	0	0	0	0	0	0	21
Hourly Total	0	42	17	0	1	0	0	2	3	0	0	0	0	0	0	65
515	0	13	6	0	1	0	0	2	0	0	0	0	0	0	0	22
530	0	16	6	0	0	2	0	1	3	0	0	0	0	0	0	28
545	0	26	7	0	6	0	0	1	2	0	0	0	0	0	0	42
600	2	25	10	0	1	0	0	0	0	0	0	0	0	0	0	38
Hourly Total	2	80	29	0	8	2	0	4	5	0	0	0	0	0	0	130
615	0	28	22	0	0	0	0	0	2	0	0	0	0	0	0	52
630	1	35	17	0	1	0	0	4	1	0	0	0	0	0	0	59
645	1	55	25	0	6	1	0	1	1	0	0	0	0	0	0	90
700	2	79	34	0	3	1	0	3	0	0	0	0	0	0	0	122
Hourly Total	4	197	98	0	10	2	0	8	4	0	0	0	0	0	0	323
715	0	93	34	1	5	1	0	0	0	0	0	0	0	0	0	134
730	1	71	43	0	6	0	0	2	1	0	0	0	0	0	0	124
745	2	100	46	0	12	0	0	3	1	0	0	0	0	0	0	164
800	0	98	46	0	5	3	0	1	2	0	0	0	0	0	0	155
Hourly Total	3	362	169	1	28	4	0	6	4	0	0	0	0	0	0	577
815	1	119	45	0	10	2	0	3	0	0	0	0	0	0	0	180
830	0	113	55	1	10	1	0	5	0	0	0	0	0	0	0	185
845	0	96	47	2	6	1	0	1	3	0	0	0	0	0	0	156
900	2	86	40	0	9	2	0	5	0	0	0	0	0	0	1	145
Hourly Total	3	414	187	3	35	6	0	14	3	0	0	0	0	0	1	666
915	0	85	30	0	8	1	0	1	4	0	0	0	0	0	0	129
930	1	108	39	0	14	1	0	0	3	0	0	0	0	0	0	166
945	2	115	54	1	15	2	0	4	3	0	0	0	0	0	0	196
1000	2	117	51	1	12	2	0	2	1	0	0	0	0	0	0	188
Hourly Total	5	425	174	2	49	6	0	7	11	0	0	0	0	0	0	679
1015	1	100	42	0	8	1	0	5	1	0	0	0	0	0	0	158
1030	0	105	42	0	10	0	0	1	0	0	0	0	0	0	0	158
1045	1	126	47	0	4	1	0	1	3	0	0	0	0	0	0	183
1100	1	126	59	0	9	2	0	7	5	0	0	0	0	0	0	209
Hourly Total	3	457	190	0	31	4	0	14	9	0	0	0	0	0	0	708
1115	1	130	56	0	12	1	0	4	1	0	0	0	0	0	0	205
1130	0	109	63	0	11	1	0	4	0	0	0	0	0	0	2	190
1145	1	120	53	0	5	4	0	3	0	0	0	0	0	0	0	186
1200	1	115	61	0	6	0	0	2	0	0	0	0	0	0	0	185
Hourly Total	3	474	233	0	34	6	0	13	1	0	0	0	0	0	2	766
1215	1	120	51	1	13	2	0	0	3	0	0	0	0	0	0	191
1230	1	142	47	0	3	0	0	5	2	0	0	0	0	0	0	200
1245	2	113	46	0	9	1	0	4	2	0	0	0	0	0	1	178
1300	0	134	58	0	11	1	0	2	1	0	0	0	0	0	0	207
Hourly Total	4	509	202	1	36	4	0	11	8	0	0	0	0	0	1	776
1315	0	118	56	2	8	1	0	3	2	0	0	0	0	0	1	191
1330	0	130	53	0	5	0	0	3	0	1	0	0	0	0	0	192
1345	0	124	44	0	8	0	0	5	2	0	0	0	0	0	0	183
1400	1	127	47	0	3	1	0	3	2	0	0	0	0	0	0	184
Hourly Total	1	499	200	2	24	2	0	14	6	1	0	0	0	0	1	750
1415	2	127	58	0	8	2	0	2	1	0	0	0	0	0	0	200
1430	0	144	62	0	4	1	0	4	1	0	0	0	0	0	0	216
1445	0	138	57	0	5	0	0	0	1	0	0	0	0	0	1	202
1500	1	164	42	3	10	0	0	1	1	0	0	0	0	0	0	222
Hourly Total	3	573														

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Southbound
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
30	1	6	7	0	0	0	0	0	0	0	0	0	0	0	0	14
45	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6
100	0	3	2	0	1	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	1	21	12	0	1	0	0	0	0	0	0	0	0	0	0	35
115	0	7	1	0	0	0	0	0	1	0	0	0	0	0	0	9
130	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
145	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
200	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	3
Hourly Total	0	12	3	0	0	0	0	0	2	0	0	0	0	0	0	17
215	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4
230	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
245	0	3	0	0	0	0	0	0	1	0	0	0	0	0	1	5
300	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	12	2	0	0	0	0	1	1	0	0	0	0	0	1	17
315	1	3	1	0	0	1	0	0	0	0	0	0	0	0	0	6
330	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0	6
345	1	5	2	0	0	0	0	1	0	0	0	0	0	0	0	9
400	0	2	3	0	0	2	0	0	0	0	0	0	0	0	0	7
Hourly Total	2	13	8	0	0	4	0	1	0	28						
415	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	11
430	0	8	11	0	0	1	0	0	0	1	0	0	0	0	0	21
445	0	7	10	0	0	0	0	0	2	0	0	0	0	0	0	19
500	1	13	9	0	0	1	0	0	1	0	0	0	0	0	0	25
Hourly Total	1	33	36	0	0	2	0	1	2	1	0	0	0	0	0	76
515	0	18	12	0	3	0	0	0	1	0	0	0	0	0	0	34
530	0	26	19	1	2	0	0	0	0	0	0	0	0	0	0	48
545	0	36	16	0	2	0	0	1	0	0	0	0	0	0	0	55
600	0	31	29	0	7	0	0	1	0	0	0	0	0	0	0	68
Hourly Total	0	111	76	1	14	0	0	2	1	0	0	0	0	0	0	205
615	0	40	16	0	9	1	0	2	3	0	0	0	0	0	0	71
630	2	55	35	0	4	1	0	1	2	0	0	0	0	0	0	100
645	1	71	47	0	7	0	0	2	3	0	0	0	0	0	0	131
700	0	109	52	0	7	2	0	1	1	0	0	0	0	0	0	172
Hourly Total	3	275	150	0	27	4	0	6	9	0	0	0	0	0	0	474
715	0	81	36	0	8	0	0	0	2	0	0	0	0	0	0	127
730	1	113	51	0	4	2	0	0	1	0	0	0	0	0	0	172
745	1	124	66	0	15	3	1	1	1	0	0	0	0	0	0	212
800	1	142	67	0	11	1	0	3	3	0	0	0	0	0	0	228
Hourly Total	3	460	220	0	38	6	1	4	7	0	0	0	0	0	0	739
815	0	120	47	0	11	0	0	4	1	0	0	0	0	0	0	185
830	0	155	62	1	11	2	0	6	1	0	0	0	0	0	0	238
845	1	114	58	1	11	1	0	5	1	0	0	0	0	0	0	192
900	1	137	66	0	8	1	0	6	2	0	0	0	0	0	0	221
Hourly Total	2	526	233	2	41	4	0	21	5	0	0	0	0	0	2	836
915	1	111	50	0	21	3	1	4	2	0	0	0	0	0	0	193
930	0	115	67	1	16	0	0	4	0	0	0	0	0	0	1	204
945	2	116	59	0	6	1	0	0	0	0	0	0	0	0	0	184
1000	1	107	52	0	11	5	0	1	3	0	0	0	0	0	0	180
Hourly Total	4	449	228	1	54	9	1	9	5	0	0	0	0	0	1	761
1015	4	99	52	0	8	3	0	3	1	0	0	0	0	0	0	170
1030	1	101	45	0	6	3	0	7	1	0	0	0	0	0	0	164
1045	0	120	53	0	7	7	0	9	0	0	0	0	0	0	1	197
1100	0	121	37	0	7	6	0	7	1	0	0	0	0	0	0	179
Hourly Total	5	441	187	0	28	19	0	26	3	0	0	0	0	0	1	710

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Combined
 Start Date: 5/7/2019
 Stop Date: 5/7/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	16	2	1	0	0	0	0	0	0	0	0	0	0	0	19
30	1	13	11	0	0	0	0	0	0	0	0	0	0	0	0	25
45	0	8	4	0	0	0	0	0	0	0	0	0	0	0	0	12
100	0	9	4	0	1	0	0	0	0	0	0	0	0	0	0	14
Hourly Total	1	46	21	1	1	0	0	0	0	0	0	0	0	0	0	70
115	0	12	5	0	0	0	0	2	0	0	0	0	0	0	0	19
130	0	11	2	0	1	0	0	1	0	0	0	0	0	0	0	15
145	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
200	0	3	4	0	0	0	0	0	1	0	0	0	0	0	0	8
Hourly Total	0	35	12	0	1	0	0	1	3	0	0	0	0	0	0	52
215	1	9	1	0	0	1	0	1	0	0	0	0	0	0	0	13
230	0	4	2	0	0	0	0	0	1	0	0	0	0	0	0	7
245	0	5	1	0	0	0	0	0	2	0	0	0	0	0	1	9
300	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	9
Hourly Total	1	25	6	0	0	1	0	1	3	0	0	0	0	0	1	38
315	1	4	1	0	0	1	0	0	0	0	0	0	0	0	0	7
330	0	8	2	0	0	1	0	0	2	0	0	0	0	0	0	13
345	1	8	4	0	0	0	0	1	0	0	0	0	0	0	0	14
400	0	9	6	0	0	2	0	0	1	0	0	0	0	0	0	18
Hourly Total	2	29	13	0	0	4	0	1	3	0	0	0	0	0	0	52
415	0	16	8	0	0	0	0	1	3	0	0	0	0	0	0	28
430	0	16	13	0	0	1	0	0	0	1	0	0	0	0	0	31
445	0	16	18	0	0	0	0	2	0	0	0	0	0	0	0	36
500	1	27	14	0	1	1	0	2	0	0	0	0	0	0	0	46
Hourly Total	1	75	53	0	1	2	0	3	5	1	0	0	0	0	0	141
515	0	31	18	0	4	0	0	2	1	0	0	0	0	0	0	56
530	0	42	25	1	2	2	0	1	3	0	0	0	0	0	0	76
545	0	62	23	0	8	0	0	2	2	0	0	0	0	0	0	97
600	2	56	39	0	8	0	0	1	0	0	0	0	0	0	0	106
Hourly Total	2	191	105	1	22	2	0	6	6	0	0	0	0	0	0	335
615	0	68	38	0	9	1	0	2	5	0	0	0	0	0	0	123
630	3	90	52	0	5	1	0	5	3	0	0	0	0	0	0	159
645	2	126	72	0	13	1	0	3	4	0	0	0	0	0	0	221
700	2	188	86	0	10	3	0	4	1	0	0	0	0	0	0	294
Hourly Total	7	472	248	0	37	6	0	14	13	0	0	0	0	0	0	797
715	0	174	70	1	13	1	0	0	2	0	0	0	0	0	0	261
730	2	184	94	0	10	2	0	2	2	0	0	0	0	0	0	296
745	3	224	112	0	27	3	1	4	2	0	0	0	0	0	0	376
800	1	240	113	0	16	4	0	4	5	0	0	0	0	0	0	383
Hourly Total	6	822	389	1	66	10	1	10	11	0	0	0	0	0	0	1316
815	1	239	92	0	21	2	0	7	1	0	0	0	0	0	2	365
830	0	268	117	2	21	3	0	11	1	0	0	0	0	0	0	423
845	1	210	105	3	17	2	0	6	4	0	0	0	0	0	0	348
900	3	223	106	0	17	3	0	11	2	0	0	0	0	0	1	366
Hourly Total	5	940	420	5	76	10	0	35	8	0	0	0	0	0	3	1502
915	1	196	80	0	29	4	1	5	6	0	0	0	0	0	0	322
930	1	223	106	1	30	1	0	4	3	0	0	0	0	0	1	370
945	4	231	113	1	21	3	0	4	3	0	0	0	0	0	0	380
1000	3	224	103	1	23	7	0	3	4	0	0	0	0	0	0	368
Hourly Total	9	874	402	3	103	15	1	16	16	0	0	0	0	0	1	1440
1015	5	199	94	0	16	4	0	8	2	0	0	0	0	0	0	328
1030	1	206	87	0	16	3	0	8	1	0	0	0	0	0	0	322
1045	1	246	100	0	11	8	0	10	3	0	0	0	0	0	1	380
1100	1	247	96	0	16	8	0	14	6	0	0	0	0	0	0	388
Hourly Total	8	898	377	0	59	23	0	40	12	<b						

CLASS COUNT REPORT

Location: US 301 south US 98
Direction: Northbound
Start Date: 5/8/2019
Stop Date: 5/8/2019

City/County: Dade City/Pasco
Start Time: 00:00
Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	22	0	0	1	0	0	0	1	0	0	0	0	0	0	25
30	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
45	0	3	4	0	0	0	0	0	0	0	0	0	0	0	1	8
100	0	8	4	0	0	0	0	0	0	0	0	0	0	0	0	12
Hourly Total	1	40	8	0	1	0	0	0	1	0	0	0	0	0	1	52
115	1	5	4	0	2	1	0	0	0	0	0	0	0	0	0	13
130	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8
145	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	7
200	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	1	21	6	0	2	1	0	1	0	32						
215	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4
230	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	11
245	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3
300	1	4	3	0	1	0	0	0	1	0	0	0	0	0	0	10
Hourly Total	1	16	8	0	1	0	0	0	2	0	0	0	0	0	0	28
315	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
330	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	6
345	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	4
400	1	8	0	0	0	0	0	0	1	0	0	0	0	0	0	10
Hourly Total	1	15	6	0	1	0	0	0	1	0	0	0	0	0	0	24
415	0	9	2	0	0	0	0	0	1	0	0	0	0	0	0	12
430	0	8	2	0	0	0	0	0	0	1	0	0	0	0	0	11
445	0	12	3	0	0	0	0	1	0	0	0	0	0	0	0	16
500	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11
Hourly Total	0	39	8	0	0	0	0	1	2	0	0	0	0	0	0	50
515	0	20	5	0	0	0	0	0	1	0	0	0	0	0	0	26
530	0	12	6	0	0	0	0	2	0	0	0	0	0	0	0	20
545	1	24	10	0	3	0	0	0	1	0	0	0	0	0	0	39
600	2	29	9	0	2	0	0	1	0	0	0	0	0	0	0	43
Hourly Total	3	85	30	0	5	0	0	4	1	0	0	0	0	0	0	128
615	0	21	14	0	2	0	0	1	0	0	0	0	0	0	0	38
630	2	34	19	0	5	0	0	4	0	0	0	0	0	0	1	65
645	1	60	29	0	3	0	0	2	0	0	0	0	0	0	0	95
700	1	69	36	0	3	2	0	1	1	0	0	0	0	0	0	113
Hourly Total	4	184	98	0	13	2	0	8	1	0	0	0	0	0	1	311
715	1	76	34	0	5	0	0	2	2	0	0	0	0	0	0	120
730	1	96	53	0	5	1	0	2	1	0	0	0	0	0	0	159
745	0	85	43	0	4	0	0	2	1	0	0	0	0	0	0	135
800	0	113	48	0	10	1	0	3	2	0	0	0	0	0	0	177
Hourly Total	2	370	178	0	24	2	0	9	6	0	0	0	0	0	0	591
815	1	111	33	0	4	0	0	3	0	1	0	0	0	0	0	153
830	0	118	51	1	16	0	0	6	1	0	0	0	0	0	0	193
845	0	102	48	0	7	1	0	3	2	0	0	0	0	0	0	163
900	2	100	37	1	8	4	0	2	2	0	0	0	0	0	0	156
Hourly Total	3	431	169	2	35	5	0	14	5	1	0	0	0	0	0	665
915	0	79	30	0	8	0	1	4	1	0	0	0	0	0	0	123
930	1	127	58	3	13	0	1	0	1	0	0	0	0	0	1	205
945	4	119	49	0	10	1	0	4	1	0	0	0	0	0	0	188
1000	2	101	49	0	9	0	0	1	2	0	0	0	0	0	0	164
Hourly Total	7	426	186	3	40	1	2	9	5	0	0	0	0	0	1	680
1015	0	96	45	0	5	1	0	5	0	0	0	0	0	0	0	153
1030	1	118	51	0	8	0	0	3	1	0	0	0	0	0	0	182
1045	2	107	62	0	11	3	0	6	2	0	0	0	0	0	0	193
1100	1	130	52	0	8	1	0	1	0	0	0	0	0	0	0	193
Hourly Total	4	451	210	0	32	5	0	15	3	0	0	0	0	0	1	721
1115	1	103	44	0	6	2	0	2	1	0	0	0	0	0	0	160
1130	0	121	45	0	5	1	0	2	2	1	0	0	0	0	0	177
1145	2	137	42	0	4	1	0	2	2	0	0	0	0	0	0	190
1200	1	122	53	0	6	2	0	0	2	0	0	0	0	0	0	187
Hourly Total	4	483	184	0	21	6	0	6	7	1	0	0	0	0	2	714
1215	1	133	46	0	4	1	0	0	1	0	0	0	0	0	0	186
1230	1	133	41	0	3	1	0	0	1	0	0	0	0	0	0	180
1245	0	111	47	0	5	0	0	2	1	0	0	0	0	0	0	166
1300	3	116	44	0	9	2	0	2	1	0	0	0	0	0	0	177
Hourly Total	5	493	178	0	21	4	0	4	4	0	0	0	0	0	0	709
1315	2	145	52	0	7	0	0	1	1	0	0	0	0	0	0	208
1330	1	122	58	1	3	1	0	2	1	0	0	0	0	0	1	190
1345	1	134	41	0	5	1	0	2	1	0	0	0	0	0	0	185
1400	1	134	49	0	5	1	0	2	2	0	0	0	0	0	0	194
Hourly Total	5	535	200	1	20	3	0	7	5	0	0	0	0	0	1	777
1415	2	129	70	0	4	0	0	1	0	0	0	0	0	0	0	206
1430	2	134	50	0	8	3	0	2	1	0	0	0	0	0	0	204
1445	2	143	49	0	8	0	0	1	0	0	0	0	0	0	0	203
1500	2	134	48	1	11	4	0	0	2	0	0	0	0	0	0	202
Hourly Total	8	540	217	1	31	7	0	4	3	0	0	0	0	0	4	815
1515	1	194	60	1	10</											

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Southbound
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6
30	1	7	2	0	1	0	0	1	0	0	0	0	0	0	0	12
45	0	3	2	0	0	0	0	0	2	0	0	0	0	0	0	7
100	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10
Hourly Total	1	23	7	0	1	0	0	1	2	0	0	0	0	0	0	35
115	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	7
130	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0	7
145	0	4	2	0	1	0	0	0	0	0	0	0	0	0	0	7
200	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	0	17	4	0	3	0	0	1	0	25						
215	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	4
230	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	5
245	1	2	0	0	1	0	0	0	1	0	0	0	0	0	0	5
300	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	1	11	2	0	1	0	0	1	2	0	0	0	0	0	0	18
315	1	3	4	0	0	1	0	0	1	0	0	0	0	0	0	10
330	1	7	2	0	0	1	0	0	0	0	0	0	0	0	0	11
345	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	10
400	0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	11
Hourly Total	2	25	12	0	0	2	0	0	1	0	0	0	0	0	0	42
415	0	10	6	0	0	2	0	0	0	0	0	0	0	0	0	18
430	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9
445	0	7	13	0	2	0	0	0	0	0	0	0	0	0	0	22
500	1	8	13	0	0	2	0	0	1	0	0	0	0	0	0	25
Hourly Total	1	31	35	0	4	2	0	1	0	74						
515	0	19	15	0	3	2	0	0	0	0	0	0	0	0	0	39
530	0	18	15	0	2	0	0	0	2	0	0	0	0	0	0	37
545	0	26	19	0	1	0	0	2	1	0	0	0	0	0	0	49
600	0	34	31	0	4	0	0	0	0	0	0	0	0	0	0	69
Hourly Total	0	97	80	0	10	2	0	3	0	194						
615	0	36	19	0	8	1	0	2	2	0	0	0	0	0	0	68
630	0	55	28	0	4	0	0	0	2	0	0	0	0	0	0	89
645	2	62	42	0	4	0	0	1	1	0	0	0	0	0	1	113
700	1	99	54	0	9	1	0	2	2	0	0	0	0	0	1	169
Hourly Total	3	252	143	0	25	2	0	5	7	0	0	0	0	0	2	439
715	0	105	35	1	4	0	0	4	1	0	0	0	0	0	0	150
730	1	108	48	1	3	3	0	5	1	0	0	0	0	0	0	170
745	1	146	76	1	9	0	0	4	2	0	0	0	0	0	0	239
800	1	148	54	0	7	2	0	5	2	0	0	0	0	0	0	219
Hourly Total	3	507	213	3	23	5	0	18	6	0	0	0	0	0	0	778
815	2	129	56	2	9	1	0	6	1	0	0	0	0	0	0	206
830	1	127	75	0	16	3	1	2	1	0	0	0	0	0	1	227
845	0	121	62	0	7	2	0	7	1	0	0	0	0	0	1	201
900	2	129	60	0	14	1	0	5	2	0	0	0	0	0	0	213
Hourly Total	5	506	253	2	46	7	1	20	5	0	0	0	0	0	2	847
915	2	98	58	2	8	1	0	0	1	0	0	0	0	0	1	171
930	1	105	56	0	13	2	0	0	1	0	0	0	0	0	0	178
945	1	134	69	1	7	1	0	3	0	0	0	0	0	0	0	216
1000	1	150	55	0	8	0	0	5	0	0	0	0	0	0	0	219
Hourly Total	5	487	238	3	36	4	0	8	2	0	0	0	0	0	1	784
1015	1	108	46	0	4	8	0	3	1	0	0	0	0	0	0	171
1030	0	101	34	1	10	1	0	3	1	0	0	0	0	0	0	151
1045	0	114	45	1	7	6	0	4	0	0	0	0	0	0	0	177
1100	0	136	43	0	7	4	0	4	0	0	1	0	0	0	1	196
Hourly Total	1	459	168	2	28	19	0	14	2	0	1	0	0	0	1	695</

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Combined
 Start Date: 5/8/2019
 Stop Date: 5/8/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	26	2	0	1	0	0	0	1	0	0	0	0	0	0	0
30	1	14	2	0	1	0	0	1	0	0	0	0	0	0	0	19
45	0	6	6	0	0	0	0	0	2	0	0	0	0	0	0	15
100	0	17	5	0	0	0	0	0	0	0	0	0	0	0	0	22
Hourly Total	2	63	15	0	2	0	0	1	3	0	0	0	0	0	0	87
115	1	9	6	0	3	1	0	0	0	0	0	0	0	0	0	20
130	0	13	1	0	0	0	0	0	1	0	0	0	0	0	0	15
145	0	9	3	0	1	0	0	1	0	0	0	0	0	0	0	14
200	0	7	0	0	1	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	1	38	10	0	5	1	0	1	1	0	0	0	0	0	0	57
215	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	8
230	0	11	4	0	0	0	0	0	1	0	0	0	0	0	0	16
245	1	4	0	0	1	0	0	0	2	0	0	0	0	0	0	8
300	1	7	4	0	1	0	0	0	1	0	0	0	0	0	0	14
Hourly Total	2	27	10	0	2	0	0	1	4	0	0	0	0	0	0	46
315	1	6	5	0	0	1	0	0	1	0	0	0	0	0	0	14
330	1	9	6	0	0	1	0	0	0	0	0	0	0	0	0	17
345	0	10	3	0	1	0	0	0	0	0	0	0	0	0	0	14
400	1	15	4	0	0	0	0	0	1	0	0	0	0	0	0	21
Hourly Total	3	40	18	0	1	2	0	0	2	0	0	0	0	0	0	66
415	0	19	8	0	0	2	0	0	1	0	0	0	0	0	0	30
430	0	14	5	0	0	0	0	0	1	0	0	0	0	0	0	20
445	0	19	16	0	2	0	0	0	1	0	0	0	0	0	0	38
500	1	18	14	0	2	0	0	0	1	0	0	0	0	0	0	36
Hourly Total	1	70	43	0	4	2	0	2	2	0	0	0	0	0	0	124
515	0	39	20	0	3	2	0	1	0	0	0	0	0	0	0	65
530	0	30	21	0	2	0	0	2	2	0	0	0	0	0	0	57
545	1	50	29	0	4	0	0	2	3	0	0	0	0	0	0	88
600	2	63	40	0	6	0	0	1	0	0	0	0	0	0	0	112
Hourly Total	3	182	110	0	15	2	0	6	4	0	0	0	0	0	0	322
615	0	57	33	0	10	1	0	3	2	0	0	0	0	0	0	106
630	2	89	47	0	9	0	0	4	2	0	0	0	0	0	0	154
645	3	122	71	0	7	0	0	3	1	0	0	0	0	0	0	208
700	2	168	90	0	12	3	0	3	3	0	0	0	0	0	0	282
Hourly Total	7	436	241	0	38	4	0	13	8	0	0	0	0	0	0	750
715	1	181	69	1	9	0	0	6	3	0	0	0	0	0	0	270
730	2	204	101	1	8	4	0	7	2	0	0	0	0	0	0	329
745	1	231	119	1	13	0	0	6	3	0	0	0	0	0	0	374
800	1	261	102	0	17	3	0	8	4	0	0	0	0	0	0	396
Hourly Total	5	877	391	3	47	7	0	27	12	0	0	0	0	0	0	1369
815	3	240	89	2	13	1	0	9	1	1	0	0	0	0	0	359
830	1	245	126	1	32	3	1	8	2	0	0	0	0	0	0	420
845	0	223	110	0	14	3	0	10	3	0	0	0	0	0	0	364
900	4	229	97	1	22	5	0	7	4	0	0	0	0	0	0	369
Hourly Total	8	937	422	4	81	12	1	34	10	1	0	0	0	0	0	1512
915	2	177	88	2	16	1	1	4	2	0	0	0	0	0	0	294
930	2	232	114	3	26	2	1	0	2	0	0	0	0	0	0	383
945	5	253	118	1	17	2	0	7	1	0	0	0	0	0	0	404
1000	3	251	104	0	17	0	0	6	2	0	0	0	0	0	0	383
Hourly Total	12	913	424	6	76	5	2	17	7	0	0	0	0	0	0	1464
1015	1	204	91	0	9	9	0	8	1	0	0	0	0	0	0	324
1030	1	219	85	1	18	1	0	6	2	0	0	0	0	0	0	333
1045	2	221	107	1	18	9	0	10	2	0	0	0	0	0	0	370
1100	1	266	95	0	15	5	0	5	0	0	1	0	0	0	0	389
Hourly Total	5	910	378	2	60	24	0	29	5	0						

CLASS COUNT REPORT

Location: US 301 south US 98
Direction: Northbound
Start Date: 5/9/2019
Stop Date: 5/9/2019

City/County: Dade City/Pasco
Start Time: 00:00
Stop Time: 24:00

END TIME	VEHICLE CLASS															
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	Total
15	0	16	2	0	0	0	0	0	0	0	0	0	0	0	0	18
30	0	13	1	0	0	0	0	0	0	0	0	0	0	0	0	14
45	0	6	5	0	1	0	0	0	0	0	0	0	0	0	0	12
100	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hourly Total	0	40	8	0	1	0	0	0	0	0	0	0	0	0	0	49
115	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	4
130	1	7	3	0	1	0	0	0	0	0	0	0	0	0	0	12
145	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3
200	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	2	15	6	0	1	0	0	1	0	0	0	0	0	0	0	25
215	0	4	2	0	0	0	0	0	1	0	0	0	0	0	0	7
230	0	4	1	0	0	0	0	0	0	1	0	0	0	0	0	6
245	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7
300	0	5	2	0	0	0	0	0	0	1	0	0	0	0	0	8
Hourly Total	0	18	7	0	0	0	0	0	3	0	0	0	0	0	0	28
315	0	2	2	0	0	0	0	0	1	0	0	0	0	0	0	5
330	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
345	0	3	2	0	1	0	0	0	1	0	0	0	0	0	0	7
400	1	6	1	0	0	0	0	0	3	0	0	0	0	0	0	11
Hourly Total	1	12	6	0	1	0	0	0	5	0	0	0	0	0	0	25
415	0	4	2	0	0	1	0	0	1	0	0	0	0	0	0	8
430	0	10	1	0	0	0	0	0	1	0	0	0	0	0	0	12
445	0	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9
500	0	15	2	0	0	0	0	1	0	0	0	0	0	0	0	18
Hourly Total	0	35	8	0	0	1	0	1	2	0	0	0	0	0	0	47
515	0	15	7	0	0	0	0	0	0	0	0	0	1	0	1	24
530	0	21	8	0	4	0	0	1	1	0	0	0	0	0	0	35
545	1	26	6	0	4	0	0	1	1	0	0	0	0	0	0	39
600	1	25	15	0	3	0	0	0	0	0	0	0	0	0	0	44
Hourly Total	2	87	36	0	11	0	0	2	2	0	0	0	1	0	1	142
615	0	29	13	0	2	0	0	1	0	0	0	0	0	0	0	45
630	1	40	18	0	5	0	0	1	2	0	0	0	0	0	0	67
645	2	57	36	0	2	2	0	2	2	0	0	0	0	0	0	103
700	1	91	34	1	3	0	0	0	0	0	0	0	0	0	0	130
Hourly Total	4	217	101	1	12	2	0	4	4	0	0	0	0	0	0	345
715	0	93	41	0	4	1	0	3	4	0	0	0	0	0	0	146
730	2	91	37	0	6	0	0	0	2	1	0	0	0	0	0	139
745	0	104	44	0	10	2	0	3	1	0	0	0	0	0	0	164
800	2	96	36	0	3	0	0	6	0	0	0	0	0	0	0	143
Hourly Total	4	384	158	0	23	3	0	12	7	1	0	0	0	0	0	592
815	1	104	60	0	11	1	0	6	0	0	0	0	0	2	0	185
830	1	91	35	0	16	2	0	2	2	0	0	0	0	3	0	152
845	0	95	48	0	12	0	0	2	1	0	0	0	0	0	0	158
900	0	72	36	1	8	0	0	3	1	0	0	0	0	0	0	121
Hourly Total	2	362	179	1	47	3	0	13	4	0	0	0	0	5	616	
915	0	97	37	0	6	0	0	2	0	0	0	0	0	0	0	142
930	0	106	42	1	12	1	0	0	1	0	0	0	0	0	0	163
945	3	127	53	0	11	0	0	2	1	0	0	0	0	0	0	197
1000	2	116	36	0	7	2	0	2	2	0	0	0	0	0	0	167
Hourly Total	5	446	168	1	36	3	0	6	4	0	0	0	0	0	0	669
1015	3	125	43	0	6	2	0	2	2	0	0	0	0	0	0	183
1030	1	111	50	0	7	2	0	1	3	0	0	0	0	0	0	175
1045	0	112	53	0	9	1	0	6	4	0	0	0	0	0	0	185
1100	0	113	51	0	5	1	0	1	1	0	0	0	0	0	0	172
Hourly Total	4	461	197	0	27	6	0	10	10	0	0	0	0	0	0	715
1115	2	110	57	0	5	0	0	4	0	0	0	0	0	0	0	178
1130	1	117	60	1	8	2	0	2	1	0	0	0	0	0	0	192
1145	0	118	54	0	8	1	0	1	0	0	0	0	0	0	0	182
1200	0	112	48	0	16	0	0	2	0	0	0	0	0	0	0	178
Hourly Total	3	457	219	1	37	3	0	9	1	0	0	0	0	0	0	730
1215	1	130	56	1	8	0	0	3	2	0	0	0	0	0	0	201
1230	2	124	67	0	8	5	0	5	0	0	0	0	0	0	0	211
1245	2	109	55	1	3	0	0	4	1	0	0	0	0	1	0	176
1300	2	99	47	0	9	2	0	7	3	0	0	0	0	0	0	169
Hourly Total	7	462	225	2	28	7	0	19	6	0	0	0	0	1	0	757
1315	2	118	65	1	7	2	0	2	0	0	0	0	0	0	0	197
1330	0	120	51	0	5	0	0	4	1	0	0	0	0	0	0	181
1345	2	135	54	0	6	1	0	4	2	0	0	0	0	0	0	204
1400	0	154	48	0	4	1	0	1	0	0	0	0	0	0	0	208
Hourly Total	4	527	218	1	22	4	0	11	3	0	0	0	0	0	0	790
1415	1	134	44	0	4	0	0	1	1	0	0	0	0	0	0	185
1430	4	152	63	0	8	1	0	2	0	0	0	0	0	0	0	230
1445	0	113	73	1	7	1	0	3	0	0	2	0	0	0	0	200
1500	1	131	56	1	14	1	0	3	1	0	0	0	0	0	0	208
Hourly Total	6	530	236	2	33	3	0	9	2	2	0	0	0	0	0	823
1515	1	160	52	1	14	0	0	2	1	0</td						

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Southbound
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5
30	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	11
45	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
100	0	7	3	0	1	0	0	0	0	0	0	0	0	0	0	11
Hourly Total	1	26	6	0	1	0	0	0	0	0	0	0	0	0	0	34
115	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	10
130	0	2	3	0	0	0	0	0	2	0	0	0	0	0	0	7
145	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
200	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	12	8	0	0	0	0	0	2	0	0	0	0	0	0	22
215	0	3	1	0	2	0	0	1	0	0	0	0	0	0	0	7
230	1	4	1	0	0	0	0	0	1	0	0	0	0	0	0	7
245	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
300	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
Hourly Total	1	17	3	0	2	0	0	2	0	25						
315	0	5	1	0	1	0	0	1	0	0	0	0	0	0	0	8
330	1	2	1	0	0	2	0	0	1	0	0	0	0	0	0	7
345	0	5	2	0	0	0	0	0	1	0	0	0	0	0	0	8
400	0	9	1	0	1	0	0	0	1	0	0	0	0	0	0	12
Hourly Total	1	21	5	0	2	2	0	1	3	0	0	0	0	0	0	35
415	0	9	5	0	0	0	0	0	1	0	0	0	0	0	0	15
430	0	7	9	0	0	0	0	1	1	0	0	0	0	0	0	18
445	2	14	6	0	0	2	0	0	0	0	0	0	0	0	0	24
500	0	15	10	0	2	1	0	0	0	0	0	0	0	0	0	28
Hourly Total	2	45	30	0	2	3	0	1	2	0	0	0	0	0	0	85
515	0	21	14	0	3	1	0	1	0	0	0	0	0	0	0	40
530	0	19	16	0	1	1	0	1	0	0	0	0	0	0	0	38
545	1	25	19	0	4	0	0	1	2	0	0	0	0	0	0	52
600	0	30	24	0	4	0	0	3	0	0	0	0	0	0	1	62
Hourly Total	1	95	73	0	12	2	0	6	2	0	0	0	0	0	1	192
615	0	33	15	0	5	0	0	0	1	0	0	0	0	0	0	54
630	0	49	25	0	6	2	0	3	0	0	0	0	0	0	0	85
645	2	66	50	1	2	1	0	2	2	0	0	0	0	0	0	126
700	0	105	50	0	15	0	0	1	1	0	0	0	0	0	1	173
Hourly Total	2	253	140	1	28	3	0	6	4	0	0	0	0	0	1	438
715	1	88	37	1	7	1	0	0	0	0	0	0	0	0	0	135
730	0	122	52	0	11	0	0	1	2	0	0	0	0	0	0	188
745	1	146	76	0	5	2	0	4	3	0	0	0	0	0	0	237
800	1	145	66	0	6	3	0	2	3	0	0	0	0	0	0	226
Hourly Total	3	501	231	1	29	6	0	7	8	0	0	0	0	0	0	786
815	0	110	54	1	10	0	0	3	2	0	0	0	0	0	0	180
830	0	150	78	4	12	1	0	3	0	0	0	0	0	0	1	249
845	1	99	61	0	13	2	0	4	1	0	0	0	0	0	0	181
900	2	106	68	0	14	2	0	6	2	0	0	0	0	0	0	200
Hourly Total	3	465	261	5	49	5	0	16	5	0	0	0	0	0	1	810
915	1	115	46	1	8	2	0	3	4	0	0	0	0	0	0	180
930	0	133	78	1	20	2	0	0	0	0	0	0	0	0	0	234
945	0	121	64	0	11	0	0	3	2	0	0	0	0	0	0	201
1000	1	128	53	0	9	3	0	2	0	0	0	0	0	0	0	196
Hourly Total	2	497	241	2	48	7	0	8	6	0	0	0	0	0	0	811
1015	0	95	38	0	12	0	0	8	1	0	0	0	0	0	0	154
1030	0	116	45	0	7	4	0	0	7	3	0	0	0	0	0	182
1045	1	126	58	0	3	3	1	4	0	0	0	0	0	0	0	196
1100	1	118	41	1	9	6	1	4	1	0	0	0	0	0	0	182
Hourly Total	2	455	182	1	31	13	2	23	5	0	0	0	0	0	0	714</

CLASS COUNT REPORT

Location: US 301 south US 98
 Direction: Combined
 Start Date: 5/9/2019
 Stop Date: 5/9/2019

City/County: Dade City/Pasco
 Start Time: 00:00
 Stop Time: 24:00

END TIME	VEHICLE CLASS															Total
	Cyle	Car	2A-4T	Buses	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	None	Unclass	
15	1	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	21	4	0	0	0	0	0	0	0	0	0	0	0	0	25
45	0	13	5	0	1	0	0	0	0	0	0	0	0	0	0	19
100	0	12	3	0	1	0	0	0	0	0	0	0	0	0	0	16
Hourly Total	1	66	14	0	2	0	0	0	0	0	0	0	0	0	0	83
115	0	8	5	0	0	0	0	1	0	0	0	0	0	0	0	14
130	1	9	6	0	1	0	0	0	2	0	0	0	0	0	0	19
145	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	7
200	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	7
Hourly Total	2	27	14	0	1	0	0	1	2	0	0	0	0	0	0	47
215	0	7	3	0	2	0	0	1	1	0	0	0	0	0	0	14
230	1	8	2	0	0	0	0	1	1	0	0	0	0	0	0	13
245	0	12	2	0	0	0	0	0	0	0	0	0	0	0	0	14
300	0	8	3	0	0	0	0	0	1	0	0	0	0	0	0	12
Hourly Total	1	35	10	0	2	0	0	2	3	0	0	0	0	0	0	53
315	0	7	3	0	1	0	0	1	1	0	0	0	0	0	0	13
330	1	3	2	0	0	2	0	0	1	0	0	0	0	0	0	9
345	0	8	4	0	1	0	0	0	2	0	0	0	0	0	0	15
400	1	15	2	0	1	0	0	0	4	0	0	0	0	0	0	23
Hourly Total	2	33	11	0	3	2	0	1	8	0	0	0	0	0	0	60
415	0	13	7	0	0	1	0	0	2	0	0	0	0	0	0	23
430	0	17	10	0	0	0	0	1	2	0	0	0	0	0	0	30
445	2	20	9	0	0	2	0	0	0	0	0	0	0	0	0	33
500	0	30	12	0	2	1	0	1	0	0	0	0	0	0	0	46
Hourly Total	2	80	38	0	2	4	0	2	4	0	0	0	0	0	0	132
515	0	36	21	0	3	1	0	1	0	0	0	0	1	0	1	64
530	0	40	24	0	5	1	0	2	1	0	0	0	0	0	0	73
545	2	51	25	0	8	0	0	2	3	0	0	0	0	0	0	91
600	1	55	39	0	7	0	0	3	0	0	0	0	0	0	1	106
Hourly Total	3	182	109	0	23	2	0	8	4	0	0	0	1	0	2	334
615	0	62	28	0	7	0	0	1	1	0	0	0	0	0	0	99
630	1	89	43	0	11	2	0	4	2	0	0	0	0	0	0	152
645	4	123	86	1	4	3	0	4	4	0	0	0	0	0	0	229
700	1	196	84	1	18	0	0	1	1	0	0	0	0	0	1	303
Hourly Total	6	470	241	2	40	5	0	10	8	0	0	0	0	0	1	783
715	1	181	78	1	11	2	0	3	4	0	0	0	0	0	0	281
730	2	213	89	0	17	0	0	1	4	1	0	0	0	0	0	327
745	1	250	120	0	15	4	0	7	4	0	0	0	0	0	0	401
800	3	241	102	0	9	3	0	8	3	0	0	0	0	0	0	369
Hourly Total	7	885	389	1	52	9	0	19	15	1	0	0	0	0	0	1378
815	1	214	114	1	21	1	0	9	2	0	0	0	0	0	2	365
830	1	241	113	4	28	3	0	5	2	0	0	0	0	0	4	401
845	1	194	109	0	25	2	0	6	2	0	0	0	0	0	0	339
900	2	178	104	1	22	2	0	9	3	0	0	0	0	0	0	321
Hourly Total	5	827	440	6	96	8	0	29	9	0	0	0	0	0	6	1426
915	1	212	83	1	14	2	0	5	4	0	0	0	0	0	0	322
930	0	239	120	2	32	3	0	0	1	0	0	0	0	0	0	397
945	3	248	117	0	22	0	0	5	3	0	0	0	0	0	0	398
1000	3	244	89	0	16	5	0	4	2	0	0	0	0	0	0	363
Hourly Total	7	943	409	3	84	10	0	14	10	0	0	0	0	0	0	1480
1015	3	220	81	0	18	2	0	10	3	0	0	0	0	0	0	337
1030	1	227	95	0	14	6	0	8	6	0	0	0	0	0	0	357
1045	1	238	111	0	12	4	1	10	4	0	0	0	0	0	0	381
1100	1	231	92	1	14	7	1	5	2	0	0	0	0	0	0	354
Hourly Total	6	916	379	1	58	19	2	33	15	0						

Volume Count Report

Start Date: May 7, 2019
 Stop Date: May 8, 2019
 City: Dade City
 Location US 98 east of US 301

Eastbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	3	2	0	2	19	54	56	41	32	42	40
30	7	3	5	7	7	25	40	54	46	35	42	43
45	7	4	2	4	14	25	33	38	46	48	47	41
00	1	4	1	3	14	30	42	62	53	48	44	58
Hr Total	24	14	10	14	37	99	169	210	186	163	175	182

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	55	32	52	87	64	65	63	49	29	22	29	10
30	43	56	48	64	60	68	48	27	31	15	9	12
45	41	37	62	69	67	55	37	35	22	27	13	10
00	45	40	49	52	54	67	38	33	26	9	6	12
Hr Total	184	165	211	272	245	255	186	144	108	73	57	44

24 Hour Total: 3,227
 AM Peak Hour begins: 7:00 AM Peak Volume: 210 AM Peak Hour Factor: 0.85
 PM Peak Hour begins: 15:00 PM Peak Volume: 272 PM Peak Hour Factor: 0.78

Westbound Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	5	4	4	1	3	12	31	44	62	47	50	50
30	6	6	1	5	6	20	43	61	57	52	64	32
45	3	4	1	2	8	25	40	56	69	50	52	61
00	1	2	2	10	12	16	65	79	51	62	50	61
Hr Total	15	16	8	18	29	73	179	240	239	211	216	204

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	71	93	81	92	70	79	61	32	33	15	13	12
30	62	68	68	66	49	57	52	39	28	16	11	8
45	91	78	83	56	63	84	42	25	22	16	5	6
00	101	75	78	82	76	60	56	26	30	15	11	7
Hr Total	325	314	310	296	258	280	211	122	113	62	40	33

24 Hour Total: 3,812
 AM Peak Hour begins: 7:45 AM Peak Volume: 267 AM Peak Hour Factor: 0.84
 PM Peak Hour begins: 12:30 PM Peak Volume: 353 PM Peak Hour Factor: 0.87

Total Volume

Tuesday, May 7, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	14	7	6	1	5	31	85	100	103	79	92	90
30	13	9	6	12	13	45	83	115	103	87	106	75
45	10	8	3	6	22	50	73	94	115	98	99	102
00	2	6	3	13	26	46	107	141	104	110	94	119
Hr Total	39	30	18	32	66	172	348	450	425	374	391	386

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	126	125	133	179	134	144	124	81	62	37	42	22
30	105	124	116	130	109	125	100	66	59	31	20	20
45	132	115	145	125	130	139	79	60	44	43	18	16
00	146	115	127	134	130	127	94	59	56	24	17	19
Hr Total	509	479	521	568	503	535	397	266	221	135	97	77

24 Hour Total: 7,039
 AM Peak Hour begins: 7:45 AM Peak Volume: 462 AM Peak Hour Factor: 0.82
 PM Peak Hour begins: 14:30 PM Peak Volume: 581 PM Peak Hour Factor: 0.81

Volume Count Report

Start Date: May 8, 2019
 Stop Date: May 9, 2019
 City: Dade City
 Location: US 98 east of US 301

Eastbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	3	3	1	8	4	9	47	53	43	32	40	42
30	4	6	5	7	4	18	36	72	44	68	43	40
45	6	2	6	4	10	26	48	56	52	62	53	62
00	2	1	1	9	10	34	47	41	49	43	49	37
Hr Total	15	12	13	28	28	87	178	222	188	205	185	181

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	45	32	44	49	65	60	55	37	32	25	13	7
30	55	43	48	54	62	56	48	39	43	22	24	6
45	23	53	41	74	75	57	44	32	19	31	8	7
00	38	47	72	56	77	65	44	25	38	17	10	6
Hr Total	161	175	205	233	279	238	191	133	132	95	55	26

24 Hour Total: 3,265
 AM Peak Hour begins: 6:45 AM Peak Volume: 228 AM Peak Hour Factor: 0.79
 PM Peak Hour begins: 16:00 PM Peak Volume: 279 PM Peak Hour Factor: 0.91

Westbound Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	2	2	1	5	26	38	60	65	58	65	43
30	11	6	2	5	9	11	38	58	56	52	64	42
45	7	1	2	4	13	26	36	72	66	51	51	71
00	8	12	0	6	16	21	57	67	62	43	66	66
Hr Total	30	21	6	16	43	84	169	257	249	204	246	222

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	76	67	75	41	73	56	36	43	27	19	13	5
30	87	88	78	84	62	79	47	48	31	9	9	4
45	71	84	64	80	84	47	47	20	33	16	6	6
00	63	43	46	85	56	63	27	37	29	12	6	6
Hr Total	297	282	263	290	275	245	157	148	120	56	34	21

24 Hour Total: 3,735
 AM Peak Hour begins: 11:30 AM Peak Volume: 300 AM Peak Hour Factor: 0.86
 PM Peak Hour begins: 15:15 PM Peak Volume: 322 PM Peak Hour Factor: 0.95

Total Volume

Wednesday, May 8, 2019

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	5	3	9	9	35	85	113	108	90	105	85
30	15	12	7	12	13	29	74	130	100	120	107	82
45	13	3	8	8	23	52	84	128	118	113	104	133
00	10	13	1	15	26	55	104	108	111	86	115	103
Hr Total	45	33	19	44	71	171	347	479	437	409	431	403

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	121	99	119	90	138	116	91	80	59	44	26	12
30	142	131	126	138	124	135	95	87	74	31	33	10
45	94	137	105	154	159	104	91	52	52	47	14	13
00	101	90	118	141	133	128	71	62	67	29	16	12
Hr Total	458	457	468	523	554	483	348	281	252	151	89	47

24 Hour Total: 7,000
 AM Peak Hour begins: 11:30 AM Peak Volume: 499 AM Peak Hour Factor: 0.88
 PM Peak Hour begins: 15:15 PM Peak Volume: 571 PM Peak Hour Factor: 0.93

Appendix E

Signal Timing Data



**SIGNAL TIMING PLAN
FOR
PUBLIC RECORDS REQUEST**

LOCATION: US 301 & CLINTON (CR52A)												WO #:		591			
LAST UPDATE:		10/15/2018				TURN ON DATE:											
CONTROLLER:		ASC/2S-2100				SMART MONITOR:		NO									
MONITOR:		MMU				UPS:		YES									
PH	DIRECTION	MIN	WALK	PC	PSG	MAX 1	MAX 2	MAX 3	YEL	RC	MIN REC	MAX REC	MEM ON	MEM OFF	CNA	DET SWITCH	FLASH
1	SBLT	7			3	15			5.2	2			X			R	
2	NB	20	7	35	5	60			5.2	2	X		X			Y	
3	WBLT	7			3	15			5.1	2			X			R	
4	EB	10	7	45	3	50			5.1	2			X			R	
5	NBLT	7			3	30			5.2	2			X			R	
6	SB	20	7	41	5	60			5.2	2	X		X			Y	
7	EBLT	7			3	15			5.1	2			X			R	
8	WB	10	7	48	3	50			5.1	2			X			R	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
OVERLAP		A		+													
		B		+													
		C		+													
		D		+													
NOTES: L1 PH 8 WB AND L8 PH 4 EBRT HAS 8 SEC DELAY DONE IN CONTROLLER. PHASE 5 LAGS DURING ALL COORD PATTERNS.																	

Coordination Patterns

Pattern 1

Cycle Length . . . 130 COS FREE
 Offset 6
 Vehicle Permissive . . [1] 0 [2] 0
 Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
 Splits: Phase 1- 18 2- 72 3- 18 4- 22
 Phase 5- 34 6- 56 7- 18 8- 22
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
 Split Extension/Ring [1] 0 [2] 0
 Split Demand Pattern [1] 0 [2] 0
 XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
 Coord Phases . . . X X
 Veh Recall
 Veh Max Recall . . . X X
 Ped Recall
 Veh Omit
 Alt Sequence . . . A: . B: . C: X D: . E: . F: .

Pattern 2

Cycle Length . . . 140 COS FREE
 Offset 106
 Vehicle Permissive . . [1] 0 [2] 0
 Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
 Splits: Phase 1- 18 2- 79 3- 19 4- 24
 Phase 5- 39 6- 58 7- 20 8- 23
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
 Split Extension/Ring [1] 0 [2] 0
 Split Demand Pattern [1] 0 [2] 0
 XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
 Coord Phases . . . X X
 Veh Recall
 Veh Max Recall . . . X X
 Ped Recall
 Veh Omit
 Alt Sequence . . . A: . B: . C: X D: . E: . F: .

Pattern 3

Cycle Length . . . 140 COS FREE
 Offset 131
 Vehicle Permissive . . [1] 0 [2] 0
 Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
 Splits: Phase 1- 18 2- 79 3- 20 4- 23
 Phase 5- 41 6- 56 7- 21 8- 22
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
 Split Extension/Ring [1] 0 [2] 0
 Split Demand Pattern [1] 0 [2] 0
 XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
 Coord Phases . . . X X
 Veh Recall
 Veh Max Recall . . . X X
 Ped Recall
 Veh Omit
 Alt Sequence . . . A: . B: . C: X D: . E: . F: .

Coordination Patterns

Pattern 4

Cycle Length . . . 130 COS FREE
 Offset 60
 Vehicle Permissive . . [1] 0 [2] 0
 Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
 Splits: Phase 1- 18 2- 70 3- 20 4- 22
 Phase 5- 32 6- 56 7- 20 8- 22
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
 Split Extension/Ring [1] 0 [2] 0
 Split Demand Pattern [1] 0 [2] 0
 XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
 Coord Phases . . . X X
 Veh Recall
 Veh Max Recall . . . X X
 Ped Recall
 Veh Omit
 Alt Sequence . . A: . B: . C: X D: . E: . F: .

Pattern 6

Cycle Length . . . 140 COS FREE
 Offset 98
 Vehicle Permissive . . [1] 0 [2] 0
 Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
 Splits: Phase 1- 18 2- 75 3- 22 4- 25
 Phase 5- 34 6- 59 7- 23 8- 24
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
 Split Extension/Ring [1] 0 [2] 0
 Split Demand Pattern [1] 0 [2] 0
 XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
 Coord Phases . . . X X
 Veh Recall
 Veh Max Recall . . . X X
 Ped Recall
 Veh Omit
 Alt Sequence . . A: . B: . C: X D: . E: . F: .

TOD Weekly/Yearly

NIC Program Steps

Step	Program	Step Begins	Pattern	Override
1	1	0730	1	NO
2	1	0930	2	NO
3	1	1430	3	NO
4	1	1800	4	NO
5	1	1915	0	NO
6	2	0930	6	NO
7	2	1830	0	NO
8	3	1000	6	NO
9	3	1500	0	NO



**SIGNAL TIMING PLAN
FOR
PUBLIC RECORDS REQUEST**

LOCATION: US 301 & US 98												WO #:		627			
LAST UPDATE:		11/3/2020				TURN ON DATE:		1/6/2014									
CONTROLLER:		ASC/3-2100				SMART MONITOR:		YES									
MONITOR:		MMU				UPS:		YES									
PH	DIRECTION	MIN	WALK	PC	PSG	MAX 1	MAX 2	MAX 3	YEL	RC	MIN REC	MAX REC	MEM ON	MEM OFF	CNA	DET SWITCH	FLASH
1	SBLT FYA	7			3	20	25		5.5	2		X	X			X/6	R
2	NB	20	7	29	5	80	200		5.5	2	X			X		Y	
3																	
4	EB PED	10	7	33			40		4.8	2							
5																	
6	SB	20			5	80	200		5.5	2	X			X		Y	
7																	
8	WB	10	7	26	3	40	23		4.8	2			X			R	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
OVERLAP		A			+												
		B			+												
		C			+												
		D	1		+		8										
NOTES:																	
** FOR ADVANCE WF SEE WO 0890.00. ** L1 PH 8 WBRT HAS 10 SEC DELAY DONE IN CONTROLLER. ** PHASE 1 SBLT PLACED ON MAX RECALL, AND MAX 1 TO 20 SEC FROM 40 SEC. TURNED OFF DETECTOR, LOOP BAD IN ROAD.**																	

US301 & US98 ASC3

Coordination Pattern Data Pattern Data (MM)3-2

Pattern - 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits in	Seconds
Cycle	130	Std (COS)	0	Offsets in	Seconds
Offset Value	52s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reserve	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	130s	130s	0s	0s

Misc. Data

Veh. Permissive 1 0 Veh. Permissive 2 0 Veh. Permissive 2 Disp. 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern Data

Pattern - 2

Pattern	2	TS2 (Pat-Off)	0-2	Splits in Offsets in	Seconds Seconds
Cycle	140	Std (COS)	121		
Offset Value	31s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh. Permissive 1 0 Veh. Permissive 2 0 Veh. Permissive 2 Disp. 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern Data

Pattern - 3

Setting	Value	Description	Value	Splits in	Seconds
Split Pattern	3	TS2 (Pat-Off)	0-3		
Cycle	140	Std (COS)	131	Offsets in	Seconds
Offset Value	46s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh. Permissive 1 0 Veh. Permissive 2 0 Veh. Permissive 2 Disp. 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern Data

Pattern - 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits in	Seconds
Cycle	130	Std (COS)	141	Offsets in	Seconds
Offset Value	106s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reserve	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	130s	130s	0s	0s

Misc. Data

Veh. Permissive 1	0	Veh. Permissive 2	0	Veh. Permissive 2 Disp.	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern Data

Special Function Output

Pattern - 6

Pattern	Value	Description	Setting	Splits in	Seconds
Split Pattern	6	TS2 (Pat-Off)	1-3		
Cycle	140	Std (COS)	112		
Offset Value	17s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reserve	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Disp.	-	0	0	0
Split Sum	140s	140s	0s	0s

Misc. Data

Veh. Permissive 1 0 Veh. Permissive 2 0 Veh. Permissive 2 Disp. 0
 Split Demand Pat 1 0 Split Demand Pat 2 0 Crossing Arterial Pat 0

Split Pattern Data

Time Base Action Plan

Action Plan (MM)5-2

Action Plan - 1

Action Plan - 2

Action Plan - 3

Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Special Function																

Action Plan - 4

Pattern	4	Override System	No
Timing Plan	0	Sequence	0
Veh Det Plan	0	Detector Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Diming Enable	No	Veh Priority Return	No
Ped Priority Return	No	Queue Delay	No
Prempt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Special Function																

Action Plan - 6

Pattern	6	Override System	No
Timing Plan	0	Sequence	0
Veh Det Plan	0	Detector Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Diming Enable	No	Veh Priority Return	No
Ped Priority Return	No	Queue Delay	No
Prempt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Special Function																

Action Plan - 99

Pattern	254 - FREE	Override System	No
Timing Plan	0	Sequence	0
Veh Det Plan	0	Detector Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Diming Enable	No	Veh Priority Return	No
Ped Priority Return	No	Queue Delay	No
Prempt Cond Delay	No		

Time Base Day Plan/Schedule Day Plan (MM)5-3

Day Plan - 1

Event	Action Plan	Start Time
1	1	7:30 AM
2	2	9:30 AM
3	3	2:30 PM
4	4	6:00 PM
5	99	7:15 PM

Day Plan - 2

Event	Action Plan	Start Time
1	6	9:30 AM
2	99	6:30 PM

Day Plan - 3

Event	Action Plan	Start Time
1	6	10:00 AM
2	99	3:00 PM

Schedule (MM)5-4

Schedule Number - 1

Day Plan Number: 1

Day of Week	Sun	Mon	Tue	Wed	Thur	Fri	Sat
	X	X	X	X	X	X	

Day of Month	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X			

Schedule Number - 2

Day Plan Number: 2

Day of Week	Sun	Mon	Tue	Wed	Thur	Fri	Sat
							X

Schedule Number - 3

Day Plan Number: 3

Day of Week	Sun	Mon	Tue	Wed	Thur	Fri	Sat
	X						

Appendix F

Historical Count Data

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 0030 - SR 35/SR 700/US 98/US 301, SOUTH OF SR 533/US 98 BYP

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	26500 C	N 13500	S 13000	9.00	56.20	7.60
2018	29500 S	N 15000	S 14500	9.00	57.10	4.90
2017	28500 F	N 14500	S 14000	9.00	57.30	4.90
2016	27500 C	N 14000	S 13500	9.00	57.90	4.90
2015	28500 C	N 14500	S 14000	9.00	57.90	7.20
2014	32000 C	N 16000	S 16000	9.00	56.10	7.70
2013	26500 C	N 13500	S 13000	9.00	60.00	6.80
2012	28000 C	N 14500	S 13500	9.00	59.00	6.50
2011	29000 C	N 15000	S 14000	9.00	58.20	7.70
2010	28500 C	N 14500	S 14000	9.07	58.18	6.90
2009	30000 C	N 15000	S 15000	9.17	58.07	7.50
2008	29500 C	N 14500	S 15000	9.52	56.97	5.70
2007	30500 C	N 15500	S 15000	9.26	52.68	4.10
2006	32000 C	N 16000	S 16000	9.38	56.87	6.60
2005	30500 C	N 15500	S 15000	9.40	55.20	8.60
2004	28500 C	N 14500	S 14000	9.40	57.90	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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 0052 - SR 35/SR 700/US 98/US 301, NORTH OF SR 35/SR 700/US 98

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	28000 C	N 14000	S 14000	9.00	56.20	6.40
2018	33000 E	N 13000	S 13000	9.00	57.10	7.50
2017	32500 S	N 17000	S 15500	9.00	57.30	6.60
2016	30500 F	N 16000	S 14500	9.00	57.90	6.60
2015	28500 C	N 15000	S 13500	9.00	57.90	6.60
2014	28500 C	N 14500	S 14000	9.00	56.10	6.40
2013	28000 C	N 14500	S 13500	9.00	60.00	4.90
2012	28000 C	N 14000	S 14000	9.00	59.00	4.60
2011	26500 C	N 13500	S 13000	9.00	58.20	5.40
2010	29500 C	N 15000	S 14500	9.07	58.18	4.80
2009	28500 C	N 14500	S 14000	9.17	58.07	5.60
2008	28000 C	N 14000	S 14000	9.52	56.97	6.10
2007	31000 C	N 15500	S 15500	9.26	52.68	5.90
2006	29000 C	N 14500	S 14500	9.38	56.87	3.40
2005	26000 C	N 12500	S 13500	9.40	55.20	3.40
2004	17800 C	N 8600	S 9200	9.40	57.90	3.40

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 0053 - SR 39/US 301, SOUTH OF SR 35/SR 700/US 98

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	23500 C	N 12000	S 11500	9.00	56.20	6.30
2018	22500 C	N 11500	S 11000	9.00	57.10	5.50
2017	24000 F	N 12000	S 12000	9.00	57.30	4.80
2016	23000 C	N 11500	S 11500	9.00	57.90	4.80
2015	23000 C	N 11500	S 11500	9.00	57.90	5.70
2014	25000 C	N 12500	S 12500	9.00	56.10	5.60
2013	22000 C	N 11000	S 11000	9.00	60.00	4.60
2012	23000 C	N 11500	S 11500	9.00	59.00	3.90
2011	22000 C	N 11500	S 10500	9.00	58.20	6.40
2010	22500 C	N 11000	S 11500	9.07	58.18	4.40
2009	21000 C	N 11000	S 10000	9.17	58.07	3.70
2008	23500 C	N 11500	S 12000	9.52	56.97	5.90
2007	26000 C	N 13000	S 13000	9.26	52.68	5.90
2006	25500 C	N 13000	S 12500	9.38	56.87	7.50
2005	24000 C	N 12000	S 12000	9.40	55.20	7.60
2004	19600 C	N 9800	S 9800	9.40	57.90	7.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2020 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 0054 - US 98/SR 35/SR 700, S OF SR 39/US 301

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	5700 C	N 2900	S 2800	9.00	55.40	15.20
2019	6100 F	N 3100	S 3000	9.00	56.20	13.90
2018	5900 C	N 3000	S 2900	9.00	57.10	13.90
2017	5400 F	N 2800	S 2600	9.00	57.30	13.70
2016	5200 C	N 2700	S 2500	9.00	57.90	13.70
2015	5500 C	N 2800	S 2700	9.00	57.90	12.60
2014	5100 C	N 2600	S 2500	9.00	56.10	13.40
2013	5100 C	N 2600	S 2500	9.00	60.00	13.00
2012	6100 C	N 3100	S 3000	9.00	59.00	10.20
2011	5900 C	N 3000	S 2900	9.00	58.20	10.80
2010	5800 C	N 2900	S 2900	9.07	58.18	12.70
2009	5600 F	N 2800	S 2800	9.17	58.07	10.90
2008	5600 C	N 2800	S 2800	9.52	56.97	10.90
2007	5400 C	N 2700	S 2700	9.26	52.68	12.70
2006	5600 C	N 2800	S 2800	9.38	56.87	12.70
2005	5400 C	N 2700	S 2700	9.40	55.20	11.70

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 0055 - US 98/SR 35/SR 700, NORTH OF CR 54/POLK COUNTY LINE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5500 F	N 2800	S 2700	9.50	56.20	23.50
2018	5300 C	N 2700	S 2600	9.50	57.10	23.50
2017	4700 F	N 2400	S 2300	9.50	57.30	24.30
2016	4500 C	N 2300	S 2200	9.50	57.90	24.30
2015	4500 C	N 2300	S 2200	9.50	57.90	19.60
2014	4200 C	N 2200	S 2000	9.50	56.10	20.70
2013	4100 C	N 2100	S 2000	9.50	60.00	22.70
2012	4200 C	N 2200	S 2000	9.50	59.00	19.70
2011	4000 C	N 2000	S 2000	9.50	58.20	21.90
2010	4200 C	N 2100	S 2100	9.07	58.18	20.30
2009	4000 C	N 1900	S 2100	9.17	58.07	18.90
2008	4300 C	N 2100	S 2200	9.52	56.97	23.10
2007	4000 C	N 2000	S 2000	9.26	52.68	22.50
2006	4100 C	N 2000	S 2100	9.38	56.87	24.10
2005	4100 C	N 2000	S 2100	9.40	55.20	23.80
2004	4200 C	N 2100	S 2100	9.40	57.90	23.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 6038 - CLINTON AVE, WEST OF US 301 (HPMS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	15700 F	E 7900	W 7800	9.00	56.20	7.20
2018	15300 C	E 7700	W 7600	9.00	57.10	7.20
2012	12500 S	E 6300	W 6200	9.00	59.00	5.90
2011	12100 F	E 6100	W 6000	9.00	58.20	5.90
2010	12100 C	E 6100	W 6000	9.07	58.18	5.90
2009	11600 C	E 5800	W 5800	9.17	58.07	6.00
2008	11900 C	E 5600	W 6300	9.52	56.97	7.40

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 9080 - CR 54, E OF BERRY RD/CR 35

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	4400 X	0	0	9.50	56.20	5.10
2018	4300 X	0	0	9.50	57.10	5.80
2017	4200 6	0	0	9.50	57.30	4.70
2016	4000 V	0	0	9.50	57.90	5.60
2015	3800 R	0	0	9.50	57.90	6.30
2014	3700 T			9.50	56.10	5.80
2013	3700 S	0	0	9.50	60.00	5.40
2012	3600 F	0	0	9.50	59.00	5.10
2011	3500 C	E	W	9.50	58.20	6.10

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

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 9103 - CLINTON AVE, E OF US 301

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	2200 X	0	0	9.00	56.20	5.10
2018	2100 X	0	0	9.00	57.10	5.80
2017	2000 6	0	0	9.00	57.30	4.70
2016	1900 V	0	0	9.00	57.90	5.60
2015	1800 R	0	0	9.00	57.90	6.30
2014	1800 T			9.00	56.10	5.80
2013	1800 S	0	0	9.50	60.00	5.40
2012	1800 F	0	0	9.00	59.00	5.10
2011	1700 C	E	W	9.00	58.20	6.10

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

Appendix G

US 98 at US 98 Access Road Volume Development

Iterative Proportional Function (FRATAR)
Uncounted Intersection Development
US 98 at US 98 Access Road

Time Period AM

AADT		K Factor		D Factor		
		P	A	P	A	
North Leg	0	0		North Leg	0	0
South Leg	3,400	3,400		South Leg	9.0%	9.0%
East Leg	5,900	5,900		East Leg	9.0%	9.0%
West Leg	4,500	4,500		West Leg	9.0%	9.0%
				North Leg	0.0%	0.0%
				South Leg	57.3%	42.7%
				East Leg	42.7%	57.3%
				West Leg	57.3%	42.7%
DDHV						
		P	A	P ADJ	A ADJ	
North Leg	0	0		0	0	
South Leg	175	131		0	6	
East Leg	227	304		0	10	
West Leg	232	173		0	10	
Total	634	608		0	634	
Diff	0	26			634	
Target						
Int	North Leg	South Leg	East Leg	West Leg		
North Leg					Production	
South Leg					0	
East Leg					175	
West Leg					227	
					232	
Attraction	0	137	314	183	0	
Seed Percent						
North Leg	North Leg	South Leg	East Leg	West Leg	Production	
North Leg	0%	0%	0%	0%	0	
South Leg	0%	0%	60%	40%	1	
East Leg	0%	30%	0%	70%	1	
West Leg	0%	15%	85%	0%	1	
					0	
Attraction	0	0.45	1.45	1.1	0	
Seed						
Int	North Leg	South Leg	East Leg	West Leg	Production	
North Leg	0	0	0	0	0	
South Leg	0	0	105	70	175	
East Leg	0	68	0	159	227	
West Leg	0	35	197	0	232	
					0	
Attraction	0	103	302	229	0	
Intersection matrix after 50 iterations						
Int	North Leg	South Leg	East Leg	West Leg	Production	
N	0	0	0	0	0	
S	0	0	122	53	0	
E	0	97	0	130	0	
W	0	40	192	0	0	
	0	0	0	0	0	
Attraction	0	137	314	183	0	
Manual Adjustment						
Int	North Leg	South Leg	East Leg	West Leg	Production	
N					0	
S					0	
E					0	
W					0	
Attraction	0	0	0	0	0	
Final Matrix						
0	North Leg	South Leg	East Leg	West Leg	Production	
North Leg	0	0	0	0	0	
South Leg	0	0	122	53	0	
East Leg	0	97	0	130	0	
West Leg	0	40	192	0	0	
	0	0	0	0	0	
Attraction	0	137	314	183	0	

Iterative Proportional Function (FRATAR)
Uncounted Intersection Development
US 98 at US 98 Access Road

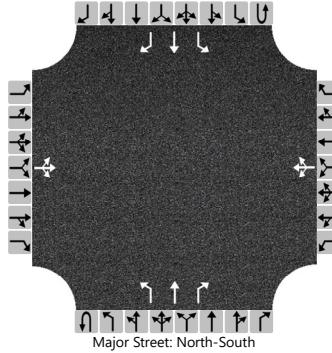
Time Period PM

AADT			K Factor		D Factor	
	P	A	P	A	P	A
North Leg	0	0	North Leg	0	0.0%	0.0%
South Leg	3,400	3,400	South Leg	9.0%	9.0%	42.7%
East Leg	5,900	5,900	East Leg	9.0%	9.0%	57.3%
West Leg	4,500	4,500	West Leg	9.0%	9.0%	42.7%
DDHV						
	P	A	P ADJ	A ADJ	P Fin	A Fin
North Leg	0	0	0	0	0	0
South Leg	131	175	6		137	175
East Leg	304	227	10		314	227
West Leg	173	232	10		183	232
Total	608	634	26		634	634
Diff	26	0				
Target						
Int	North Leg	South Leg	East Leg	West Leg		Production
North Leg						0
South Leg						137
East Leg						314
West Leg						183
						0
Attraction	0	175	227	232	0	
Seed Percent						
North Leg	North Leg	South Leg	East Leg	West Leg		Production
North Leg	0%	0%	0%	0%		0
South Leg	0%	0%	40%	60%		1
East Leg	0%	70%	0%	30%		1
West Leg	0%	85%	15%	0%		1
						0
Attraction	0	1.55	0.55	0.9	0	
Seed						
Int	North Leg	South Leg	East Leg	West Leg		Production
North Leg	0	0	0	0		0
South Leg	0	0	70	105		175
East Leg	0	159	0	68		227
West Leg	0	197	35	0		232
						0
Attraction	0	356	105	173	0	
Intersection matrix after 50 iterations						
Int	North Leg	South Leg	East Leg	West Leg		Production
N	0	0	0	0	0	0
S	0	0	97	40	0	137
E	0	122	0	192	0	314
W	0	53	130	0	0	183
	0	0	0	0	0	0
Attraction	0	175	227	232	0	
Manual Adjustment						
Int	North Leg	South Leg	East Leg	West Leg		Production
N						0
S						0
E						0
W						0
Attraction	0	0	0	0	0	
Final Matrix						
0	North Leg	South Leg	East Leg	West Leg		Production
North Leg	0	0	0	0	0	0
South Leg	0	0	97	40	0	137
East Leg	0	122	0	192	0	314
West Leg	0	53	130	0	0	183
	0	0	0	0	0	0
Attraction	0	175	227	232	0	

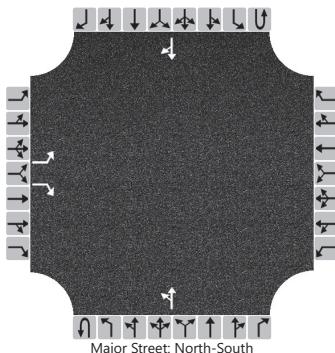
Appendix H

Existing Year (2019) Operational Analysis

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																						
Analyst	Nashid Sharmin			Intersection				CR 54 at US 98																																		
Agency/Co.	H.W. Lochner Inc.			Jurisdiction				FDOT D7																																		
Date Performed	5/17/2021			East/West Street				CR 54																																		
Analysis Year	2019			North/South Street				US 98																																		
Time Analyzed	7:30-8:30 AM			Peak Hour Factor				0.95																																		
Intersection Orientation	North-South			Analysis Time Period (hrs)				1.00																																		
Project Description	US 98 PD&E Studies																																									
Lanes																																										
 Major Street: North-South																																										
Vehicle Volumes and Adjustments																																										
Approach	Eastbound				Westbound				Northbound				Southbound																													
Movement	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	1	0		0	1	0	0	1	1	1	0	1	1	1																										
Configuration		LTR				LTR				L	T	R		L	T	R																										
Volume (veh/h)		15	0	250		0	0	0		285	240	0		0	260	25																										
Percent Heavy Vehicles (%)		3	3	3		3	3	3		7				12																												
Proportion Time Blocked																																										
Percent Grade (%)	0				0																																					
Right Turn Channelized									No				Yes																													
Median Type Storage	Undivided																																									
Critical and Follow-up Headways																																										
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1																												
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22																												
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2																												
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31																												
Delay, Queue Length, and Level of Service																																										
Flow Rate, v (veh/h)			279				0			300				0																												
Capacity, c (veh/h)			617							1261				1256																												
v/c Ratio			0.45							0.24				0.00																												
95% Queue Length, Q ₉₅ (veh)			2.4							0.9				0.0																												
Control Delay (s/veh)			15.6							8.7				7.9																												
Level of Service (LOS)			C							A				A																												
Approach Delay (s/veh)	15.6								4.7				0.0																													
Approach LOS	C																																									

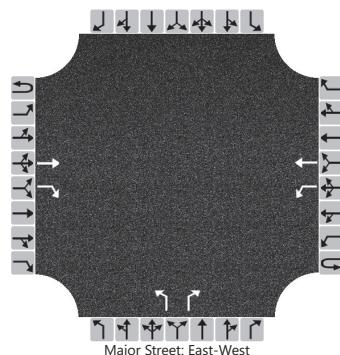
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			Old Lakeland Hwy & Access																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/18/2021			East/West Street			Access Road																													
Analysis Year	2019			North/South Street			Old Lakeland Highway																													
Time Analyzed	7:30-8:30 AM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0																							
Configuration		L		R						LT			TR																							
Volume (veh/h)		105		45					60	285			305																							
Percent Heavy Vehicles (%)		11		11					11																											
Proportion Time Blocked																																				
Percent Grade (%)		0																																		
Right Turn Channelized		No																																		
Median Type Storage		Undivided																																		
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1		6.2					4.1																											
Critical Headway (sec)		6.51		6.31					4.21																											
Base Follow-Up Headway (sec)		3.5		3.3					2.2																											
Follow-Up Headway (sec)		3.60		3.40					2.30																											
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		111		47					63																											
Capacity, c (veh/h)		319		655					1091																											
v/c Ratio		0.35		0.07					0.06																											
95% Queue Length, Q ₉₅ (veh)		1.6		0.2					0.2																											
Control Delay (s/veh)		22.2		10.9					8.5																											
Level of Service (LOS)		C		B					A																											
Approach Delay (s/veh)		18.8							2.0																											
Approach LOS		C																																		

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst		Nashid Sharmin				Intersection	
Agency/Co.		H.W. Lochner Inc.				Jurisdiction	
Date Performed		5/18/2021				East/West Street	
Analysis Year		2019				North/South Street	
Time Analyzed		7:30-8:30 AM				Peak Hour Factor	
Intersection Orientation		East-West				Analysis Time Period (hrs)	
Project Description		US 98 PD&E Studies					

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	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			275	45		105	230			65		90				
Percent Heavy Vehicles (%)						12				11		11				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized		Yes								No						
Median Type Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2						
Critical Headway (sec)					4.22				6.51		6.31						
Base Follow-Up Headway (sec)					2.2				3.5		3.3						
Follow-Up Headway (sec)					2.31				3.60		3.40						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					111				68		95						
Capacity, c (veh/h)					1217				332		729						
v/c Ratio					0.09				0.21		0.13						
95% Queue Length, Q ₉₅ (veh)					0.3				0.8		0.4						
Control Delay (s/veh)					8.3				18.7		10.7						
Level of Service (LOS)					A				C		B						
Approach Delay (s/veh)		2.6				14.0											
Approach LOS						B											

HCM 6th Signalized Intersection Summary
4: US 301 & US 98

Existing Year (2019)
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	55	275	1015	55	295	1185
Future Volume (veh/h)	55	275	1015	55	295	1185
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	58	289	1068	58	311	1247
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	350	477	2052	915	459	2581
Arrive On Green	0.21	0.21	0.59	0.59	0.23	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	58	289	1068	58	311	1247
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	3.7	21.1	23.6	2.1	8.7	0.0
Cycle Q Clear(g_c), s	3.7	21.1	23.6	2.1	8.7	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	350	477	2052	915	459	2581
V/C Ratio(X)	0.17	0.61	0.52	0.06	0.68	0.48
Avail Cap(c_a), veh/h	561	664	2052	915	610	2581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.69	0.69
Uniform Delay (d), s/veh	42.4	37.6	16.0	11.5	10.5	0.0
Incr Delay (d2), s/veh	0.2	1.2	0.9	0.1	1.3	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.7	12.1	13.7	1.3	4.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	42.6	38.9	16.9	11.7	11.8	0.4
LnGrp LOS	D	D	B	B	B	A
Approach Vol, veh/h	347		1126		1558	
Approach Delay, s/veh	39.5		16.7		2.7	
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+R _c), s	18.9	80.3			99.2	30.8
Change Period (Y+R _c), s	7.5	7.5			7.5	6.8
Max Green Setting (Gmax), s	22.5	45.5			75.5	40.2
Max Q Clear Time (g_c+l1), s	10.7	25.6			2.0	23.1
Green Ext Time (p_c), s	0.7	11.8			26.6	1.0
Intersection Summary						
HCM 6th Ctrl Delay			12.1			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave

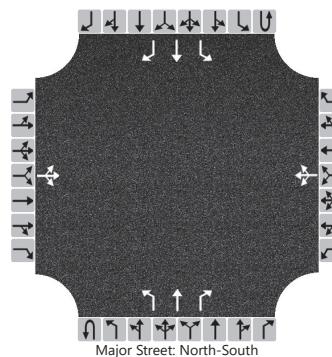
Existing Year (2019)
AM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	340	140	465	100	125	35	305	1005	75	45	905	185
Future Volume (veh/h)	340	140	465	100	125	35	305	1005	75	45	905	185
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	358	147	489	105	132	37	321	1058	79	47	953	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	484	216	290	326	88	449	2051	915	433	1844	822
Arrive On Green	0.11	0.14	0.14	0.09	0.12	0.10	0.25	1.00	1.00	0.07	0.52	0.52
Sat Flow, veh/h	3401	3497	1560	1767	2741	744	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	358	147	489	105	83	86	321	1058	79	47	953	195
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1722	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	13.6	4.9	18.0	6.5	5.7	6.0	10.6	0.0	0.0	1.5	23.0	8.8
Cycle Q Clear(g_c), s	13.6	4.9	18.0	6.5	5.7	6.0	10.6	0.0	0.0	1.5	23.0	8.8
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	484	216	290	210	205	449	2051	915	433	1844	822
V/C Ratio(X)	0.98	0.30	2.26	0.36	0.40	0.42	0.72	0.52	0.09	0.11	0.52	0.24
Avail Cap(c_a), veh/h	366	484	216	325	244	238	631	2051	915	502	1844	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	50.4	56.0	43.5	53.0	53.7	12.4	0.0	0.0	11.1	20.3	16.9
Incr Delay (d2), s/veh	40.9	0.3	583.3	0.8	1.2	1.4	1.9	0.8	0.2	0.1	1.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	12.4	3.8	66.1	5.1	4.6	4.8	5.3	0.4	0.1	1.0	14.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.7	50.7	639.3	44.2	54.2	55.1	14.3	0.8	0.2	11.3	21.3	17.6
LnGrp LOS	F	D	F	D	D	E	B	A	A	B	C	B
Approach Vol, veh/h		994			274			1458			1195	
Approach Delay, s/veh		357.6			50.7			3.7			20.3	
Approach LOS		F			D			A			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	79.6	15.5	22.0	20.6	72.0	18.0	19.5				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	64.8	10.9	14.9	26.8	48.8	10.9	14.9				
Max Q Clear Time (g_c+l1), s	3.5	2.0	8.5	20.0	12.6	25.0	15.6	8.0				
Green Ext Time (p_c), s	0.0	20.7	0.0	0.0	0.8	12.9	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			101.8									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	CR 54 at US 98
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/17/2021	East/West Street	CR 54
Analysis Year	2019	North/South Street	US 98
Time Analyzed	4:45-5:45 PM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	1	1	0	1	1	1					
Configuration			LTR				LTR			L	T	R		L	T	R				
Volume (veh/h)	25	0	285		0	0	0		250	260	0		0	240	15					
Percent Heavy Vehicles (%)	3	3	3		3	3	3		7					12						
Proportion Time Blocked																				
Percent Grade (%)	0				0															
Right Turn Channelized									No				Yes							
Median Type Storage	Undivided																			

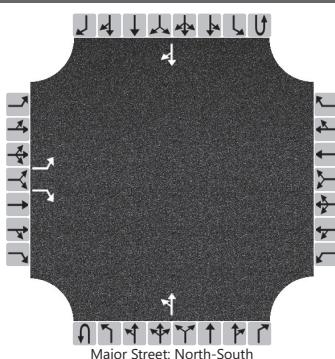
Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31		

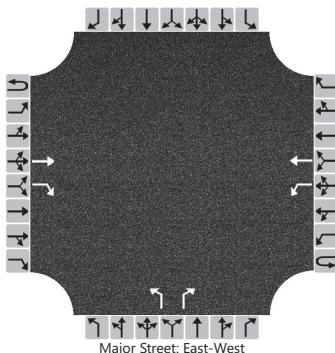
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		326			0				263				0		
Capacity, c (veh/h)		608							1284				1234		
v/c Ratio		0.54							0.20				0.00		
95% Queue Length, Q ₉₅ (veh)		3.4							0.8				0.0		
Control Delay (s/veh)		17.7							8.5				7.9		
Level of Service (LOS)		C							A				A		
Approach Delay (s/veh)	17.7								4.2				0.0		
Approach LOS	C														

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			Old Lakeland Hwy & Access																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/18/2021			East/West Street			Access Road																													
Analysis Year	2019			North/South Street			Old Lakeland Highway																													
Time Analyzed	4:45-5:45 PM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0																							
Configuration		L		R						LT			TR																							
Volume (veh/h)	95		60						45	305			285																							
Percent Heavy Vehicles (%)		11		11					11																											
Proportion Time Blocked																																				
Percent Grade (%)	0																																			
Right Turn Channelized	No																																			
Median Type Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1		6.2					4.1																											
Critical Headway (sec)		6.51		6.31					4.21																											
Base Follow-Up Headway (sec)		3.5		3.3					2.2																											
Follow-Up Headway (sec)		3.60		3.40					2.30																											
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		100		63					47																											
Capacity, c (veh/h)		337		669					1101																											
v/c Ratio		0.30		0.09					0.04																											
95% Queue Length, Q ₉₅ (veh)		1.3		0.3					0.1																											
Control Delay (s/veh)		20.2		10.9					8.4																											
Level of Service (LOS)		C		B					A																											
Approach Delay (s/veh)	16.6								1.5																											
Approach LOS	C																																			

HCS7 Two-Way Stop-Control Report

General Information				Site Information																									
Analyst	Nashid Sharmin			Intersection	US 98 at Access Road																								
Agency/Co.	H.W. Lochner Inc.			Jurisdiction	FDOT D7																								
Date Performed	5/18/2021			East/West Street	US 98																								
Analysis Year	2019			North/South Street	Access Road																								
Time Analyzed	4:45-5:45 PM			Peak Hour Factor	0.95																								
Intersection Orientation	East-West			Analysis Time Period (hrs)	1.00																								
Project Description	US 98 PD&E Studies																												
Lanes																													
 Major Street: East-West																													
Vehicle Volumes and Adjustments																													
Approach	Eastbound			Westbound			Northbound			Southbound																			
Movement	U	L	T	R	U	L	T	R	U	L	T	R																	
Priority	1U	1	2	3	4U	4	5	6		7	8	9																	
Number of Lanes	0	0	1	1	0	1	1	0	1	0	1	0																	
Configuration			T	R		L	T		L		R																		
Volume (veh/h)			230	65		90	275		45		105																		
Percent Heavy Vehicles (%)					12				11		11																		
Proportion Time Blocked																													
Percent Grade (%)									0																				
Right Turn Channelized	Yes						No																						
Median Type Storage	Undivided																												
Critical and Follow-up Headways																													
Base Critical Headway (sec)					4.1				7.1		6.2																		
Critical Headway (sec)					4.22				6.51		6.31																		
Base Follow-Up Headway (sec)					2.2				3.5		3.3																		
Follow-Up Headway (sec)					2.31				3.60		3.40																		
Delay, Queue Length, and Level of Service																													
Flow Rate, v (veh/h)					95				47		111																		
Capacity, c (veh/h)					1268				353		775																		
v/c Ratio					0.07				0.13		0.14																		
95% Queue Length, Q ₉₅ (veh)					0.2				0.5		0.5																		
Control Delay (s/veh)					8.1				16.8		10.4																		
Level of Service (LOS)					A				C		B																		
Approach Delay (s/veh)	2.0			12.3																									
Approach LOS	B																												

HCM 6th Signalized Intersection Summary
4: US 301 & US 98

Existing Year (2019)
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	55	295	1185	55	275	1015
Future Volume (veh/h)	55	295	1185	55	275	1015
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	58	311	1247	58	289	1068
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	370	481	2066	922	390	2555
Arrive On Green	0.22	0.22	0.59	0.59	0.21	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	58	311	1247	58	289	1068
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	3.9	24.8	31.7	2.2	8.7	0.0
Cycle Q Clear(g_c), s	3.9	24.8	31.7	2.2	8.7	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	370	481	2066	922	390	2555
V/C Ratio(X)	0.16	0.65	0.60	0.06	0.74	0.42
Avail Cap(c_a), veh/h	521	615	2066	922	507	2555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.62	0.62
Uniform Delay (d), s/veh	44.3	40.9	18.2	12.2	15.5	0.0
Incr Delay (d2), s/veh	0.2	1.5	1.3	0.1	2.6	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.9	13.9	17.8	1.4	6.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	44.5	42.5	19.5	12.3	18.1	0.3
LnGrp LOS	D	D	B	B	B	A
Approach Vol, veh/h	369		1305		1357	
Approach Delay, s/veh	42.8		19.2		4.1	
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+R _c), s	18.8	86.7			105.5	34.5
Change Period (Y+R _c), s	7.5	7.5			7.5	6.8
Max Green Setting (Gmax), s	20.5	57.5			85.5	40.2
Max Q Clear Time (g_c+l1), s	10.7	33.7			2.0	26.8
Green Ext Time (p_c), s	0.6	15.5			20.7	1.0
Intersection Summary						
HCM 6th Ctrl Delay			15.3			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave

Existing Year (2019)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	185	125	305	75	140	45	465	905	100	35	1005	340
Future Volume (veh/h)	185	125	305	75	140	45	465	905	100	35	1005	340
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	195	132	321	79	147	47	489	953	105	37	1058	358
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	317	475	212	274	305	94	524	2174	970	402	1616	721
Arrive On Green	0.09	0.14	0.14	0.07	0.12	0.09	0.44	1.00	1.00	0.06	0.46	0.46
Sat Flow, veh/h	3401	3497	1560	1767	2652	819	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	195	132	321	79	96	98	489	953	105	37	1058	358
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1708	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	7.7	4.7	19.0	5.3	7.1	7.6	24.5	0.0	0.0	1.4	32.5	22.3
Cycle Q Clear(g_c), s	7.7	4.7	19.0	5.3	7.1	7.6	24.5	0.0	0.0	1.4	32.5	22.3
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	475	212	274	203	197	524	2174	970	402	1616	721
V/C Ratio(X)	0.62	0.28	1.52	0.29	0.47	0.50	0.93	0.44	0.11	0.09	0.65	0.50
Avail Cap(c_a), veh/h	413	475	212	348	227	220	604	2174	970	471	1616	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.1	54.3	60.5	48.4	58.0	58.9	19.4	0.0	0.0	16.5	29.3	26.6
Incr Delay (d2), s/veh	1.9	0.3	255.1	0.6	1.7	2.0	16.9	0.5	0.2	0.1	2.1	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.1	3.7	35.1	4.2	5.8	6.0	11.6	0.3	0.1	1.0	19.6	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.0	54.7	315.6	49.0	59.7	60.8	36.3	0.5	0.2	16.6	31.4	29.0
LnGrp LOS	E	D	F	D	E	E	D	A	A	B	C	C
Approach Vol, veh/h		648			273			1547			1453	
Approach Delay, s/veh		186.4			57.0			11.8			30.4	
Approach LOS		F			E			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	90.3	14.1	23.0	34.7	68.2	17.0	20.1				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	71.8	12.9	15.9	33.8	48.8	13.9	14.9				
Max Q Clear Time (g_c+l1), s	3.4	2.0	7.3	21.0	26.5	34.5	9.7	9.6				
Green Ext Time (p_c), s	0.0	18.4	0.1	0.0	1.0	10.5	0.2	0.4				
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Appendix I

FDOT 2020 Generalized Level of Service Tables

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
Class II (35 mph or slower posted speed limit)					6					
Lanes	Median	B	C	D	E	6,380	8,990	11,510	12,760	
1	Undivided	*	370	750	800	Urbanized				
2	Divided	*	730	1,630	1,700	2	2,270	3,100	3,890	4,230
3	Divided	*	1,170	2,520	2,560	3	3,410	4,650	5,780	6,340
4	Divided	*	1,610	3,390	3,420	4	4,550	6,200	7,680	8,460
Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)					5					
Non-State Signalized Roadways - 10%					5,690	7,760	9,520	10,570		
Median & Turn Lane Adjustments					Freeway Adjustments					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors	Auxiliary Lane	+ 1,000	Ramp Metering	+ 5%		
1	Divided	Yes	No	+5%						
1	Undivided	No	No	-20%						
Multi	Undivided	Yes	No	-5%						
Multi	Undivided	No	No	-25%						
-	-	-	Yes	+ 5%						
One-Way Facility Adjustment Multiply the corresponding directional volumes in this table by 1.2					UNINTERRUPTED FLOW HIGHWAYS					
BICYCLE MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					Lanes	Median	B	C	D	E
Paved Shoulder/Bicycle					1	Undivided	580	890	1,200	1,610
Lane Coverage	B	C	D	E	2	Divided	1,800	2,600	3,280	3,730
0-49%	*	150	390	1,000	3	Divided	2,700	3,900	4,920	5,600
50-84%	110	340	1,000	>1,000						
85-100%	470	1,000	>1,000	**	Uninterrupted Flow Highway Adjustments					
PEDESTRIAN MODE² (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					Lanes	Median	Exclusive left lanes	Adjustment factors		
Sidewalk Coverage	B	C	D	E	1	Divided	Yes	+5%		
0-49%	*	*	140	480	Multi	Undivided	Yes	-5%		
50-84%	*	80	440	800	Multi	Undivided	No	-25%		
85-100%	200	540	880	>1,000						
BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction)					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.					
Sidewalk Coverage	B	C	D	E	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.					
0-84%	> 5	≥ 4	≥ 3	≥ 2	³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
85-100%	> 4	≥ 3	≥ 2	≥ 1	* Cannot be achieved using table input value defaults.					
					** 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.					
					Source: Florida Department of Transportation Systems Implementation Office https://www.fdot.gov/planning/systems/					

TABLE 7
(continued)

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

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Core Freeways	Highways	State Arterials		Class I			
				Class I	Class II	Bicycle	Pedestrian		
ROADWAY CHARACTERISTICS									
Area type (urban, rural)	urban	urban							
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50
Auxiliary Lanes (n,y)	n	n							
Median (d, twlt, n, nr, r)				d	n	r	n	r	r
Terrain (l,r)	1	1	1	1	1	1	1	1	1
% no passing zone			80						
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2
TRAFFIC CHARACTERISTICS									
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5
Speed Adjustment Factor (SAF)	0.975	0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968					
% left turns					12	12	12	12	12
% right turns					12	12	12	12	12
CONTROL CHARACTERISTICS									
Number of signals					4	4	10	10	4
Arrival type (1-6)					3	3	4	4	4
Signal type (a, c, p)					c	c	c	c	c
Cycle length (C)					120	150	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)									
Sidewalk (n, y)								n, 50%, y	
Sidewalk/roadway separation(a, t, w)								t	
Sidewalk protective barrier (n, y)									n
LEVEL OF SERVICE THRESHOLDS									
Level of Service	Freeways		Highways		Arterials		Bicycle	Ped	Bus
	Density	Two-Lane	Multilane		Class I	Class II	Score	Score	Buses/hr.
		% ffs	Density	ats	ats	ats			
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 2.75	≤ 6
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 3.50	≤ 4
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	≤ 4.25	< 3
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	≤ 5.00	< 2

% ffs = Percent free flow speed ats = Average travel speed

TABLE 9

**Generalized Peak Hour Directional Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population¹**

January 2020

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES						
STATE SIGNALIZED ARTERIALS					FREEWAYS						
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	670	740	**	2	2,010	2,770	3,270	3,650	
2	Divided	*	1,530	1,580	**	3	2,820	3,990	4,770	5,470	
3	Divided	*	2,360	2,400	**	4	3,630	5,220	6,260	7,300	
Non-State Signalized Roadway Adjustments											
(Alter corresponding state volumes by the indicated percent.)											
Non-State Signalized Roadways - 10%											
Median & Turn Lane Adjustments											
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	240	450	730	1,490
Multi	Undivided	Yes	No	-5%		2	Divided	1,630	2,350	2,910	3,280
Multi	Undivided	No	No	-25%		3	Divided	2,450	3,530	4,360	4,920
-	-	-	Yes	+ 5%		Rural Undeveloped					
One-Way Facility Adjustment											
Multiply the corresponding directional volumes in this table by 1.2											
BICYCLE MODE²											
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Rural Undeveloped											
Paved	Shoulder/Bicycle Lane Coverage	B	C	D	E	Lanes	Median	B	C	D	E
0-49%		*	70	110	170	1	Undivided	540	820	1,110	1,490
50-84%		60	120	180	580	2	Divided	1,530	2,210	2,820	3,220
85-100%		140	210	1,000	>1,000	3	Divided	2,300	3,320	4,240	4,830
Developed Areas											
Paved	Shoulder/Bicycle Lane Coverage	B	C	D	E	Developed Areas					
0-49%		*	120	260	840	Lanes	Median	B	C	D	E
50-84%		100	240	720	1,000	1	Undivided	Yes			+5%
85-100%		320	1,000	>1,000	**	Multi	Undivided	Yes			-5%
PEDESTRIAN MODE²						Multi	Undivided	No			-25%
(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E	Passing Lane Adjustments						
0-49%	*	*	120	460	Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length						
50-84%	*	80	430	770							
85-100%	180	520	860	>1,000	Uninterrupted Flow Highway Adjustments						

¹Values 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.

²Level 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.

* Cannot be achieved using table input value defaults.

** 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.

Source:
Florida Department of Transportation
Systems Implementation Office
<https://www.fdot.gov/planning/systems/>

TABLE 9
(continued)

**Generalized Peak Hour Directional Volumes for Florida's
Rural Undeveloped Areas and
Developed Areas Less Than 5,000 Population**

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways		Arterials	Bicycle	Pedestrian				
		Undeveloped	Developed							
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	1	1	1	1	1	1	1	1	1	1
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
CONTROL CHARACTERISTICS										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
LEVEL OF SERVICE THRESHOLDS										
Level of Service	Freeways	Highways								
		Two-Lane ru	Two-Lane rd	Multilane ru	Multilane rd					
	Density	%tsf	ats	%ffs	Density					
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14					
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22					
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29					
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34					
Level of Service	Arterials			Bicycle	Pedestrian					
	Major City/Co.(ats)			Score	Score					
	> 31 mph			≤ 2.75	≤ 2.75					
B	> 23 mph			≤ 3.50	≤ 3.50					
C	> 18 mph			≤ 4.25	≤ 4.25					
D	> 15 mph			≤ 5.00	≤ 5.00					

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed

Appendix J

Base Year Model Refinement Technical Memorandum

Base Year Model Refinement

Technical Memorandum (*Draft*)

**Project Development and Environment
(PD&E) Study**

Pasco County, Florida

US 98/SR 35/SR 700 from Polk County Line/CR 54 to US 301/US 98/SR 35/SR 700

Financial Project ID: 443368-2-22-01

Prepared For:

Florida Department of Transportation, District 7
2820 Leslie Rd, Tampa, FL 33619



August, 2021

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1.0 Introduction

The Florida Department of Transportation (FDOT) District Seven is conducting a Project Development and Environment (PD&E) Study to evaluate the need of widening US 98 from two to four lanes from the Polk County Line/CR 54 to US 301. Additionally, this PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to eliminate the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. To best assess the impacts of these improvements, a thorough understanding of both existing and forecasted traffic through the study area is required. This report will serve to document the model calibration techniques used to improve model accuracy and provided confidence in the development of traffic forecasts.

1.1 Purpose and Need

The primary purpose of this project is to evaluate the realignment of US 98 from US 301 to Clinton Avenue to enhance safety and provide system linkage/regional connectivity. An additional goal of this project is to address transportation demand needs, which may result in improvements to several intersections in the project study area surrounding the US 98 study corridor.

A realignment of the US 98 at Clinton Avenue intersection is needed to eliminate the existing closely spaced intersections of US 301 at US 98 and US 301 at Clinton Avenue, to reduce crashes, and to enhance safety. Construction of the realignment of SR 52 from east of McKendree Road to east of US 301 began in 2019 and will serve as an additional east/west route in the regional transportation network. When completed, this improvement will increase traffic at the US 301 at US 98 and US 301 at Clinton Avenue intersections, exacerbating the current intersection safety concerns. Also, plans are currently underway for the widening of US 98 from north of West Socrum Loop Road to South of CR 54 (Financial Management No.: 436673-1-22-01). This project will address capacity needs for the segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor) as well as operational improvements to the intersection of US 98 and US 301, ultimately resulting in enhanced transportation network connectivity.

1.2 Travel Demand Model Selection and Calibration Approach

To build off of the efforts conducted under the SR 56 and US 98 Alternative Corridor Evaluation Report (ACER) efforts, calibration efforts in the base year (2015) and TAZ modifications in the horizon year (2045) were conducted utilizing The Tampa Bay Regional Planning Model version 9.1 (TBRPMv9.1) and will be included in this effort. The TBRPM 9.1 was initially validated regionally for a 2015 base year. However, it is customary to review the sub-area, and if necessary, adjust the forecasting models to improve accuracy. Adjustments to the model were made to improve sub-area accuracy without compromising regional validation and adhere to the guidelines set forth for the Florida Statewide Urban Transportation Modeling Structure (FSUTMS) in the 2019 FDOT "Project Traffic Forecasting Handbook".

1.3 Sub-Area Determination

The study corridor starts at the Polk County Line/CR 54 and continues north to where US 98 merges with US 301, just south of Clinton Avenue. The project study area is shown in **Figure 1.1** and is bounded by the following intersections:

- 1 US 98 at CR 54
- 2 US 98 Access Road at Old Lakeland Highway
- 3 US 98 at US 98 Access Road
- 4 US 98 at US 301
- 5 US 301 at Clinton Avenue

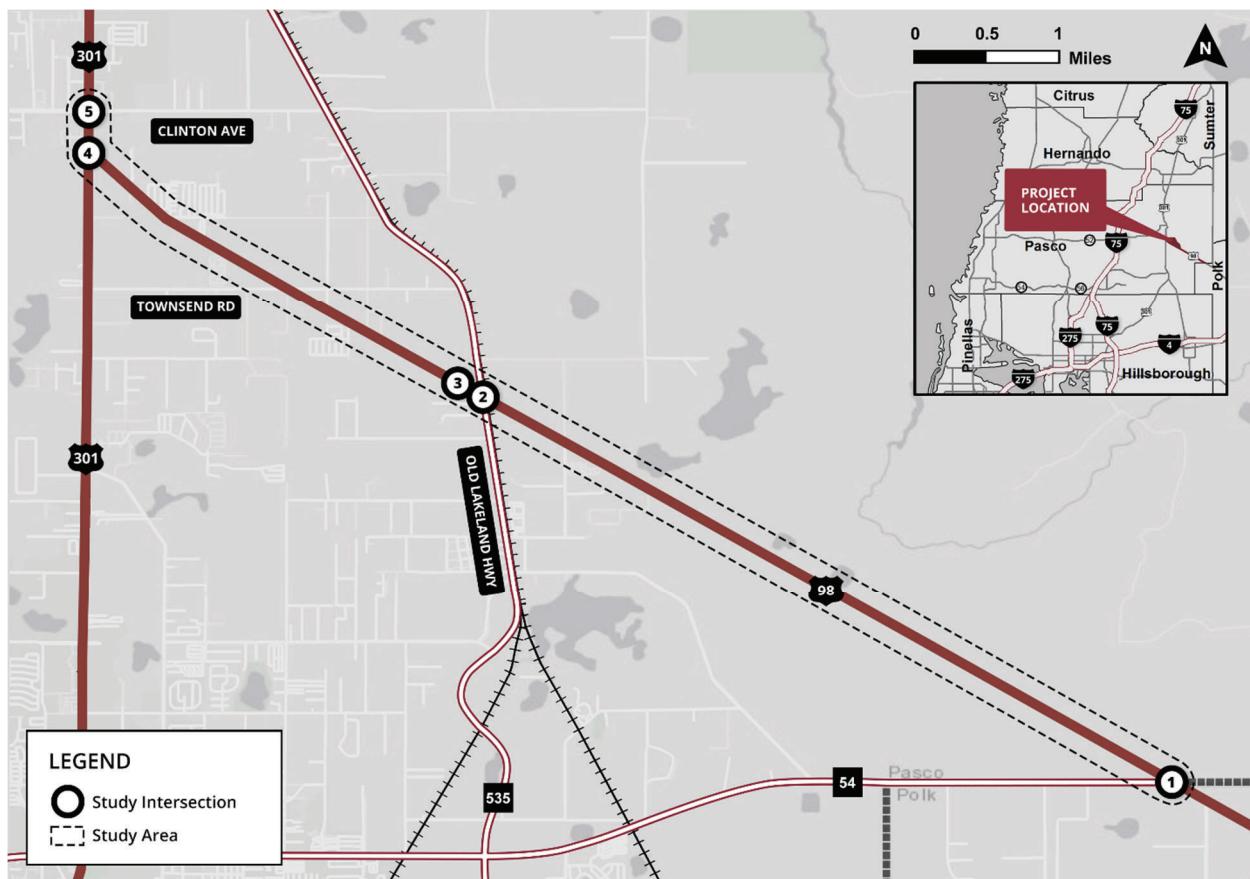


Figure Error! No text of specified style in document..1: Project Location Map

To best assess the possible impacts of the proposed project proposed growth adjacent to the study area, the subarea was defined by the the boundary of Traffic Analysis Zones (TAZs) within 6-miles of the study area. A map of the sub-area and count locations are provided in **Figure 1.2**.

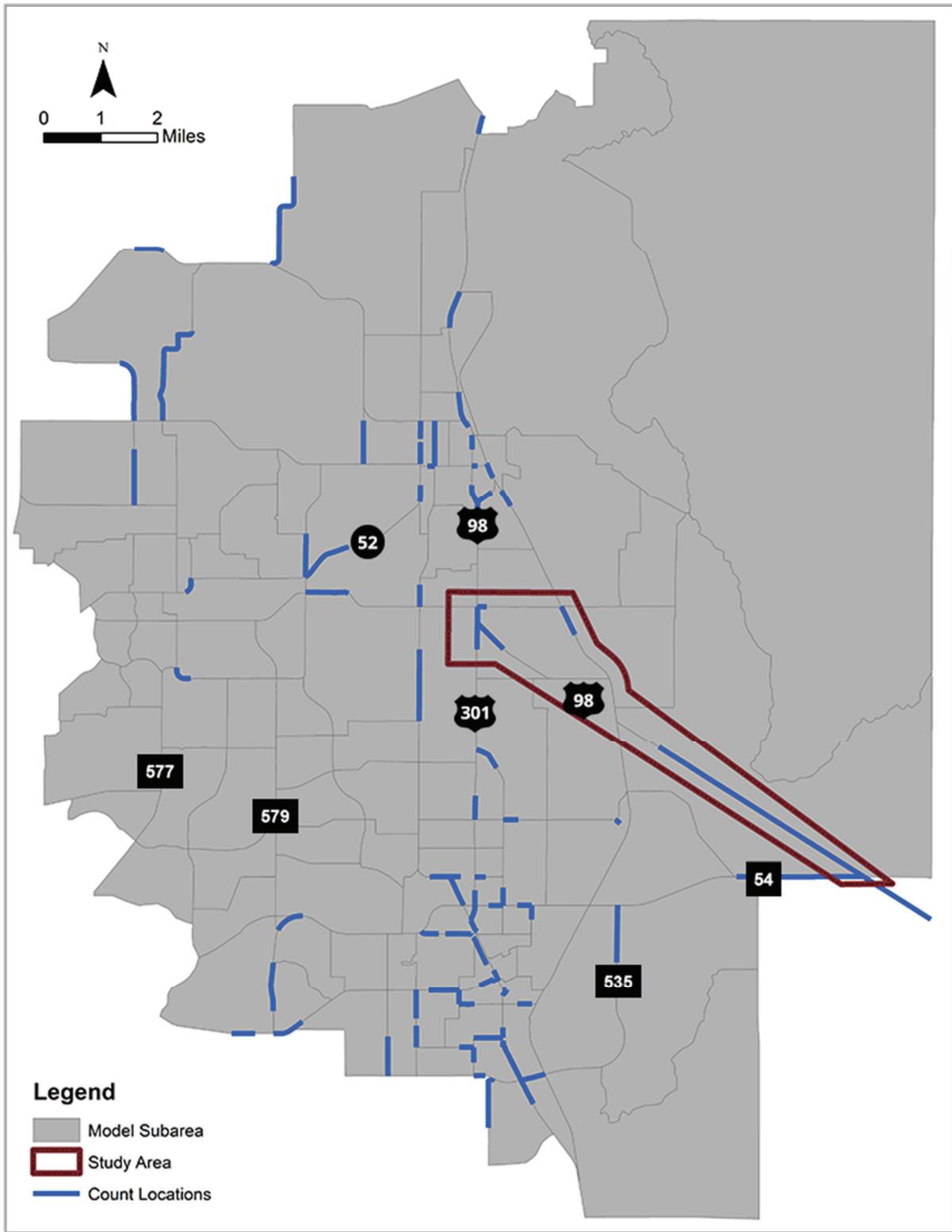


Figure 1.2: Model Sub-Area Map

2.0 Released Model Performance

2.1 Regional Performance

The unmodified TBRPMv9.1 released by the Department (the released model) operates effectively on a model-wide basis, as indicated by the accuracy metrics shown in **Table 2.1** and **Table 2.2**. The released TBRPM Root Mean Square Error (RMSE), provided in **Table 2.1**, is within acceptable vehicle per day (VPD) ranges for most roadway groups and area wide. Roadway groupings that exceed the acceptable standard are highlighted in red. Most of these groupings which exceed the acceptable standards are found in Citrus County, with roadways with daily volumes between 10,000 and 15,000 slightly exceeding the acceptable standard in Hillsborough County. The released TBRPM volume to count ratios, **Table 2.2**, is within 20 percent for most of the facility types and area types with the only exceptions being ramps and toll facilities. Areas where the volume to count ratio is not within acceptable FSUTMS validation ranges outlined in the Project Traffic Forecasting Handbook are highlighted in red. This data will be compared to the same measure later, following network enhancements to improve the sub-area model performance. This comparison will ensure that the model adjustment has no negative impact upon regional validation.

Table 2.1: Released TBRPMv9.1 Regional Daily RMSE

Group	Hillsborough	Pinellas	Pasco	Hernando	Citrus	Total Model	Standards	
							Acceptable	Preferable
<= 5K VPD	72%	65%	57%	88%	103%	73%	100%	45%
5K - 10K VPD	45%	37%	37%	39%	54%	42%	45%	35%
10K - 15K VPD	36%	30%	32%	21%	22%	33%	35%	27%
15K - 20K VPD	25%	24%	29%	27%	41%	25%	35%	25%
20K - 30K VPD	20%	21%	17%	13%	5%	20%	27%	15%
30K - 50K VPD	17%	16%	15%	0%	0%	16%	25%	15%
50k - 60K VPD	13%	8%	0%	0%	0%	12%	20%	10%
60k > VPD	11%	14%	13%	0%	0%	12%	19%	10%
Area-wide	32%	29%	32%	44%	57%	32%	45%	35%

Table 2.2: Released TBRPMv9.1 Regional Daily Volume to Count Ratio

Facility Type	Central Business District (CBD)	CBD Fringe	Residential	Outlying Business District (OBD)	Rural	Overall
Freeway	1.00	1.14	0.99	0.97	1.11	1.00
Divided Arterial	1.14	1.05	1.01	1.00	1.13	1.01
Undivided Arterial	0.57	0.55	1.01	1.00	1.07	1.00
Collector	1.27	0.75	0.81	0.76	1.05	0.83
One-way Facilities	1.13	0.82	1.18	1.17	0.00	1.08
Ramps	1.39	1.08	1.02	1.02	1.52	1.05
Toll Facilities	0.75	0.95	1.05	0.60	1.30	1.02
Total	1.11	0.95	0.97	0.99	1.13	0.99

2.2 Sub-Area Performance

Released model volumes within the sub-area were compiled and compared to their respective count site for validation metric comparison, which can be found in **Table 2.3** and **Table 2.4**. Most of the count locations in the influence area are low volume, with less than 5,000 VPD per direction. Based on this screening, the sub-area operates beyond acceptable FSUTMS standards with an area wide RMSE of 47 percent.

Table 2.3: Released TBRPM v9.1 Sub-Area RMSE

Group	Volume Range	Number of Observations	TBRPM v9.1 Sub-area	FSUTMS Standards
				Acceptable
				Preferable
1	<= 5K VPD	53	72%	100%
2	5K - 10K VPD	20	32%	45%
3	10K - 15K VPD	9	31%	35%
4	15K - 20K VPD	2	34%	30%
5	20K - 30K VPD	0	NA	27%
6	30K - 50K VPD	0	NA	25%
7	50k - 60K VPD	0	NA	20%
8	60k + VPD	0	NA	19%
Total	Area-wide	84	47%	45%
				35%

Table 2.4: Released TBRPM v9.1 Sub-Area Volume to Count Ratios

Facility Type	TBRPM v9.1 Sub-area	FSUTMS Standards	
		Acceptable	Preferable
Freeway	NA	+/- 7%	+/- 6%
Divided Arterial	-20%	+/- 15%	+/- 10%
Undivided Arterial	-19%	+/- 15%	+/- 10%
Collector	-6%	+/- 25%	+/- 20%

To highlight potential areas for enhancement, count locations with volume to count ratios greater than 1.2 and less than 0.8 were identified in **Figure 2.1**. Locations where the volume exceeds the count by more than this amount, the link is highlighted red and shown as “high.” Locations where the count exceeds the volume by more than this amount, the link is highlighted blue and shown as “low.” This review of the subarea validation of the existing TBRPM v9.1 model indicates that volumes are low along US 98 and Old Lakeland Highway and high on Clinton Avenue and CR 54 within the project study area.

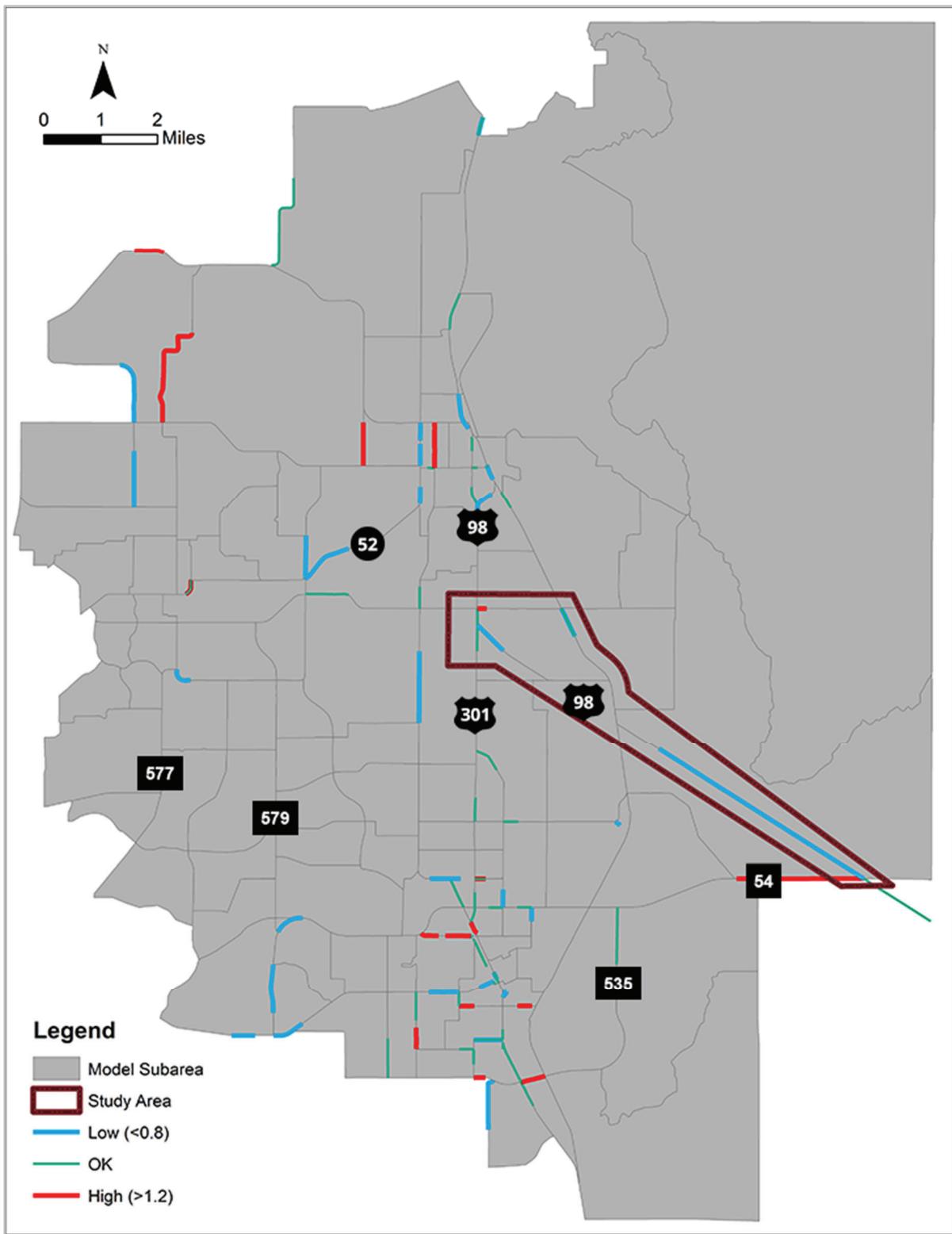


Figure 2.1: Released Model Volume to Count Ratios

3.0 Sub-Area Validation Refinement

The regional and sub-area statistical metrics mostly perform well when compared to model validation standards. The RMSE indicate issues with roads with 15,000 to 20,000 VPD per direction and areawide. The following section describes the efforts made to review and improve model performance within the sub-area.

For this sub-area validation exercise, the following elements were reviewed and adjustments were made as needed:

- Traffic Analysis Zone (TAZ) Data
- Population Data
- Employment Data
- Model Network
- Network Detail
- Facility Type/Area Type
- Count Verification
- External Trips

3.1 Population and Employment Data

Table 3.1 shows the anticipated growth in population and employment in the sub-area based on 2015 base year and 2045 horizon year TAZ population and employment data.

Table 3.1: Sub-Area TAZ Population and Employment

Metric	2015 Model	2045 Model	Annual Growth Rate
Population	76,418	132,641	2.5%
Employment	28,545	40,903	1.4%

For comparative purposes, data was gathered from the Bureau of Economic and Business Research's (BEBR) "Projections of Florida Population by County, 2019-2045" and is summarized in **Table 3.2**. Expected annual growth in population for the study area is 2.5 percent which exceeds the BEBR population annual growth rate estimates for both Pasco and Hernando County's high forecasts. To provide additional context to growth centers along the study corridor, population and employment growth were mapped at the TAZ level in **Figure 3.1** and **Figure 3.2** respectively.

Table 3.2: BEBR Population Forecast

BEBR Base Year	Pasco County	
	Population	Annual Growth Rate
2020	527,122	-
BEBR 2045 Forecast	605,200	0.6%
	711,000	1.4%
	833,900	2.3%

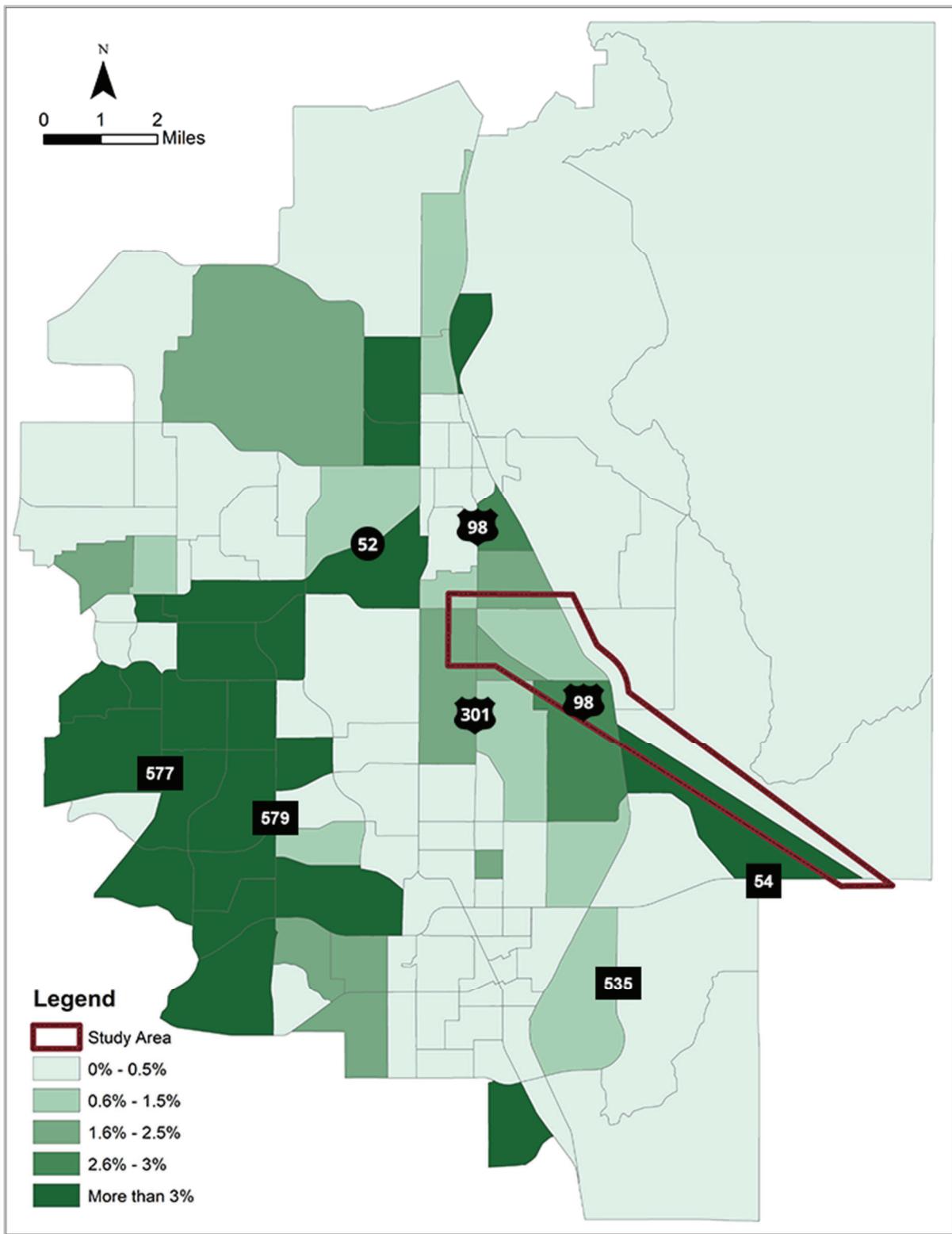


Figure 3.1: TAZ Level Population Growth

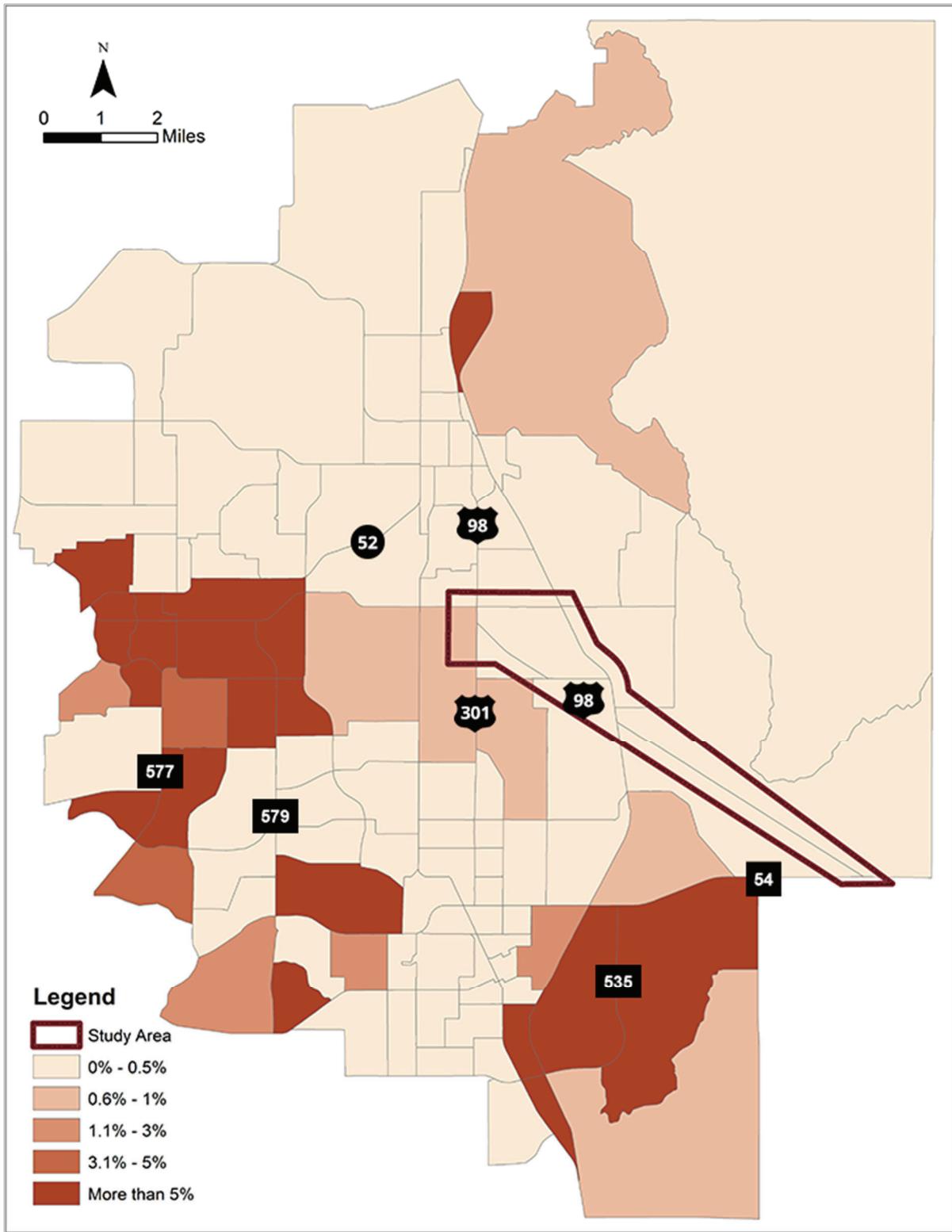


Figure 3.2: TAZ Level Employment Growth

The maps of population and employment growth in the sub-area reveal that most of the area is expected to see modest growth, at or below 0.5% annually which is in line with the Pasco County and Hernando County BEBR Low Growth forecast shown in Table 6 above. Population growth is expected to be highest along US 98, to the east of Old Lakeland Highway, along SR 52 through San Antonio and north of Wesley Chapel. Employment growth is expected to be focused around the northern end of Wesley Chapel to the west of the study area and in the area of Zephyrhills to the south with employment growth in the immediate project study area is expected to remain flat. Overall, growth in the subarea is reasonable, though somewhat higher than BEBR population forecasts. No changes are made to the distribution of this growth within the subarea.

3.2 Network Detail and TAZ Adjustments

The first step in validating the supply side of the model was to review the network in the sub-area for adequate detail. The number of lanes was reviewed against aerial imagery from Google Maps, which provides the ability to review historic imagery, to verify 2015 conditions. No errors in number of lanes were found. Roadway density was reviewed to ensure that no roadways are missing from the model that could affect distribution or circulation. No roadways were added based on this review.

Centroid connector locations were reviewed to ensure they were placed at logical locations based on aerial review of the TAZs. One area of concern, identified in the review of volume to count ratios in the base year, was Clinton Avenue, east of US 301. The volume to count ratio on this segment is 4.97 while surrounding volume to count ratios were low. This indicates an issue with centroid loadings from Zone 2408, north of Clinton Avenue and west of US 301. This is important for the current study as the intersection of US 301 and Clinton Avenue is the busiest intersection within the study area. Aerial review of this zone indicates that most of the development is centered along US 301, and primarily in the northwest quadrant. Moving the centroid to match the population and employment center more closely within the zone did not work and so the zone was split with zone 2408 now comprising the population and employment center in the northwest quadrant and includes a Walmart with outparcels, two residential communities, and other commercial uses along US 301. The new zone 2476 includes the Publix Supermarket on the corner of US 301 and Clinton Avenue, and more sparsely spread homes through the rest of the zone. Population and employment growth is low in this zone; however, it will be expected that all the growth will take place in zone 2476. Figure 5 below illustrates changes made to the centroid connectors. The changes in the ZDATA1 and ZDATA2 files are provided in **Table 3.3** and **Table 3.4**.

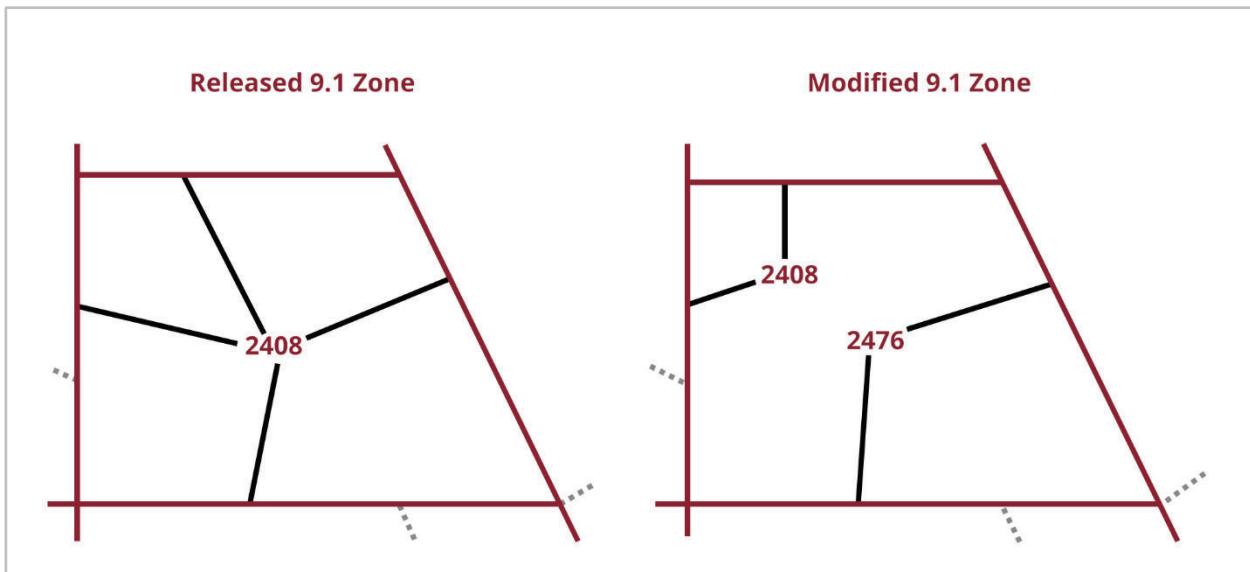


Figure 3.3: TAZ Zone Split – Zone 2408

Table 3.3: ZDATA1 Splits

ZONE	DU	POP	BHU	EHU	RHU	GQPOP
<i>Original Zone (Year 2015)</i>						
2408	420	502	0	0	0	0
<i>Shift to Zone 2476 (Year 2015)</i>						
	50	60				
<i>Zone Splits (Year 2015)</i>						
2408	370	442	0	0	0	0
2476	50	60	0	0	0	0
<i>Original Zone (Year 2045)</i>						
2408	616	772	0	0	0	0
<i>Zone Splits (Year 2045)</i>						
2408	370	442	0	0	0	0
2476	246	330	0	0	0	0

Table 3.4: ZDATA2 Splits

ZONE	IND_EMP	COMM_REMP	COMM_LEMP	SERV_REMP	SERV_LEMP	TOT_EMP
<i>Original Zone (Year 2015)</i>						
2408	73	670	0	389	0	1132
<i>Shift to Zone 2476 (Year 2015)</i>						
		100		40		140
<i>Zone Splits (Year 2015)</i>						
2408	73	570	0	349	0	992
2476	0	100	0	40	0	140
<i>Original Zone (Year 2045)</i>						
2408	73	670	0	389	0	1132
<i>Zone Splits (Year 2045)</i>						
2408	73	570	0	349	0	992
2476	0	100	0	40	0	140

In addition to the split of zone 2408, adjustments to the 2045 socio-economic data were made by incorporating changes from the SR 56 Alternatives Corridor Evaluation (ACE) study. These changes add a total of 26,993 jobs to the Wesley Chapel area, east of Bruce B. Downs Boulevard and south of CR 54. No changes were made to the base year (2015) socio-economic data.

3.3 Facility Type/Area Type

Area types and facility types have a direct relationship with speed and capacity of links and therefore were reviewed to ensure that each roadway was categorized appropriately. No changes to facility types, area types, or number of lanes were made. **Figure 3.4** and **Figure 3.5** present the released model area types and released model facility types respectively.

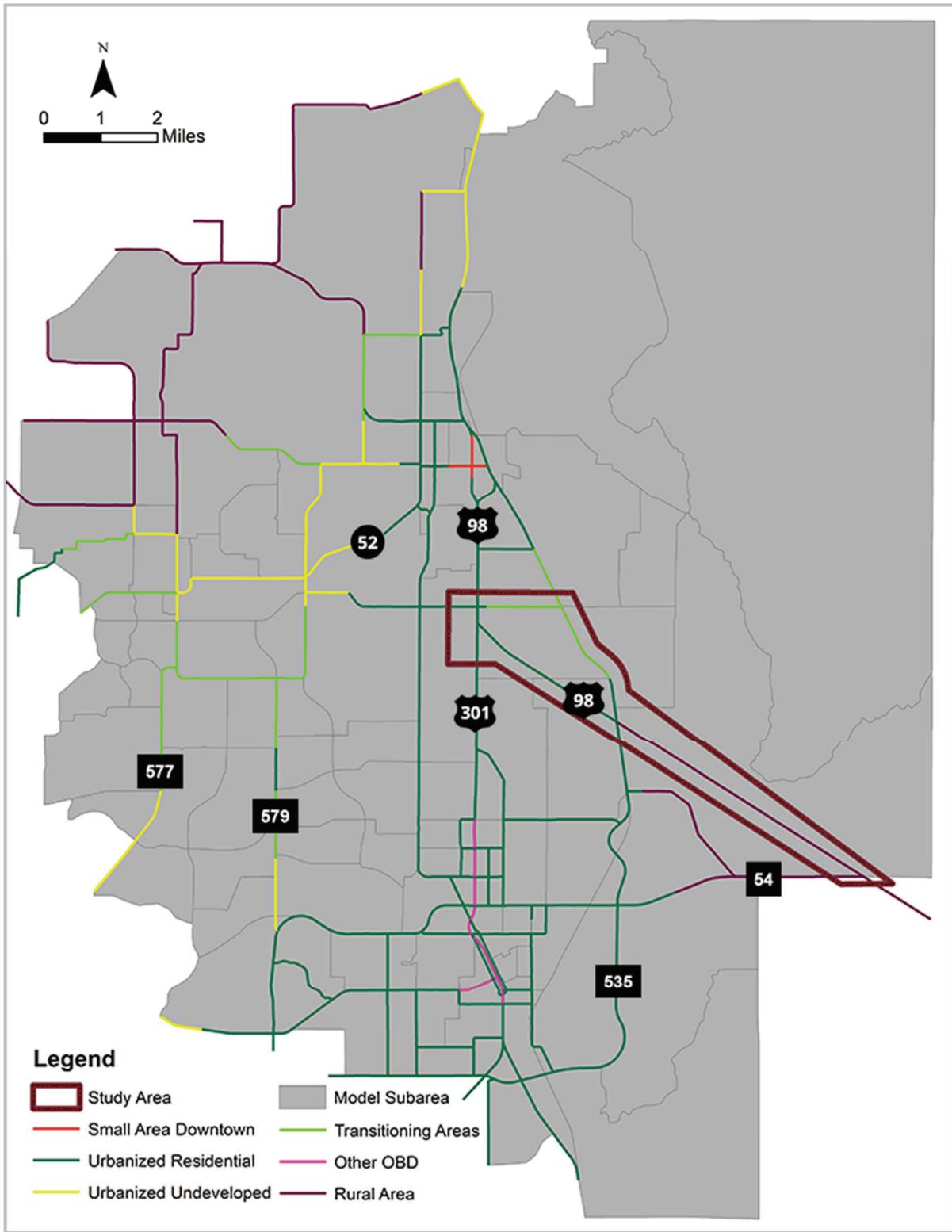


Figure 3.4: Sub-area Link Area Types for Sub-area Validated Model

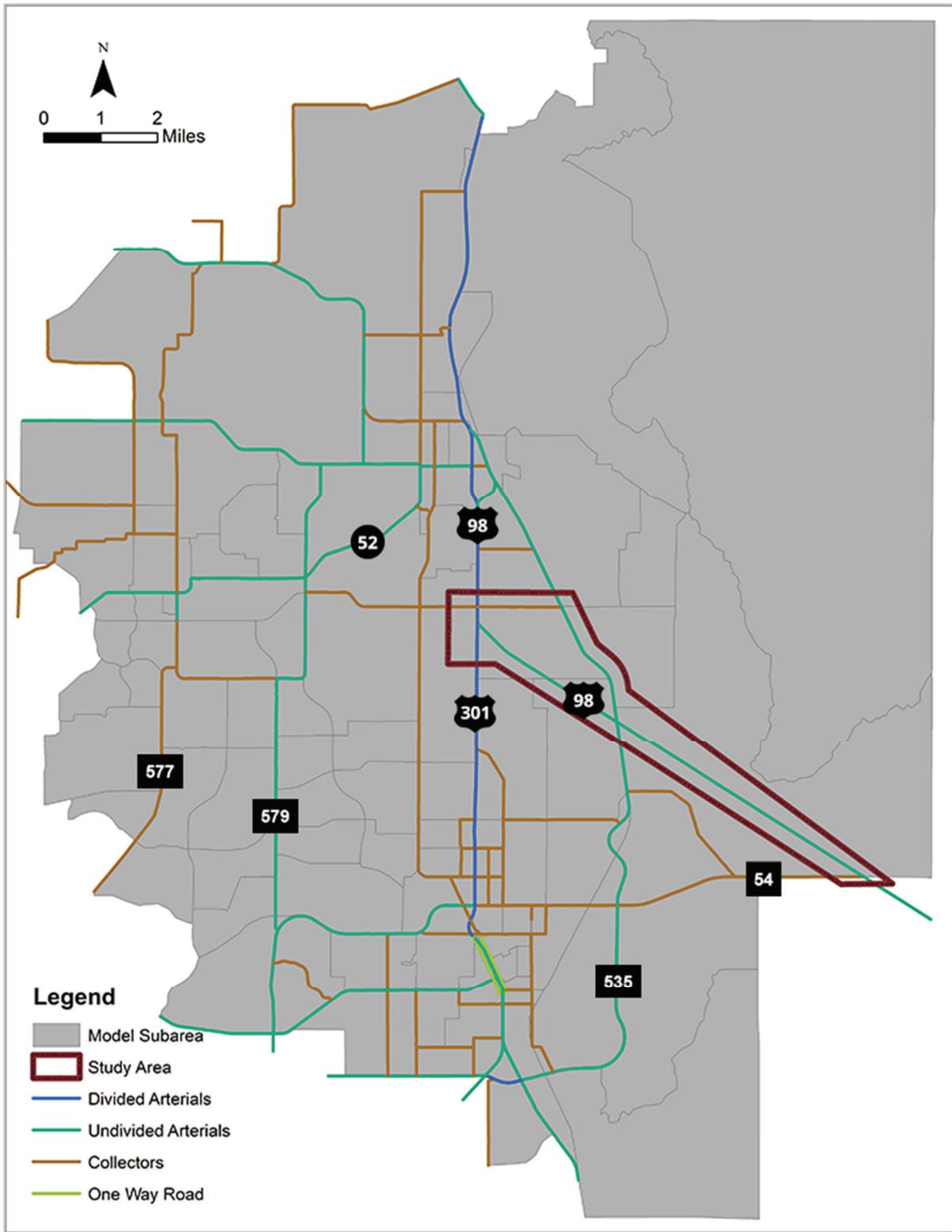


Figure 3.5: Sub-area Link Facility Types for Sub-area Validated Model

3.4 Review of Count Sites

A review of count sites within the subarea was conducted to ensure there were no errors. No changes were made to the count sites.

3.5 External Trips

The study area is at the edge of the model and therefore external to internal and external to external trips may cause issues within the subarea. A review of the external to external (E-E) trips in the study area did not reveal any issues. From the US 98 external location, most E-E trips are destined for areas north of the study area, with I-75 being the biggest attractor of these trips. A review of External to Internal and Internal to External (E-I) trips to and from the US 98 external location revealed that many trips (approximately 32 percent) were either originating from or destined to locations in Hillsborough, Pinellas, and Manatee Counties. These trips would instead be more likely to have originated at other external zones. To solve for this issue, all trips that were going to or from zones in Hillsborough, Pinellas, and Manatee County were re-assigned to locations in Pasco, Hernando, and Citrus County proportional to trips already originating from or destined to those locations.

4.0 Validated Model Performance

4.1 Regional Performance

After the above validation efforts were conducted, the 2015 base year model was updated and ran to generate updated validation measures. **Table 4.1** provides RMSE comparisons for the released TBRPM v9.1 (previously shown in **Table 2.1**) and the new sub-area validated TBRPM v9.1 for the TBRPM region. A comparison of RMSE statistics indicates that the regional validation was not significantly impacted. Cells highlighted in red exceed the FSUTMS standards and the sub-area validation efforts do not adversely impact any single volume group for any County (i.e., no cell changes from black to red). There are other changes to RMSE throughout **Table 4.1**, but generally close enough to not materially affect regional validation.

Table 4.2 provides volume to count ratio comparisons for the released TBRPM v9.1 (previously shown in **Table 2.2**) and the new sub-area validated TBRPM v9.1 for the TBRPM region. The sub-area validation does not shift any individual facility type/area type combination that was previously within acceptable ranges to not be within acceptable ranges and so does not affect regional validation of the model.

Table 4.1: TBRPM v9.1 Regional Daily RMSE Released and Validation Comparison

Group	Hillsborough	Pinellas	Pasco	Hernando	Citrus	Total Model	Standards	Standards
							Acceptable	Preferable
<i>Released TBRPM v9.1</i>								
<= 5K VPD	72%	65%	57%	88%	103%	73%	100%	45%
5K - 10K VPD	45%	37%	37%	39%	54%	42%	45%	35%
10K - 15K VPD	36%	30%	32%	21%	22%	33%	35%	27%
15K - 20K VPD	25%	24%	29%	27%	41%	25%	35%	25%
20K - 30K VPD	20%	21%	17%	13%	5%	20%	27%	15%
30K - 50K VPD	17%	16%	15%	0%	0%	16%	25%	15%
50k - 60K VPD	13%	8%	0%	0%	0%	12%	20%	10%
60k + VPD	11%	14%	13%	0%	0%	12%	19%	10%
Area-wide	32%	29%	32%	44%	57%	32%	45%	35%
<i>Sub-Area Validated TBRPM v9.1</i>								
<= 5K VPD	72%	65%	57%	88%	103%	73%	72%	65%
5K - 10K VPD	45%	37%	37%	39%	54%	42%	45%	37%
10K - 15K VPD	36%	30%	32%	21%	22%	33%	36%	30%
15K - 20K VPD	25%	24%	28%	27%	41%	25%	25%	24%
20K - 30K VPD	20%	20%	17%	13%	5%	20%	20%	20%
30K - 50K VPD	17%	16%	15%	0%	0%	16%	17%	16%
50k - 60K VPD	13%	8%	0%	0%	0%	12%	13%	8%
60k + VPD	11%	14%	13%	0%	0%	12%	11%	14%
Area-wide	32%	29%	31%	44%	57%	32%	32%	29%

Table 4.2: TBRPM v9.1 Regional Daily Volume to Count Ratio Released and Validation Comparison

Facility Type	Central Business District (CBD)	CBD Fringe	Residential	Outlying Business District (OBD)	Rural	Overall
<i>Released TBRPM v9.1</i>						
Freeway	1.00	1.14	0.99	0.97	1.11	1.00
Divided Arterial	1.14	1.05	1.01	1.00	1.13	1.01
Undivided Arterial	0.57	0.55	1.01	1.00	1.07	1.00
Collector	1.27	0.75	0.81	0.76	1.05	0.83
One-way Facilities	1.13	0.82	1.18	1.17	0.00	1.08
Ramps	1.39	1.08	1.02	1.02	1.52	1.05
Toll Facilities	0.75	0.95	1.05	0.60	1.30	1.02
Total	1.11	0.95	0.97	0.99	1.13	0.99
<i>Sub-Area Validated TBRPM v9.1</i>						
Freeway	1.00	1.14	0.99	0.96	1.10	1.00
Divided Arterial	1.13	1.05	1.01	1.00	1.13	1.01
Undivided Arterial	0.57	0.56	1.01	1.00	1.08	1.00
Collector	1.27	0.75	0.81	0.75	1.03	0.82
One-way Facilities	1.12	0.83	1.18	1.17	0.00	1.08
Ramps	1.39	1.07	1.02	1.02	1.51	1.05
Toll Facilities	0.74	0.94	1.05	0.64	1.30	1.02
Total	1.11	0.95	0.97	0.99	1.13	0.98

4.2 Sub-Area Performance

Within the sub-area, the released model performed relatively well based on RMSE statistics, although the RMSE for roads with volumes between 15,000 and 20,000 VPD and areawide does exceed the FSUTMS standards. After the changes were made to the model, documented in **Section 3.0**, the RMSE for all volume ranges falls within acceptable standards and the area-wide drops to 43%, which is within the acceptable range for FSTUMS standards. The validation of the subarea did improve across the board.

Table 4.3: TBRPM v9.1 Sub-area Daily RMSE Released and Validation Comparison

Group	Number of Observations	Released Model	Sub-area Validated Model	Difference	Standards	
					Acceptable	Preferable
<= 5K VPD	53	72%	62%	-4%	100%	45%
5K - 10K VPD	20	32%	30%	-2%	45%	35%
10K - 15K VPD	9	31%	29%	-2%	35%	27%
15K - 20K VPD	2	34%	26%	-8%	35%	25%
20K - 30K VPD	0	NA	NA	NA	27%	15%
30K - 50K VPD	0	NA	NA	NA	25%	15%
50k - 60K VPD	0	NA	NA	NA	20%	10%
60k + VPD	0	NA	NA	NA	19%	10%
Area-wide	84	47%	43%	-4%	45%	35%

As shown in **Table 4.4**, the changes to the model, documented in **Section 3.0**, slightly improve the volume to count ratio for arterials. On collector roads, the volume to count ratio decreases further. With the acceptable RMSE validation, no further adjustments are made with the expectation that model post-processes, defined in the *2019 Florida Traffic Forecasting Handbook*, will be employed to smooth the forecasted volumes and bring them in line with the adjustments required for the base year (i.e., Difference and Ratio methods).

Table 4.4: TBRPM v9.1 Sub-area Daily Volume to Count Ratio Released and Validation Comparison

Facility Type	Released Model	Sub-area Validated Model	Difference	Standards	
				Acceptable	Preferable
Freeway	NA	NA	NA	+/- 7%	+/- 6%
Divided Arterial	-20%	-16%	4%	+/- 15%	+/- 10%
Undivided Arterial	-19%	-18%	1%	+/- 15%	+/- 10%
Collector	-6%	-21%	-15%	+/- 25%	+/- 20%

4.3 Forecast Consistency Check

The sub-area model validation results indicate that the changes made to the zone structure and to the external to internal trip table have been sufficient for validation of the TBRPM v9.1 model for the study sub-area. While the sub-area model does not meet acceptable targets for volume to count ratios, the changes made do improve the validation. The links on US 98, CR 54, US 301, and Clinton Avenue within the study area do meet the validation criteria. The links in the study area and the model subarea that do not meet criteria are almost all low. Therefore, we can expect that smoothing adjustments as a post-process can be confidently applied consistently. These processes are defined in the *2019 Project Forecasting Handbook* as Difference and Ratio Methods when the base year does not match targets but the growth in the model can be expected to be accurate.

Appendix K

Volume Development Memorandum

Draft Volume Development Memorandum

**US 98 / State Road (SR) 35 / SR 700
From County Road (CR) 54 to US 301 (SR 39)**

Project Development & Environment (PD&E) Study



**Florida Department of Transportation
District 7**

Work Program Item Segment No. 443368-2
ETDM Project No. 14374
Pasco County, Florida

September 2021

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

Draft Volume Development Memorandum

**US 98 / State Road (SR) 35 / SR 700
From County Road (CR) 54 to US 301 (SR 39)**

Project Development & Environment (PD&E) Study

Work Program Item Segment No. 443368-2
ETDM Project No. 14374
Pasco County, Florida

Prepared for:



Florida Department of Transportation
District Seven

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September 2021

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Appendices

Appendix A: Traffic Methodology Statement

Appendix B: Count Data

Appendix C: Base Year Model Refinement Technical Memorandum

Appendix D: US 98 PD&E Volumes (WPI Segment No: 436673-1)

1.0 Existing Conditions

1.1 Data Collection

1.1.1 Traffic Data Collection

Traffic count data was collected for the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2) study area for the development of existing year (2019) traffic volumes. As part of the previously conducted US 98 Alternative Corridor Enhancement (ACE) Study, 72-hour bi-directional (approach and departure volumes at 15-minute increments) machine classification counts, 48-hour bi-directional (approach and departure volumes at 15-minute increments) machine counts, 2-hour AM (from 7:00 AM to 9:00 AM) and PM (from 4:15 PM to 6:15 PM) turning movement counts (TMCs), pedestrian, and bicycle counts were collected in April and May of 2019. This report is conducted in accordance with the FDOT approved methodology found in [Appendix A](#).

Additionally, 2-hour AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) TMCs were collected at the US 98 and CR 54 intersection on March 4, 2021. [Figure 1.1](#) shows the locations of the traffic count data collection. The traffic count data can be found in [Appendix B](#).

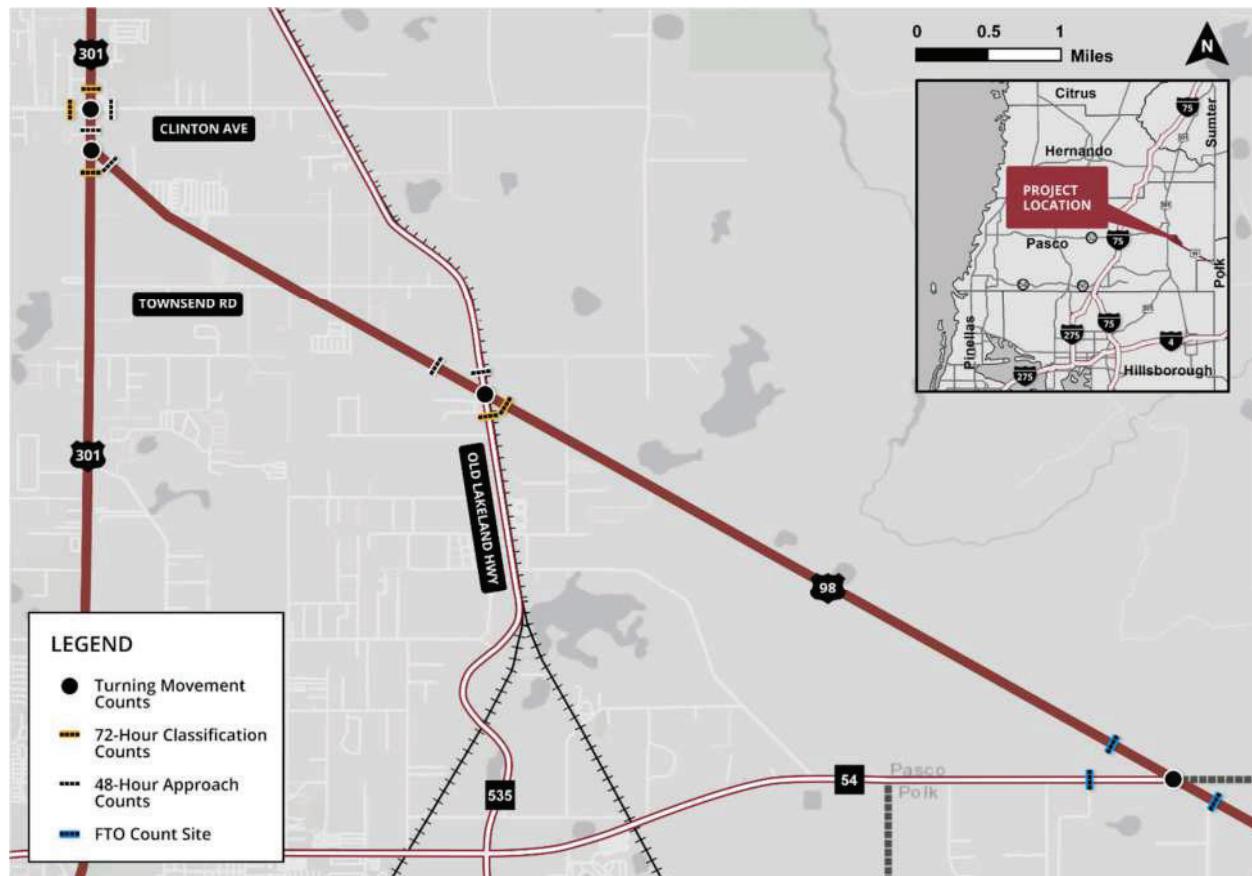


Figure 1.1: Traffic Count Locations

1.2 Existing Year (2019) Volume Development

1.2.1 Design Traffic Factors

Design traffic factors, including design hour factor (K), directional factor (D), and design hour truck factor (DHT), were determined using traffic data obtained from the FDOT 2020 Florida Traffic Online (FTO) database and field collected counts. DHT is identified by the FDOT Project Traffic Forecasting Handbook (2019) as half of the 24-hour truck percentage (T_{24}). Data collection related factors and associated FTO traffic factors can be found in **Table 1.1**. Additionally, a comparison of the 5 years of Directional factors at FTO count locations can be found in **Table 1.2**.

Table 1.1: Field Collected Traffic Factors

Segment	Field Data Traffic Factors (2019)				Florida Traffic Online (2019)				
	AADT	D	T_{24}	DHT	Site	AADT	D	T_{24}	DHT
<i>US 98</i>									
East of CR 54	-	-	-	-	161003	9,400	56.0%	13.5%	7.0%
West of CR 54	-	-	-	-	140055	5,500	56.2%	23.5%	12.0%
East of Old Lakeland Highway	5,900	51.5%	23.9%	12.0%	-	-	-	-	-
West of Old Lakeland Highway	4,500	55.5%	-	-	-	-	-	-	-
East of US 301	6,200	58.1%	-	-	140054	6,100	56.2%	15.2%	8.0%
<i>US 301</i>									
South of US 98	21,900	57.1%	7.1%	4.0%	140053	23,500	56.2%	6.3%	4.0%
US 98 to Clinton Avenue	23,700	54.3%	-	-	140052	28,000	56.2%	6.4%	4.0%
North of Clinton Avenue	23,900	52.9%	5.9%	3.0%	-	-	-	-	-
<i>Clinton Avenue</i>									
West of US 301	15,500	60.7%	8.1%	5.0%	146038	15,700	56.2%	7.2%	4.0%
East of US 301	2,200	69.3%	-	-	149103	2,200	56.2%	5.1%	3.0%
<i>Old Lakeland Highway</i>									
South of US 98	7,200	52.5%	22.7%	12.0%	-	-	-	-	-
North of US 98	8,500	50.8%	-	-	-	-	-	-	-
<i>CR 54</i>									
West of US 98	-	-	-	-	149080	4,400	56.2%	5.1%	3.0%

Table 1.2: Florida Traffic Online 5-Year D-Factor Data

Location	Site	Florida Traffic Online (2015 to 2019)					Average
		2015	2016	2017	2018	2019	
<i>US 98</i>							
East of CR 54	161003	55.7%	53.3%	54.5%	54.5%	56.0%	54.8%
West of CR 54	140055	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%
East of Old Lakeland Highway	140054	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%
<i>US 301</i>							
South of US 98	140053	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%
Between US 98 and Clinton Avenue	140052	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%
<i>Clinton Avenue</i>							
West of US 301	146038	0.0%	0.0%	0.0%	57.1%	56.2%	56.7%
East of US 301	149103	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%
<i>Old Lakeland Highway</i>							
West of US 98	149080	57.9%	57.9%	57.3%	57.1%	56.2%	57.3%

Recommended design traffic factors include the use of standard K of 0.9, D-Factors based on the observed ranges from field data, and DHT factors for each link are provided in **Table 1.3** and **Table 1.4**, respectively. These factors will be used to yield future traffic demand on the proposed network. The AM and PM global peak hours were determined through observation of the collected field data and occur from 7:30 AM to 8:30 AM and 4:45 PM to 5:45 PM, respectively.

Table 1.3: Design Traffic Factors

Factor	
Design Hour Factor (K-Factor)	0.09
Directional Factor (D-Factor)	51.5% to 69.3%

Table 1.4: Design Hour Truck Factors

Segment	T ₂₄	DHT
US 98		
East of CR 54	13.5%	7.0%
West of CR 54	23.5%	12.0%
East of Old Lakeland Highway	23.9%	12.0%
West of Old Lakeland Highway	15.2%	8.0%
East of US 301	15.2%	8.0%
US 301		
South of US 98	7.1%	4.0%
Between US 98 and Clinton Avenue	5.9%	3.0%
North of Clinton Avenue	6.4%	3.0%
Clinton Avenue		
West of US 301	8.1%	4.0%
East of US 301	5.1%	3.0%
Old Lakeland Highway		
South of US 98	22.7%	11.0%
North of US 98	20.8%	10.0%
CR 54		
West of US 98	5.1%	3.0%

1.2.2 Existing Year (2019) Demand Volume Calculations

The existing year (2019) Annual Average Daily Traffic (AADT) volumes were developed through an iterative process, beginning with using the 48-hour and 72-hour machine counts and calculating their daily average to develop the Average Daily Traffic (ADT) throughout the corridor. To normalize the ADT to AADT, two adjustment factors, axle correction factors (ACF) and seasonal factors (SF), were applied to ADT to yield initial existing year (2019) AADTs.

FDOT 2020 FTO database counts were used to supplement the collected field data and a point of comparison to provide a reasonability check to the field data collection effort. AADTs were reviewed throughout the study area to ensure demand throughout the network did not represent any unreasonable imbalance. Traffic patterns within the study area consisted largely of pass-through trips during AM and PM peak hours, which do not traditionally yield a returning trip due to the study area's rural nature and high truck percentage. Future travel patterns are expected to shift to a more suburban condition where trips are expected to reciprocate between the AM and PM peak hours more uniformly. Due to travel patterns exhibited by the future suburban condition, all design level volumes will be developed to reciprocate movement level demand between the AM and PM peak hours. The existing year (2019) AADTs yielded by this additional review will serve as the basis for the development of AM and PM Direction Design Hour Volume (DDHV) and turning movement volumes.

The existing year (2019) AADT volumes were then multiplied by K and D to obtain existing year (2019) AM and PM DDHVs. The resultant DDHVs from this method were smoothed to ensure reasonable network assignment and then compared to field collected data. The DDHVs were adjusted to account for situations where resultant volumes were lower than the measured count data.

DDHVs were distributed by field measured turning movement percentages and then checked for reasonableness. Smoothing ensured reciprocation of the highest volume movement between the AM and PM peak hours. These existing year (2019) DDHVs will be used as the basis for future volume development.

Figure 1.2, Figure 1.3, and Figure 1.4 show the existing year (2019) AADT, field turning movement counts, and DDHVs for both the AM and PM peak hours, respectively. Turning movement counts at US 98 at the US 98 Access Road were not collected and were estimated using 2019 Project Traffic Forecasting Handbook approved iterative proportional fitting methods.

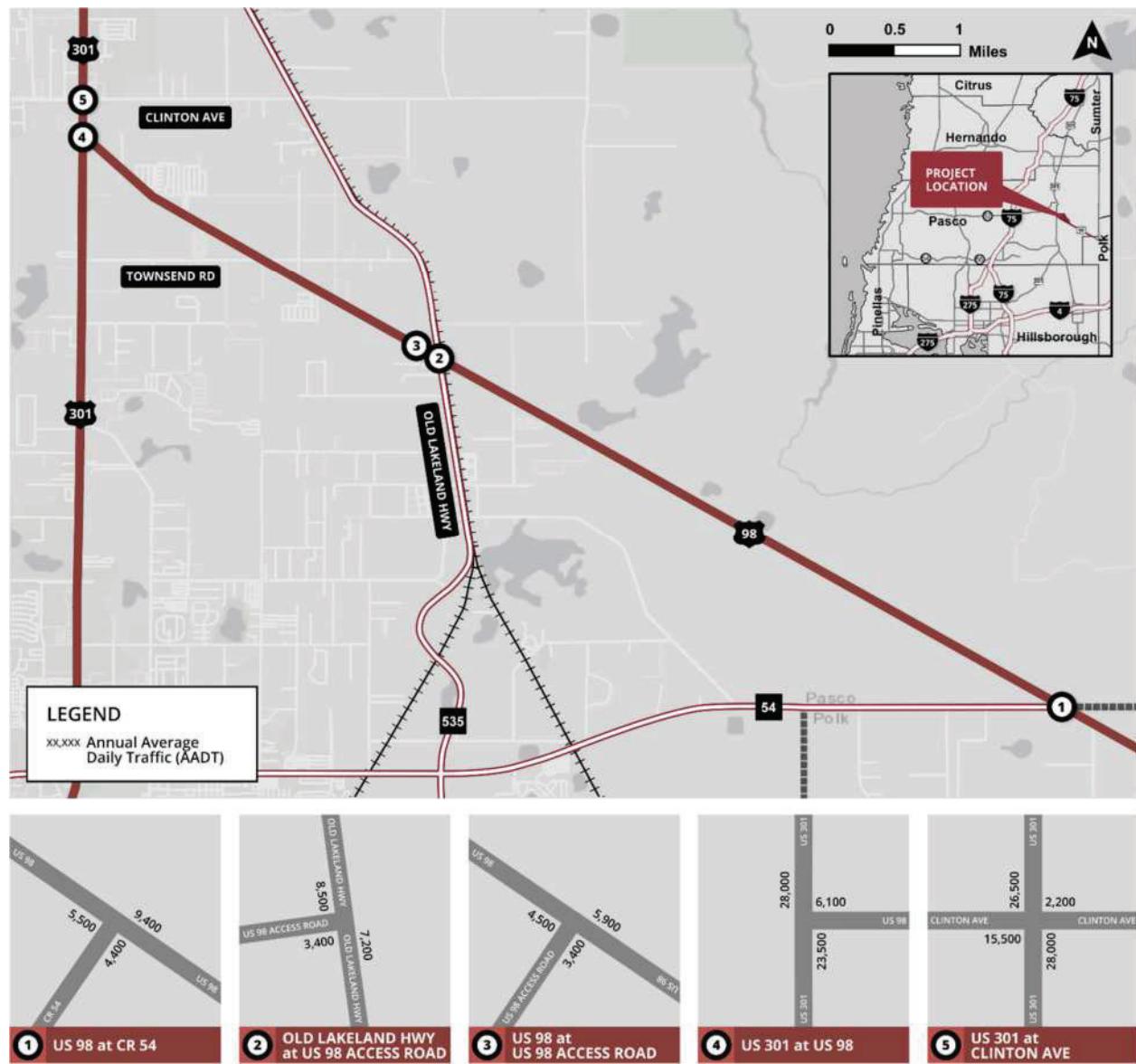


Figure 1.2: Existing Year (2019) AADTs

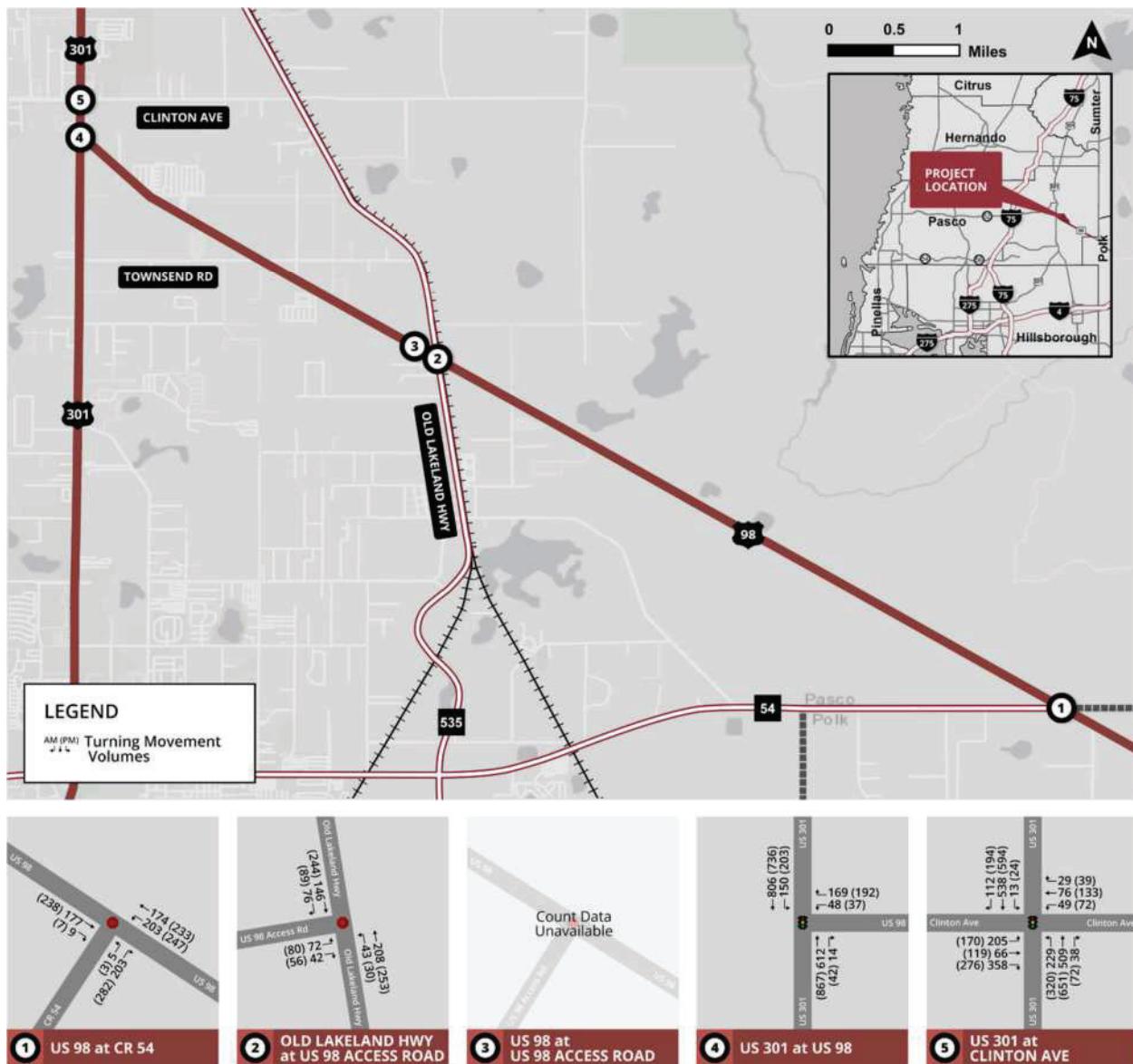


Figure 1.3: Existing Year (2019) Turning Movement Counts

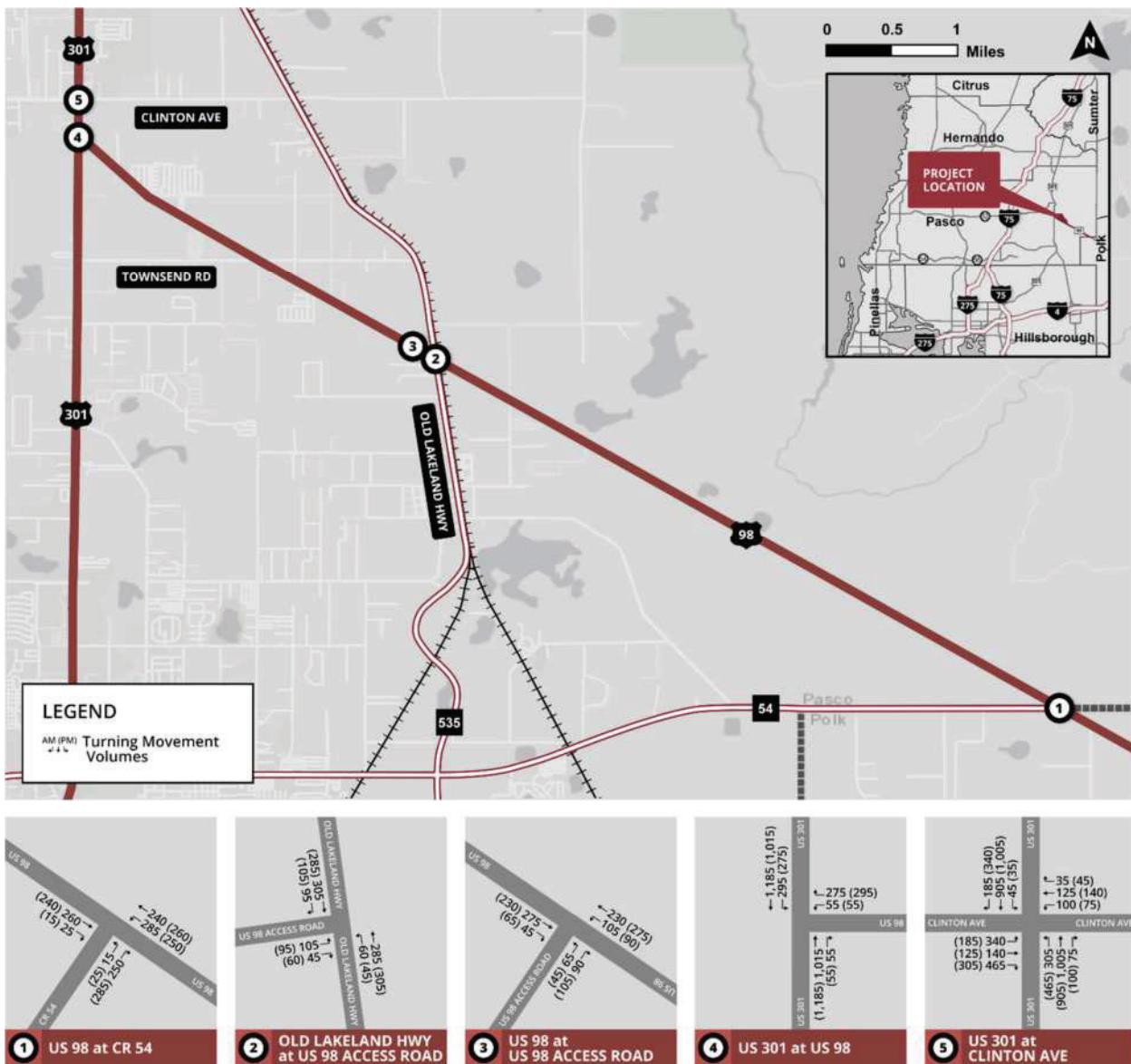


Figure 1.4: Existing Year (2019) Turning Movement Design Volumes

2.0 Future Travel Demand

2.1 Trend Analysis

2.1.1 BEBR Growth Trends

Data was gathered for the Bureau of Economic and Business Research's (BEBR) Projections of Florida Population by County, 2019-2045 and is summarized in **Table 2.1**. BEBR population forecasts provide a useful metric in measuring growth trends within counties by providing low, medium, and high forecast rates. With a design year of 2045, and the anticipated development within the study area, BEBR data indicates that low to high population growth should range from 0.6 percent to 2.2 percent per year.

Table 2.1: Pasco County BEBR Population Forecasts 2019 to 2045

2019		2025		2030		2035		2040		2045	
527,122	Pop	Growth									
Low	545,800	0.6%	569,400	0.7%	585,600	0.7%	597,100	0.6%	605,200	0.6%	
Medium	586,100	1.9%	626,800	1.7%	659,200	1.6%	686,700	1.4%	711,000	1.3%	
High	623,100	3.0%	685,200	2.7%	738,300	2.5%	787,600	2.4%	833,900	2.2%	

2.1.2 Historical Count Trends

Historical count data was obtained from the FDOT FTO count stations located within or near the study area and growth rates were plotted for the most recent five years of available data and can be found in **Table 2.2**. The coefficient of determination (R^2) for the five-year range of data is provided to indicate the statistical fit of the observed growth trend to the available sample. The average weighted annual historical growth rate for the study area is 1.9 percent, which is in line with the BEBR 'Medium' to 'High' population forecasts and consistent with expected growth in the study area.

Table 2.2: Historical FTO Growth Trends

Count ID	Location	2015	2016	2017	2018	2019	Linear Growth	R^2
<i>US 98</i>								
161003	East of CR 54	7,900	8,300	8,900	10,200	9,400	4.9%	0.73
140055	West of CR 54	4,500	4,500	4,700	5,300	5,500	5.1%	0.89
140054	East of US 301	5,500	5,200	5,400	5,900	6,100	3.2%	0.66
<i>US 301</i>								
140053	South of US 98	23,000	23,000	24,000	22,500	23,500	0.2%	0.02
140052	Between US 98 and Clinton Avenue	28,500	30,500	32,500	33,000	28,000	0.5%	0.01
<i>Clinton Avenue</i>								
146038	West of US 301	-	-	-	15,300	15,700	2.5%	1.00
149103	East of US 301	1,800	1,900	2,000	2,100	2,200	4.5%	1.00
<i>CR 54</i>								
149080	West of US 98	3,800	4,000	4,200	4,300	4,400	3.4%	0.97

2.2 Tampa Bay Regional Planning Model (TBRPM) Trend Analysis

The travel demand modeling efforts for this analysis will build off the FDOT's efforts on the State Road 56 ACE (WPI Segment No: 443367-1) and is based off the Tampa Bay Regional Planning Model (TBRPM), Version 9.1 with a calibrated base year of 2015 and horizon year of 2045. This section will document how the calibrated TBRPM forecasts were used to develop design year (2045) forecasts, with an emphasis on consistency between this study and the adjacent FDOT District 1 US 98 PD&E study (WPI Segment No: 436673-1). The model calibration report developed for use in this study and associated demand volumes from the adjacent FDOT District 1 US 98 PD&E Study can be found in **Appendix C** and **Appendix D**, respectively.

2.2.1 TBRPM Volume Growth

Based upon the model enhancements made to the base year (2015) (see **Appendix C**) during model calibration efforts, the horizon year (2045) cost-feasible model scenario was updated with these same calibration enhancements and reviewed for consistency with the Pasco County Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP). Changes between the base year (2015) and horizon year (2045) include the widening of US 98 to four lanes within the project limits to determine horizon year (2045) unrestricted demand.

The resulting horizon year (2045) model volume output was converted from Peak Season Weekday Average Daily Traffic (PSWADT) to design year (2045) AADTs using a Model Output Conversion Factor (MOCF) of 0.96, as indicated by FDOT FTO for Pasco County. The resulting design year (2045) AADTs were reviewed for reasonableness and forecasting consistency. Adjustments to the forecasts were made utilizing the difference and ratio method procedures from the 2019 FDOT Project Traffic Forecasting Handbook. Adjusted design year (2045) AADTs comparisons to existing year (2019) AADTs and their annual growth rate (AGR) can be found in **Table 2.3**. Adjustments were then made to the design year (2045) AADTs to ensure consistency with the Build Scenario under the FDOT District 1 US 98 PD&E Study (WPI Segment No: 436673-1). The final design year (2045) AADTs after this adjustment can be found in **Table 2.4**.

Table 2.3: TBRPM 9.1 NCHRP 765 Adjustments

Segment	Existing		TBRPM 9.1 Output			Difference Method		Ratio Method		Forecast (2045)	
	2019 AADT	2015 AADT	2045 AADT	AGR	2019 AADT	Difference	2045 AADT	Ratio	2045 AADT	2045 AADT	AGR
<i>US 98</i>											
East of CR 54	9,400	7,700	18,900	4.8%	9,200	9,700	19,100	2.05	19,300	19,200	4.0%
West of CR 54	5,500	5,000	9,600	3.1%	5,600	4,000	9,500	1.71	9,400	9,500	2.8%
East of Old Lakeland Highway	5,900	5,000	9,600	3.1%	5,600	4,000	9,900	1.71	10,100	10,000	2.7%
West of Old Lakeland Highway	4,500	4,800	7,500	1.9%	5,200	2,300	6,800	1.44	6,500	6,700	1.9%
East of US 301	6,100	4,800	7,500	1.9%	5,200	2,300	8,400	1.44	8,800	8,600	1.6%
<i>US 301</i>											
South of US 98	23,500	25,900	33,200	0.9%	26,900	6,300	29,800	1.23	29,000	29,400	1.0%
Between US 98 and Clinton Avenue	28,000	25,900	33,200	0.9%	26,900	6,300	34,300	1.23	34,600	34,500	0.9%
North of Clinton Avenue	26,500	26,000	32,700	0.9%	26,900	5,800	32,300	1.22	32,200	32,300	0.8%
<i>Clinton Avenue</i>											
West of US 301	15,500	10,700	20,400	3.0%	12,000	8,400	23,900	1.70	26,400	25,200	2.4%
East of US 301	2,200	1,100	2,400	3.9%	1,300	1,100	3,300	1.85	4,100	3,700	2.6%
<i>US 98 Access Road</i>											
South of US 98	3,400	-	-	-	-	-	-	-	-	6,300	3.3%
<i>Old Lakeland Highway</i>											
South of US 98	7,200	4,500	6,000	1.1%	4,700	1,300	8,500	1.28	9,200	8,900	0.9%
North of US 98	8,500	4,500	6,000	1.1%	4,700	1,300	9,800	1.28	10,900	10,400	0.9%
<i>CR 54</i>											
West of US 98	4400	3400	9800	6.3%	4,300	5,500	9,900	2.28	10,000	10,000	4.9%

Note:

TBRPM 2019 AADTs are calculated using linear interpolation between the TBRPM Base Year (2015) and Horizon Year (2045) TBRPM outputs.

Difference 2045 AADTs are yielded by applying the difference between the 2019 and 2045 TBRPM AADTs to the Existing Year (2019) AADTs.

Ratio 2045 AADTs are yielded by applying the ratio between the 2019 and 2045 TBRPM AADTs to the Existing Year (2019) AADTs.

Forecast (2045) AADTs are an average between the Delta and Ratio yielded 2045 AADTs as described in the 2019 Project Traffic Forecasting Manual.

Table 2.4: Design Year (2045) AADT Forecasting

Segment	Existing Year (2019) AADT	Forecast (2045) AADT	D1 Consistency Adjustment	Design Year (2045) AADT	AGR
US 98					
East of CR 54	9,400	19,200	4.0%	9,300	28,500
West of CR 54	5,500	9,500	2.8%	7,400	16,900
East of Old Lakeland Highway	5,900	10,000	2.7%	7,600	17,600
West of Old Lakeland Highway	4,500	6,700	1.9%	7,200	13,900
East of US 301	6,100	8,600	1.6%	5,900	14,500
US 301					
South of Old US 98	23,500	29,400	1.0%	600	30,000
North of Old US 98	28,000	34,500	0.9%	6,200	40,700
South of Clinton Avenue	28,000	34,500	0.9%	7,000	41,500
North of Clinton Avenue	26,500	32,300	0.8%	1,600	33,900
Clinton Avenue					
West of US 301	15,500	25,200	2.4%	4,300	29,500
East of US 301	2,200	3,700	2.6%	3,700	7,400
US 98 Access Road					
South of US 98	3,400	6,300	3.3%	0	6,300
Old Lakeland Highway					
South of US 98	7,200	8,900	0.2%	100	9,000
North of US 98	8,500	10,400	1.7%	2,200	12,600
CR 54					
West of US 98	4,400	10,000	4.9%	2,500	12,500

Note:

Split of the AADT adjustment along CR 54 and US 98 is consistent with the FDOT District 1 US 98 PD&E Study (WPI Segment No: 436673-1).

2.3 Development of Future Demand

The design year (2045) DDHVs were calculated by applying K and D to the design year (2045) AADTs. The resulting DDHVs were distributed throughout the existing study area network by turning movement percentages observed in the existing year (2019) turning movements. The resulting DDHVs were examined and smoothed to ensure growth, reciprocation for every movement, and establish the No-Build scenario design year (2045) AADTs and turning movement volumes which can be found in **Figure 2.1** and **Figure 2.2**, respectively.

While the Build scenario does include substantial network adjustment, it does not prohibit any movements from being present under the No-Build scenario. As such, to develop Build scenario design year (2045) turning movement volumes, No-Build demand was logically reassigned throughout the network. The Build scenario design year (2045) AADTs and turning movements that result from this process can be found in **Figure 2.3** and **Figure 2.4**, respectively.

The design year (2045) demand volumes are always higher than the existing year (2019), therefore opening year (2025) AADTs and DDHVs for the No-Build and Build scenarios were developed using linear interpolation based on demand volumes and can be found in **Figure 2.5**, **Figure 2.6**, **Figure 2.7**, and **Figure 2.8**, respectively.

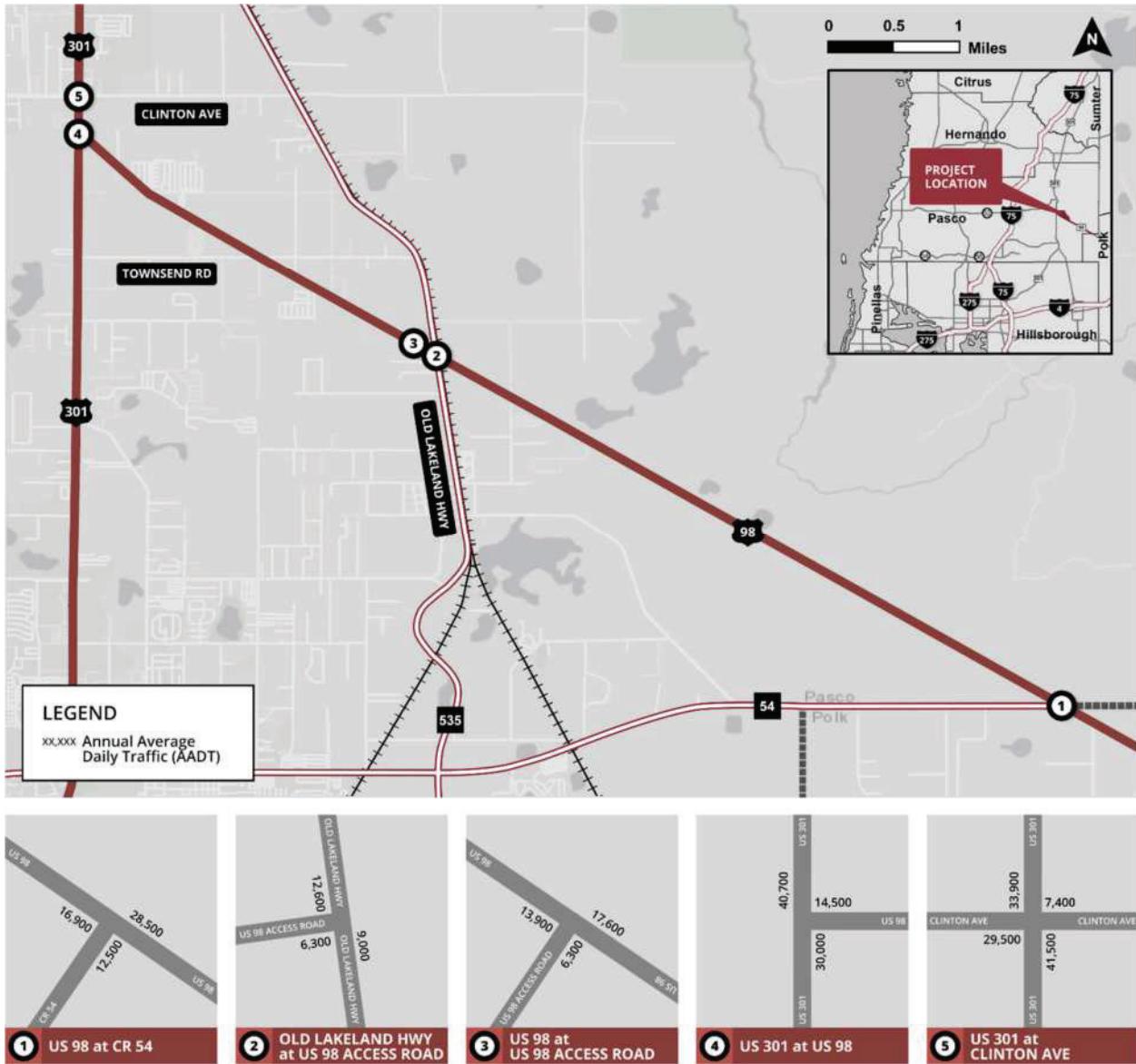


Figure 2.1: Design Year (2045) No-Build AADTs

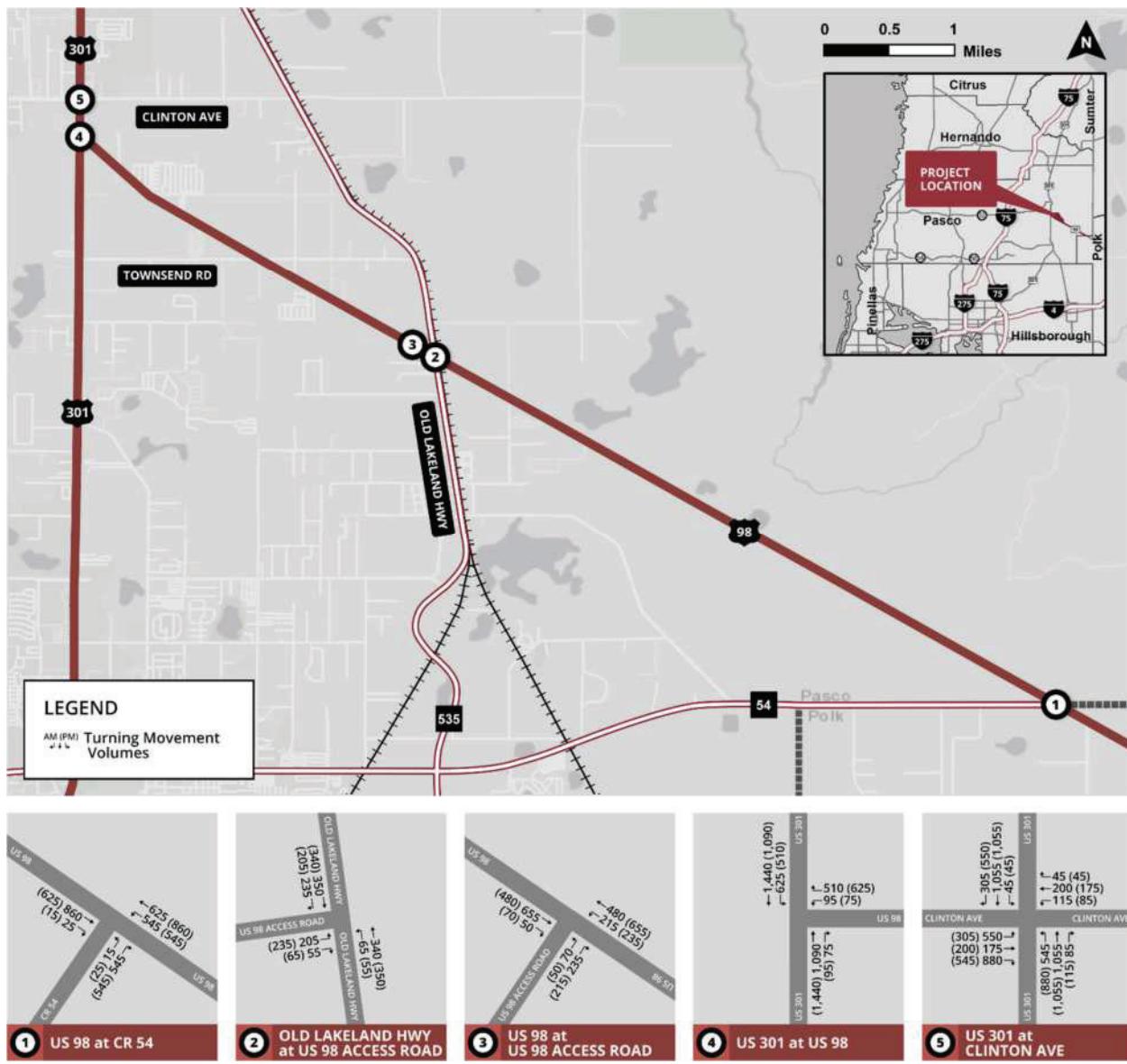


Figure 2.2: Design Year (2045) No-Build Turning Movement Volumes

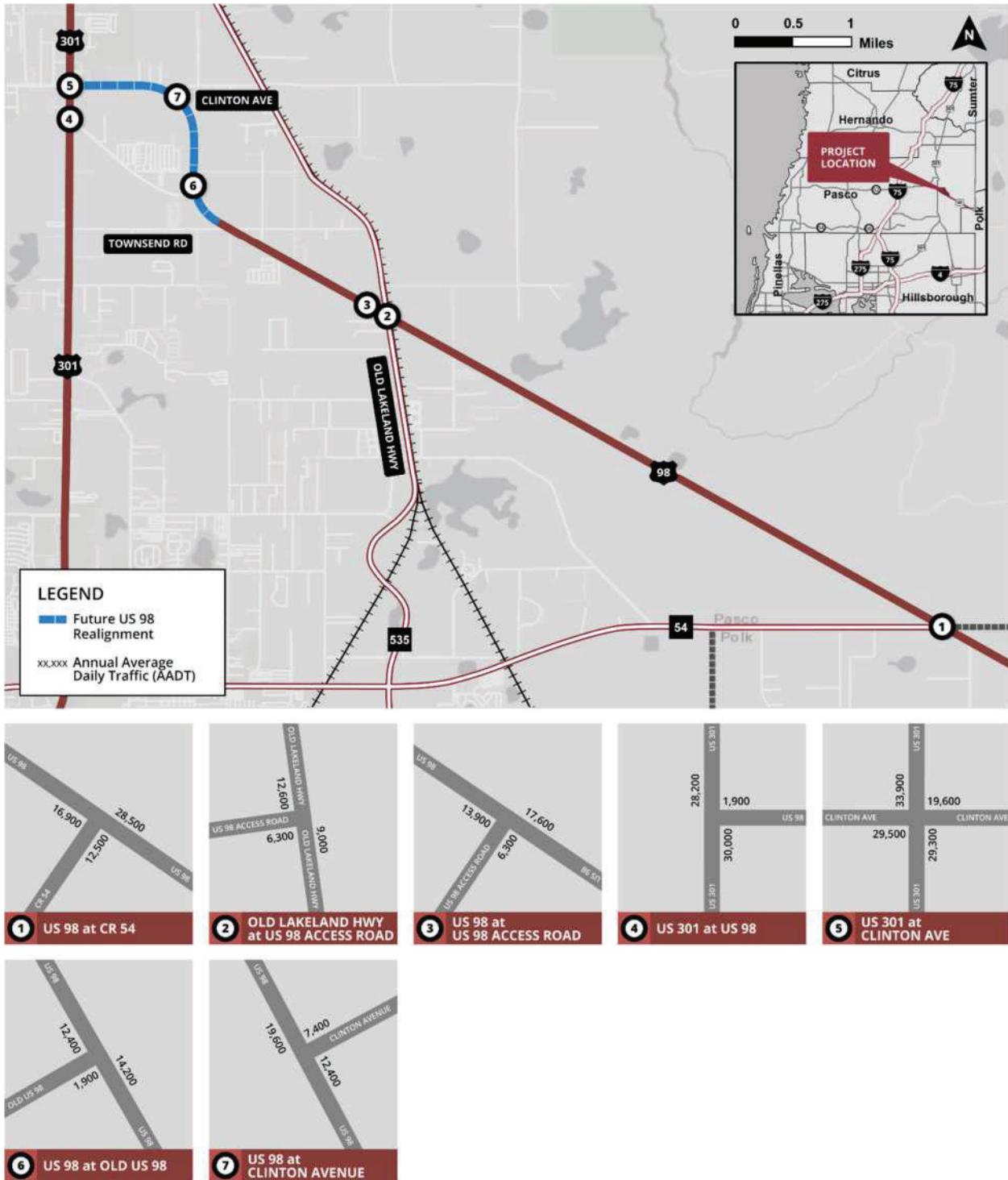


Figure 2.3: Design Year (2045) Build AADTs

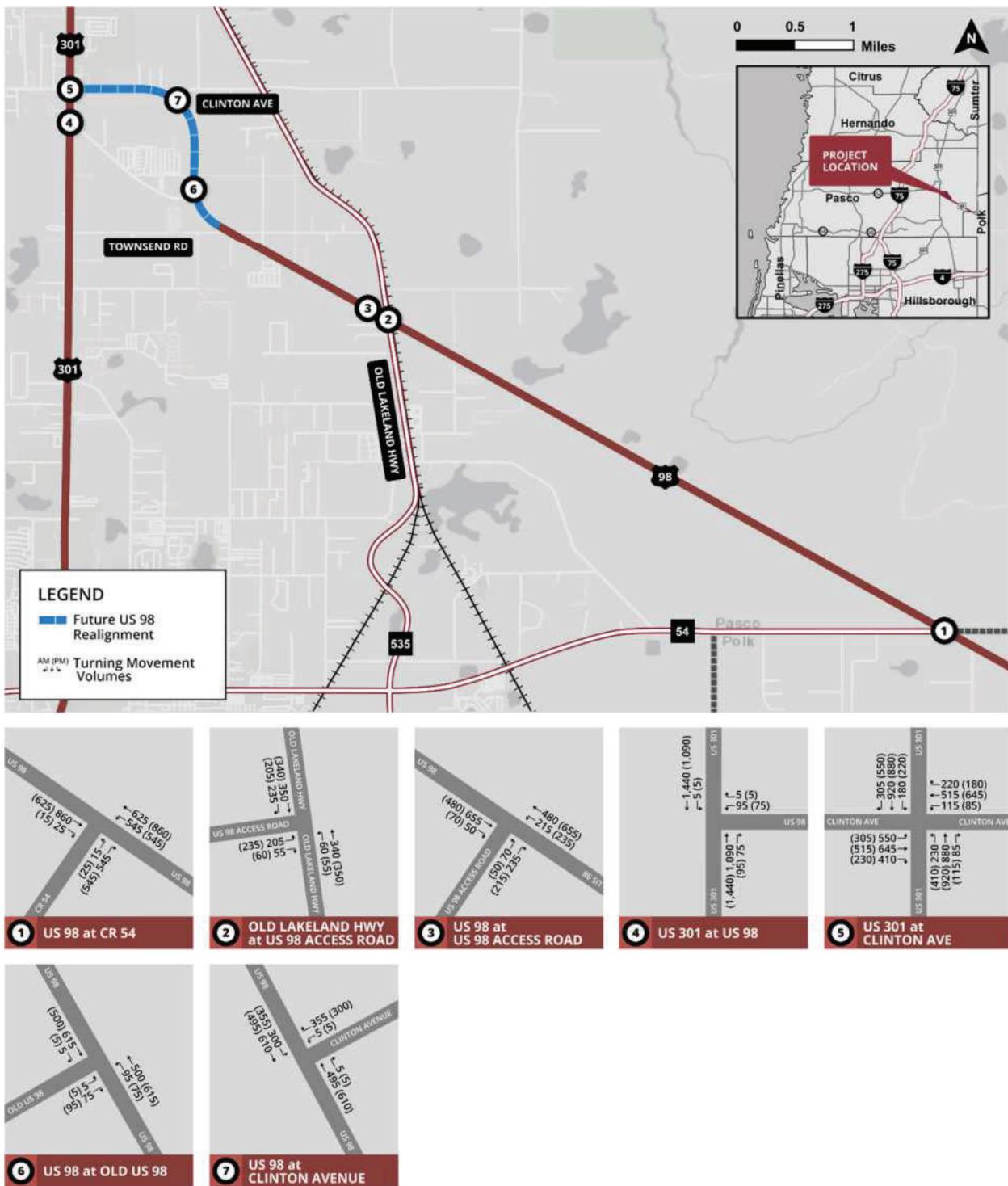


Figure 2.4: Design Year (2045) Build Turning Movement Volumes

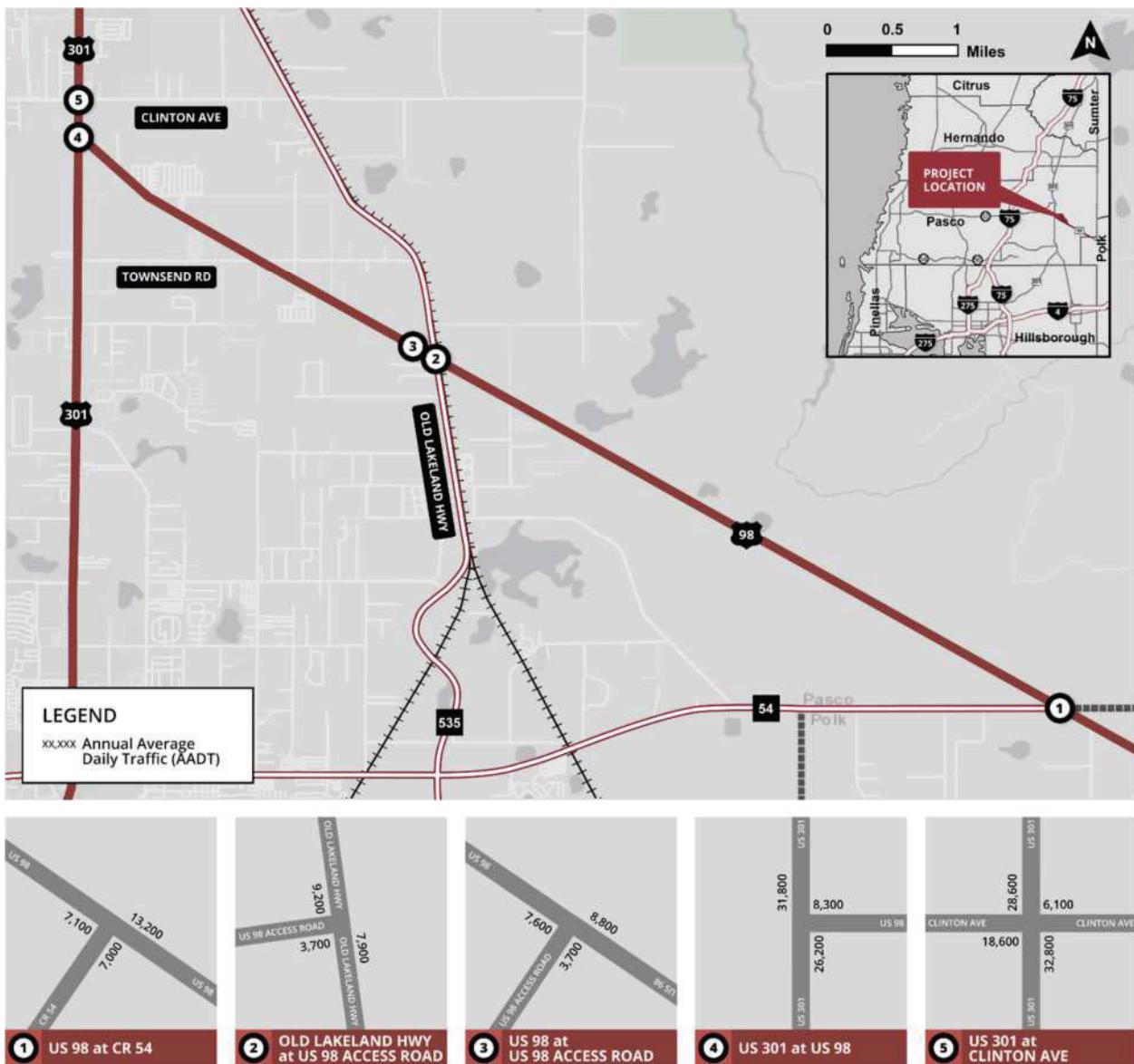


Figure 2.5: Opening Year (2025) No-Build AADTs

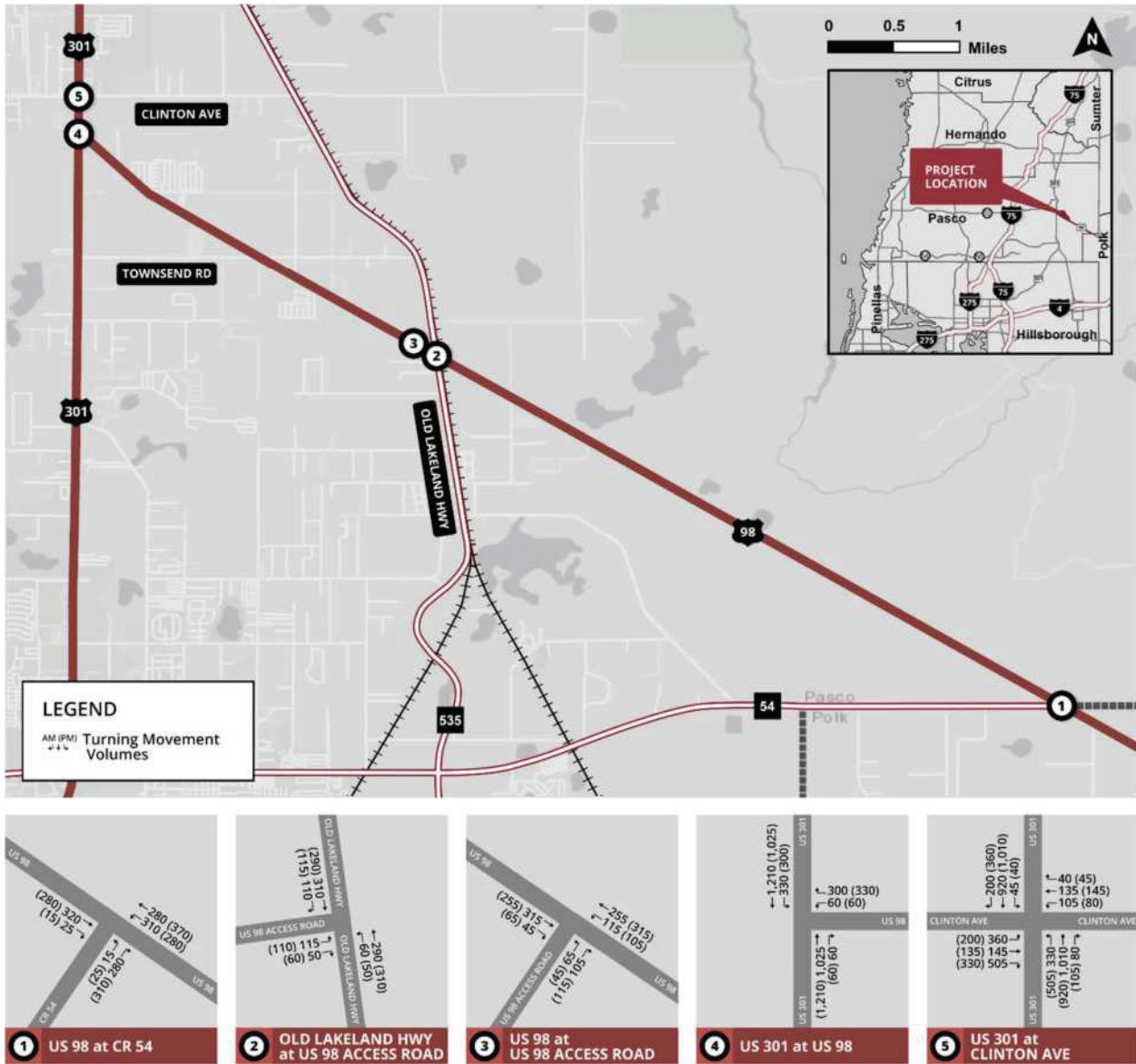


Figure 2.6: Opening Year (2025) No-Build Turning Movement Volumes

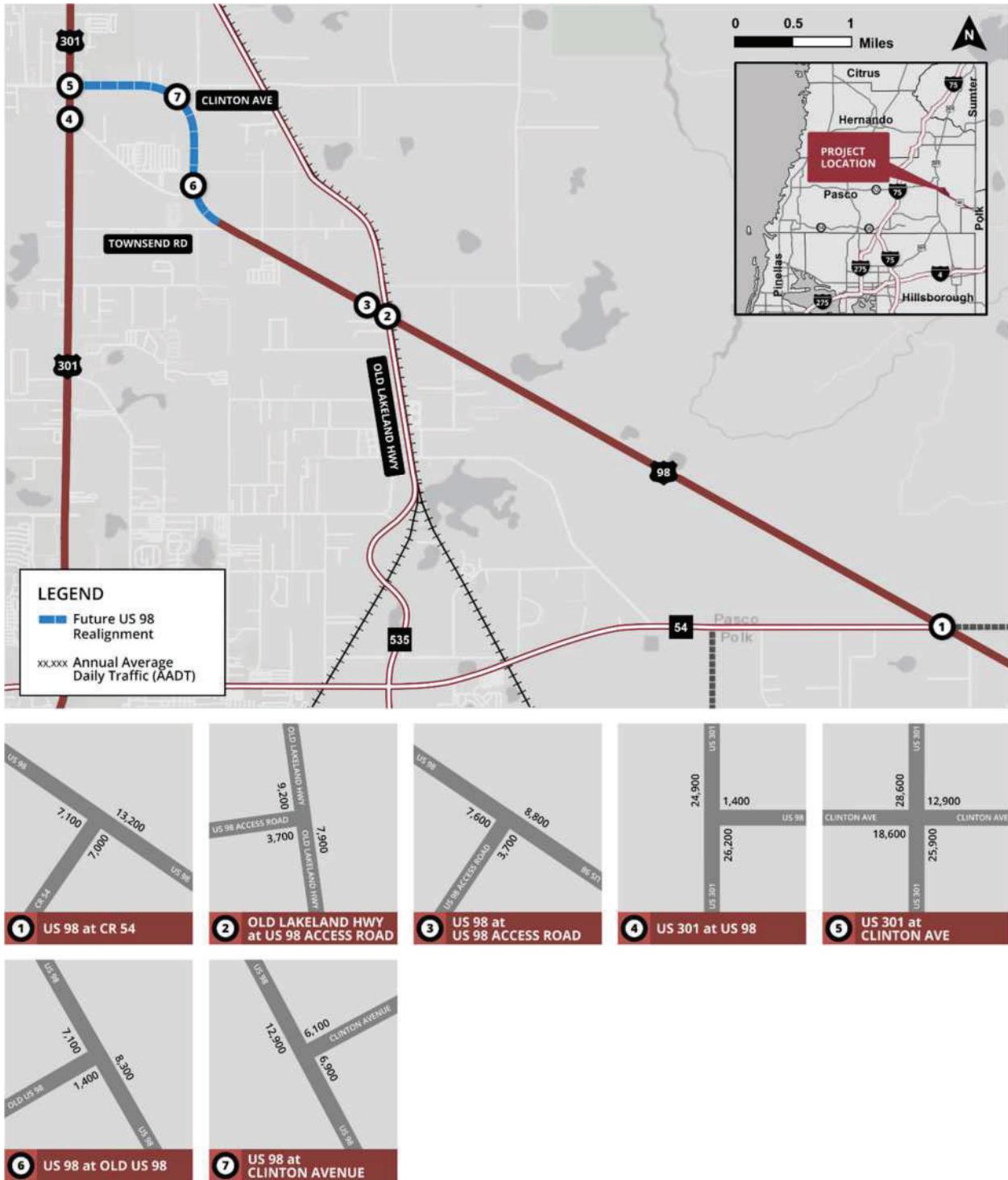


Figure 2.7: Opening Year (2025) Build AADTs

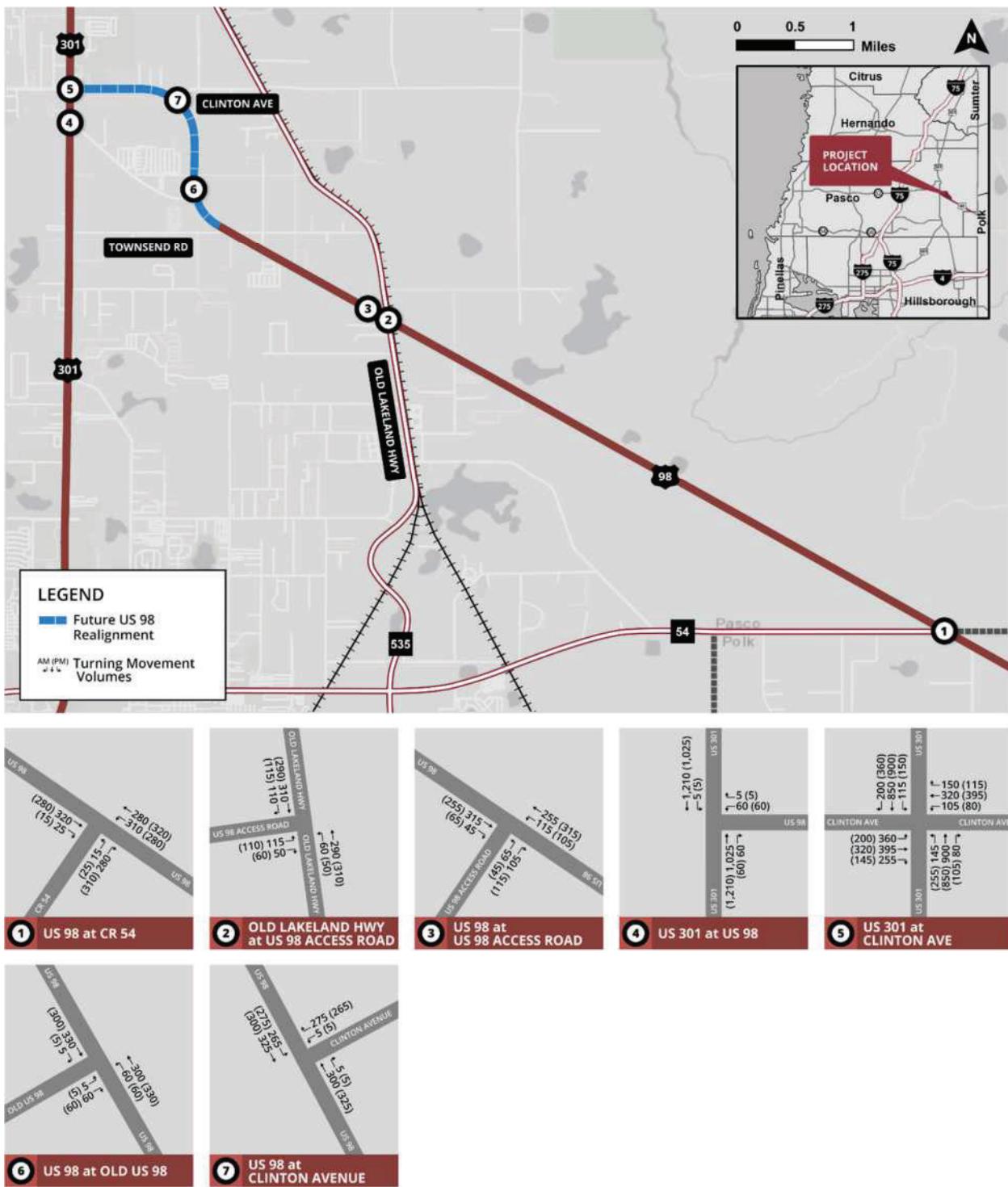
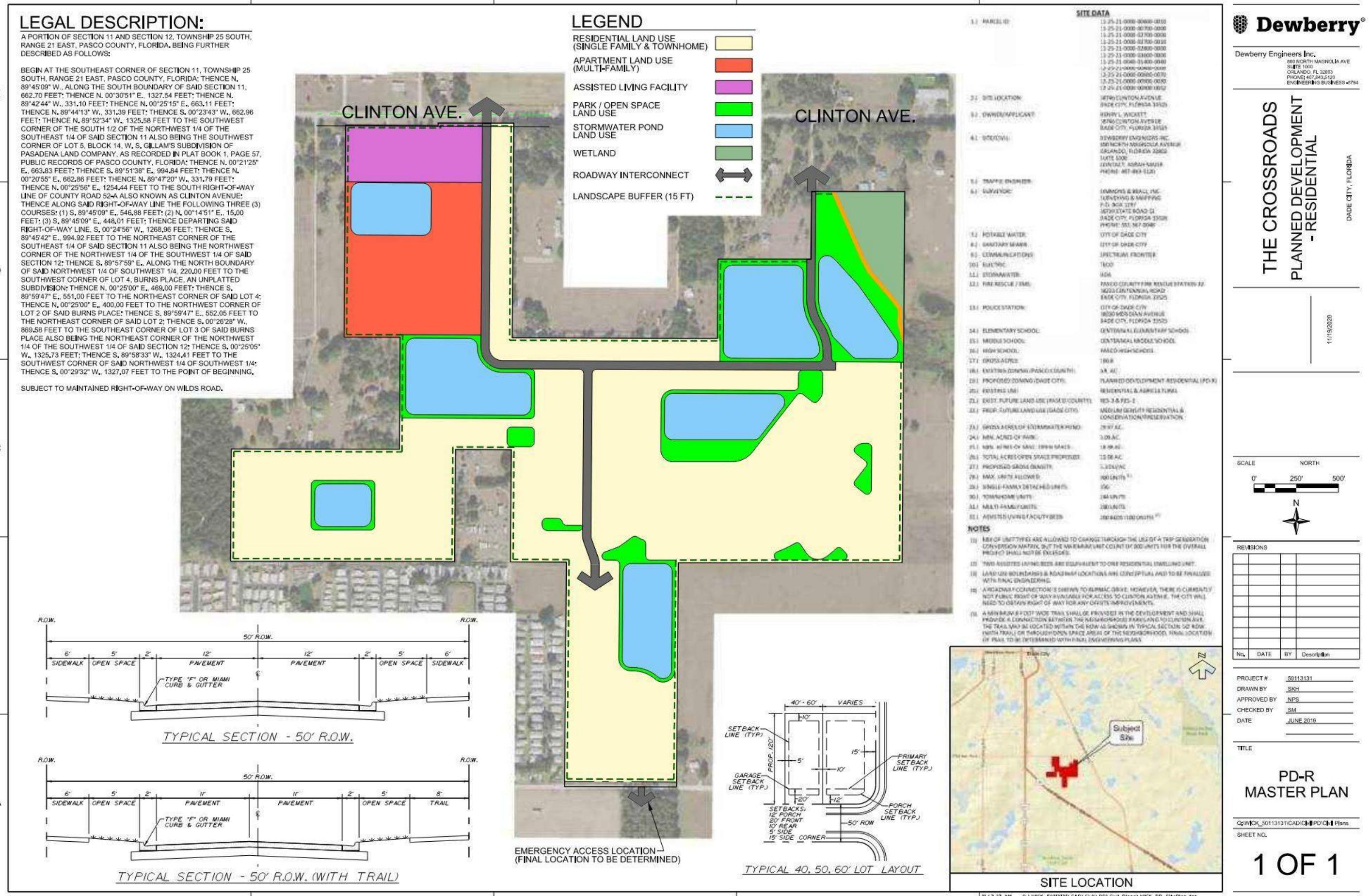
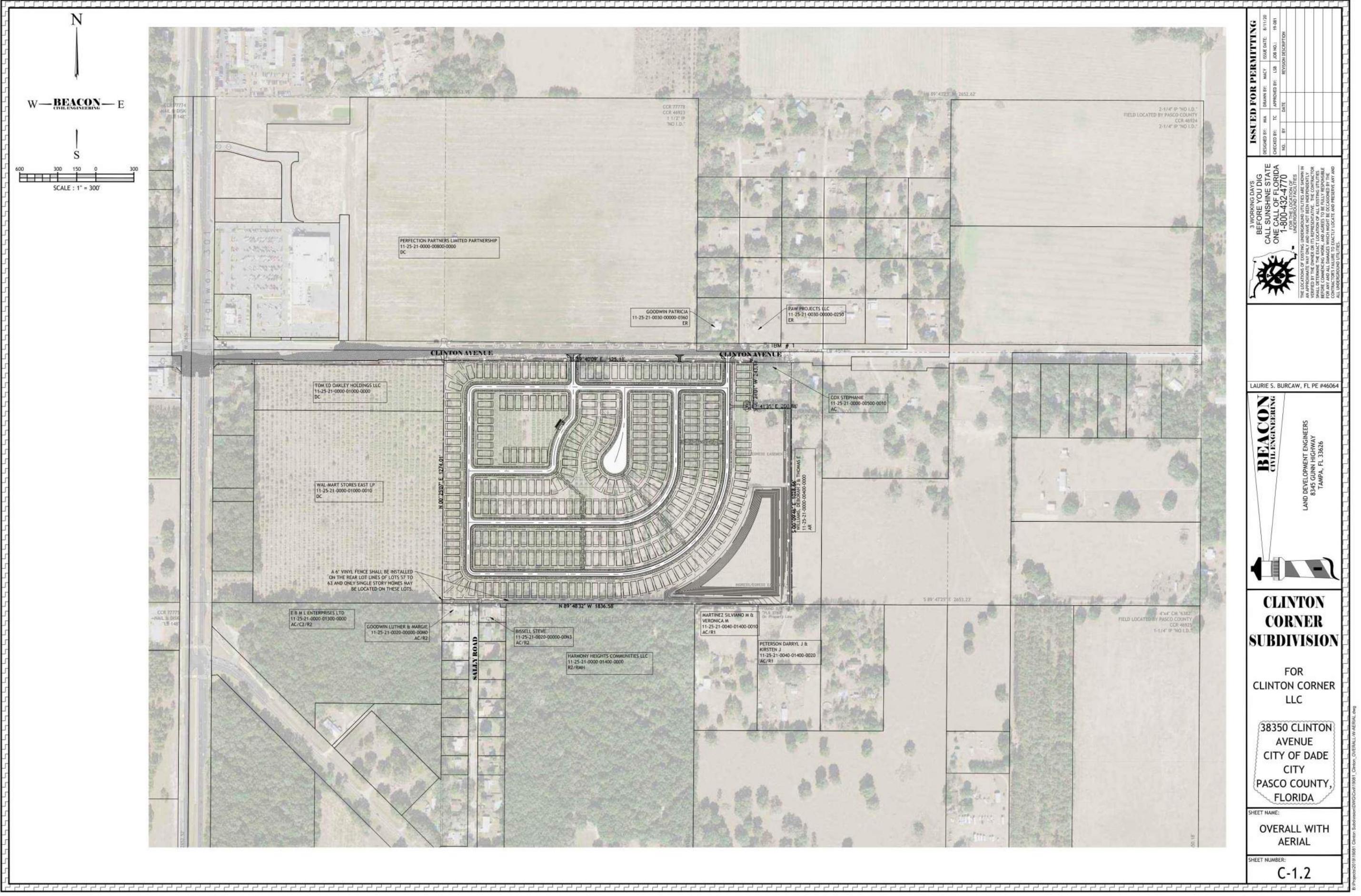


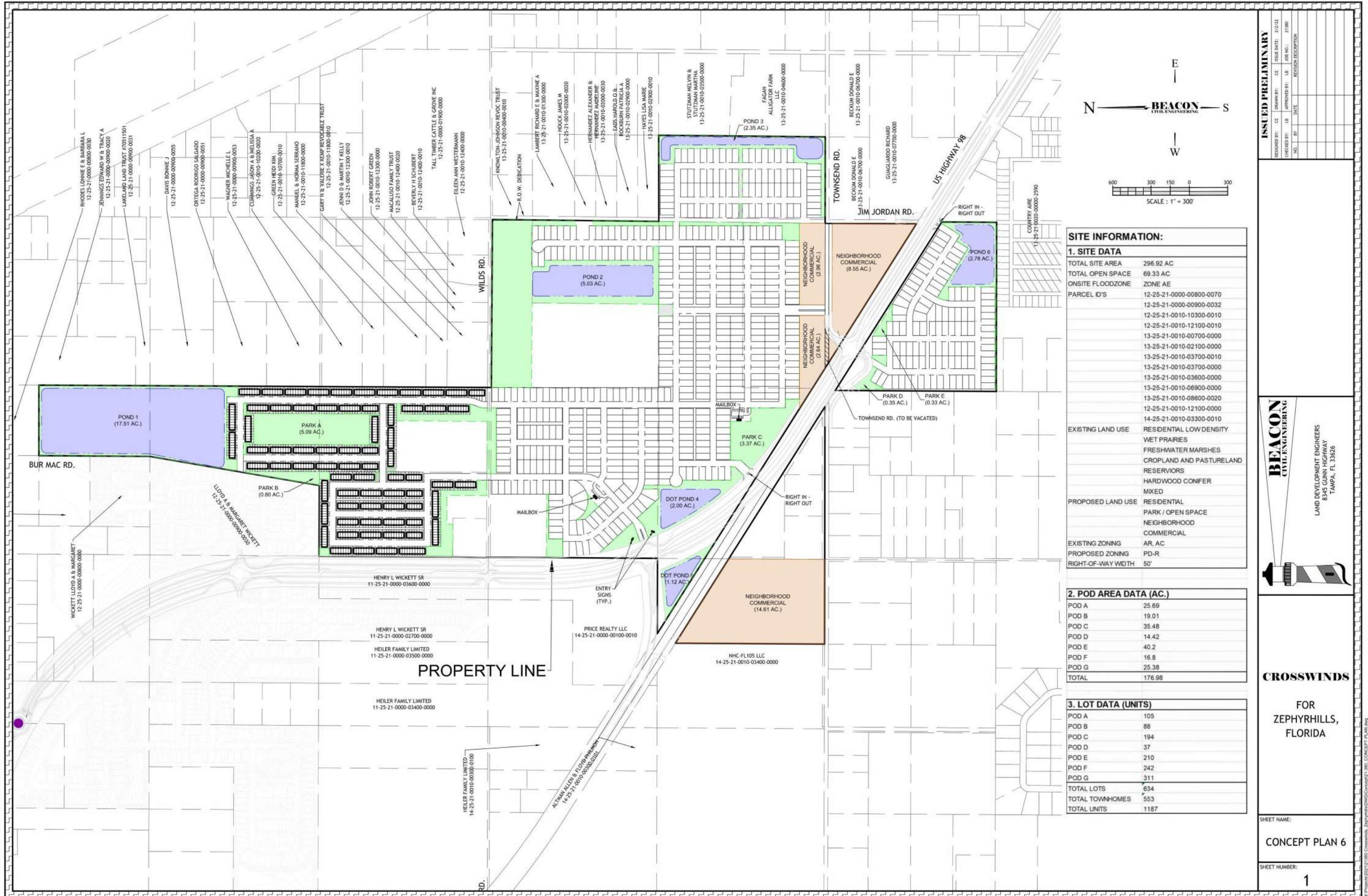
Figure 2.8: Opening Year (2025) Build Turning Movement Volumes

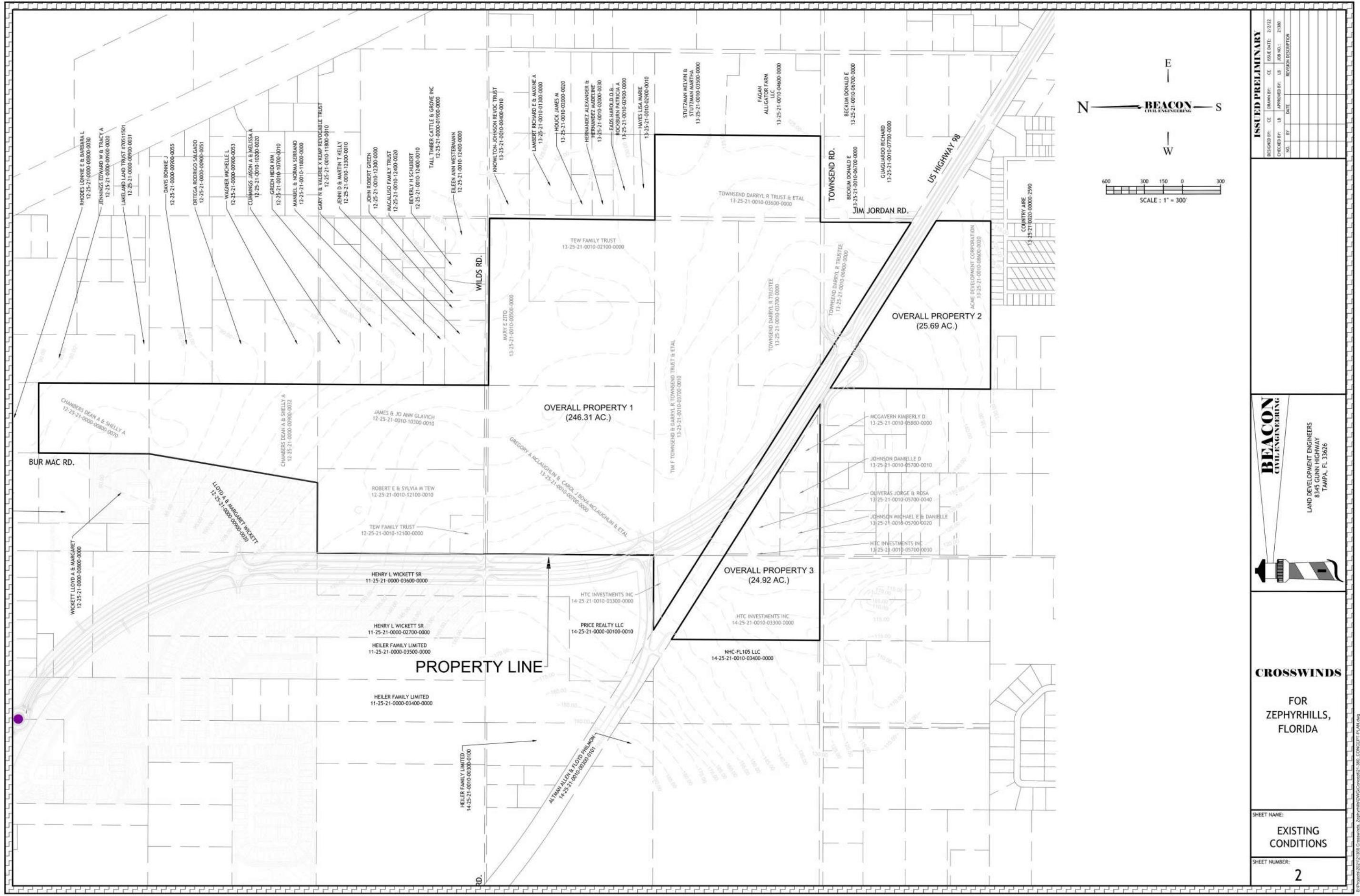
Appendix L

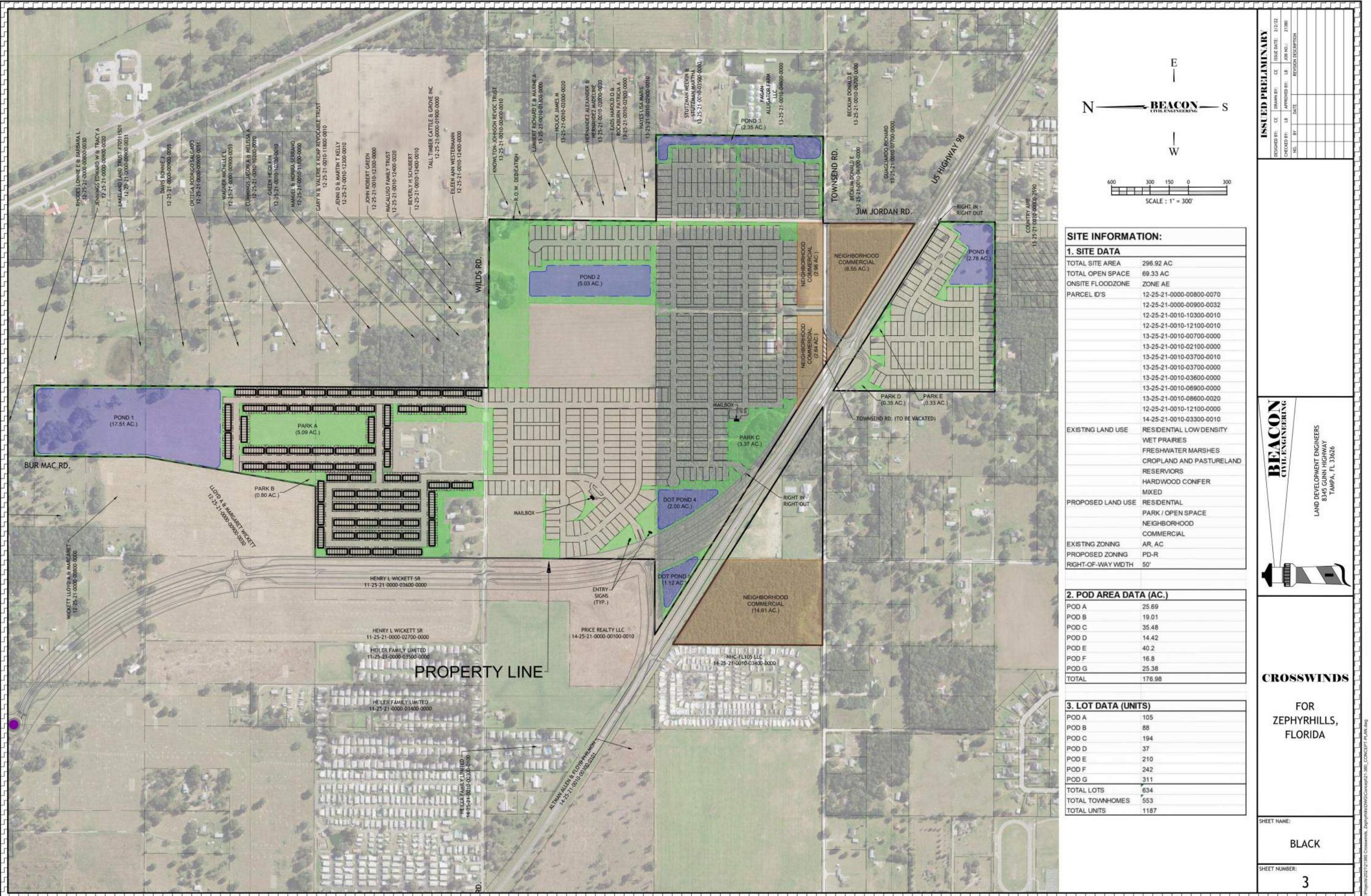
ITE Trip Generation Calculations and Development Plans

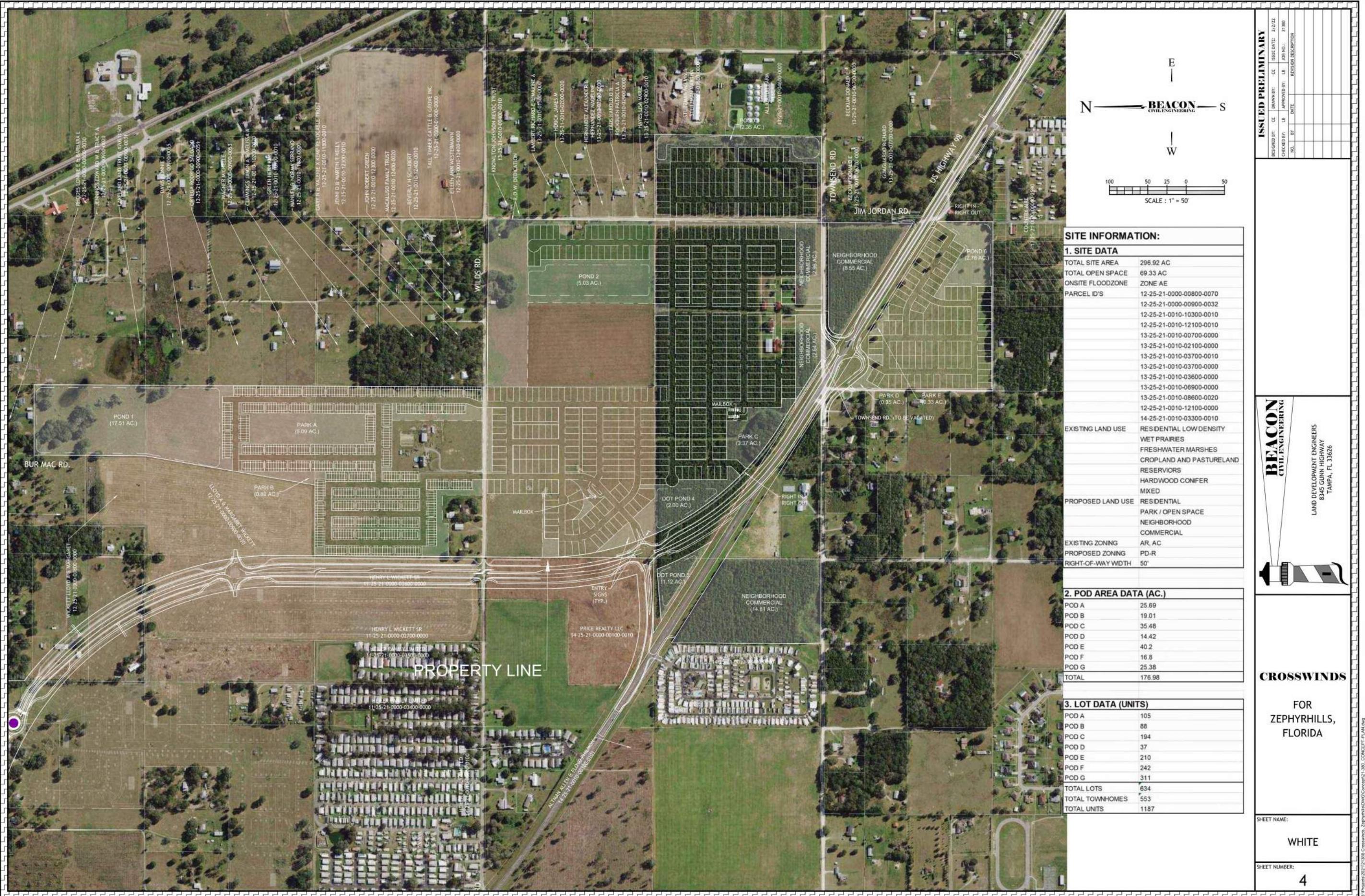


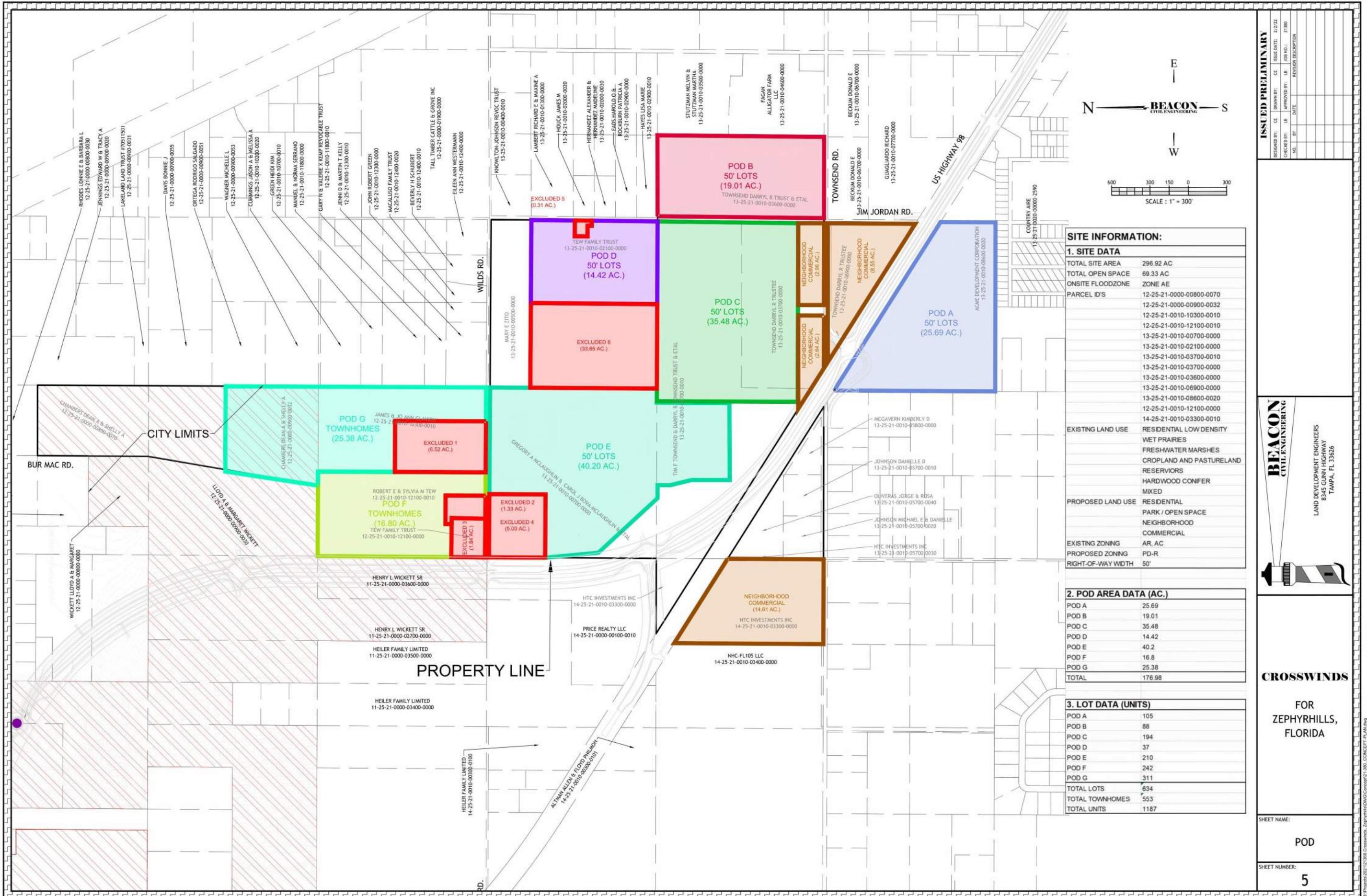












Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	445	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	60	204	260	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	0	478	0	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	0	515	74	0	38	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	0	45	0	0	0	0	153	0	0	88	268	125
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	155	0	0	90	270	130	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	435	5	0	265	610	0	75	0	0	0	0	5	0	275	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not affect cross street).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,135	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	51	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	143	0	0	0	0	305	0	0	55	270	79	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	145	0	0	0	0	305	0	0	55	270	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMVs at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	39	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	60	0	40	5	45	0	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	5	0	265	0	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 98 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	245	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	159	0	0	0	0	531	15	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	19	0	33	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	547	42	0	24	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	65	0	0	6	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	20	0	35	0	10	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	50	0	0	0	0	165	0	0	70	295	125	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,395	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	360	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	119	0	230	920	305	0	550	810	410	0	185	810	345	0
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 301 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	75	0	5	0	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	5	0	300	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	20%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	0	1	35	0	36	0	9	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	35	0	36	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	38	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	142	0	0	0	0	332	0	0	38	286	80	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	145	0	0	0	0	335	0	0	40	290	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMVs at intersections

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,450	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area (i.e. these trips will affect the mainline flow).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the SBR direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the SBL direction. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix M

US 98 Intersection Control Evaluation Reports

Intersection Control Evaluation Report

US 98 / State Road 35 / State Road 700 At Clinton Avenue Intersection



Florida Department of Transportation

District 7

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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1.0 Introduction

1.1 Project Overview

The Florida Department of Transportation (FDOT) District Seven is conducting the US 98 Project Development and Environment (PD&E) Study (WPI Segment No: 443368-2) to evaluate the need for widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to deemphasize the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. Significant development is also planned along the proposed US 98 realignment that will have a significant impact on corridor operations. Conceptual plans for the proposed developments and proposed corridor layout can be found in **Appendix A**. This document will analyze the proposed intersection at US 98 and Clinton Avenue created by the US 98 realignment and associated Crossroads development. Improvements to this intersection will seek to minimize delay while also emphasizing safety. The intersection of US 98 at Clinton Avenue within the context of the US 98 PD&E project location and study area is shown in **Figure 1.1**.

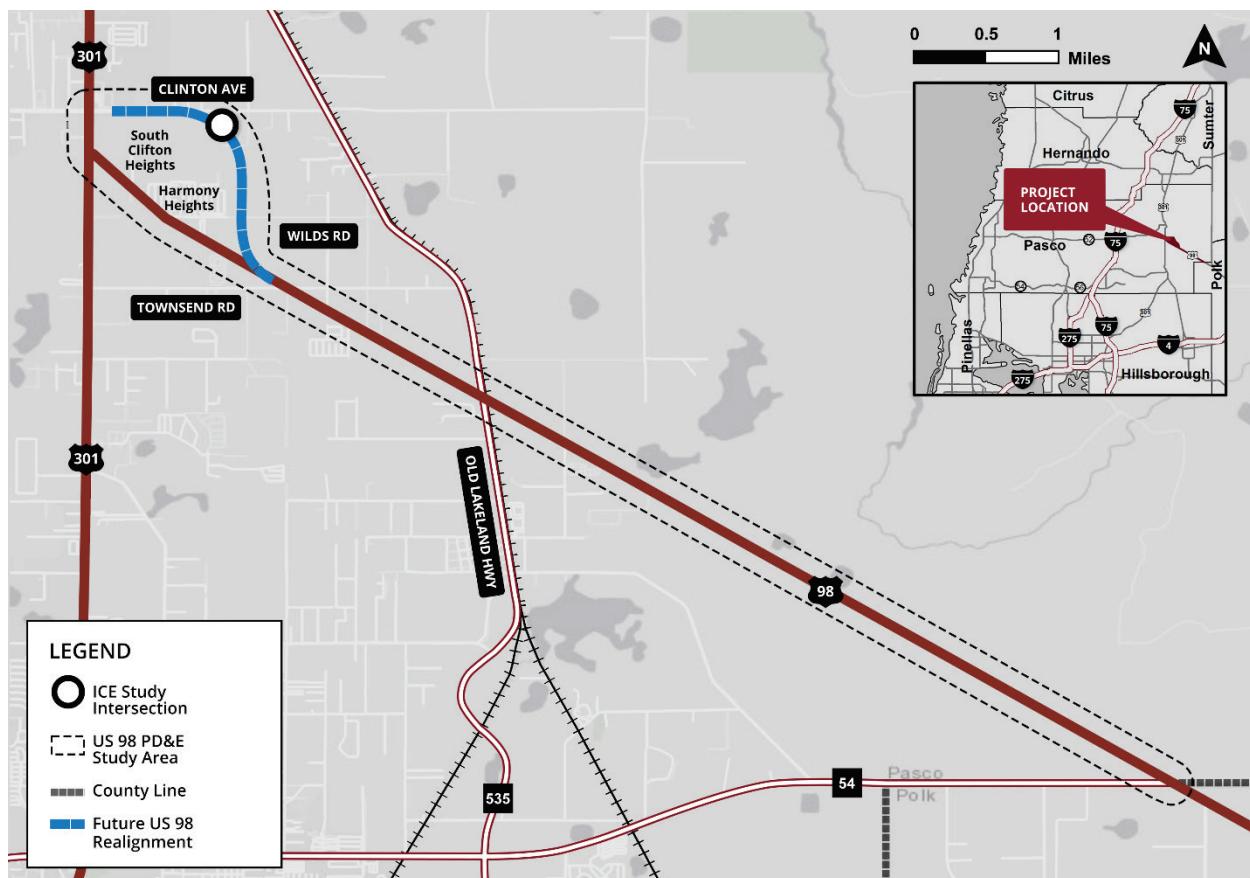


Figure 1.1: Study Intersection and Project Location Map

1.2 Intersection Control Evaluation Methodology

To assess the most appropriate intersection control to accompany the widening and realignment of US 98, an Intersection Control Evaluation (ICE) analysis, in accordance with the Florida Department of Transportation's (FDOT's) Manual on Intersection Control Evaluation (FDOT Topic Number 750-010-003) (2022), was requested. A Stage 1 ICE analysis will be conducted and if a single viable control cannot be determined, then a Stage 2 ICE analysis will be conducted.

All analysis will be conducted utilizing volumes and traffic factors from the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2). The analysis years for this study included an existing year (2019), opening year (2025), and a design year (2045). The US 98 PD&E Forecast Volumes and Institute of Transportation Engineers (ITE) Trip Generation associated with the proposed developments within the study area can be found in **Appendix B** and **Appendix C**, respectively. For use in this analysis, Turning Movement Volumes and Annual Average Daily Traffic counts at the US 98 and Clinton Avenue intersection (ID number 9) for opening year (2025) and design year (2045) can be found in **Figure 1.2. A conceptual roundabout design is used for reference**. This analysis will utilize an observed daily truck percentage (T_{24}) of 15.2 percent and a design hour truck (DHT) percentage of 8.0 percent along US 98. A Highway Capacity Manual (HCM) default T_{24} of 4.0 percent and DHT of 2.0 percent were used along Clinton Avenue.

Based upon the current context of US 98, coordination with FDOT District 7, and development plans along the corridor, only the following intersection controls will be considered during this ICE analysis:

- Two-way stop control;
- Signalization; and
- Two (2) lane Roundabout with one (1) lane on the minor approach (2x1 Roundabout).

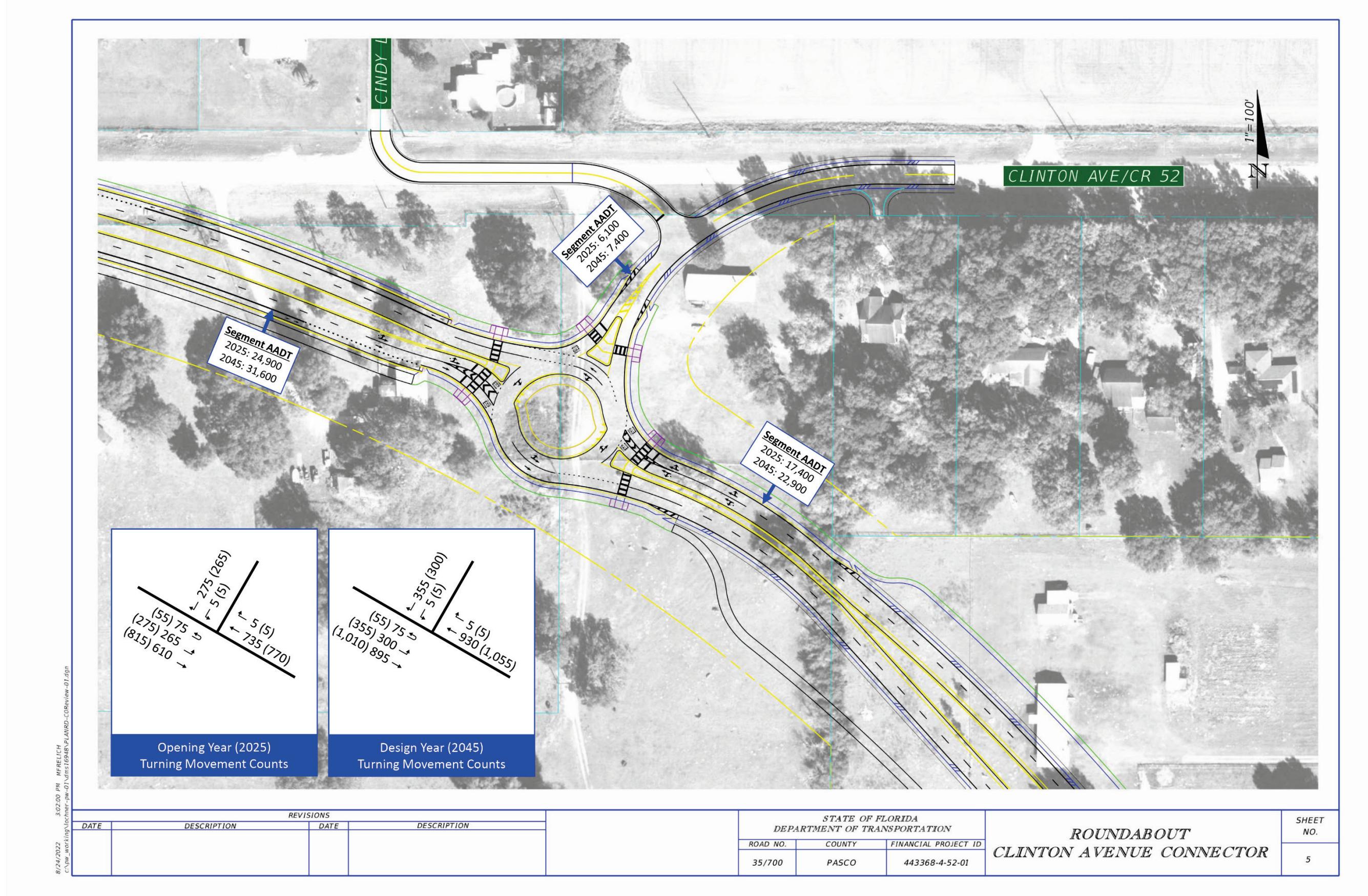


Figure 1.2: Opening Year (2025) Turning Movement Volumes

2.0 ICE Stage 1 Analysis

ICE Stage 1 in this analysis includes Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance of Intersection Control Evaluations (SPICE) rankings. The ICE Stage 1 forms can be found in **Appendix D**.

2.1 Capacity Analysis at Junctions (CAP-X)

The US 98 and Clinton Avenue CAP-X analysis was conducted under the design year (2045) and assumes the widening and realignment of the US 98 corridor. Based on the demand at the intersection, along with the four lanes along US 98 and two lanes along the Clinton Avenue approaches, the following improvements were examined under both the two-way stop control and traffic signal condition:

- Left turn bays were provided along southbound US 98 and westbound Clinton Avenue approaches
- Right turn lanes were included along northbound US 98 and westbound Clinton Avenue

The 2x1 roundabout analysis did not require additional modification. The estimated Volume to Capacity (V/C) ratios and rankings of the design year (2045) CAP-X analysis for the AM and PM peak hours are shown in **Table 2.1**. The CAP-X 2045 AM and PM Peak Hour reports can be found in **Appendix E** and **Appendix F**, respectively.

Table 2.1: Design Year (2045) CAP-X Analysis

US 98 at Clinton Avenue	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Overall V/C	V/C Rank	Overall V/C	V/C Rank	Overall V/C	V/C Rank
AM	0.72	3	0.60	1	0.66	2
PM	1.53	3	0.62	1	0.62	2

2.2 Safety Performance for Intersection Control Evaluation (SPICE)

SPICE analysis typically utilizes the most recent five-year period of historical crash data within the study area. Due to this intersection being a result of a new US 98 alignment, no historical analysis was included. SPICE analysis for this report focuses on the proposed configurations and predicted crash frequencies present in the SPICE worksheets. The SPICE analysis result summaries can be found in **Appendix G**.

The FDOT SPICE analysis was conducted for the opening year (2025) and the design year (2045) to predict the total crashes, fatal and injury crashes, and Safe System Intersection (SSI) scores. The summaries of the safety performance for each control strategy are shown in **Table 2.2**.

Table 2.2: Predicted Crashes and SSI Scores

Control Strategy	Opening Year (2025)			Design Year (2045)		
	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score
Two-Way Stop Controlled	6.92	1.76	32	8.81	2.11	22
Signalized Control	4.14	1.56	51	4.76	1.88	40
Roundabout	9.28	1.75	81	11.96	2.37	77

By the design year (2045), it is anticipated that signalized control would rank first among the selected control strategies providing the lowest severity crash frequency of 1.88 during design year (2045). The two-way stop control alternative ranks second with a severe crash frequency of 2.11. The roundabout ranks third with a severe crash frequency of 2.37. All intersections indicated an increase in crash frequency and severity from the opening year (2025) to the design year (2045).

The results of life cycle SPICE analysis for the AM and PM peak hours are shown in **Table 2.3**. The traffic signal ranks first with the lowest number of Total Project Life Cycle severe crashes.

Table 2.3: SPICE Analysis

Crash Type	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank
Total	165.18		93.48		222.86	
Fatal & Injury	40.73	2	36.18	1	43.20	3

2.3 Alternative Scenario Rankings for Stage 1 Analysis

The results of the ICE Stage 1 analysis are summarized in **Table 2.4** along with how each control strategy performed at each of the study intersections based on the CAP-X and SPICE analysis.

Table 2.4: Analysis Summary

Intersection	Control Strategy	ICE Stage 2 Analysis		
		CAP-X Rank	SPICE Rank	Daily
AM	PM			
US 98 and Clinton Avenue	Two-Way Stop Control	3	3	2
	Traffic Signal Control	1	1	1
	2NS x 1EW Roundabout	2	2	3

ICE Stage 1 analysis supports the use of traffic signal control and 2-lane roundabout at the intersection of US 98 at Clinton Avenue. These control strategies have similar V/C ratios and safety considerations. To further analyze all control strategies, ICE Stage 2 analysis was performed and the recommended strategies were further examined.

3.0 ICE Stage 2 Analysis

3.1 Opening and Design Year Operational Analysis

The ICE Stage 1 analysis did not identify a single viable control strategy. Therefore, all three control strategies were advanced to ICE Stage 2 Analysis. Summaries of the ICE Stage 2 analysis can be found in **Appendix H**. The Stage 2 analysis evaluates each viable control strategy based on:

- Opening and Design year operational performance
- Safety performance
- Benefit-to-cost analysis
- Multimodal accommodations
- Environmental, utility, and right-of-way impacts
- Public input
- Other appropriate factors

The conceptual layout of the lane geometry for each of the control strategies can be found in **Figure 3.1**.

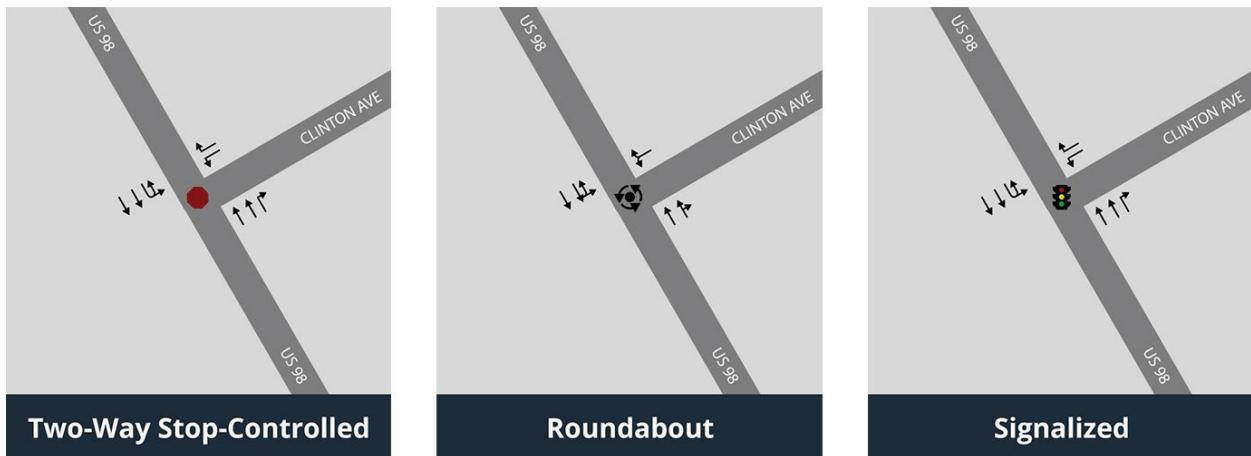


Figure 3.1: Conceptual Layout

HCS 7, Synchro 11, and SIDRA 9 were used to analyze the operational performance of two-way stop control, signalized control, and roundabout control, respectively. The HCS 7, Synchro 11, and SIDRA 9 reports can be found in **Appendix I**, **Appendix J**, and **Appendix K**, respectively. Level of Service (LOS), average control delay, and 95th percentile queue lengths were the measures of performance for the operational analysis conducted in Stage 2. The intersection performance measures by movement for each control type can be found in **Table 3.1** through **Table 3.6**, while the overall intersection results for each control type can be found in **Table 3.7** and **Table 3.8**.

The intersection performance measures by movement for two-way stop control can be found in **Table 3.1** and **Table 3.2**. By the design year (2045), the southbound approach is expected to fail to meet the LOS target D, and the queues are expected to exceed the available storage lengths in both the AM and PM peak hours. The intersection performance measures by movement for signalized control can be found in **Table 3.3** and **Table 3.4**. By the opening year (2025) and design year (2045), the westbound approach is expected to fail to meet the LOS target D. Other approaches are expected to meet the LOS target D by the design year (2045) under signalized control. The intersection performance measures by movement for roundabout control can be found in **Table 3.5** and **Table 3.6**. Each approach is expected to continue to meet the LOS target D by the design year (2045) under roundabout control.

In addition to the HCS 7, Synchro 11, and SIDRA 9 analyses that were performed, a traffic signal warrant analysis was completed. Due to only having peak hour volume data available, only Warrant 3 was assessed and does not meet the criteria for the intersection to be signalized. The Traffic Signal Warrant analysis can be found in **Appendix L**.

Table 3.1: Opening Year (2025) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	56.4	F	54.6	F	1/250'	25 (25)
	Right	16.2	C	16.5	C	1/>1500'	75 (75)
Northbound	Through	-	-	-	-	2/2700'	-
	Right	-	-	-	-	1/250'	-
Southbound	Left	26.8	D	22.8	C	1/250'	175 (125)
	Through	-	-	-	-	2/2400'	-

Table 3.2: Design Year (2045) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	*	F	*	F	1/250'	*
	Right	28.8	D	27.6	D	1/>1500'	175 (150)
Northbound	Through	-	-	-	-	2/2700'	-
	Right	-	-	-	-	1/250'	-
Southbound	Left	652.1	F	573.4	F	1/250'	1475 (1475)
	Through	-	-	-	-	2/2400'	-

*Volume exceeds capacity, delay and queue not reported in HCS

Table 3.3: Opening Year (2025) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	39.2	D	48.2	D	1/250'	25 (25)
	Right	63.3	E	122.2	F	1/>1500'	400 (525)
Northbound	Through	14.9	B	11.7	B	2/2700'	250 (225)
	Right	-	-	-	-	1/250'	-
Southbound	Left	9.6	A	7.7	A	1/250'	125(100)
	Through	6.5	A	5.2	A	2/2400'	125(150)

Table 3.4: Design Year (2045) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	38.6	D	48.2	D	1/250'	25 (25)
	Right	105.3	F	167.6	F	1/>1500'	625 (675)
Northbound	Through	18.7	B	15.2	B	2/2700'	350 (350)
	Right	-	-	-	-	1/250'	-
Southbound	Left	15.2	B	19.6	B	1/250'	150 (275)
	Through	8.2	A	5.8	A	2/2400'	

Table 3.5: Opening Year (2025) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	13.0	B	12.9	B	1/1500'	75 (75)
	Right	13.0	B	12.9	B		75 (75)
Northbound	Through	8.8	A	9.0	A	2/2700'	50 (75)
	Right	8.8	A	9.0	A		50 (75)
Southbound	Left	6.4	A	7.4	A	2/2400'	75 (75)
	Through	6.4	A	7.4	A		75 (75)

Table 3.6: Design Year (2045) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Westbound	Left	26.7	D	25.8	D	1/500'	150 (125)
	Right	26.7	D	25.8	D		150 (125)
Northbound	Through	11.6	B	14.8	B	2/2700'	125 (175)
	Right	11.6	B	14.8	B		125 (175)
Southbound	Left	8.1	A	9.2	A	2/2400'	100 (125)
	Through	8.1	A	9.2	A		100 (125)

The overall intersection results for the opening year (2025) and design year (2045) are shown in **Table 3.7** and **Table 3.8**, respectively.

Table 3.7: Opening Year (2025) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	C	17.0	Yes	C	17.2	Yes
Signalized Control	B	18.5	Yes	C	22.5	Yes
Roundabout	A	8.2	Yes	A	8.6	Yes

*Worst case stop controlled approach LOS shown

Table 3.8: Design Year (2045) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	F	192.6	No	F	165.6	No
Signalized Control	C	26.9	Yes	C	29.1	No
Roundabout	B	12.0	Yes	B	13.2	Yes

* Worst case stop controlled approach LOS shown

3.2 Cost and Benefit-to-Cost Ratio

The benefit-to-cost ratio analysis for the project life cycle was conducted with the FDOT ICE tool. Two-way stop control is the base strategy for the benefit-to-cost comparison. The right-of-way (ROW) costs are expected to be the same for all three control strategies. The design cost is assumed to be seven percent of the sum of the construction cost and the contingency cost. The FDOT Long Range Estimating System (LRE) reports for these control strategies can be found in **Appendix M**. The summary of the benefit-to-cost analysis is shown in **Table 3.9**. The output table of the ICE tool can be found in **Appendix N**.

Table 3.9: Cost and Benefit-to-Cost Ratios

Control Strategy	ROW Costs (\$)	Design Cost (\$)	Contingency Cost (\$)	Construction Cost (\$)	FDOT ICE Tool Outputs			
					Delay B/C	Safety B/C	Overall B/C	Net Present Value of Improvement
Two-Way Stop Controlled	\$457,248	\$86,640	\$50,000	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$457,248	\$120,790	\$50,000	\$1,725,579	115.71	2.18	117.89	\$70,793,543
Roundabout	\$457,248	\$108,111	\$50,000	\$1,544,437	215.06	*	216.95	\$82,746,022

*No B/C reported in FDOT ICE Tool

3.3 Multimodal Accommodations

Due to the intersection of US 98 at Clinton Avenue being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.

Under two-way stop control, pedestrians crossing the minor street approaches would be crossing at a stop-controlled location and would therefore have the right-of-way. However, the lack of stop control or signalization would not provide any protected pedestrian movement across the major street. Under signal control, crossing time would be provided for pedestrians crossing both the major and minor streets. Under roundabout control, crossing distances would be reduced for all crossings. No accommodations for bicyclists are anticipated at this time.

No existing transit facilities are present near the intersection of US 98 at Clinton Avenue. Additionally, the intersection has no anticipated special freight needs.

3.4 Environmental, Utility, and Right-of-Way Impacts

The proposed intersection is located within a rural area of Pasco County dominated by agricultural land use and low-density residential areas. There are no wetlands or protected species present in the proximity of the study intersection. Due to the realignment of US 98, additional right-of-way will be required. The right-of-way requirements and utility impacts will be dictated by the roadway alignment, with no expected difference in impact based on the selected intersection type.

3.5 Public Inputs

A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. A total of 66 people (excluding FDOT staff) signed in at the in-person public hearing, and total of 14 people (excluding FDOT staff) signed in at the virtual portion of the public hearing. No public concerns or comments are proposed for the intersection of US 98 and Clinton Avenue.

4.0 ICE Analysis Summary

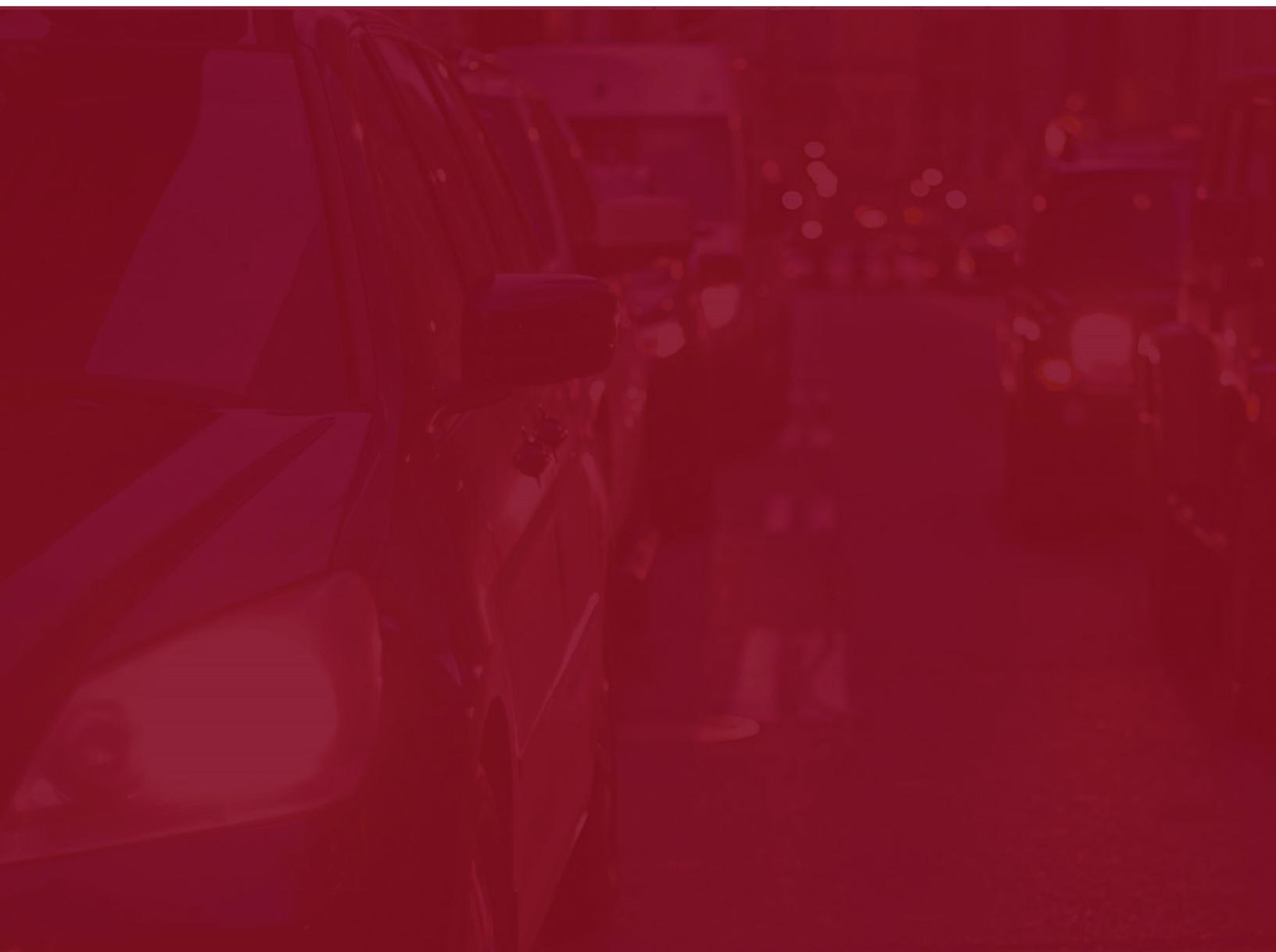
4.1 Summary of Stage 2 Analysis

A brief justification as to why each of the control strategies is either viable or not viable after the ICE Stage 2 Analysis is shown in **Table 4.1**. The roundabout control strategy provides the best operational and safety benefits, with the highest benefit-to-cost ratio for the intersection of US 98 at Clinton Avenue. There are few differences between the three control strategies in terms of public feedback, multimodal accommodations, and environmental, utility, or ROW impacts. Overall, the 2NS x 1EW roundabout control strategy is recommended based on the ICE Stage 2 analysis. The proposed design concept associated with this concept can be found in **Appendix O**.

Table 4.1: Analysis Summary

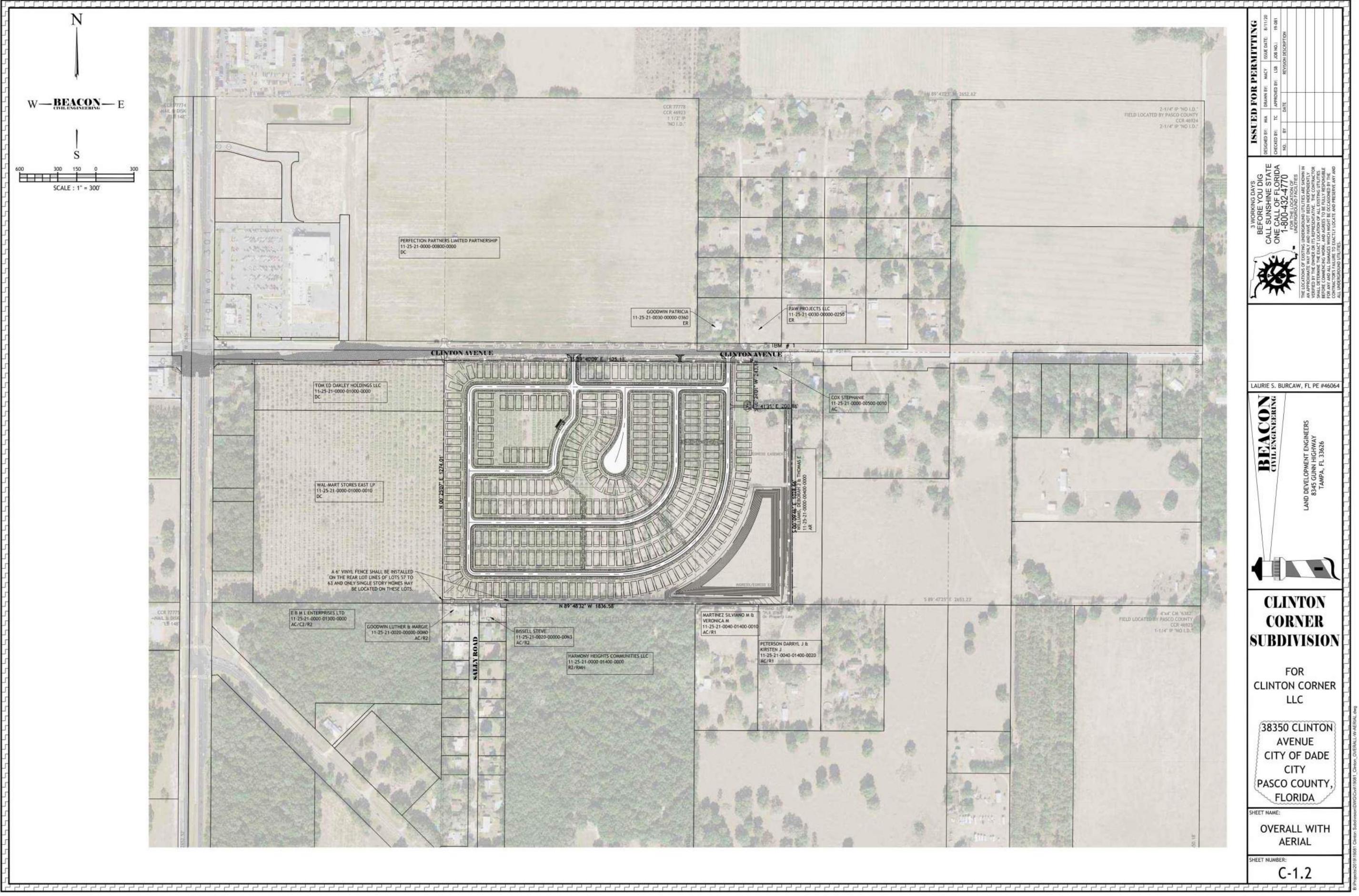
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop Control	No	Although this control strategy has the lowest anticipated construction costs, it provides less operational and safety benefits compared to the other strategies. Under this control strategy the minor streets will have a failing LOS.
Traffic Signal Control	No	The operational and safety performances for the signalized control strategy are better than the two-way stop control, but worse than a roundabout. The anticipated construction cost is greater than the cost for roundabout strategy. Additionally, this intersection did not meet the criteria for the Traffic Signal Warrant.
2NS x 1EW Roundabout	Yes	This control strategy provides the best operational performance in the Stage 2 ICE Analysis, and has a lower anticipated construction cost than traffic signal control.

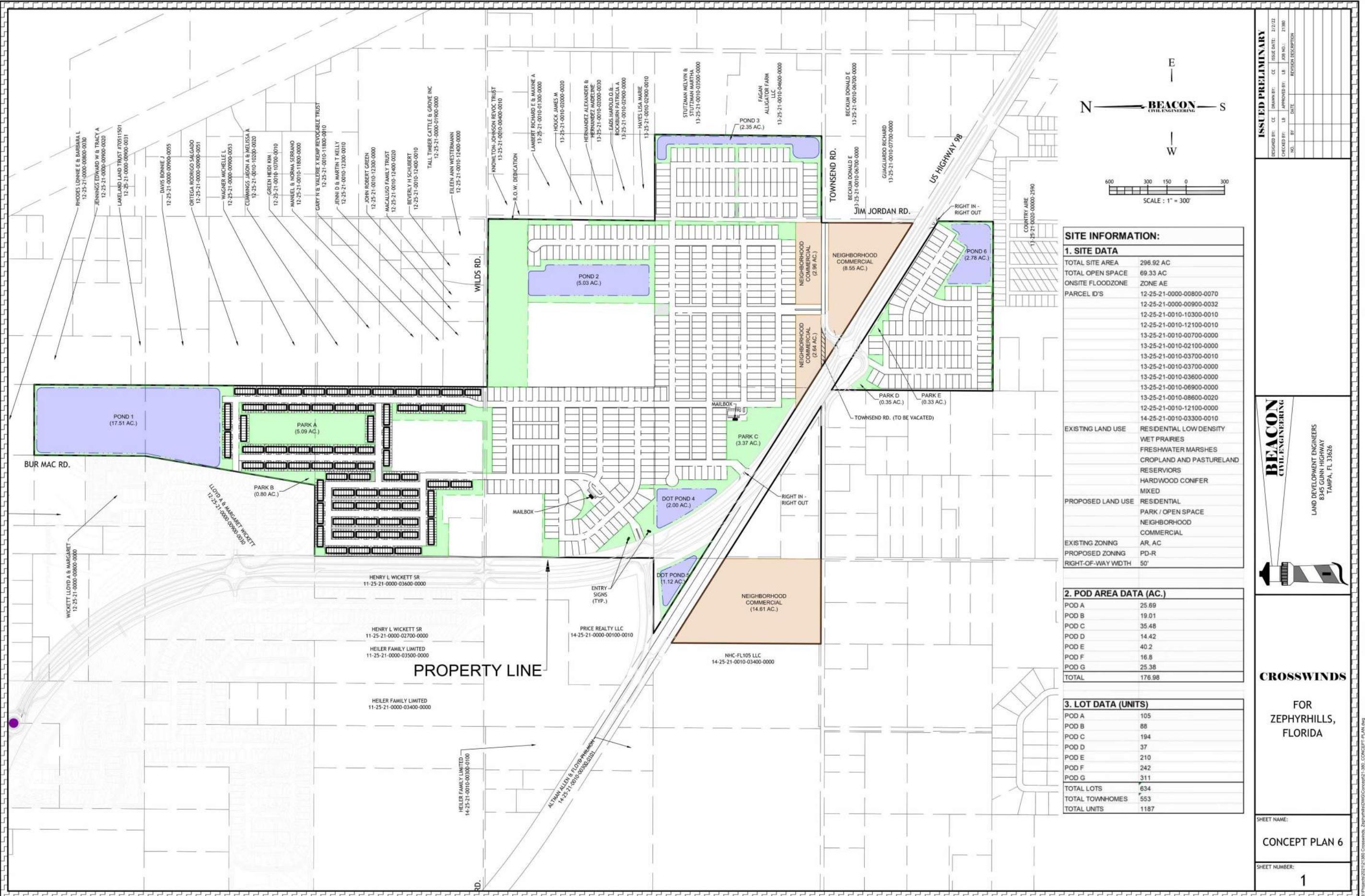
Appendices

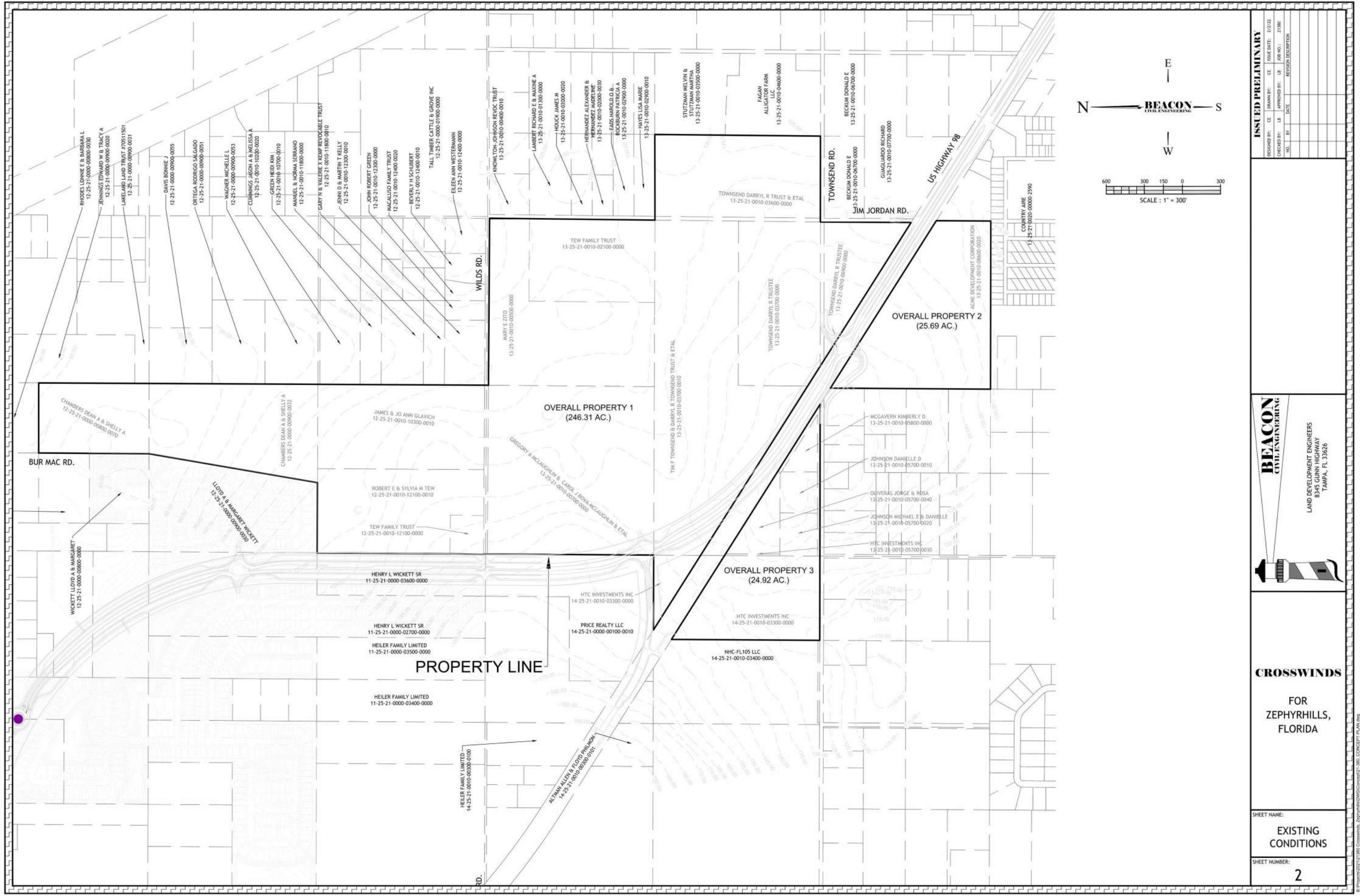


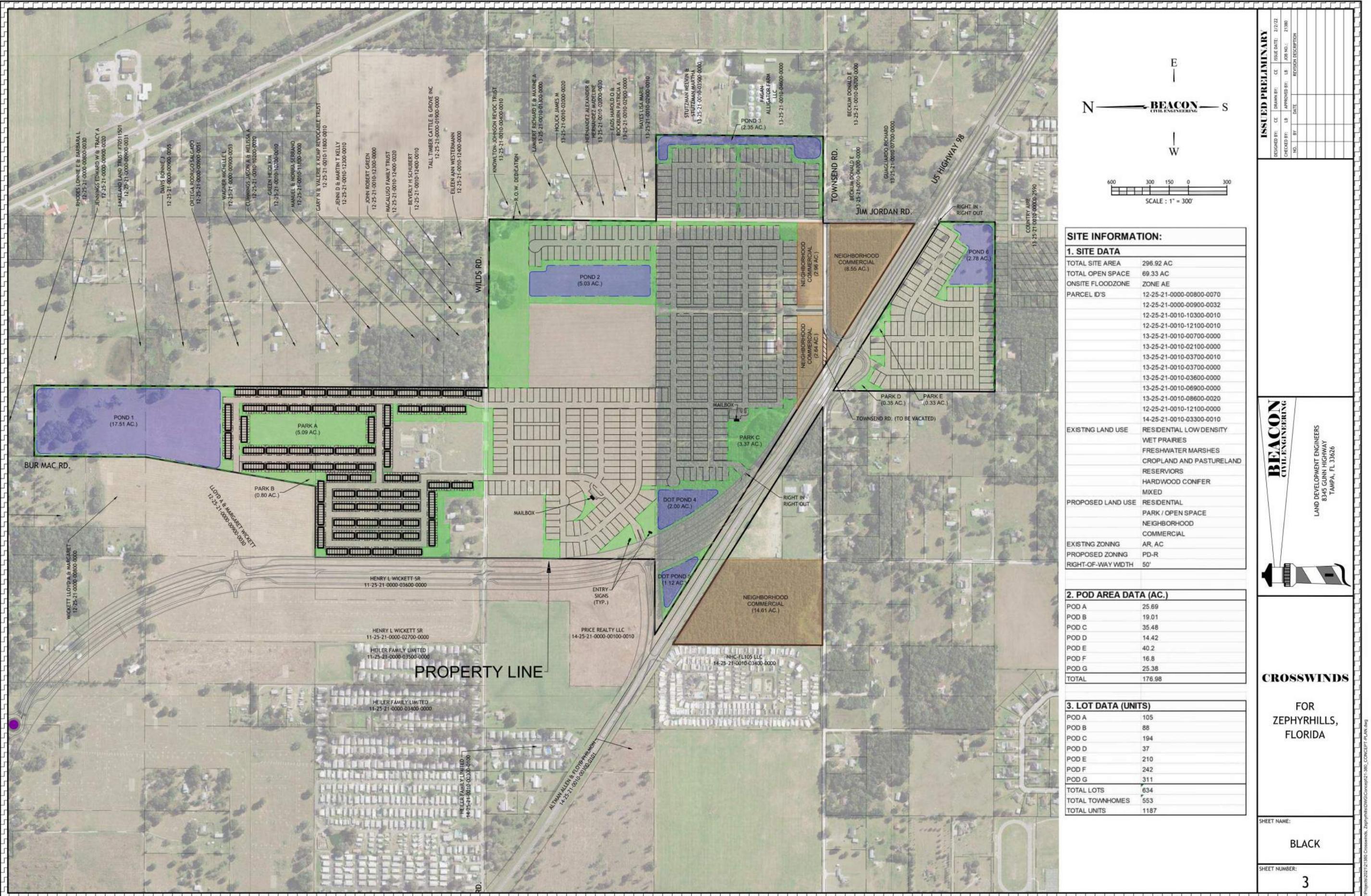
Appendix A

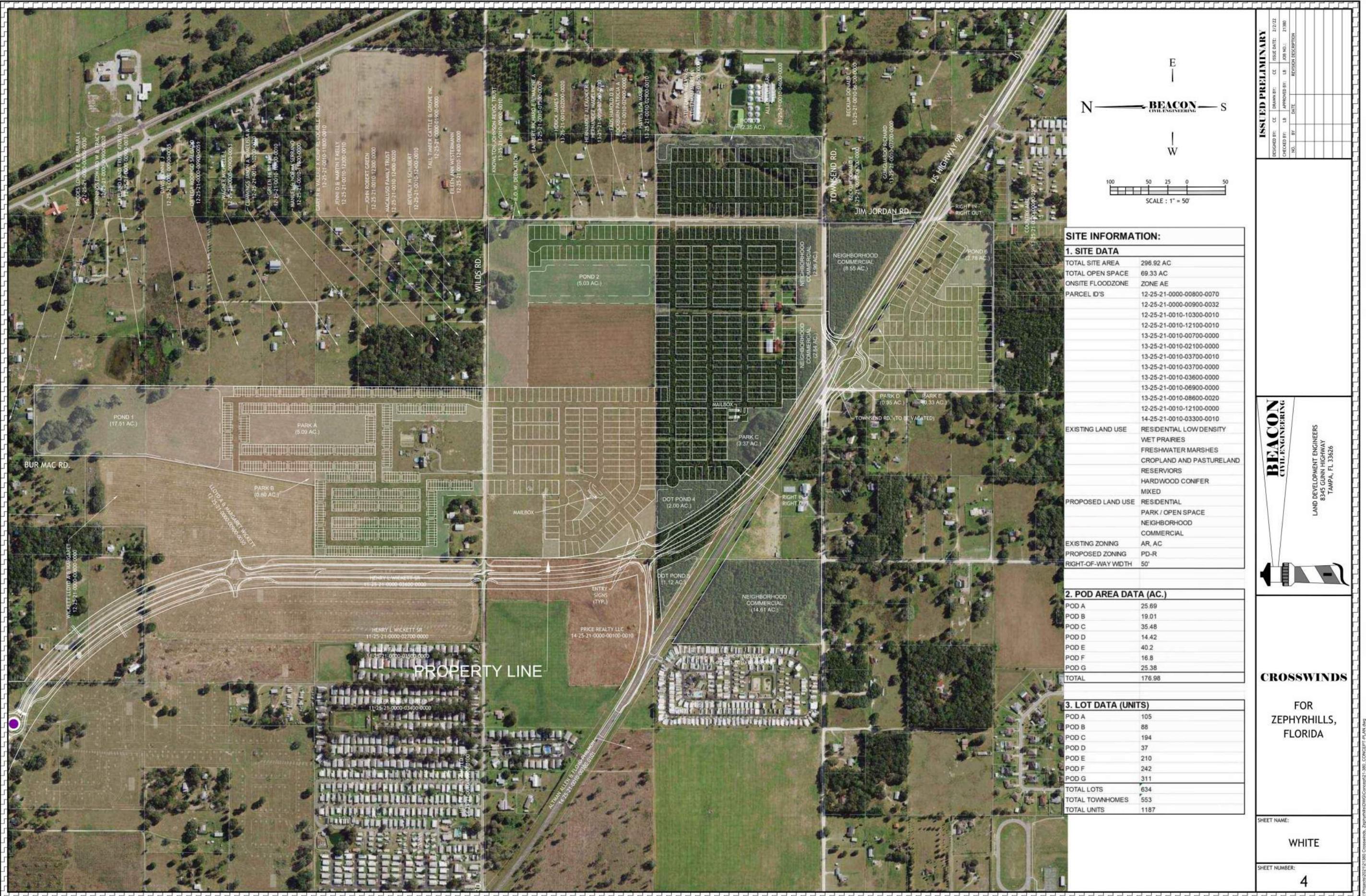
Development Concept Plans

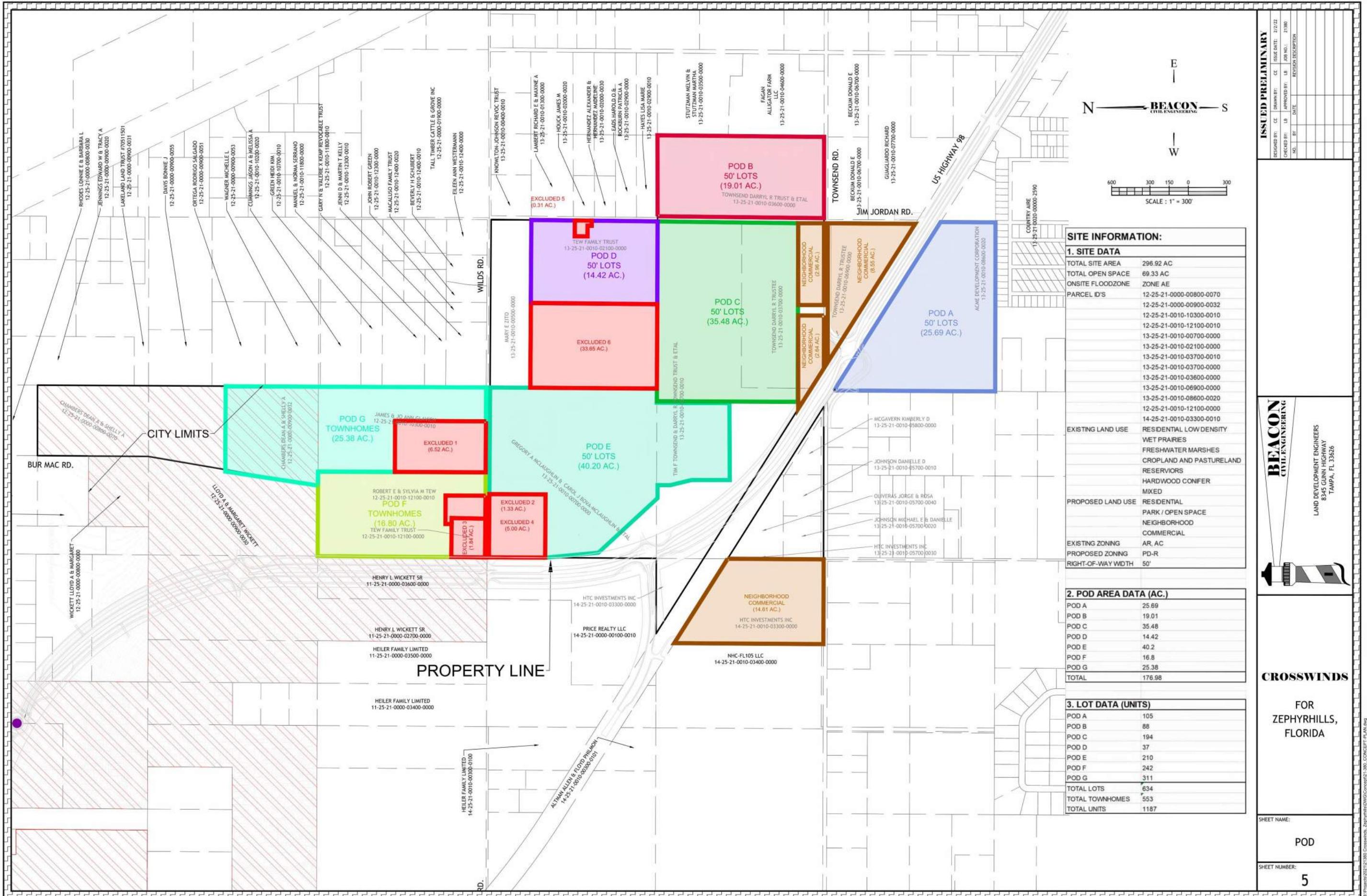












Appendix B

US 98 PD&E Demand Volumes

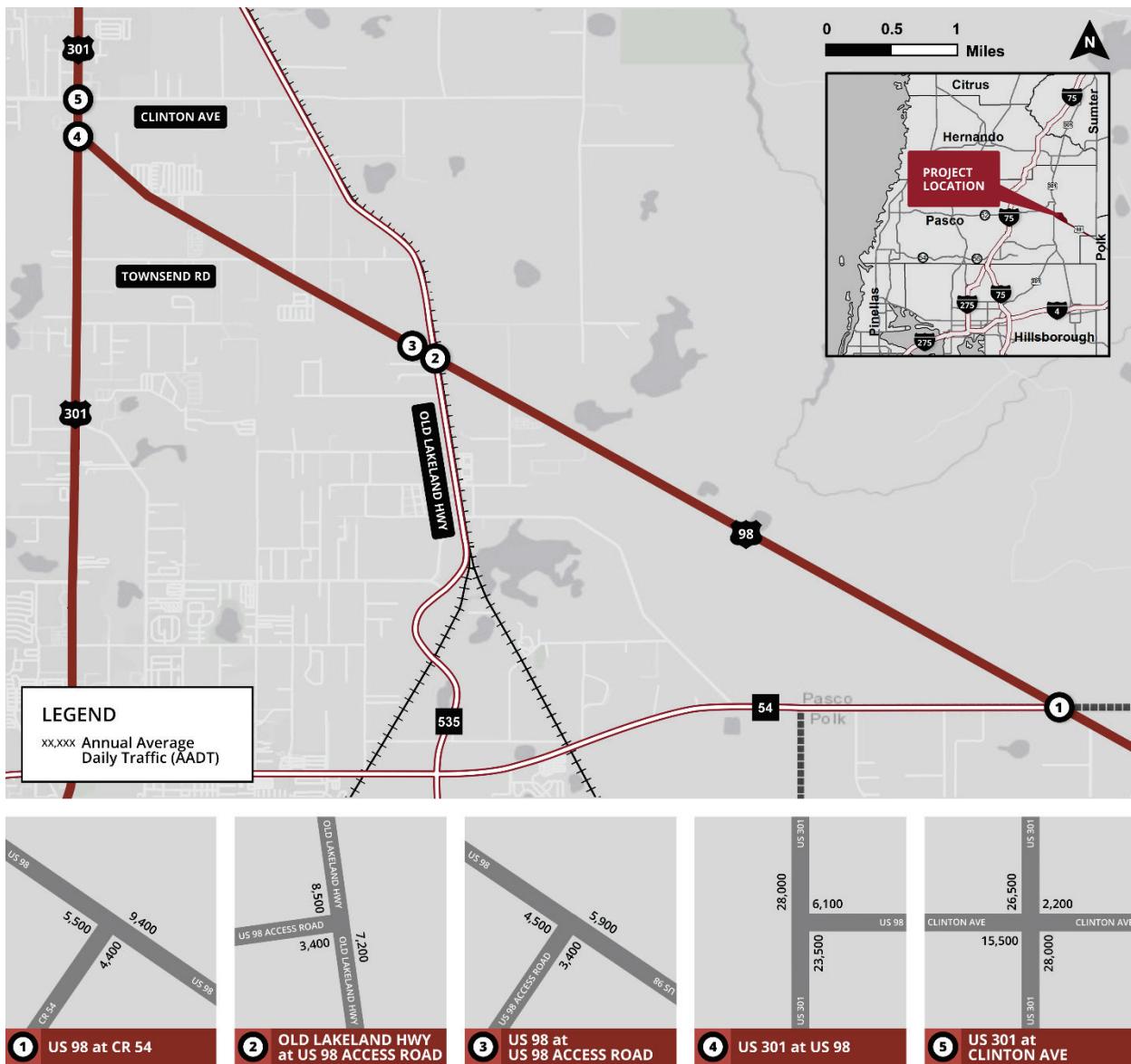


Figure 1: Existing Year (2019) AADTs

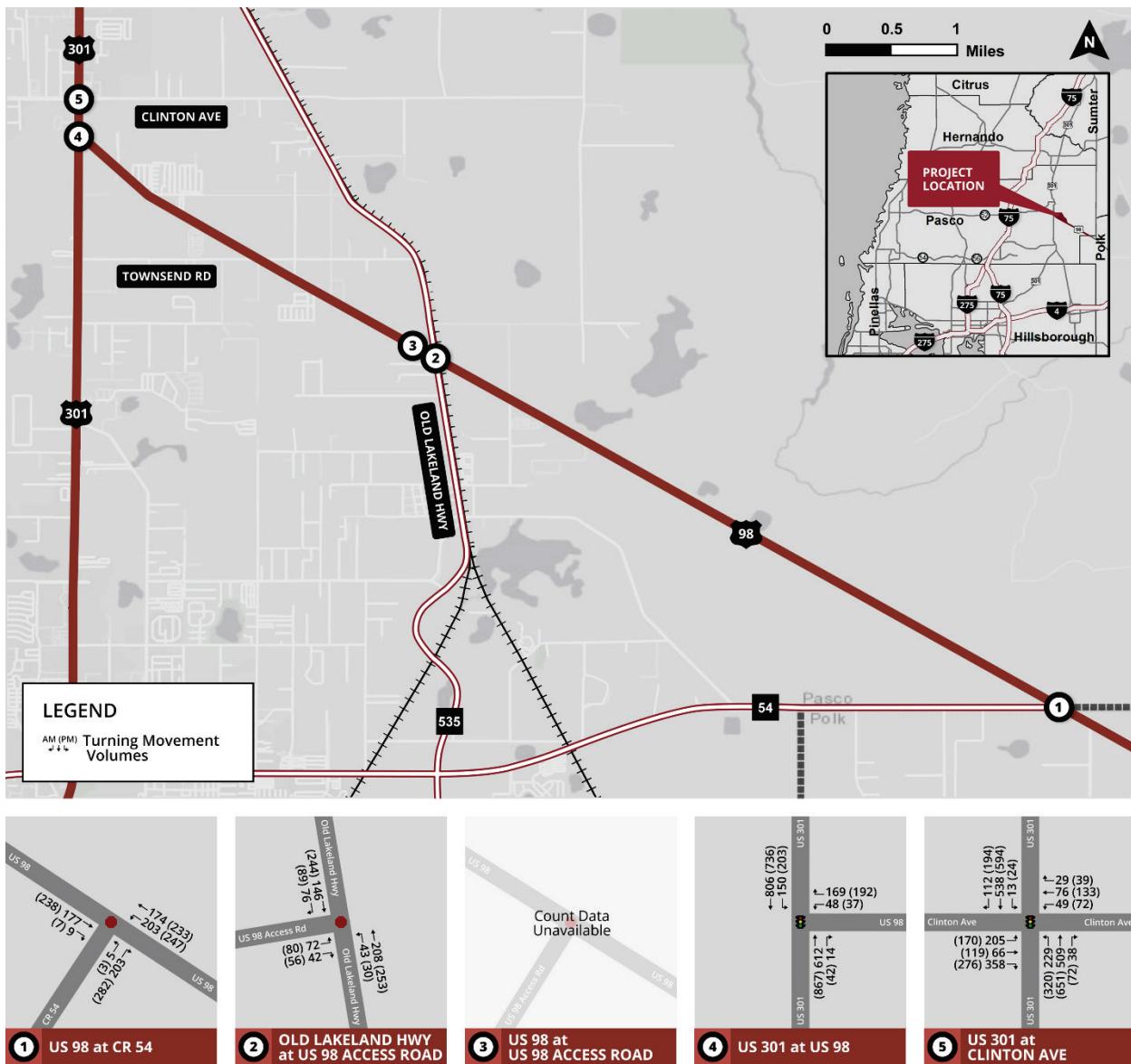


Figure 2: Existing Year (2019) Turning Movement Counts

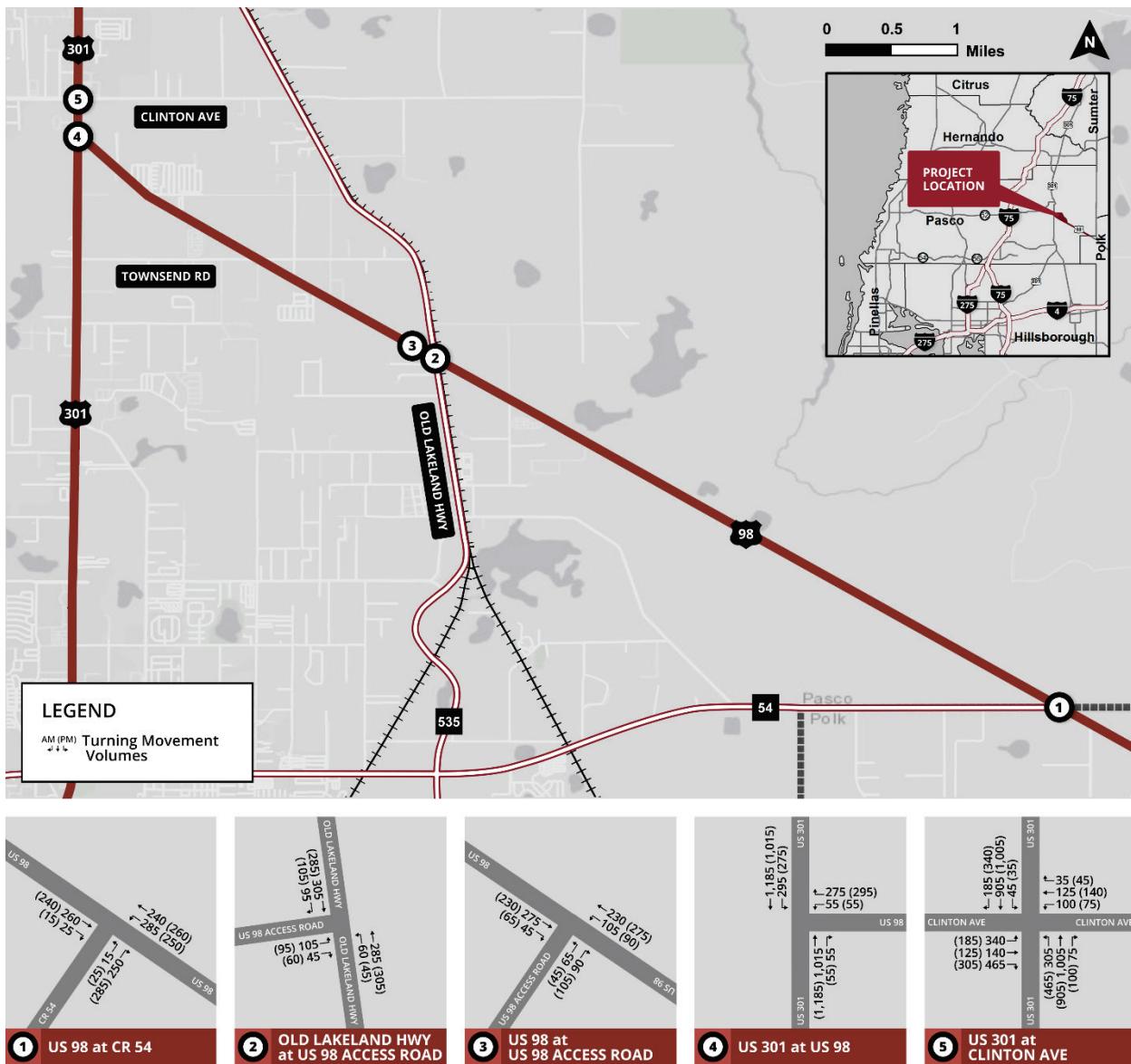


Figure 3: Existing Year (2019) Turning Movement Design Volumes

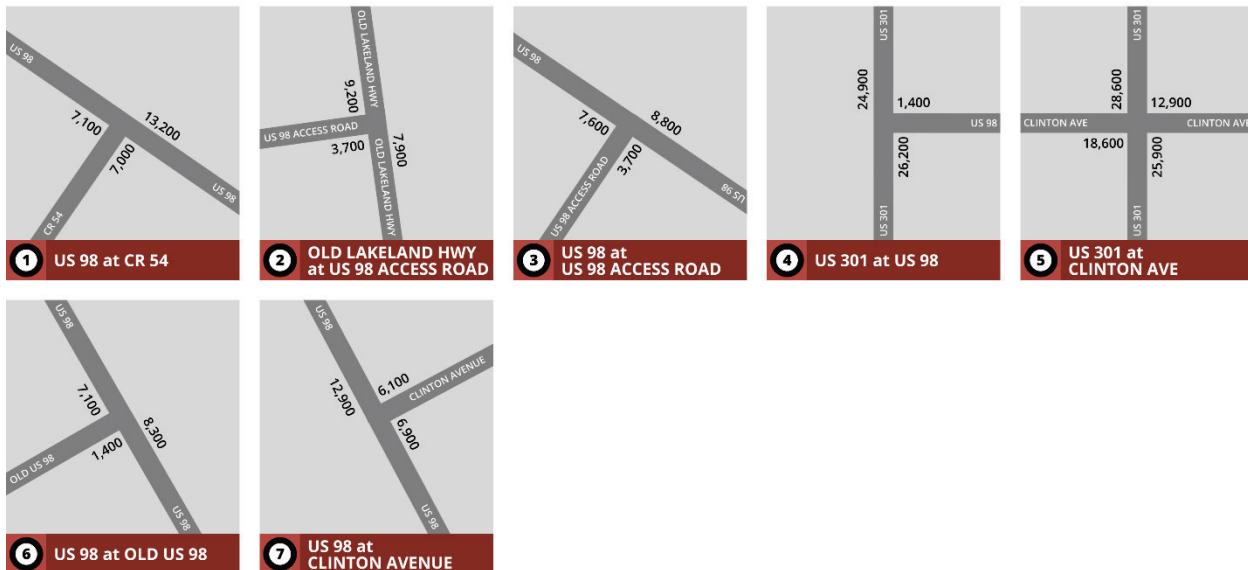
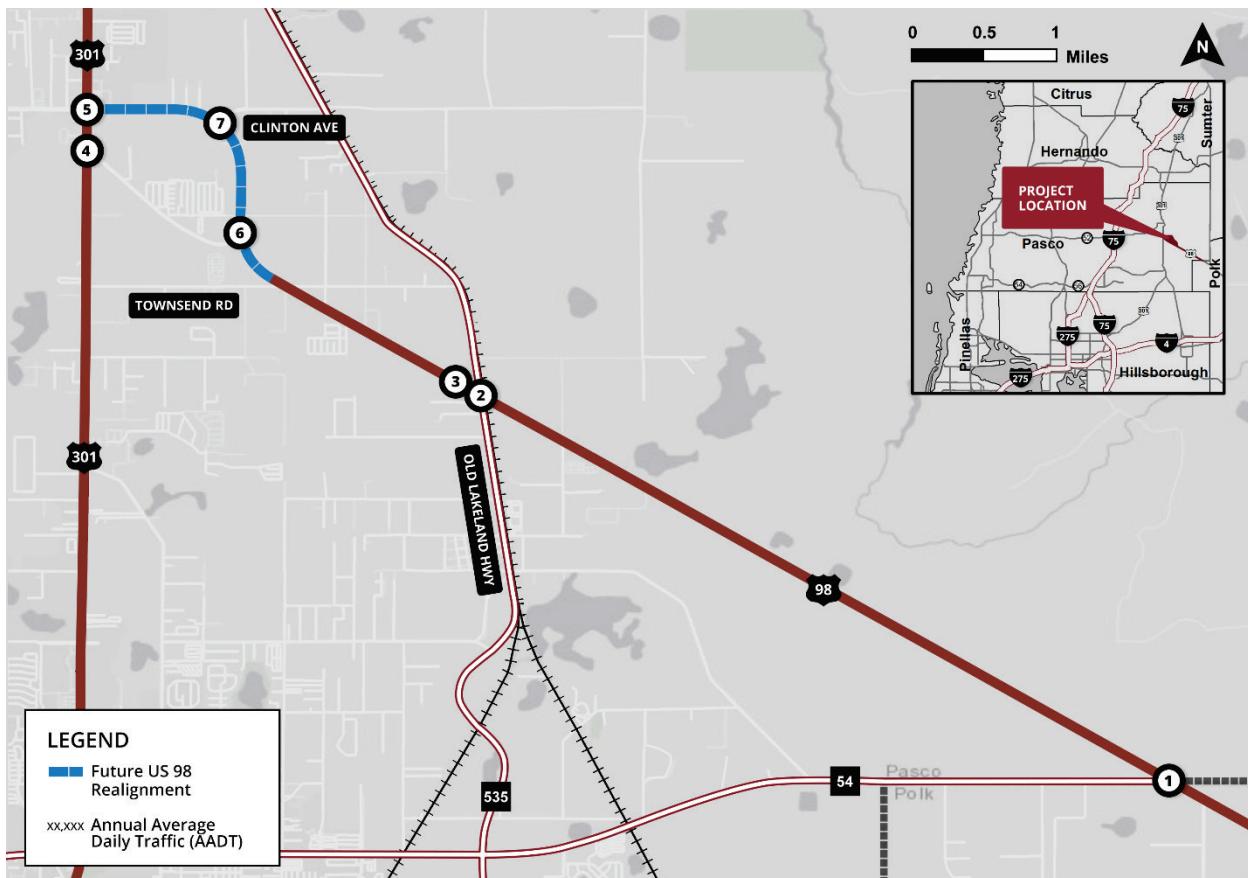


Figure 4: Opening Year (2025) Build AADTs

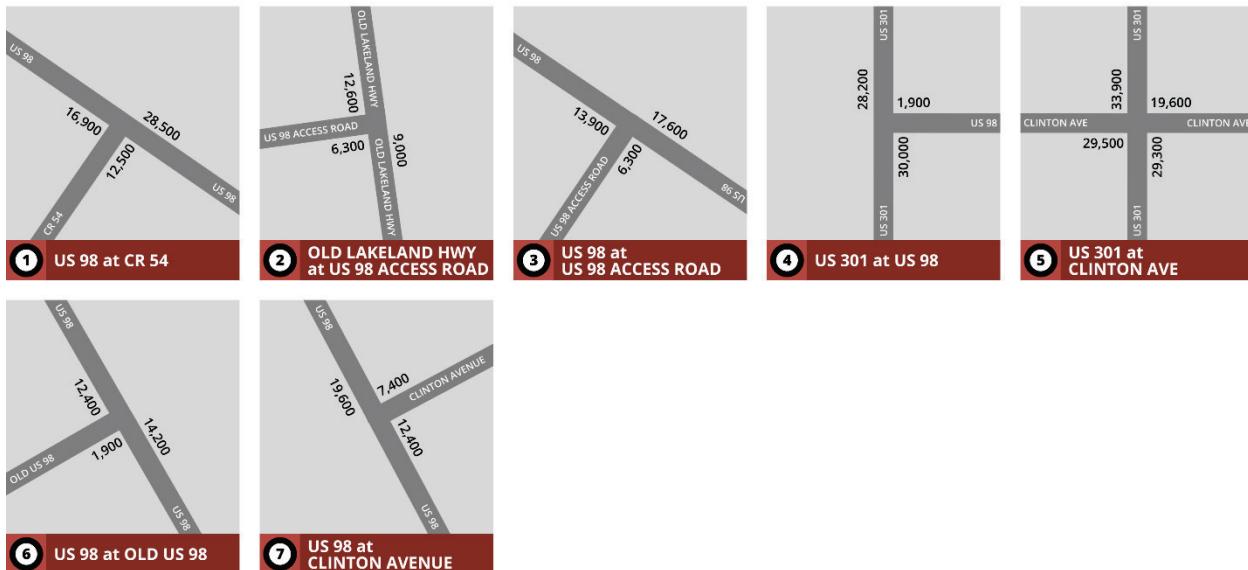
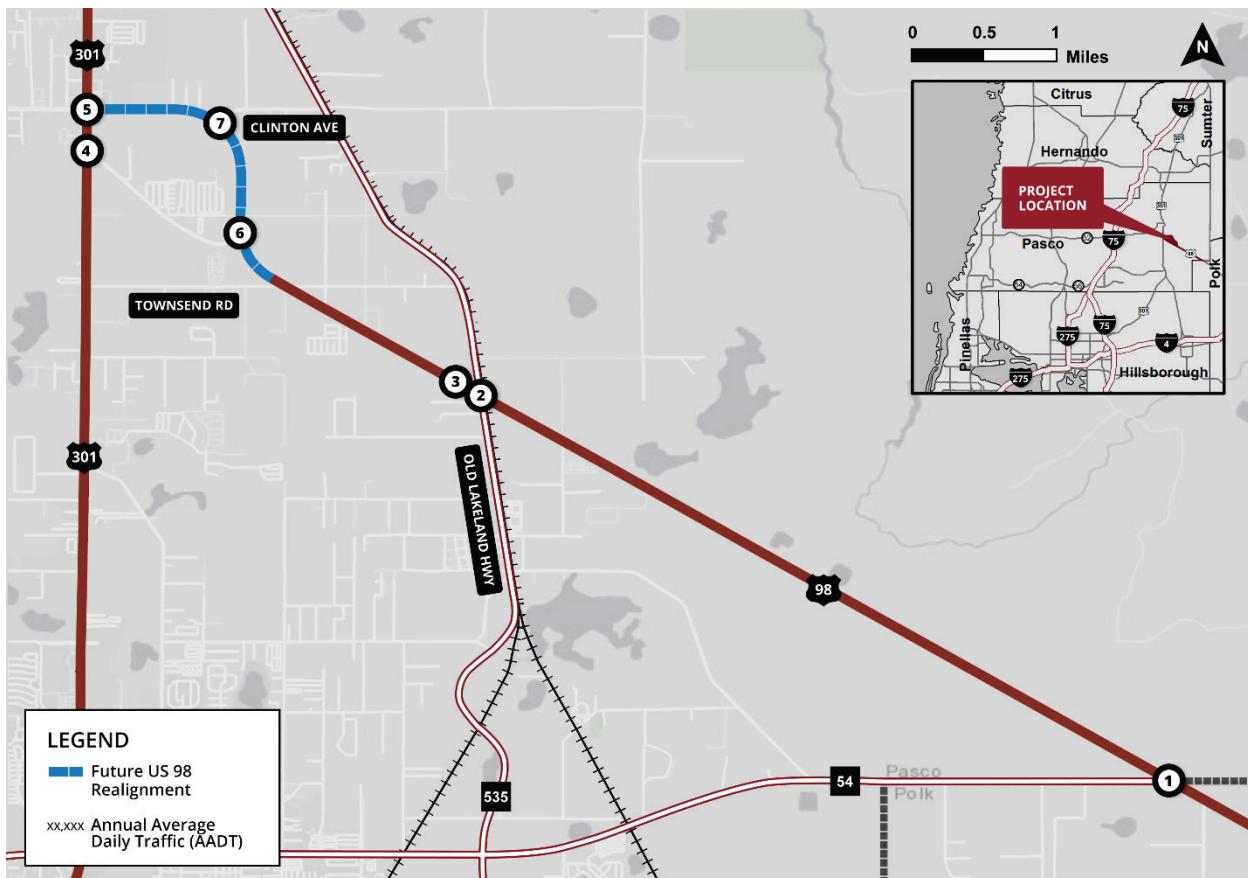


Figure 5: Design Year (2045) Build AADTs

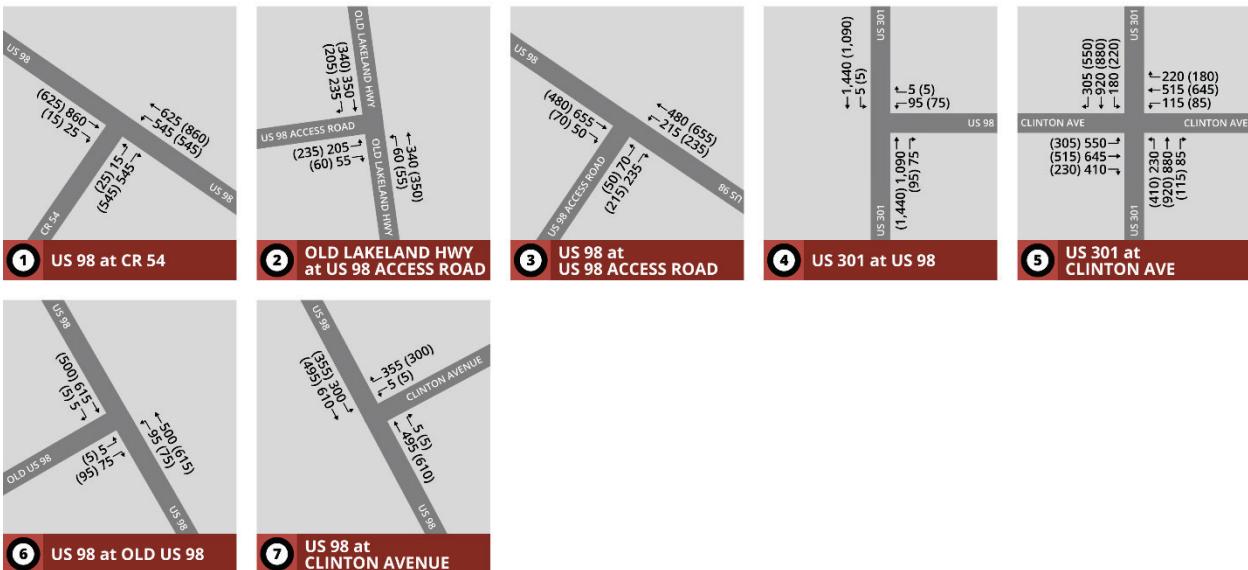
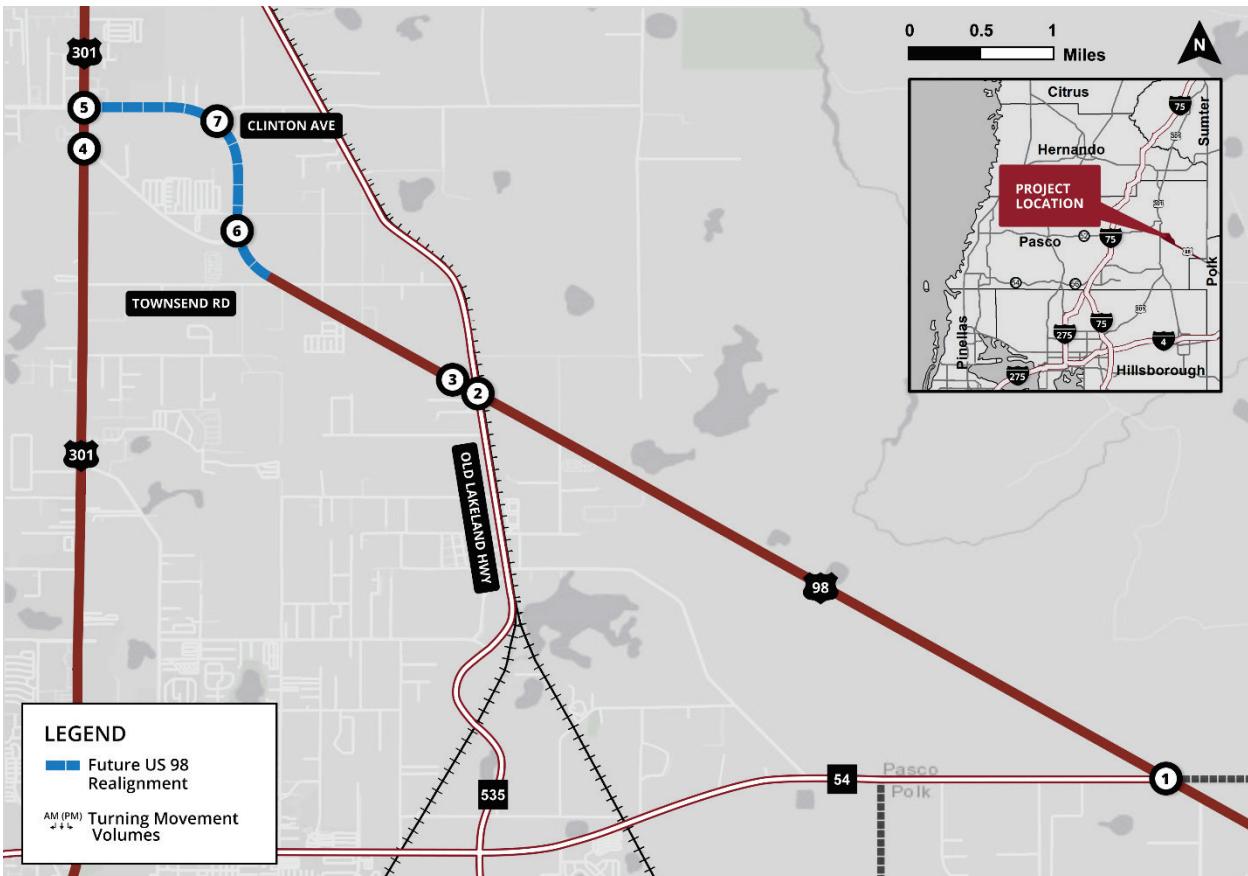


Figure 6: Design Year (2045) Build Turning Movement Volumes

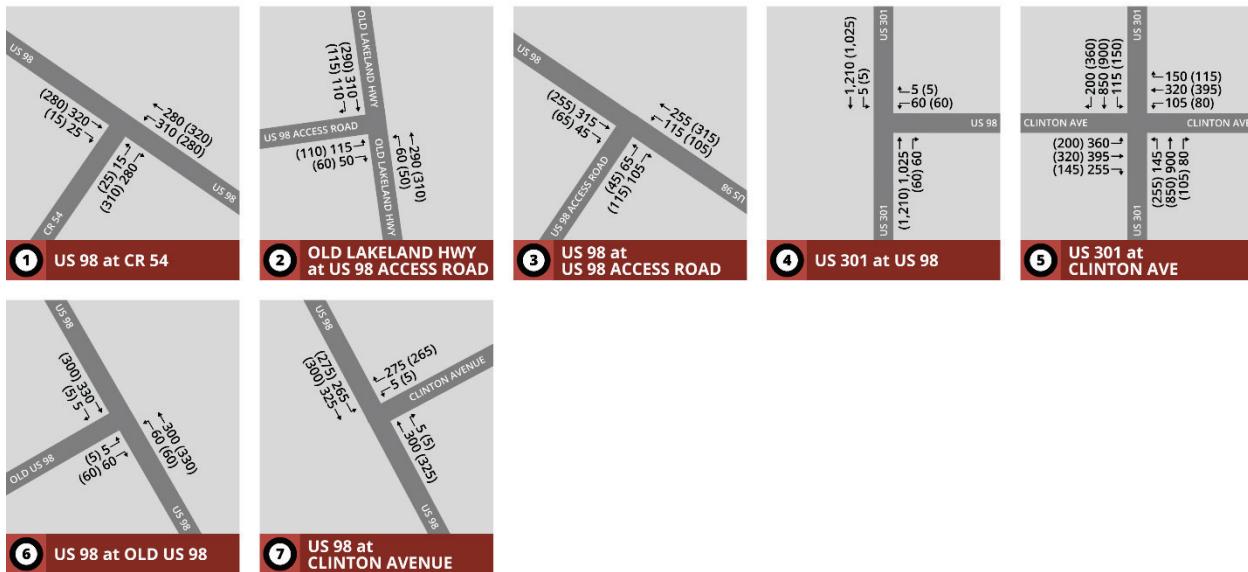
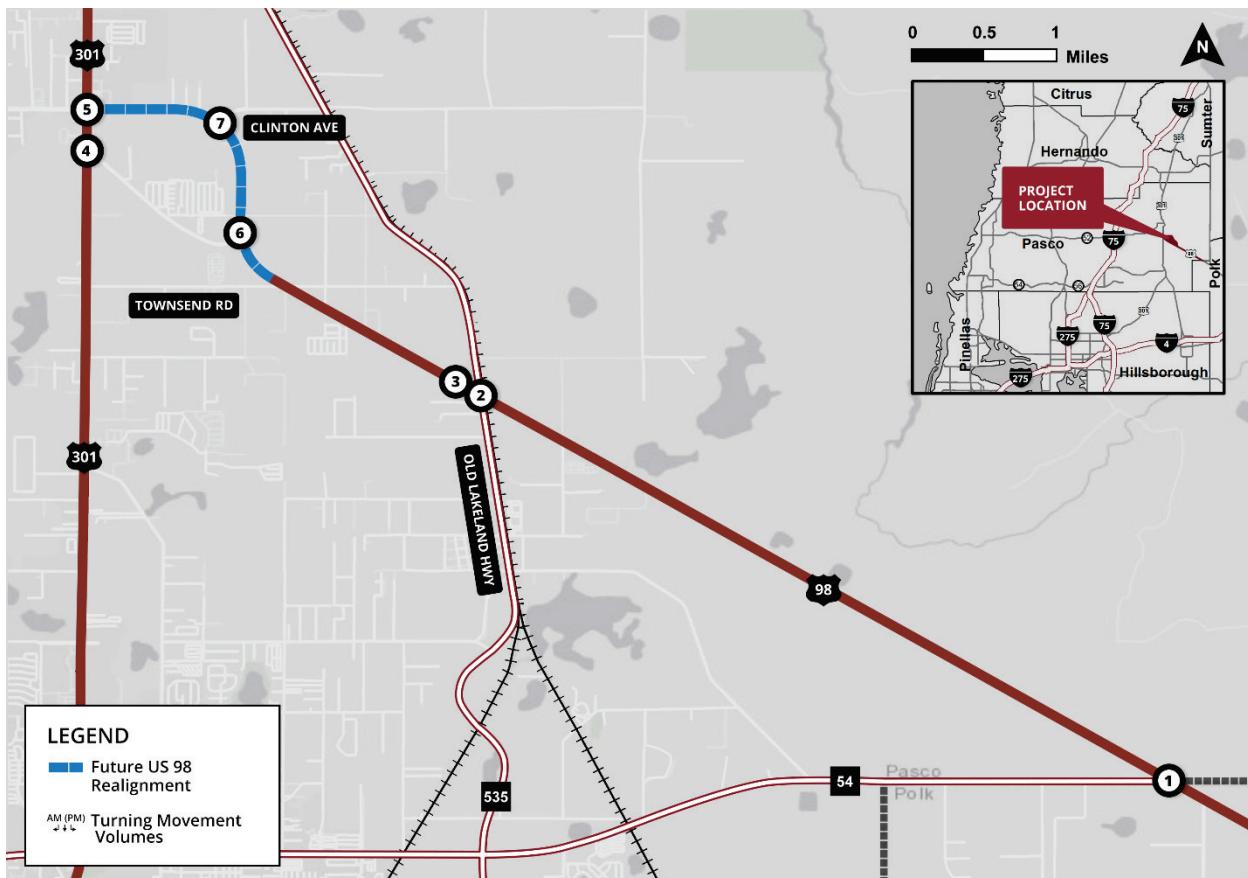


Figure 7: Opening Year (2025) Build Turning Movement Volumes

Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	445	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	60	204	260	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	0	478	0	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	0	515	74	0	38	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	0	45	0	0	0	0	153	0	0	88	268	125
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	155	0	0	90	270	130	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	435	5	0	265	610	0	75	0	0	0	0	5	0	275	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not affect cross street).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	51	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	0	143	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	55	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	0	145	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	39	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	0	60	0	5	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	5	60	0	40	5	45	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	0	5	0	265	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 301 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	245	765	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	159	0	0	0	0	531	15	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	19	0	33	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	547	42	0	24	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	65	0	0	6	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	20	0	35	0	10	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	50	0	0	0	0	165	0	0	70	295	125	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,395	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	360	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	119	0	230	920	305	0	550	810	410	0	185	810	345	0
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 301 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	0	5	0	300	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	20%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	0	1	35	0	36	0	9	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	45	0	45	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	0	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	38	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	142	0	0	0	0	332	0	0	38	286	80	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	145	0	0	0	0	335	0	0	40	290	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,450	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

Notes:
 1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).
 2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
 3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area (i.e. these trips will affect the mainline traffic but NOT add traffic to cross streets).
 4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).
 5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the SBL direction will affect ALL intersections South of the neighborhood).
 6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.
 7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the off-street to access SBL from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
 8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the interaction at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix D

ICE Stage 1 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.

Project Name	US 98 PD&E Studies - US 98 at Clinton Avenue		FDOT Project #	443368-2-22-01	
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Date 5/5/2022
Email	jsamus@hwlochner.com		FDOT District	District 7	County Pasco
Project Locality (City/Town/Village)		Dade City			
Intersection Type	At-Grade Intersection		FDOT Context Classification	C3R - Suburban Residential	
Project Funding Source	Federal		Project Type	Corridor Improvement Project	
Project Purpose <i>(What is the catalyst for this project and why is it being undertaken?)</i>	The primary purpose of this project is to evaluate the realignment of US 98 at US 301 at US 98 and Clinton Avenue to enhance safety and provide system linkage/regional connectivity. An additional goal of this project is to address transportation demand, which may result in improvements to several intersections in the project study area surrounding the US 98 study corridor.				
Project Setting Description <i>(Describe the area surrounding the intersection)</i>	The area around the intersection is minimally developed. However, in the future the surrounding area will be developed into a more suburban area.				
Multimodal Context <i>(Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns)</i>	Due to the intersection of US 98 at Clinton Avenue being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.				

Major Street Information						
Route #:	98	Route Name(s)	US 98		Milepost	N/A
Existing Control Type	None/New Intersection		Existing AADT		Design Year AADT	31,600
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)		
Primary Functional Classification		Urban Principal Arterial - Other			Design Speed (mph)	55
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]	
Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along	Neither side of the approach	Left-Turn	0		
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	
	On-Street Bike Facilities?	No	Through	2	Weekday PM Peak	
	Multi-Use Path?	No	Left-Through-Right	0	Through	930
	Scheduled Bus Service?	No	Through-Right	0	Right	5
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %	
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along:	Neither side of the approach	Left-Turn	1		
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	
	On-Street Bike Facilities?	No	Through	2	Left	375
	Multi-Use Path?	No	Left-Through-Right	0	Through	895
	Scheduled Bus Service?	No	Through-Right	0	Right	5
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	

Minor Street Information							
Route #:	Route Name(s)	Clinton Avenue			Milepost (if app.)		
Existing Control Type	None/New Intersection	Existing AADT		Design Year AADT	7,400		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)	Control Vehicle	Florida Interstate Semitrailer (WB-62FL)				
Primary Functional Classification		Urban Major Collector			Design Speed (mph)	45	
Secondary Functional Classification (if app.)				Target Speed (mph) [if app.]			
Approach #1	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	1			
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	5	Left
	Multi-Use Path?	No	Left-Through-Right	0	Through	0	Through
	Scheduled Bus Service?	No	Through-Right	0	Right	355	Right
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %	3.0%	
Approach #2	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn	0			
	Crosswalk on Approach?		Left-Through	0	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?		Through	0	Left		Left
	Multi-Use Path?		Left-Through-Right	0	Through		Through
	Scheduled Bus Service?		Through-Right	0	Right		Right
	Bus Stop on Approach?		Right-Turn	0	Daily Truck %		
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn				
	Crosswalk on Approach?		Left-Through		Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left		Left
	Multi-Use Path?		Left-Through-Right		Through		Through
	Scheduled Bus Service?		Through-Right		Right		Right
	Bus Stop on Approach?		Right-Turn		Daily Truck %		

Crash History (Existing Intersections Only)

Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

Existing crash data is not available at this location.

Control Strategy Evaluation									
Control Strategy	CAP-X Outputs			SPICE Outputs		Strategy to Be Advanced?	Justification		
	V/C Ratio		Multimodal Score	Crash Prediction Rank	SSI Rank				
	Weekday AM Peak	Weekday PM Peak							
Two-Way Stop-Controlled	0.72	1.53	5.6	2	3	Yes	Does not meet V/C necessary for intersection, but will be advanced as baseline criteria for comparisons in ICE Stage 2.		
All-Way Stop-Controlled									
Signalized Control	0.60	0.62	7.2	1	2	Yes	Advanced as current preferred strategy. Best operational characteristics and comparable safety characteristics.		
Roundabout	0.66	0.62	8.3	3	1	Yes	Advanced as second preferred strategy. Second best operational characteristics.		
Median U-Turn									
RCUT (Signalized)									
RCUT (Unsignalized)									
Jughandle									
Displaced Left-Turn									
Continuous Green Tee									
Quadrant Roadway									
Thru-Cut									
Other 1 (Type)									
Other 2 (Type)									

Resolution					
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>					
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2				
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Appendix E

CAP-X – AM Peak Hour

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Clinton Ave
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 AM
Number of Intersection Legs:	3
Which leg is the minor street?	E

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	2.00%	0.00%
Westbound	0	5	0	355	3.00%	0.00%
Southbound	75	300	895	0	8.00%	0.00%
Northbound	0	0	930	5	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C2-Rural				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Clinton Ave											
Project Number:	443368-2											
Location:	Dade City, FL											
Date:	2045 AM											
Analysis Type:	At-Grade Intersections and Interchanges											

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	0	2	1	/	1	2	0	/	0	0	0	/	1	0	1
Two-Way Stop Control	N-S	/	0	2	1	/	1	2	0	/	0	0	0	/	1	0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix F

CAP-X – PM Peak Hour

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Clinton Ave
Project Number:	443368-2
Location:	Tampa, FL
Date:	2045 PM
Number of Intersection Legs:	3
Which leg is the minor street?	E

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	0	0	0	2.00%	0.00%
Westbound	0	5	0	300	3.00%	0.00%
Southbound	55	355	1010	0	8.00%	0.00%
Northbound	0	0	1055	5	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C2-Rural				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Clinton Ave											
Project Number:	443368-2											
Location:	Tampa, FL											
Date:	2045 PM											
Analysis Type:	At-Grade Intersections and Interchanges											

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	0	2	1	/	1	2	0	/	1	0	1	/	1	0	1
Two-Way Stop Control	N-S	/	0	2	1	/	1	2	0	/	1	0	1	/	1	0	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix G

SPICE

Federal Highway Administration (FHWA) Safety Performance for Intersection Control Evaluation Tool										
Results										
Summary of crash prediction results for each alternative										
Project Information										
Project Name:	US 98 PD&E	Intersection Type				At-Grade Intersections				
Intersection:	US 98 at Clinton Avenue (Build Only)	Opening Year				2025				
Agency:	FDOT	Design Year				2045				
Project Reference:	FPID 443368-2-22-01	Facility Type				On Urban and Suburban Arterial				
City:	Dade City	Number of Legs				3-leg				
State:	Florida	1-Way/2-Way				2-way Intersecting 2-way				
Date:	4/29/2022	# of Major Street Lanes (both directions)				5 or fewer				
Analyst:	Lochner	Major Street Approach Speed				55+ mph				
Crash Prediction Summary										
Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score		
								Open Year	Design Year	Rank
Traffic Signal	Total	4.14	4.76	93.48	1	Yes	Uncalibrated SPF	51	40	2
	Fatal & Injury	1.56	1.88	36.18						
Minor Road Stop	Total	6.92	8.81	165.18	2	Yes	Calibrated SPF	32	22	3
	Fatal & Injury	1.76	2.11	40.73						
2-lane Roundabout	Total	9.28	11.96	222.86	3	No	Uncalibrated SPF	81	77	1
	Fatal & Injury	1.75	2.37	43.20						

Appendix H

ICE Stage 2 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 2: Initial Control Strategy Assessment

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 2 (Intersection Control Strategy) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval.

Project Name	US 98 PD&E Studies - US 98 at Clinton Avenue		FDOT Project #	443368-2-22-01		Date	05/05/22
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Email	jsamus@hwlochner.com	
List all viable intersection control strategies identified in Stage 1 (Screening):							
Two-Way Stop-Controlled		Signalized Control			Roundabout		

Operational Analyses									
Summarize the results of the peak hour analysis performed for each control strategy. Select analysis year based on guidance in the ICE procedures document. Refer to Exhibit 19-8 of the <i>Highway Capacity Manual, 6th Edition</i> (HCM6) to determine the appropriate LOS based on intersection delay (hover over this cell for Exhibit 19-8).									
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)			Control Vehicle	Florida Interstate Semitrailer (WB-62FL)				
Opening Year	2025								
Control Strategy	Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour
	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?
Two-Way Stop-Controlled	C	17.0	Yes	C	17.2	Yes			
Signalized Control	B	18.5	Yes	C	22.5	Yes			
Roundabout	A	8.2	Yes	A	8.6	Yes			
Design Year	2045								
Control Strategy	Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour
	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?
Two-Way Stop-Controlled	F	192.6	No	F	165.6	No			
Signalized Control	C	26.9	Yes	C	29.1	Yes			
Roundabout	B	12.0	Yes	B	13.2	Yes			
Provide any additional discussion necessary regarding the results of the operational analysis:	LOS and Delay for critical approach are shown for Two-Way Stop-Controlled strategy.								

Safety Performance						
Enter the most recent five (5) years of crash data from the CAR System.				Most recent year of crash data available		
Crash Type						Total
Combined	Total					
	Fatal/Injury					
	PDO					
Single-Vehicle	Total					
	Fatal/Injury					
	PDO					
Multi-Vehicle	Total					
	Fatal/Injury					
	PDO					
Vehicle-Pedestrian	Fatal/Injury					
Vehicle-Bicycle	Fatal/Injury					
Total	All					

Apply the FDOT SPICE Tool to model anticipated safety performance of each control strategy. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE procedures document or qualitatively describe anticipated safety impacts.

Control Strategy	Anticipated Impact on Safety Performance	Opening Year			Design Year		
		Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score
Two-Way Stop-Controlled	Crash Prediction Rank 2, SSI Score Rank 3	6.92	1.76	32	8.81	2.11	22
Signalized Control	Crash Prediction Rank 1, SSI Score Rank 2	4.14	1.56	51	4.76	1.88	40
Roundabout	Crash Prediction Rank 3, SSI Score Rank 1	9.28	1.75	81	11.96	2.37	77

Costs and Benefit/Cost Ratios						
Control Strategy	ROW Costs (\$)	Construction Costs (\$)	FDOT ICE Tool Outputs			
			Delay B/C	Safety B/C	Overall B/C	Net Present Value
Two-Way Stop-Controlled	\$457,248	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$457,248	\$1,725,579	115.71	2.18	117.89	\$70,793,543
Roundabout	\$457,248	\$1,544,437	216.95	N/A	121.69	\$82,746,022

Multimodal Accommodations								
Peak Hour:	Weekday AM Peak		Weekday PM Peak				Activity Level	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Ped.	Bicycles
# of ped. crossings (both approaches, if app.):	N/A	N/A	N/A	N/A			Low	Low
# of cyclists (both approaches, if app.):	N/A	N/A	N/A	N/A				

Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:

Control Strategy	Pedestrians and Bicyclists	Transit Services	Freight Needs
Two-Way Stop-Controlled	Pedestrians crossing the minor street have right-of-way; lack protections for pedestrians across major street	No Existing Transit Facilities near the intersection.	N/A
Signalized Control	Pedestrian phases can be built into the signal timing to allow for permissive pedestrian crossings	No Existing Transit Facilities near the intersection. No change from existing	N/A
Roundabout	Pedestrian crossings are located only across the legs of the roundabout	No Existing Transit Facilities near the intersection.	N/A

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (including relocation) impacts specific to each control strategy. Be sure to consider the NEPA requirements for each control type.	
Two-Way Stop-Controlled	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Signalized Control	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Roundabout	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.

Public Input/Feedback (if appropriate)
Summarize any agency or public input regarding the control strategies:
A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. No public concerns or comments are proposed for the intersection of US 98 and Crossroads.

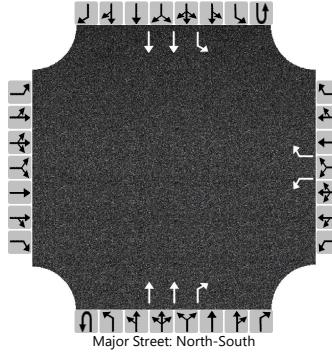
Control Strategy Evaluation		
Provide a brief justification as to why each of the following is either viable or not viable. If a single control strategy is recommended, select it as the only strategy to be advanced.		
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	No	This control strategy has the lowest anticipated construction costs. It provides best operational benefits. However, the safety performance is the worst among the three strategies. Overall, the net present value of improvement is better than signalized control but worse than roundabout.
Signalized Control	No	This control strategy has the highest anticipated construction and ROW cost and provides the least operational and safety benefits.
Roundabout	Yes	This control strategy has moderate anticipated construction cost and operational benefits among the three strategies. However, it provides best safety benefits, which makes it have most net present value of improvements.

Resolution				
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>				
Project Determination	Identified Control Strategy Approved			
Comments				
DTOE Name		Signature		Date
DDE Name		Signature		Date

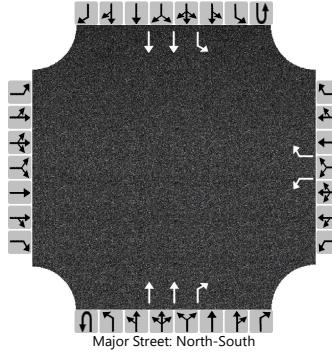
Appendix I

HCS 7 Reports – Stage 2

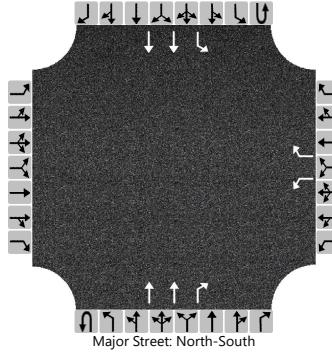
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			US 98 at Clinton Avenue																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/24/2021			East/West Street			Clinton Avenue																													
Analysis Year	2025			North/South Street			US 98																													
Time Analyzed	7:30 - 8:30 AM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	10	11	12		7	8	9		1U	1	2	3	4U																							
Number of Lanes	0	0	0		1	0	1		0	0	2	1	0																							
Configuration					L		R				T	R	L																							
Volume (veh/h)					5		275				735	5	75																							
Percent Heavy Vehicles (%)					3		3					8	8																							
Proportion Time Blocked																																				
Percent Grade (%)					0																															
Right Turn Channelized					No				Yes																											
Median Type Storage	Left Only								1																											
Critical and Follow-up Headways																																				
Base Critical Headway (sec)					7.5		6.9					6.4	4.1																							
Critical Headway (sec)					6.86		6.96					6.56	4.26																							
Base Follow-Up Headway (sec)					3.5		3.3					2.5	2.2																							
Follow-Up Headway (sec)					3.53		3.33					2.58	2.28																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)					5		289					358																								
Capacity, c (veh/h)					75		609					520																								
v/c Ratio					0.07		0.48					0.69																								
95% Queue Length, Q ₉₅ (veh)					0.2		2.7					6.1																								
Control Delay (s/veh)					56.4		16.2					26.8																								
Level of Service (LOS)					F		C					D																								
Approach Delay (s/veh)	17.0								9.6																											
Approach LOS	C																																			

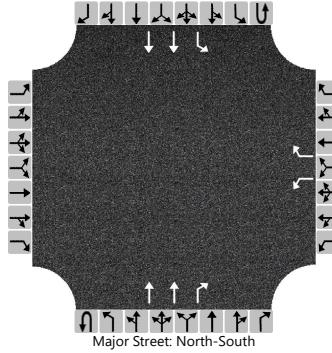
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			US 98 at Clinton Avenue																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/24/2021			East/West Street			Clinton Avenue																													
Analysis Year	2025			North/South Street			US 98																													
Time Analyzed	4:45 - 5:45 PM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	10	11	12		7	8	9		1U	1	2	3	4U																							
Number of Lanes	0	0	0		1	0	1		0	0	2	1	0																							
Configuration					L		R				T	R	L																							
Volume (veh/h)					5		265				770	5	55																							
Percent Heavy Vehicles (%)					3		3					8	8																							
Proportion Time Blocked																																				
Percent Grade (%)					0																															
Right Turn Channelized					No				Yes																											
Median Type Storage	Left Only								1																											
Critical and Follow-up Headways																																				
Base Critical Headway (sec)					7.5		6.9					6.4	4.1																							
Critical Headway (sec)					6.86		6.96					6.56	4.26																							
Base Follow-Up Headway (sec)					3.5		3.3					2.5	2.2																							
Follow-Up Headway (sec)					3.53		3.33					2.58	2.28																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)					5		279					347																								
Capacity, c (veh/h)					78		592					547																								
v/c Ratio					0.07		0.47					0.63																								
95% Queue Length, Q ₉₅ (veh)					0.2		2.6					5.0																								
Control Delay (s/veh)					54.6		16.5					22.8																								
Level of Service (LOS)					F		C					C																								
Approach Delay (s/veh)	17.2								6.6																											
Approach LOS	C																																			

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			US 98 at Clinton Avenue																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/24/2021			East/West Street			Clinton Avenue																													
Analysis Year	2045			North/South Street			US 98																													
Time Analyzed	7:30 - 8:30 AM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	10	11	12		7	8	9		1U	1	2	3	4U																							
Number of Lanes	0	0	0		1	0	1		0	0	2	1	0																							
Configuration					L		R				T	R	L																							
Volume (veh/h)					5		355				930	5	75																							
Percent Heavy Vehicles (%)					3		3					8	8																							
Proportion Time Blocked																																				
Percent Grade (%)					0																															
Right Turn Channelized					No				Yes																											
Median Type Storage	Left Only								1																											
Critical and Follow-up Headways																																				
Base Critical Headway (sec)					7.5		6.9					6.4	4.1																							
Critical Headway (sec)					6.86		6.96					6.56	4.26																							
Base Follow-Up Headway (sec)					3.5		3.3					2.5	2.2																							
Follow-Up Headway (sec)					3.53		3.33					2.58	2.28																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)					5		374					395																								
Capacity, c (veh/h)						522						297																								
v/c Ratio						0.72						1.33																								
95% Queue Length, Q ₉₅ (veh)						6.9						58.8																								
Control Delay (s/veh)						28.8						652.1																								
Level of Service (LOS)					D							F																								
Approach Delay (s/veh)									192.6																											
Approach LOS																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	Nashid Sharmin			Intersection			US 98 at Clinton Avenue																													
Agency/Co.	H.W. Lochner Inc.			Jurisdiction			FDOT D7																													
Date Performed	5/24/2021			East/West Street			Clinton Avenue																													
Analysis Year	2045			North/South Street			US 98																													
Time Analyzed	4:45 - 5:45 PM			Peak Hour Factor			0.95																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			1.00																													
Project Description	US 98 PD&E Studies																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	10	11	12		7	8	9		1U	1	2	3	4U																							
Number of Lanes	0	0	0		1	0	1		0	0	2	1	0																							
Configuration					L		R				T	R	L																							
Volume (veh/h)					5		300				1055	5	55																							
Percent Heavy Vehicles (%)					3		3					8	8																							
Proportion Time Blocked																																				
Percent Grade (%)					0																															
Right Turn Channelized					No				Yes																											
Median Type Storage	Left Only								1																											
Critical and Follow-up Headways																																				
Base Critical Headway (sec)					7.5		6.9					6.4	4.1																							
Critical Headway (sec)					6.86		6.96					6.56	4.26																							
Base Follow-Up Headway (sec)					3.5		3.3					2.5	2.2																							
Follow-Up Headway (sec)					3.53		3.33					2.58	2.28																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)					5		316					432																								
Capacity, c (veh/h)					473							336																								
v/c Ratio					0.67							1.29																								
95% Queue Length, Q ₉₅ (veh)					5.6							58.9																								
Control Delay (s/veh)					27.6							573.4																								
Level of Service (LOS)					D							F																								
Approach Delay (s/veh)									165.6																											
Approach LOS																																				

Appendix J

Synchro Reports – Stage 2

HCM 6th Signalized Intersection Summary
9: US 98 & Clinton Ave

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT						
Lane Configurations													
Traffic Volume (veh/h)	5	275	735	5	75	265	610						
Future Volume (veh/h)	5	275	735	5	75	265	610						
Initial Q (Q _b), veh	0	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00								
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No		No			No							
Adj Sat Flow, veh/h/ln	1856	1856	1781	1781	1781	1781							
Adj Flow Rate, veh/h	5	289	774	0	279	642							
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95							
Percent Heavy Veh, %	3	3	8	8	8	8							
Cap, veh/h	385	343	1978		539	2436							
Arrive On Green	0.22	0.22	0.58	0.00	0.10	0.72							
Sat Flow, veh/h	1767	1572	3474	1510	1697	3474							
Grp Volume(v), veh/h	5	289	774	0	279	642							
Grp Sat Flow(s), veh/h/ln	1767	1572	1692	1510	1697	1692							
Q Serve(g_s), s	0.3	22.5	15.8	0.0	7.4	8.4							
Cycle Q Clear(g_c), s	0.3	22.5	15.8	0.0	7.4	8.4							
Prop In Lane	1.00	1.00		1.00	1.00								
Lane Grp Cap(c), veh/h	385	343	1978		539	2436							
V/C Ratio(X)	0.01	0.84	0.39		0.52	0.26							
Avail Cap(c_a), veh/h	415	369	1978		853	2436							
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00							
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00							
Uniform Delay (d), s/veh	39.2	47.9	14.3	0.0	8.8	6.2							
Incr Delay (d2), s/veh	0.0	15.4	0.6	0.0	0.8	0.3							
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0							
%ile BackOfQ(95%), veh/ln	0.2	15.2	9.4	0.0	4.1	4.4							
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	39.2	63.3	14.9	0.0	9.6	6.5							
LnGrp LOS	D	E	B		A	A							
Approach Vol, veh/h	294		774	A		921							
Approach Delay, s/veh	62.9		14.9			7.4							
Approach LOS	E		B			A							
Timer - Assigned Phs	1	2		4		6							
Phs Duration (G+Y+R _c), s	17.3	78.7		31.9	96.0								
Change Period (Y+R _c), s	7.1	7.1		7.1	7.1								
Max Green Setting (Gmax), s	33.9	47.9		26.9	88.9								
Max Q Clear Time (g_c+l1), s	9.4	17.8		24.5	10.4								
Green Ext Time (p_c), s	0.7	5.0		0.2	4.2								
Intersection Summary													
HCM 6th Ctrl Delay		18.5											
HCM 6th LOS		B											
Notes													
User approved ignoring U-Turning movement.													
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.													

HCM 6th Signalized Intersection Summary
9: US 98 & Clinton Ave

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	5	265	770	5	55	275	815
Future Volume (veh/h)	5	265	770	5	55	275	815
Initial Q (Q _b), veh	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1781	1781		1781	1781
Adj Flow Rate, veh/h	5	279	811	0		289	858
Peak Hour Factor	0.95	0.95	0.95	0.95		0.95	0.95
Percent Heavy Veh, %	3	3	8	8		8	8
Cap, veh/h	303	270	2203			554	2611
Arrive On Green	0.17	0.17	0.65	0.00		0.09	0.77
Sat Flow, veh/h	1767	1572	3474	1510		1697	3474
Grp Volume(v), veh/h	5	279	811	0		289	858
Grp Sat Flow(s), veh/h/ln	1767	1572	1692	1510		1697	1692
Q Serve(g_s), s	0.3	24.0	15.4	0.0		7.0	10.9
Cycle Q Clear(g_c), s	0.3	24.0	15.4	0.0		7.0	10.9
Prop In Lane	1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	303	270	2203			554	2611
V/C Ratio(X)	0.02	1.03	0.37			0.52	0.33
Avail Cap(c_a), veh/h	303	270	2203			919	2611
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00		1.00	1.00
Uniform Delay (d), s/veh	48.2	58.0	11.2	0.0		6.9	4.9
Incr Delay (d2), s/veh	0.0	64.2	0.5	0.0		0.8	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%), veh/ln	0.3	20.7	9.0	0.0		3.6	5.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d), s/veh	48.2	122.2	11.7	0.0		7.7	5.2
LnGrp LOS	D	F	B		A	A	
Approach Vol, veh/h	284		811	A		1147	
Approach Delay, s/veh	120.9		11.7			5.9	
Approach LOS	F		B			A	
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+R _c), s	16.9	95.1		28.0		112.0	
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1	
Max Green Setting (Gmax), s	39.9	57.9		20.9		104.9	
Max Q Clear Time (g_c+l1), s	9.0	17.4		26.0		12.9	
Green Ext Time (p_c), s	0.8	5.5		0.0		6.1	
Intersection Summary							
HCM 6th Ctrl Delay			22.5				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.							

HCM 6th Signalized Intersection Summary
9: US 98 & Clinton Ave

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	5	355	930	5	75	300	895
Future Volume (veh/h)	5	355	930	5	75	300	895
Initial Q (Q _b), veh	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1781	1781		1781	1781
Adj Flow Rate, veh/h	5	374	979	0		316	942
Peak Hour Factor	0.95	0.95	0.95	0.95		0.95	0.95
Percent Heavy Veh, %	3	3	8	8		8	8
Cap, veh/h	408	363	1898			462	2395
Arrive On Green	0.23	0.23	0.56	0.00		0.12	0.71
Sat Flow, veh/h	1767	1572	3474	1510		1697	3474
Grp Volume(v), veh/h	5	374	979	0		316	942
Grp Sat Flow(s), veh/h/ln	1767	1572	1692	1510		1697	1692
Q Serve(g_s), s	0.3	30.0	23.2	0.0		9.2	14.7
Cycle Q Clear(g_c), s	0.3	30.0	23.2	0.0		9.2	14.7
Prop In Lane	1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	408	363	1898			462	2395
V/C Ratio(X)	0.01	1.03	0.52			0.68	0.39
Avail Cap(c_a), veh/h	408	363	1898			747	2395
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00		1.00	1.00
Uniform Delay (d), s/veh	38.6	50.0	17.6	0.0		13.4	7.7
Incr Delay (d2), s/veh	0.0	55.3	1.0	0.0		1.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%), veh/ln	0.2	24.2	13.2	0.0		5.4	7.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d), s/veh	38.6	105.3	18.7	0.0		15.2	8.2
LnGrp LOS	D	F	B			B	A
Approach Vol, veh/h	379		979	A		1258	
Approach Delay, s/veh	104.5		18.7			9.9	
Approach LOS	F		B			A	
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+R _c), s	19.1	76.9		34.0		96.0	
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1	
Max Green Setting (Gmax), s	33.9	47.9		26.9		88.9	
Max Q Clear Time (g_c+l1), s	11.2	25.2		32.0		16.7	
Green Ext Time (p_c), s	0.9	6.3		0.0		6.9	
Intersection Summary							
HCM 6th Ctrl Delay			26.9				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.							

HCM 6th Signalized Intersection Summary
9: US 98 & Clinton Ave

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	5	300	1055	5	55	355	1010
Future Volume (veh/h)	5	300	1055	5	55	355	1010
Initial Q (Q _b), veh	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1781	1781		1781	
Adj Flow Rate, veh/h	5	316	1111	0		374	1063
Peak Hour Factor	0.95	0.95	0.95	0.95		0.95	0.95
Percent Heavy Veh, %	3	3	8	8		8	8
Cap, veh/h	303	270	2133		460	2611	
Arrive On Green	0.17	0.17	0.63	0.00	0.11	0.77	
Sat Flow, veh/h	1767	1572	3474	1510	1697	3474	
Grp Volume(v), veh/h	5	316	1111	0		374	1063
Grp Sat Flow(s), veh/h/ln	1767	1572	1692	1510		1697	1692
Q Serve(g_s), s	0.3	24.0	25.3	0.0		9.6	14.7
Cycle Q Clear(g_c), s	0.3	24.0	25.3	0.0		9.6	14.7
Prop In Lane	1.00	1.00		1.00	1.00		
Lane Grp Cap(c), veh/h	303	270	2133		460	2611	
V/C Ratio(X)	0.02	1.17	0.52		0.81	0.41	
Avail Cap(c_a), veh/h	303	270	2133		790	2611	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	48.2	58.0	14.3	0.0	16.1	5.3	
Incr Delay (d2), s/veh	0.0	109.6	0.9	0.0	3.5	0.5	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(95%), veh/ln	0.3	26.3	13.7	0.0	10.6	7.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d), s/veh	48.2	167.6	15.2	0.0	19.6	5.8	
LnGrp LOS	D	F	B		B	A	
Approach Vol, veh/h	321		1111	A		1437	
Approach Delay, s/veh	165.8		15.2			9.4	
Approach LOS	F		B			A	
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+R _c), s	19.8	92.2		28.0		112.0	
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1	
Max Green Setting (Gmax), s	39.9	57.9		20.9		104.9	
Max Q Clear Time (g_c+l1), s	11.6	27.3		26.0		16.7	
Green Ext Time (p_c), s	1.1	8.1		0.0		8.3	
Intersection Summary							
HCM 6th Ctrl Delay			29.1				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.							

Appendix K

Sidra Reports – Stage 2

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	735	8.0	774	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	38.3
18	R2	5	8.0	5	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	35.2
Approach		740	8.0	779	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	38.3
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	34.4
16	R2	275	3.0	289	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	33.7
Approach		280	3.0	295	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	33.7
North: Clinton Avenue														
7u	U	75	8.0	82	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	37.6
7	L2	265	8.0	279	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	35.3
4	T1	610	8.0	642	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	39.4
Approach		950	8.0	1003	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	38.0
All Vehicles		1970	7.3	2076	7.3	0.469	8.2	LOS A	2.4	61.9	0.34	0.31	0.39	37.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: I:\TPA\PRJ\000015360\ACER Study\TRAFFIC\B - Operational Analysis\5 - Build - Sidra Analysis\2025\US 98 at Clinton Avenue_2025.sip9

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	770	8.0	811	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	38.2
18	R2	5	8.0	5	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	35.1
Approach		775	8.0	816	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	38.2
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	34.5
16	R2	265	3.0	279	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	33.8
Approach		270	3.0	284	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	33.8
North: Clinton Avenue														
7u	U	55	8.0	60	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	37.6
7	L2	275	8.0	289	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	35.2
4	T1	815	8.0	858	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	38.6
Approach		1145	8.0	1207	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	37.7
All Vehicles		2190	7.4	2307	7.4	0.461	8.6	LOS A	2.9	76.1	0.32	0.28	0.37	37.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	930	8.0	979	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	36.6
18	R2	5	8.0	5	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	33.7
Approach		935	8.0	984	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	36.6
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	28.4
16	R2	355	3.0	374	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	27.9
Approach		360	3.0	379	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	28.0
North: Clinton Avenue														
7u	U	75	8.0	79	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	37.1
7	L2	300	8.0	316	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	34.7
4	T1	895	8.0	942	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	38.1
Approach		1270	8.0	1337	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	37.2
All Vehicles		2565	7.3	2700	7.3	0.726	12.0	LOS B	5.2	133.5	0.39	0.42	0.65	35.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	1055	8.0	1111	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	34.8
18	R2	5	8.0	5	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	32.2
Approach		1060	8.0	1116	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	34.8
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.7
16	R2	300	3.0	316	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.3
Approach		305	3.0	321	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.3
North: Clinton Avenue														
7u	U	55	8.0	58	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	36.5
7	L2	355	8.0	374	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	34.3
4	T1	1010	8.0	1063	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	37.5
Approach		1420	8.0	1495	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	36.6
All Vehicles		2785	7.5	2932	7.5	0.681	13.2	LOS B	6.5	174.1	0.41	0.47	0.73	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix L

Traffic Signal Warrant

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Dade City**
 County: **16 – Polk**
 District: **Seven**

Engineer: **Lochner**
 Date: **May 11, 2022**

Major Street: **US 98** Lanes: **4** Major Approach Speed: **55**
 Minor Street: **Clinton Ave** Lanes: **2** Minor Approach Speed: **45**

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? 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" MAY 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:
 only peak hour data is available

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

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
5:00 PM	1920	5

Criteria**1. Delay on Minor Approach
(vehicle-hours)**

Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	1.3	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

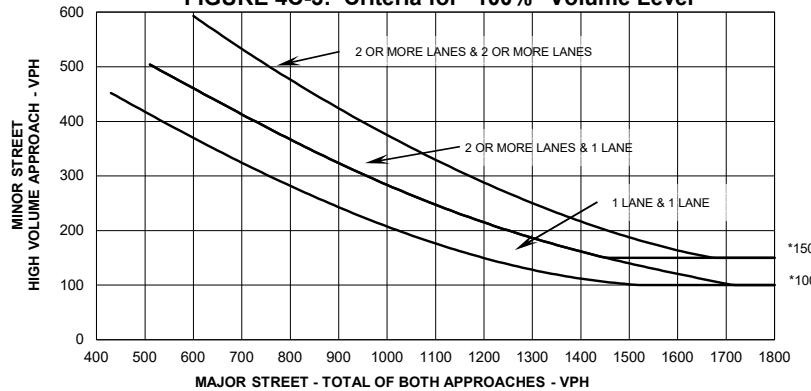
**2. Volume on Minor Approach
One-Direction *(vehicles per hour)**

Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	5	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**3. Total Intersection Entering
Volume *(vehicles per hour)**

No. of Approaches	3	4
Volume Criteria*	650	800
Volume*	2,190	
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

FIGURE 4C-3: Criteria for "100%" Volume Level

* 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.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr. (40 mph) on Major Street)



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

Appendix M

Long Range Estimation System Reports

Date: 6/24/2022 3:21:22 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO **Market Area:** 07 **Units:** English
Contract Class: 9 Lump Sum Project: N **Design/Build:** Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
--------------------------------	--------------

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
---------------------------------	--------------------

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

Sequence 5 Total \$85,353.29

Date: 6/24/2022 3:21:23 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01

Letting Date: 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 12 Project Grand Total \$1,287,718.71

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Project Sequences Subtotal	\$1,022,908.03
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102-1	Maintenance of Traffic	10.00 %	\$102,290.80
101-1	Mobilization	10.00 %	\$112,519.88

Project Sequences Total	\$1,237,718.71
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 12 Project Grand Total	\$1,287,718.71
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL**Version 15 Project Grand Total**

\$1,775,578.57

Description: SIGNALIZED INTERSECTION ALTERNATIVE**Sequence:** 1 NDS - New, Divided, Suburban (Urban In/Rural Out)**Net Length:** 0.057 MI
301 LF**Description:** NB 4-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction	Net Length: 0.00 MI 0 LF
Description: INTERSECTION PAVEMENT	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23	AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres				
120-1	REGULAR EXCAVATION	185.00	CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY				
120-6	EMBANKMENT	185.00	CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY				
Earthwork Component Total					\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00	SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.				
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00	SY	\$40.98	\$45,528.78
	Comment: Same comment				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00	TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons				
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00	TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons				
Roadway Component Total					\$78,237.66

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00 LF	\$15.56	\$12,448.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	\$30.07	\$6,014.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,131.15	\$5,131.15
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	2.00 EA	\$1,064.47	\$2,128.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$839.88	\$10,078.56
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,416.02	\$3,416.02
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$8.12	\$487.20
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$71,616.29	\$286,465.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$997.96	\$7,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$612.38	\$4,899.04
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	\$362.84	\$2,902.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	\$1,120.21	\$8,961.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$238.60	\$1,908.80
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$44,475.01	\$44,475.01
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$207.25	\$829.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$1,265.25	\$5,061.00
Comment: Signal for LT lanes in the NB and SB directions					
Signalizations Component Total					\$403,189.96

Sequence 5 Total	\$488,543.25
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 15 Project Grand Total	\$1,775,578.57
Description: SIGNALIZED INTERSECTION ALTERNATIVE	

Project Sequences Subtotal	\$1,426,097.99
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102-1	Maintenance of Traffic	10.00 %	\$142,609.80
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101-1	Mobilization	10.00 %	\$156,870.78
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Project Sequences Total	\$1,725,578.57
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 15 Project Grand Total	\$1,775,578.57
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Date: 6/24/2022 3:30:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 14 Project Grand Total **\$1,594,436.88**

Description: ROUNDABOUT ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31	CY	\$10.20	\$56,072.56
Earthwork Component Total					\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87	SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66	SY	\$40.46	\$80,258.88

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON					

EACH SIDE OF THE APPROACH. TOTAL FOR THIS
APPROACH = 250 FT

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
Median Component Total					\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20	1.00	AS	\$1,346.31	\$1,346.31

	SF			
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$12,228.81	\$12,228.81
Signing Component Total				\$19,699.29

Sequence 1 Total	\$347,274.28
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
Description: SB 4-LANE APPROACH 301 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31 CY	\$10.20	\$56,072.56
Earthwork Component Total				\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87 SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66 SY	\$40.46	\$80,258.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON EACH SIDE OF THE APPROACH. TOTAL FOR THIS APPROACH = 250 FT					

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
	Median Component Total				\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
	Drainage Component Total				\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81

Signing Component Total	\$19,699.29
Sequence 2 Total	\$347,274.28
Sequence: 3 NUR - New Construction, Undivided, Rural	Net Length: 0.057 MI 300 LF
Description: WB 2-LANE APPROACH	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50

Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT

520-5-16 TRAF SEP CONC-TYPE I, 8.5' WIDE 50.00 LF \$129.33 \$6,466.50
Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total**\$161,990.49****Sequence:** 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
	Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT				
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
	Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T

Rumble Strips 1/2 No. of Sides

0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total \$13,026.58**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total \$8,492.23**Sequence 4 Total** \$161,990.49**Sequence: 5 NDR - New Construction, Divided, Rural** **Net Length:** 0.057 MI

Description: Roundabout Central Island, includes landscaping and irrigation system

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$17,175.14	\$8,587.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	\$6.91	\$2,764.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				
120-6	EMBANKMENT	400.00	CY	\$10.20	\$4,080.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				

Earthwork Component Total	\$15,431.57
----------------------------------	--------------------

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	110

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,800.00	SY	\$8.46	\$15,228.00
	Comment: measure (22121-6175)SF /9 = 1772 SY use 1800 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	1,300.00	SY	\$40.46	\$52,598.00
	Comment: measure (22121-10477)SF /9 = 1294 SY use 1300 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	143.00	TN	\$95.81	\$13,700.83
	Comment: 2" Superpave Traffic C (1300 X 110 X 2)/2000				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-	72.00	TN	\$194.95	\$14,036.40

9.5,PG 76-22

Comment: 1" FC-9.5 Traffic C PG 76-22 (1300 X 110)/2000

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.05 GM	\$1,112.81	\$55.64
710-11-141	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"	0.02 GM	\$548.94	\$10.98
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	6.00 EA	\$29.54	\$177.24
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.07 GM	\$1,125.02	\$78.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total	\$95,885.84
-------------------------	-------------

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.25 AC	\$50.04	\$12.51
107-2	MOWING	0.25 AC	\$61.82	\$15.46

Shoulder Component Total	\$3,701.53
--------------------------	------------

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"	480.00	SY	\$154.80	\$74,304.00
520-2-4	CONCRETE CURB, TYPE D	280.00	LF	\$38.28	\$10,718.40
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$37.00	\$13,690.00
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.05	\$2,835.00
Median Component Total					\$101,547.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$324.56	\$1,298.24
Signing Component Total					\$1,298.24

LANDSCAPING COMPONENT**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	\$40,000.00
------------------------------------	--------------------

Sequence 5 Total	\$257,864.58
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Date: 6/24/2022 3:30:50 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 14 Project Grand Total	\$1,594,436.88
Description: ROUNDABOUT ALTERNATIVE	

Project Sequences Subtotal	\$1,276,394.12
-----------------------------------	-----------------------

102-1	Maintenance of Traffic	10.00 %	\$127,639.41
101-1	Mobilization	10.00 %	\$140,403.35

Project Sequences Total	\$1,544,436.88
--------------------------------	-----------------------

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
	Project Non-Bid Subtotal				\$50,000.00

Version 14 Project Grand Total **\$1,594,436.88**

Appendix N

ICE Tool – Stage 2

Outputs

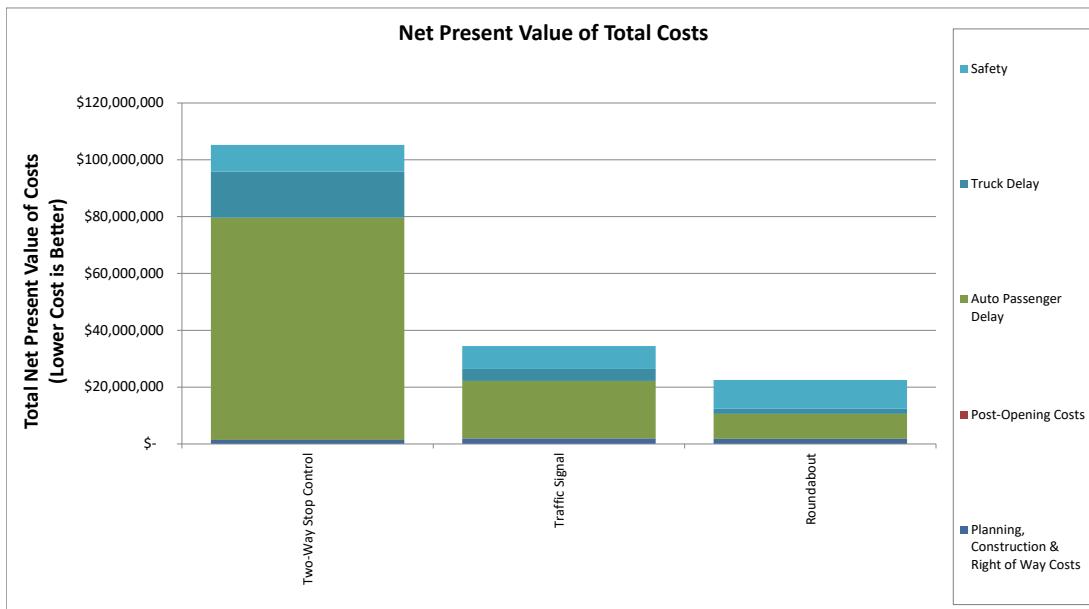
This sheet compiles the data from summary tables in individual alternatives sheets.
To populate the output sheet press the "Setup Worksheets" button in the
Alternatives_MasterList tab.

Agency:	Florida Department of Transportation
Project Name:	US 98 PD&E
Project Reference:	FPID 443368-2-22-01
Intersection:	US 98 at Clinton Avenue (Build Only)
City:	Dade City
State:	Florida
Performing Department or Organization:	H.W. Lochner
Date:	6/27/2022
Analyst:	Claire McGinnis
Analysis Type	At-Grade Intersection

Analysis Summary

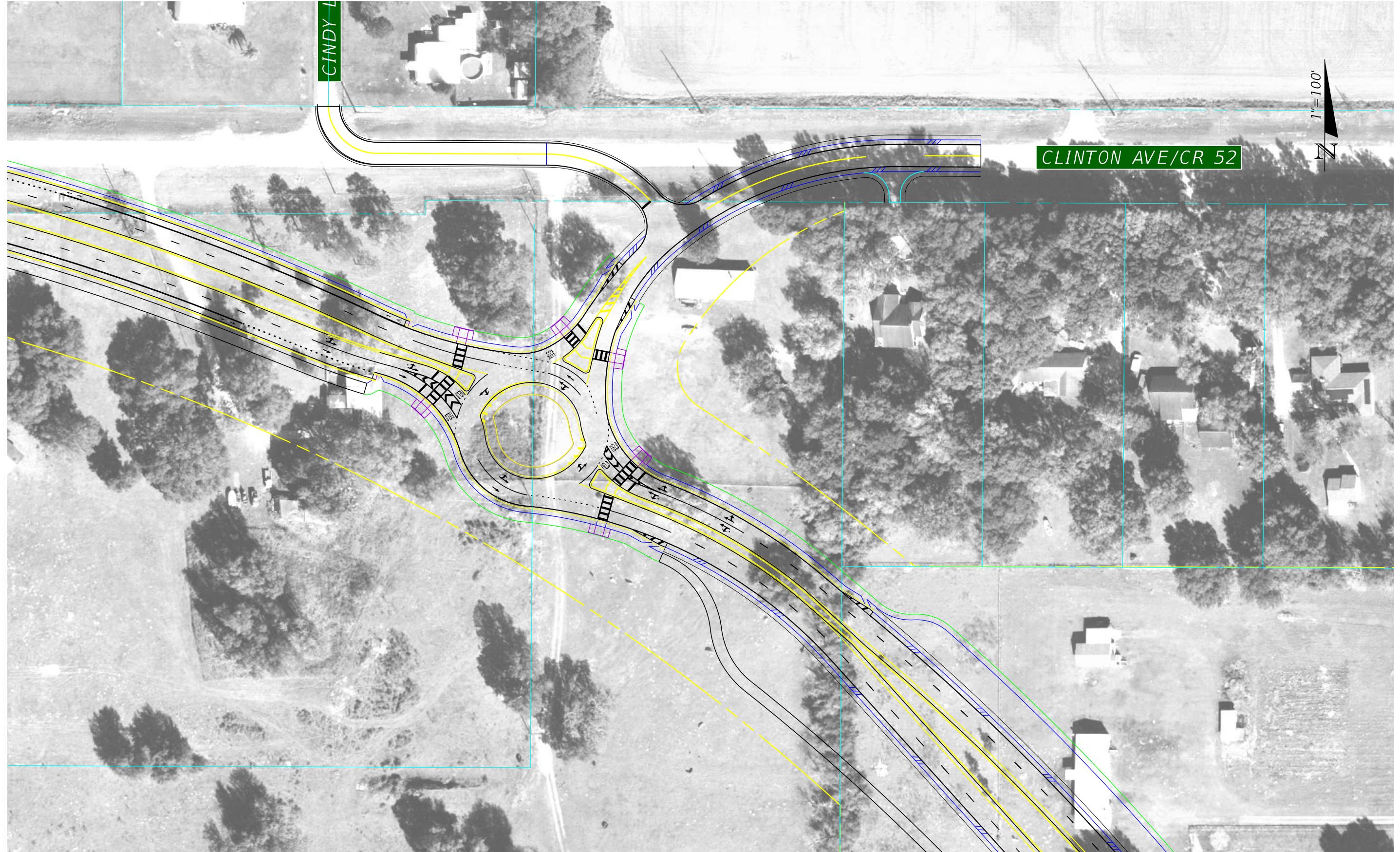
Cost Categories	Net Present Value of Costs			
	Two-Way Stop Control	Traffic Signal	Roundabout	
Planning, Construction & Right of Way Costs	\$ 1,415,809	\$ 1,937,819	\$ 1,743,997	
Post-Opening Costs	\$ 14,590	\$ 98,229	\$ 72,952	
Auto Passenger Delay	\$ 78,154,618	\$ 20,170,893	\$ 8,766,235	
Truck Delay	\$ 16,300,774	\$ 4,203,353	\$ 1,826,811	
Safety	\$ 9,357,723	\$ 8,039,677	\$ 10,087,497	
Total cost	\$105,243,514	\$34,449,971	\$22,497,492	

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Net Present Value of Benefits Relative to Base Case			
Benefit Categories	Two-Way Stop Control	Traffic Signal	Roundabout	
Auto Passenger Delay	\$ 57,983,725	\$ 69,388,383		
Truck Delay	\$ 12,097,421	\$ 14,473,963		
Safety	\$ 1,318,045	\$ (729,775)		
Net Present Value of Benefits	\$ 71,399,192	\$ 83,132,572		
Net Present Value of Costs	\$ 605,648	\$ 386,550		
Net Present Value of Improvement	\$ 70,793,543	\$ 82,746,022		
Benefit-Cost (B/C) Ratio	117.89	215.06		
Delay B/C	115.71	216.95		
Safety B/C		2.18	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	



Appendix O

Recommended ICE Concept



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	ROUNDABOUT CLINTON AVENUE CONNECTOR	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION						
					35/700	PASCO	443368-4-52-01		5

Intersection Control Evaluation Report

US 98 / State Road 35 / State Road 700 At Crossroads Intersection



Florida Department of Transportation

District 7

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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- Appendix B: US 98 PD&E Demand Volumes
- Appendix C: ITE Trip Generation Calculations
- Appendix D: ICE Stage 1 Forms
- Appendix E: CAP-X – 2045 AM Peak Hour
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- Appendix G: SPICE
- Appendix H: ICE Stage 2 Forms
- Appendix I: HCS 7 Reports – Stage 2
- Appendix J: Synchro Reports – Stage 2
- Appendix K: Sidra Reports – Stage 2
- Appendix L: Traffic Signal Warrant
- Appendix M: Long Range Estimation System Reports
- Appendix N: ICE Tool – Stage 2
- Appendix O: Recommended ICE Concept

1.0 Introduction

1.1 Project Overview

The Florida Department of Transportation (FDOT) District Seven is conducting the US 98 Project Development and Environment (PD&E) Study (WPI Segment No: 443368-2) to evaluate the need for widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to deemphasize the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. Additionally, significant development is planned along the proposed US 98 realignment that will have a significant impact on corridor operations. Conceptual plans for the proposed developments can be found in **Appendix A**. This document will analyze the proposed intersection at US 98 and Crossroads created by the US 98 realignment and associated Crossroads development. Improvements to this intersection will seek to minimize delay while also emphasizing safety. The intersection of US 98 at Crossroads within the context of the US 98 PD&E project location and study area is shown in **Figure 1.1**.

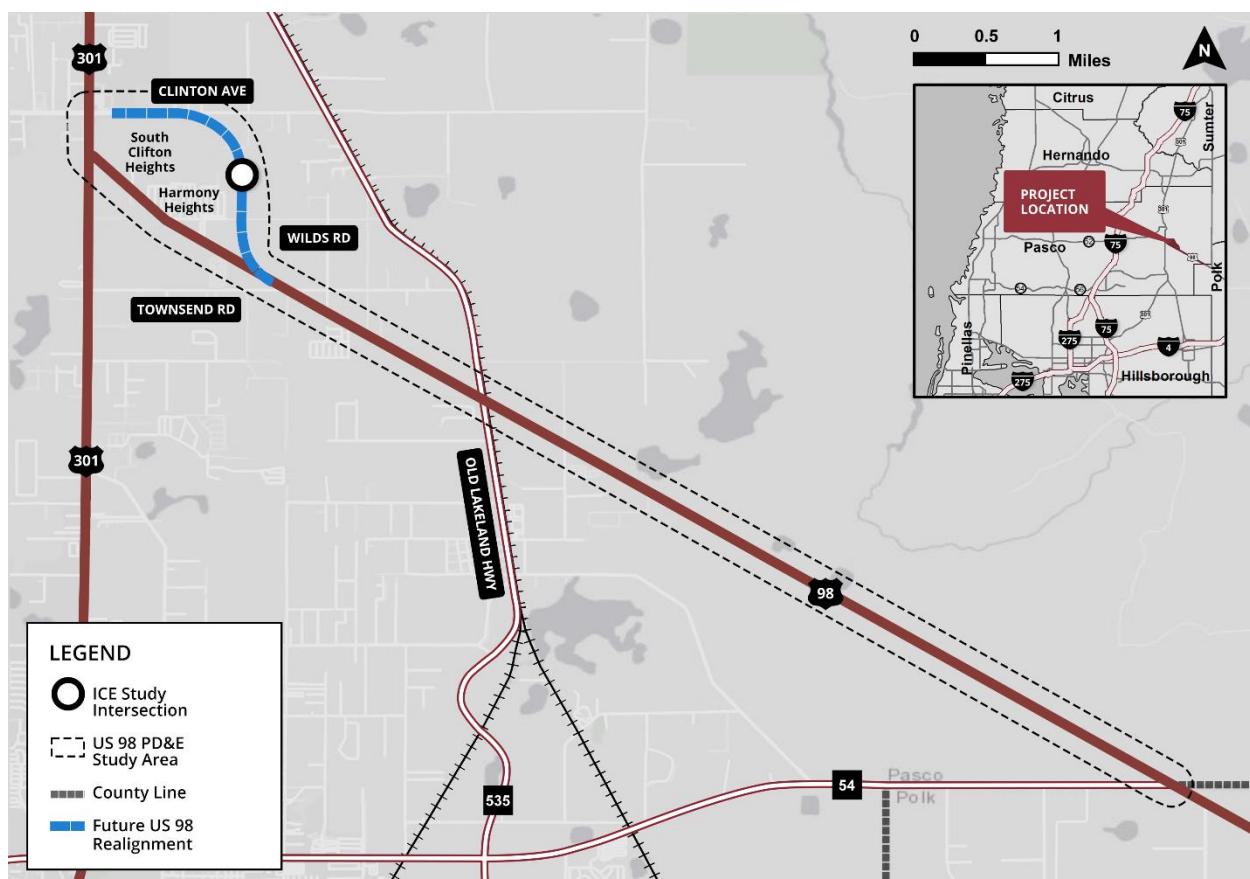


Figure 1.1: Study Intersection and Project Location Map

1.2 Intersection Control Evaluation Methodology

To assess the most appropriate intersection control to accompany the widening and realignment of US 98, an Intersection Control Evaluation (ICE) analysis, in accordance with the Florida Department of Transportation's (FDOT's) Manual on Intersection Control Evaluation (FDOT Topic Number 750-010-003) (2022), was requested. A Stage 1 ICE analysis will be conducted and if a single viable control cannot be determined, then a Stage 2 ICE analysis will be conducted.

All analysis will be conducted utilizing volumes and traffic factors from the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2). The analysis years for this study included an existing year (2019), opening year (2025), and a design year (2045). The US 98 PD&E Forecast Volumes and Institute of Transportation Engineers (ITE) Trip Generation associated with the proposed developments within the study area can be found in **Appendix B** and **Appendix C**, respectively. For use in this analysis, Turning Movement Volumes and Annual Average Daily Traffic counts at the US 98 and Crossroads intersection (ID number 8) for opening year (2025) and design year (2045) can be found in **Figure 1.2**. A conceptual roundabout design is used for reference. This analysis will utilize an observed daily truck percentage (T_{24}) of 15.2 percent and a design hour truck (DHT) percentage of 8.0 percent along US 98. A Highway Capacity Manual (HCM) default T_{24} of 4.0 percent and DHT of 2.0 percent were used along Crossroads.

Based upon the current context of US 98, coordination with FDOT District 7, and development plans along the corridor, only the following intersection controls will be considered during this ICE analysis:

- Two-way stop control;
- Signalization; and
- Two (2) lane Roundabout with one (1) lane on the minor approach (2x1 Roundabout)

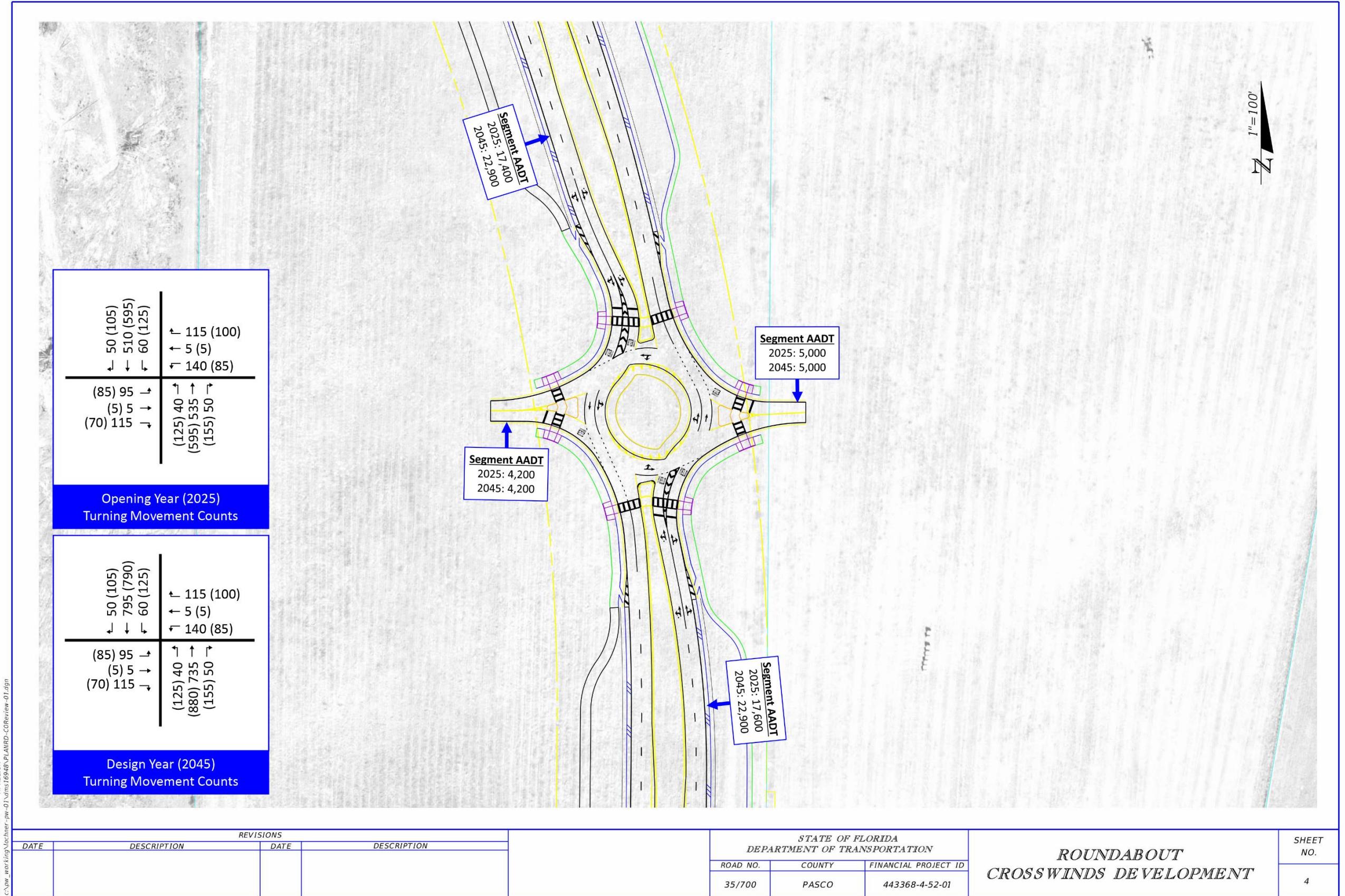


Figure 1.2: Opening Year (2025) Turning Movement Volumes

2.0 ICE Stage 1 Analysis

ICE Stage 1 in this analysis includes Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance of Intersection Control Evaluations (SPICE) rankings. The ICE Stage 1 forms can be found in **Appendix D**.

2.1 Capacity Analysis at Junctions (CAP-X)

The US 98 and Crossroads CAP-X analysis was conducted under the design year (2045) and assumes the widening and realignment of the US 98 corridor. Based on the demand at the intersection, along with the four lanes along US 98 and two lanes along the Crossroads approaches, the following improvements were examined under both the two-way stop control and traffic signal condition:

- Left turn bays were provided along each approach
- All right turns were treated as shared through-right movements

The 2x1 roundabout analysis did not require additional modification. The estimated Volume to Capacity (V/C) ratios and rankings of the design year (2045) CAP-X analysis for the AM and PM peak hours are shown in **Table 2.1**. The CAP-X 2045 AM and PM Peak Hour reports can be found in **Appendix E** and **Appendix F**, respectively.

Table 2.1: Design Year (2045) CAP-X Analysis

US 98 at Crossroads Roadway	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Overall V/C	V/C Rank	Overall V/C	V/C Rank	Overall V/C	V/C Rank
AM	2.33	3	0.46	2	0.45	1
PM	7.38	3	0.53	1	0.60	2

2.2 Safety Performance for Intersection Control Evaluation (SPICE)

SPICE analysis typically utilizes the most recent five-year period of historical crash data within the study area. Due to this intersection being a result of a new US 98 alignment, no historical analysis was included. SPICE analysis for this report focuses on the proposed configurations and predicted crash frequencies present in the SPICE worksheets. The SPICE analysis result summaries can be found in **Appendix G**.

The FDOT SPICE analysis was conducted for the opening year (2025) and the design year (2045) to predict the total crashes, fatal and injury crashes, and Safe System Intersection (SSI) scores. The summaries of the safety performance for each control strategy are shown in **Table 2.2**.

Table 2.2: Predicted Crashes and SSI Scores

Control Strategy	Opening Year (2025)			Design Year (2045)		
	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score
Two-Way Stop Controlled	8.17	3.78	65	9.3	4.42	56
Signalized Control	8.63	2.91	73	11.17	3.67	65
2x1 Roundabout	9.47	1.67	98	12.03	2.18	98

By the design year (2045), it is anticipated that a roundabout would rank first among the selected control strategies providing the lowest severity crash frequency of 2.18 during design year (2045). The signalized control alternative ranks second with a lower severity crash frequency of 3.67. The two-way stop control ranks third with a severe crash frequency of 4.42. All intersections indicated an increase in crash frequency and severity from the opening year (2025) to the design year (2045).

The results of life cycle SPICE analysis for the AM and PM peak hours are shown in **Table 2.3**. The roundabout ranks first with the lowest number of Total Project Life Cycle severe crashes.

Table 2.3: SPICE Analysis

Crash Type	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank
Total	183.74	3	207.93	2	204.55	1
Fatal & Injury	86.29		69.14		36.90	

2.3 Alternative Scenario Rankings for Stage 1 Analysis

The results of the ICE Stage 1 analysis are summarized in **Table 2.4** along with how each control strategy performed at each of the study intersections based on the CAP-X and SPICE analysis.

Table 2.4: Analysis Summary

Intersection	Control Strategy	ICE Stage 2 Analysis		
		CAP-X Rank	SPICE Rank	
		AM	PM	Daily
US 98 and Crossroads Roadway	Two-Way Stop Control	3	3	3
	Traffic Signal Control	2	1	2
	2NS x 1EW Roundabout	1	2	1

ICE Stage 1 analysis supports the use of traffic signal control and 2-lane roundabout at the intersection of US 98 and entrance to the new Crossroads development. These control strategies have similar V/C ratios and safety considerations. To further analyze all control strategies, ICE Stage 2 analysis was performed and the recommended strategies were further examined.

3.0 ICE Stage 2 Analysis

3.1 Opening and Design Year Operational Analysis

The ICE Stage 1 analysis did not identify a single viable control strategy. Therefore, all three control strategies were advanced to ICE Stage 2 Analysis. Summaries of the ICE Stage 2 analysis can be found in **Appendix H**. The Stage 2 analysis evaluates each viable control strategy based on:

- Opening and Design year operational performance
- Safety performance
- Benefit-to-cost analysis
- Multimodal accommodations
- Environmental, utility, and right-of-way impacts
- Public input
- Other appropriate factors

The conceptual layout of the lane geometry for each of the control strategies can be found in **Figure 3.1**.

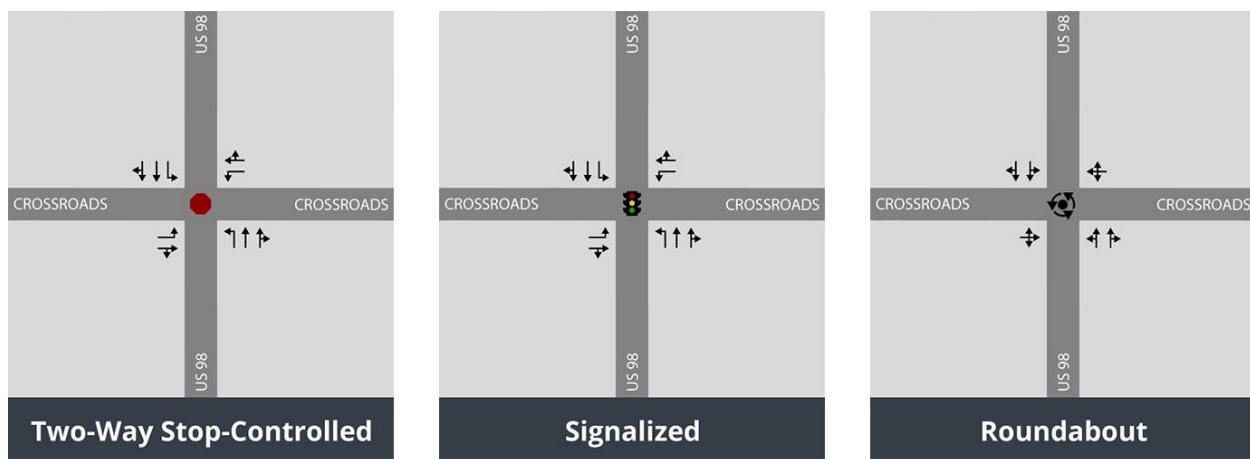


Figure 3.1: Conceptual Layout

HCS 7, Synchro 11, and SIDRA 9 were used to analyze the operational performance of two-way stop control, signalized control, and roundabout control, respectively. The HCS 7, Synchro 11, and SIDRA 9 reports can be found in **Appendix I**, **Appendix J**, and **Appendix K**, respectively. Level of Service (LOS), average control delay, and 95th percentile queue lengths were the measures of performance for the operational analysis conducted in Stage 2. The intersection performance measures by movement for each control type can be found in **Table 3.1** through **Table 3.6**, while the overall intersection results for each control type can be found in **Table 3.7** and **Table 3.8**.

The intersection performance measures by movement for two-way stop control can be found in **Table 3.1** and **Table 3.2**. By the opening year (2025), both the eastbound and westbound left turn movements are expected to fail to meet the LOS target D. By the design year (2045), both the eastbound and westbound left turn movements are expected to continue to fail to meet the LOS target D, and the queues are expected to exceed the available storage lengths in both the AM and PM peak hours. The intersection performance measures by movement for signalized control can be found in **Table 3.3** and **Table 3.4**. Each movement is expected to continue to meet the LOS target D by the design year (2045) under signalized control. The intersection performance measures by movement for roundabout control can be found in **Table 3.5** and **Table 3.6**. Each approach is expected to continue to meet the LOS target D by the design year (2045) under roundabout control.

In addition to the HCS 7, Synchro 11, and SIDRA 9 analyses that were performed, a traffic signal warrant analysis was completed. Due to only having peak hour volume data available, only Warrant 3 was assessed and met the criteria for the intersection to be signalized. Therefore, the two-way stop control option is not viable. The Traffic Signal Warrant analysis can be found in **Appendix L**.

Table 3.1: Opening Year (2025) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	31.1	D	171.9.	F	1/250'	75 (225)
	Through/Right*	12.8	B	19.7	C	1/500'	25 (25)
Westbound	Left	43.3	E	147.0	F	1/250'	125 (200)
	Through/Right*	12.9	B	18.7	C	1/1170'	25 (50)
Northbound	Left	9.0	A	10.2	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1700'	-
Southbound	Left	9.2	A	10.5	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1900'	-

*Weighted delay for Through/Right movement reported

Table 3.2: Design Year (2045) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	73.6	F	3105.8	F	1/250'	125 (800)
	Through/Right*	17.5	C	39.4	E	1/500'	50 (75)
Westbound	Left	174.1	F	1914.0	F	1/250'	325 (675)
	Through/Right*	16.9	C	37.5	E	1/1170'	50 (75)
Northbound	Left	10.3	B	11.5	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1700'	-
Southbound	Left	10.1	B	12.6	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1900'	-

*Weighted delay for Through/Right movement reported

Table 3.3: Opening Year (2025) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	38.1	D	50.1	D	1/250'	125 (125)
	Through/Right*	50.6	D	53.5	D	1/500'	175 (125)
Westbound	Left	36.2	D	47.6	D	1/250'	150 (125)
	Through/Right*	46.1	D	54.6	D	1/1170'	150 (150)
Northbound	Left	7.7	A	6.4	A	1/250'	25 (50)
	Through/Right*	12.9	B	11.3	B	2/1700'	175 (225)
Southbound	Left	7.7	A	6.7	A	1/250'	25 (50)
	Through/Right*	12.4	B	10.9	B	2/1900'	175 (200)

*Weighted delay for Through/Right movement reported

Table 3.4: Design Year (2045) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	38.1	D	50.1	D	1/250'	125 (125)
	Through/Right*	50.6	D	53.5	D	1/500'	175 (125)
Westbound	Left	36.2	D	47.6	D	1/250'	150 (125)
	Through/Right*	46.1	D	54.6	D	1/1170'	150 (150)
Northbound	Left	8.5	A	7.3	A	1/250'	25 (50)
	Through/Right*	14.4	B	13.3	B	2/1700'	250 (300)
Southbound	Left	8.4	A	8.4	A	1/250'	25 (50)
	Through/Right*	14.4	B	12.1	B	2/1900'	250 (250)

*Weighted delay for Through/Right movement reported

Table 3.5: Opening Year (2025) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	9.1	A	8.9	A	1/200'	25 (25)
	Through	9.1	A	8.9	A		25 (25)
	Right	9.1	A	8.9	A		25 (25)
Westbound	Left	9.7	A	9.7	A	1/1170'	25 (50)
	Through	9.7	A	9.7	A		25 (50)
	Right	9.7	A	9.7	A		25 (50)
Northbound	Left	6.0	A	8.2	A	2/1170'	25 (75)
	Through	6.0	A	8.2	A		25 (75)
	Right	6.0	A	8.2	A		25 (75)
Southbound	Left	6.2	A	7.8	A	2/1900'	25 (75)
	Through	6.2	A	7.8	A		25 (75)
	Right	6.2	A	7.8	A		25 (75)

Table 3.6: Design Year (2045) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	13.6	B	11.4	B	1/200'	50 (50)
	Through	13.6	B	11.4	B		50 (50)
	Right	13.6	B	11.4	B		50 (50)
Westbound	Left	13.1	B	14.5	B	1/1170'	75 (50)
	Through	13.1	B	14.5	B		75 (50)
	Right	13.1	B	14.5	B		75 (50)
Northbound	Left	7.2	A	10.8	B	2/1170'	50 (125)
	Through	7.2	A	10.8	B		50 (125)
	Right	7.2	A	10.8	B		50 (125)
Southbound	Left	8.0	A	9.4	A	2/1900'	75 (75)
	Through	8.0	A	9.4	A		75 (75)
	Right	8.0	A	9.4	A		75 (75)

The overall intersection results for the opening year (2025) and design year (2045) are shown in **Table 3.7** and **Table 3.8**, respectively.

Table 3.7: Opening Year (2025) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	D	29.3	Yes	F	100.5	Yes
Signalized Control	C	20.7	Yes	B	17.5	Yes
Roundabout	A	7.0	Yes	A	8.2	Yes

*Worst case stop controlled approach LOS shown

Table 3.8: Design Year (2045) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	F	101.5	No	F	1668.4	No
Signalized Control	C	20.2	Yes	B	17.7	Yes
Roundabout	A	8.8	Yes	B	10.6	Yes

* Worst case stop controlled approach LOS shown

3.2 Cost and Benefit-to-Cost Ratio

The benefit-to-cost ratio analysis for the project life cycle was conducted with the FDOT ICE tool. Due to being the lowest cost and easiest to construct, the two-way stop control was the base strategy for the benefit-to-cost comparison. The right-of-way (ROW) costs are expected to be the same for all three control strategies. The design cost is assumed to be seven percent of the sum of the construction cost and the contingency cost. The FDOT Long Range Estimating System (LRE) reports for these control strategies can be found in **Appendix M**. The summary of the benefit-to-cost analysis is shown in **Table 3.9**. The output table of the ICE tool can be found in **Appendix N**.

Table 3.9: Cost and Benefit-to-Cost Ratios

Control Strategy	ROW Costs (\$)	Design Cost (\$)	Contingency Cost (\$)	Construction Cost (\$)	FDOT ICE Tool Outputs Relative to Base Case				Net Present Value of Improvement
					Delay B/C	Safety B/C	Overall B/C		
Two-Way Stop Controlled	\$457,248	\$86,640	\$50,000	\$1,237,719	N/A	N/A	N/A	N/A	
Signalized Control	\$457,248	\$120,790	\$50,000	\$1,725,579	15.89	5.88	21.77	\$12,580,312	
Roundabout	\$457,248	\$108,111	\$50,000	\$1,544,437	41.73	26.60	68.33	\$26,026,262	

3.3 Multimodal Accommodations

Due to the intersection of US 98 at Crossroads being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as part of the PD&E.

Under two-way stop control, pedestrians crossing the minor street approaches would be crossing at a stop-controlled location, and would therefore have the right-of-way. However, the lack of stop control or signalization would not provide any protected pedestrian movement across the major street. Under signal control, crossing time would be provided for pedestrians crossing both the major and minor streets. Under roundabout control, crossing distances would be reduced for all crossings. No accommodations for bicyclists are anticipated at this time.

No existing transit facilities are present near the intersection of US 98 at Crossroads. Additionally, the intersection has no anticipated special freight needs.

3.4 Environmental, Utility, and Right-of-Way Impacts

The proposed intersection is located within a rural area of Pasco County dominated by agricultural land use and low-density residential areas. There are no wetlands or protected species present in the proximity of the study intersection. Due to the realignment of US 98, additional right-of-way will be required. The right-of-way requirements and utility impacts will be dictated by the roadway alignment, with no expected difference in impact based on the selected intersection type.

3.5 Public Inputs

A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. A total of 66 people (excluding FDOT staff) signed in at the in-person public hearing, and total of 14 people (excluding FDOT staff) signed in at the virtual portion of the public hearing. No public concerns or comments are proposed for the intersection of US 98 and Crossroads.

4.0 ICE Analysis Summary

4.1 Summary of Stage 2 Analysis

A brief justification as to why each of the control strategies is either viable or not viable after the ICE Stage 2 Analysis is shown in **Table 4.1**. The roundabout control strategy provides the best operational and safety benefits, with the highest benefit-to-cost ratio for the intersection at US 98 at Crossroads. There are few differences between the three control strategies in terms of public feedback, multimodal accommodations, and environmental, utility, or ROW impacts. Overall, the 2NS x 1EW roundabout control strategy is recommended based on the ICE Stage 2 analysis. The proposed design concept associated with this concept can be found in **Appendix O**.

Table 4.1: Analysis Summary

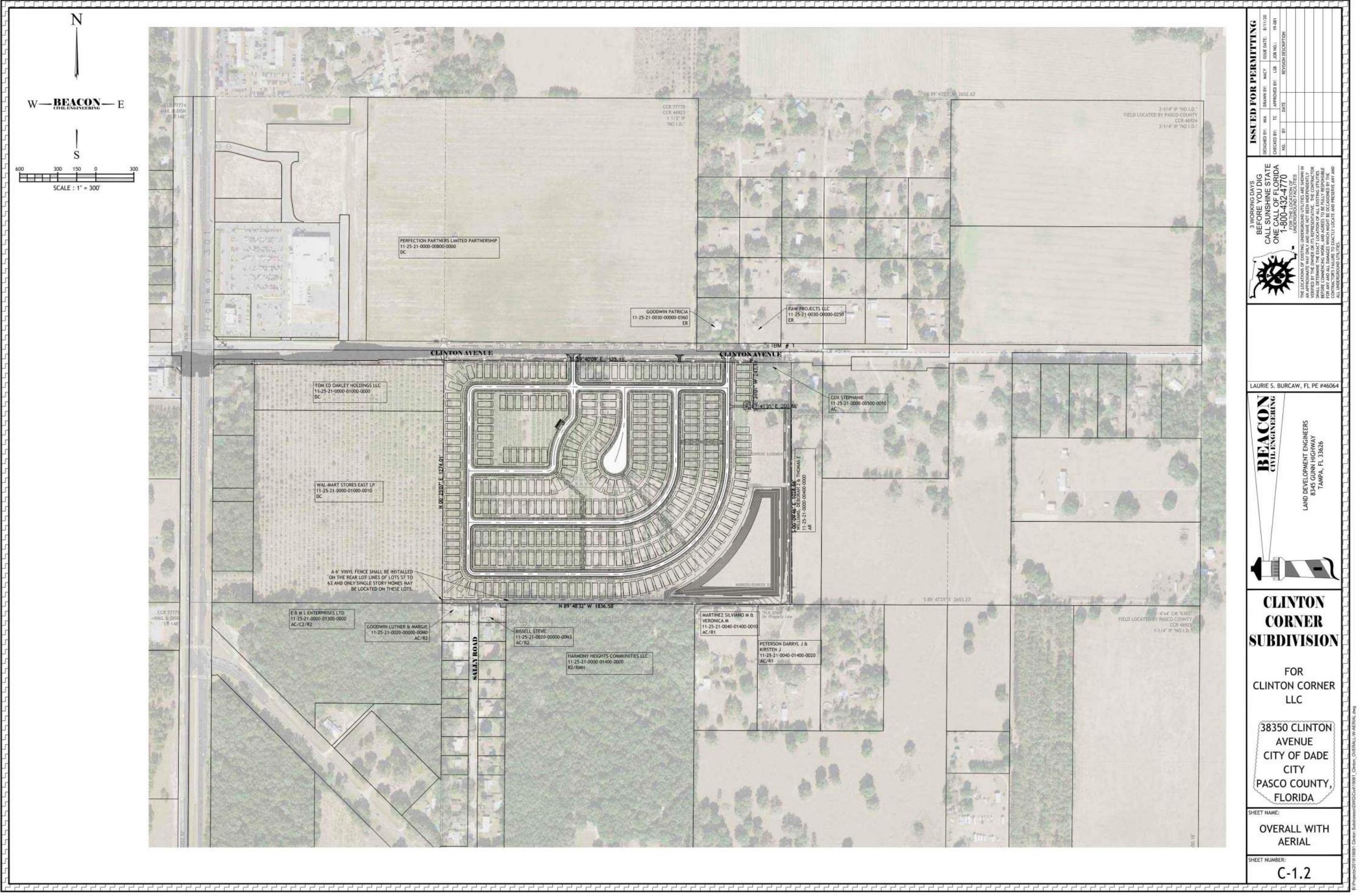
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop Control	No	Although this control strategy has the lowest anticipated construction costs, it provides less operational and safety benefits compared to the other strategies. Under this control strategy the minor streets will have a failing LOS. Additionally, this intersection meets the Traffic Signal Warrant criteria.
Traffic Signal Control	No	The operational and safety performances for the signalized control strategy are better than the two-way stop control, but worse than a roundabout. Additionally, the anticipated construction cost is greater than the cost for roundabout strategy.
2NS x 1EW Roundabout	Yes	This control strategy provides the best operational and safety performance, and has a lower anticipated construction cost than traffic signal control.

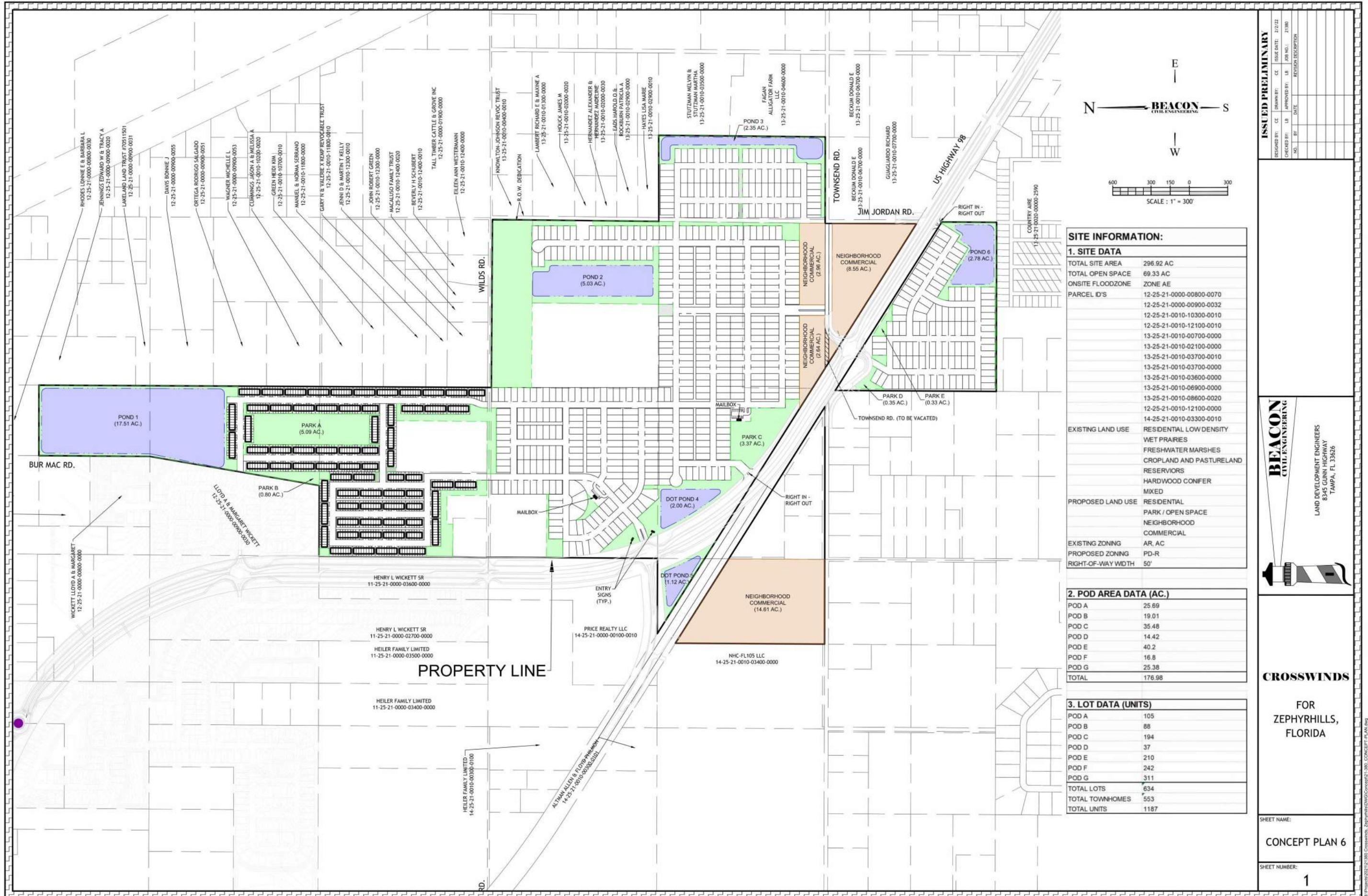
Appendices

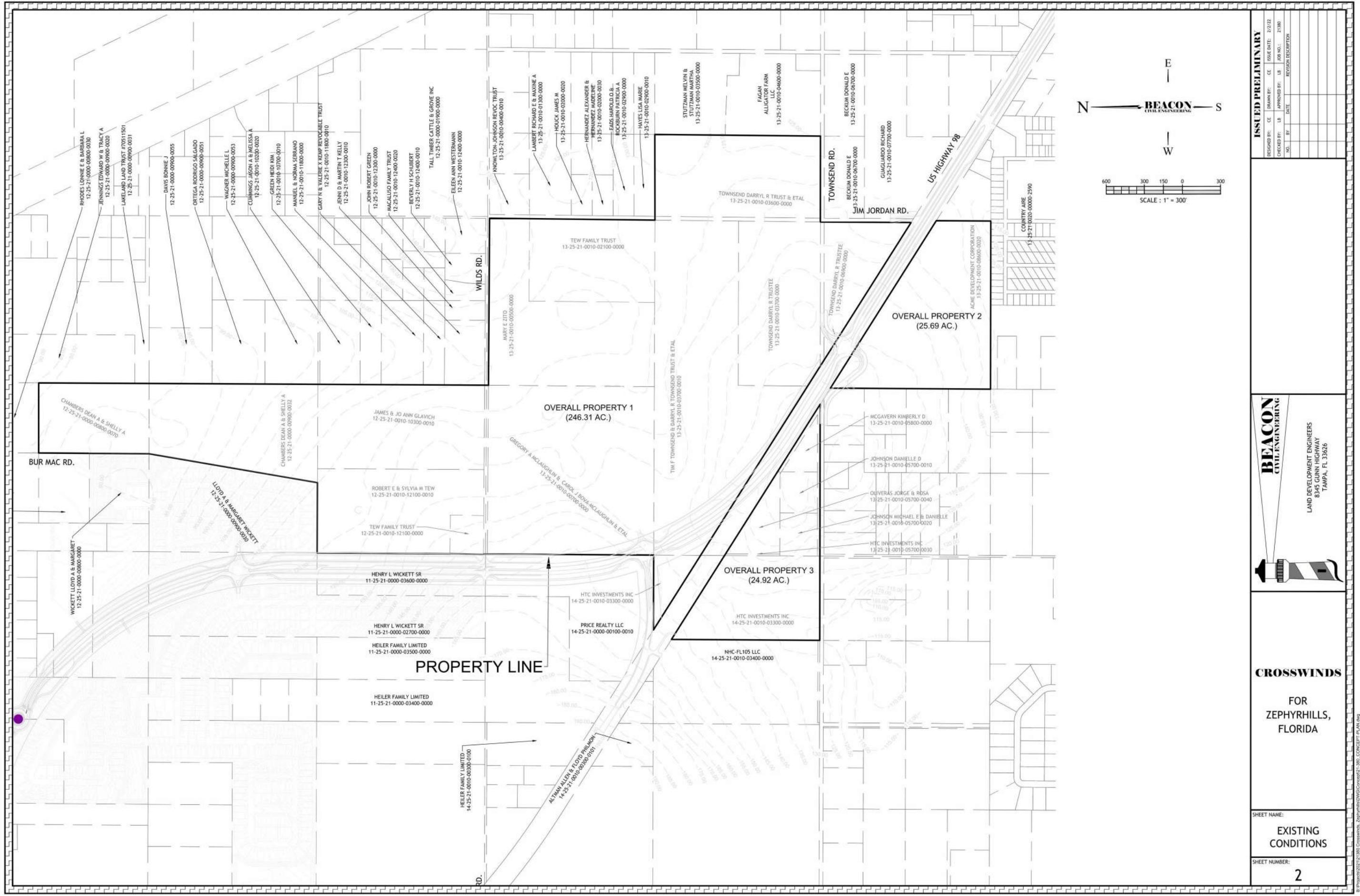


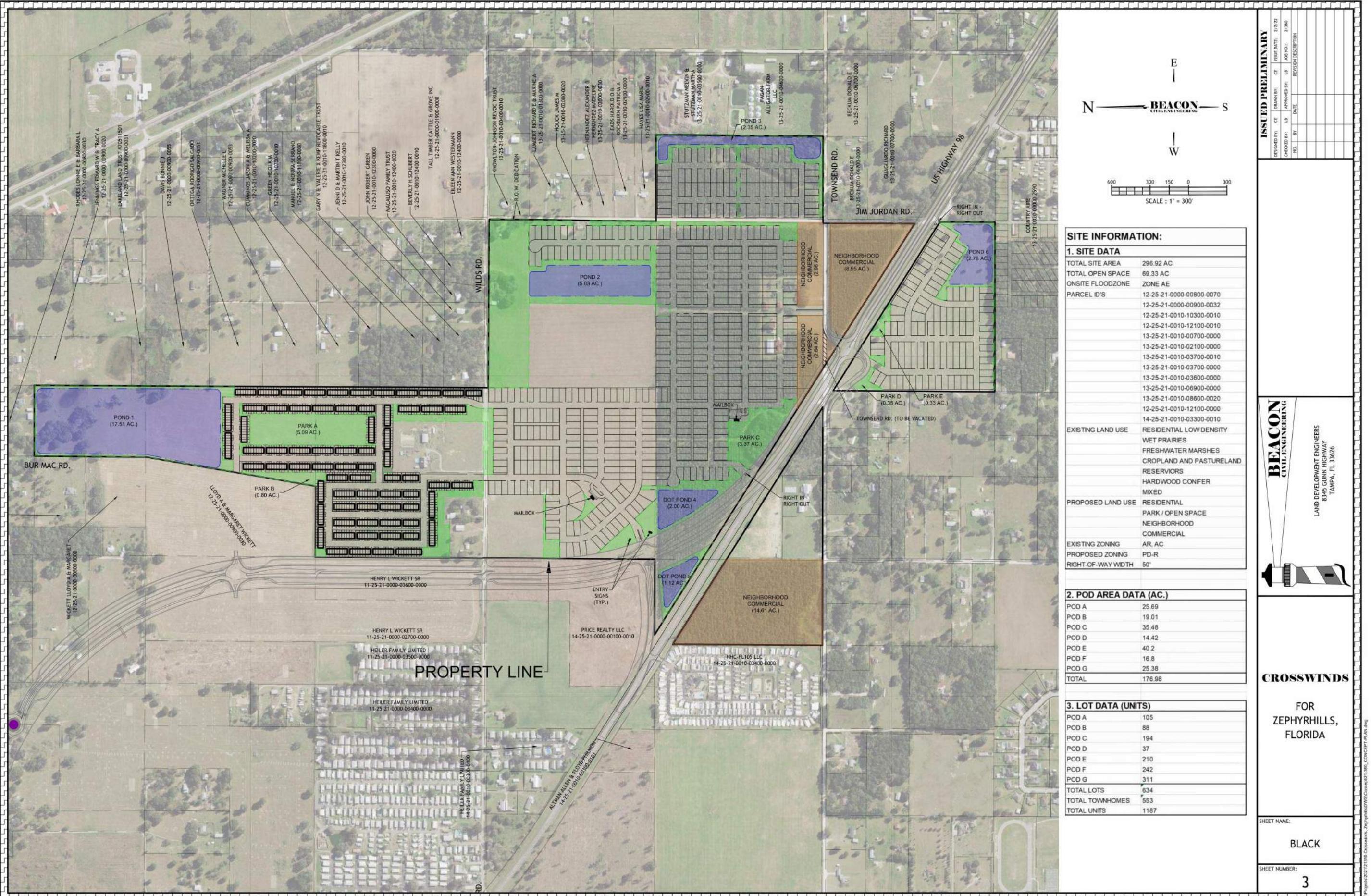
Appendix A

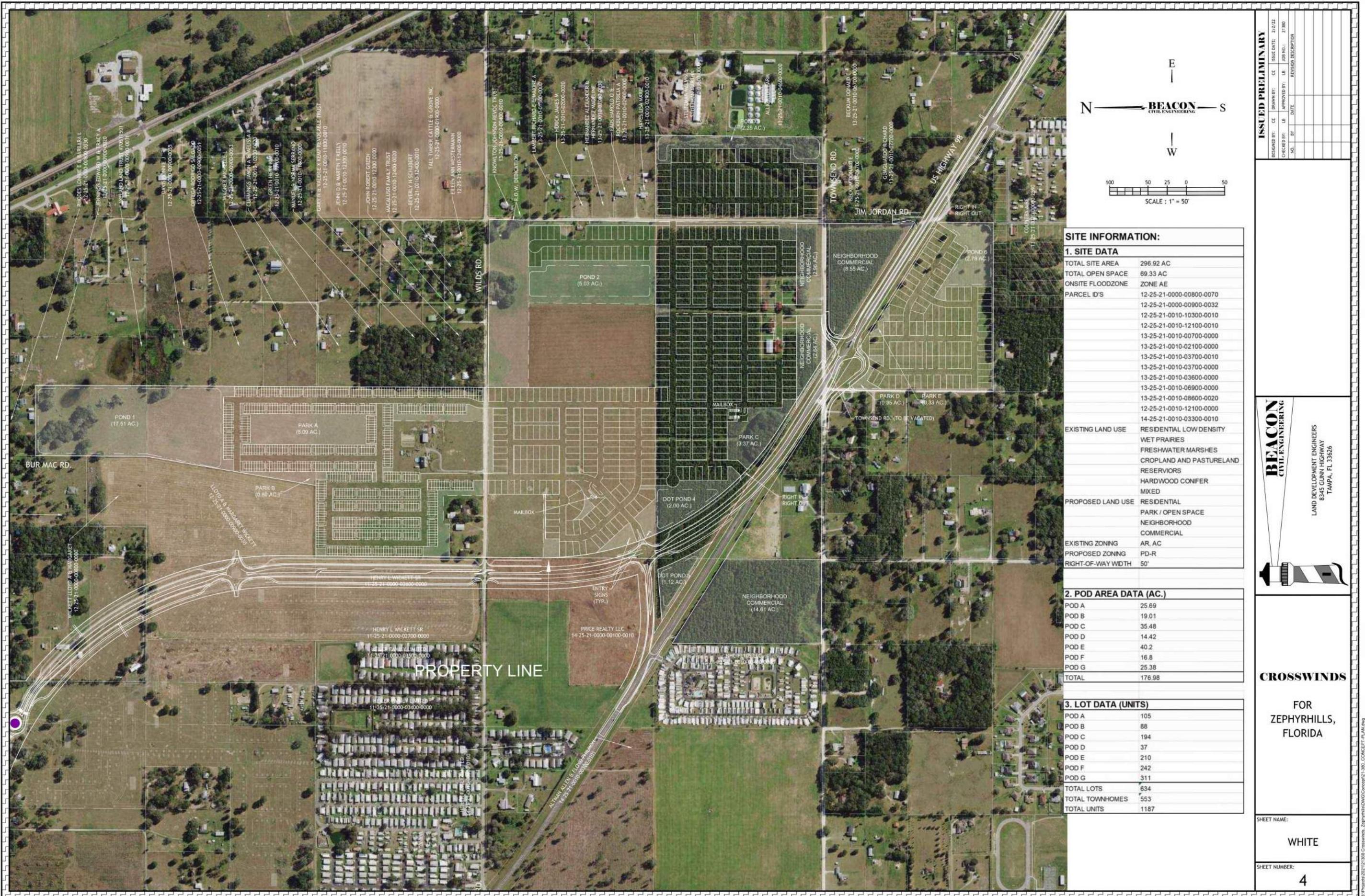
Development Concept Plans

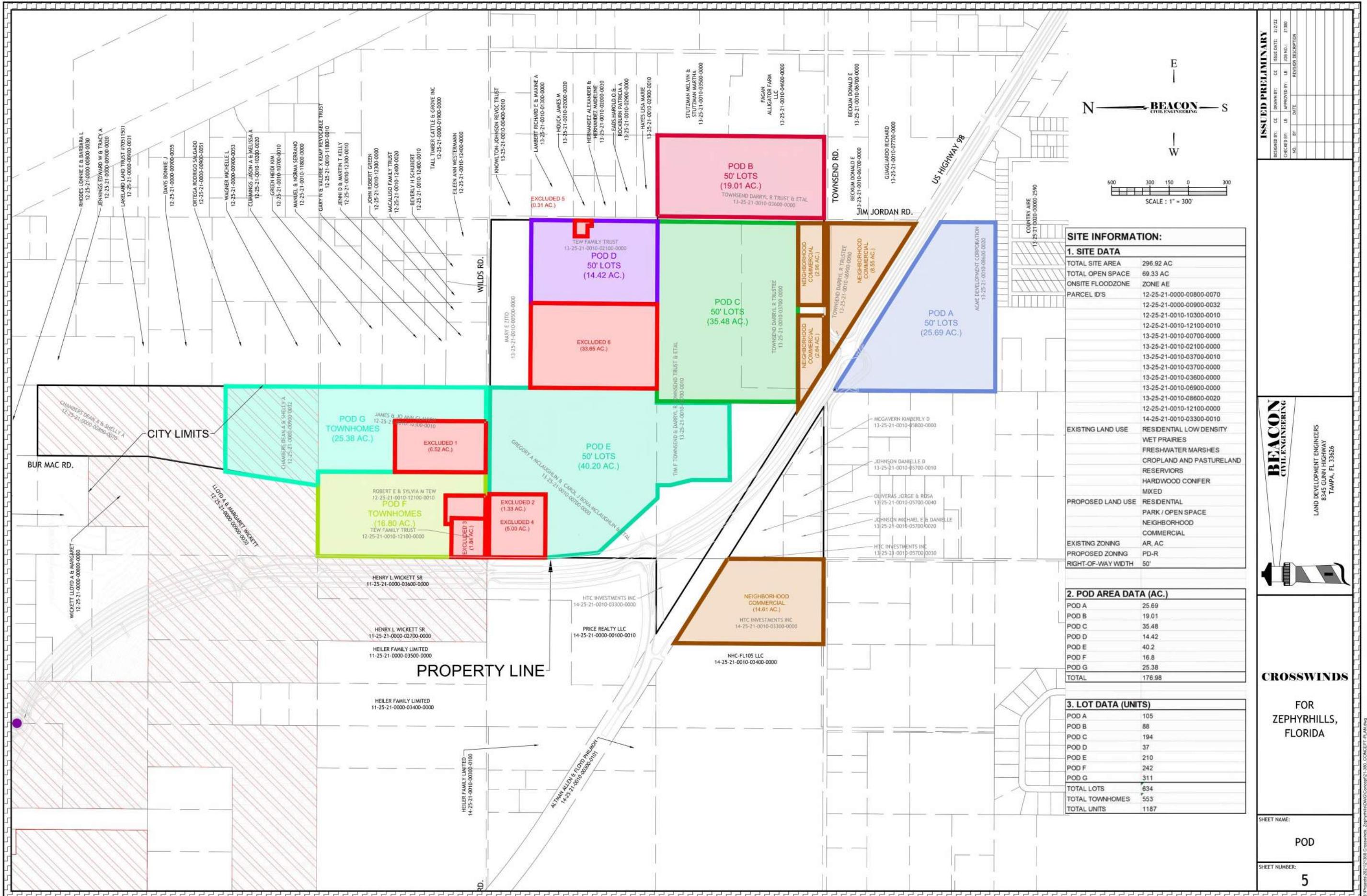












Appendix B

US 98 PD&E Demand Volumes

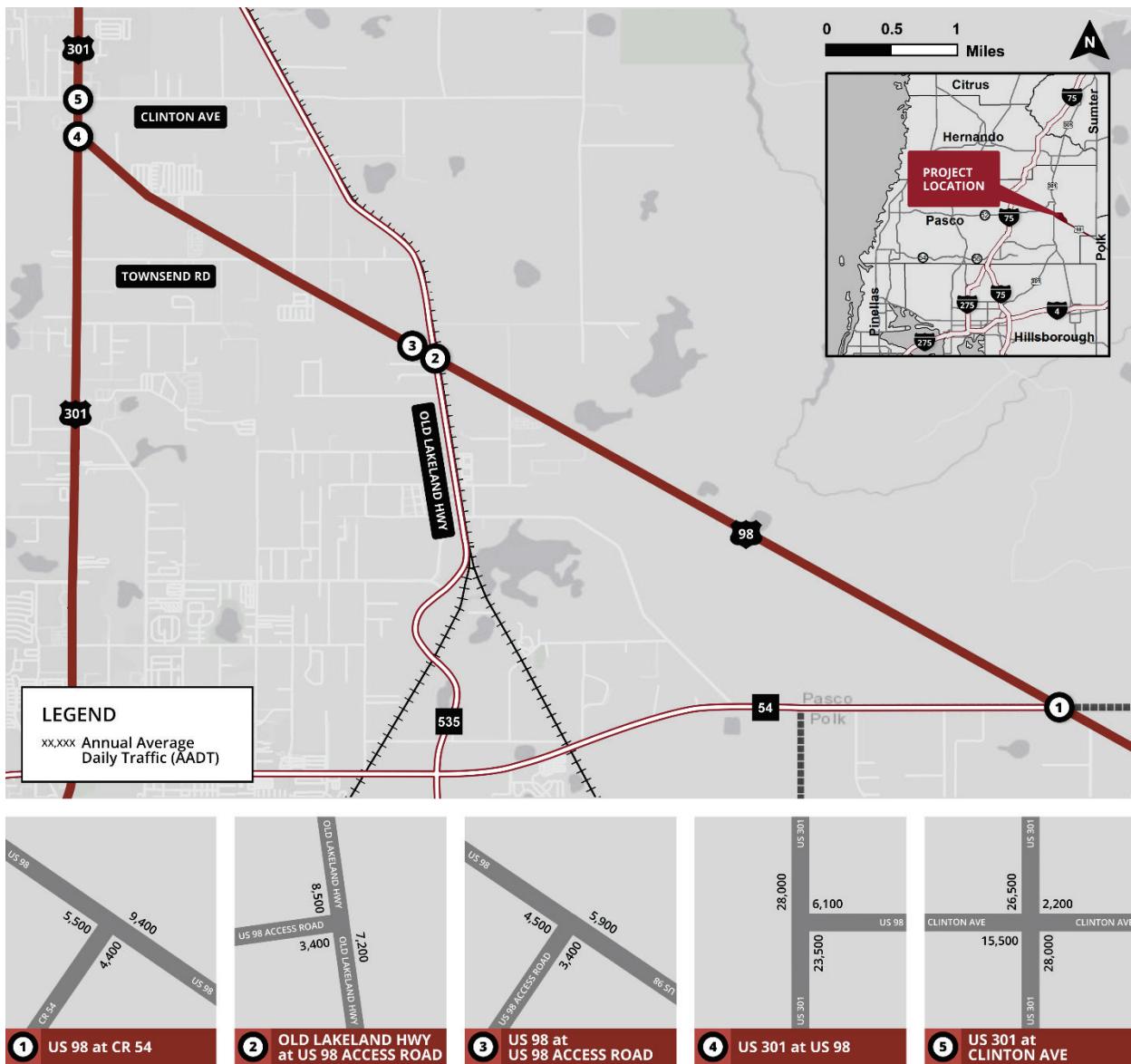


Figure 1: Existing Year (2019) AADTs

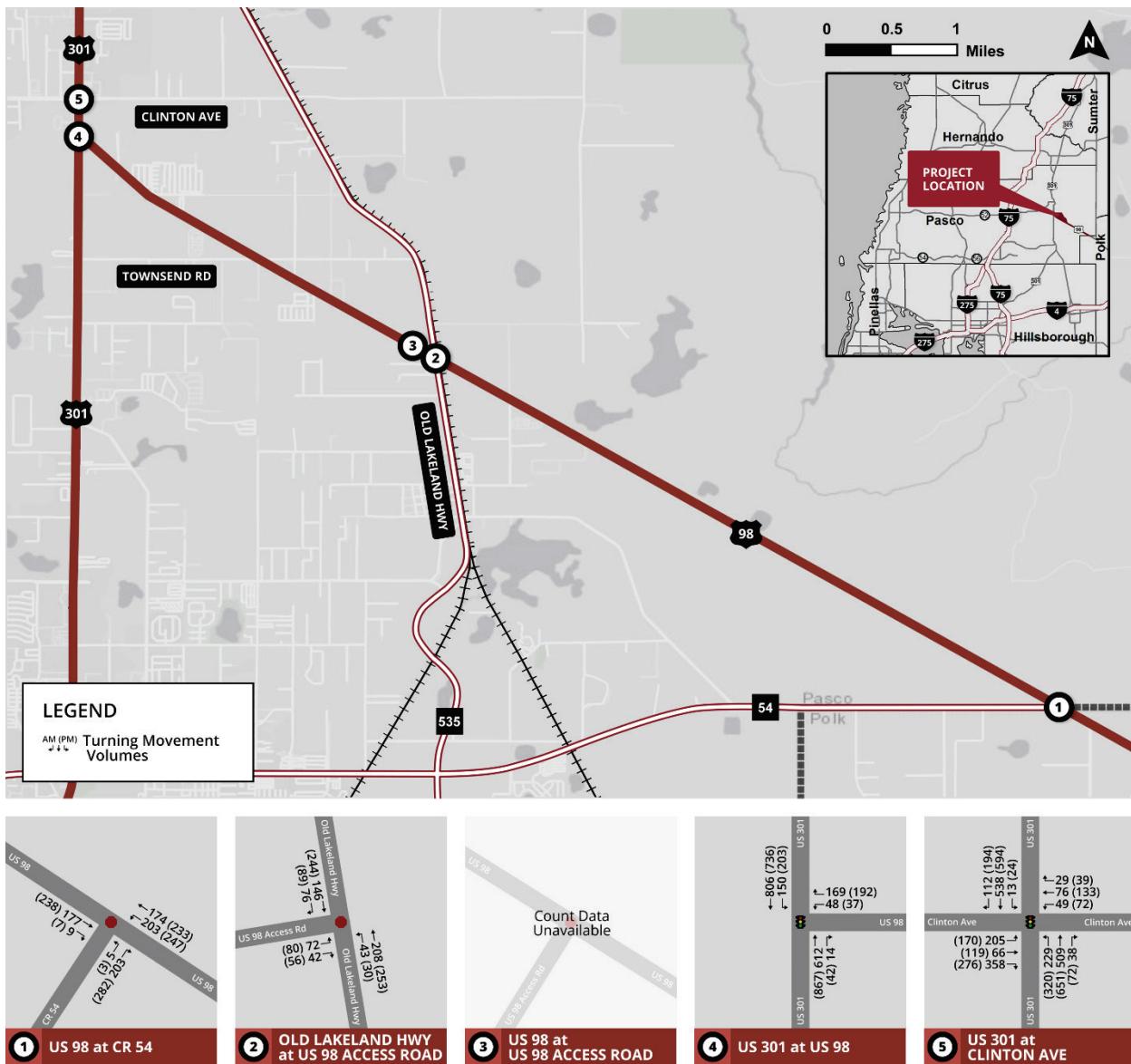


Figure 2: Existing Year (2019) Turning Movement Counts

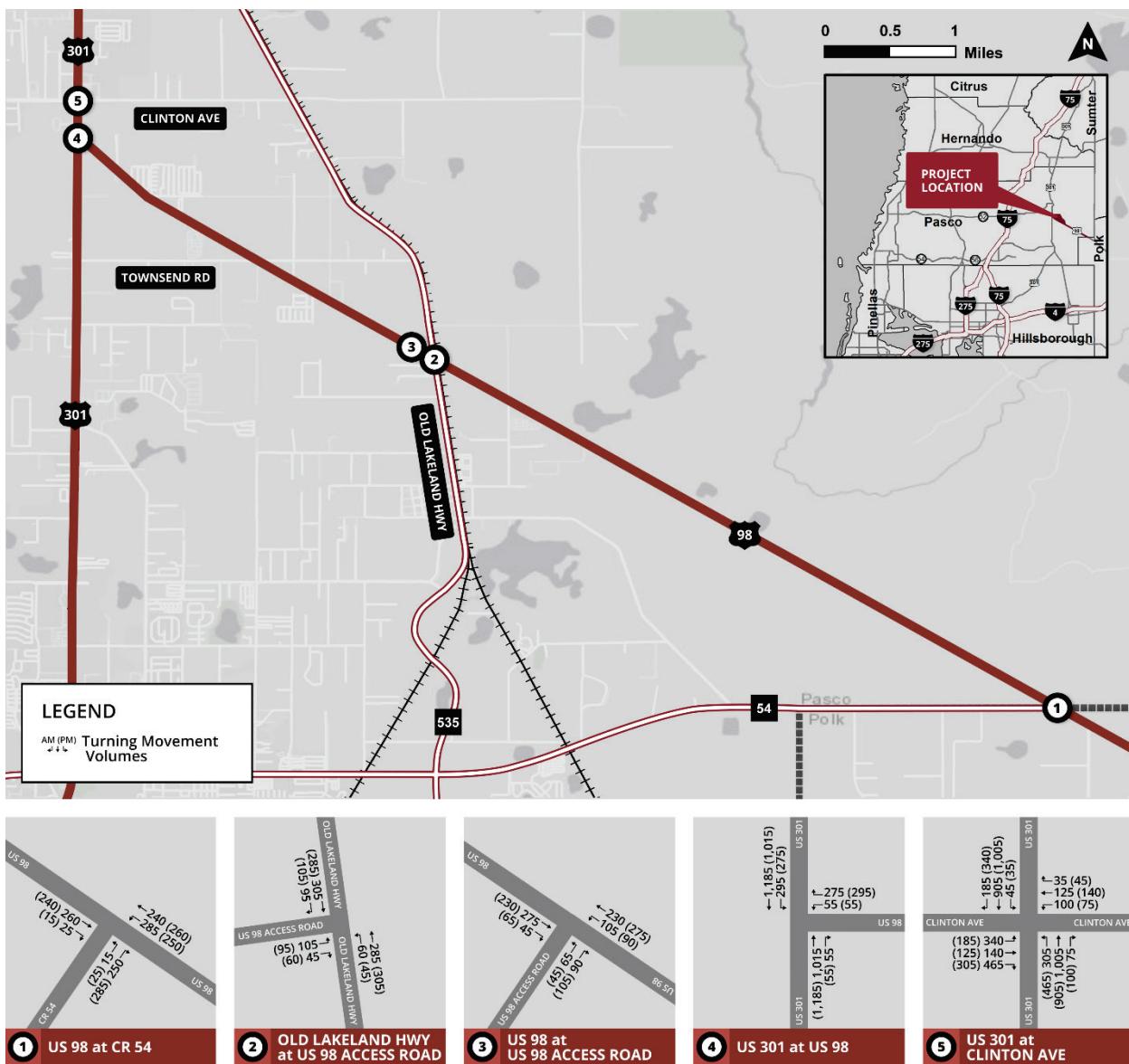


Figure 3: Existing Year (2019) Turning Movement Design Volumes

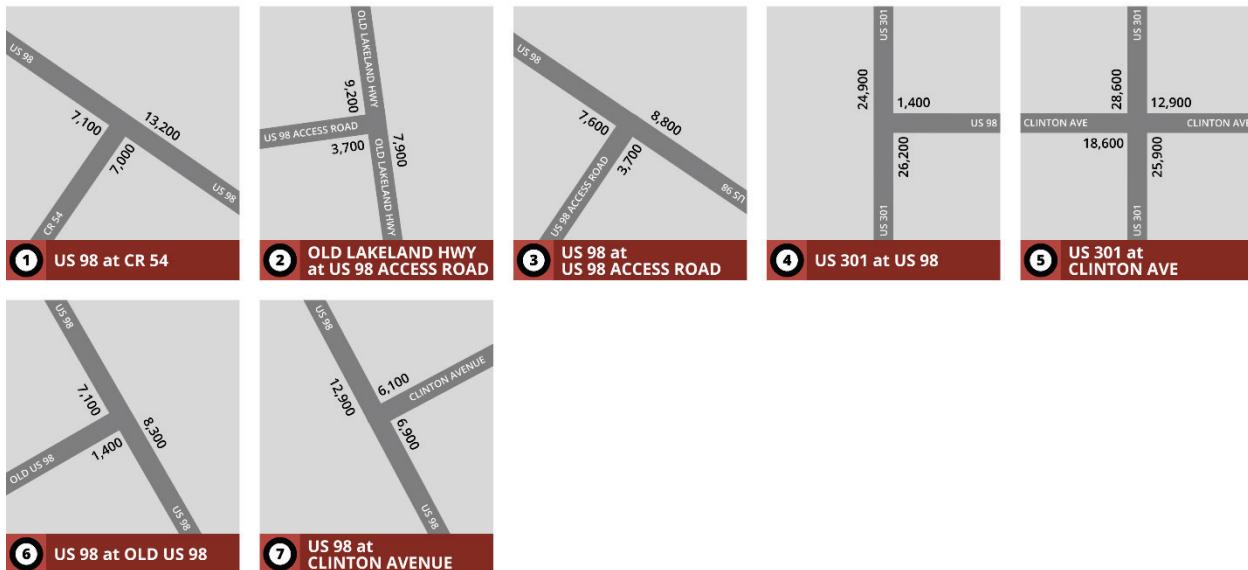
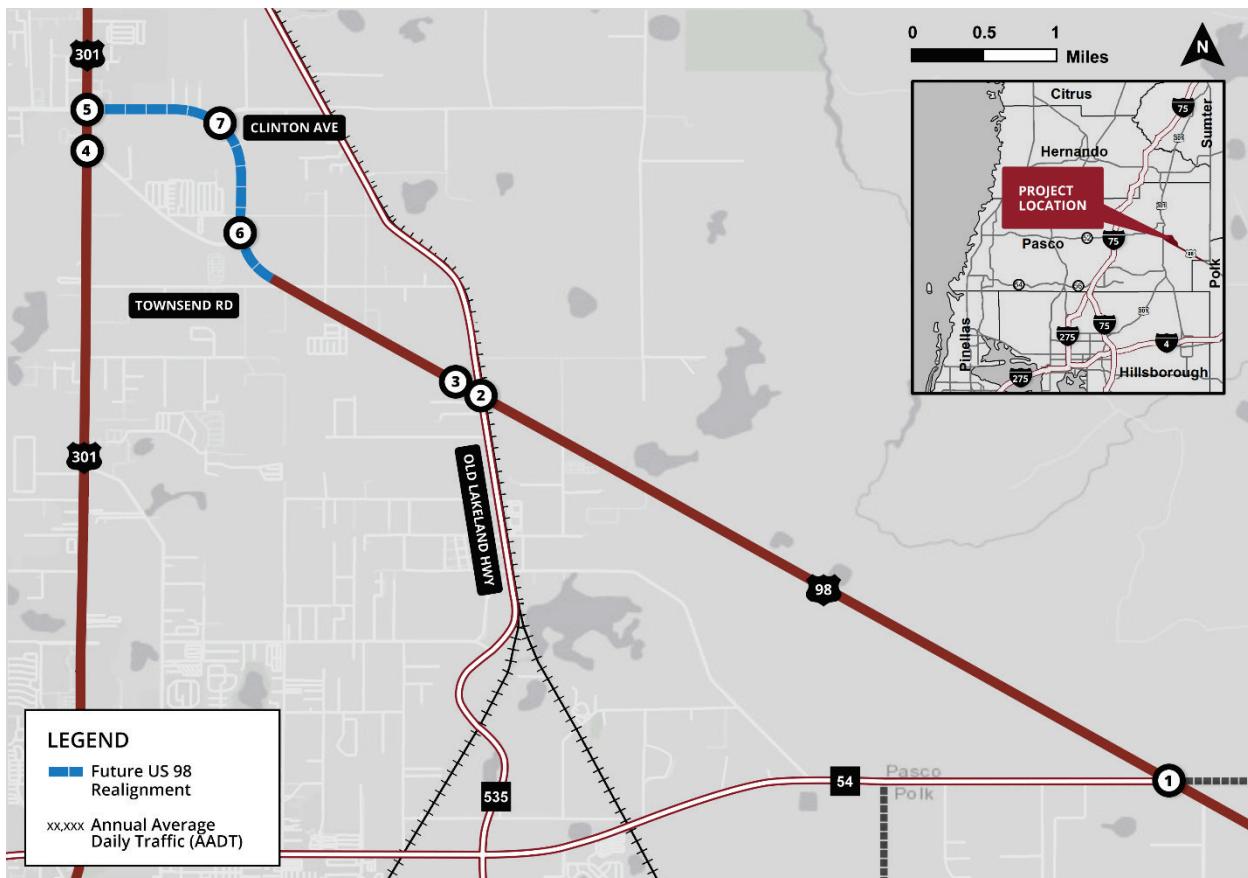


Figure 4: Opening Year (2025) Build AADTs

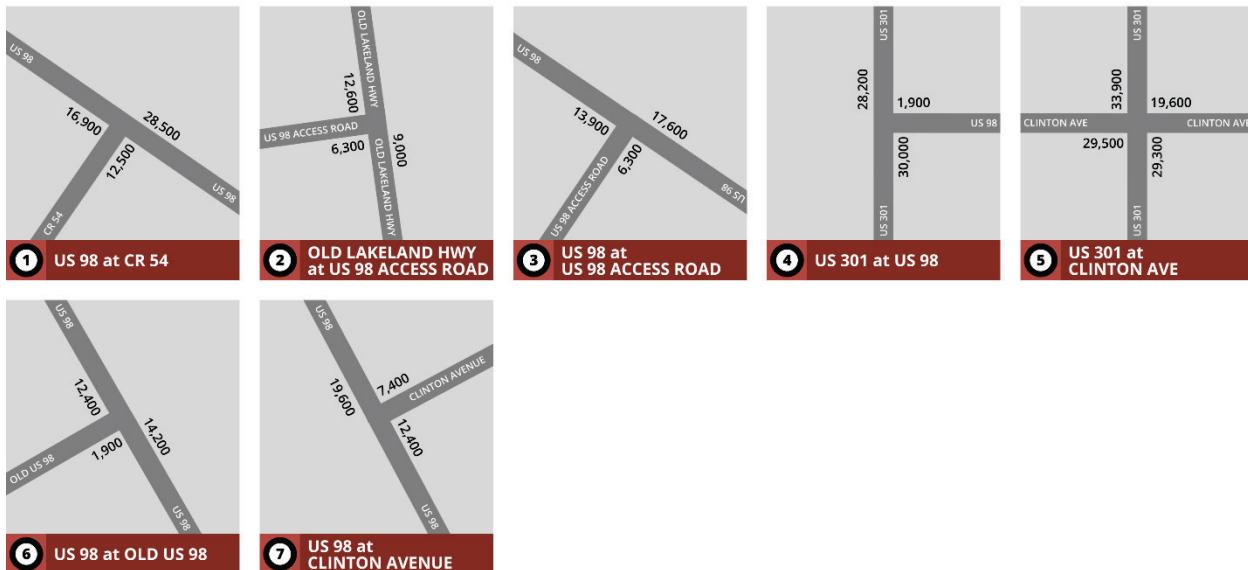
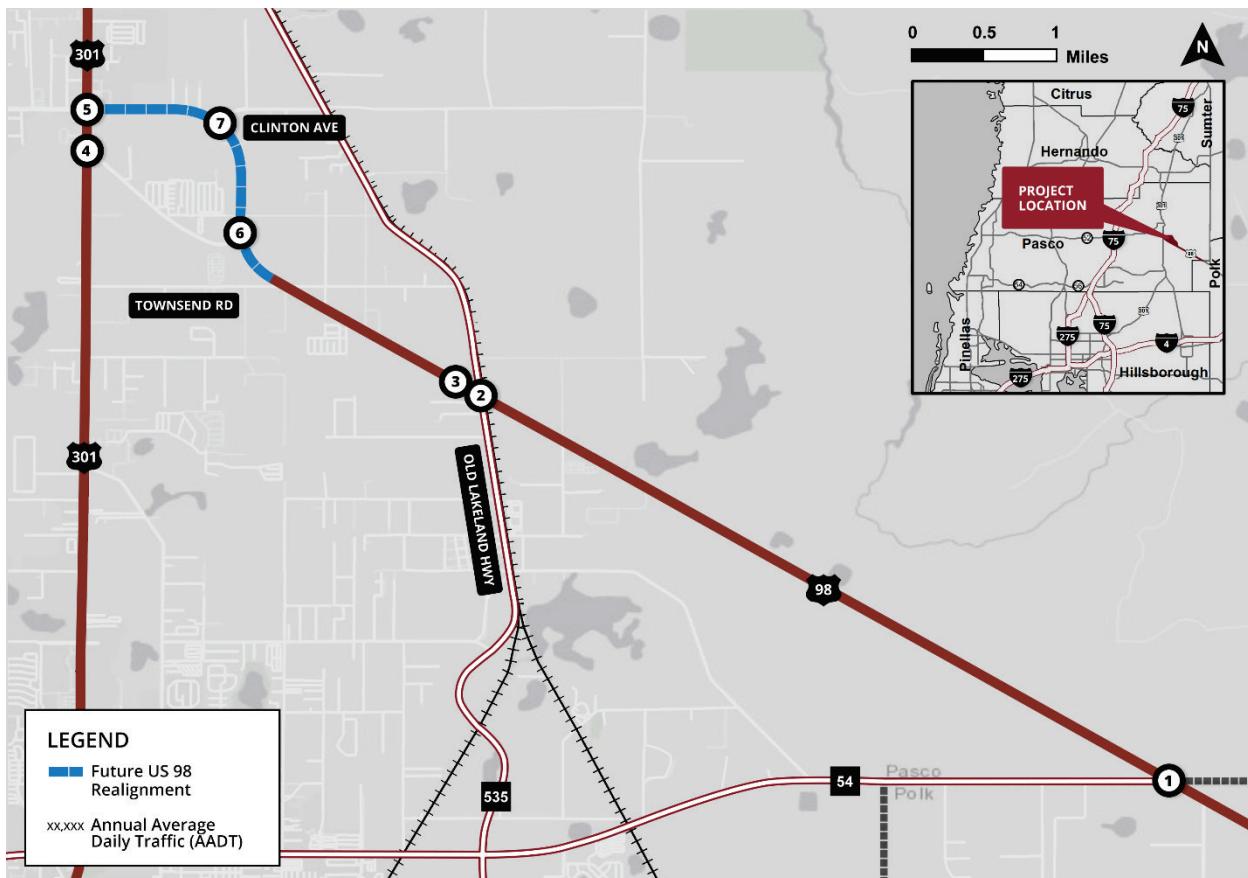


Figure 5: Design Year (2045) Build AADTs

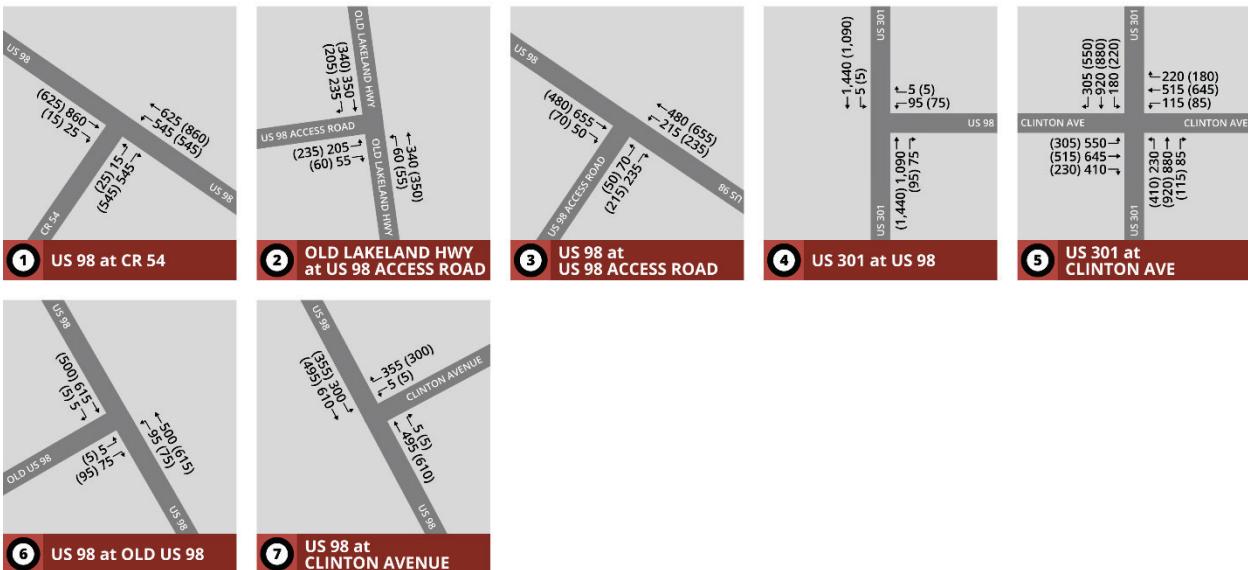
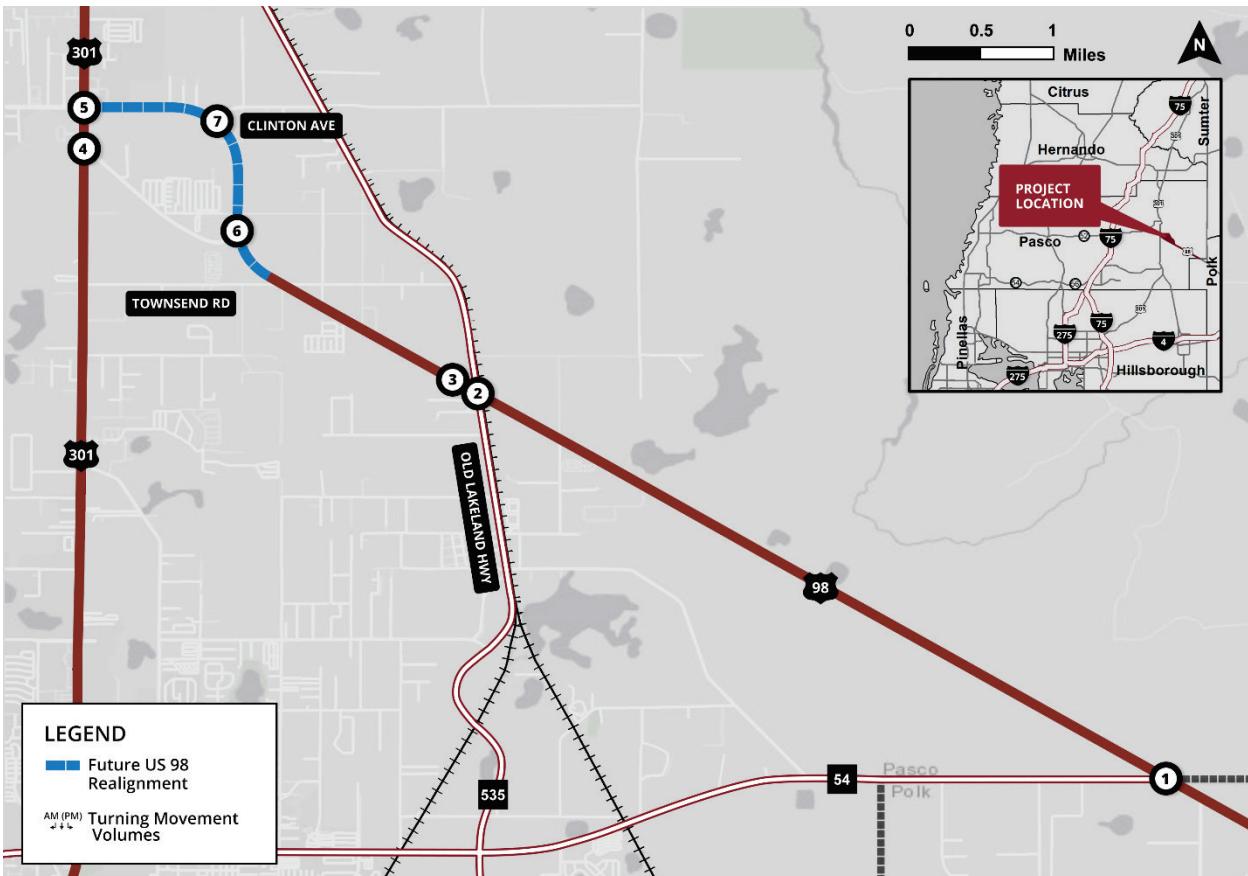


Figure 6: Design Year (2045) Build Turning Movement Volumes

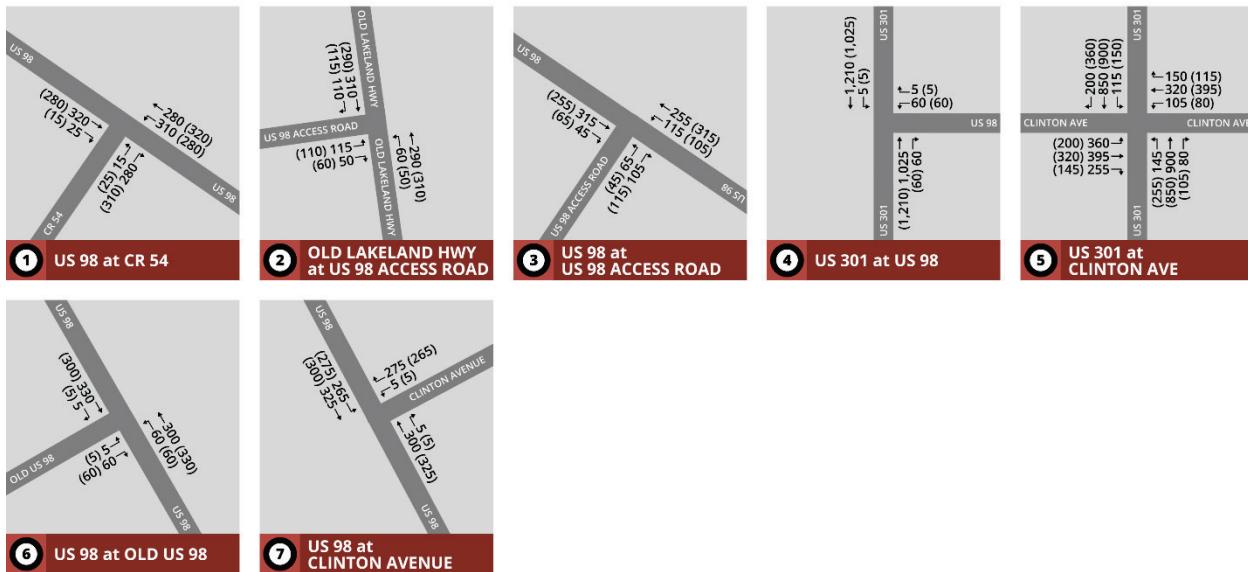
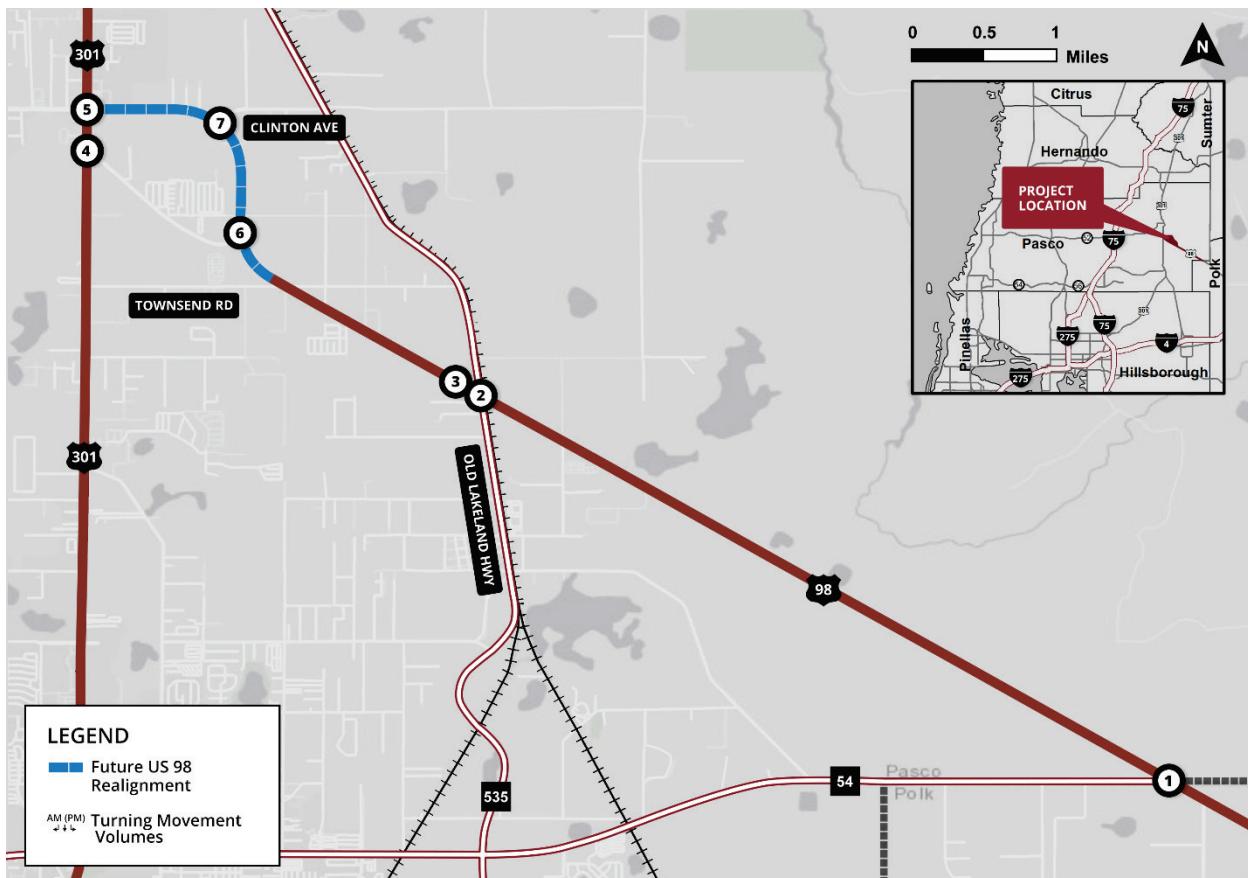


Figure 7: Opening Year (2025) Build Turning Movement Volumes

Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	645	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	515	74	0	38	0	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	45	0	0	0	0	152	0	0	88	268	125	0
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	63	0	52	0	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	155	0	90	270	130	0	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	65	0	55	0	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	735	5	0	265	610	0	75	0	0	0	0	5	0	275	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	405	0	0	0	800	65	0	25	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	290	0	0	0	310	135	0	170	0	75	0	0	0	0	0
3	US 98 at US 98 Access Road	115	405	0	0	0	820	120	0	105	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,060	60	0	5	1,300	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	115	0	160	850	200	0	360	550	255	0	195	590	280	0
6	US 98 at Townsend Road	35	505	20	0	40	840	30	0	50	5	60	0	65	10	55	0
7	US 98 at Old US 98	60	560	20	0	25	735	5	0	5	60	0	65	5	55	0	0
8	US 98 at Crossroads	40	535	50	0	60	510	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	735	5	0	265	610	0	75	0	0	0	0	5	0	275	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads (101, 102) and Townsend (104, 105) receive the EB and WB approaches and exits from the Townsend and US 98 (104) and Crossroads (102), respectively.

7. Driveway at Townsend (101, 102) is Right-in only. It is a turn-around before the intersection in Crossroads (102) that provides a U-turn to the SBL direction. If this turn-around was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	685	550	1,135	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	50%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	143	0	0	0	0	205	0	0	55	270	79	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	55	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	145	0	0	0	0	305	0	0	55	270	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	20	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	0	60	0	5	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	5	60	0	40	5	45	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	0	5	0	265	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trips will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads (101, 102) and Townsend (104, 105) have the EB and WB approaches and exits from the Townsend and US 98 (203) and Crossroads intersections (203), respectively.

7. Driveway at Townsend (102) is Right-in only. It is a turn-around before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 98 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	645	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	150	0	0	0	0	0	0	531	15	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	0	0	19	0	33	0	9	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	0	0	547	42	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	0	0	65	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	0	25	475	19	0	38	0	49	0	65	0	50
7	US 98 at Old US 98	0	260	20	0	0	24	405	0	0	0	0	0	0	63	0	52
8	US 98 at Crossroads	38	228	45	0	0	56	178	47	0	92	0	113	0	138	0	113
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	20	0	35	0	10	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	0	50	0	0	0	0	165	0	0	70	295	125
6	US 98 at Townsend Road	15	155	20	0	0	25	475	20	0	40	0	50	0	65	0	55
7	US 98 at Old US 98	0	260	20	0	0	25	405	0	0	0	0	0	0	65	0	55
8	US 98 at Crossroads	40	230	50	0	0	60	180	50	0	95	0	115	0	140	0	115
9	US 98 at Clinton Avenue	0	435	5	0	0	285	0	75	0	0	0	0	0	5	0	355

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,295	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	350	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	225	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	110	0	0	230	920	305	0	550	810	410	0	185	810	345
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	0	300	895	0	75	0	0	0	0	5	0	355

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104, 105) receive the EB and WB approaches and exits from the Townsend and US 98 (104) and Crossroads intersections (203), respectively.

7. Driveway at Townsend (102) is Right-in only. It is a turn-around before the intersection in Crossroads (203) that provides a U-turn to the EB direction. If this turn-around was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107, 108 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	0	5	0	300	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	685	550	1,135	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	50%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	25	0	45	36	0	9	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	35	0	36	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	0	38	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	0	142	0	0	0	0	232	0	0	38	286	80
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	0	145	0	0	0	0	335	0	0	40	290	80
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,600	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trips will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104, 105) (e.g. the EB and WB approaches and exits from the Townsend and US 98 (104) and Crossroads intersections (203), respectively).

7. A driveway at Clinton Avenue (103) is Right-in only. It is a turn-around before the intersection in Crossroads (203) that provides a U-turn to the EB direction. If this turn-around was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107/108 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveway:

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveway:

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersection:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
- Entering and exiting trips will originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveaways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203) respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveway:

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveway:

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersection:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
- Entering and exiting trips will originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveaways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203) respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix D

ICE Stage 1 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.

Project Name	US 98 PD&E Studies - US 98 at Unnamed (Crossroads)		FDOT Project #	443368-2-22-01	
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Date 5/3/2022
Email	jsamus@hwlochner.com		FDOT District	District 7	County Pasco
Project Locality (City/Town/Village)					
Intersection Type	At-Grade Intersection		FDOT Context Classification	C3R - Suburban Residential	
Project Funding Source	Federal		Project Type	Corridor Improvement Project	
Project Purpose <i>(What is the catalyst for this project and why is it being undertaken?)</i>	The primary purpose of this project is to evaluate the need of widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to eliminate the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. The improvements seek to relieve congestion while also improving safety.				
Project Setting Description <i>(Describe the area surrounding the intersection)</i>	The existing area around the intersection is minimally developed. The surrounding area will be developed into a more suburban area by Clinton Corner, Crossroads, and Crosswinds developments.				
Multimodal Context <i>(Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns)</i>	Due to the intersection of US 98 at Crossroads being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as part of the PD&E.				

Major Street Information							
Route #:	98	Route Name(s)	US 98			Milepost	N/A
Existing Control Type	None/New Intersection		Existing AADT		Design Year AADT	22,900	
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification		Urban Principal Arterial - Other			Design Speed (mph)	55	
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]		
Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along	Neither side of the approach	Left-Turn	1		Weekday AM Peak	Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0			
	On-Street Bike Facilities?	No	Through	1	Left	40	
	Multi-Use Path?	No	Left-Through-Right	0	Through	735	
	Scheduled Bus Service?	No	Through-Right	1	Right	50	
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	8.0%	
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	1		Weekday AM Peak	Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0			
	On-Street Bike Facilities?	No	Through	1	Left	60	
	Multi-Use Path?	No	Left-Through-Right	0	Through	795	
	Scheduled Bus Service?	No	Through-Right	1	Right	50	
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	8.0%	

Minor Street Information							
Route #:	Route Name(s)	Crossroads roadway (Unnamed)			Milepost (if app.)		
Existing Control Type	None/New Intersection		Existing AADT		Design Year AADT	5,000	
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification		Urban Major Collector			Design Speed (mph)	35	
Secondary Functional Classification (if app.)				Target Speed (mph) [if app.]			
Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	0			
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	95	Left
	Multi-Use Path?	No	Left-Through-Right	1	Through	5	Through
	Scheduled Bus Service?	No	Through-Right	0	Right	115	Right
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	2.0%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	1			
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	140	Left
	Multi-Use Path?	No	Left-Through-Right	1	Through	5	Through
	Scheduled Bus Service?	No	Through-Right	0	Right	115	Right
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	2.0%	
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn				
	Crosswalk on Approach?		Left-Through		Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left		Left
	Multi-Use Path?		Left-Through-Right		Through		Through
	Scheduled Bus Service?		Through-Right		Right		Right
	Bus Stop on Approach?		Right-Turn		Daily Truck %		

Crash History (Existing Intersections Only)

Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

Existing crash data is not available at this location.

Control Strategy Evaluation									
Control Strategy	CAP-X Outputs			SPICE Outputs		Strategy to Be Advanced?	Justification		
	V/C Ratio		Multimodal Score	Crash Prediction Rank	SSI Rank				
	Weekday AM Peak	Weekday PM Peak							
Two-Way Stop-Controlled	2.33	7.38	3.7	3	3	Yes	Ranks 3rd in CAP-X analysis. Highest PM peak V/C ratio among viable control strategies.		
All-Way Stop-Controlled									
Signalized Control	0.46	0.53	4.8	2	2	Yes	Ranks 2nd in CAP-X analysis and SPICE analysis among viable control strategies. Scenario benefit includes lower construction costs.		
Roundabout	0.45	0.60	5.6	1	1	Yes	Ranked first in Cap-x analysis and SPICE analysis.Scenario benefit includes regulating driving behavior.		
Median U-Turn									
RCUT (Signalized)									
RCUT (Unsignalized)									
Jughandle									
Displaced Left-Turn									
Continuous Green Tee									
Quadrant Roadway									
Thru-Cut									
Other 1 (Type)									
Other 2 (Type)									

Resolution					
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>					
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2				
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Appendix E

CAP-X – AM Peak Hour

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Crossroads													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 AM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Crossroads
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 AM
Number of Intersection Legs:	4
Major Street Direction	North-South

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	95	5	115	2.00%	0.00%
Westbound	0	140	5	115	2.00%	0.00%
Southbound	0	60	795	50	8.00%	0.00%
Northbound	0	40	735	50	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Appendix F

CAP-X – PM Peak Hour

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Crossroads													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 PM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Crossroads
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 PM
Number of Intersection Legs:	4
Major Street Direction	North-South

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	85	5	70	2.00%	0.00%
Westbound	0	85	5	100	2.00%	0.00%
Southbound	0	125	790	105	8.00%	0.00%
Northbound	0	125	880	155	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Appendix G

SPICE

Results										
Summary of crash prediction results for each alternative										
Project Information										
Project Name:	US 98 PD&E	Intersection Type						At-Grade Intersections		
Intersection:	US 98 at Crossroads (Build Only)	Opening Year						2025		
Agency:	FDOT	Design Year						2045		
Project Reference:	FPID 443368-2-22-01	Facility Type						On Urban and Suburban Arterial		
City:	Dade City	Number of Legs						4-leg		
State:	Florida	1-Way/2-Way						2-way Intersecting 2-way		
Date:	4/29/2022	# of Major Street Lanes (both directions)						5 or fewer		
Analyst:	Lochner	Major Street Approach Speed						55+ mph		
Crash Prediction Summary										
Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score		
								Open Year	Design Year	Rank
Traffic Signal	Total	8.63	11.17	207.93	2	Yes	Uncalibrated SPF	62	53	2
	Fatal & Injury	2.91	3.67	69.14						
Minor Road Stop	Total	8.17	9.30	183.74	3	Yes	Calibrated SPF	46	35	3
	Fatal & Injury	3.78	4.42	86.29						
2-lane Roundabout	Total	8.58	10.91	204.55	1	Yes	Uncalibrated SPF	88	85	1
	Fatal & Injury	1.53	1.99	36.90						
Other 1*	Total	No SPF	No SPF	No SPF	--	N/A	CMF	--	--	--
	Fatal & Injury	No SPF	No SPF	No SPF						
Other 2*	Total	No SPF	No SPF	No SPF	--	N/A	CMF	--	--	--
	Fatal & Injury	No SPF	No SPF	No SPF						

Appendix H

ICE Stage 2 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 2: Initial Control Strategy Assessment

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 2 (Intersection Control Strategy) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval.

Project Name	98 PD&E Studies - US 98 at Unnamed (Crossrd)	FDOT Project #	443368-2-22-01		Date	05/03/22		
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Email	jsamus@hwlochner.com		
List all viable intersection control strategies identified in Stage 1 (Screening):								
Two-Way Stop-Controlled		Signalized Control			Roundabout			

Operational Analyses									
Design Vehicle		Florida Interstate Semitrailer (WB-62FL)			Control Vehicle		Florida Interstate Semitrailer (WB-62FL)		
Opening Year		Peak Hour Analysis							
Control Strategy		Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak	
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)
Two-Way Stop-Controlled		D	29.3	Yes	F	100.5	Yes		
Signalized Control		C	20.7	Yes	B	17.5	Yes		
Roundabout		A	7.0	Yes	A	8.2	Yes		
Design Year		Peak Hour Analysis							
Control Strategy		Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak	
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)
Two-Way Stop-Controlled		F	101.5	No	F	1,668.4	No		
Signalized Control		C	20.2	Yes	B	17.7	Yes		
Roundabout		A	8.8	Yes	B	10.6	Yes		
Provide any additional discussion necessary regarding the results of the operational analysis:		LOS and Delay for critical approach are shown for Two-Way Stop-Controlled strategy. Under Two-way Stop-Controlled strategy, the queues on westbound Crossroads may cause spillback in the design year. The queue length may be longer than the distance from the adjacent intersection.							

Safety Performance						
Enter the most recent five (5) years of crash data from the CAR System.				Most recent year of crash data available		
Crash Type						Total
Combined	Total					
	Fatal/Injury					
	PDO					
Single-Vehicle	Total					
	Fatal/Injury					
	PDO					
Multi-Vehicle	Total					
	Fatal/Injury					
	PDO					
Vehicle-Pedestrian	Fatal/Injury					
Vehicle-Bicycle	Fatal/Injury					
Total	All					

Apply the FDOT SPICE Tool to model anticipated safety performance of each control strategy. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE procedures document or qualitatively describe anticipated safety impacts.

Control Strategy	Anticipated Impact on Safety Performance	Opening Year			Design Year		
		Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score
Two-Way Stop-Controlled	Crash Prediction Rank 3, SSI Score Rank 3	8.17	3.78	46	9.30	4.42	35
Signalized Control	Crash Prediction Rank 2, SSI Score Rank 2	8.63	2.91	62	11.17	3.67	53
Roundabout	Crash Prediction Rank 1, SSI Score Rank 1	8.58	1.53	88	10.91	1.99	85

Costs and Benefit/Cost Ratios						
Control Strategy	ROW Costs (\$)	Construction Costs (\$)	FDOT ICE Tool Outputs			
			Delay B/C	Safety B/C	Overall B/C	Net Present Value
Two-Way Stop-Controlled	\$457,248	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$457,248	\$1,725,579	14.60	5.88	20.48	\$11,795,888
Roundabout	\$457,248	\$1,544,437	41.73	26.60	68.33	\$26,026,262

Multimodal Accommodations								
Peak Hour:	Weekday AM Peak		Weekday PM Peak				Activity Level	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Ped.	Bicycles
# of ped. crossings (both approaches, if app.):	N/A	N/A	N/A	N/A			Low	Low
# of cyclists (both approaches, if app.):	N/A	N/A	N/A	N/A				

Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:

Control Strategy	Pedestrians and Bicyclists	Transit Services	Freight Needs
Two-Way Stop-Controlled	Pedestrians crossing the minor street have right-of-way; lack protections for pedestrians across major street	No Existing Transit Facilities near the intersection.	N/A
Signalized Control	Pedestrian phases can be built into the signal timing to allow for permissive pedestrian crossings	No Existing Transit Facilities near the intersection.	N/A
Roundabout	Pedestrian crossings are located only across the legs of the roundabout	No Existing Transit Facilities near the intersection.	N/A

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (including relocation) impacts specific to each control strategy. Be sure to consider the NEPA requirements for each control type.	
Two-Way Stop-Controlled	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Signalized Control	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Roundabout	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.

Public Input/Feedback (if appropriate)
Summarize any agency or public input regarding the control strategies:
A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. No public concerns or comments were noted for the proposed intersection of US 98 and Crossroads.

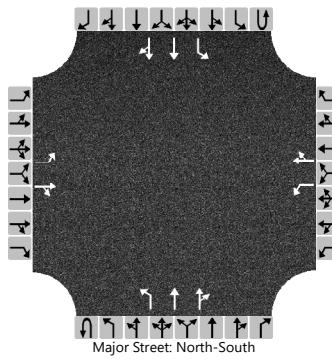
Control Strategy Evaluation		
Provide a brief justification as to why each of the following is either viable or not viable. If a single control strategy is recommended, select it as the only strategy to be advanced.		
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	No	Although this control strategy has the lowest anticipated construction and ROW costs, it provides less operational and safety benefits compared to the other strategies. Additionally, the queue on the eastbound approach will not be accommodated in the Design year (2045).
Signalized Control	No	The operational and safety performance for the signalized-control strategy is better than the two-way stop control, but worse than a roundabout. Additionally, the anticipated construction and ROW cost is greater than the cost for roundabout strategy.
Roundabout	Yes	This control strategy provides the best operational and safety performance, with a lower anticipated construction and ROW cost than the signalized-control type.

Resolution				
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>				
Project Determination	Identified Control Strategy Approved			
Comments				
DTOE Name		Signature		Date
DDE Name		Signature		Date

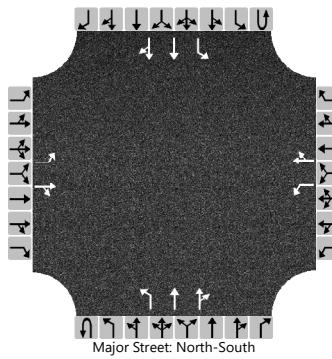
Appendix I

HCS 7 Reports – Stage 2

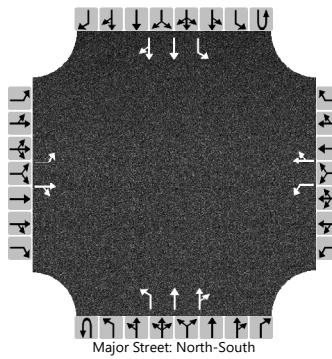
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Crossroads																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Crossroads																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1	0		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	L		TR		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	95	5	115		140	5	115	0	40	535	50	0	60	510	50																										
Percent Heavy Vehicles (%)	2	2	2		2	2	2	8	8			8	8																												
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		100		126		147		126		42			63																												
Capacity, c (veh/h)		238		589		240		580		942			920																												
v/c Ratio		0.42		0.21		0.62		0.22		0.04			0.07																												
95% Queue Length, Q ₉₅ (veh)		2.1		0.8		4.4		0.8		0.1			0.2																												
Control Delay (s/veh)		31.1		12.8		43.3		12.9		9.0			9.2																												
Level of Service (LOS)		D		B		E		B		A			A																												
Approach Delay (s/veh)	20.9				29.3				0.6				0.9																												
Approach LOS	C				D																																				

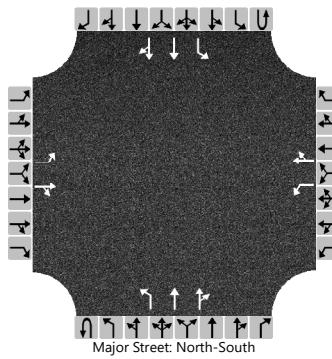
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Crossroads																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Crossroads																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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		1	1	0		1	1	0	0	1	2	0	0	1	2	0																									
Configuration		L		TR		L		TR		L	T	TR		L	T	TR																									
Volume (veh/h)		85	5	70		85	5	100	0	125	595	155	0	125	595	105																									
Percent Heavy Vehicles (%)		2	2	2		2	2	2	8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		89		79		89		111		132			132																												
Capacity, c (veh/h)		105		324		110		374		826			788																												
v/c Ratio		0.85		0.24		0.82		0.30		0.16			0.17																												
95% Queue Length, Q ₉₅ (veh)		8.4		1.0		7.6		1.2		0.6			0.6																												
Control Delay (s/veh)		171.9		19.7		147.0		18.7		10.2			10.5																												
Level of Service (LOS)		F		C		F		C		B			B																												
Approach Delay (s/veh)	100.5				76.1				1.5				1.6																												
Approach LOS	F				F																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Crossroads																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Crossroads																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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		1	1	0		1	1	0	0	1	2	0	0	1	2	0																									
Configuration		L		TR		L		TR		L	T	TR		L	T	TR																									
Volume (veh/h)		95	5	115		140	5	115	0	40	735	50	0	60	795	50																									
Percent Heavy Vehicles (%)		2	2	2		2	2	2	8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		100		126		147		126		42			63																												
Capacity, c (veh/h)		150		414		158		428		721			763																												
v/c Ratio		0.67		0.30		0.94		0.29		0.06			0.08																												
95% Queue Length, Q ₉₅ (veh)		5.0		1.3		12.5		1.2		0.2			0.3																												
Control Delay (s/veh)		73.6		17.5		174.1		16.9		10.3			10.1																												
Level of Service (LOS)		F		C		F		C		B			B																												
Approach Delay (s/veh)	42.3				101.5				0.5				0.7																												
Approach LOS	E				F																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Crossroads																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Crossroads																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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		1	1	0		1	1	0	0	1	2	0	0	1	2	0																									
Configuration		L		TR		L		TR		L	T	TR		L	T	TR																									
Volume (veh/h)		85	5	70		85	5	100	0	125	880	155	0	125	790	105																									
Percent Heavy Vehicles (%)		2	2	2		2	2	2	8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		89		79		89		111		132			132																												
Capacity, c (veh/h)		35		183		46		220		688			602																												
v/c Ratio		2.58		0.43		1.94		0.50		0.19			0.22																												
95% Queue Length, Q ₉₅ (veh)		31.6		2.2		26.7		2.9		0.7			0.8																												
Control Delay (s/veh)		3105.8		39.4		1914.0		37.5		11.5			12.6																												
Level of Service (LOS)		F		E		F		E		B			B																												
Approach Delay (s/veh)	1668.4				877.0				1.2				1.5																												
Approach LOS	F				F																																				

Appendix J

Synchro Reports – Stage 2

HCM 6th Signalized Intersection Summary
8: US 98 & Crossroads Development

Opening Year (2025) - Build Alternative

AM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (veh/h)	95	5	115	140	5	115	40	535	50	60	510	50
Future Volume (veh/h)	95	5	115	140	5	115	40	535	50	60	510	50
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	100	5	121	147	5	121	42	563	53	63	537	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	295	7	179	305	9	215	564	1798	169	556	1808	178
Arrive On Green	0.08	0.12	0.12	0.10	0.14	0.14	0.06	0.58	0.58	0.07	0.58	0.58
Sat Flow, veh/h	1781	63	1531	1781	63	1531	1697	3127	294	1697	3112	306
Grp Volume(v), veh/h	100	0	126	147	0	126	42	304	312	63	291	299
Grp Sat Flow(s), veh/h/ln	1781	0	1595	1781	0	1595	1697	1692	1729	1697	1692	1726
Q Serve(g_s), s	5.2	0.0	8.3	7.5	0.0	8.1	1.0	10.2	10.3	1.5	9.5	9.6
Cycle Q Clear(g_c), s	5.2	0.0	8.3	7.5	0.0	8.1	1.0	10.2	10.3	1.5	9.5	9.6
Prop In Lane	1.00		0.96	1.00		0.96	1.00		0.17	1.00		0.18
Lane Grp Cap(c), veh/h	295	0	187	305	0	224	564	973	994	556	983	1003
V/C Ratio(X)	0.34	0.00	0.68	0.48	0.00	0.56	0.07	0.31	0.31	0.11	0.30	0.30
Avail Cap(c_a), veh/h	305	0	393	354	0	466	624	973	994	606	983	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	46.4	35.0	0.0	43.9	7.7	12.1	12.1	7.7	11.6	11.6
Incr Delay (d2), s/veh	0.7	0.0	4.2	1.2	0.0	2.2	0.1	0.8	0.8	0.1	0.8	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.1	0.0	6.2	5.9	0.0	5.9	0.6	6.4	6.5	0.8	5.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.1	0.0	50.6	36.2	0.0	46.1	7.7	12.9	12.9	7.7	12.4	12.4
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	226				273			658			653	
Approach Delay, s/veh	45.1				40.8			12.6			11.9	
Approach LOS	D				D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.8	67.0	14.0	16.8	11.1	67.7	11.4	19.4				
Change Period (Y+R _c), s	7.5	7.5	4.5	6.0	7.5	7.5	4.5	6.0				
Max Green Setting (Gmax), s	7.5	59.5	12.5	25.0	7.5	59.5	7.5	30.0				
Max Q Clear Time (g_c+l1), s	3.5	12.3	9.5	10.3	3.0	11.6	7.2	10.1				
Green Ext Time (p_c), s	0.0	3.4	0.1	0.5	0.0	3.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				20.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
8: US 98 & Crossroads Development

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘	
Traffic Volume (veh/h)	85	5	70	85	5	100	125	595	155	125	595	105
Future Volume (veh/h)	85	5	70	85	5	100	125	595	155	125	595	105
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	89	5	74	89	5	105	132	626	163	132	626	111
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	173	9	138	204	8	159	549	1686	438	524	1823	323
Arrive On Green	0.05	0.09	0.09	0.06	0.10	0.10	0.07	0.63	0.60	0.07	0.63	0.60
Sat Flow, veh/h	1781	101	1499	1781	73	1524	1697	2658	691	1697	2874	509
Grp Volume(v), veh/h	89	0	79	89	0	110	132	398	391	132	368	369
Grp Sat Flow(s), veh/h/ln	1781	0	1601	1781	0	1596	1697	1692	1657	1697	1692	1690
Q Serve(g_s), s	5.4	0.0	5.5	5.3	0.0	7.7	2.9	13.1	13.5	2.9	11.9	12.2
Cycle Q Clear(g_c), s	5.4	0.0	5.5	5.3	0.0	7.7	2.9	13.1	13.5	2.9	11.9	12.2
Prop In Lane	1.00		0.94	1.00		0.95	1.00		0.42	1.00		0.30
Lane Grp Cap(c), veh/h	173	0	148	204	0	167	549	1073	1051	524	1073	1072
V/C Ratio(X)	0.52	0.00	0.53	0.44	0.00	0.66	0.24	0.37	0.37	0.25	0.34	0.34
Avail Cap(c_a), veh/h	173	0	343	229	0	383	658	1073	1051	648	1073	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	50.6	46.1	0.0	50.2	6.2	10.2	10.6	6.4	10.0	10.3
Incr Delay (d2), s/veh	2.6	0.0	3.0	1.5	0.0	4.4	0.2	1.0	1.0	0.2	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.5	0.0	4.2	4.3	0.0	5.9	1.5	7.8	8.0	1.5	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.1	0.0	53.5	47.6	0.0	54.6	6.4	11.2	11.7	6.7	10.8	11.2
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h												
Approach Delay, s/veh	168				199			921			869	
Approach LOS												
Approach LOS	D				D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.5	78.0	11.4	14.8	12.5	78.0	10.0	16.2				
Change Period (Y+R _c), s	7.5	7.5	4.5	6.0	7.5	7.5	4.5	6.0				
Max Green Setting (Gmax), s	13.5	69.5	8.5	23.0	12.5	70.5	5.5	26.0				
Max Q Clear Time (g_c+l1), s	4.9	15.5	7.3	7.5	4.9	14.2	7.4	9.7				
Green Ext Time (p_c), s	0.2	4.8	0.0	0.3	0.2	4.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay					17.5							
HCM 6th LOS					B							

HCM 6th Signalized Intersection Summary
8: US 98 & Crossroads Development

Design Year (2045) - Build Alternative

AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘		↑ ↗	↑ ↘	
Traffic Volume (veh/h)	95	5	115	140	5	115	40	735	50	60	795	50
Future Volume (veh/h)	95	5	115	140	5	115	40	735	50	60	795	50
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	100	5	121	147	5	121	42	774	53	63	837	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	295	7	179	305	9	215	434	1848	127	464	1878	119
Arrive On Green	0.08	0.12	0.12	0.10	0.14	0.14	0.06	0.58	0.58	0.07	0.58	0.58
Sat Flow, veh/h	1781	63	1531	1781	63	1531	1697	3214	220	1697	3232	205
Grp Volume(v), veh/h	100	0	126	147	0	126	42	407	420	63	438	452
Grp Sat Flow(s), veh/h/ln	1781	0	1595	1781	0	1595	1697	1692	1742	1697	1692	1745
Q Serve(g_s), s	5.2	0.0	8.3	7.5	0.0	8.1	1.0	14.8	14.8	1.5	16.0	16.0
Cycle Q Clear(g_c), s	5.2	0.0	8.3	7.5	0.0	8.1	1.0	14.8	14.8	1.5	16.0	16.0
Prop In Lane	1.00		0.96	1.00		0.96	1.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	295	0	187	305	0	224	434	973	1002	464	983	1014
V/C Ratio(X)	0.34	0.00	0.68	0.48	0.00	0.56	0.10	0.42	0.42	0.14	0.45	0.45
Avail Cap(c_a), veh/h	305	0	393	354	0	466	495	973	1002	514	983	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	46.4	35.0	0.0	43.9	8.4	13.0	13.0	8.2	13.0	13.0
Incr Delay (d2), s/veh	0.7	0.0	4.2	1.2	0.0	2.2	0.1	1.3	1.3	0.1	1.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.1	0.0	6.2	5.9	0.0	5.9	0.6	8.9	9.1	0.8	9.4	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.1	0.0	50.6	36.2	0.0	46.1	8.5	14.4	14.3	8.4	14.4	14.4
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	226				273			869			953	
Approach Delay, s/veh	45.1				40.8			14.1			14.0	
Approach LOS	D				D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.8	67.0	14.0	16.8	11.1	67.7	11.4	19.4				
Change Period (Y+R _c), s	7.5	7.5	4.5	6.0	7.5	7.5	4.5	6.0				
Max Green Setting (Gmax), s	7.5	59.5	12.5	25.0	7.5	59.5	7.5	30.0				
Max Q Clear Time (g_c+l1), s	3.5	16.8	9.5	10.3	3.0	18.0	7.2	10.1				
Green Ext Time (p_c), s	0.0	4.9	0.1	0.5	0.0	5.4	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay				20.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
8: US 98 & Crossroads Development

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↑	↑	↓	↑	↑	↓	↑	↑	↓	↑	↑	↓
Traffic Volume (veh/h)	85	5	70	85	5	100	125	880	155	125	790	105
Future Volume (veh/h)	85	5	70	85	5	100	125	880	155	125	790	105
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	89	5	74	89	5	105	132	926	163	132	832	111
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	173	9	138	204	8	159	463	1824	321	411	1904	254
Arrive On Green	0.05	0.09	0.09	0.06	0.10	0.10	0.07	0.63	0.60	0.07	0.63	0.60
Sat Flow, veh/h	1781	101	1499	1781	73	1524	1697	2877	506	1697	3001	400
Grp Volume(v), veh/h	89	0	79	89	0	110	132	545	544	132	469	474
Grp Sat Flow(s), veh/h/ln	1781	0	1601	1781	0	1596	1697	1692	1690	1697	1692	1709
Q Serve(g_s), s	5.4	0.0	5.5	5.3	0.0	7.7	2.9	20.3	20.6	2.9	16.4	16.6
Cycle Q Clear(g_c), s	5.4	0.0	5.5	5.3	0.0	7.7	2.9	20.3	20.6	2.9	16.4	16.6
Prop In Lane	1.00		0.94	1.00		0.95	1.00		0.30	1.00		0.23
Lane Grp Cap(c), veh/h	173	0	148	204	0	167	463	1073	1072	411	1073	1084
V/C Ratio(X)	0.52	0.00	0.53	0.44	0.00	0.66	0.28	0.51	0.51	0.32	0.44	0.44
Avail Cap(c_a), veh/h	173	0	343	229	0	383	573	1073	1072	534	1073	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	50.6	46.1	0.0	50.2	7.0	11.5	11.9	7.9	10.8	11.1
Incr Delay (d2), s/veh	2.6	0.0	3.0	1.5	0.0	4.4	0.3	1.7	1.7	0.4	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.5	0.0	4.2	4.3	0.0	5.9	1.5	11.1	11.4	1.5	9.3	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.1	0.0	53.5	47.6	0.0	54.6	7.3	13.2	13.6	8.4	12.1	12.3
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	168				199			1221			1075	
Approach Delay, s/veh	51.7				51.5			12.8			11.7	
Approach LOS	D				D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.5	78.0	11.4	14.8	12.5	78.0	10.0	16.2				
Change Period (Y+R _c), s	7.5	7.5	4.5	6.0	7.5	7.5	4.5	6.0				
Max Green Setting (Gmax), s	13.5	69.5	8.5	23.0	12.5	70.5	5.5	26.0				
Max Q Clear Time (g_c+l1), s	4.9	22.6	7.3	7.5	4.9	18.6	7.4	9.7				
Green Ext Time (p_c), s	0.2	7.5	0.0	0.3	0.2	6.0	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				17.7								
HCM 6th LOS				B								

Appendix K

Sidra Reports – Stage 2

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	40	8.0	42	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	36.0
8	T1	535	8.0	563	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	40.1
18	R2	50	8.0	53	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	34.7
Approach		625	8.0	658	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	39.3
East: Crossroad														
1	L2	140	2.0	147	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	32.2
6	T1	5	2.0	5	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	30.3
16	R2	115	2.0	121	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	31.6
Approach		260	2.0	274	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	31.9
North: US 98														
7	L2	60	8.0	63	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	35.5
4	T1	510	8.0	537	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	39.6
14	R2	50	8.0	53	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	34.5
Approach		620	8.0	653	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	38.7
West: Crossroad														
5	L2	95	2.0	100	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.6
2	T1	5	2.0	5	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	30.6
12	R2	115	2.0	121	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.0
Approach		215	2.0	226	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.2
All Vehicles		1720	6.3	1811	6.3	0.374	7.0	LOS A	1.7	43.7	0.44	0.36	0.47	36.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	Dist ft				
South: US 98														
3	L2	125	8.0	132	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	34.4
8	T1	595	8.0	626	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	38.3
18	R2	155	8.0	163	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	33.6
Approach		875	8.0	921	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	36.8
East: Crossroad														
1	L2	85	2.0	89	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	32.4
6	T1	5	2.0	5	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	30.5
16	R2	100	2.0	105	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	31.8
Approach		190	2.0	200	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	32.1
North: US 98														
7	L2	125	8.0	132	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	34.3
4	T1	595	8.0	626	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	38.4
14	R2	105	8.0	111	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	33.7
Approach		825	8.0	868	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	37.0
West: Crossroad														
5	L2	85	2.0	89	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	32.5
2	T1	5	2.0	5	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	30.5
12	R2	70	2.0	74	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	31.9
Approach		160	2.0	168	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	32.2
All Vehicles		2050	7.0	2158	7.0	0.435	8.2	LOS A	2.2	59.6	0.50	0.40	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	40	8.0	42	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	35.5
8	T1	735	8.0	774	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	39.4
18	R2	50	8.0	53	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	34.2
Approach		825	8.0	868	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	38.8
East: Crossroads Development														
1	L2	140	2.0	147	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.7
6	T1	5	2.0	5	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	29.0
16	R2	115	2.0	121	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.2
Approach		260	2.0	274	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.4
North: US 98														
7	L2	60	8.0	63	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	34.7
4	T1	795	8.0	837	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	38.5
14	R2	50	8.0	53	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	33.6
Approach		905	8.0	953	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	37.9
West: Crossroads Development														
5	L2	95	2.0	100	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.6
2	T1	5	2.0	5	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	28.8
12	R2	115	2.0	121	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.0
Approach		215	2.0	226	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.3
All Vehicles		2205	6.7	2321	6.7	0.453	8.8	LOS A	2.3	60.8	0.48	0.40	0.55	36.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance															
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Delay	Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: US 98															
3	L2	125	8.0	132	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	33.3	
8	T1	880	8.0	926	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	36.8	
18	R2	155	8.0	163	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	32.3	
Approach		1160	8.0	1221	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	35.8	
East: Crossroads Development															
1	L2	85	2.0	89	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	30.3	
6	T1	5	2.0	5	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	28.6	
16	R2	100	2.0	105	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	29.8	
Approach		190	2.0	200	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	30.0	
North: US 98															
7	L2	125	8.0	132	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	33.7	
4	T1	790	8.0	832	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	37.4	
14	R2	105	8.0	111	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	32.9	
Approach		1020	8.0	1074	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	36.4	
West: Crossroads Development															
5	L2	85	2.0	89	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	31.4	
2	T1	5	2.0	5	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	29.5	
12	R2	70	2.0	74	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	30.8	
Approach		160	2.0	168	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	31.0	
All Vehicles		2530	7.2	2663	7.2	0.577	10.6	LOS B	4.1	109.5	0.57	0.48	0.63	35.2	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix L

Traffic Signal Warrant

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Dade City**
 County: **16 – Polk**
 District: **Seven**

Engineer: **Lochner**
 Date: **April 27, 2022**

Major Street: **US 98** Lanes: **4** Major Approach Speed: **55**
 Minor Street: **Unnamed (Crossroads)** Lanes: **2** 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? 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" MAY 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:
 only peak hour data is available

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

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
5:00 PM	1700	190

Criteria**1. Delay on Minor Approach
(vehicle-hours)**

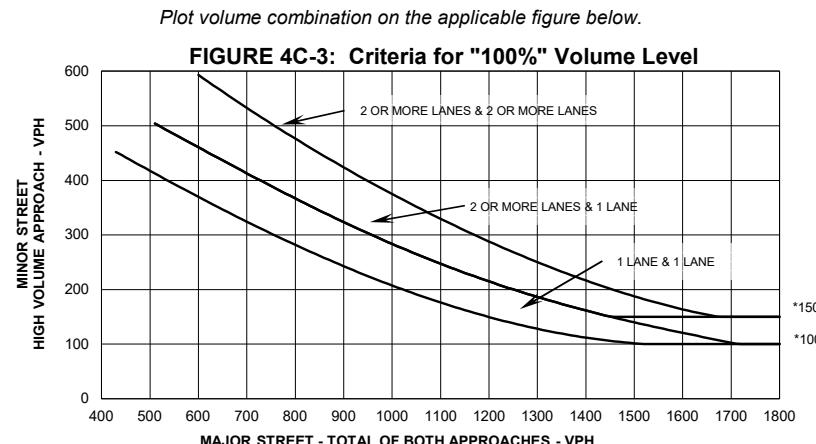
Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*		
Fulfilled?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

**2. Volume on Minor Approach
One-Direction *(vehicles per hour)**

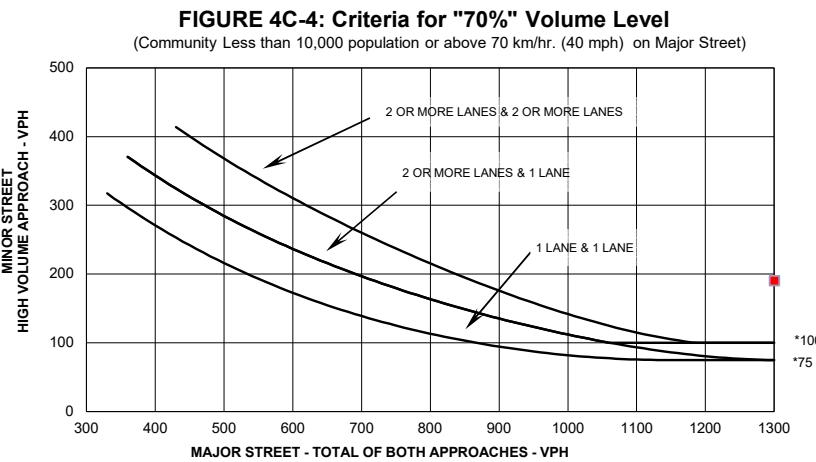
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	190	
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

**3. Total Intersection Entering
Volume *(vehicles per hour)**

No. of Approaches	3	4
Volume Criteria*	650	800
Volume*	L	2,050
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No



* 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 ph. applies as the lower threshold volume for a minor street approach with two or more lanes and 75 phi applies as the lower threshold volume threshold for a minor street approach with one lane.

Appendix M

Long Range Estimation System Reports

Date: 6/24/2022 3:21:22 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO **Market Area:** 07 **Units:** English
Contract Class: 9 Lump Sum Project: N **Design/Build:** Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	Value 50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

Sequence 5 Total \$85,353.29

Date: 6/24/2022 3:21:23 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01

Letting Date: 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07 **County:** 14 PASCO**Market Area:** 07 **Units:** English**Contract Class:** 9 **Lump Sum Project:** N**Design/Build:** Y **Project Length:** 3.057 MI**Project Manager:** PRD-KIL**Version 12 Project Grand Total** \$1,287,718.71**Description:** STOP CONTROLLED INTERSECTION ALTERNATIVE**Project Sequences Subtotal** **\$1,022,908.03**

102-1	Maintenance of Traffic	10.00 %	\$102,290.80
101-1	Mobilization	10.00 %	\$112,519.88

Project Sequences Total **\$1,237,718.71**

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00

Project Non-Bid Subtotal **\$50,000.00****Version 12 Project Grand Total** **\$1,287,718.71**

Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 15 Project Grand Total **\$1,775,578.57**

Description: SIGNALIZED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI

301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT 0 LF

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00 LF	\$15.56	\$12,448.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	\$30.07	\$6,014.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,131.15	\$5,131.15
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	2.00 EA	\$1,064.47	\$2,128.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$839.88	\$10,078.56
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,416.02	\$3,416.02
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$8.12	\$487.20
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$71,616.29	\$286,465.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$997.96	\$7,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$612.38	\$4,899.04
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	\$362.84	\$2,902.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	\$1,120.21	\$8,961.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$238.60	\$1,908.80
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$44,475.01	\$44,475.01
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$207.25	\$829.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$1,265.25	\$5,061.00
Comment: Signal for LT lanes in the NB and SB directions					
Signalizations Component Total					\$403,189.96

Sequence 5 Total	\$488,543.25
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 15 Project Grand Total	\$1,775,578.57
Description: SIGNALIZED INTERSECTION ALTERNATIVE	

Project Sequences Subtotal	\$1,426,097.99
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102-1	Maintenance of Traffic	10.00 %	\$142,609.80
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101-1	Mobilization	10.00 %	\$156,870.78
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Project Sequences Total	\$1,725,578.57
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 15 Project Grand Total	\$1,775,578.57
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Date: 6/24/2022 3:30:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 14 Project Grand Total **\$1,594,436.88**

Description: ROUNDABOUT ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31	CY	\$10.20	\$56,072.56
Earthwork Component Total					\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87	SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66	SY	\$40.46	\$80,258.88

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON					

EACH SIDE OF THE APPROACH. TOTAL FOR THIS
APPROACH = 250 FT

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
Median Component Total					\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20	1.00	AS	\$1,346.31	\$1,346.31

	SF			
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$12,228.81	\$12,228.81
Signing Component Total				\$19,699.29

Sequence 1 Total	\$347,274.28
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
Description: SB 4-LANE APPROACH 301 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31 CY	\$10.20	\$56,072.56
Earthwork Component Total				\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87 SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66 SY	\$40.46	\$80,258.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON EACH SIDE OF THE APPROACH. TOTAL FOR THIS APPROACH = 250 FT					

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
	Median Component Total				\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
	Drainage Component Total				\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81

Signing Component Total	\$19,699.29
Sequence 2 Total	\$347,274.28
Sequence: 3 NUR - New Construction, Undivided, Rural	Net Length: 0.057 MI 300 LF
Description: WB 2-LANE APPROACH	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50

Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT

520-5-16 TRAF SEP CONC-TYPE I, 8.5' WIDE 50.00 LF \$129.33 \$6,466.50
Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total**\$161,990.49****Sequence:** 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
	Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT				
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
	Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T

Rumble Strips 1/2 No. of Sides

0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total \$13,026.58**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total \$8,492.23**Sequence 4 Total** \$161,990.49**Sequence: 5 NDR - New Construction, Divided, Rural** **Net Length:** 0.057 MI

Description: Roundabout Central Island, includes landscaping and irrigation system

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$17,175.14	\$8,587.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	\$6.91	\$2,764.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				
120-6	EMBANKMENT	400.00	CY	\$10.20	\$4,080.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				

Earthwork Component Total	\$15,431.57
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ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	110

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,800.00	SY	\$8.46	\$15,228.00
	Comment: measure (22121-6175)SF /9 = 1772 SY use 1800 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	1,300.00	SY	\$40.46	\$52,598.00
	Comment: measure (22121-10477)SF /9 = 1294 SY use 1300 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	143.00	TN	\$95.81	\$13,700.83
	Comment: 2" Superpave Traffic C (1300 X 110 X 2)/2000				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-	72.00	TN	\$194.95	\$14,036.40

9.5,PG 76-22

Comment: 1" FC-9.5 Traffic C PG 76-22 (1300 X 110)/2000

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.05 GM	\$1,112.81	\$55.64
710-11-141	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"	0.02 GM	\$548.94	\$10.98
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	6.00 EA	\$29.54	\$177.24
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.07 GM	\$1,125.02	\$78.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total	\$95,885.84
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SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.25 AC	\$50.04	\$12.51
107-2	MOWING	0.25 AC	\$61.82	\$15.46

Shoulder Component Total	\$3,701.53
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MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"	480.00	SY	\$154.80	\$74,304.00
520-2-4	CONCRETE CURB, TYPE D	280.00	LF	\$38.28	\$10,718.40
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$37.00	\$13,690.00
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.05	\$2,835.00
Median Component Total					\$101,547.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$324.56	\$1,298.24
Signing Component Total					\$1,298.24

LANDSCAPING COMPONENT**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	\$40,000.00
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Sequence 5 Total	\$257,864.58
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Date: 6/24/2022 3:30:50 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 14 Project Grand Total	\$1,594,436.88
Description: ROUNDABOUT ALTERNATIVE	

Project Sequences Subtotal	\$1,276,394.12
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102-1	Maintenance of Traffic	10.00 %	\$127,639.41
101-1	Mobilization	10.00 %	\$140,403.35

Project Sequences Total	\$1,544,436.88
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
	Project Non-Bid Subtotal				\$50,000.00

Version 14 Project Grand Total **\$1,594,436.88**

Appendix N

ICE Tool – Stage 2

Outputs

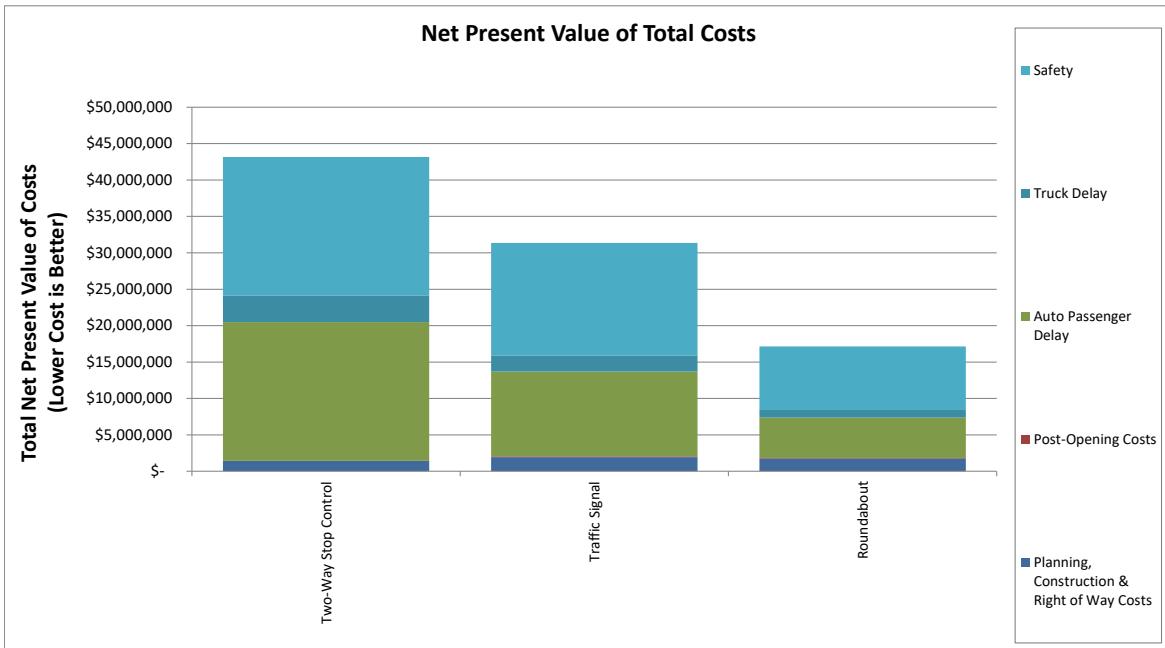
This sheet compiles the data from summary tables in individual alternatives sheets.
To populate the output sheet press the "Setup Worksheets" button in the
Alternatives_MasterList tab.

Agency:	Florida Department of Transportation
Project Name:	US 98 PD&E
Project Reference:	FPID 443368-2-22-01
Intersection:	US 98 at Crossroad's roadway (Build Only)
City:	Dade
State:	Florida
Performing Department or Organization:	H.W. Lochner
Date:	6/27/2022
Analyst:	Claire McGinnis
Analysis Type	At-Grade Intersection

Analysis Summary

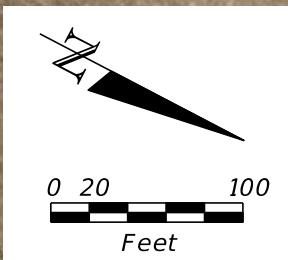
Cost Categories	Net Present Value of Costs			
	Two-Way Stop Control	Traffic Signal	Roundabout	
Planning, Construction & Right of Way Costs	\$ 1,415,809	\$ 1,937,819	\$ 1,743,997	
Post-Opening Costs	\$ 14,590	\$ 98,229	\$ 72,952	
Auto Passenger Delay	\$ 19,060,941	\$ 11,655,581	\$ 5,536,682	
Truck Delay	\$ 3,665,988	\$ 2,229,959	\$ 1,058,690	
Safety	\$ 19,010,704	\$ 15,450,557	\$ 8,729,449	
Total cost	\$43,168,032	\$31,372,144	\$17,141,770	

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Two-Way Stop Control			
Benefit Categories	Net Present Value of Benefits Relative to Base Case			
	Two-Way Stop Control	Traffic Signal	Roundabout	
Auto Passenger Delay		\$ 7,405,360	\$ 13,524,259	
Truck Delay		\$ 1,436,029	\$ 2,607,298	
Safety		\$ 3,560,147	\$ 10,281,255	
Net Present Value of Benefits	\$ 12,401,536	\$ 26,412,812		
Net Present Value of Costs	\$ 605,648	\$ 386,550		
Net Present Value of Improvement	\$ 11,795,888	\$ 26,026,262		
Benefit-Cost (B/C) Ratio	20.48	68.33		
Delay B/C	14.60	41.73		
Safety B/C	5.88	26.60		



Appendix O

Recommended ICE Concept



Connection to
Crossroads Development



Connection to
Crossroads Development

US 98 and Crossroads
Roundabout

Intersection Control Evaluation Report

**US 98 / State Road 35 / State Road 700
At Old US 98**



Florida Department of Transportation

District 7

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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- Appendix N: ICE Tool – Stage 2
- Appendix O: Recommended ICE Concept

1.0 Introduction

1.1 Project Overview

The Florida Department of Transportation (FDOT) District Seven is conducting the US 98 Project Development and Environment (PD&E) Study (WPI Segment No: 443368-2) to evaluate the need for widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to deemphasize the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. Additionally, significant development is planned along the proposed US 98 realignment that will have a significant impact on corridor operations. Conceptual plans for the proposed developments can be found in **Appendix A**. This document will analyze the proposed intersection at US 98 and Old US 98 created by the US 98 realignment. Improvements to this intersection will seek to minimize delay while also emphasizing safety. The intersection of US 98 at Old US 98 within the context of the US 98 PD&E project location and study area is shown in **Figure 1.1**.

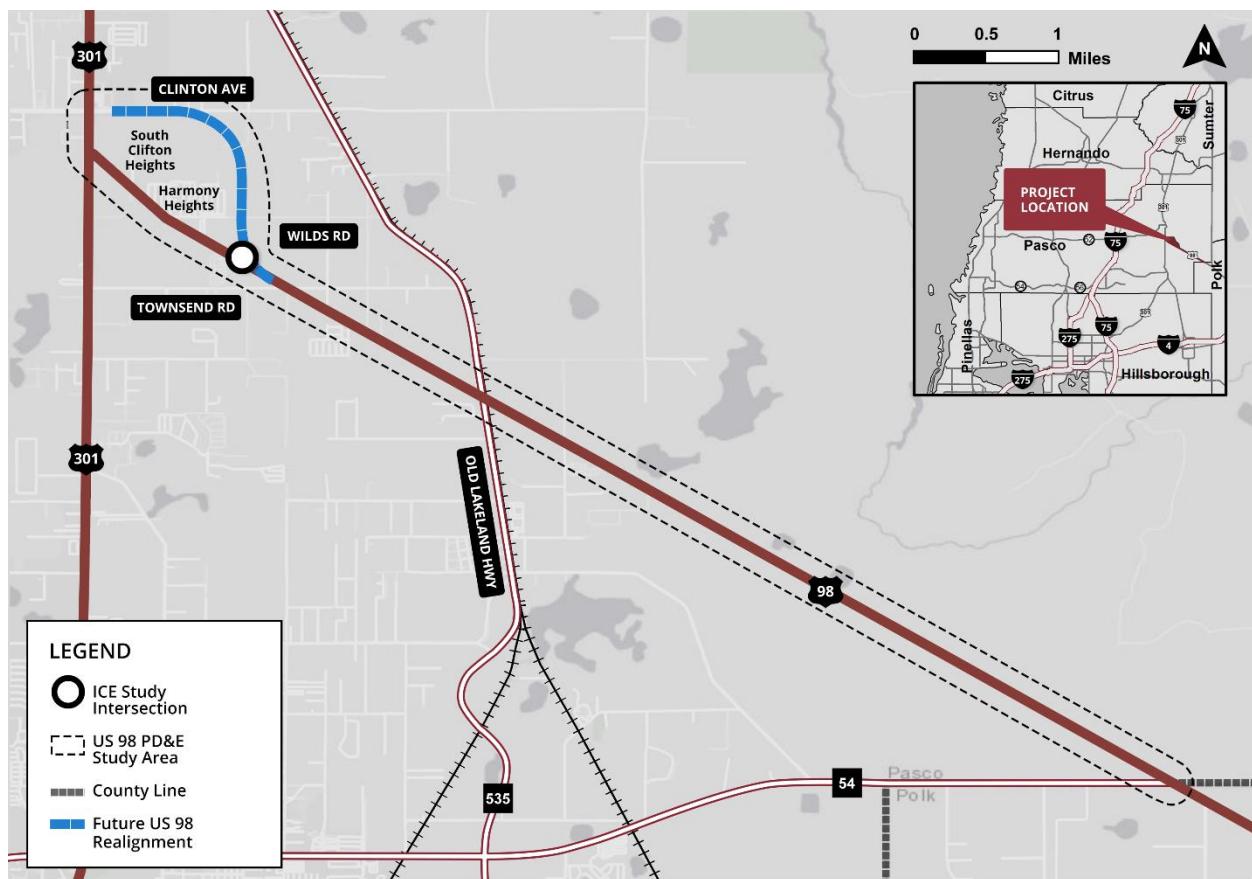


Figure 1.1: Study Intersection and Project Location Map

1.2 Intersection Control Evaluation Methodology

To assess the most appropriate intersection control to accompany the widening and realignment of US 98, an Intersection Control Evaluation (ICE) analysis, in accordance with the Florida Department of Transportation's (FDOT's) Manual on Intersection Control Evaluation (FDOT Topic Number 750-010-003) (2022), was requested. A Stage 1 ICE analysis will be conducted and if a single viable control cannot be determined, then a Stage 2 ICE analysis will be conducted.

All analysis will be conducted utilizing volumes and traffic factors from the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2). The analysis years for this study included an existing year (2019), opening year (2025), and a design year (2045). The US 98 PD&E Forecast Volumes and Institute of Transportation Engineers (ITE) Trip Generation associated with the proposed developments within the study area can be found in **Appendix B** and **Appendix C**, respectively. For use in this analysis, Turning Movement Volumes and Annual Average Daily Traffic counts at the US 98 and Old US 98 intersection (ID number 7) for opening year (2025) and design year (2045) can be found in **Figure 1.2**. A conceptual roundabout design is used for reference. This analysis will utilize an observed daily truck percentage (T_{24}) of 15.2 percent and a design hour truck (DHT) percentage of 8.0 percent along US 98. A Highway Capacity Manual (HCM) default T_{24} of 4.0 percent and DHT of 2.0 percent were used along Old US 98.

Based upon the current context of US 98, coordination with FDOT District 7, and development plans along the corridor, only the following intersection controls will be considered during this ICE analysis:

- Two-way stop control;
- Signalization; and
- Two (2) lane Roundabout with one (1) lane on the minor approach (2x1 Roundabout)

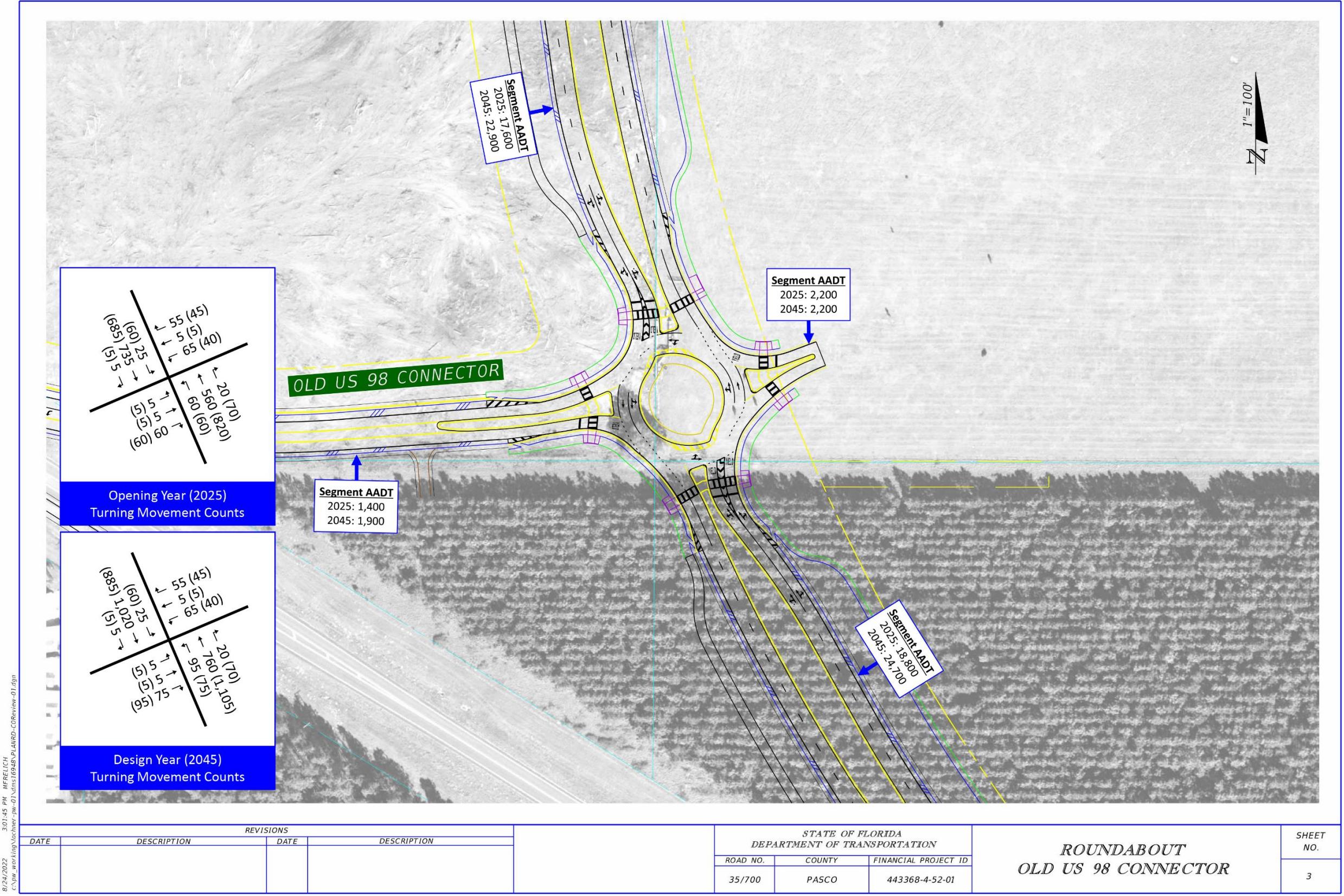


Figure 1.2: Opening Year (2025) Turning Movement Volumes

2.0 ICE Stage 1 Analysis

ICE Stage 1 in this analysis includes Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance of Intersection Control Evaluations (SPICE) rankings. The ICE Stage 1 forms can be found in **Appendix D**.

2.1 Capacity Analysis at Junctions (CAP-X)

The US 98 and Old US 98 CAP-X analysis was conducted under the design year (2045) and assumes the widening and realignment of the US 98 corridor. Based on the demand at the intersection, along with the four lanes along US 98 and two lanes along Old US 98, the following improvements were examined under both the two-way stop control and traffic signal condition:

- Left turn bays were provided along US 98 and the westbound approach along Old US 98
- A right turn bay was provided at the eastbound approach along Old US 98

The 2x1 roundabout analysis did not require additional modification. The estimated Volume to Capacity (V/C) ratios and rankings of the design year (2045) CAP-X analysis for the AM and PM peak hours are shown in **Table 2.1**. The CAP-X 2045 AM and PM Peak Hour reports can be found in **Appendix E** and **Appendix F**, respectively.

Table 2.1: Design Year (2045) CAP-X Analysis

US 98 at Old US 98	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Overall V/C	V/C Rank	Overall V/C	V/C Rank	Overall V/C	V/C Rank
AM	6.35	3	0.44	1	0.52	2
PM	10.23	3	0.46	1	0.57	2

2.2 Safety Performance for Intersection Control Evaluation (SPICE)

SPICE analysis typically utilizes the most recent five-year period of historical crash data within the study area. Due to this intersection being a result of a new US 98 alignment, no historical analysis was included. SPICE analysis for this report focuses on the proposed configurations and predicted crash frequencies present in the SPICE worksheets. The FDOT SPICE analysis was conducted for the opening year (2025) and design year (2045) and result summaries can be found in **Appendix G**.

The FDOT SPICE analysis was conducted for the opening year (2025) and the design year (2045) to predict the total crashes, fatal and injury crashes, and Safe System Intersection (SSI) scores. The summaries of the safety performance for each control strategy are shown in **Table 2.2**.

Table 2.2: Predicted Crashes and SSI Scores

Control Strategy	Opening Year (2025)			Design Year (2045)		
	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score
Two-Way Stop Controlled	5.73	2.50	48	6.53	2.92	37
Signalized Control	6.02	2.02	66	7.78	2.55	57
Roundabout	7.86	1.37	89	10.46	1.88	86

By the design year (2045), it is anticipated that a roundabout would rank first among the selected control strategies providing the lowest severity crash frequency of 1.88 during design year (2045). The signalized control alternative ranks second with a severe crash frequency of 2.55. The two-way stop control ranks third with a severe crash frequency of 2.92. All intersections indicated an increase in crash frequency and severity from the opening year (2025) to the design year (2045).

The results of life cycle SPICE analysis for the AM and PM peak hours are shown in **Table 2.3**. The roundabout ranks first with the lowest number of Total Project Life Cycle severe crashes.

Table 2.3: SPICE Analysis

Crash Type	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank
Total	128.93		144.91		192.15	
Fatal & Injury	56.99	3	48.04	2	34.07	1

2.3 Alternative Scenario Rankings for Stage 1 Analysis

The results of the ICE Stage 1 analysis are summarized in **Table 2.4** along with how each control strategy performed at each of the study intersections based on the CAP-X and SPICE analysis.

Table 2.4: Analysis Summary

Intersection	Control Strategy	ICE Stage 2 Analysis		
		CAP-X Rank	SPICE Rank	
		AM	PM	Daily
US 98 at Old US 98	Two-Way Stop Control	3	3	3
	Traffic Signal Control	1	1	2
	2NS x 1EW Roundabout	2	2	1

ICE Stage 1 analysis supports the use of traffic signal control and 2-lane roundabout at the intersection of US 98 and Old US 98. These control strategies have similar V/C ratios and safety considerations. To further analyze all control strategies, ICE Stage 2 analysis was performed and the recommended strategies were further examined.

3.0 ICE Stage 2 Analysis

3.1 Opening and Design Year Operational Analysis

The ICE Stage 1 analysis did not identify a single viable control strategy. Therefore, all three control strategies were advanced to ICE Stage 2 analysis. Summaries of the ICE Stage 2 analysis can be found in **Appendix H**. The Stage 2 analysis evaluates each viable control strategy based on:

- Opening and Design year operational performance
- Safety performance
- Benefit-to-cost analysis
- Multimodal accommodations
- Environmental, utility, and right-of-way impacts
- Public input
- Other appropriate factors

The conceptual layout of the lane geometry for each of the control strategies can be found in **Figure 3.1**.

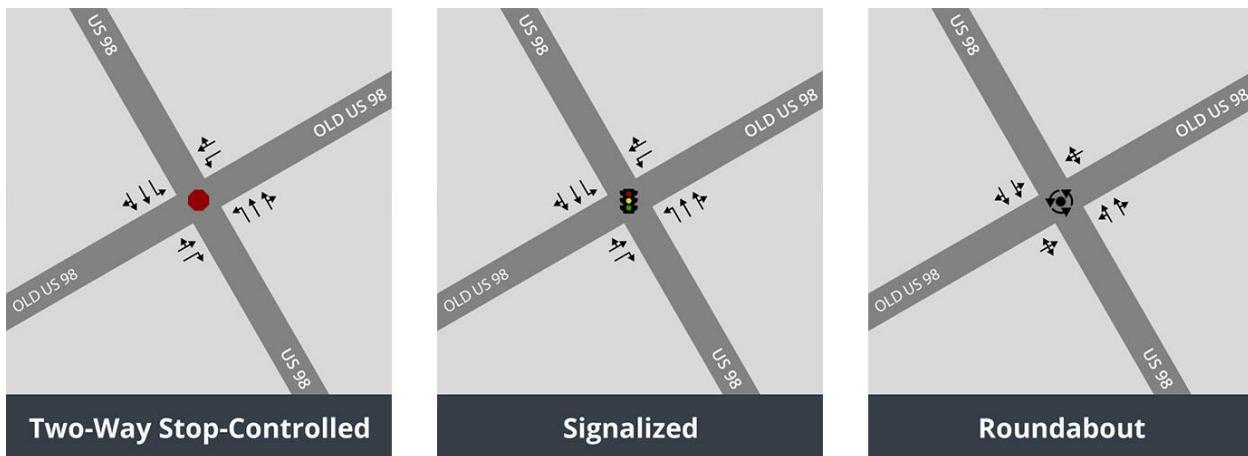


Figure 3.1: Conceptual Layout

HCS 7, Synchro 11, and SIDRA 9 were used to analyze the operational performance of two-way stop control, signalized control, and roundabout control, respectively. The HCS 7, Synchro 11, and SIDRA 9 reports can be found in **Appendix I**, **Appendix J**, and **Appendix K**, respectively. Level of Service (LOS), average control delay, and 95th percentile queue lengths were the measures of performance for the operational analysis conducted in Stage 2. The intersection performance measures by movement for each control type can be found in **Table 3.1** through **Table 3.6**, while the overall intersection results for each control type can be found in **Table 3.7** and **Table 3.8**.

The intersection performance measures by movement for two-way stop control can be found in **Table 3.1** and **Table 3.2**. By the opening year (2025), both the eastbound and westbound left turn movements are expected to fail to meet the LOS target D during the PM peak hour. By the design year (2045), both the eastbound and westbound left turn movements are expected to fail to meet the LOS target D during both the AM and PM peak hours along with the westbound through/right during the PM peak hour. The intersection performance measures by movement for signalized control can be found in **Table 3.3** and **Table 3.4**. Each movement is expected to continue to meet the LOS target D by the design year (2045) under signalized control except for the eastbound right turn movement in the PM peak hour. The intersection performance measures by movement for roundabout control can be found in **Table 3.5** and **Table 3.6**. Each approach is expected to continue to meet the LOS target D by the design year (2045) under roundabout control.

In addition to the HCS 7, Synchro 11, and SIDRA 9 analyses that were performed, a traffic signal warrant analysis was completed. Due to only having peak hour volume data available, only Warrant 3 was assessed and does not meet the criteria for the intersection to be signalized. The Traffic Signal Warrant analysis can be found in **Appendix L**.

Table 3.1: Opening Year (2025) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	33.9	D	53.5	F	1/500'	25 (25)
	Through/Right*	11.6	B	11.3	B	1/250'	25 (25)
Westbound	Left	28.0	D	38.1	E	1/250'	50 (50)
	Through/Right*	14.0	B	19.6	C	1/1170'	25 (25)
Northbound	Left	9.9	A	9.7	A	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1700'	-
Southbound	Left	9.0	A	10.7	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1900'	-

*Weighted delay for Through/Right movement reported

Table 3.2: Design Year (2045) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	79.6	F	134.1	F	1/500'	25 (50)
	Through/Right*	13.8	B	13.2	B	1/250'	25 (25)
Westbound	Left	73.0	F	95.9	F	1/250'	100 (75)
	Through/Right*	22.4	C	37.3	E	1/1170'	25 (50)
Northbound	Left	12.1	B	10.9	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1700'	-
Southbound	Left	9.9	A	12.8	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1900'	-

*Weighted delay for Through/Right movement reported

Table 3.3: Opening Year (2025) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	47.3	D	50.8	D	1/500'	25 (25)
	Through/Right*	51.6	D	55.4	E	1/250'	100 (100)
Westbound	Left	42.4	D	46.3	D	1/250'	75 (50)
	Through/Right*	40.0	D	45.0	D	1/1170'	75 (75)
Northbound	Left	5.6	A	4.9	A	1/250'	25 (25)
	Through/Right*	8.7	A	10.0	B	2/1700'	125 (225)
Southbound	Left	5.4	A	5.5	A	1/250'	25 (25)
	Through/Right*	9.8	A	8.6	A	2/1900'	175 (150)

*Weighted delay for Through/Right movement reported

Table 3.4: Design Year (2045) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	46.7	D	49.4	D	1/500'	25 (25)
	Through/Right*	51.7	D	55.8	E	1/250'	100 (150)
Westbound	Left	41.9	D	45.0	D	1/250'	75 (50)
	Through/Right*	39.5	D	43.7	D	1/1170'	50 (75)
Northbound	Left	7.7	A	6.6	A	1/250'	50 (25)
	Through/Right*	10.2	B	13.5	B	2/1700'	200 (350)
Southbound	Left	6.2	A	8.1	A	1/250'	25 (25)
	Through/Right*	12.2	B	10.9	B	2/1900'	275 (225)

*Weighted delay for Through/Right movement reported

Table 3.5: Opening Year (2025) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	7.1	A	6.8	A	1/500'	25 (25)
	Through	7.1	A	6.8	A		25 (25)
	Right	7.1	A	6.8	A		25 (25)
Westbound	Left	6.6	A	8.0	A	1/1170'	25 (25)
	Through	6.6	A	8.0	A		25 (25)
	Right	6.6	A	8.0	A		25 (25)
Northbound	Left	5.2	A	7.0	A	2/1170'	50 (75)
	Through	5.2	A	7.0	A		50 (75)
	Right	5.2	A	7.0	A		50 (75)
Southbound	Left	6.5	A	6.2	A	2/1900'	50 (50)
	Through	6.5	A	6.2	A		50 (50)
	Right	6.5	A	6.2	A		50 (50)

Table 3.6: Design Year (2045) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	10.2	B	9.4	A	1/500'	25 (25)
	Through	10.2	B	9.4	A		25 (25)
	Right	10.2	B	9.4	A		25 (25)
Westbound	Left	8.7	A	11.4	B	1/1170'	25 (25)
	Through	8.7	A	11.4	B		25 (25)
	Right	8.7	A	11.4	B		25 (25)
Northbound	Left	6.3	A	9.0	A	2/1170'	50 (100)
	Through	6.3	A	9.0	A		50 (100)
	Right	6.3	A	9.0	A		50 (100)
Southbound	Left	8.9	A	7.5	A	2/1900'	75 (75)
	Through	8.9	A	7.5	A		75 (75)
	Right	8.9	A	7.5	A		75 (75)

The overall intersection results for the opening year (2025) and design year (2045) are shown in **Table 3.7** and **Table 3.8**, respectively.

Table 3.7: Opening Year (2025) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	C	21.3	Yes	D	27.8	Yes
Signalized Control	B	13.4	Yes	B	12.6	Yes
Roundabout	A	6.0	Yes	A	6.7	Yes

*Worst case Stop Controlled approach LOS shown

Table 3.8: Design Year (2045) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	E	48.7	Yes	F	63.3	Yes
Signalized Control	B	14.4	Yes	B	15.2	Yes
Roundabout	A	7.8	Yes	A	8.5	Yes

* Worst case Stop Controlled approach LOS shown

3.2 Cost and Benefit-to-Cost Ratio

The benefit-to-cost ratio analysis for the project life cycle was conducted with the FDOT ICE tool. The two-way stop control is the base strategy for the benefit-to-cost comparison. The right-of-way (ROW) costs are expected to be the same for all three control strategies. The design cost is assumed to be seven percent of the sum of the construction cost and the contingency cost. The FDOT Long Range Estimating System (LRE) reports for these control strategies can be found in **Appendix M**. The summary of the benefit-to-cost analysis is shown in **Table 3.9**. The output table of the ICE tool can be found in **Appendix N**.

Table 3.9: Cost and Benefit-to-Cost Ratios

Control Strategy	ROW Costs (\$)	Design Cost (\$)	Contingency Cost (\$)	Construction Cost (\$)	FDOT ICE Tool Outputs Relative to Base Case			
					Delay B/C	Safety B/C	Overall B/C	Net Present Value of Improvement
Two-Way Stop Controlled	\$457,248	\$86,640	\$50,000	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$457,248	\$120,790	\$50,000	\$1,725,579	*	3.09	*	-\$8,055,182
2x1 Roundabout	\$457,248	\$108,111	\$50,000	\$1,544,437	*	11.84	2.84	\$709,653

*No B/C reported in FDOT ICE Tool

3.3 Multimodal Accommodations

Due to the intersection of US 98 at Old US 98 being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.

Under two-way stop control, pedestrians crossing the minor street approaches would be crossing at a stop-controlled location, and would therefore have the right-of-way. However, the lack of stop control or signalization would not provide any protected pedestrian movement across the major street. Under signal control, crossing time would be provided for pedestrians crossing both the major and minor streets. Under roundabout control, crossing distances would be reduced for all crossings. No accommodations for bicyclists are anticipated at this time.

No existing transit facilities are present near the intersection of US 98 at Old US 98. Additionally, the intersection has no anticipated special freight needs.

3.4 Environmental, Utility, and Right-of-Way Impacts

The proposed intersection is located within a rural area of Pasco County dominated by agricultural land use and low-density residential areas. There are no wetlands or protected species present in the proximity of the study intersection. Due to the realignment of US 98, additional right-of-way will be required. The right-of-way requirements and utility impacts will be dictated by the roadway alignment, with no expected difference in impact based on the selected intersection type.

3.5 Public Inputs

A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. A total of 66 people (excluding FDOT staff) signed in at the in-person public hearing, and total of 14 people (excluding FDOT staff) signed in at the virtual portion of the public hearing. No public concerns or comments were noted for the proposed intersection of US 98 and Old US 98.

4.0 ICE Analysis Summary

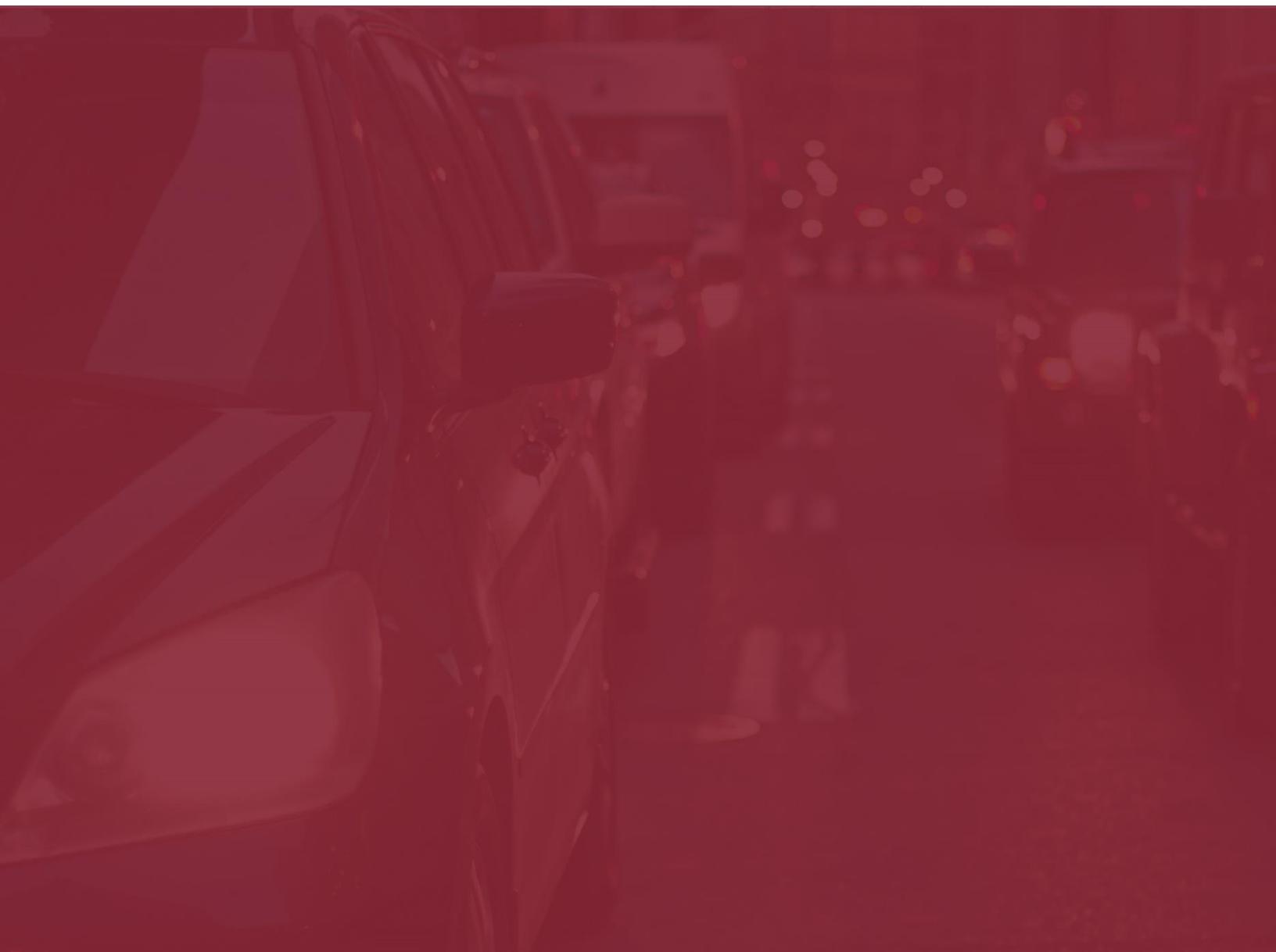
4.1 Summary of Stage 2 Analysis

A brief justification as to why each of the control strategies is either viable or not viable after the ICE Stage 2 Analysis is shown in **Table 4.1**. The roundabout control strategy provides the best operational and safety benefits, with the highest benefit-to-cost ratio for the intersection of US 98 at Old US 98. There are few differences between the three control strategies in terms of public feedback, multimodal accommodations, and environmental, utility, or ROW impacts. Overall, the 2NS x 1EW roundabout control strategy is recommended based on the ICE Stage 2 analysis. The proposed design concept associated with this concept can be found in **Appendix O**.

Table 4.1: Analysis Summary

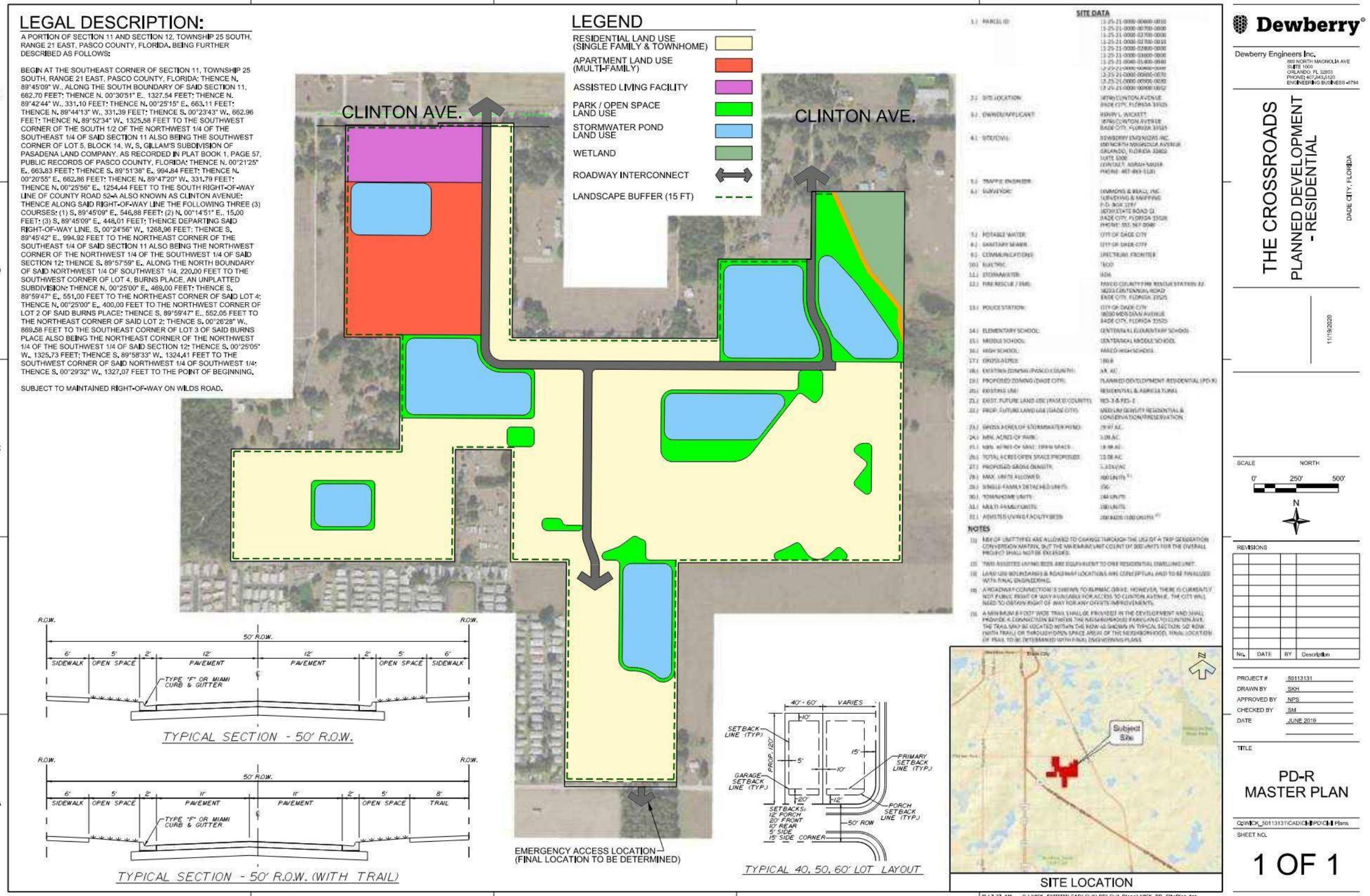
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop Control	No	Although this control strategy has the lowest anticipated construction costs, it provides less operational and safety benefits compared to the other strategies. Under this control strategy, the left turn movements on the minor streets will have a failing LOS.
Traffic Signal Control	No	The operational and safety performances for the signalized control strategy are better than the two-way stop control, but worse than a roundabout. The anticipated construction cost is greater than the cost for roundabout strategy. Additionally, this intersection did not meet the criteria for the Traffic Signal Warrant.
2NS x 1EW Roundabout	Yes	This control strategy provides the best operational and safety performance, and has a lower anticipated construction cost than traffic signal control.

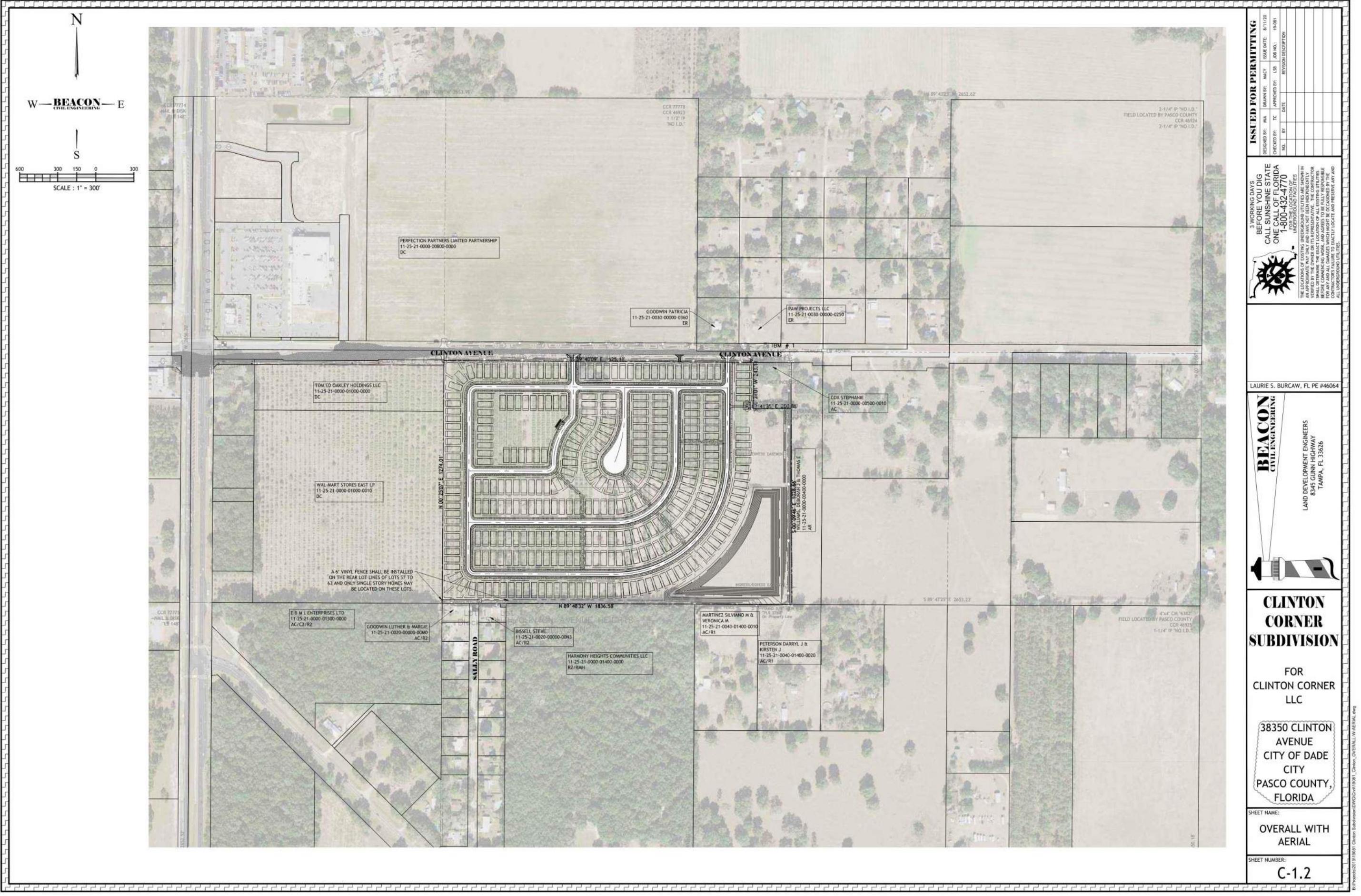
Appendices

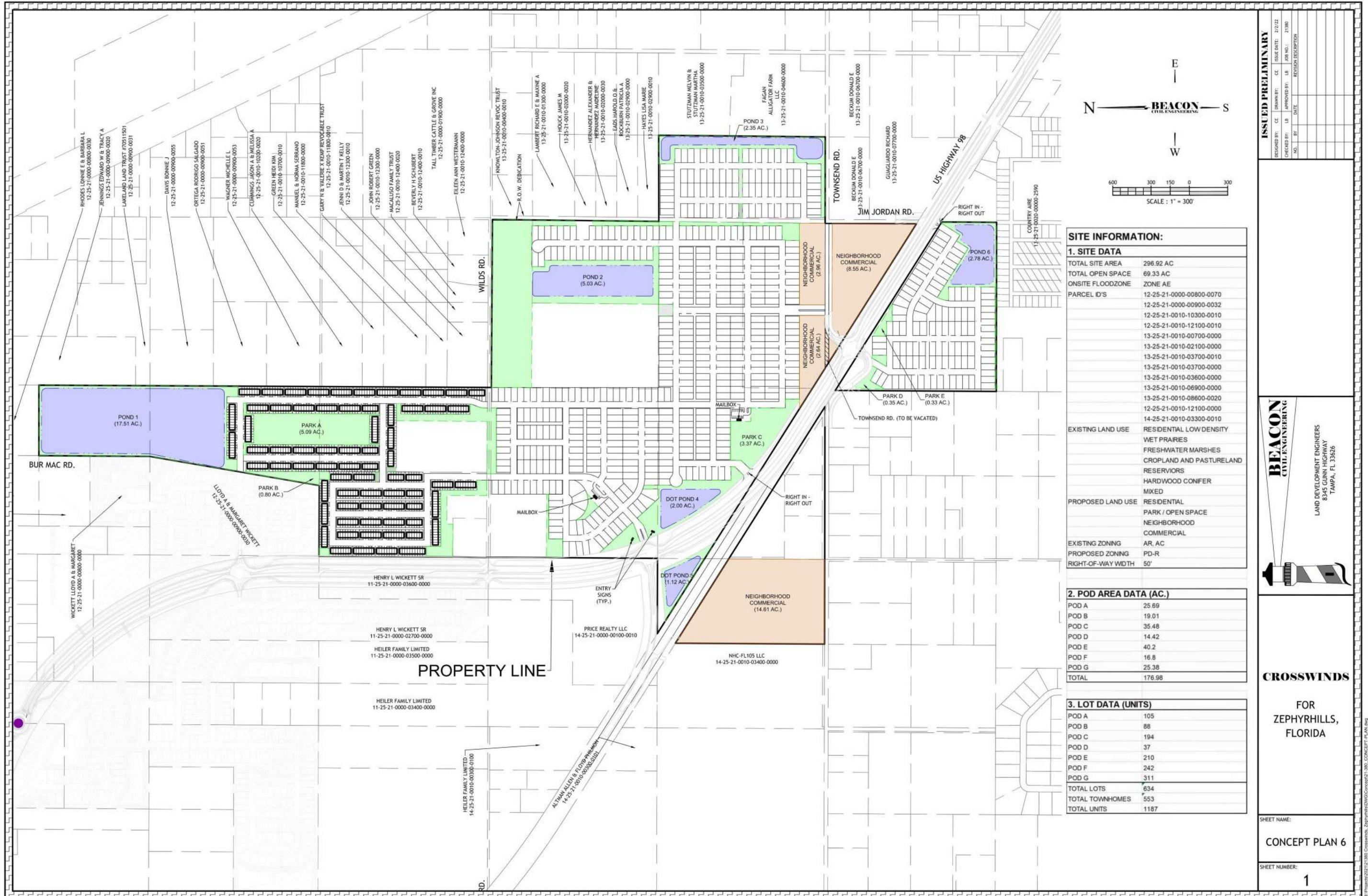


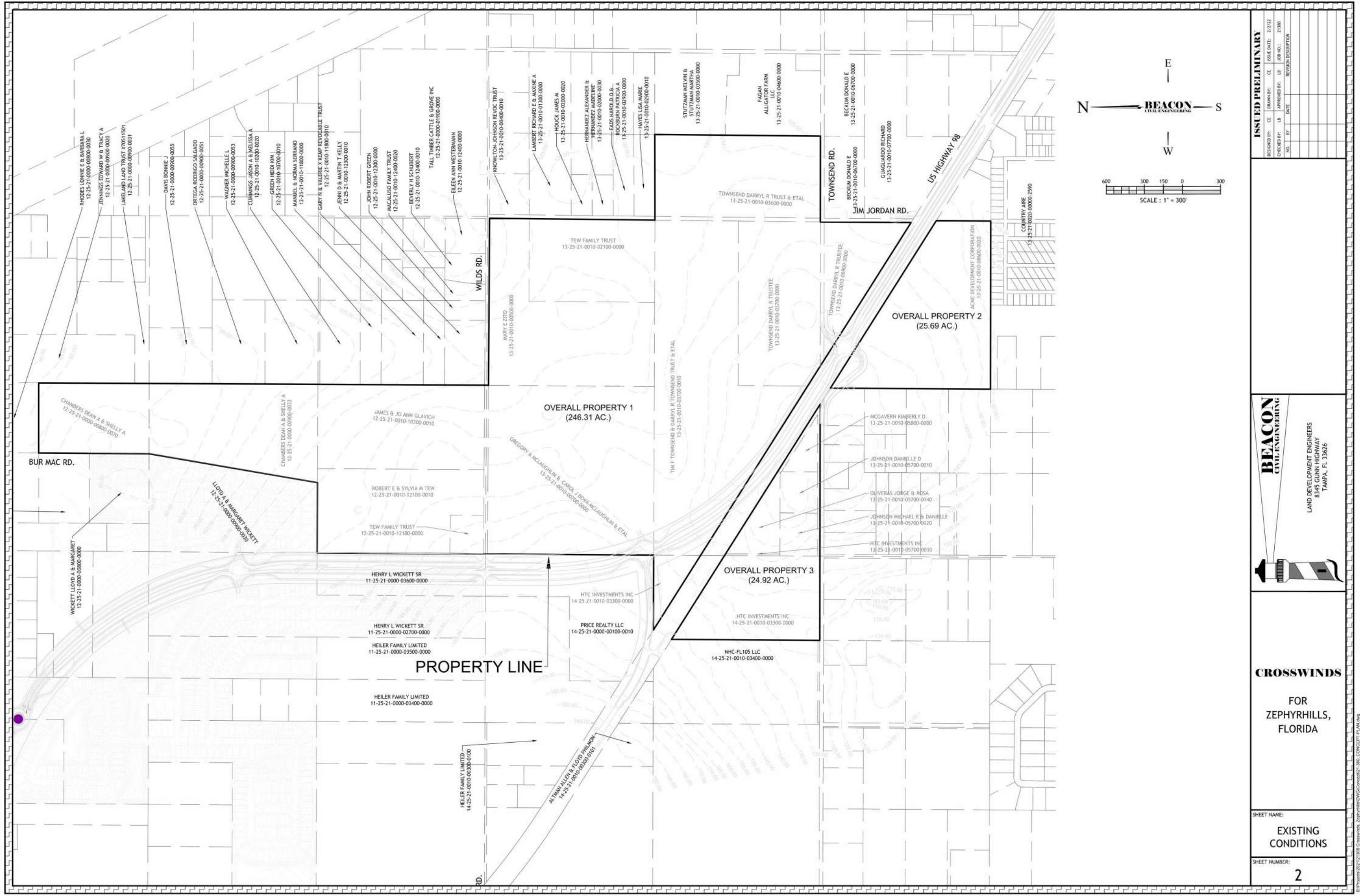
Appendix A

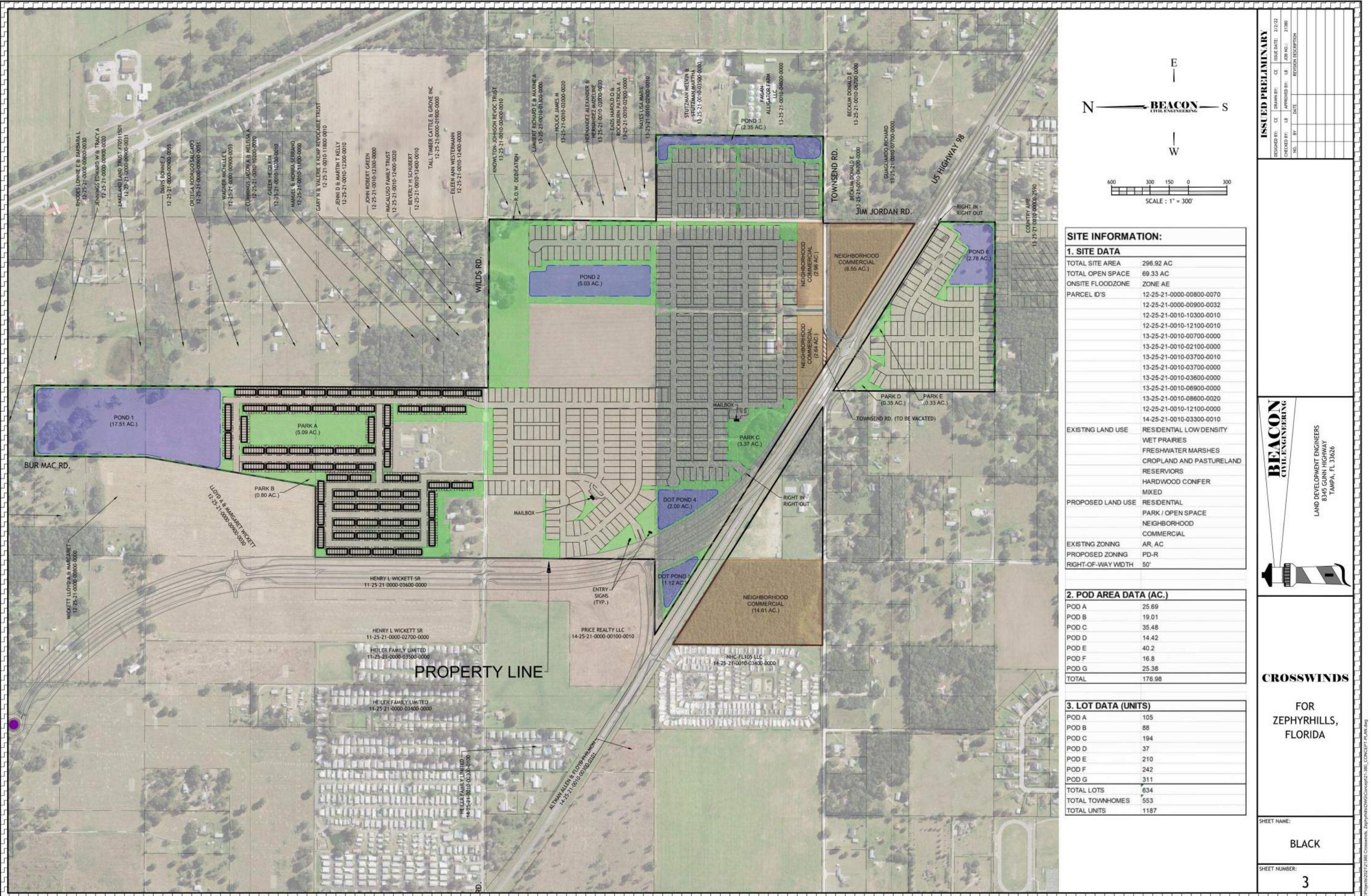
Development Concept Plans

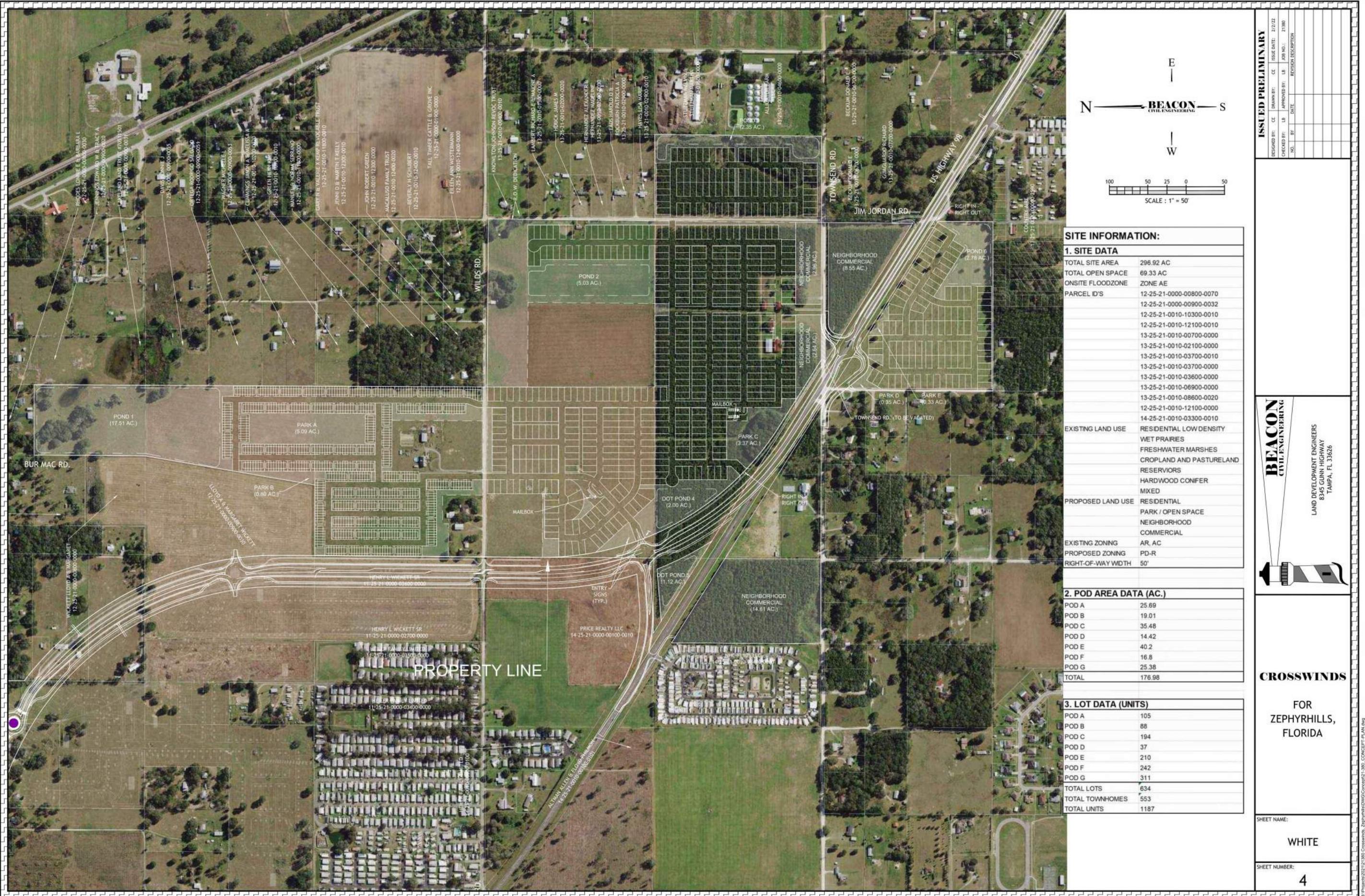


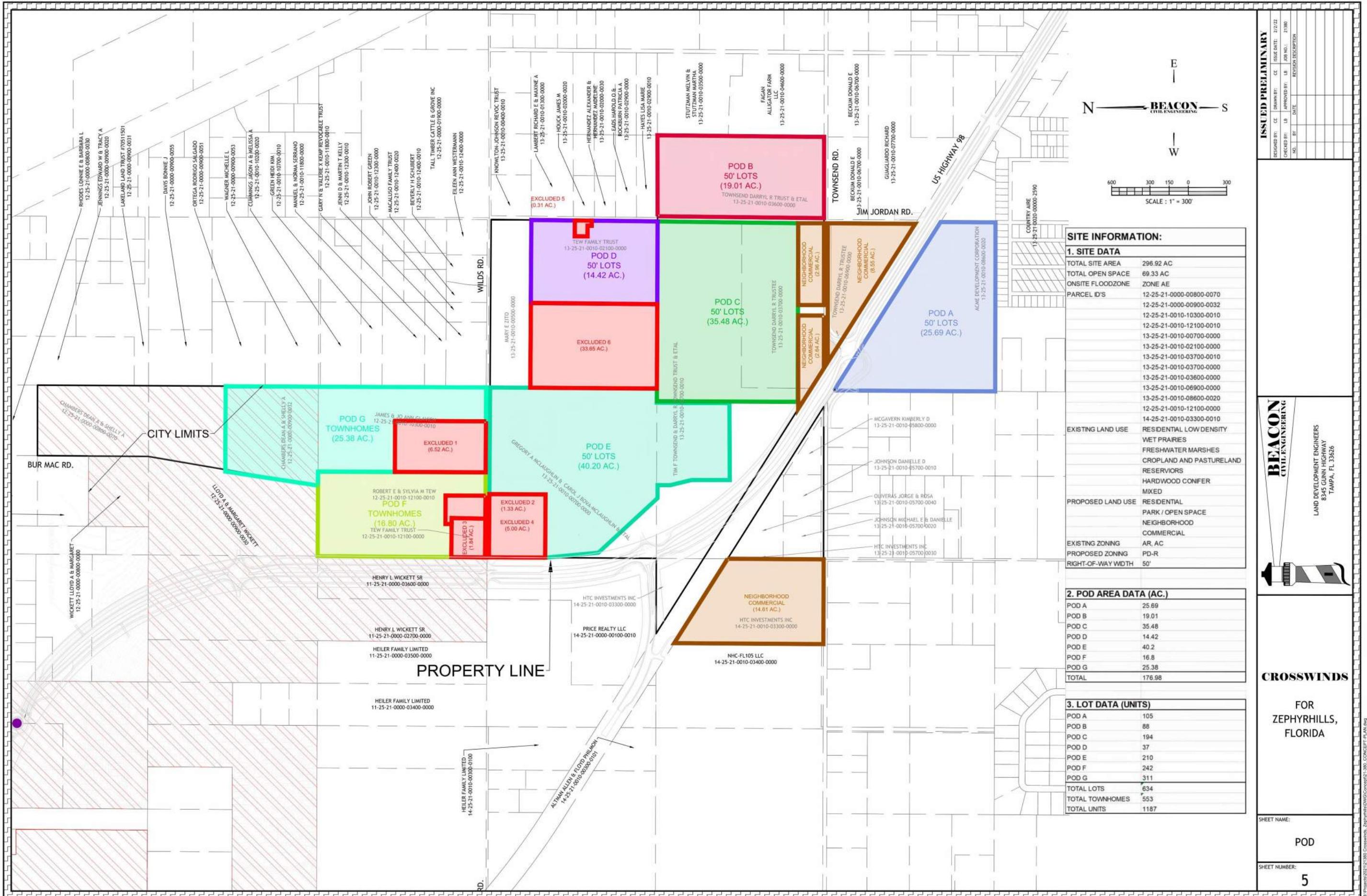












Appendix B

US 98 PD&E Demand Volumes

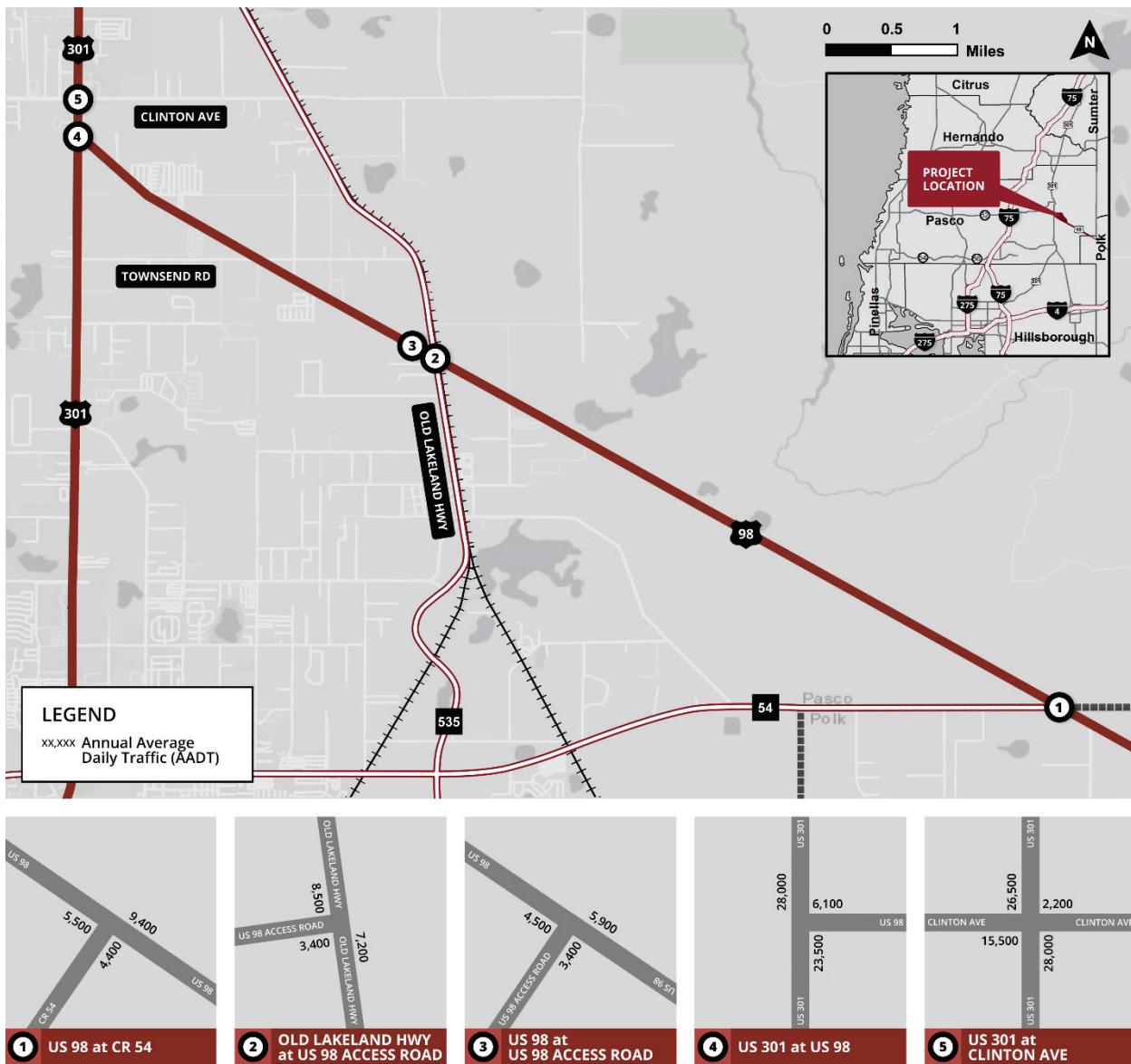


Figure 1: Existing Year (2019) AADTs

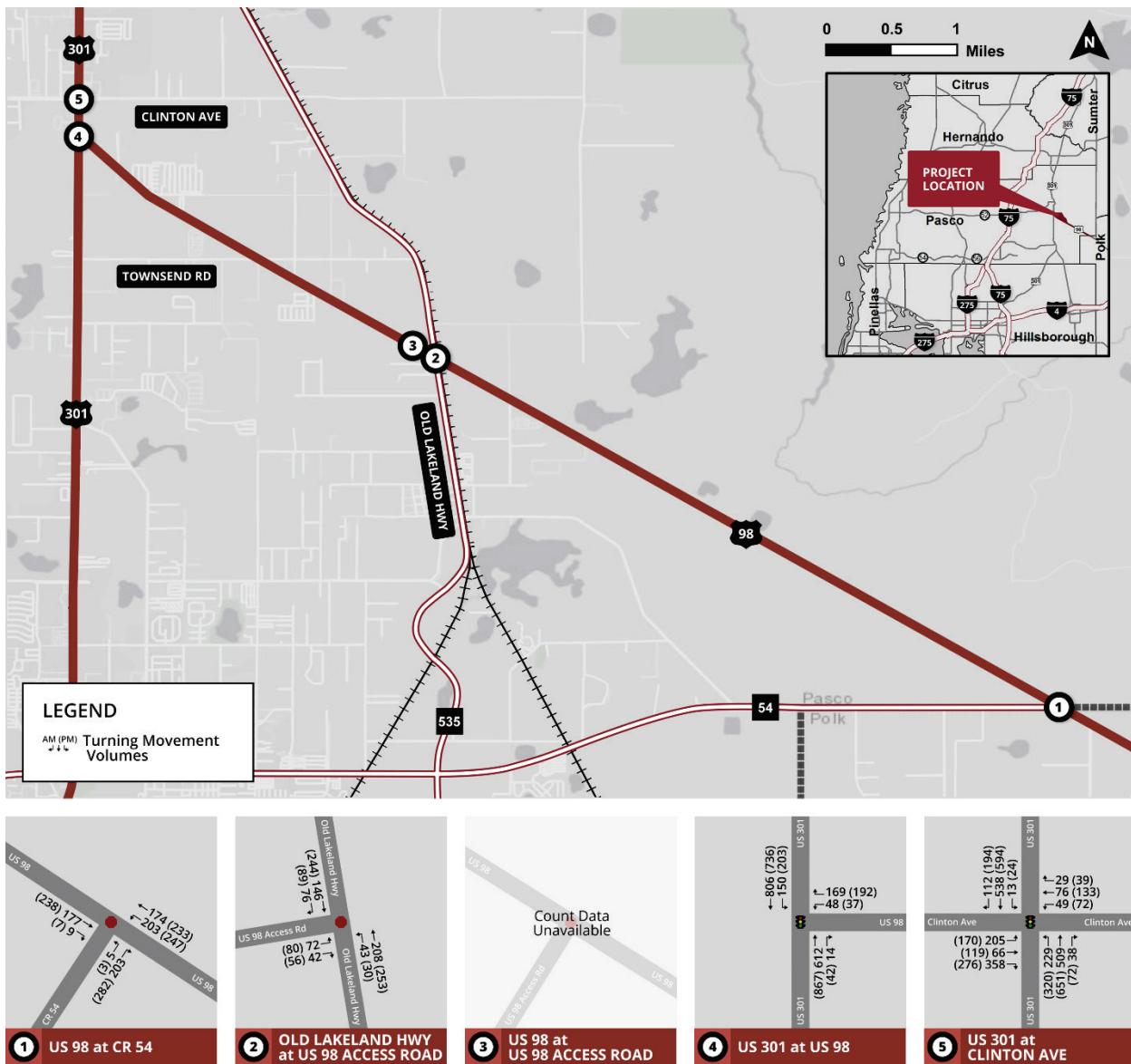


Figure 2: Existing Year (2019) Turning Movement Counts

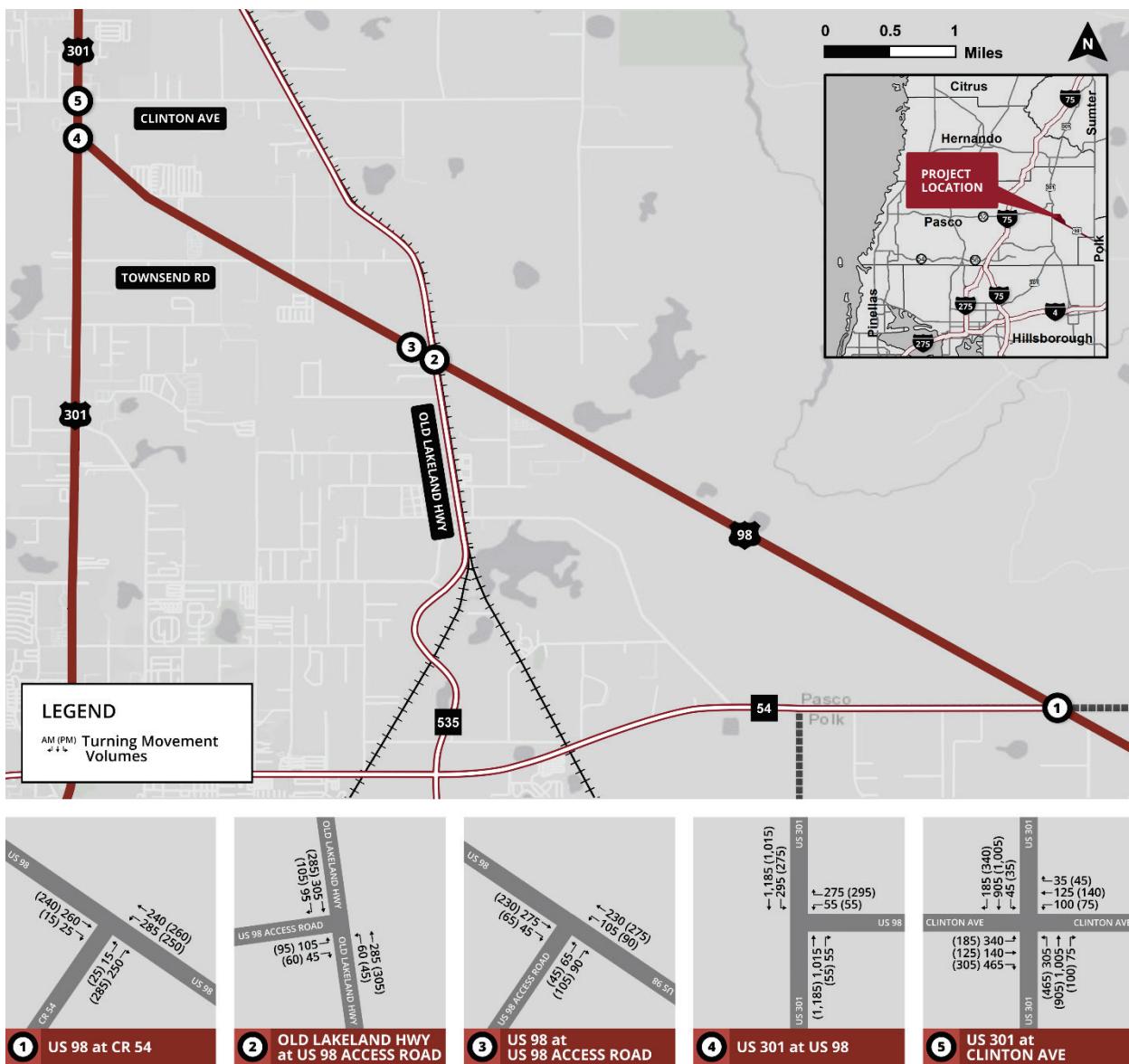


Figure 3: Existing Year (2019) Turning Movement Design Volumes

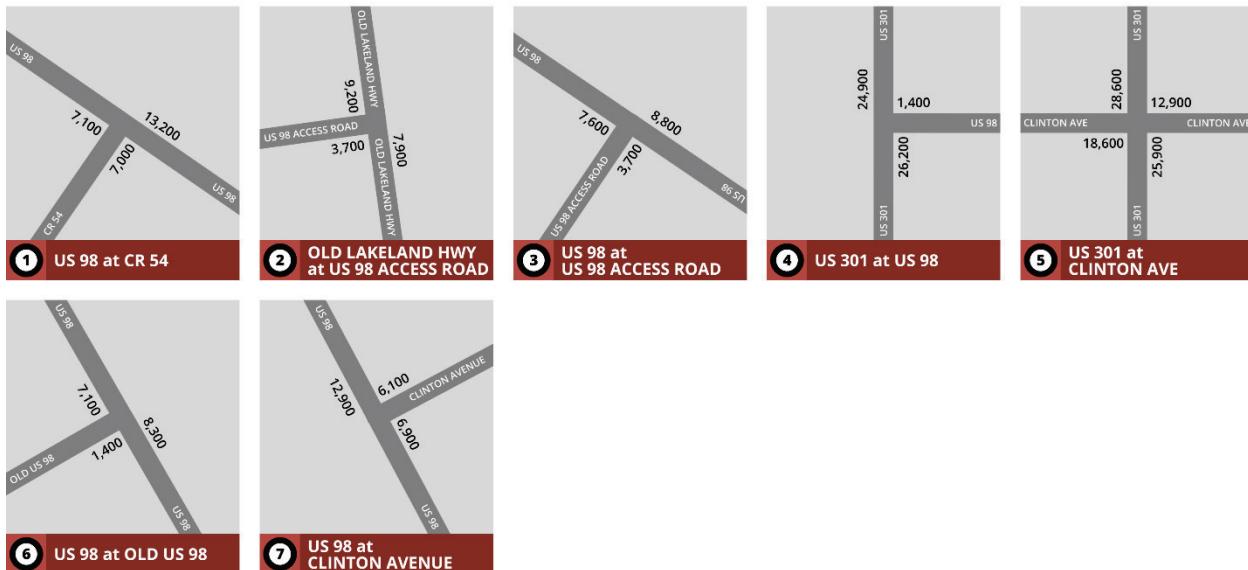
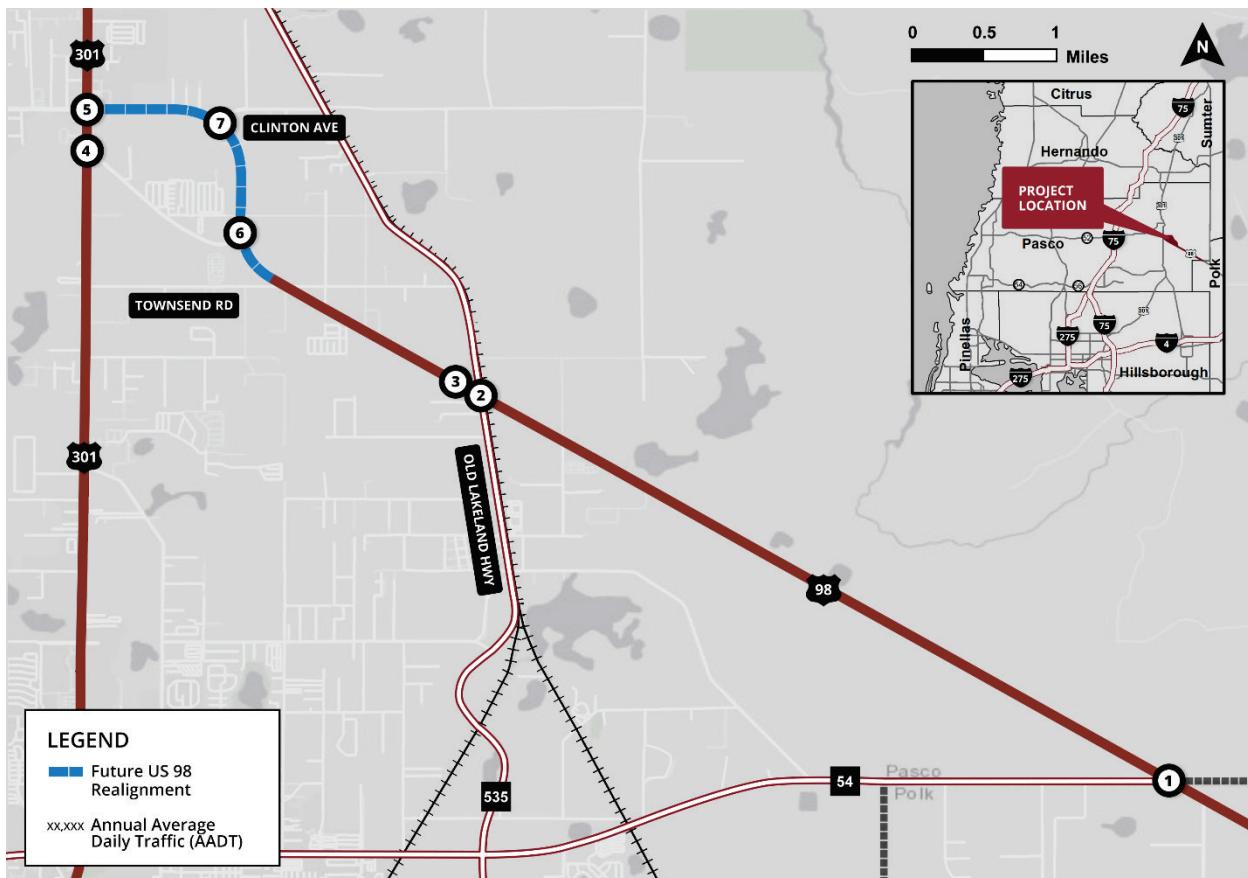


Figure 4: Opening Year (2025) Build AADTs

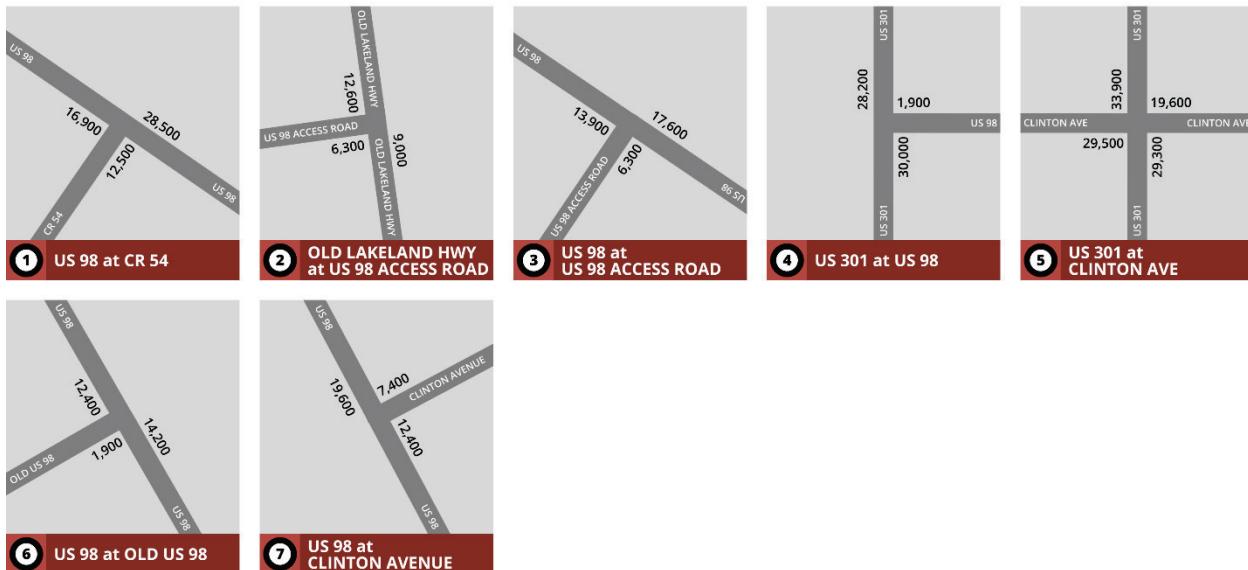
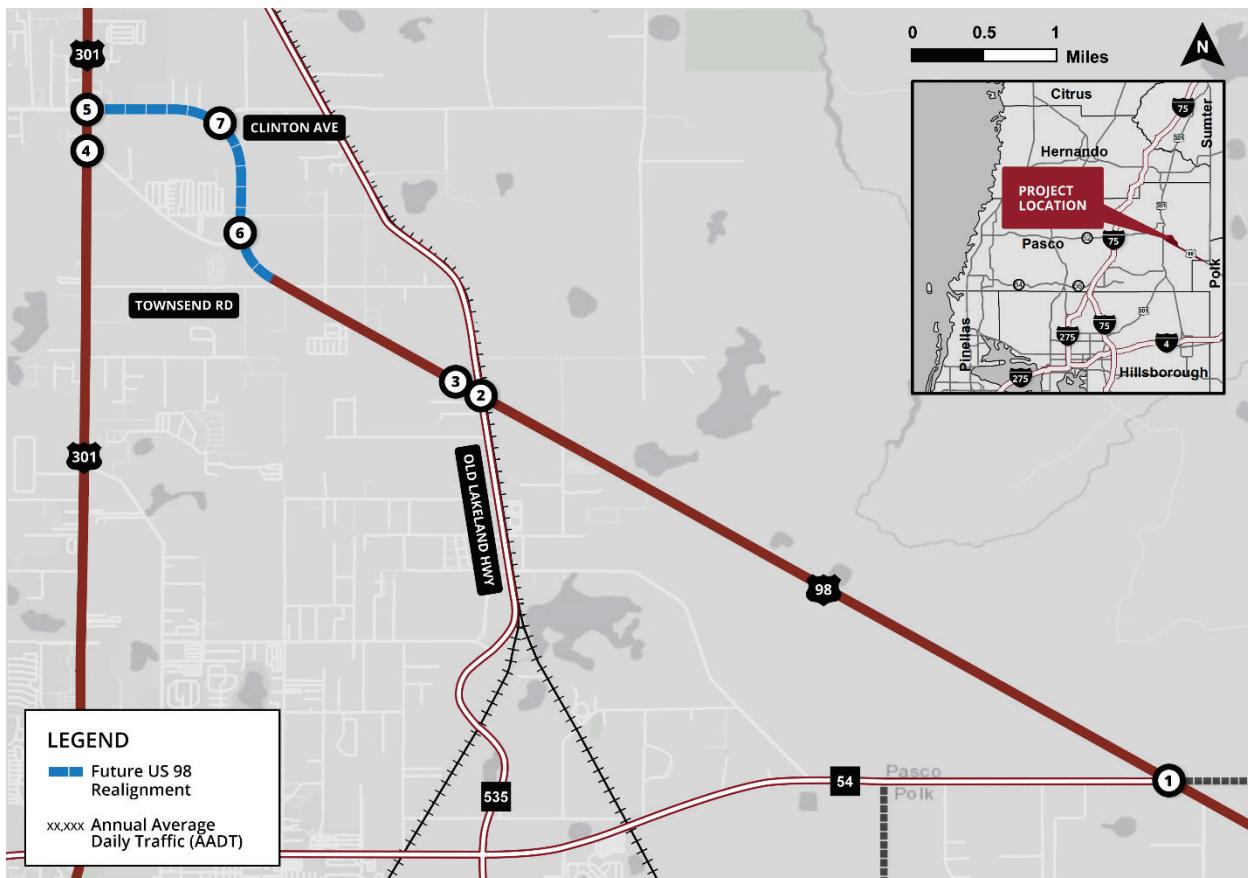


Figure 5: Design Year (2045) Build AADTs

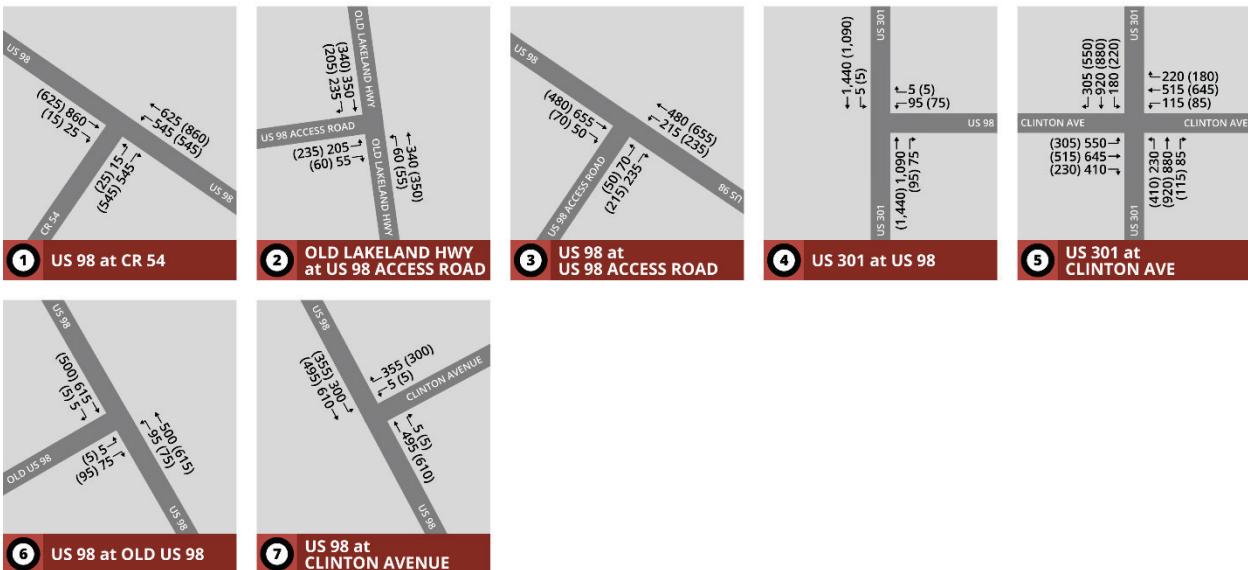
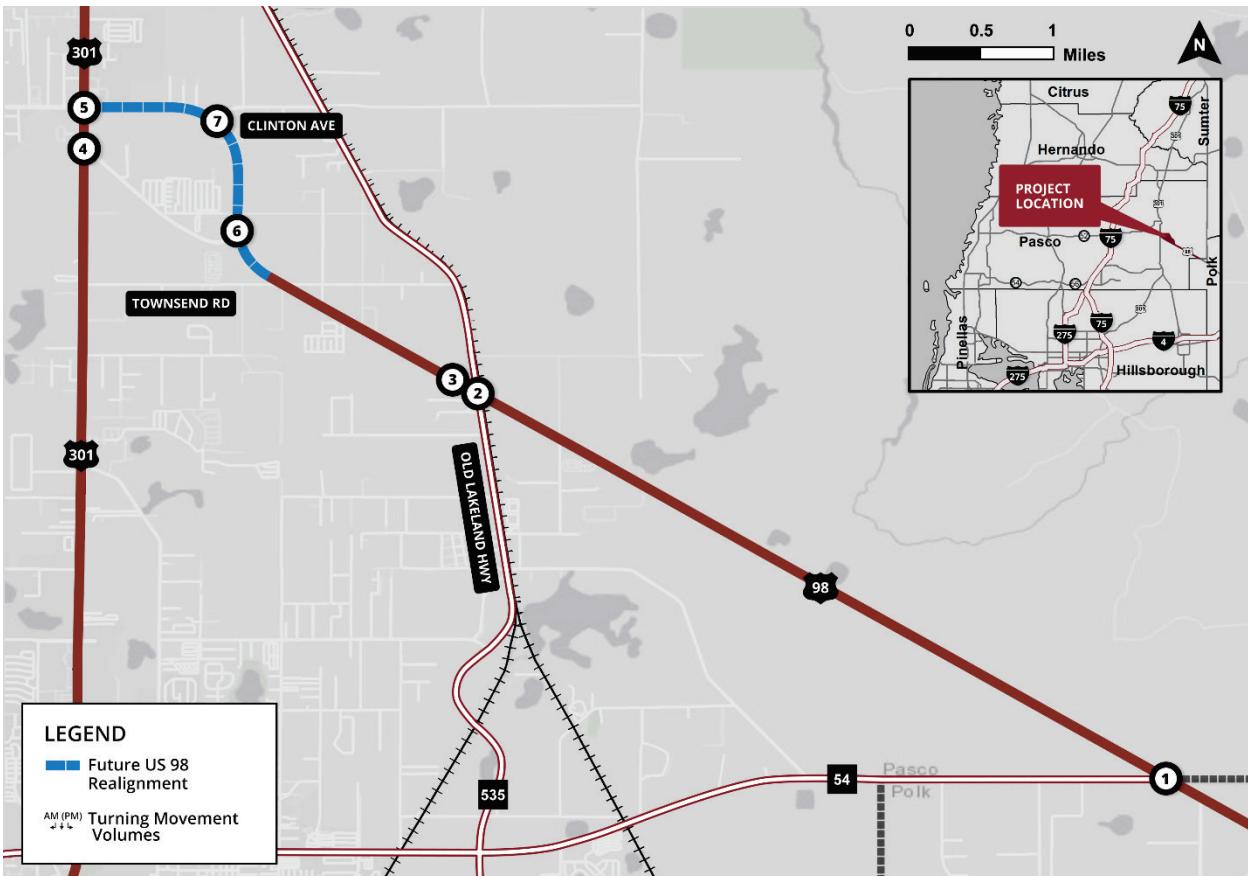


Figure 6: Design Year (2045) Build Turning Movement Volumes

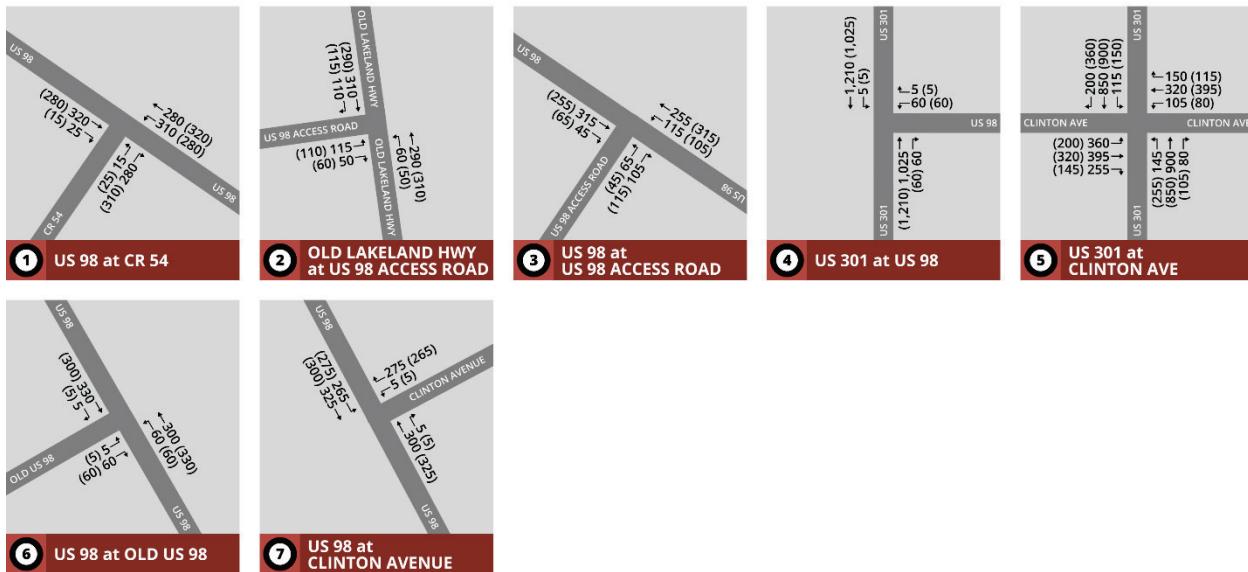
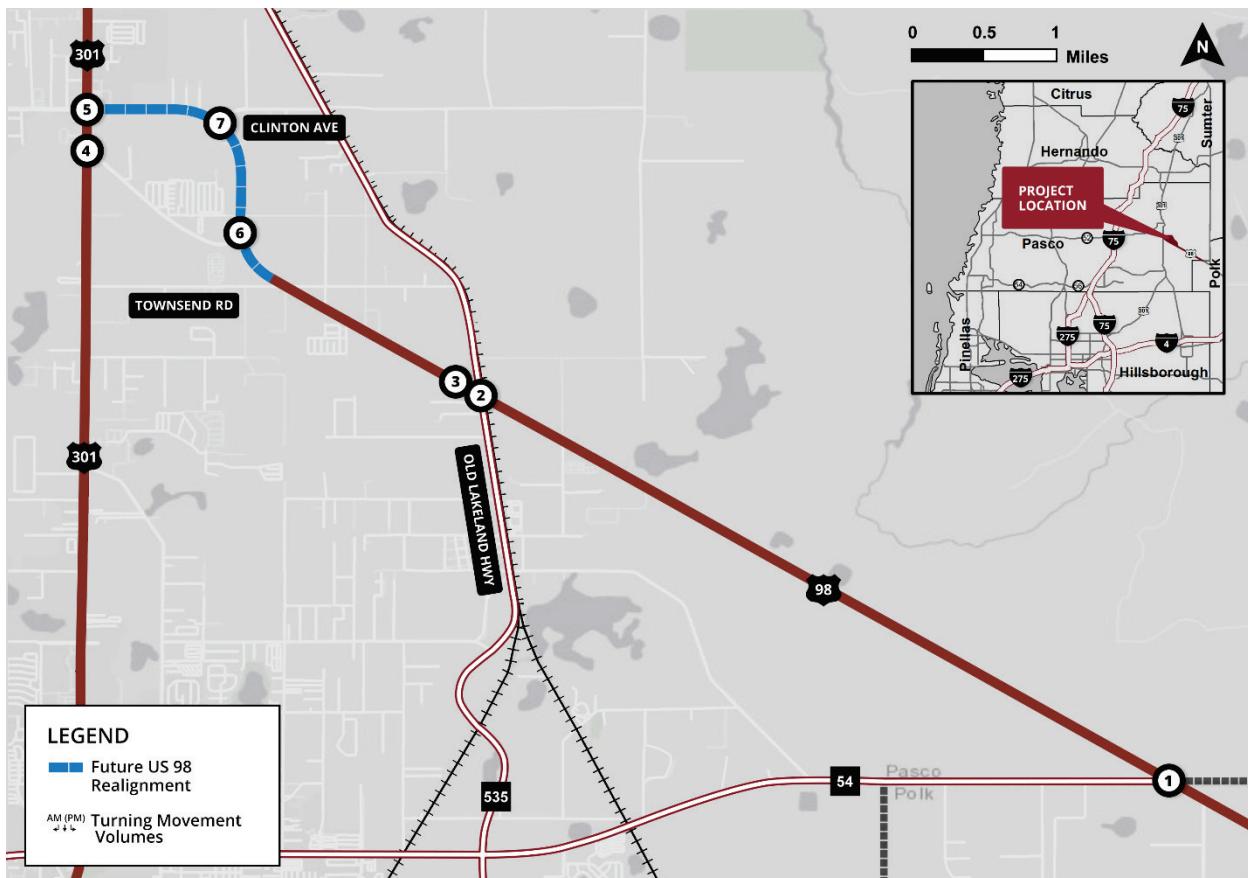


Figure 7: Opening Year (2025) Build Turning Movement Volumes

Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EGL	EBT	EGR	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound		Southbound		Bi-directional		% Flow NB		% Flow SB	
		US 98	US 98	US 98	US 98	US 98	US 98	US 98	US 98	US 98	US 98
1	US 98, from US 98 Access Road to Old US 98	445	705	1,250	44%	55%	55%	0	0	0	0
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%	55%	0	0	0	0
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%	52%	0	0	0	0

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting	Total	Assumed % of Trips
A	Crosswinds	220	575		
B	Crossroads	142	341		
C	Clinton Corner	54	154		
	Total	416	1069		

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	80	204	280	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EGL	EBT	EGR	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	0	478	0	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	0	515	74	0	38	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	0	45	0	0	0	0	153	0	0	88	268	125
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EGL	EBT	EGR	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	155	0	0	90	270	130	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	735	5	0	265	610	0	75	0	0	0	0	5	0	275	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will affect mainline traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the off-street parking lot. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	51	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	0	143	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	55	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	0	145	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	39	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	0	60	0	5	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	5	60	0	40	5	45	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	0	5	0	265	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in/Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the EB and SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-in/Right-out only. Any traffic exiting to NB must take a U-turn at the interaction at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 98 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	245	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
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102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	159	0	0	0	0	531	15	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	19	0	33	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	547	42	0	24	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	65	0	0	6	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	20	0	35	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	50	0	0	0	0	165	0	0	70	295	125	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,395	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	360	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	119	0	230	920	305	0	550	810	410	0	185	810	345	0
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).
2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not add traffic to cross streets).
4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.
7. The driveway at Wilds (103) is Right-in/Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
8. Both Clinton Corner driveways (107,108) are Right-in/Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	75	0	5	0	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	5	0	300	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	20%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting To NB	Exiting To SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	0	1	35	0	36	0	9	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	35	0	36	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	38	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	142	0	0	0	0	332	0	0	38	286	80	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	145	0	0	0	0	335	0	0	40	290	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,450	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area (i.e. these trips will not affect traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the SBR direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the SBL direction. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix D

ICE Stage 1 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.

Project Name	US 98 PD&E Studies - US 98 at Old US 98		FDOT Project #	443368-2-22-01	
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Date 5/5/2022
Email	jsamus@hwlochner.com		FDOT District	District 7	County Pasco
Project Locality (City/Town/Village)					
Intersection Type	At-Grade Intersection		FDOT Context Classification	C3R - Suburban Residential	
Project Funding Source	Federal		Project Type	Corridor Improvement Project	
Project Purpose <i>(What is the catalyst for this project and why is it being undertaken?)</i>	The primary purpose of this project is to evaluate the realignment of US 98 at US 301 at US 98 and Clinton Avenue to enhance safety and provide system linkage/regional connectivity. An additional goal of this project is to address transportation demand, which may result in improvements to several intersections in the project study area surrounding the US 98 study corridor.				
Project Setting Description <i>(Describe the area surrounding the intersection)</i>	The area around the intersection is minimally developed. However, in the future the surrounding area will be developed into a more suburban area				
Multimodal Context <i>(Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns)</i>	Due to the intersection of US 98 at Old US 98 being a proposed intersection as a result of the realignment of US 98, pedestrian and bicycle counts were not available. The anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.				

Major Street Information								
Route #:	98	Route Name(s)	US 98			Milepost	N/A	
Existing Control Type	None/New Intersection		Existing AADT		Design Year AADT	24,700		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)				
Primary Functional Classification		Urban Principal Arterial - Other			Design Speed (mph)	55		
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]			
Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along	Neither side of the approach	Left-Turn	1		Weekday AM Peak		Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0	Left		75	
	On-Street Bike Facilities?	No	Through	1	Through	760	Through	1,105
	Multi-Use Path?	No	Left-Through-Right	0	Right	20	Right	70
	Scheduled Bus Service?	No	Through-Right	1	Daily Truck %		8.0%	
	Bus Stop on Approach?	No	Right-Turn	0				
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along:	Neither side of the approach	Left-Turn	1		Weekday AM Peak		Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0	Left		60	
	On-Street Bike Facilities?	No	Through	1	Through	1,020	Through	885
	Multi-Use Path?	No	Left-Through-Right	0	Right	5	Right	5
	Scheduled Bus Service?	No	Through-Right	1	Daily Truck %		8.0%	
	Bus Stop on Approach?	No	Right-Turn	0				

Minor Street Information							
Route #:	Route Name(s)	Old US 98			Milepost (if app.)		
Existing Control Type	None/New Intersection	Existing AADT		Design Year AADT	2,200		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)	Control Vehicle	Florida Interstate Semitrailer (WB-62FL)				
Primary Functional Classification		Urban Major Collector			Design Speed (mph)	55	
Secondary Functional Classification (if app.)				Target Speed (mph) [if app.]			
Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	0			
	Crosswalk on Approach?	No	Left-Through	1	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	5	Left
	Multi-Use Path?	No	Left-Through-Right	0	Through	5	Through
	Scheduled Bus Service?	No	Through-Right	0	Right	75	Right
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %	2.0%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:	Neither side of the approach	Left-Turn	1			
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	65	Left
	Multi-Use Path?	No	Left-Through-Right	0	Through	5	Through
	Scheduled Bus Service?	No	Through-Right	1	Right	55	Right
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	2.0%	
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn				
	Crosswalk on Approach?		Left-Through		Weekday AM Peak	Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left		Left
	Multi-Use Path?		Left-Through-Right		Through		Through
	Scheduled Bus Service?		Through-Right		Right		Right
	Bus Stop on Approach?		Right-Turn		Daily Truck %		

Crash History (Existing Intersections Only)

Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

Existing crash data is not available at this location.

Control Strategy Evaluation									
Control Strategy	CAP-X Outputs			SPICE Outputs		Strategy to Be Advanced?	Justification		
	V/C Ratio		Multimodal Score	Crash Prediction Rank	SSI Rank				
	Weekday AM Peak	Weekday PM Peak							
Two-Way Stop-Controlled	6.35	10.23	3.7	3	3	Yes	Does not meet V/C necessary for intersection, but will be advanced as baseline criteria for comparisons in ICE Stage 2.		
All-Way Stop-Controlled									
Signalized Control	0.44	0.46	4.8	2	2	Yes	Ranks 2nd in CAP-X analysis and SPICE analysis among viable control strategies. Scenario benefit includes lower construction costs.		
Roundabout	0.52	0.57	5.6	1	1	Yes	Ranks first in Cap-X analysis and SPICE analysis.		
Median U-Turn									
RCUT (Signalized)									
RCUT (Unsignalized)									
Jughandle									
Displaced Left-Turn									
Continuous Green Tee									
Quadrant Roadway									
Thru-Cut									
Other 1 (Type)									
Other 2 (Type)									

Resolution					
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>					
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2				
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Appendix E

CAP-X – AM Peak Hour

Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	US 98 at Old US 98
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 AM
Number of Intersection Legs:	4
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	5	5	75	2.00%	0.00%
Westbound	0	65	5	55	2.00%	0.00%
Southbound	0	25	1020	5	8.00%	0.00%
Northbound	0	95	760	20	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

Results for Non-roundabout Intersections															
TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations	Transit Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C				
Traffic Signal	FULL	/	/	/	/	/	/	/	/	747	0.44	0.44	Fair	Fair	Good
Two-Way Stop Control	N-S	/	/	/	/	/	/	/	/	--	6.35	6.35	Poor	Fair	Good

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

Results for Roundabouts																
Type of Roundabout	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations	Transit Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3				
2NS X 1EW	0.49	0.52	0.50	0.18	0.20	0.22	0.36	0.38	0.40	0.21	0.23	0.25	0.52	Fair	Good	Good

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 1)		Zone 4 2)		Zone 5 (Ctr Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations	Transit Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C				

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Old US 98													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 AM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	0	1	1	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	0	1	1	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix F

CAP-X – PM Peak Hour

Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	US 98 at Old US 98
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 PM
Number of Intersection Legs:	4
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	5	5	95	2.00%	0.00%
Westbound	0	40	5	45	2.00%	0.00%
Southbound	0	60	885	5	8.00%	0.00%
Northbound	0	75	1105	70	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections															
TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations	Transit Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C				
Traffic Signal	FULL									779	0.46	0.46	Fair	Fair	Good
Two-Way Stop Control	N-S									--	10.23	10.23	Poor	Fair	Good

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts																
TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations	Transit Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3				
<u>2NS X 1EW</u>	0.42	0.45	0.48	0.20	0.25	0.28	0.53	0.57	0.60	0.20	0.25	0.28	0.57	Fair	Good	Good

Results for Interchanges

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Old US 98													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 PM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	0	1	1	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	0	1	1	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix G

SPICE

Results										
Summary of crash prediction results for each alternative										
Project Information										
Project Name:	US 98 PD&E	Intersection Type							At-Grade Intersections	
Intersection:	US 98 at Old US 98 (Build Only)	Opening Year							2025	
Agency:	FDOT	Design Year							2045	
Project Reference:	FPID 443368-2-22-01	Facility Type							On Urban and Suburban Arterial	
City:	Dade City	Number of Legs							4-leg	
State:	Florida	1-Way/2-Way							2-way Intersecting 2-way	
Date:	4/29/2022	# of Major Street Lanes (both directions)							5 or fewer	
Analyst:	Lochner	Major Street Approach Speed							55+ mph	
Crash Prediction Summary										
Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score		
								Open Year	Design Year	Rank
Traffic Signal	Total	6.02	7.78	144.91	2	Yes	Uncalibrated SPF	66	57	2
	Fatal & Injury	2.02	2.55	48.04						
Minor Road Stop	Total	5.73	6.53	128.93	3	Yes	Calibrated SPF	48	37	3
	Fatal & Injury	2.50	2.92	56.99						
2-lane Roundabout	Total	7.86	10.46	192.15	1	Yes	Uncalibrated SPF	89	86	1
	Fatal & Injury	1.37	1.88	34.07						

Appendix H

ICE Stage 2 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 2: Initial Control Strategy Assessment

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 2 (Intersection Control Strategy) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval.

Project Name	US 98 PD&E Studies - US 98 at Old US 98	FDOT Project #	443368-2-22-01	Date	05/05/22
Submitted By	JJ Samus	Agency/Company	H.W. Lochner	Email	jsamus@hwlochner.com
List all viable intersection control strategies identified in Stage 1 (Screening):					
Two-Way Stop-Controlled		Signalized Control		Roundabout	

Operational Analyses											
Summarize the results of the peak hour analysis performed for each control strategy. Select analysis year based on guidance in the ICE procedures document. Refer to Exhibit 19-8 of the <i>Highway Capacity Manual, 6th Edition</i> (HCM6) to determine the appropriate LOS based on intersection delay (hover over this cell for Exhibit 19-8).											
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)			Control Vehicle	Florida Interstate Semitrailer (WB-62FL)						
Opening Year	2025										
Control Strategy		Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour	
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	
Two-Way Stop-Controlled		C	21.3	Yes	D	27.8	Yes				
Signalized Control		B	13.4	Yes	B	12.6	Yes				
Roundabout		A	6.0	Yes	A	6.7	Yes				
Design Year	2045										
Control Strategy		Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour	
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	
Two-Way Stop-Controlled		E	48.7	Yes	F	63.3	Yes				
Signalized Control		B	14.4	Yes	B	15.2	Yes				
Roundabout		A	7.8	Yes	A	8.5	Yes				
Provide any additional discussion necessary regarding the results of the operational analysis:	LOS and Delay for critical approach are shown for Two-Way Stop-Controlled strategy.										

Safety Performance							
Enter the most recent five (5) years of crash data from the CAR System.				Most recent year of crash data available			
Crash Type						Total	
Combined	Total						
	Fatal/Injury						
	PDO						
Single-Vehicle	Total						
	Fatal/Injury						
	PDO						
Multi-Vehicle	Total						
	Fatal/Injury						
	PDO						
Vehicle-Pedestrian	Fatal/Injury						
Vehicle-Bicycle	Fatal/Injury						
Total	All						
Apply the FDOT SPICE Tool to model anticipated safety performance of each control strategy. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE procedures document or qualitatively describe anticipated safety impacts.							
Control Strategy	Anticipated Impact on Safety Performance	Opening Year			Design Year		
		Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score
Two-Way Stop-Controlled	Crash Prediction Rank 3, SSI Score Rank 3	5.73	2.50	48	6.53	2.92	37
Signalized Control	Crash Prediction Rank 2, SSI Score Rank 2	6.02	2.02	66	7.78	2.55	57
Roundabout	Crash Prediction Rank 1, SSI Score Rank 1	7.86	1.37	89	10.46	1.88	86

Costs and Benefit/Cost Ratios						
Control Strategy	ROW Costs (\$)	Construction Costs (\$)	FDOT ICE Tool Outputs			
			Delay B/C	Safety B/C	Overall B/C	Net Present Value
Two-Way Stop-Controlled	\$457,248	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$457,248	\$1,725,579	N/A	3.09	N/A	-\$8,055,182
Roundabout	\$457,248	\$1,544,437	N/A	11.84	2.84	\$709,653

Multimodal Accommodations								
Peak Hour:	Weekday AM Peak		Weekday PM Peak				Activity Level	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Ped.	Bicycles
# of ped. crossings (both approaches, if app.):	N/A	N/A	N/A	N/A			Low	Low
# of cyclists (both approaches, if app.):	N/A	N/A	N/A	N/A				

Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:

Control Strategy	Pedestrians and Bicyclists	Transit Services	Freight Needs
Two-Way Stop-Controlled	Pedestrians crossing the minor street have right-of-way; lack protections for pedestrians across major street	No Existing Transit Facilities near the intersection.	N/A
Signalized Control	Pedestrian phases can be built into the signal timing to allow for permissive pedestrian crossings	No Existing Transit Facilities near the intersection. No change from existing	N/A
Roundabout	Pedestrian crossings are located only across the legs of the roundabout	No Existing Transit Facilities near the intersection.	N/A

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (including relocation) impacts specific to each control strategy. Be sure to consider the NEPA requirements for each control type.	
Two-Way Stop-Controlled	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Signalized Control	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Roundabout	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.

Public Input/Feedback (if appropriate)
Summarize any agency or public input regarding the control strategies:
A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. No public concerns or comments are proposed for the intersection of US 98 and Crossroads.

Control Strategy Evaluation		
Provide a brief justification as to why each of the following is either viable or not viable. If a single control strategy is recommended, select it as the only strategy to be advanced.		
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	No	This control strategy has the lowest anticipated construction costs. It provides best operational benefits. However, the safety performance is the worst among the three strategies. Overall, the net present value of improvement is better than signalized control but worse than roundabout.
Signalized Control	No	This control strategy has the highest anticipated construction and ROW cost and provides the least operational and safety benefits.
Roundabout	Yes	This control strategy has moderate anticipated construction cost and operational benefits among the three strategies. However, it provides best safety benefits, which makes it have most net present value of improvements.

Resolution				
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>				
Project Determination	Identified Control Strategy Approved			
Comments				
DTOE Name		Signature		Date
DDE Name		Signature		Date

Appendix I

HCS 7 Reports – Stage 2

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Old US 98																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Old US 98																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
<p style="text-align: center;">Major Street: North-South</p>																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	LT		R		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	5	5	60		65	5	55		0	60	560	20	0	25	735	5																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized	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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																											
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																											
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		11		63		68		63		63				26																											
Capacity, c (veh/h)		135		609		224		462		796				924																											
v/c Ratio		0.08		0.10		0.30		0.14		0.08				0.03																											
95% Queue Length, Q ₉₅ (veh)		0.3		0.3		1.3		0.5		0.3				0.1																											
Control Delay (s/veh)		33.9		11.6		28.0		14.0		9.9				9.0																											
Level of Service (LOS)		D		B		D		B		A				A																											
Approach Delay (s/veh)	14.8				21.3				0.9				0.3																												
Approach LOS	B				C																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Old US 98																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Old US 98																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
<p style="text-align: center;">Major Street: North-South</p>																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	LT			R	L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	5	5	60		40	5	45		0	60	820	70	0	60	685	5																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized	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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																											
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																											
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		11		63		42		53		63				63																											
Capacity, c (veh/h)		85		634		151		298		834				691																											
v/c Ratio		0.12		0.10		0.28		0.18		0.08				0.09																											
95% Queue Length, Q ₉₅ (veh)		0.4		0.3		1.1		0.6		0.2				0.3																											
Control Delay (s/veh)		53.5		11.3		38.1		19.6		9.7				10.7																											
Level of Service (LOS)		F		B		E		C		A				B																											
Approach Delay (s/veh)	17.3				27.8				0.6				0.9																												
Approach LOS	C				D																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Old US 98																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Old US 98																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	LT		R		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	5	5	75		65	5	55		0	95	760	20	0	25	1020	5																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized	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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		11		79		68		63		100			26																												
Capacity, c (veh/h)		59		486		120		270		608			766																												
v/c Ratio		0.18		0.16		0.57		0.23		0.16			0.03																												
95% Queue Length, Q ₉₅ (veh)		0.6		0.6		3.5		0.9		0.6			0.1																												
Control Delay (s/veh)		79.6		13.8		73.0		22.4		12.1			9.9																												
Level of Service (LOS)		F		B		F		C		B			A																												
Approach Delay (s/veh)	21.6				48.7				1.3				0.2																												
Approach LOS	C				E																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Old US 98																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Old US 98																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
<p style="text-align: center;">Major Street: North-South</p>																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	LT			R	L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	5	5	95		40	5	45		0	75	1105	70	0	60	885	5																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized	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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																											
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																											
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		11		100		42		53		79				63																											
Capacity, c (veh/h)		38		541		81		164		691				527																											
v/c Ratio		0.28		0.18		0.52		0.32		0.11				0.12																											
95% Queue Length, Q ₉₅ (veh)		1.1		0.7		2.9		1.4		0.4				0.4																											
Control Delay (s/veh)		134.1		13.2		95.9		37.3		10.9				12.8																											
Level of Service (LOS)		F		B		F		E		B				B																											
Approach Delay (s/veh)	24.7				63.3				0.7				0.8																												
Approach LOS	C				F																																				

Appendix J

Synchro Reports – Stage 2

HCM 6th Signalized Intersection Summary
7: US 98 & Old US 98

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	60	65	5	55	60	560	20	25	735	5
Future Volume (veh/h)	5	5	60	65	5	55	60	560	20	25	735	5
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	5	5	63	68	5	58	63	589	21	26	774	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	99	83	131	262	21	248	538	2183	78	609	2170	
Arrive On Green	0.08	0.08	0.08	0.06	0.17	0.18	0.07	0.65	0.65	0.06	0.64	0.00
Sat Flow, veh/h	618	1007	1585	1781	127	1477	1697	3334	119	1697	3474	0
Grp Volume(v), veh/h	10	0	63	68	0	63	63	299	311	26	774	0
Grp Sat Flow(s), veh/h/ln	1625	0	1585	1781	0	1604	1697	1692	1760	1697	1692	0
Q Serve(g_s), s	0.0	0.0	4.2	3.8	0.0	3.7	1.2	8.2	8.3	0.5	11.9	0.0
Cycle Q Clear(g_c), s	0.5	0.0	4.2	3.8	0.0	3.7	1.2	8.2	8.3	0.5	11.9	0.0
Prop In Lane	0.50		1.00	1.00		0.92	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	183	0	131	262	0	269	538	1108	1153	609	2170	
V/C Ratio(X)	0.05	0.00	0.48	0.26	0.00	0.23	0.12	0.27	0.27	0.04	0.36	
Avail Cap(c_a), veh/h	404	0	355	262	0	518	754	1108	1153	650	2170	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.2	0.0	48.9	41.9	0.0	39.6	5.5	8.1	8.1	5.4	9.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.7	0.5	0.0	0.4	0.1	0.6	0.6	0.0	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.5	0.0	3.2	3.0	0.0	2.7	0.6	4.7	4.9	0.3	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.3	0.0	51.6	42.4	0.0	40.0	5.6	8.7	8.6	5.4	9.8	0.0
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		73			131			673		800		A
Approach Delay, s/veh		51.0			41.3			8.4		9.6		
Approach LOS		D			D			A		A		
Timer - Assigned Phs	1	2	3	4	5	6			8			
Phs Duration (G+Y+R _c), s	10.3	77.0	11.0	13.2	11.8	75.5			24.2			
Change Period (Y+R _c), s	7.5	7.5	6.0	7.5	7.5	7.5		* 7.5				
Max Green Setting (Gmax), s	5.5	69.5	5.0	21.5	18.5	56.5		* 34				
Max Q Clear Time (g_c+l1), s	2.5	10.3	5.8	6.2	3.2	13.9			5.7			
Green Ext Time (p_c), s	0.0	3.4	0.0	0.1	0.1	5.2			0.3			
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
7: US 98 & Old US 98

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	60	40	5	45	60	820	70	60	685	5
Future Volume (veh/h)	5	5	60	40	5	45	60	820	70	60	685	5
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	5	5	63	42	5	47	63	863	74	63	721	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	96	81	127	230	23	218	578	2117	182	483	2271	
Arrive On Green	0.08	0.08	0.08	0.05	0.15	0.15	0.07	0.67	0.64	0.07	0.67	0.00
Sat Flow, veh/h	627	1003	1585	1781	155	1454	1697	3155	270	1697	3474	0
Grp Volume(v), veh/h	10	0	63	42	0	52	63	463	474	63	721	0
Grp Sat Flow(s), veh/h/ln	1630	0	1585	1781	0	1609	1697	1692	1733	1697	1692	0
Q Serve(g_s), s	0.0	0.0	4.5	2.5	0.0	3.4	1.2	14.8	14.9	1.2	10.6	0.0
Cycle Q Clear(g_c), s	0.6	0.0	4.5	2.5	0.0	3.4	1.2	14.8	14.9	1.2	10.6	0.0
Prop In Lane	0.50		1.00	1.00		0.90	1.00		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	176	0	127	230	0	241	578	1136	1163	483	2271	
V/C Ratio(X)	0.06	0.00	0.49	0.18	0.00	0.22	0.11	0.41	0.41	0.13	0.32	
Avail Cap(c_a), veh/h	406	0	359	249	0	513	793	1136	1163	513	2271	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.7	0.0	52.5	45.9	0.0	44.5	4.8	8.9	9.0	5.3	8.2	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.9	0.4	0.0	0.4	0.1	1.1	1.1	0.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.5	0.0	3.4	2.0	0.0	2.5	0.6	8.3	8.6	0.6	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	0.0	55.4	46.3	0.0	45.0	4.9	10.0	10.1	5.5	8.6	0.0
LnGrp LOS	D	A	E	D	A	D	A	A	B	A	A	
Approach Vol, veh/h		73			94			1000			784	A
Approach Delay, s/veh		54.8			45.6			9.7			8.3	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2	3	4	5	6			8			
Phs Duration (G+Y+R _c), s	11.9	84.0	9.8	13.6	11.9	84.0			23.3			
Change Period (Y+R _c), s	7.5	7.5	6.0	7.5	7.5	7.5		* 7.5				
Max Green Setting (Gmax), s	6.5	76.5	5.0	23.5	19.5	63.5		* 36				
Max Q Clear Time (g_c+l1), s	3.2	16.9	4.5	6.5	3.2	12.6			5.4			
Green Ext Time (p_c), s	0.0	5.9	0.0	0.1	0.1	4.8			0.2			
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
7: US 98 & Old US 98

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	75	65	5	55	95	760	20	25	1020	5
Future Volume (veh/h)	5	5	75	65	5	55	95	760	20	25	1020	5
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	5	5	79	68	5	58	100	800	21	26	1074	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	107	92	148	273	23	263	417	2179	57	499	2129	
Arrive On Green	0.09	0.09	0.09	0.06	0.18	0.19	0.07	0.65	0.65	0.06	0.63	0.00
Sat Flow, veh/h	637	981	1585	1781	127	1477	1697	3369	88	1697	3474	0
Grp Volume(v), veh/h	10	0	79	68	0	63	100	402	419	26	1074	0
Grp Sat Flow(s), veh/h/ln	1618	0	1585	1781	0	1604	1697	1692	1766	1697	1692	0
Q Serve(g_s), s	0.0	0.0	5.4	3.8	0.0	3.7	2.1	12.4	12.4	0.6	19.5	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.4	3.8	0.0	3.7	2.1	12.4	12.4	0.6	19.5	0.0
Prop In Lane	0.50		1.00	1.00		0.92	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	199	0	148	273	0	285	417	1095	1142	499	2129	
V/C Ratio(X)	0.05	0.00	0.53	0.25	0.00	0.22	0.24	0.37	0.37	0.05	0.50	
Avail Cap(c_a), veh/h	399	0	351	273	0	512	623	1095	1142	540	2129	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.6	0.0	48.8	41.4	0.0	39.1	7.4	9.2	9.2	6.2	11.4	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.9	0.5	0.0	0.4	0.3	1.0	0.9	0.0	0.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.5	0.0	4.0	3.0	0.0	2.7	1.1	7.2	7.5	0.3	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.7	0.0	51.7	41.9	0.0	39.5	7.7	10.2	10.1	6.2	12.2	0.0
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	
Approach Vol, veh/h		89			131			921			1100	A
Approach Delay, s/veh		51.2			40.7			9.9			12.1	
Approach LOS		D			D			A			B	
Timer - Assigned Phs	1	2	3	4	5	6			8			
Phs Duration (G+Y+R _c), s	10.3	77.0	11.0	14.6	12.3	75.0			25.6			
Change Period (Y+R _c), s	7.5	7.5	6.0	7.5	7.5	7.5			* 7.5			
Max Green Setting (Gmax), s	5.5	69.5	5.0	21.5	18.5	56.5			* 34			
Max Q Clear Time (g_c+l1), s	2.6	14.4	5.8	7.4	4.1	21.5			5.7			
Green Ext Time (p_c), s	0.0	4.9	0.0	0.2	0.2	7.9			0.3			
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
7: US 98 & Old US 98

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	95	40	5	45	75	1105	70	60	885	5
Future Volume (veh/h)	5	5	95	40	5	45	75	1105	70	60	885	5
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	5	5	100	42	5	47	79	1163	74	63	932	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	114	100	167	257	27	251	468	2108	134	364	2202	
Arrive On Green	0.11	0.11	0.11	0.05	0.17	0.17	0.07	0.65	0.62	0.06	0.65	0.00
Sat Flow, veh/h	664	951	1585	1781	155	1454	1697	3231	205	1697	3474	0
Grp Volume(v), veh/h	10	0	100	42	0	52	79	609	628	63	932	0
Grp Sat Flow(s), veh/h/ln	1616	0	1585	1781	0	1609	1697	1692	1744	1697	1692	0
Q Serve(g_s), s	0.0	0.0	7.4	2.5	0.0	3.4	1.7	23.9	24.1	1.3	16.3	0.0
Cycle Q Clear(g_c), s	0.6	0.0	7.4	2.5	0.0	3.4	1.7	23.9	24.1	1.3	16.3	0.0
Prop In Lane	0.50		1.00	1.00		0.90	1.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	214	0	167	257	0	278	468	1104	1138	364	2202	
V/C Ratio(X)	0.05	0.00	0.60	0.16	0.00	0.19	0.17	0.55	0.55	0.17	0.42	
Avail Cap(c_a), veh/h	395	0	349	274	0	499	673	1104	1138	392	2202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.4	0.0	52.4	44.7	0.0	43.3	6.4	11.6	11.7	7.9	10.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	3.4	0.3	0.0	0.3	0.2	2.0	1.9	0.2	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.5	0.0	5.5	2.0	0.0	2.5	0.9	12.7	13.2	0.7	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.4	0.0	55.8	45.0	0.0	43.7	6.6	13.5	13.6	8.1	10.9	0.0
LnGrp LOS	D	A	E	D	A	D	A	B	B	A	B	
Approach Vol, veh/h		110				94			1316		995	A
Approach Delay, s/veh		55.3				44.3			13.2		10.8	
Approach LOS		E				D			B		B	
Timer - Assigned Phs	1	2	3	4	5	6			8			
Phs Duration (G+Y+R _c), s	11.9	84.0	9.8	16.9	12.2	83.8			26.7			
Change Period (Y+R _c), s	7.5	7.5	6.0	7.5	7.5	7.5		* 7.5				
Max Green Setting (Gmax), s	6.5	76.5	5.0	23.5	19.5	63.5		* 36				
Max Q Clear Time (g_c+l1), s	3.3	26.1	4.5	9.4	3.7	18.3			5.4			
Green Ext Time (p_c), s	0.0	9.1	0.0	0.2	0.1	6.7			0.2			
Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

Appendix K

Sidra Reports – Stage 2

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	60	8.0	63	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	39.8
8	T1	560	8.0	589	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	40.6
18	R2	20	8.0	21	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	35.2
Approach		640	8.0	674	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	40.4
East: Old US 98														
1	L2	65	2.0	68	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.7
6	T1	5	2.0	5	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	31.6
16	R2	55	2.0	58	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.1
Approach		125	2.0	132	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.4
North: US 98														
7	L2	25	8.0	26	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	35.7
4	T1	735	8.0	774	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	39.6
14	R2	5	8.0	5	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	38.4
Approach		765	8.0	805	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	39.4
West: Old US 98														
5	L2	5	2.0	5	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	39.7
2	T1	5	2.0	5	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	36.7
12	R2	60	2.0	63	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	38.7
Approach		70	2.0	74	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	38.7
All Vehicles		1600	7.3	1684	7.3	0.349	6.0	LOS A	1.7	45.5	0.29	0.19	0.29	39.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	60	8.0	63	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	38.8
8	T1	820	8.0	863	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	39.4
18	R2	70	8.0	74	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	34.2
Approach		950	8.0	1000	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	39.0
East: Old US 98														
1	L2	40	2.0	42	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	33.2
6	T1	5	2.0	5	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	31.2
16	R2	45	2.0	47	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	32.6
Approach		90	2.0	95	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	32.8
North: US 98														
7	L2	60	8.0	63	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	35.6
4	T1	685	8.0	721	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	39.6
14	R2	5	8.0	5	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	38.5
Approach		750	8.0	789	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	39.3
West: Old US 98														
5	L2	5	2.0	5	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	40.0
2	T1	5	2.0	5	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	36.9
12	R2	60	2.0	63	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	38.9
Approach		70	2.0	74	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	38.9
All Vehicles		1860	7.5	1958	7.5	0.409	6.7	LOS A	2.2	59.4	0.31	0.19	0.31	38.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Old US 98_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	95	8.0	100	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.0
8	T1	760	8.0	800	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.8
18	R2	20	8.0	21	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	34.6
Approach		875	8.0	921	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.6
East: Old US 98														
1	L2	65	2.0	68	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.7
6	T1	5	2.0	5	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	30.8
16	R2	55	2.0	58	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.1
Approach		125	2.0	132	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.4
North: US 98														
7	L2	25	8.0	26	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	34.5
4	T1	1020	8.0	1074	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	38.1
14	R2	5	8.0	5	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	36.9
Approach		1050	8.0	1105	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	38.0
West: Old US 98														
5	L2	5	2.0	5	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	37.7
2	T1	5	2.0	5	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	35.0
12	R2	75	2.0	79	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	36.8
Approach		85	2.0	89	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	36.8
All Vehicles		2135	7.4	2247	7.4	0.497	7.8	LOS A	2.8	75.7	0.36	0.25	0.36	38.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	75	8.0	79	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	37.6
8	T1	1105	8.0	1163	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	38.1
18	R2	70	8.0	74	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	33.2
Approach		1250	8.0	1316	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	37.8
East: Old US 98														
1	L2	40	2.0	42	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.7
6	T1	5	2.0	5	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	29.8
16	R2	45	2.0	47	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.1
Approach		90	2.0	95	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.3
North: US 98														
7	L2	60	8.0	63	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	34.9
4	T1	885	8.0	932	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	38.8
14	R2	5	8.0	5	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	37.7
Approach		950	8.0	1000	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	38.5
West: Old US 98														
5	L2	5	2.0	5	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	38.3
2	T1	5	2.0	5	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	35.5
12	R2	95	2.0	100	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	37.4
Approach		105	2.0	111	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	37.3
All Vehicles		2395	7.5	2521	7.5	0.538	8.5	LOS A	3.5	94.3	0.37	0.23	0.37	37.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix L

Traffic Signal Warrant

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Dade City**
 County: **16 – Polk**
 District: **Seven**

Engineer: **Lochner**
 Date: **May 11, 2022**

Major Street: **US 98** Lanes: **4** Major Approach Speed: **55**
 Minor Street: **Old US 98** Lanes: **2** Minor Approach Speed: **45**

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? 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" MAY 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:
 only peak hour data is available

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

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
5:00 PM	1700	45

Criteria**1. Delay on Minor Approach
(vehicle-hours)**

Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	0.7	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**2. Volume on Minor Approach
One-Direction *(vehicles per hour)**

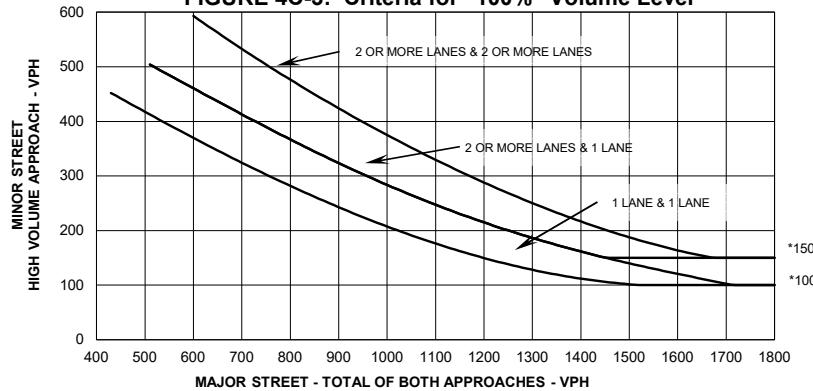
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	45	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**3. Total Intersection Entering
Volume *(vehicles per hour)**

No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,860
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

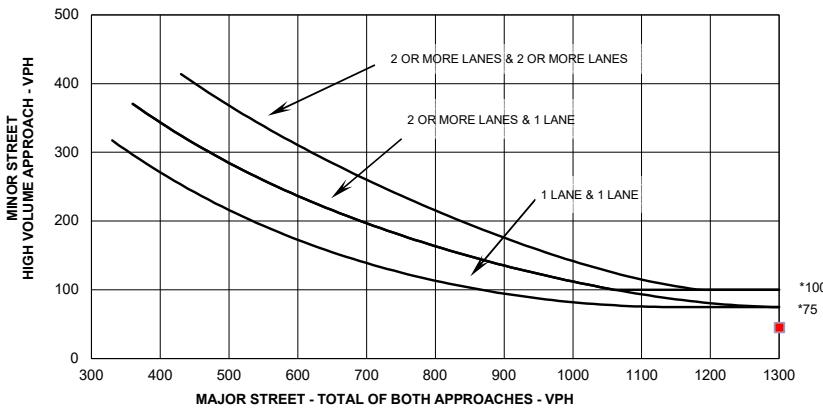
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr. (40 mph) on Major Street)



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

Appendix M

Long Range Estimation System Reports

Date: 6/24/2022 3:21:22 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	Value 50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

Sequence 5 Total \$85,353.29

Date: 6/24/2022 3:21:23 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01

Letting Date: 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07 **County:** 14 PASCO**Market Area:** 07 **Units:** English**Contract Class:** 9 **Lump Sum Project:** N**Design/Build:** Y **Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**
Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Project Sequences Subtotal	\$1,022,908.03
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102-1	Maintenance of Traffic	10.00 %	\$102,290.80
101-1	Mobilization	10.00 %	\$112,519.88

Project Sequences Total	\$1,237,718.71
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 12 Project Grand Total	\$1,287,718.71
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 **Lump Sum Project:** N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 15 Project Grand Total **\$1,775,578.57**

Description: SIGNALIZED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT 0 LF

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00 LF	\$15.56	\$12,448.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	\$30.07	\$6,014.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,131.15	\$5,131.15
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	2.00 EA	\$1,064.47	\$2,128.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$839.88	\$10,078.56
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,416.02	\$3,416.02
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$8.12	\$487.20
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$71,616.29	\$286,465.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$997.96	\$7,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$612.38	\$4,899.04
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	\$362.84	\$2,902.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	\$1,120.21	\$8,961.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$238.60	\$1,908.80
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$44,475.01	\$44,475.01
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$207.25	\$829.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$1,265.25	\$5,061.00
Comment: Signal for LT lanes in the NB and SB directions					
Signalizations Component Total					\$403,189.96

Sequence 5 Total	\$488,543.25
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 15 Project Grand Total	\$1,775,578.57
Description: SIGNALIZED INTERSECTION ALTERNATIVE	

Project Sequences Subtotal	\$1,426,097.99
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102-1	Maintenance of Traffic	10.00 %	\$142,609.80
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101-1	Mobilization	10.00 %	\$156,870.78
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Project Sequences Total	\$1,725,578.57
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 15 Project Grand Total	\$1,775,578.57
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Date: 6/24/2022 3:30:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 14 Project Grand Total **\$1,594,436.88**

Description: ROUNDABOUT ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31	CY	\$10.20	\$56,072.56
Earthwork Component Total					\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87	SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66	SY	\$40.46	\$80,258.88

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON					

EACH SIDE OF THE APPROACH. TOTAL FOR THIS
APPROACH = 250 FT

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
Median Component Total					\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20	1.00	AS	\$1,346.31	\$1,346.31

	SF			
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$12,228.81	\$12,228.81
Signing Component Total				\$19,699.29

Sequence 1 Total	\$347,274.28
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
Description: SB 4-LANE APPROACH 301 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31 CY	\$10.20	\$56,072.56
Earthwork Component Total				\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87 SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66 SY	\$40.46	\$80,258.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON EACH SIDE OF THE APPROACH. TOTAL FOR THIS APPROACH = 250 FT					

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
	Median Component Total				\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
	Drainage Component Total				\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81

Signing Component Total	\$19,699.29
Sequence 2 Total	\$347,274.28
Sequence: 3 NUR - New Construction, Undivided, Rural	Net Length: 0.057 MI 300 LF
Description: WB 2-LANE APPROACH	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50

Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT

520-5-16 TRAF SEP CONC-TYPE I, 8.5' WIDE 50.00 LF \$129.33 \$6,466.50
Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total**\$161,990.49****Sequence:** 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
	Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT				
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
	Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T

Rumble Strips 1/2 No. of Sides

0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total \$13,026.58**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total \$8,492.23**Sequence 4 Total** \$161,990.49**Sequence: 5 NDR - New Construction, Divided, Rural** **Net Length:** 0.057 MI

Description: Roundabout Central Island, includes landscaping and irrigation system

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$17,175.14	\$8,587.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	\$6.91	\$2,764.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				
120-6	EMBANKMENT	400.00	CY	\$10.20	\$4,080.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				

Earthwork Component Total	\$15,431.57
----------------------------------	--------------------

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	110

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,800.00	SY	\$8.46	\$15,228.00
	Comment: measure (22121-6175)SF /9 = 1772 SY use 1800 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	1,300.00	SY	\$40.46	\$52,598.00
	Comment: measure (22121-10477)SF /9 = 1294 SY use 1300 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	143.00	TN	\$95.81	\$13,700.83
	Comment: 2" Superpave Traffic C (1300 X 110 X 2)/2000				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-	72.00	TN	\$194.95	\$14,036.40

9.5,PG 76-22

Comment: 1" FC-9.5 Traffic C PG 76-22 (1300 X 110)/2000

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.05 GM	\$1,112.81	\$55.64
710-11-141	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"	0.02 GM	\$548.94	\$10.98
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	6.00 EA	\$29.54	\$177.24
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.07 GM	\$1,125.02	\$78.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total	\$95,885.84
-------------------------	-------------

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.25 AC	\$50.04	\$12.51
107-2	MOWING	0.25 AC	\$61.82	\$15.46

Shoulder Component Total	\$3,701.53
--------------------------	------------

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"	480.00	SY	\$154.80	\$74,304.00
520-2-4	CONCRETE CURB, TYPE D	280.00	LF	\$38.28	\$10,718.40
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$37.00	\$13,690.00
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.05	\$2,835.00
Median Component Total					\$101,547.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$324.56	\$1,298.24
Signing Component Total					\$1,298.24

LANDSCAPING COMPONENT**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	\$40,000.00
------------------------------------	--------------------

Sequence 5 Total	\$257,864.58
-------------------------	---------------------

Date: 6/24/2022 3:30:50 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 14 Project Grand Total	\$1,594,436.88
Description: ROUNDABOUT ALTERNATIVE	

Project Sequences Subtotal	\$1,276,394.12
-----------------------------------	-----------------------

102-1	Maintenance of Traffic	10.00 %	\$127,639.41
101-1	Mobilization	10.00 %	\$140,403.35

Project Sequences Total	\$1,544,436.88
--------------------------------	-----------------------

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
	Project Non-Bid Subtotal				\$50,000.00

Version 14 Project Grand Total **\$1,594,436.88**

Appendix N

ICE Tool – Stage 2

Outputs

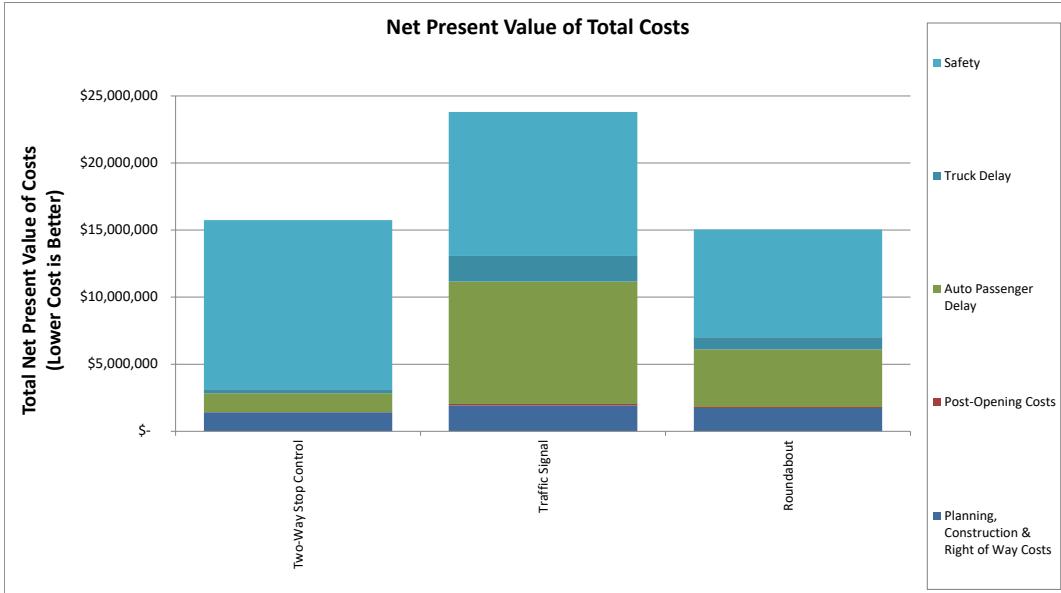
This sheet compiles the data from summary tables in individual alternatives sheets.
To populate the output sheet press the "Setup Worksheets" button in the
Alternatives_MasterList tab.

Agency:	Florida Department of Transportation
Project Name:	US 98 PD&E
Project Reference:	FPID 443368-2-22-01
Intersection:	US 98 at Old US 98 (Build Only)
City:	Dade City
State:	Florida
Performing Department or Organization:	H.W. Lochner
Date:	6/28/2022
Analyst:	Claire McGinnis
Analysis Type	At-Grade Intersection

Analysis Summary

Cost Categories	Net Present Value of Costs			
	Two-Way Stop Control	Traffic Signal	Roundabout	
Planning, Construction & Right of Way Costs	\$ 1,415,809	\$ 1,937,819	\$ 1,743,997	
Post-Opening Costs	\$ 14,590	\$ 98,229	\$ 72,952	
Auto Passenger Delay	\$ 1,409,783	\$ 9,113,647	\$ 4,286,753	
Truck Delay	\$ 296,449	\$ 1,915,959	\$ 901,346	
Safety	\$ 12,606,439	\$ 10,732,598	\$ 8,028,369	
Total cost	\$15,743,070	\$23,798,251	\$15,033,417	

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Two-Way Stop Control		
	Net Present Value of Benefits Relative to Base Case		
Benefit Categories	Two-Way Stop Control	Traffic Signal	Roundabout
Auto Passenger Delay	\$ (7,703,864)	\$ (2,876,970)	
Truck Delay	\$ (1,619,510)	\$ (604,897)	
Safety	\$ 1,873,841	\$ 4,578,070	
Net Present Value of Benefits	\$ (7,449,533)	\$ 1,096,203	
Net Present Value of Costs	\$ 605,648	\$ 386,550	
Net Present Value of Improvement	\$ (8,055,182)	\$ 709,653	
Benefit-Cost (B/C) Ratio	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.		
	2.84		
Delay B/C	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.		
Safety B/C	3.09	11.84	



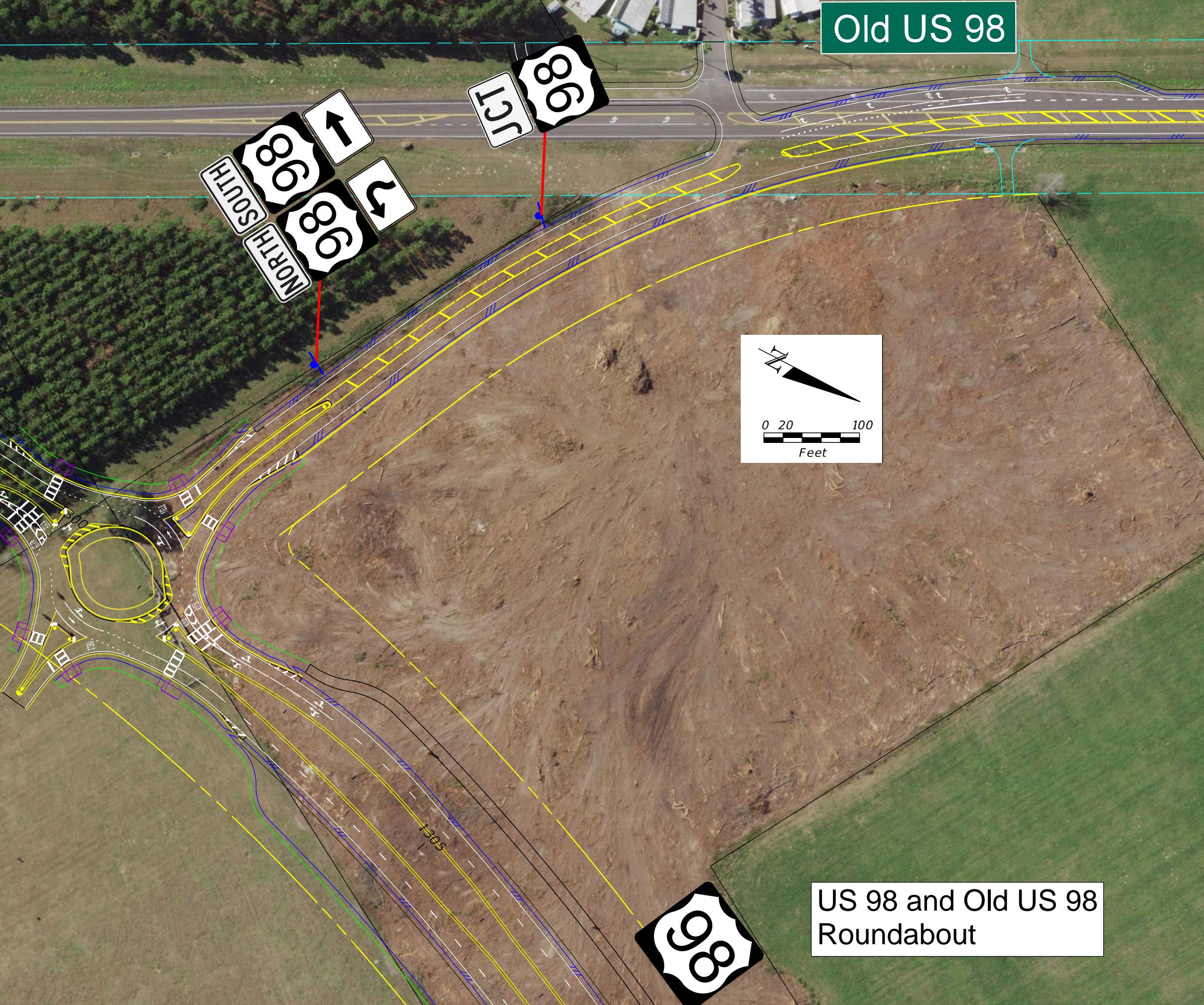
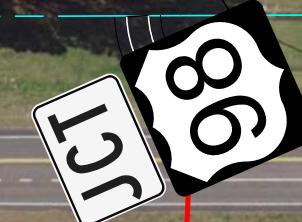
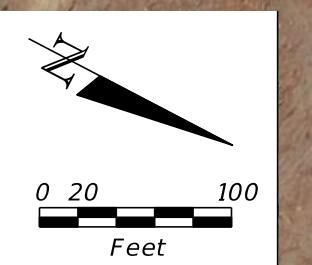
Appendix O

Recommended ICE Concept

Old US 98



US 98 and Old US 98
Roundabout



Intersection Control Evaluation Report

**US 98 / State Road 35 / State Road 700
At Townsend Road**



Florida Department of Transportation

District 7

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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- Appendix C: ITE Trip Generation Calculations
- Appendix D: ICE Stage 1 Forms
- Appendix E: CAP-X – 2045 AM Peak Hour
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- Appendix M: Long Range Estimation System Reports
- Appendix N: ICE Tool – Stage 2
- Appendix O: Recommended ICE Concept

1.0 Introduction

1.1 Project Overview

The Florida Department of Transportation (FDOT) District Seven is conducting the US 98 Project Development and Environment (PD&E) Study (WPI Segment No: 443368-2) to evaluate the need for widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to deemphasize the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. Additionally, significant development is planned along the proposed US 98 realignment that will have a significant impact on corridor operations. Conceptual plans for the proposed developments can be found in **Appendix A**. This document will analyze the intersection of US 98 at Townsend Road. Improvements to this intersection will seek to minimize delay while also emphasizing safety. The intersection of US 98 at Townsend Road within the context of the US 98 PD&E project location and study area is shown in **Figure 1.1**.

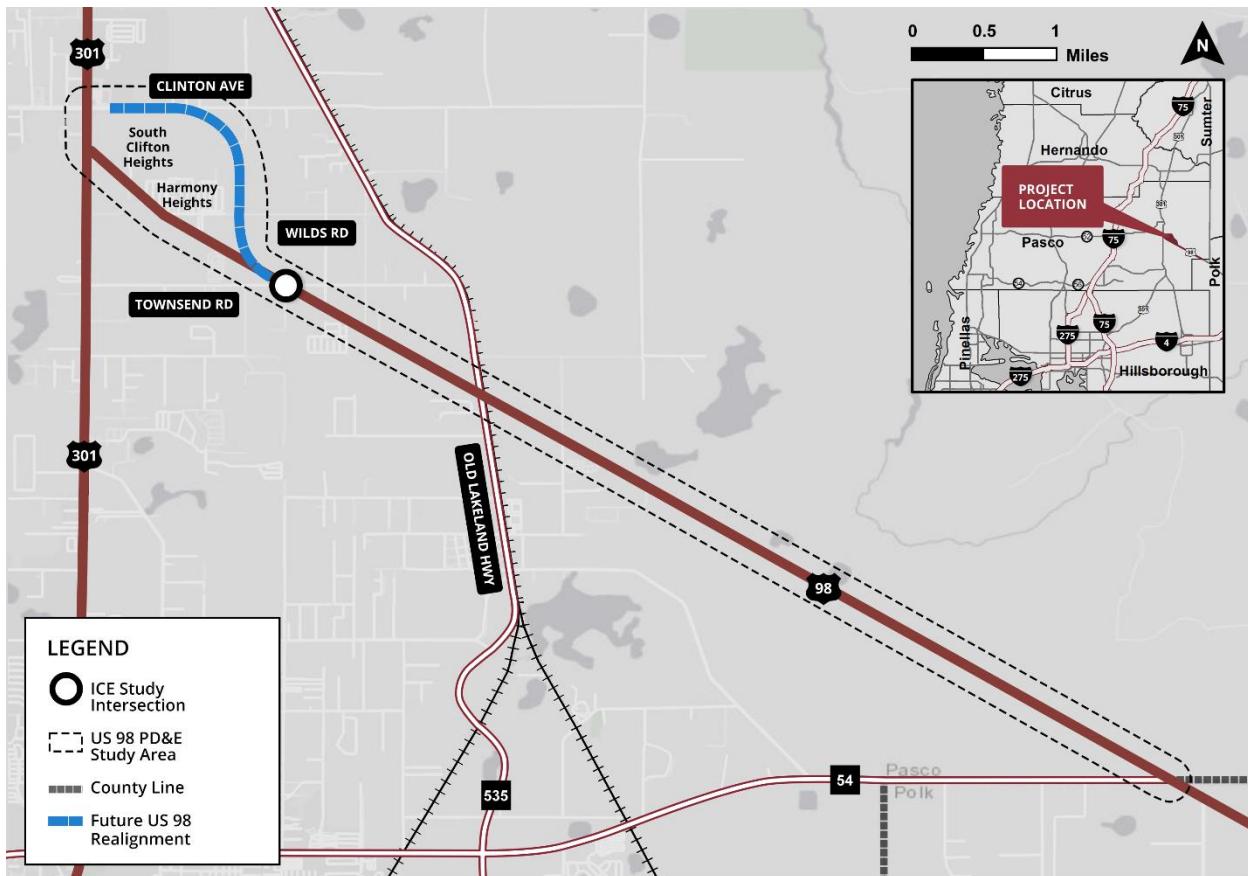


Figure 1.1: Study Intersection and Project Location Map

1.2 Intersection Control Evaluation Methodology

To assess the most appropriate intersection control to accompany the widening and realignment of US 98, an Intersection Control Evaluation (ICE) analysis, in accordance with the 2022 Florida Department of Transportation's (FDOT's) Manual on Intersection Control Evaluation (FDOT Topic Number 750-010-003), was requested. A Stage 1 ICE analysis will be conducted and if a single viable control cannot be determined, then a Stage 2 ICE analysis will be conducted.

All analysis will be conducted utilizing volumes and traffic factors from the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2). The analysis years for this study included an existing year (2019), opening year (2025), and a design year (2045). The US 98 PD&E Forecast Volumes and Institute of Transportation Engineers (ITE) Trip Generation associated with the proposed developments within the study area can be found in **Appendix B** and **Appendix C**, respectively. For use in this analysis, Turning Movement Volumes and Annual Average Daily Traffic counts at the US 98 and Townsend Road intersection (ID number 6) for opening year (2025) and design year (2045) can be found in **Figure 1.2**. A conceptual roundabout design is used for reference. This analysis will utilize an observed daily truck percentage (T_{24}) of 15.2 percent and a design hour truck (DHT) percentage of 8.0 percent along US 98. A Highway Capacity Manual (HCM) default T_{24} of 4.0 percent and DHT of 2.0 percent were used along Townsend Road.

Based upon the current context of US 98, coordination with FDOT District 7, and development plans along the corridor, only the following intersection controls will be considered during the ICE analysis:

- Two-way stop control;
- Signalization; and
- Two (2) lane Roundabout with one (1) lane on the minor approach (2x1 Roundabout)

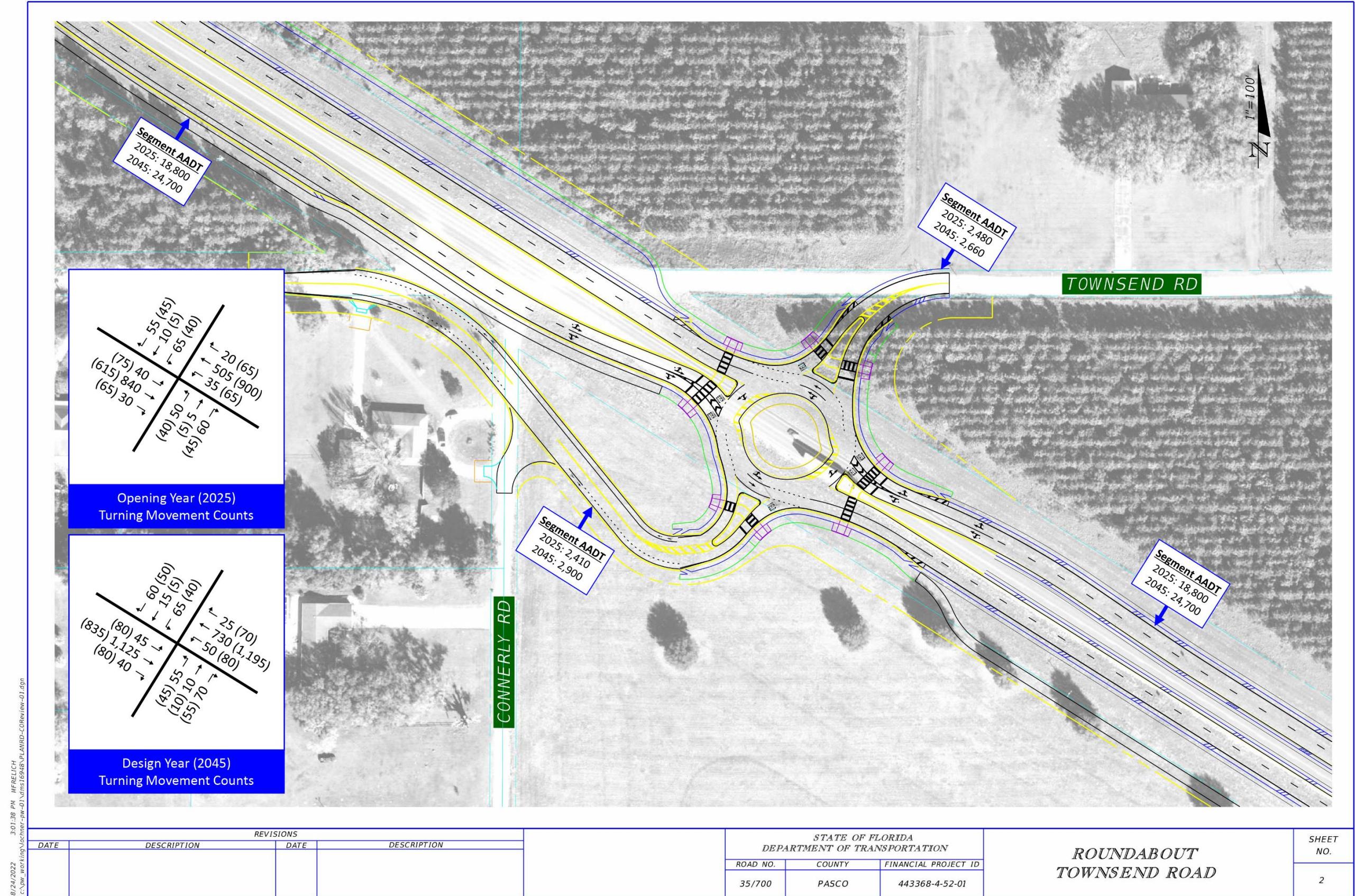


Figure 1.2: Opening Year (2025) Turning Movement Volumes

2.0 ICE Stage 1 Analysis

ICE Stage 1 in this analysis includes Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance of Intersection Control Evaluations (SPICE) rankings. The ICE Stage 1 forms can be found in [Appendix D](#).

2.1 Capacity Analysis at Junctions (CAP-X)

The US 98 and Townsend Road CAP-X analysis was conducted under the design year (2045) and assumes the widening and realignment of the US 98 corridor. Based on the demand at the intersection, along with the four lanes along US 98 and two lanes along Townsend Road, the following improvements were examined under both the two-way stop control and traffic signal condition:

- Left turn bays were provided along US 98 and both approaches along Townsend Road

The 2x1 roundabout analysis did not require additional modification. The estimated Volume to Capacity (V/C) ratios and rankings of the design year (2045) CAP-X analysis for the AM and PM peak hours are shown in [Table 2.1](#). The CAP-X 2045 AM and PM Peak Hour reports can be found in [Appendix E](#) and [Appendix F](#), respectively.

Table 2.1: Design Year (2045) CAP-X Analysis

US 98 at Townsend Road	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Overall V/C	V/C Rank	Overall V/C	V/C Rank	Overall V/C	V/C Rank
AM	2.46	3	0.49	1	0.58	2
PM	4.42	3	0.52	1	0.64	2

2.2 Safety Performance for Intersection Control Evaluation (SPICE)

SPICE analysis typically utilizes the most recent five-year period of historical crash data within the study area. The five-year period of 2014-2018 was used for this study. At the intersection of US 98 and Townsend Road, there was one single vehicle crash reported with an injury and one rear end crash involving multiple vehicles that also resulted in an injury.

[Table 2.2](#) and [Table 2.3](#) detail the types of crashes and severity of injuries for the years 2014-2018, respectively. SPICE analysis for this report focuses on the proposed configurations and predicted crash frequencies present in the SPICE worksheets. The SPICE analysis result summaries can be found in [Appendix G](#).

Table 2.2: 5 Year Crash Type for US 98 at Townsend Road

Crash Type	5 Year Crash Type for US 98 at Townsend Road					
	2014	2015	2016	2017	2018	Total
Single Vehicle	1	0	0	0	0	1
Rear End	0	0	1	0	0	1
Total	1	0	1	0	0	2

Table 2.3: 5 Year Crash Severity for US 98 at Townsend Road

Crash Type	5 Year Crash Severity for US 98 at Townsend Road					
	2014	2015	2016	2017	2018	Total
Property Damage Only	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Severe Injury	1	0	1	0	0	2
Fatal	0	0	0	0	0	0
Total	1	0	1	0	0	2

The FDOT SPICE analysis was conducted for the opening year (2025) and the design year (2045) to predict the total crashes, fatal and injury crashes, and Safe System Intersection (SSI) scores. The summaries of the safety performance for each control strategy are shown in **Table 2.4**.

Table 2.4: Predicted Crashes and SSI Scores

Control Strategy	Opening Year (2025)			Design Year (2045)		
	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score
Two-Way Stop Controlled	5.99	2.63	47	7.22	3.29	36
Signalized Control	5.85	1.96	65	7.88	2.58	55
Roundabout	7.94	1.39	89	10.73	1.93	86

By the design year (2045), it is anticipated that a roundabout would rank first among the selected control strategies providing the lowest severity crash frequency of 1.93 during design year (2045). The signalized control alternative ranks second with a lower severity crash frequency of 2.58. The two-way stop control strategy ranks third with a severe crash frequency of 3.29. All intersections indicated an increase in crash frequency and severity from the opening year (2025) to the design year (2045).

The results of life cycle SPICE analysis for the AM and PM peak hours are shown in **Table 2.5**. The roundabout ranks first with the lowest number of Total Project Life Cycle severe crashes.

Table 2.5: SPICE Analysis

Crash Type	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank
Total	138.76	3	144.05	2	195.88	1
Fatal & Injury	62.16		47.71		34.83	

2.3 Alternative Scenario Rankings for Stage 1 Analysis

The results of the ICE Stage 1 analysis are summarized in **Table 2.6** along with how each control strategy performed at each of the study intersections based on the CAP-X and SPICE analysis.

Table 2.6: Analysis Summary

Intersection	Control Strategy	ICE Stage 2 Analysis		
		CAP-X Rank	SPICE Rank	Daily
US 98 at Townsend Road	Two-Way Stop Control	3	3	3
	Traffic Signal Control	1	1	2
	2NS x 1EW Roundabout	2	2	1

ICE Stage 1 analysis supports the use of traffic signal control, 2-lane roundabout, and two-way stop control at the intersection of US 98 and Townsend Road. The traffic signal and roundabout control strategies have similar V/C ratios and safety considerations. To further analyze all control strategies, ICE Stage 2 analysis was performed, and the recommended strategies were further examined.

3.0 ICE Stage 2 Analysis

3.1 Opening and Design Year Operational Analysis

The ICE Stage 1 analysis did not identify a single viable control strategy. Therefore, all three control strategies were advanced to ICE Stage 2 Analysis. Summaries of the ICE Stage 2 analysis can be found in **Appendix H**. The Stage 2 analysis evaluates each viable control strategy based on:

- Opening and Design year operational performance
- Safety performance
- Benefit-to-cost analysis
- Multimodal accommodations
- Environmental, utility, and right-of-way impacts
- Public input
- Other appropriate factors

The conceptual layout of the lane geometry for each of the control strategies can be found in **Figure 3.1**.

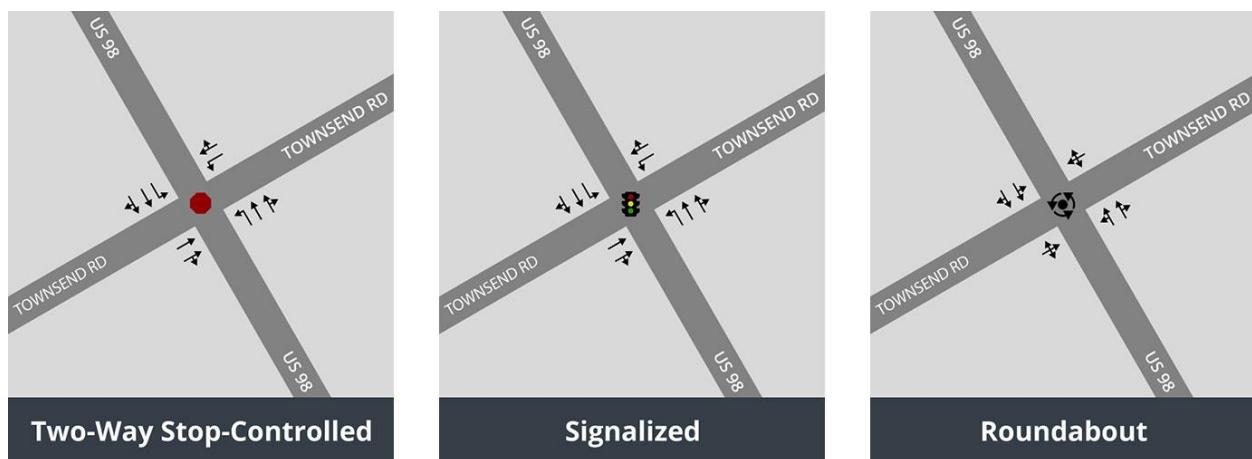


Figure 3.1: Conceptual Layout

HCS 7, Synchro 11, and SIDRA 9 were used to analyze the operational performance of two-way stop control, signalized control, and roundabout control, respectively. The HCS 7, Synchro 11, and SIDRA 9 reports can be found in **Appendix I**, **Appendix J**, and **Appendix K**, respectively. Level of Service (LOS), average control delay, and 95th percentile queue lengths were the measures of performance for the operational analysis conducted in Stage 2. The intersection performance measures by movement for each control type can be found in **Table 3.1** through **Table 3.6**, while the overall intersection results for each control type can be found in **Table 3.7** and **Table 3.8**.

The intersection performance measures by movement for two-way stop control can be found in **Table 3.1** and **Table 3.2**. By the opening year (2025), both the eastbound and westbound left turn movements are expected to fail to meet the LOS target D. By the design year (2045), both the eastbound and westbound left turn and through/right movements are expected to fail to meet the LOS target D. The intersection performance measures by movement for signalized control can be found in **Table 3.3** and **Table 3.4**. By the opening year (2025), the eastbound and westbound through/right movements are expected to fail to meet the LOS target D. By the design year (2045), the eastbound and westbound through/right movements are expected to continue to fail to meet the LOS target D. The intersection performance measures by movement for roundabout control can be found in **Table 3.5** and **Table 3.6**. Each approach is expected to continue to meet the LOS target D by the design year (2045) under roundabout control.

In addition to the HCS 7, Synchro 11, and SIDRA 9 analyses that were performed, a traffic signal warrant analysis was completed. Due to only having peak hour volume data available, only Warrant 3 was assessed. US 98 and Townsend Road did not meet the criteria for the intersection to be signalized. The Traffic Signal Warrant analysis can be found in **Appendix L**.

Table 3.1: Opening Year (2025) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	32.1	D	37.7	E	1/250'	50 (50)
	Through/Right*	15.8	C	20.3	C	1/>1500'	25 (25)
Westbound	Left	26.8	D	43.7	E	1/250'	50 (50)
	Through/Right*	17.6	C	22.3	C	1/1200'	25 (25)
Northbound	Left	10.4	B	9.7	A	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/>1500'	-
Southbound	Left	8.9	A	11.4	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1000'	-

*Weighted delay for Through/Right movement reported

Table 3.2: Design Year (2045) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	104.4	F	153.4	F	1/250'	125 (125)
	Through/Right*	39.8	E	115.3	F	1/>1500'	75 (150)
Westbound	Left	80.1	F	679.5	F	1/250'	100 (250)
	Through/Right*	55.9	F	50.9	F	1/1200'	100 (75)
Northbound	Left	12.5	B	11.1	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/>1500'	-
Southbound	Left	9.9	A	14.0	B	1/250'	25 (25)
	Through/Right*	-	-	-	-	2/1000'	-

*Weighted delay for Through/Right movement reported

Table 3.3: Opening Year (2025) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	45.0	D	50.1	D	1/250'	75 (75)
	Through/Right*	55.2	E	59.0	E	1/>1500'	100 (75)
Westbound	Left	44.8	D	50.1	D	1/250'	100 (75)
	Through/Right*	53.3	D	59.9	E	1/1200'	100 (75)
Northbound	Left	5.6	A	4.3	A	1/250'	25 (25)
	Through/Right*	8.5	A	9.5	A	2/>1500'	125 (225)
Southbound	Left	4.9	A	5.2	A	1/250'	25 (25)
	Through/Right*	10.1	B	8.0	A	2/1000'	225 (150)

*Weighted delay for Through/Right movement reported

Table 3.4: Design Year (2045) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	44.6	D	49.9	D	1/250'	75 (75)
	Through/Right*	55.7	E	59.6	E	1/>1500'	125 (100)
Westbound	Left	44.6	D	49.9	D	1/250'	100 (75)
	Through/Right*	53.7	D	59.3	E	1/1200'	125 (100)
Northbound	Left	7.6	A	5.4	A	1/250'	25 (25)
	Through/Right*	10.1	B	12.2	B	2/>1500'	200 (325)
Southbound	Left	5.7	A	7.7	A	1/250'	25 (25)
	Through/Right*	13.1	B	9.8	A	2/1000'	325 (225)

*Weighted delay for Through/Right movement reported

Table 3.5: Opening Year (2025) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	9.3	A	6.7	A	1/>1500'	25 (25)
	Through	9.3	A	6.7	A		25 (25)
	Right	9.3	A	6.7	A		25 (25)
Westbound	Left	6.4	A	9.2	A	1/1200'	25 (25)
	Through	6.4	A	9.2	A		25 (25)
	Right	6.4	A	9.2	A		25 (25)
Northbound	Left	5.2	A	8.1	A	2/>1500'	50 (75)
	Through	5.2	A	8.1	A		50 (75)
	Right	5.2	A	8.1	A		50 (75)
Southbound	Left	7.2	A	6.3	A	2/1000'	75 (50)
	Through	7.2	A	6.3	A		75 (50)
	Right	7.2	A	6.3	A		75 (50)

Table 3.6: Design Year (2045) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	14.4	B	9.2	A	1/>1500'	50 (25)
	Through	14.4	B	9.2	A		50 (25)
	Right	14.4	B	9.2	A		50 (25)
Westbound	Left	8.7	A	13.7	B	1/1200'	25 (25)
	Through	8.7	A	13.7	B		25 (25)
	Right	8.7	A	13.7	B		25 (25)
Northbound	Left	6.6	A	11.1	B	2/>1500'	50 (125)
	Through	6.6	A	11.1	B		50 (125)
	Right	6.6	A	11.1	B		50 (125)
Southbound	Left	9.6	A	7.9	A	2/1000'	100 (75)
	Through	9.6	A	7.9	A		100 (75)
	Right	9.6	A	7.9	A		100 (75)

The overall intersection results for the opening year (2025) and design year (2045) are shown in **Table 3.7** and **Table 3.8**, respectively.

Table 3.7: Opening Year (2025) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	C	22.9	Yes	D	31.8	Yes
Signalized Control	B	15.1	Yes	B	12.9	Yes
Roundabout	A	6.6	Yes	A	7.4	Yes

*Worst case stop controlled approach LOS shown

Table 3.8: Design Year (2045) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	F	67.1	Yes	F	315.6	Yes
Signalized Control	B	16.3	Yes	B	14.5	Yes
Roundabout	A	8.8	Yes	A	9.9	Yes

* Worst case stop controlled approach LOS shown

3.2 Cost and Benefit-to-Cost Ratio

The benefit-to-cost ratio analysis for the project life cycle was conducted with the FDOT ICE tool. Two-way stop control is the base strategy for the benefit-to-cost comparison. The right-of-way (ROW) costs are expected to be the same for all three control strategies. The design cost is assumed to be seven percent of the sum of the construction cost and the contingency cost. The FDOT Long Range Estimating System (LRE) reports for these control strategies can be found in **Appendix M**. The summary of the benefit-to-cost analysis is shown in **Table 3.9**. The output table of the ICE tool can be found in **Appendix N**.

Table 3.9: Cost and Benefit-to-Cost Ratios

Control Strategy	ROW Costs (\$)	Design Cost (\$)	Contingency Cost (\$)	Construction Cost (\$)	FDOT ICE Tool Outputs Relative to Base Case			
					Delay B/C	Safety B/C	Overall B/C	Net Present Value of Improvement
Two-Way Stop Controlled	\$228,624	\$86,640	\$50,000	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$228,624	\$120,790	\$50,000	\$1,725,579	*	5.01	*	-\$6,370,540
Roundabout	\$228,624	\$108,111	\$50,000	\$1,544,437	*	9.95	14.13	\$3,459,073

*No B/C reported in FDOT ICE Tool

3.3 Multimodal Accommodations

The field-observed activity levels at the intersection of US 98 at Townsend Road were low for both pedestrians and bicyclists. No multimodal facilities are proposed at this location as a part of the PD&E.

Under two-way stop control, pedestrians crossing the minor street approaches would be crossing a stop-controlled location and would therefore have the right-of-way. However, the lack of stop control or signalization would not provide any protected pedestrian movement across the major street. Under signal control, crossing time would be provided for pedestrians crossing both the major and minor streets. Under roundabout control, crossing distances would be reduced for all crossings. No additional accommodations for pedestrians or bicyclists are anticipated at this time.

No existing transit facilities are present near the intersection of US 98 at Townsend Road. Additionally, the intersection has no anticipated special freight needs.

3.4 Environmental, Utility, and Right-of-Way Impacts

The intersection is located within a rural area of Pasco County dominated by agricultural land uses and low-density residential areas. There are no wetlands or protected species present in the proximity of the intersection. Due to the realignment of US 98, additional right-of-way will be required. The right-of-way requirements and utility impacts will be dictated by the roadway alignment, with no expected difference in impact based on the selected intersection type.

3.5 Public Inputs

A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. A total of 66 people (excluding FDOT staff) signed in at the in-person public hearing, and total of 14 people (excluding FDOT staff) signed in at the virtual portion of the public hearing. Only one comment received concerned the intersection of US 98 and Townsend Road. The comment specifically addressed a proposed right-of-way take associated with the Townsend Road improvements, which would be the same for all three intersection types evaluated.

4.0 ICE Analysis Summary

4.1 Summary of Stage 2 Analysis

A brief justification as to why each of the control strategies is either viable or not viable after the ICE Stage 2 Analysis is shown in **Table 4.1**. The roundabout control strategy provides the best operational and safety benefits, with the highest benefit-to-cost ratio for the intersection of US 98 at Townsend Road. There are few differences between the three control strategies in terms of public feedback, multimodal accommodations, and environmental, utility, or ROW impacts. Overall, the 2NS x 1EW roundabout control strategy is recommended based on the ICE Stage 2 analysis. The proposed design concept associated with this concept can be found in **Appendix O**.

Table 4.1: Analysis Summary

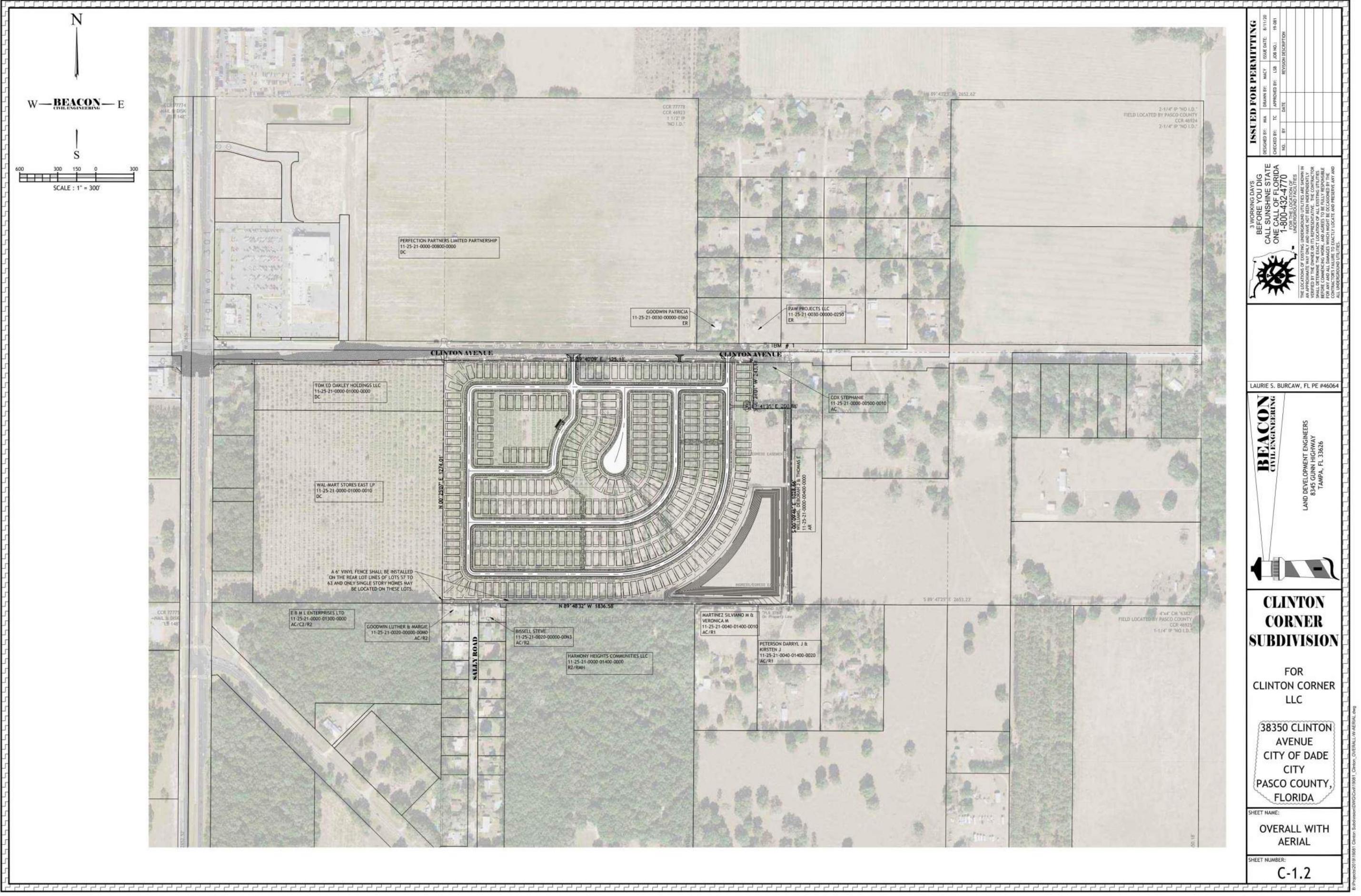
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop Control	No	Although this control strategy has the lowest anticipated construction costs, it provides less operational and safety benefits compared to the other strategies. Under this control strategy, the left turn movements on the minor streets will have a failing LOS.
Traffic Signal Control	No	The operational and safety performances for the signalized control strategy are better than the two-way stop control, but worse than a roundabout. The anticipated construction cost is greater than the cost for roundabout strategy. Additionally, this intersection did not meet the criteria for the Traffic Signal Warrant.
2NS x 1EW Roundabout	Yes	This control strategy provides the best operational and safety performance, and has a lower anticipated construction cost than traffic signal control.

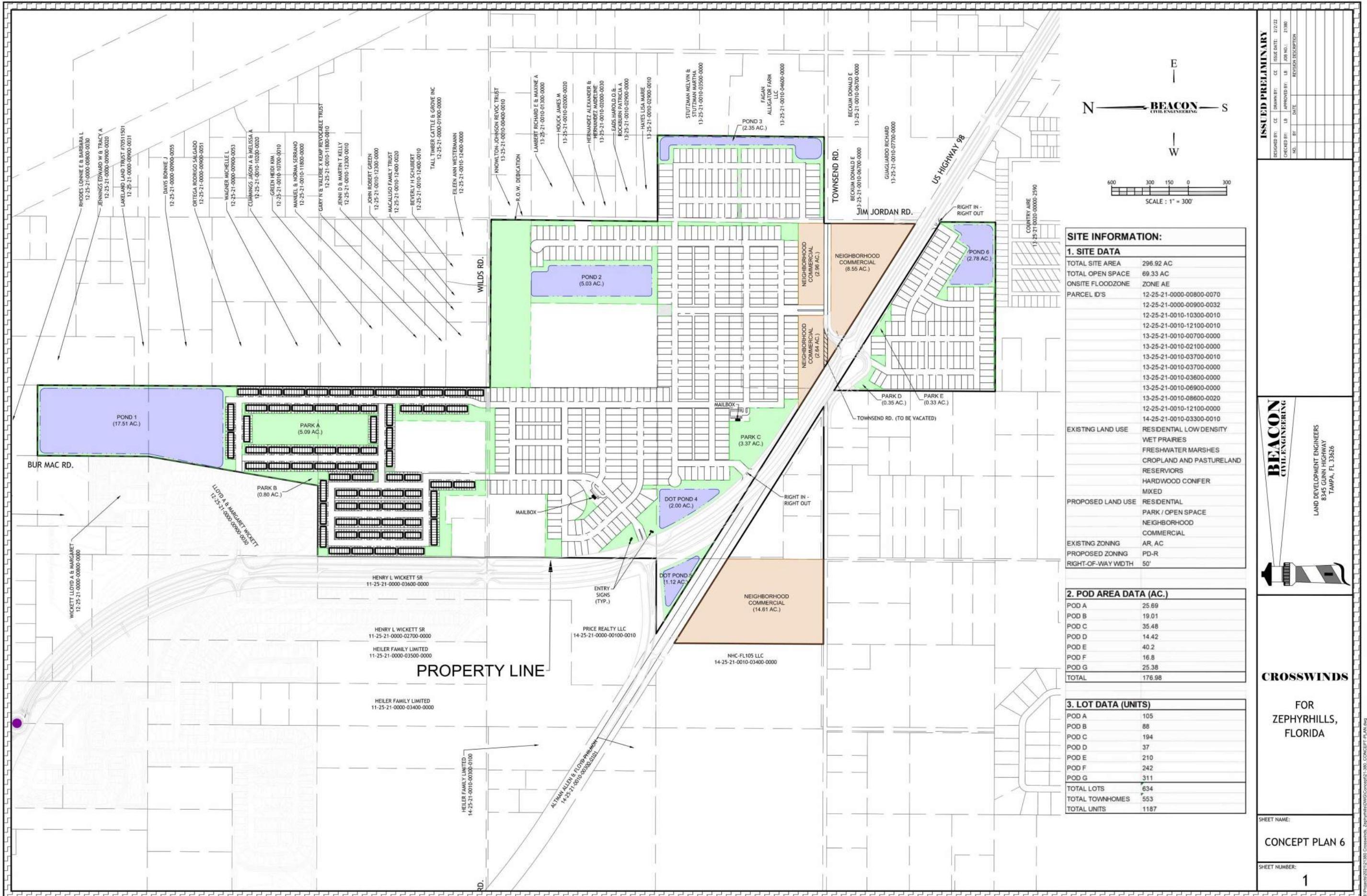
Appendices

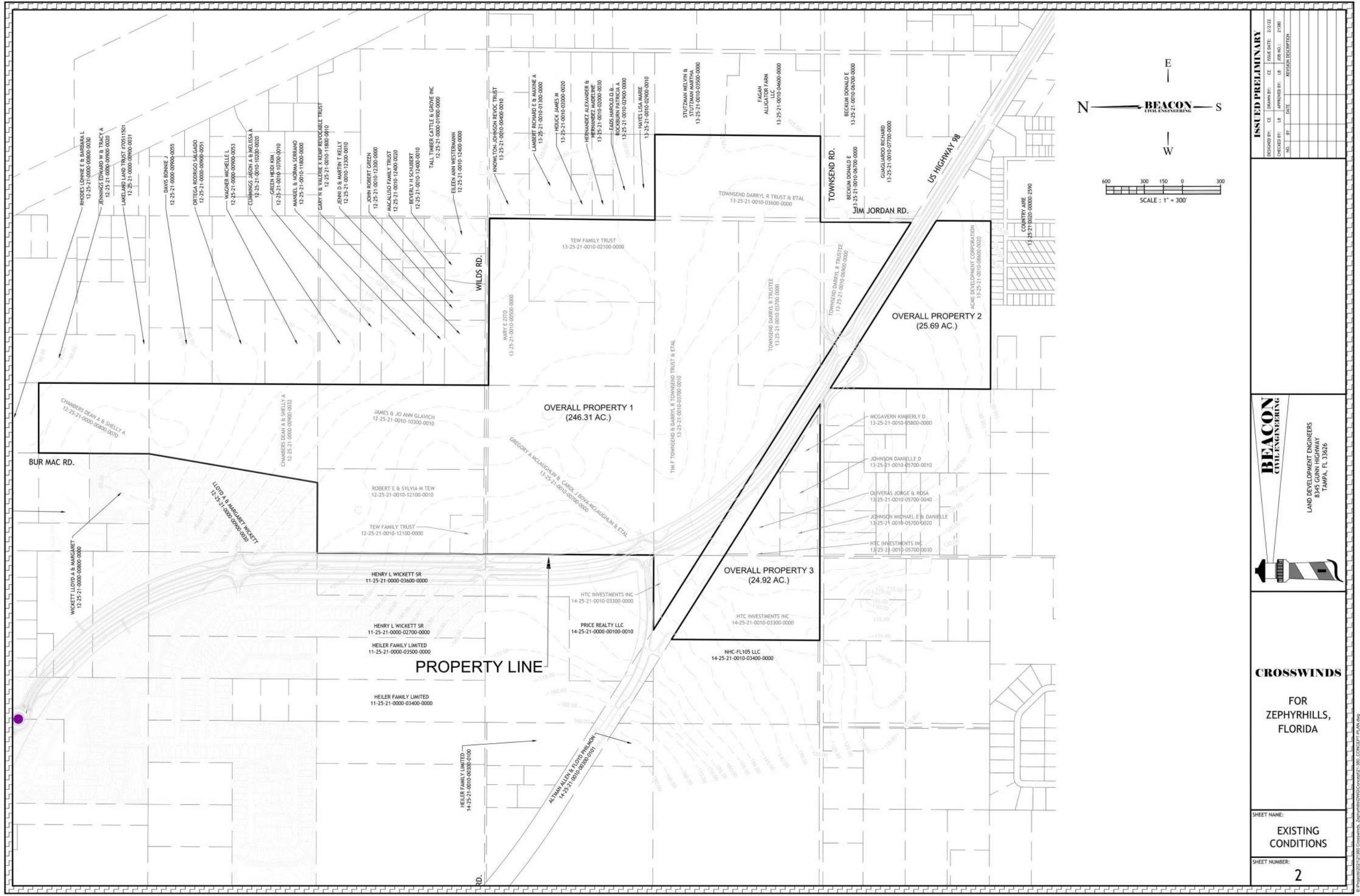


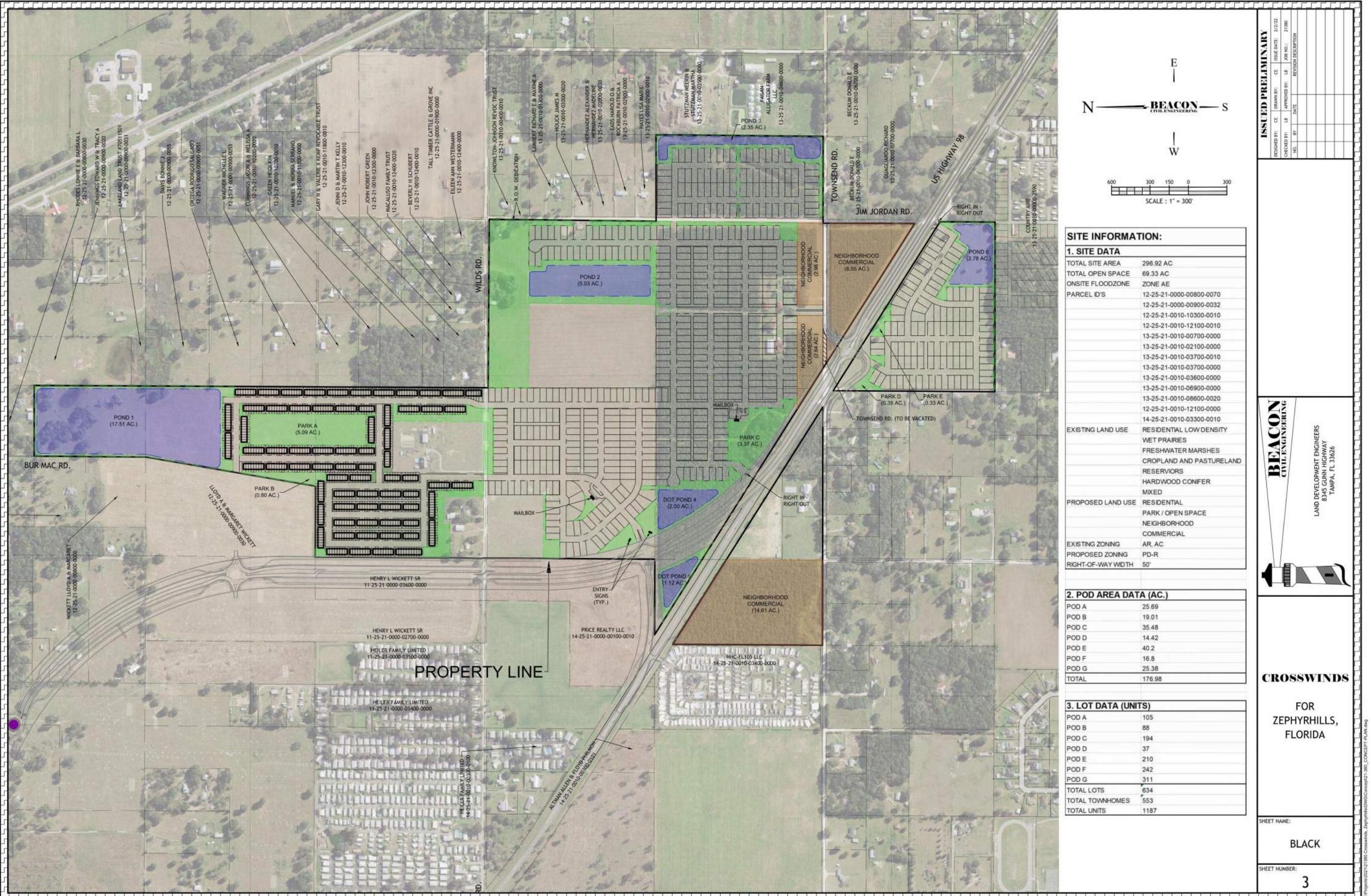
Appendix A

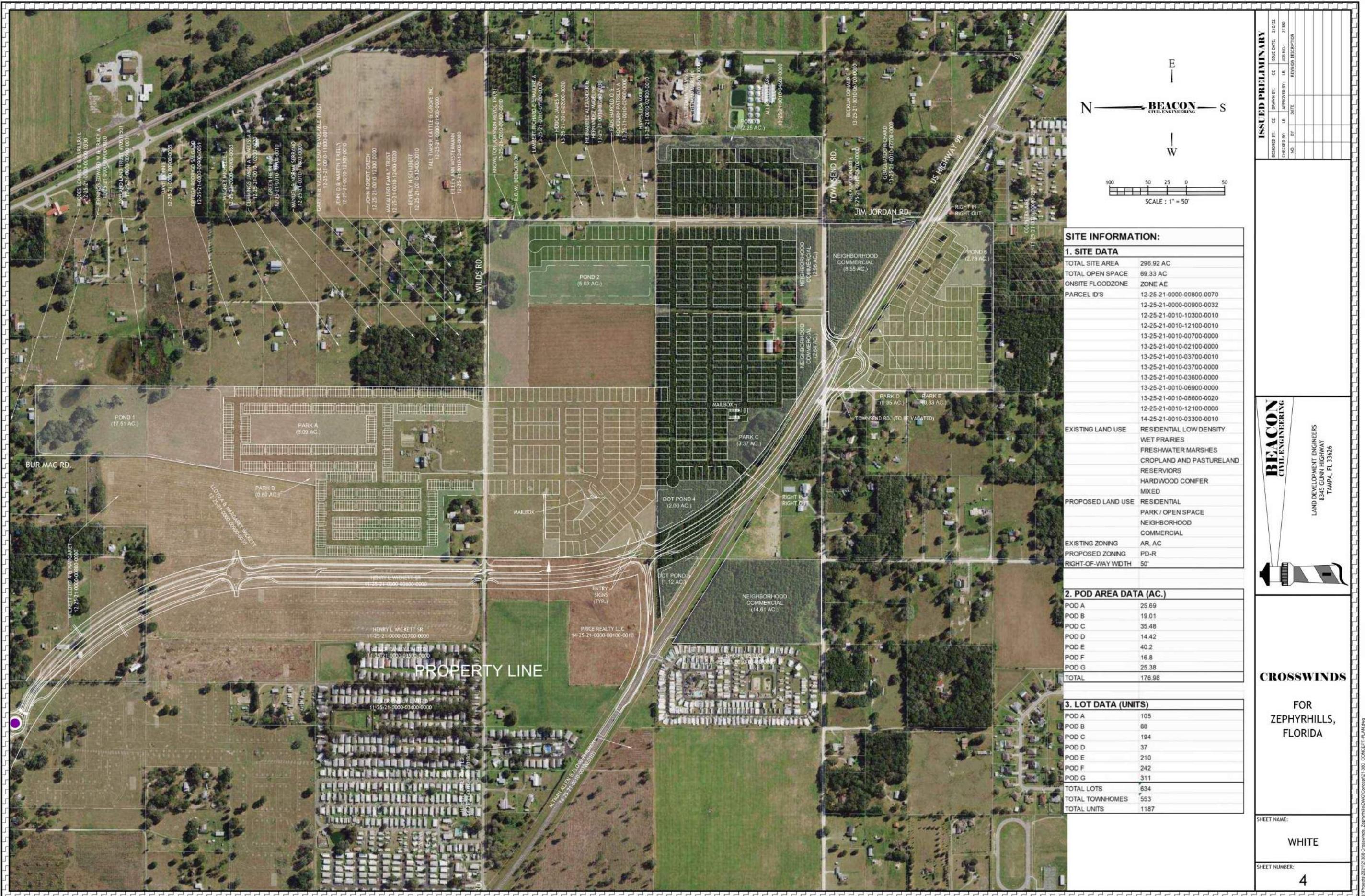
Development Concept Plans

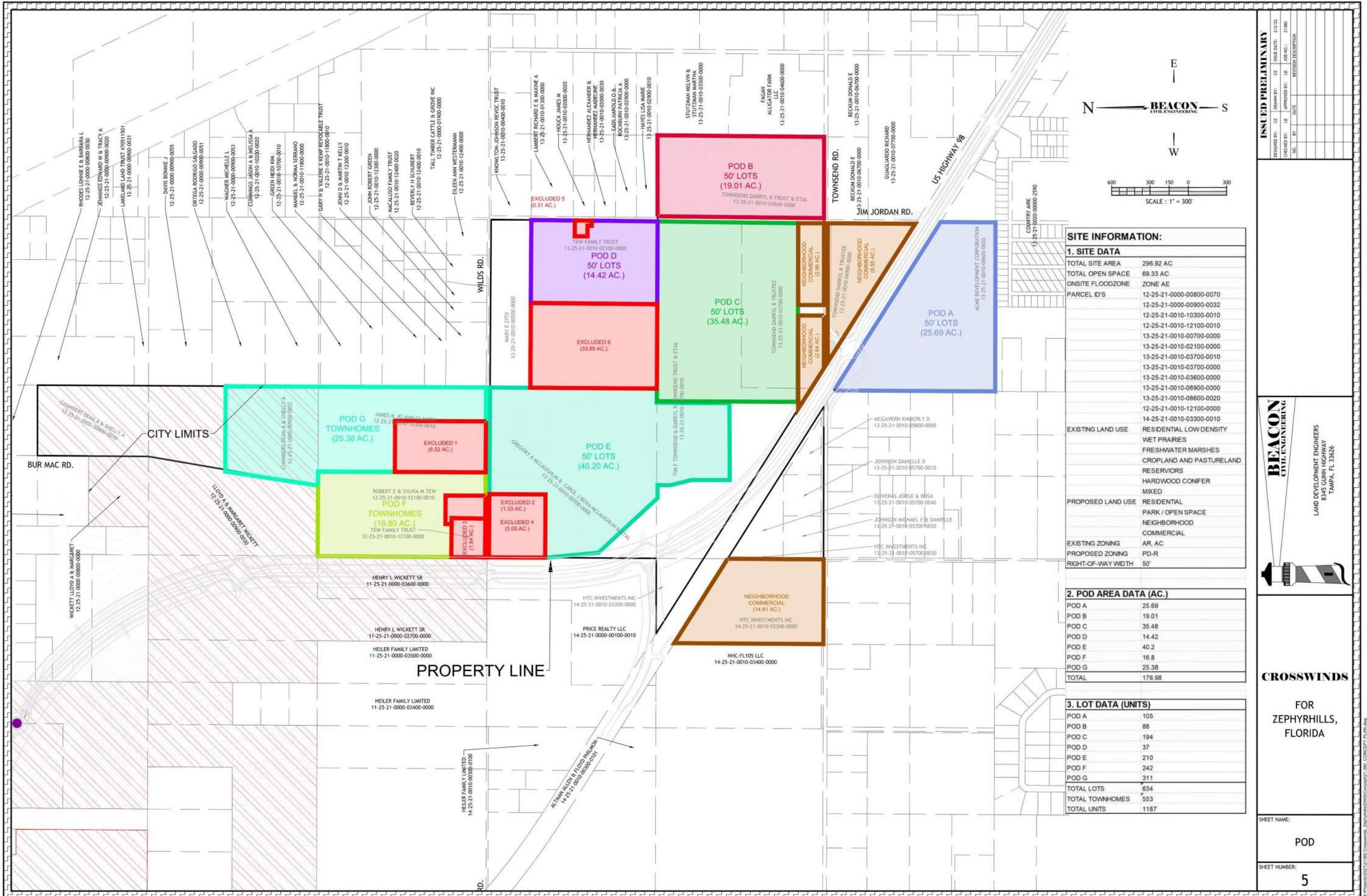












Appendix B

US 98 PD&E Demand Volumes

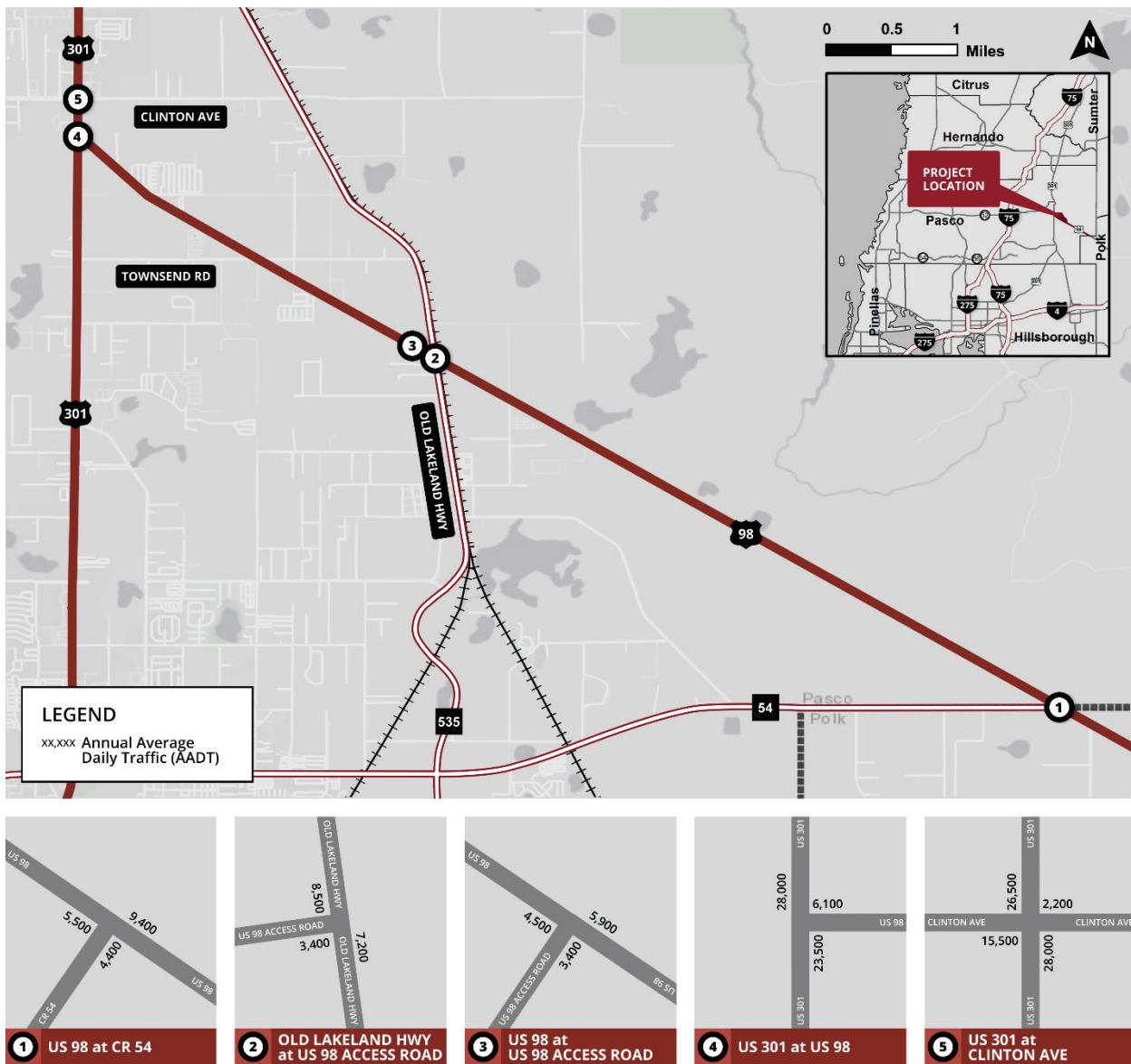


Figure 1: Existing Year (2019) AADTs

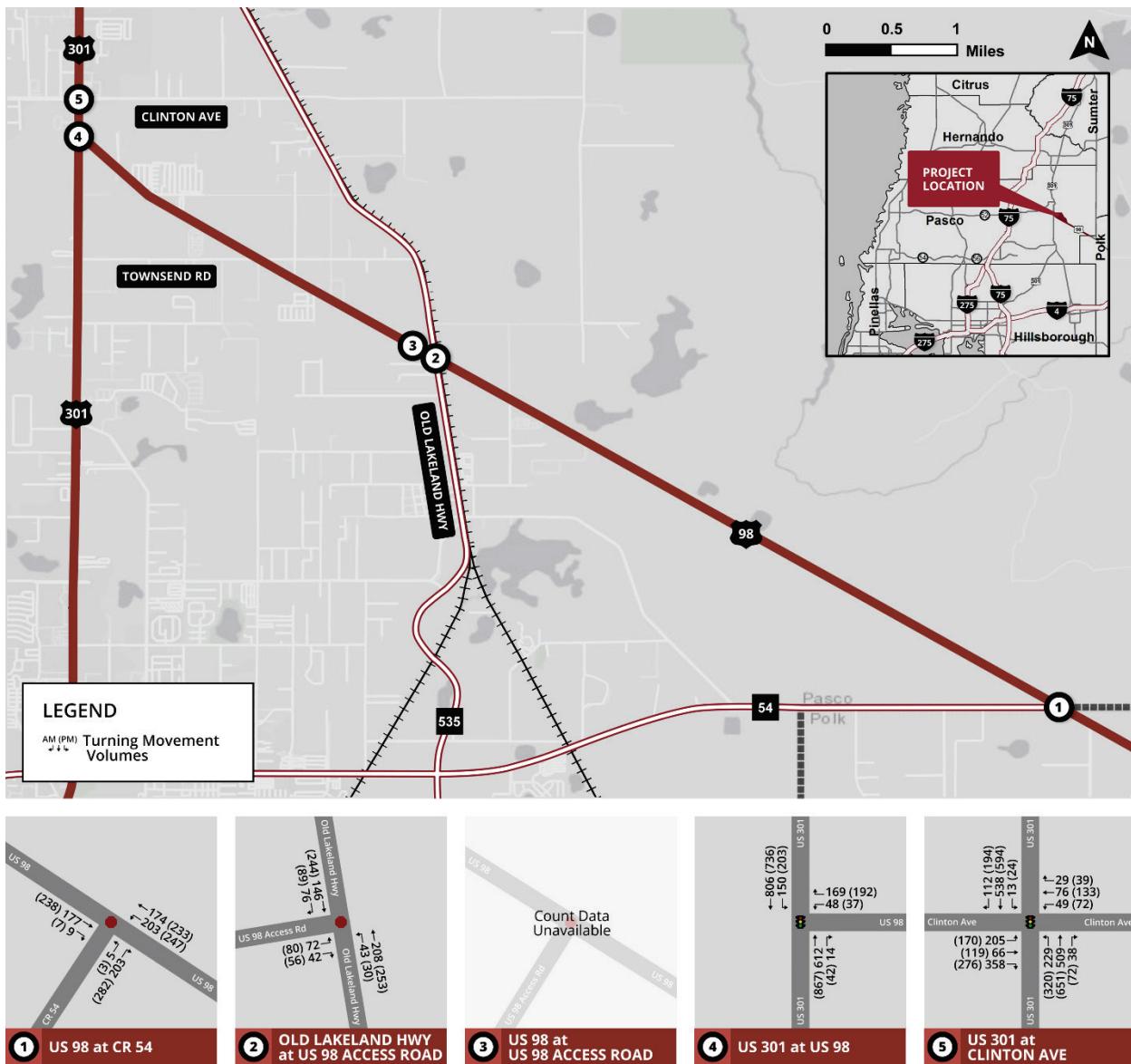


Figure 2: Existing Year (2019) Turning Movement Counts

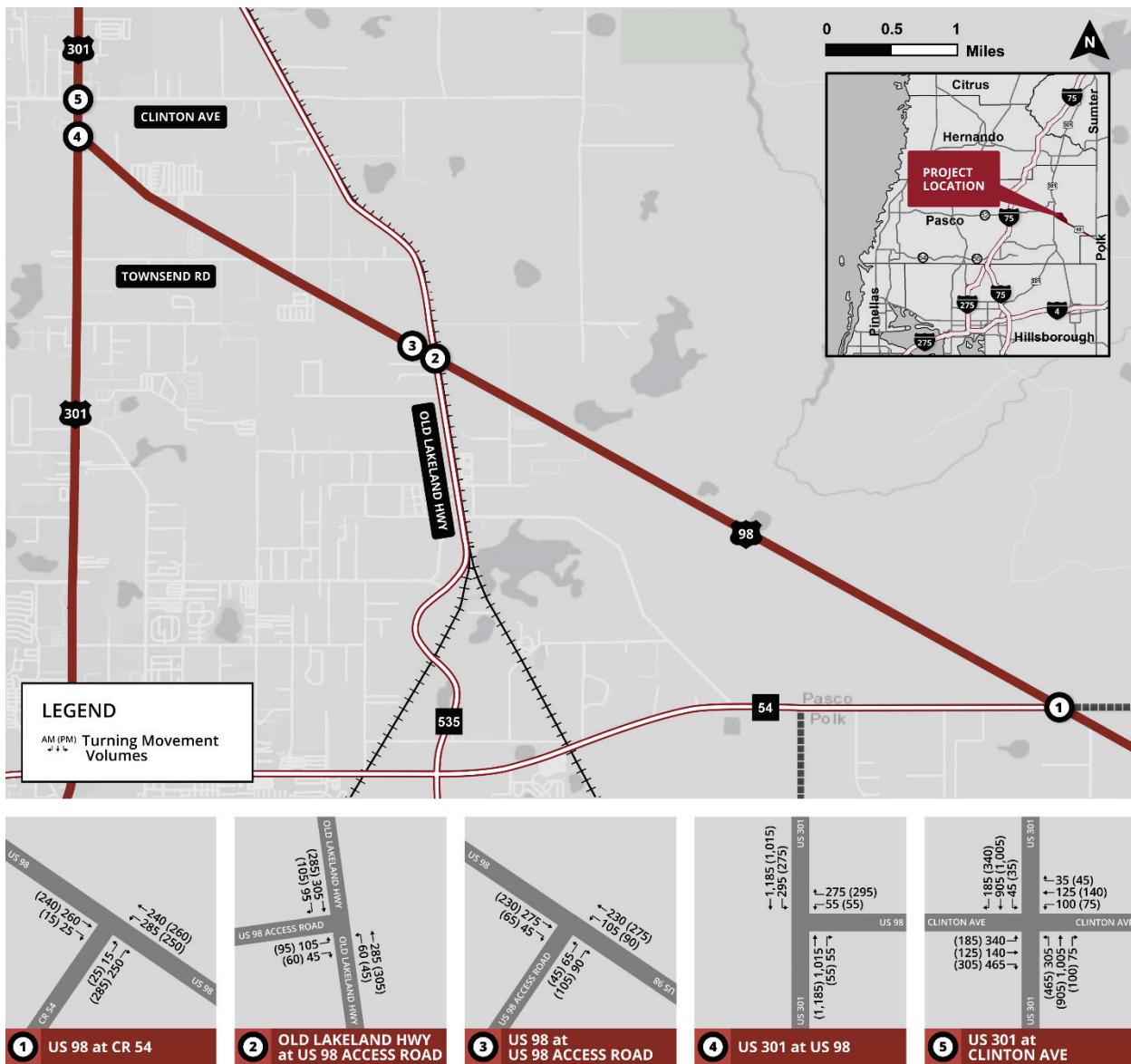


Figure 3: Existing Year (2019) Turning Movement Design Volumes

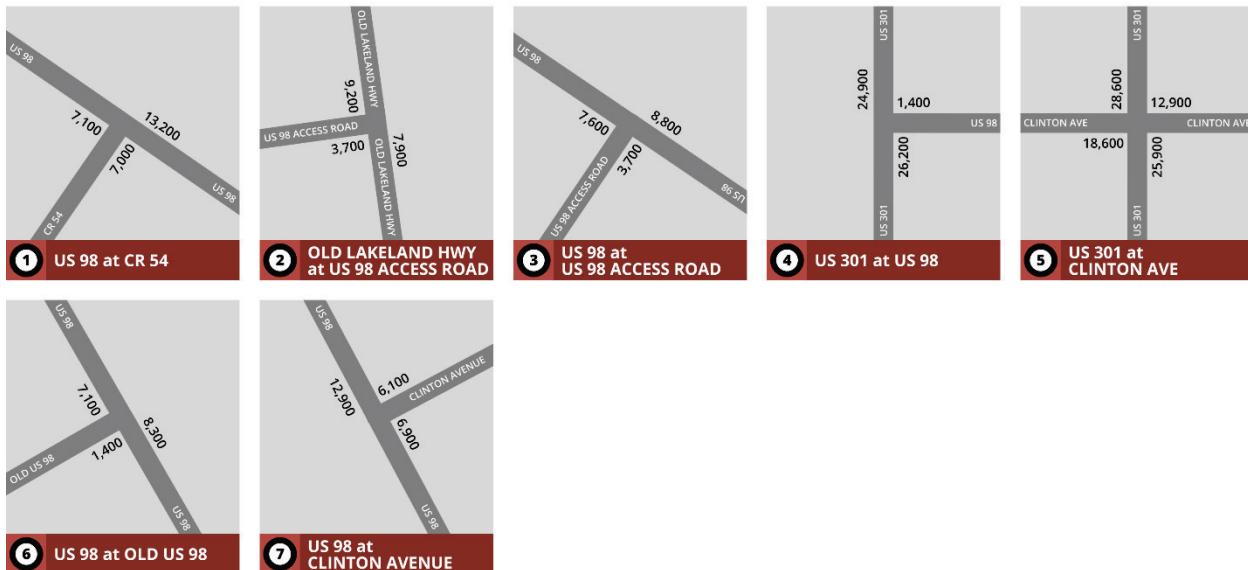
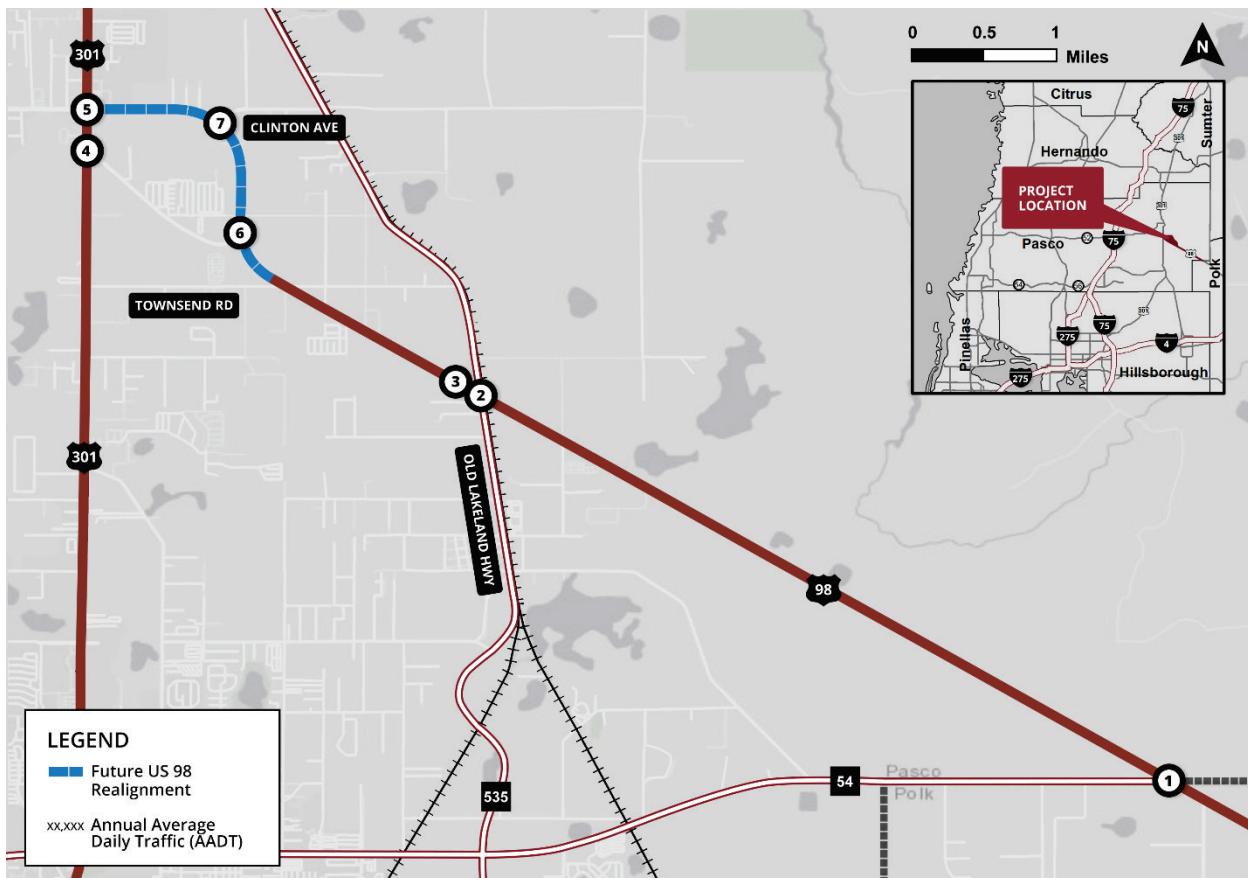


Figure 4: Opening Year (2025) Build AADTs

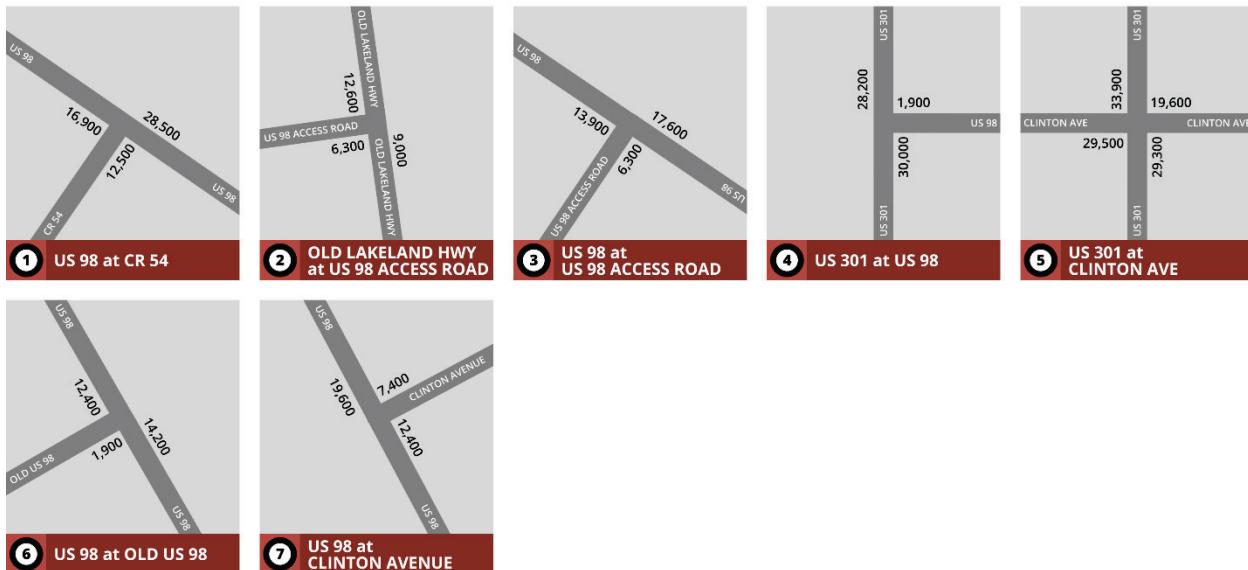
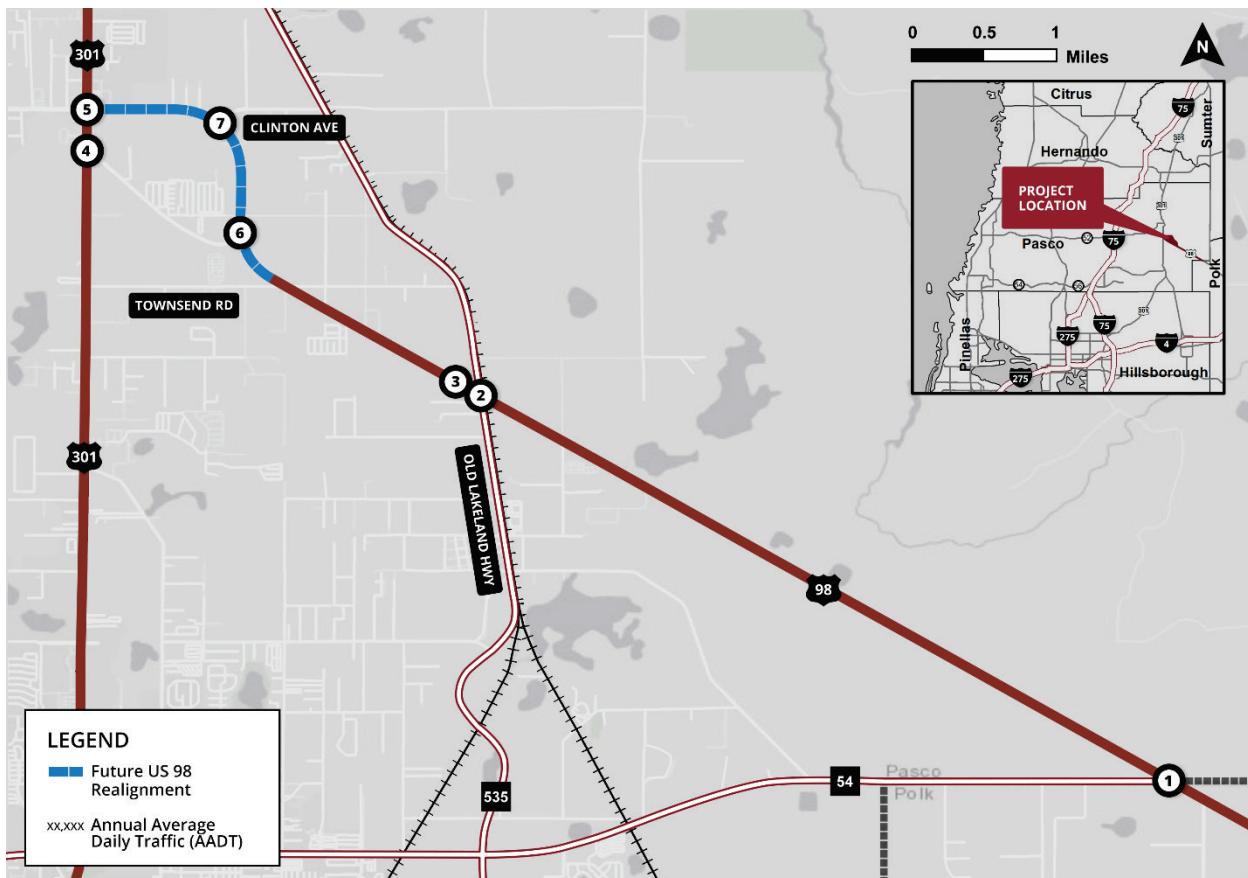


Figure 5: Design Year (2045) Build AADTs

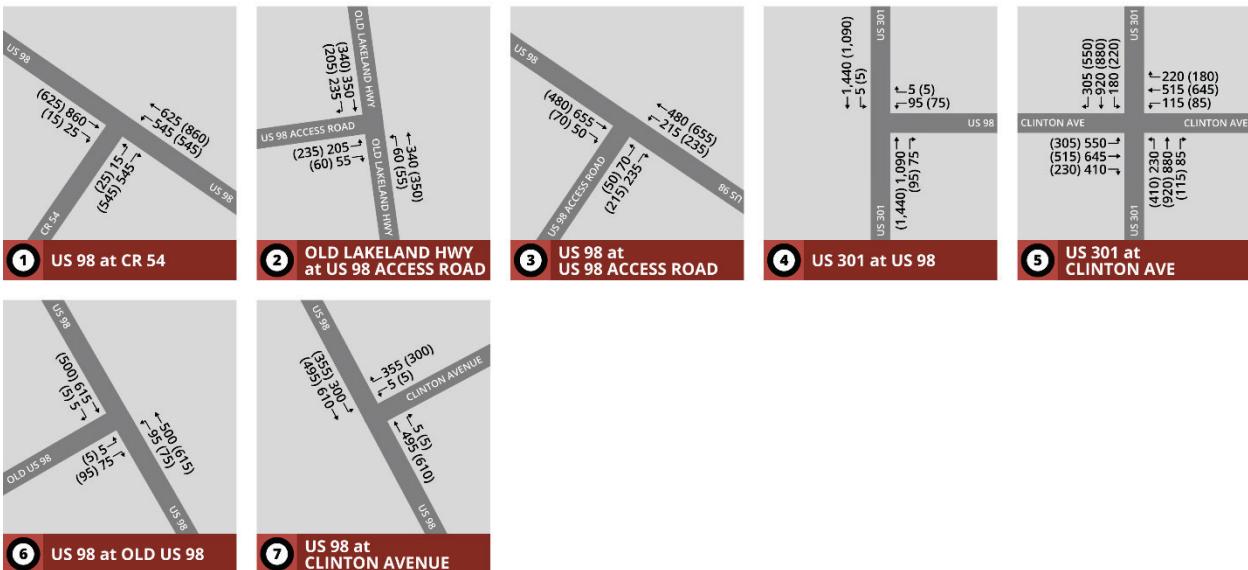
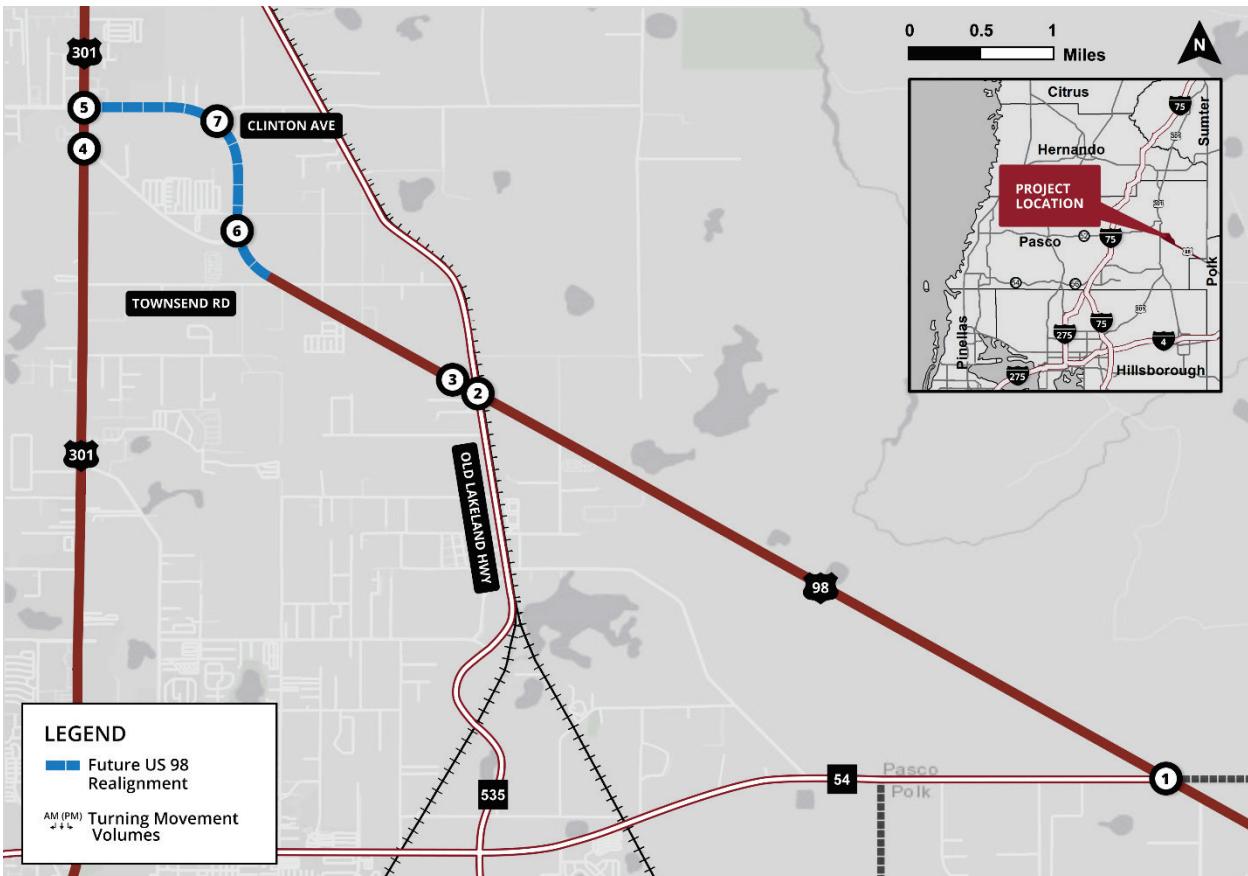


Figure 6: Design Year (2045) Build Turning Movement Volumes

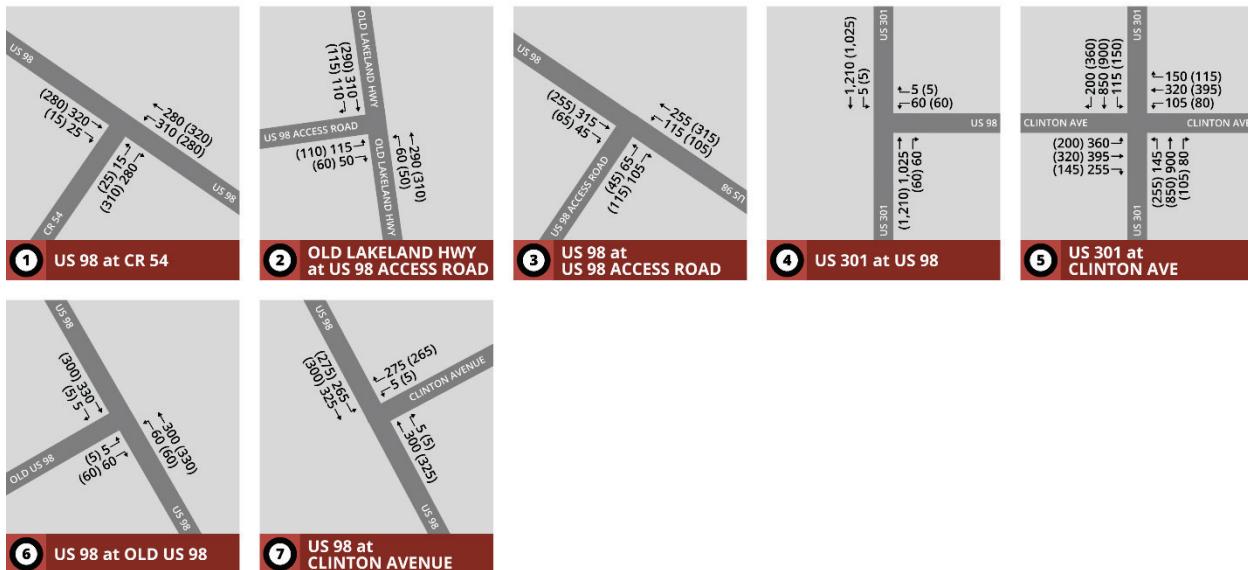
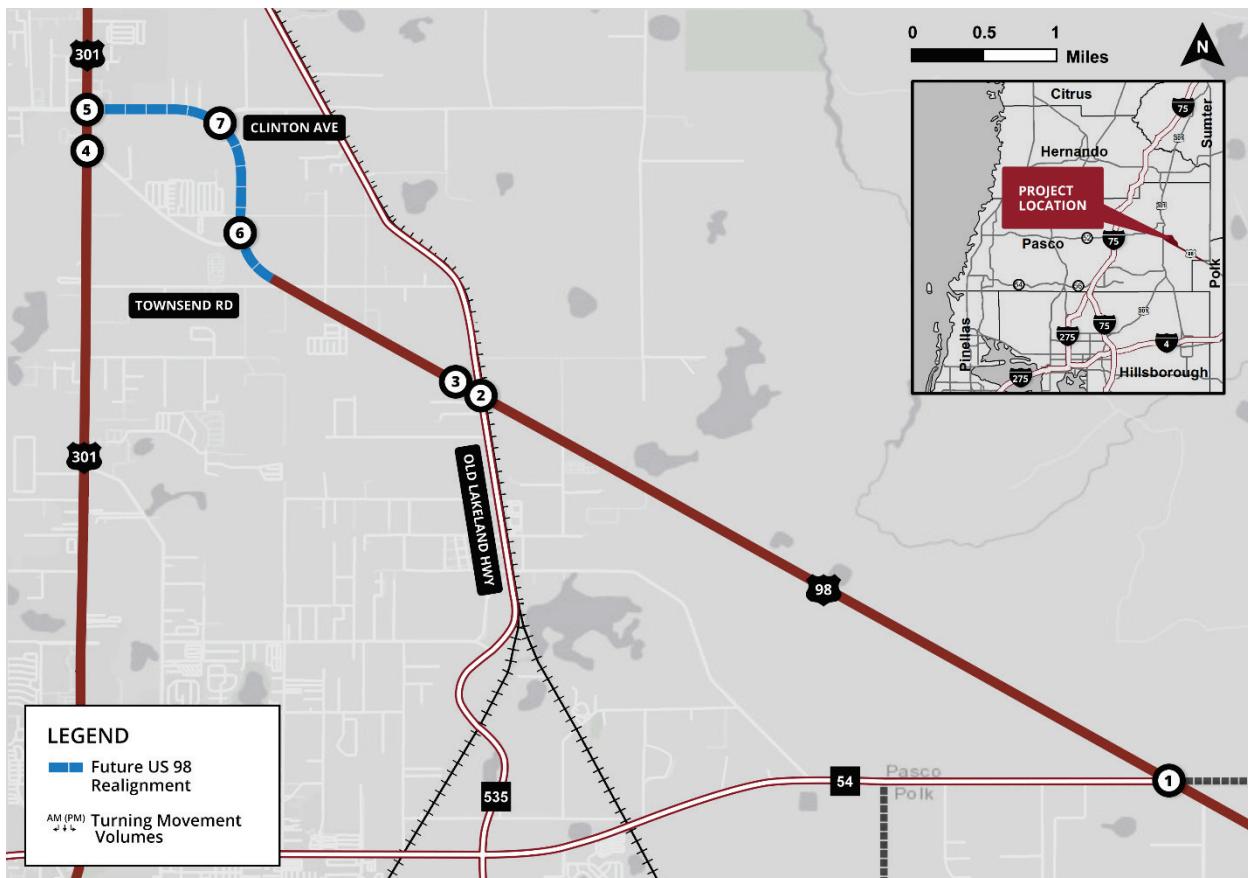


Figure 7: Opening Year (2025) Build Turning Movement Volumes

Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	445	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	60	204	260	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	0	478	0	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	0	515	74	0	38	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	0	45	0	0	0	0	153	0	0	88	268	125
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	0	155	0	90	270	130	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	435	5	0	265	610	0	75	0	0	0	0	5	0	275	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not affect cross street).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs																	
ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	51	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	0	143	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	55	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	0	145	0	0	0	0	305	0	0	55	270	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	39	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	0	60	0	5	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	5	60	0	40	5	45	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	0	5	0	265	0

Notes:

1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.

7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 98 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	245	765	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	605	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	159	0	0	0	0	531	15	0	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	19	0	33	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	547	42	0	24	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	65	0	0	6	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	0	63	0	52	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	20	0	35	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	50	0	0	0	0	165	0	0	70	295	125	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	0	65	0	55	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,395	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	360	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	119	0	230	920	305	0	550	810	410	0	185	810	345	0
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	300	895	0	75	0	0	0	0	5	0	355	0

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 301 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	0	5	0	300	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	285	550	1,125	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	20%
109	Clinton Corner West Exit	88	52	140	20%
	Total	1,178	754	1,931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1,931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	0	1	35	0	36	0	9	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	45	0	45	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	0	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	38	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	142	0	0	0	0	332	0	0	38	286	80	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	145	0	0	0	0	335	0	0	40	290	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,450	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

Notes:
 1. Both entering and exiting trips add volume to the already existing main-line volume (background traffic).
 2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
 3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area (i.e. these trips will affect the mainline traffic but not affect a cross street).
 4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).
 5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
 6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approach and exits from the Townsend and US 98 (101) and Crossroads intersections (203), respectively.
 7. The driveway at Wilds (103) is Right-in only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to the off-street to access SBL from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
 8. Both Clinton Corner driveways (107,108) are Right-out only. Any traffic exiting to NB must take a U-turn at the interaction at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveways

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveways

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will originate South of the Neighborhood).
- Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203), respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix D

ICE Stage 1 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.

Project Name	US 98 PD&E Studies - US 98 at Townsend Road		FDOT Project #	443368-2-22-01	
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Date 5/4/2022
Email	jsamus@hwlochner.com		FDOT District	District 7	County Pasco
Project Locality (City/Town/Village)		Dade City			
Intersection Type	At-Grade Intersection		FDOT Context Classification	C3R - Suburban Residential	
Project Funding Source	Federal		Project Type	Corridor Improvement Project	
Project Purpose <i>(What is the catalyst for this project and why is it being undertaken?)</i>	The primary purpose of this project is to evaluate the need of widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to eliminate the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. The improvements seek to relieve congestion while also improving safety.				
Project Setting Description <i>(Describe the area surrounding the intersection)</i>	The existing area around the intersection is minimally developed. The surrounding area will be developed into a more suburban area by Clinton Corner, Crossroads, and Crosswinds developments.				
Multimodal Context <i>(Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns)</i>	The field-observed activity levels at the intersection of US 98 at Townsend Road were low for both pedestrians and bicyclists. No multimodal facilities are proposed at this location as a part of the PD&E.				

Major Street Information								
Route #:	98	Route Name(s)	US 98			Milepost	N/A	
Existing Control Type	None/New Intersection		Existing AADT		Design Year AADT	24,700		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)				
Primary Functional Classification		Urban Principal Arterial - Other			Design Speed (mph)	55		
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]			
Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along	Neither side of the approach	Left-Turn	1		Weekday AM Peak		Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0	Left		50	
	On-Street Bike Facilities?	No	Through	1	Through	730	Through	1,195
	Multi-Use Path?	No	Left-Through-Right	0	Right	25	Right	70
	Scheduled Bus Service?	No	Through-Right	1	Daily Truck %		8.0%	
	Bus Stop on Approach?	No	Right-Turn	0				
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along:	Neither side of the approach	Left-Turn	1		Weekday AM Peak		Weekday PM Peak
	Crosswalk on Approach?	No	Left-Through	0	Left		45	
	On-Street Bike Facilities?	No	Through	1	Through	1,125	Through	835
	Multi-Use Path?	No	Left-Through-Right	0	Right	40	Right	80
	Scheduled Bus Service?	No	Through-Right	1	Daily Truck %		8.0%	
	Bus Stop on Approach?	No	Right-Turn	0				

Minor Street Information								
Route #:	Route Name(s)	Townsend Road			Milepost (if app.)			
Existing Control Type	None/New Intersection	Existing AADT		Design Year AADT		2,900		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)	Control Vehicle		Florida Interstate Semitrailer (WB-62FL)				
Primary Functional Classification		Urban Major Collector			Design Speed (mph)		35	
Secondary Functional Classification (if app.)				Target Speed (mph) [if app.]				
Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along:	Neither side of the approach	Left-Turn	1				
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	55	Left	45
	Multi-Use Path?	No	Left-Through-Right	0	Through	10	Through	10
	Scheduled Bus Service?	No	Through-Right	1	Right	70	Right	55
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %		2.0%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along:	Neither side of the approach	Left-Turn	1				
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	65	Left	40
	Multi-Use Path?	No	Left-Through-Right	0	Through	15	Through	5
	Scheduled Bus Service?	No	Through-Right	1	Right	60	Right	50
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %		2.0%	
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes		
	Sidewalks along:		Left-Turn					
	Crosswalk on Approach?		Left-Through		Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left		Left	
	Multi-Use Path?		Left-Through-Right		Through		Through	
	Scheduled Bus Service?		Through-Right		Right		Right	
	Bus Stop on Approach?		Right-Turn		Daily Truck %			

Crash History (Existing Intersections Only)

Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

At the intersection of US 98 and Townsend Road, there was one single vehicle crash reported with an injury and one rear end crash involving multiple vehicles that also resulted in an injury.

Control Strategy Evaluation									
Control Strategy	CAP-X Outputs			SPICE Outputs		Strategy to Be Advanced?	Justification		
	V/C Ratio		Multimodal Score	Crash Prediction Rank	SSI Rank				
	Weekday AM Peak	Weekday PM Peak							
Two-Way Stop-Controlled	2.46	4.42	3.7	3	3	Yes	Does not meet V/C necessary for intersection, but will be advanced as baseline criteria for comparisons in ICE Stage 2.		
All-Way Stop-Controlled									
Signalized Control	0.49	0.52	4.8	2	2	Yes	Ranks 2nd in CAP-X analysis and SPICE analysis among viable control strategies. Scenario benefit includes lower construction costs.		
Roundabout	0.58	0.64	5.6	1	1	Yes	Ranks first in Cap-X analysis and SPICE analysis.		
Median U-Turn									
RCUT (Signalized)									
RCUT (Unsignalized)									
Jughandle									
Displaced Left-Turn									
Continuous Green Tee									
Quadrant Roadway									
Thru-Cut									
Other 1 (Type)									
Other 2 (Type)									

Resolution					
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>					
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2				
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Appendix E

CAP-X – AM Peak Hour

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Townsend Rd													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 AM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Townsend Rd
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 AM
Number of Intersection Legs:	4
Major Street Direction	North-South

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	55	10	70	2.00%	0.00%
Westbound	0	65	15	60	2.00%	0.00%
Southbound	0	45	1125	40	8.00%	0.00%
Northbound	0	50	730	25	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Appendix F

CAP-X – PM Peak Hour

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at Townsend Rd													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 PM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0
Two-Way Stop Control	N-S	/	1	2	0	/	1	2	0	/	1	1	0	/	1	1	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at Townsend Rd
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 PM
Number of Intersection Legs:	4
Major Street Direction	North-South

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	45	10	55	2.00%	0.00%
Westbound	0	40	5	50	2.00%	0.00%
Southbound	0	80	835	80	8.00%	0.00%
Northbound	0	80	1195	70	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C3R-Suburban Residential				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Appendix G

SPICE

Federal Highway Administration (FHWA) Safety Performance for Intersection Control Evaluation Tool										
Results Summary of crash prediction results for each alternative										
Project Information										
Project Name:	US 98 PD&E	Intersection Type						At-Grade Intersections		
Intersection:	US 98 at Townsend Road (Build Only)	Opening Year						2025		
Agency:	FDOT	Design Year						2045		
Project Reference:	FPID 443368-2-22-01	Facility Type						On Urban and Suburban Arterial		
City:	Dade City	Number of Legs						4-leg		
State:	Florida	1-Way/2-Way						2-way Intersecting 2-way		
Date:	4/29/2022	# of Major Street Lanes (both directions)						5 or fewer		
Analyst:	Lochner	Major Street Approach Speed						55+ mph		
Crash Prediction Summary										
Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score		
								Open Year	Design Year	Rank
Traffic Signal	Total	5.85	7.88	144.05	2	Yes	Uncalibrated SPF	65	55	2
	Fatal & Injury	1.96	2.58	47.71						
Minor Road Stop	Total	5.99	7.22	138.76	3	Yes	Calibrated SPF	47	36	3
	Fatal & Injury	2.63	3.29	62.16						
2-lane Roundabout	Total	7.94	10.73	195.88	1	Yes	Uncalibrated SPF	89	86	1
	Fatal & Injury	1.39	1.93	34.83						

Appendix H

ICE Stage 2 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 2: Initial Control Strategy Assessment

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 2 (Intersection Control Strategy) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval.

Project Name	JS 98 PD&E Studies - US 98 at Townsend Rd	FDOT Project #	443368-2-22-01		Date	05/04/22
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Email	jsamus@hwlochner.com
List all viable intersection control strategies identified in Stage 1 (Screening):						
Two-Way Stop-Controlled		Signalized Control			Roundabout	

Operational Analyses										
Summarize the results of the peak hour analysis performed for each control strategy. Select analysis year based on guidance in the ICE procedures document. Refer to Exhibit 19-8 of the <i>Highway Capacity Manual, 6th Edition</i> (HCM6) to determine the appropriate LOS based on intersection delay (hover over this cell for Exhibit 19-8).										
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)			Control Vehicle	Florida Interstate Semitrailer (WB-62FL)					
Opening Year	2025									
Control Strategy	Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour	
	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	
Two-Way Stop-Controlled	C	22.9	Yes	D	31.8	Yes				
Signalized Control	B	15.1	Yes	B	12.9	Yes				
Roundabout	A	6.6	Yes	A	7.4	Yes				
Design Year	2045									
Control Strategy	Peak Hour		Weekday AM Peak		Peak Hour		Weekday PM Peak		Peak Hour	
	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	
Two-Way Stop-Controlled	F	67.1	Yes	F	315.6	Yes				
Signalized Control	B	16.3	Yes	B	14.5	Yes				
Roundabout	A	8.8	Yes	A	9.9	Yes				
Provide any additional discussion necessary regarding the results of the operational analysis:	LOS and Delay for critical approach are shown for Two-Way Stop-Controlled strategy. Under Two-way Stop-Controlled strategy, the queue on westbound Townsend Rd is 4.1 vehicles for AM and 3.8 vehicles for PM. The spillback during PM may exceeds the adjacent intersection, Townsend Rd at Jim Jordan Rd, which is a TWSC intersection and Townsend Rd is the major street.									

Safety Performance						
Enter the most recent five (5) years of crash data from the CAR System.			Most recent year of crash data available			2018
Crash Type	2014	2015	2016	2017	2018	Total
Combined	Total	0	0	0	0	0
	Fatal/Injury	0	0	0	0	0
	PDO	0	0	0	0	0
Single-Vehicle	Total	0	0	0	0	0
	Fatal/Injury	0	0	0	0	0
	PDO	0	0	0	0	0
Multi-Vehicle	Total	0	0	2	0	2
	Fatal/Injury	0	0	1	0	1
	PDO	0	0	1	0	1
Vehicle-Pedestrian	Fatal/Injury	0	0	0	0	0
Vehicle-Bicycle	Fatal/Injury	0	0	0	0	0
Total	All	0	0	2	0	2

Apply the FDOT SPICE Tool to model anticipated safety performance of each control strategy. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE procedures document or qualitatively describe anticipated safety impacts.

Control Strategy	Anticipated Impact on Safety Performance	Opening Year			Design Year		
		Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score
Two-Way Stop-Controlled	Crash Prediction Rank 3, SSI Score Rank 3	5.99	2.63	47	7.22	3.29	36
Signalized Control	Crash Prediction Rank 2, SSI Score Rank 2	5.85	1.96	65	7.88	2.58	55
Roundabout	Crash Prediction Rank 1, SSI Score Rank 1	7.94	1.39	89	10.73	1.93	86

Costs and Benefit/Cost Ratios						
Control Strategy	ROW Costs (\$)	Construction Costs (\$)	FDOT ICE Tool Outputs			
			Delay B/C	Safety B/C	Overall B/C	Net Present Value
Two-Way Stop-Controlled	\$228,624	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$228,624	\$1,725,579	N/A	5.01	N/A	-\$6,370,540
Roundabout	\$228,624	\$1,544,437	N/A	14.13	9.95	\$3,459,073

Multimodal Accommodations								
Peak Hour:	Weekday AM Peak		Weekday PM Peak				Activity Level	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Ped.	Bicycles
# of ped. crossings (both approaches, if app.):	N/A	N/A	N/A	N/A	N/A	N/A	Low	Low
# of cyclists (both approaches, if app.):	N/A	N/A	N/A	N/A	N/A	N/A		

Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:

Control Strategy	Pedestrians and Bicyclists	Transit Services	Freight Needs
Two-Way Stop-Controlled	Pedestrians crossing the minor street have right-of-way; lack protections for pedestrians across major street	No Existing Transit Facilities near the intersection.	N/A
Signalized Control	Pedestrian phases can be built into the signal timing to allow for permissive pedestrian crossings	No Existing Transit Facilities near the intersection.	N/A
Roundabout	Pedestrian crossings are located only across the legs of the roundabout	No Existing Transit Facilities near the intersection.	N/A

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (including relocation) impacts specific to each control strategy. Be sure to consider the NEPA requirements for each control type.	
Two-Way Stop-Controlled	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Signalized Control	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Roundabout	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.

Public Input/Feedback (if appropriate)
Summarize any agency or public input regarding the control strategies:
A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, Dade City on Thursday, December 2, 2021, with an option to attend virtually. Only one comment received concerned the intersection of US 98 and Townsend Road. The comment specifically addressed a proposed right of way take associated with the Townsend Road improvements, which would be the same for all three strategies.

Control Strategy Evaluation		
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	No	Although this control strategy has the lowest anticipated construction and ROW costs, there are other strategies with a higher NPV. This strategy also has several operational problems, with the lowest safety scores and average delays that fail LOS before design year.
Signalized Control	No	Operational performance for this control strategy is similar to the roundabout in Delay LOS and Safety. However, with higher construction costs and a negative NPV, this strategy is not recommended.
Roundabout	Yes	With moderate anticipated construction cost, highest expected safety benefits, best operational performance, and highest NPV of evaluated strategies, the Roundabout should be advanced.

Resolution				
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>				
Project Determination	Identified Control Strategy Approved			
Comments				
DTOE Name		Signature		Date
DDE Name		Signature		Date

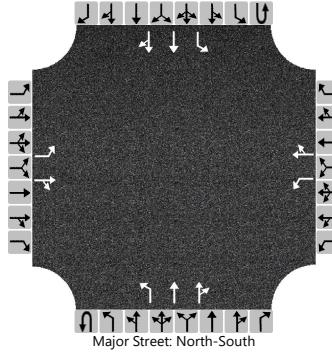
Appendix I

HCS 7 Reports – Stage 2

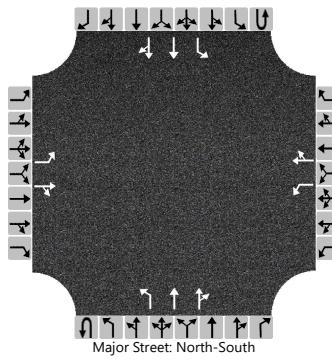
HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Townsend Rd																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Townsend Rd																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1	0		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	L		TR		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	50	5	60		65	10	55		0	35	505	20	0	40	840	30																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)		7.54	6.54	6.94		7.54	6.54	6.94		4.26			4.26																												
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)		3.52	4.02	3.32		3.52	4.02	3.32		2.28			2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)		53		68		68		68		37			42																												
Capacity, c (veh/h)		185		400		233		354		704			973																												
v/c Ratio		0.28		0.17		0.29		0.19		0.05			0.04																												
95% Queue Length, Q ₉₅ (veh)		1.2		0.6		1.2		0.7		0.2			0.1																												
Control Delay (s/veh)		32.1		15.8		26.8		17.6		10.4			8.9																												
Level of Service (LOS)		D		C		D		C		B			A																												
Approach Delay (s/veh)	22.9				22.2				0.6				0.4																												
Approach LOS	C				C																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Townsend Rd																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Townsend Rd																																
Analysis Year	2025				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1	0		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	L		TR		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	40	5	45		40	5	45		0	65	900	65	0	75	615	65																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)	7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																												
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)	3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)	42		53		42		53		68				79																												
Capacity, c (veh/h)	152		287		135		261		842				644																												
v/c Ratio	0.28		0.18		0.31		0.20		0.08				0.12																												
95% Queue Length, Q ₉₅ (veh)	1.1		0.7		1.3		0.8		0.3				0.4																												
Control Delay (s/veh)	37.7		20.3		43.7		22.3		9.7				11.4																												
Level of Service (LOS)	E		C		E		C		A				B																												
Approach Delay (s/veh)	28.1				31.8				0.6				1.1																												
Approach LOS	D				D																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Townsend Rd																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Townsend Rd																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	7:30 - 8:30 AM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
 Major Street: North-South																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1	0		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	L		TR		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	55	10	70		65	15	60		0	50	730	25	0	45	1125	40																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)	7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																												
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)	3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)	58		84		68		79		53				47																												
Capacity, c (veh/h)	92		187		115		149		532				785																												
v/c Ratio	0.63		0.45		0.60		0.53		0.10				0.06																												
95% Queue Length, Q ₉₅ (veh)	4.1		2.4		3.8		3.1		0.3				0.2																												
Control Delay (s/veh)	104.4		39.8		80.1		55.9		12.5				9.9																												
Level of Service (LOS)	F		E		F		F		B				A																												
Approach Delay (s/veh)	66.1				67.1				0.8				0.4																												
Approach LOS	F				F																																				

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																					
Analyst	Caleb Van Nostrand				Intersection				US 98 at Townsend Rd																																
Agency/Co.	H.W. Lochner Inc.				Jurisdiction				FDOT D7																																
Date Performed	2/17/2022				East/West Street				Townsend Rd																																
Analysis Year	2045				North/South Street				US 98																																
Time Analyzed	4:45 - 5:45 PM				Peak Hour Factor				0.95																																
Intersection Orientation	North-South				Analysis Time Period (hrs)				1.00																																
Project Description	US 98 PD&E Studies																																								
Lanes																																									
<p style="text-align: center;">Major Street: North-South</p>																																									
Vehicle Volumes and Adjustments																																									
Approach	Eastbound				Westbound				Northbound				Southbound																												
Movement	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	1	1	0		1	1	0		0	1	2	0	0	1	2	0																									
Configuration	L		TR		L		TR		L	T	TR		L	T	TR																										
Volume (veh/h)	45	10	55		40	5	50		0	80	1195	70	0	80	835	80																									
Percent Heavy Vehicles (%)	2	2	2		2	2	2		8	8			8	8																											
Proportion Time Blocked																																									
Percent Grade (%)	0				0																																				
Right Turn Channelized																																									
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)	7.54	6.54	6.94		7.54	6.54	6.94		4.26				4.26																												
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)	3.52	4.02	3.32		3.52	4.02	3.32		2.28				2.28																												
Delay, Queue Length, and Level of Service																																									
Flow Rate, v (veh/h)	47		68		42		58		84				84																												
Capacity, c (veh/h)	69		98		37		136		675				483																												
v/c Ratio	0.68		0.70		1.13		0.43		0.12				0.17																												
95% Queue Length, Q ₉₅ (veh)	4.6		5.1		9.3		2.1		0.4				0.6																												
Control Delay (s/veh)	153.4		115.3		679.5		50.9		11.1				14.0																												
Level of Service (LOS)	F		F		F		F		B				B																												
Approach Delay (s/veh)	130.9				315.6				0.7				1.1																												
Approach LOS	F				F																																				

Appendix J

Synchro Reports – Stage 2

HCM 6th Signalized Intersection Summary
6: US 98 & Townsend Road

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (veh/h)	50	5	60	65	10	55	35	505	20	40	840	30
Future Volume (veh/h)	50	5	60	65	10	55	35	505	20	40	840	30
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	53	5	63	68	11	58	37	532	21	42	884	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	218	9	116	221	22	117	478	2182	86	652	2197	80
Arrive On Green	0.05	0.08	0.06	0.06	0.09	0.07	0.06	0.66	0.63	0.06	0.66	0.63
Sat Flow, veh/h	1781	118	1485	1781	259	1366	1697	3319	131	1697	3332	121
Grp Volume(v), veh/h	53	0	68	68	0	69	37	271	282	42	449	467
Grp Sat Flow(s), veh/h/ln	1781	0	1603	1781	0	1625	1697	1692	1758	1697	1692	1760
Q Serve(g_s), s	3.0	0.0	4.7	3.9	0.0	4.7	0.7	7.4	7.5	0.8	14.0	14.1
Cycle Q Clear(g_c), s	3.0	0.0	4.7	3.9	0.0	4.7	0.7	7.4	7.5	0.8	14.0	14.1
Prop In Lane	1.00		0.93	1.00		0.84	1.00		0.07	1.00		0.07
Lane Grp Cap(c), veh/h	218	0	125	221	0	140	478	1113	1156	652	1116	1160
V/C Ratio(X)	0.24	0.00	0.54	0.31	0.00	0.49	0.08	0.24	0.24	0.06	0.40	0.40
Avail Cap(c_a), veh/h	232	0	323	221	0	328	508	1113	1156	679	1116	1160
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	51.5	44.0	0.0	50.6	5.5	8.0	8.0	4.8	9.0	9.1
Incr Delay (d2), s/veh	0.6	0.0	3.6	0.8	0.0	2.7	0.1	0.5	0.5	0.0	1.1	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.5	0.0	3.6	3.2	0.0	3.6	0.3	4.3	4.5	0.4	7.9	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.0	0.0	55.2	44.8	0.0	53.3	5.6	8.5	8.5	4.9	10.1	10.1
LnGrp LOS	D	A	E	D	A	D	A	A	A	A	B	B
Approach Vol, veh/h		121			137			590			958	
Approach Delay, s/veh		50.7			49.1			8.3			9.9	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.2	79.0	11.0	12.9	11.0	79.2	10.1	13.8				
Change Period (Y+R _c), s	7.5	7.5	6.0	6.0	7.5	7.5	6.0	6.0				
Max Green Setting (Gmax), s	5.5	71.5	5.0	21.0	5.5	71.5	5.0	21.0				
Max Q Clear Time (g_c+l1), s	2.8	9.5	5.9	6.7	2.7	16.1	5.0	6.7				
Green Ext Time (p_c), s	0.0	3.0	0.0	0.2	0.0	5.7	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
6: US 98 & Townsend Road

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (veh/h)	40	5	45	40	5	45	65	900	65	75	615	65
Future Volume (veh/h)	40	5	45	40	5	45	65	900	65	75	615	65
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00			1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	42	5	47	42	5	47	68	947	68	79	647	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	188	10	95	189	10	95	596	2211	159	468	2138	224
Arrive On Green	0.05	0.07	0.07	0.05	0.07	0.05	0.07	0.69	0.66	0.07	0.69	0.66
Sat Flow, veh/h	1781	155	1454	1781	155	1454	1697	3202	230	1697	3091	324
Grp Volume(v), veh/h	42	0	52	42	0	52	68	500	515	79	354	361
Grp Sat Flow(s), veh/h/ln	1781	0	1609	1781	0	1609	1697	1692	1740	1697	1692	1723
Q Serve(g_s), s	2.6	0.0	3.8	2.6	0.0	3.9	1.2	15.9	16.1	1.5	10.0	10.2
Cycle Q Clear(g_c), s	2.6	0.0	3.8	2.6	0.0	3.9	1.2	15.9	16.1	1.5	10.0	10.2
Prop In Lane	1.00			0.90	1.00		0.90	1.00		0.13	1.00	0.19
Lane Grp Cap(c), veh/h	188	0	105	189	0	105	596	1169	1202	468	1171	1192
V/C Ratio(X)	0.22	0.00	0.50	0.22	0.00	0.50	0.11	0.43	0.43	0.17	0.30	0.30
Avail Cap(c_a), veh/h	206	0	302	206	0	302	613	1169	1202	507	1171	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	55.4	49.5	0.0	56.3	4.3	8.3	8.5	5.0	7.4	7.5
Incr Delay (d2), s/veh	0.6	0.0	3.6	0.6	0.0	3.6	0.1	1.1	1.1	0.2	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.2	0.0	3.0	2.2	0.0	3.0	0.6	8.7	9.0	0.7	5.6	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.1	0.0	59.0	50.1	0.0	59.9	4.3	9.5	9.6	5.2	8.0	8.2
LnGrp LOS	D	A	E	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h												
Approach Delay, s/veh	94			94				1083			794	
Approach LOS	55.0			55.5				9.2			7.8	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.2	88.6	9.8	12.0	12.0	88.8	9.8	12.0				
Change Period (Y+R _c), s	7.5	7.5	6.0	6.0	7.5	7.5	6.0	6.0				
Max Green Setting (Gmax), s	7.5	79.5	5.0	21.0	5.7	81.3	5.0	21.0				
Max Q Clear Time (g_c+l1), s	3.5	18.1	4.6	5.8	3.2	12.2	4.6	5.9				
Green Ext Time (p_c), s	0.0	6.7	0.0	0.2	0.0	4.1	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
6: US 98 & Townsend Road

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (veh/h)	55	10	70	65	15	60	50	730	25	45	1125	40
Future Volume (veh/h)	55	10	70	65	15	60	50	730	25	45	1125	40
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	58	11	74	68	16	63	53	768	26	47	1184	42
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	223	18	124	218	31	120	370	2170	73	525	2160	77
Arrive On Green	0.06	0.09	0.07	0.06	0.09	0.07	0.07	0.65	0.62	0.06	0.65	0.62
Sat Flow, veh/h	1781	209	1408	1781	331	1304	1697	3340	113	1697	3334	118
Grp Volume(v), veh/h	58	0	85	68	0	79	53	389	405	47	601	625
Grp Sat Flow(s), veh/h/ln	1781	0	1617	1781	0	1636	1697	1692	1761	1697	1692	1760
Q Serve(g_s), s	3.3	0.0	5.9	3.9	0.0	5.4	1.1	12.1	12.2	1.0	22.4	22.5
Cycle Q Clear(g_c), s	3.3	0.0	5.9	3.9	0.0	5.4	1.1	12.1	12.2	1.0	22.4	22.5
Prop In Lane	1.00			0.87	1.00		0.80	1.00		0.06	1.00	0.07
Lane Grp Cap(c), veh/h	223	0	142	218	0	151	370	1099	1144	525	1096	1140
V/C Ratio(X)	0.26	0.00	0.60	0.31	0.00	0.52	0.14	0.35	0.35	0.09	0.55	0.55
Avail Cap(c_a), veh/h	230	0	321	218	0	325	390	1099	1144	549	1096	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	51.7	43.8	0.0	50.9	7.4	9.2	9.3	5.6	11.1	11.2
Incr Delay (d2), s/veh	0.6	0.0	4.0	0.8	0.0	2.8	0.2	0.9	0.9	0.1	2.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.7	0.0	4.6	3.2	0.0	4.2	0.5	7.1	7.4	0.5	11.9	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.6	0.0	55.7	44.6	0.0	53.7	7.6	10.1	10.2	5.7	13.1	13.1
LnGrp LOS	D	A	E	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	143				147			847			1273	
Approach Delay, s/veh	51.2				49.5			10.0			12.8	
Approach LOS	D				D			A			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	11.4	79.2	11.0	14.2	11.6	79.0	10.5	14.7				
Change Period (Y+R _c), s	7.5	7.5	6.0	6.0	7.5	7.5	6.0	6.0				
Max Green Setting (Gmax), s	5.5	71.5	5.0	21.0	5.5	71.5	5.0	21.0				
Max Q Clear Time (g_c+l1), s	3.0	14.2	5.9	7.9	3.1	24.5	5.3	7.4				
Green Ext Time (p_c), s	0.0	4.7	0.0	0.3	0.0	8.8	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay				16.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
6: US 98 & Townsend Road

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑↑		↑	↑↑	
Traffic Volume (veh/h)	45	10	55	40	5	50	80	1195	70	80	835	80
Future Volume (veh/h)	45	10	55	40	5	50	80	1195	70	80	835	80
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	47	11	58	42	5	53	84	1258	74	84	879	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	8	8	8	8	8	8
Cap, veh/h	196	19	102	187	10	108	480	2219	130	359	2132	204
Arrive On Green	0.05	0.07	0.07	0.05	0.07	0.06	0.07	0.68	0.65	0.07	0.68	0.65
Sat Flow, veh/h	1781	259	1366	1781	138	1468	1697	3249	191	1697	3122	298
Grp Volume(v), veh/h	47	0	69	42	0	58	84	655	677	84	477	486
Grp Sat Flow(s), veh/h/ln	1781	0	1625	1781	0	1606	1697	1692	1747	1697	1692	1728
Q Serve(g_s), s	3.0	0.0	5.1	2.6	0.0	4.3	1.6	24.8	25.1	1.6	15.4	15.6
Cycle Q Clear(g_c), s	3.0	0.0	5.1	2.6	0.0	4.3	1.6	24.8	25.1	1.6	15.4	15.6
Prop In Lane	1.00		0.84	1.00		0.91	1.00		0.11	1.00		0.17
Lane Grp Cap(c), veh/h	196	0	122	187	0	118	480	1156	1193	359	1156	1180
V/C Ratio(X)	0.24	0.00	0.57	0.23	0.00	0.49	0.17	0.57	0.57	0.23	0.41	0.41
Avail Cap(c_a), veh/h	210	0	301	203	0	298	493	1156	1193	397	1156	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	0.0	55.5	49.3	0.0	56.2	5.3	10.2	10.3	7.3	8.7	8.8
Incr Delay (d2), s/veh	0.6	0.0	4.1	0.6	0.0	3.2	0.2	2.0	2.0	0.3	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	2.4	0.0	4.0	2.2	0.0	3.4	0.8	12.7	13.2	0.8	8.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.9	0.0	59.6	49.9	0.0	59.3	5.4	12.2	12.3	7.7	9.8	9.9
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h	116				100				1416			1047
Approach Delay, s/veh	55.7				55.4				11.8			9.7
Approach LOS		E			E			B			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R _c), s	12.2	88.8	9.8	13.3	12.2	88.8	10.0	13.1				
Change Period (Y+R _c), s	7.5	7.5	6.0	6.0	7.5	7.5	6.0	6.0				
Max Green Setting (Gmax), s	7.5	79.5	5.0	21.0	5.7	81.3	5.0	21.0				
Max Q Clear Time (g_c+l1), s	3.6	27.1	4.6	7.1	3.6	17.6	5.0	6.3				
Green Ext Time (p_c), s	0.0	10.3	0.0	0.2	0.0	6.2	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Appendix K

Sidra Reports – Stage 2

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	35	8.0	37	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	36.5
8	T1	505	8.0	532	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	40.7
18	R2	20	8.0	21	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	35.2
Approach		560	8.0	589	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	40.2
East: Townsend														
1	L2	65	2.0	68	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.8
6	T1	10	2.0	11	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	30.5
16	R2	55	2.0	58	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.2
Approach		130	2.0	137	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.3
North: US 98														
7	L2	40	8.0	42	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	35.2
4	T1	840	8.0	884	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	39.1
14	R2	30	8.0	32	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	34.0
Approach		910	8.0	958	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	38.7
West: Townsend														
5	L2	50	2.0	53	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	32.5
2	T1	5	2.0	5	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	29.3
12	R2	60	2.0	63	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	31.9
Approach		115	2.0	121	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	32.0
All Vehicles		1715	7.1	1805	7.1	0.406	6.6	LOS A	2.2	57.5	0.35	0.23	0.35	38.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	65	8.0	68	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	34.9
8	T1	900	8.0	947	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	38.7
18	R2	65	8.0	68	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	33.7
Approach		1030	8.0	1084	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	38.1
East: Townsend														
1	L2	40	2.0	42	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.6
6	T1	5	2.0	5	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	29.5
16	R2	45	2.0	47	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.0
Approach		90	2.0	95	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.1
North: US 98														
7	L2	75	8.0	79	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	35.4
4	T1	615	8.0	647	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	39.5
14	R2	65	8.0	68	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	34.5
Approach		755	8.0	795	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	38.6
West: Townsend														
5	L2	40	2.0	42	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.7
2	T1	5	2.0	5	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	30.3
12	R2	45	2.0	47	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.0
Approach		90	2.0	95	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.1
All Vehicles		1965	7.5	2068	7.5	0.466	7.4	LOS A	2.6	70.5	0.37	0.25	0.37	37.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Townsend_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	50	8.0	53	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	35.7
8	T1	730	8.0	768	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	39.8
18	R2	25	8.0	26	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	34.5
Approach		805	8.0	847	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	39.3
East: Townsend														
1	L2	65	2.0	68	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.8
6	T1	15	2.0	16	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	29.6
16	R2	60	2.0	63	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.2
Approach		140	2.0	147	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.2
North: US 98														
7	L2	45	8.0	47	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	34.0
4	T1	1125	8.0	1184	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	37.5
14	R2	40	8.0	42	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	32.8
Approach		1210	8.0	1274	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	37.2
West: Townsend														
5	L2	55	2.0	58	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	30.4
2	T1	10	2.0	11	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	27.6
12	R2	70	2.0	74	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	29.8
Approach		135	2.0	142	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	29.8
All Vehicles		2290	7.3	2411	7.3	0.552	8.8	LOS A	3.5	93.5	0.43	0.30	0.44	37.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	80	8.0	84	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	33.3
8	T1	1195	8.0	1258	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	36.8
18	R2	70	8.0	74	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	32.2
Approach		1345	8.0	1416	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	36.3
East: Townsend														
1	L2	40	2.0	42	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.7
6	T1	5	2.0	5	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	27.9
16	R2	50	2.0	53	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.2
Approach		95	2.0	100	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.3
North: US 98														
7	L2	80	8.0	84	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	34.7
4	T1	835	8.0	879	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	38.5
14	R2	80	8.0	84	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	33.7
Approach		995	8.0	1047	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	37.7
West: Townsend														
5	L2	45	2.0	47	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	32.6
2	T1	10	2.0	11	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	29.4
12	R2	55	2.0	58	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	31.9
Approach		110	2.0	116	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	32.0
All Vehicles		2545	7.5	2679	7.5	0.617	9.9	LOS A	4.3	115.0	0.47	0.32	0.47	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix L

Traffic Signal Warrant

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Dade City**
 County: **16 – Polk**
 District: **Seven**

Engineer: **Lochner**
 Date: **May 11, 2022**

Major Street: **US 98** Lanes: **4** Major Approach Speed: **55**
 Minor Street: **Townsend Road** Lanes: **2** 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? 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" MAY 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:
Industrial Complex
 -

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

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
5:00 PM	1785	45

Criteria**1. Delay on Minor Approach
(vehicle-hours)**

Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	0.8	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**2. Volume on Minor Approach
One-Direction *(vehicles per hour)**

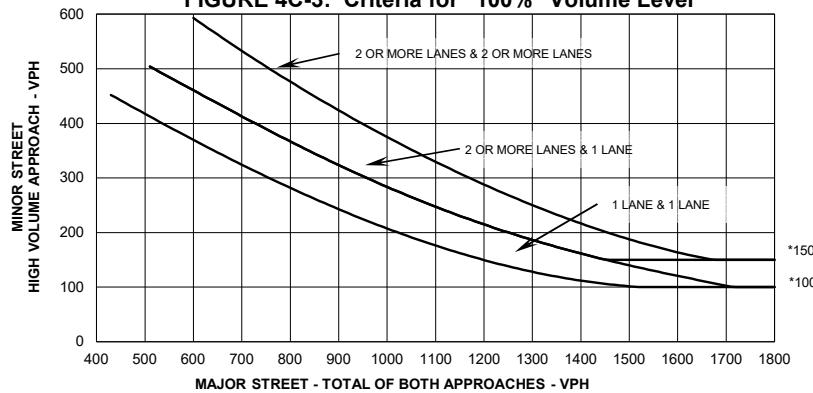
Approach Lanes	1	2
Volume Criteria*	100	150
Volume*	45	
Fulfilled?:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3. Total Intersection Entering Volume *(vehicles per hour)

No. of Approaches	3	4
Volume Criteria*	650	800
Volume*		1,965
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Plot volume combination on the applicable figure below.

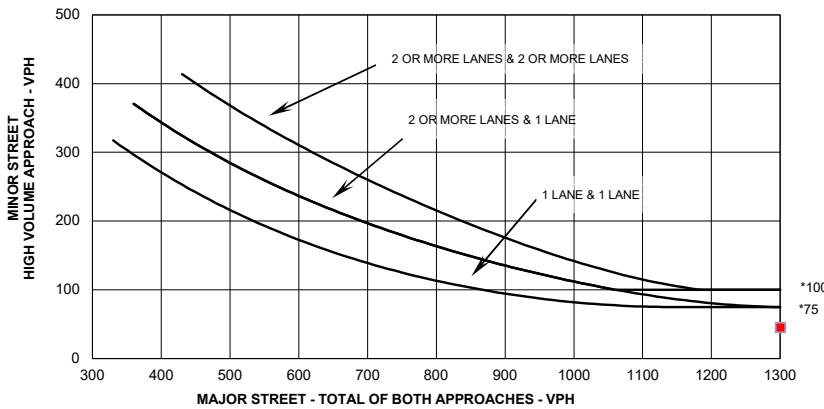
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr. (40 mph) on Major Street)



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

Appendix M

Long Range Estimation System Reports

Date: 6/24/2022 3:21:22 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO **Market Area:** 07 **Units:** English
Contract Class: 9 Lump Sum Project: N **Design/Build:** Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
--------------------------------	--------------

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	Value 50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total		\$149,951.49
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Sequence: 4 NUR - New Construction, Undivided, Rural

Net Length: 0.057 MI
300 LF

Description: EB 2-LANE APPROACH

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

Sequence 5 Total \$85,353.29

Date: 6/24/2022 3:21:23 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01

Letting Date: 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07 **County:** 14 PASCO**Market Area:** 07 **Units:** English**Contract Class:** 9 **Lump Sum Project:** N**Design/Build:** Y **Project Length:** 3.057 MI**Project Manager:** PRD-KIL**Version 12 Project Grand Total** \$1,287,718.71**Description:** STOP CONTROLLED INTERSECTION ALTERNATIVE**Project Sequences Subtotal** **\$1,022,908.03**

102-1	Maintenance of Traffic	10.00 %	\$102,290.80
101-1	Mobilization	10.00 %	\$112,519.88

Project Sequences Total **\$1,237,718.71**

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 12 Project Grand Total **\$1,287,718.71**

Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 **Lump Sum Project:** N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 15 Project Grand Total \$1,775,578.57

Description: SIGNALIZED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI

301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	Value 50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT 0 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23	AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres				
120-1	REGULAR EXCAVATION	185.00	CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY				
120-6	EMBANKMENT	185.00	CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY				
Earthwork Component Total					\$7,115.63

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00	SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.				
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00	SY	\$40.98	\$45,528.78
	Comment: Same comment				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00	TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons				
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00	TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons				
Roadway Component Total					\$78,237.66

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00 LF	\$15.56	\$12,448.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	\$30.07	\$6,014.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,131.15	\$5,131.15
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	2.00 EA	\$1,064.47	\$2,128.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$839.88	\$10,078.56
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,416.02	\$3,416.02
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$8.12	\$487.20
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$71,616.29	\$286,465.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$997.96	\$7,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$612.38	\$4,899.04
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	\$362.84	\$2,902.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	\$1,120.21	\$8,961.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$238.60	\$1,908.80
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$44,475.01	\$44,475.01
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$207.25	\$829.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$1,265.25	\$5,061.00
Comment: Signal for LT lanes in the NB and SB directions					
Signalizations Component Total					\$403,189.96

Sequence 5 Total	\$488,543.25
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 15 Project Grand Total	\$1,775,578.57
Description: SIGNALIZED INTERSECTION ALTERNATIVE	

Project Sequences Subtotal	\$1,426,097.99
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102-1	Maintenance of Traffic	10.00 %	\$142,609.80
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101-1	Mobilization	10.00 %	\$156,870.78
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Project Sequences Total	\$1,725,578.57
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 15 Project Grand Total	\$1,775,578.57
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Date: 6/24/2022 3:30:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 14 Project Grand Total **\$1,594,436.88**

Description: ROUNDABOUT ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI

301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31	CY	\$10.20	\$56,072.56
Earthwork Component Total					\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87	SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66	SY	\$40.46	\$80,258.88

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON					

EACH SIDE OF THE APPROACH. TOTAL FOR THIS
APPROACH = 250 FT

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
Median Component Total					\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20	1.00	AS	\$1,346.31	\$1,346.31

	SF			
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$12,228.81	\$12,228.81
Signing Component Total				\$19,699.29

Sequence 1 Total	\$347,274.28
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
Description: SB 4-LANE APPROACH 301 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31 CY	\$10.20	\$56,072.56
Earthwork Component Total				\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87 SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66 SY	\$40.46	\$80,258.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON EACH SIDE OF THE APPROACH. TOTAL FOR THIS APPROACH = 250 FT					

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
	Median Component Total				\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
	Drainage Component Total				\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81

Signing Component Total	\$19,699.29
Sequence 2 Total	\$347,274.28
Sequence: 3 NUR - New Construction, Undivided, Rural	Net Length: 0.057 MI 300 LF
Description: WB 2-LANE APPROACH	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50

Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT

520-5-16 TRAF SEP CONC-TYPE I, 8.5' WIDE 50.00 LF \$129.33 \$6,466.50
Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total**\$161,990.49****Sequence:** 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
	Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT				
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
	Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T

Rumble Strips 1/2 No. of Sides

0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total \$13,026.58**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total \$8,492.23**Sequence 4 Total** \$161,990.49**Sequence: 5 NDR - New Construction, Divided, Rural** **Net Length:** 0.057 MI

Description: Roundabout Central Island, includes landscaping and irrigation system

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$17,175.14	\$8,587.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	\$6.91	\$2,764.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				
120-6	EMBANKMENT	400.00	CY	\$10.20	\$4,080.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				

Earthwork Component Total	\$15,431.57
----------------------------------	--------------------

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	110

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,800.00	SY	\$8.46	\$15,228.00
	Comment: measure (22121-6175)SF /9 = 1772 SY use 1800 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	1,300.00	SY	\$40.46	\$52,598.00
	Comment: measure (22121-10477)SF /9 = 1294 SY use 1300 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	143.00	TN	\$95.81	\$13,700.83
	Comment: 2" Superpave Traffic C (1300 X 110 X 2)/2000				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-	72.00	TN	\$194.95	\$14,036.40

9.5,PG 76-22

Comment: 1" FC-9.5 Traffic C PG 76-22 (1300 X 110)/2000

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.05 GM	\$1,112.81	\$55.64
710-11-141	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"	0.02 GM	\$548.94	\$10.98
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	6.00 EA	\$29.54	\$177.24
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.07 GM	\$1,125.02	\$78.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total	\$95,885.84
-------------------------	-------------

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.25 AC	\$50.04	\$12.51
107-2	MOWING	0.25 AC	\$61.82	\$15.46

Shoulder Component Total	\$3,701.53
--------------------------	------------

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"	480.00	SY	\$154.80	\$74,304.00
520-2-4	CONCRETE CURB, TYPE D	280.00	LF	\$38.28	\$10,718.40
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$37.00	\$13,690.00
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.05	\$2,835.00
Median Component Total					\$101,547.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$324.56	\$1,298.24
Signing Component Total					\$1,298.24

LANDSCAPING COMPONENT**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	\$40,000.00
------------------------------------	--------------------

Sequence 5 Total	\$257,864.58
-------------------------	---------------------

Date: 6/24/2022 3:30:50 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 14 Project Grand Total	\$1,594,436.88
Description: ROUNDABOUT ALTERNATIVE	

Project Sequences Subtotal	\$1,276,394.12
-----------------------------------	-----------------------

102-1	Maintenance of Traffic	10.00 %	\$127,639.41
101-1	Mobilization	10.00 %	\$140,403.35

Project Sequences Total	\$1,544,436.88
--------------------------------	-----------------------

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
	Project Non-Bid Subtotal				\$50,000.00

Version 14 Project Grand Total **\$1,594,436.88**

Appendix N

ICE Tool – Stage 2

Outputs

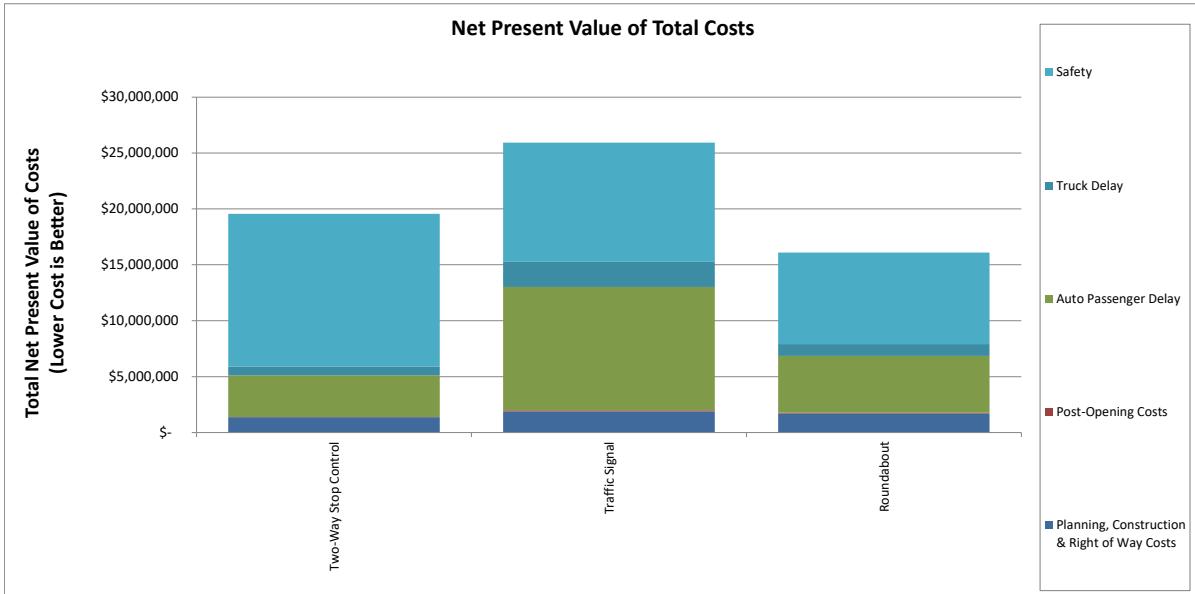
This sheet compiles the data from summary tables in individual alternatives sheets.
To populate the output sheet press the "Setup Worksheets" button in the
Alternatives_MasterList tab.

Agency:	Florida Department of Transportation
Project Name:	US 98 PD&E
Project Reference:	FPID 443368-2-22-01
Intersection:	US 98 at Townsend (Build Only)
City:	Dade City
State:	Florida
Performing Department or Organization:	H.W. Lochner
Date:	6/28/2022
Analyst:	Claire McGinnis
Analysis Type	At-Grade Intersection

Analysis Summary

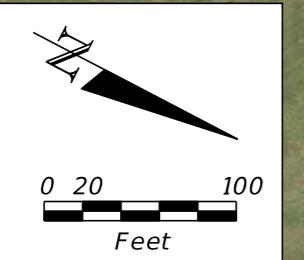
Cost Categories	Net Present Value of Costs				
	Base Case - Two-Way Stop Control	Two-Way Stop Control	Traffic Signal	Roundabout	
Planning, Construction & Right of Way Costs	\$ 1,370,084	\$ 1,370,084	\$ 1,892,094	\$ 1,698,272	
Post-Opening Costs	\$ 14,590	\$ 14,590	\$ 98,229	\$ 72,952	
Auto Passenger Delay	\$ 3,741,933	\$ 3,741,933	\$ 11,026,585	\$ 5,079,602	
Truck Delay	\$ 779,558	\$ 779,558	\$ 2,293,667	\$ 1,056,985	
Safety	\$ 13,647,418	\$ 13,647,418	\$ 10,613,548	\$ 8,186,698	
Total cost	\$19,553,582	\$19,553,582	\$25,924,123	\$16,094,509	

Select Base Case for Benefit-Cost Comparison: (Choose from list)	Two-Way Stop Control				
	Net Present Value of Benefits Relative to Base Case				
Benefit Categories		Two-Way Stop Control	Traffic Signal	Roundabout	
Auto Passenger Delay			\$ (7,284,653)	\$ (1,337,669)	
Truck Delay			\$ (1,514,109)	\$ (277,427)	
Safety			\$ 3,033,870	\$ 5,460,720	
Net Present Value of Benefits			\$ (5,764,892)	\$ 3,845,623	
Net Present Value of Costs			\$ 605,648	\$ 386,550	
Net Present Value of Improvement			\$ (6,370,540)	\$ 3,459,073	
Benefit-Cost (B/C) Ratio			Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	9.95	
Delay B/C			Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.		
Safety B/C			5.01	14.13	



Appendix O

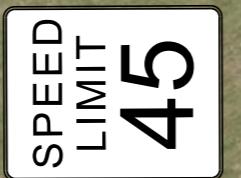
Recommended ICE Concept



A green rectangular street sign with white, sans-serif capital letters spelling "CONNERLY RD". The sign is positioned at an angle, running diagonally across the frame. It is mounted on a dark metal post. In the background, there is a paved road, some grassy areas, and a cluster of trees.

A green street sign with the text "TOWNSEND RD" in white, sans-serif capital letters is positioned diagonally across the frame. Below it is a smaller green rectangular sign featuring a white circular arrow with an upward-pointing arrow at the top and a left-pointing arrow on the bottom-left.

A green rectangular street sign with white, sans-serif lettering that reads "TOWNSEND RD". The sign is positioned diagonally across a paved path. In the background, there is a dense, dark green hedge or row of trees. A thin cyan line runs along the bottom edge of the sign.



— 1270 — 1275 — 1280 — 1285 —

US 98 and Townsend Rd. Roundabout

Intersection Control Evaluation Report

**US 98 / State Road 35 / State Road 700
At US 98 Access Road Intersection**



Florida Department of Transportation

District 7

Pasco County, Florida

September 2022

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by FHWA and FDOT.

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- Appendix B: US 98 PD&E Demand Volumes
- Appendix C: ITE Trip Generation Calculations
- Appendix D: ICE Stage 1 Forms
- Appendix E: CAP-X – 2045 AM Peak Hour
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- Appendix I: HCS 7 Reports – Stage 2
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- Appendix L: Traffic Signal Warrant
- Appendix M: Long Range Estimation System Reports
- Appendix N: ICE Tool – Stage 2
- Appendix O: Recommended ICE Concept

1.0 Introduction

1.1 Project Overview

The Florida Department of Transportation (FDOT) District Seven is conducting the US 98 Project Development and Environment (PD&E) Study (WPI Segment No: 443368-2) to evaluate the need for widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to deemphasize the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. Additionally, significant development is planned along the realigned portion of the US 98 PD&E corridor. The rough location and footprint of these developments can be found in **Appendix A**.

In support of US 98 PD&E study and proposed new alignment, several intersections along the proposed corridor required Intersection Control Evaluation (ICE) Stage 2 to determine their configuration and intersection control treatment. This analysis will focus on the intersection of US 98 and the US 98 Access Road that connects US 98 with Old Lakeland Highway. This intersection exists along an existing portion of US 98 and will be impacted by the proposed widening, but not by the realignment. The intersection location in context of the US 98 PD&E study can be found in **Figure 1.1**.

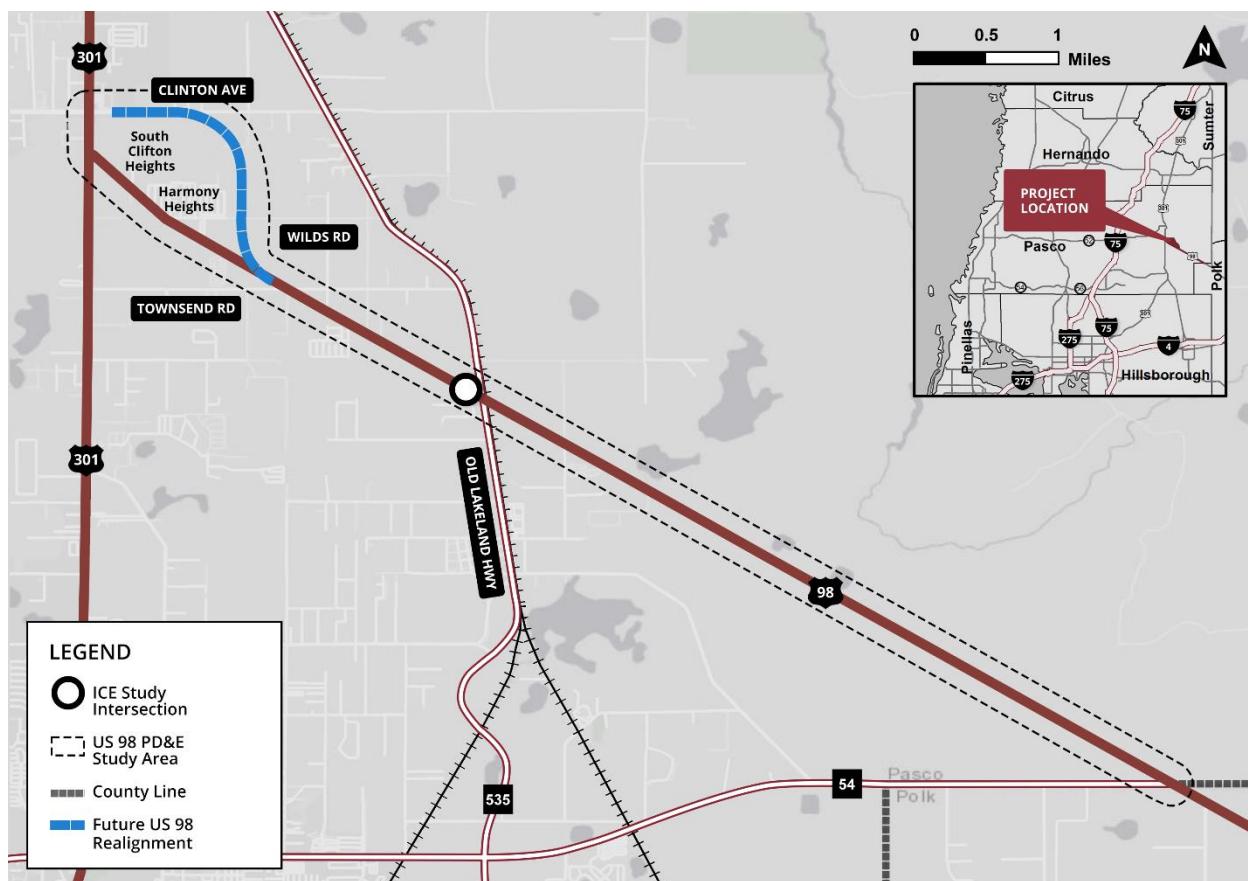


Figure 1.1: Project Location Map

1.2 Intersection Control Evaluation Methodology

To assess the most appropriate intersection control to accompany the widening and realignment of US 98, an Intersection Control Evaluation (ICE) analysis, in accordance with the 2022 Florida Department of Transportation's (FDOT's) Manual on Intersection Control Evaluation (FDOT Topic Number 750-010-003), was requested. A Stage 1 ICE analysis will be conducted and if a single viable control cannot be determined, then a Stage 2 ICE analysis will be conducted.

All analysis will be conducted utilizing volumes and traffic factors from the US 98 Product Development and Environment (PD&E) (WPI Segment No: 443368-2). The analysis years for this study included an existing year (2019), opening year (2025), and a design year (2045). The US 98 PD&E Forecast Volumes and Institute of Transportation Engineers (ITE) Trip Generation associated with the proposed developments within the study area can be found in **Appendix B** and **Appendix C**, respectively. For use in this analysis, Turning Movement Volumes and Annual Average Daily Traffic counts at the US 98 and US 98 Access Road intersection for opening year (2025) and design year (2045) can be found in **Figure 1.2**. This analysis will utilize an observed daily truck percentage (T_{24}) of 15.2 percent and a design hour truck (DHT) percentage of 8.0 percent along southbound US 98, and an observed daily truck percentage (T_{24}) of 23.9 percent and a design hour truck (DHT) percentage of 12.0 percent along northbound US 98. An observed daily truck percentage (T_{24}) of 22.7 percent and a design hour truck (DHT) percentage of 11.0 percent along the US 98 Access Road will be used.

Based upon the current context of US 98, coordination with FDOT District 7, and development plans along the corridor, only the following intersection controls will be considered during the ICE analysis:

- Two-way stop control;
- Signalization; and
- Two (2) lane Roundabout with one (1) lane on the minor approach (2x1 Roundabout)

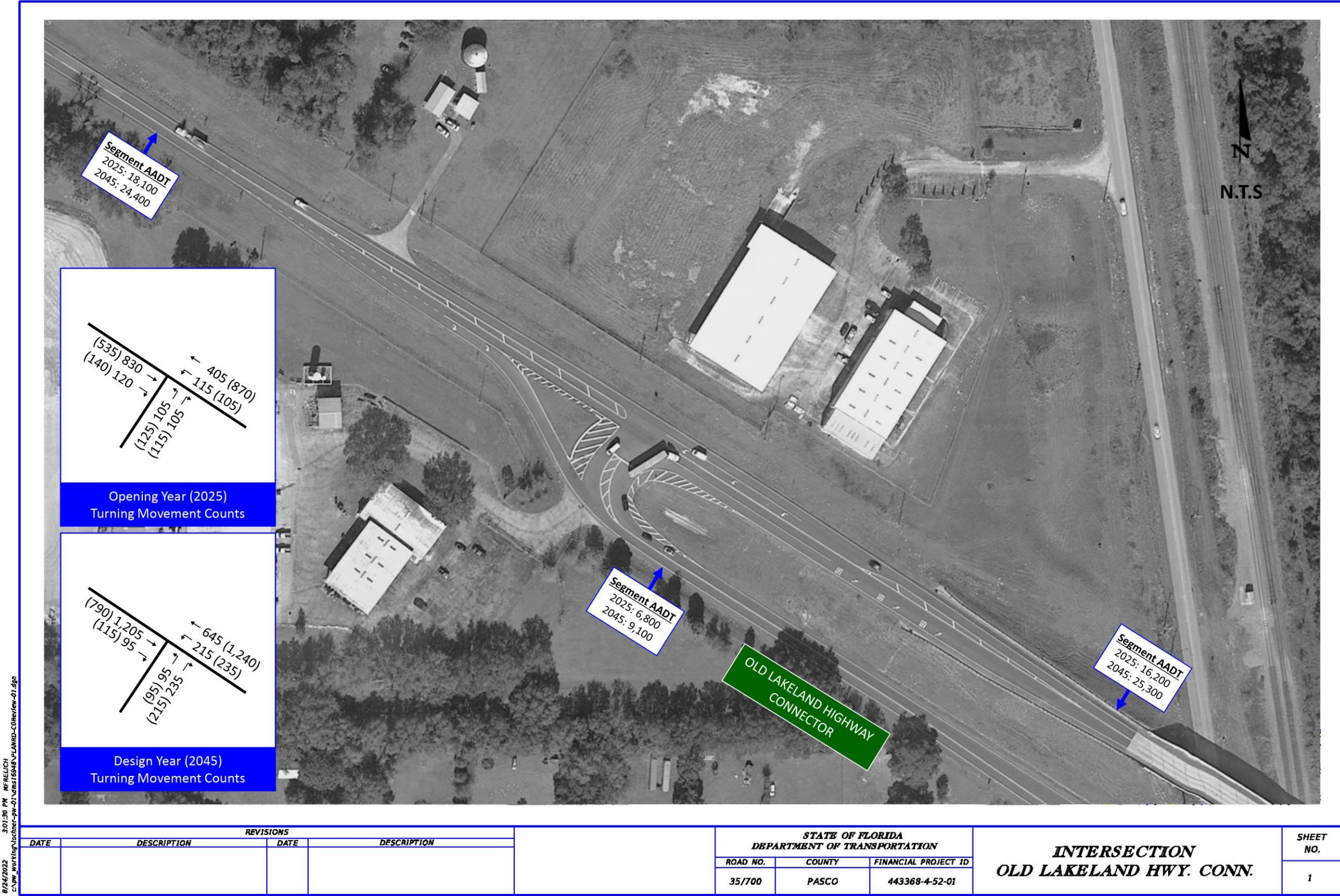


Figure 1.2: Design Year (2045) Build AADTs

2.0 ICE Stage 1 Analysis

ICE Stage 1 in this analysis includes Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance of Intersection Control Evaluations (SPICE) rankings. The ICE Stage 1 forms can be found in [Appendix D](#).

2.1 Capacity Analysis at Junctions (CAP-X)

The US 98 and US 98 Access Road CAP-X analysis was conducted under the design year (2045) and assumes the widening and realignment of the US 98 corridor. Based on the demand at the intersection, along with the four lanes along US 98 and two lanes along US 98 Access Road, no improvements beyond the existing geometry and lanes were recommended. The 2x1 roundabout analysis did not require additional modification. The estimated Volume to Capacity (V/C) ratios and rankings of the design year (2045) CAP-X analysis for the AM and PM peak hours are shown in [Table 2.1](#). The CAP-X 2045 AM and PM Peak Hour reports can be found in [Appendix E](#) and [Appendix F](#), respectively.

Table 2.1: Design Year (2045) CAP-X Analysis

US 98 at US 98 Access Road	Two-Way Stop Control		Traffic Signal		2NS x 1EW Roundabout	
	Overall V/C	V/C Rank	Overall V/C	V/C Rank	Overall V/C	V/C Rank
AM	14.59	3	0.61	1	0.85	2
PM	14.05	3	0.48	1	0.65	2

2.2 Safety Performance for Intersection Control Evaluation (SPICE)

SPICE analysis utilizes the most recent five-year period of historical crash data within the study area. At the intersection of US 98 and US 98 Access Road, there was one left-turn crash reported with injuries during dark conditions. Additionally, this intersection was modified in 2019 to facilitate heavy vehicles making right-turns and reducing northbound lane widths with pavement markings. [Table 2.2](#) and [Table 2.3](#) detail the types of crashes and severity of injuries for the years 2014-2018 respectively. SPICE analysis for this report focuses on the proposed configurations and predicted crash frequencies present in the SPICE worksheets. The SPICE analysis result summaries can be found in [Appendix G](#).

Table 2.2: 5-Year Crash Types

Crash Types	2014	2015	2016	2017	2018	Total
Left Turn	0	1	0	0	0	1
Total	0	1	0	0	0	1

Table 2.3: 5-Year Crash Severity

Severity	2014	2015	2016	2017	2018	Total
Property Damage Only	0	0	0	0	0	0
Minor Injury	0	0	0	0	0	0
Severe Injury	0	1	0	0	0	1
Fatal	0	0	0	0	0	0
Total	0	1	0	0	0	1

The FDOT SPICE analysis was conducted for the opening year (2025) and the design year (2045) to predict the total crashes, fatal and injury crashes, and Safe System Intersection (SSI) scores. The summaries of the safety performance for each control strategy are shown in **Table 2.4**.

Table 2.4: Predicted Crashes and SSI Scores

Control Strategy	Opening Year (2025)			Design Year (2045)		
	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal and Injury Crashes	SSI Score
Two-Way Stop Controlled	3.43	0.92	46	4.86	1.19	31
Signalized Control	3.65	1.28	67	4.46	1.68	55
Roundabout	7.16	1.30	86	10.22	1.98	80

By the design year (2045), it is anticipated that two-way stop-control would rank first among the selected control strategies. This control strategy is expected to provide the lowest severe crash frequency of 1.19 during design year (2045). The signalized control alternative ranks second with a severe crash frequency of 1.68. All intersections indicated an increase in crash frequency and severity from the opening year (2025) to the design year (2045).

The results of life cycle SPICE analysis for the AM and PM peak hours are shown in **Table 2.5**. The two-way stop-control ranks first with the lowest number of Total Project Life Cycle severe crashes.

Table 2.5: SPICE Analysis

Crash Type	Two-Way Stop-Control		Traffic Signal		2NS x 1EW Roundabout	
	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank	Total Project Life Cycle	Rank
Total	87.06	1	85.32	2	182.35	3
Fatal & Injury	22.16		31.17		34.24	

2.3 Alternative Scenario Rankings for Stage 1 Analysis

The results of the ICE Stage 1 analysis are summarized in **Table 2.6** along with how each control strategy performed at each of the study intersections based on the CAP-X and SPICE analysis.

Table 2.6: Analysis Summary

Intersection	Control Strategy	ICE Stage 2 Analysis		
		AM	PM	SPICE Rank
US 98 and US 98 Access Road	Two-Way Stop Control	3	3	1
	Traffic Signal Control	1	1	2
	2NS x 1EW Roundabout	2	2	3

ICE Stage 1 analysis supports the use of all three control types at the intersection of US 98 and US 98 Access Road. These control strategies have similar V/C ratios and safety considerations. To further analyze all control strategies, ICE Stage 2 analysis was performed, and the recommended strategies were further examined.

3.0 ICE Stage 2 Analysis

3.1 Opening and Design Year Operational Analysis

The ICE Stage 1 analysis did not identify a single viable control strategy. Therefore, all three control strategies were advanced to ICE Stage 2 Analysis. Summaries of the ICE Stage 2 analysis can be found in **Appendix H**. The Stage 2 analysis evaluates each viable control strategy based on:

- Opening and Design year operational performance
- Safety performance
- Benefit-to-cost analysis
- Multimodal accommodations
- Environmental, utility, and right-of-way impacts
- Public input
- Other appropriate factors

The conceptual layout of the lane geometry for each of the control strategies can be found in **Figure 3.1**.

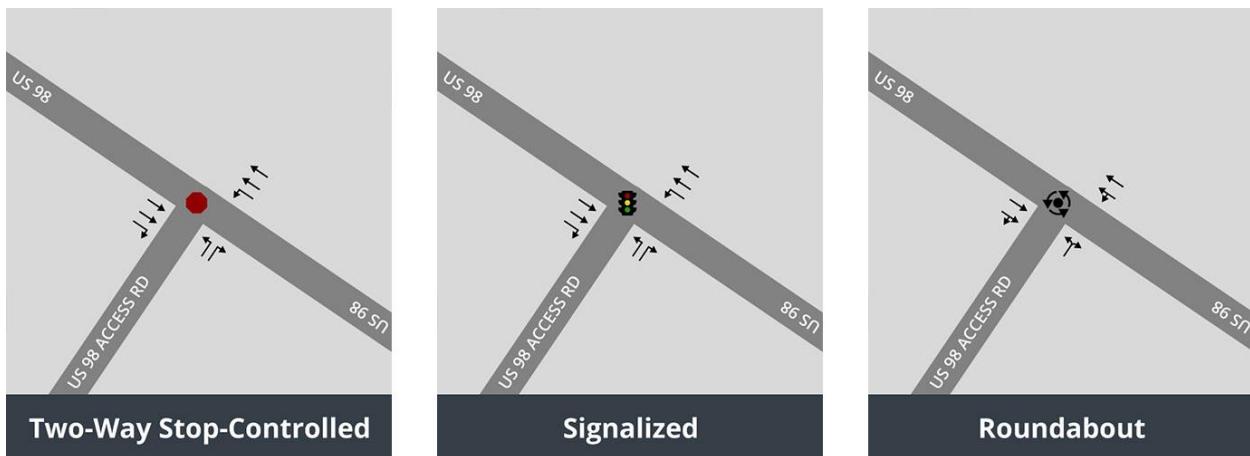


Figure 3.1: Conceptual Layout

HCS 7, Synchro 11, and SIDRA 9 were used to analyze the operational performance of two-way stop control, signalized control, and roundabout control, respectively. The HCS 7, Synchro 11, and SIDRA 9 reports can be found in **Appendix I**, **Appendix J**, and **Appendix K**, respectively. Level of Service (LOS), average control delay, and 95th percentile queue lengths were the measures of performance for the operational analysis conducted in Stage 2. The intersection performance measures by movement for each control type can be found in **Table 3.1** through **Table 3.6**, while the overall intersection results for each control type can be found in **Table 3.7** and **Table 3.8**.

The intersection performance measures by movement for two-way stop control can be found in **Table 3.1** and **Table 3.2**. By the design year (2045), the eastbound left turn movement is expected to fail to meet the LOS target D and the queue for this lane is expected to exceed the available storage lengths for both the AM and PM peak hours. The intersection performance measures by movement for signalized control can be found in **Table 3.3** and **Table 3.4**. By the opening year (2025), the eastbound left movement fails to meet the LOS target of D and queues exceed available storage during the AM peak hour. During the PM peak hour, both the eastbound left and right movements fail to meet LOS target D. In the design year (2045) there are some slight changes in percent traffic distribution. This causes a slight reduction in delay on the eastbound left movement. The eastbound right movement will fail to meet LOS target D and queues will exceed available storage during both the AM and PM peak hours. The intersection performance measures by movement for roundabout control can be found in **Table 3.5** and **Table 3.6**. By design year (2045), the eastbound movements fail to continue to meet the LOS target of D, while expected queue lengths are accommodated. In addition to the HCS 7, Synchro 11, and SIDRA 9 analyses that were performed, a traffic signal warrant analysis was completed. Due to only having peak hour volume data available, only Warrant 3 was assessed and met the criteria for the intersection to be signalized. Therefore, the two-way stop control option is not viable. The Traffic Signal Warrant analysis can be found in **Appendix M**.

Table 3.1: Opening Year (2025) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	34.1	D	32.4	D	1/150'	75 (75)
	Right	13.3	B	11.3	B	1/150'	25 (25)
Northbound	Left	11.1	B	9.3	B	1/300'	25 (25)
	Through	-	-	-	-	2/1700'	-
Southbound	Through	-	-	-	-	2/1700'	-
	Right	-	-	-	-	1/200'	-

Table 3.2: Design Year (2045) Two-Way Stop Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	233.0	F	167.3	F	1/150'	275 (225)
	Right	28.2	D	15.7	C	1/150'	125 (50)
Northbound	Left	18.5	C	12.4	C	1/300'	75 (50)
	Through	-	-	-	-	2/1700'	-
Southbound	Through	-	-	-	-	2/1700'	-
	Right	-	-	-	-	1/200'	-

Table 3.3: Opening Year (2025) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft) AM (PM)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	58.2	E	63.6	E	1/150'	175 (200)
	Right	54.1	D	58.4	E	1/150'	300 (350)
Northbound	Left	3.8	A	3.2	A	1/300'	25 (25)
	Through	2.3	A	3.0	A	2/1700'	25 (75)
Southbound	Through	7.3	A	6.5	A	2/1700'	175 (100)
	Right	5.8	A	6.1	A	1/200'	50 (50)

Table 3.4: Design Year (2045) Signalized Control Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft) AM (PM)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	51.6	D	51.0	D	1/150'	150 (150)
	Right	93.7	F	57.0	F	1/150'	675 (575)
Northbound	Left	12.7	B	8.1	A	1/300'	100 (75)
	Through	3.6	A	6.6	A	2/1700'	75 (250)
Southbound	Through	11.4	B	11.8	B	2/1700'	325 (250)
	Right	7.2	A	9.5	A	1/200'	50 (75)

Table 3.5: Opening Year (2025) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	12.1	B	8.7	A	1/1600'	50(25)
	Right	12.1	B	8.7	A		50(25)
Northbound	Left	5.4	A	8.3	A	2/1600'	25(75)
	Through	5.4	A	8.3	A		25(75)
Southbound	Through	7.6	A	5.9	A	2/1600'	75(50)
	Right	7.6	A	5.9	A		75(50)

Table 3.6: Design Year (2045) Roundabout Intersection Performance Measures

Approach	Movement	AM Peak Hour		PM Peak Hour		Available Storage (feet)	95 th % Queue (ft)
		Delay (sec)	LOS	Delay (sec)	LOS		
Eastbound	Left	50.3	F	15.8	C	1/1600'	200(75)
	Right	50.3	F	15.8	C		200(75)
Northbound	Left	7.2	A	12.8	B	2/1600'	50(125)
	Through	7.2	A	12.8	B		50(125)
Southbound	Through	13.0	B	8.9	A	2/1600'	200(75)
	Right	13.0	B	8.9	A		200(75)

The overall intersection results for the opening year (2025) and design year (2045) are shown in **Table 3.7** and **Table 3.8**, respectively.

Table 3.7: Opening Year (2025) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	C	23.7	Yes	C	22.3	Yes
Signalized Control	B	11.9	No	B	11.6	No
Roundabout	A	7.5	Yes	A	7.5	Yes

*Worst case stop controlled approach LOS shown

Table 3.8: Design Year (2045) Operational Analysis

Control Strategy	AM Peak Hour			PM Peak Hour		
	LOS	Delay (sec)	All Queues Accommodated?	LOS	Delay (sec)	All Queues Accommodated?
Two-Way Stop Controlled*	F	87.2	No	F	62.2	No
Signalized Control	B	18.6	No	B	14.0	No
Roundabout	C	15.9	Yes	B	11.9	Yes

* Worst case stop controlled approach LOS shown

3.2 Cost and Benefit-to-Cost Ratio

The benefit-to-cost ratio analysis for the project life cycle was conducted with the FDOT ICE tool. Two-way stop control is the base strategy for the benefit-to-cost comparison. The right-of-way (ROW) costs are expected to be the same for all three control strategies. The design cost is assumed to be seven percent of the sum of the construction cost and the contingency cost. The FDOT Long Range Estimating System (LRE) reports for these control strategies can be found in **Appendix M**. The summary of the benefit-to-cost analysis is shown in **Table 3.9**. The output table of the ICE tool can be found in **Appendix N**.

Table 3.9: Cost and Benefit-to-Cost Ratios

Control Strategy	ROW Costs (\$)	Design Cost (\$)	Contingency Cost (\$)	Construction Cost (\$)	FDOT ICE Tool Outputs Relative to Base Case				Net Present Value of Improvement
					Delay B/C	Safety B/C	Overall B/C		
Two-Way Stop Controlled	\$228,624	\$86,640	\$50,000	\$1,237,719	N/A	N/A	N/A	N/A	
Signalized Control	\$228,624	\$120,790	\$50,000	\$1,725,579	*	*	*	-	\$10,323,880
Roundabout	\$228,624	\$108,111	\$50,000	\$1,544,437	*	*	*	-\$6,557,326	

*No B/C reported in FDOT ICE Tool

3.3 Multimodal Accommodations

For the intersection of US 98 at US 98 Access Road, the anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.

Under two-way stop control, pedestrians crossing the minor street approaches would be crossing at a stop-controlled location, and would therefore have the right-of-way. However, the lack of stop control or signalization would not provide any protected pedestrian movement across the major street. Under signal control, crossing time would be provided for pedestrians crossing both the major and minor streets. Under roundabout control, crossing distances would be reduced for all crossings. No accommodations for bicyclists are anticipated at this time.

No existing transit facilities are present near the intersection of US 98 at US 98 Access Road. Additionally, the intersection has no anticipated special freight needs.

3.4 Environmental, Utility, and Right-of-Way Impacts

The intersection is located within a rural area of Pasco County dominated by agricultural land use and low-density residential areas. There are no wetlands or protected species present in the proximity of the study intersection. The right-of-way requirements and utility impacts will be dictated by the roadway alignment, with no expected difference in impact based on the selected intersection type.

3.5 Public Inputs

A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, 36722 State Road 52, Dade City, FL 33525 on Thursday, December 2, 2021, with an option to attend virtually. A total of 66 people (excluding FDOT staff) signed in at the in-person public hearing, and total of 14 people (excluding FDOT staff) signed in at the virtual portion of the public hearing. No public concerns or comments are proposed for the intersection of US 98 at US 98 Access Road.

4.0 ICE Analysis Summary

4.1 Summary of Stage 2 Analysis

A brief justification as to why each of the control strategies is either viable or not viable after the ICE Stage 2 Analysis is shown in **Table 4.1**. All of the analyzed control strategies will not fully meet all expected operational characteristics; the traffic signal control strategy provides the best volume accommodations and moderate safety accommodations, two-way stop control does not meet volume requirements, and the roundabout has the worst safety performance. Neither the traffic signal nor the roundabout strategies provide a positive net present value as compared to two-way stop control. There are few differences between the three control strategies in terms of public feedback, multimodal accommodations, and environmental, utility, or ROW impacts. Overall, the traffic signal control strategy is recommended based on the ICE Stage 1 and 2 analyses and the Traffic Signal Warrant analysis. The proposed design concept associated with this concept can be found in **Appendix O**.

Table 4.1: Analysis Summary

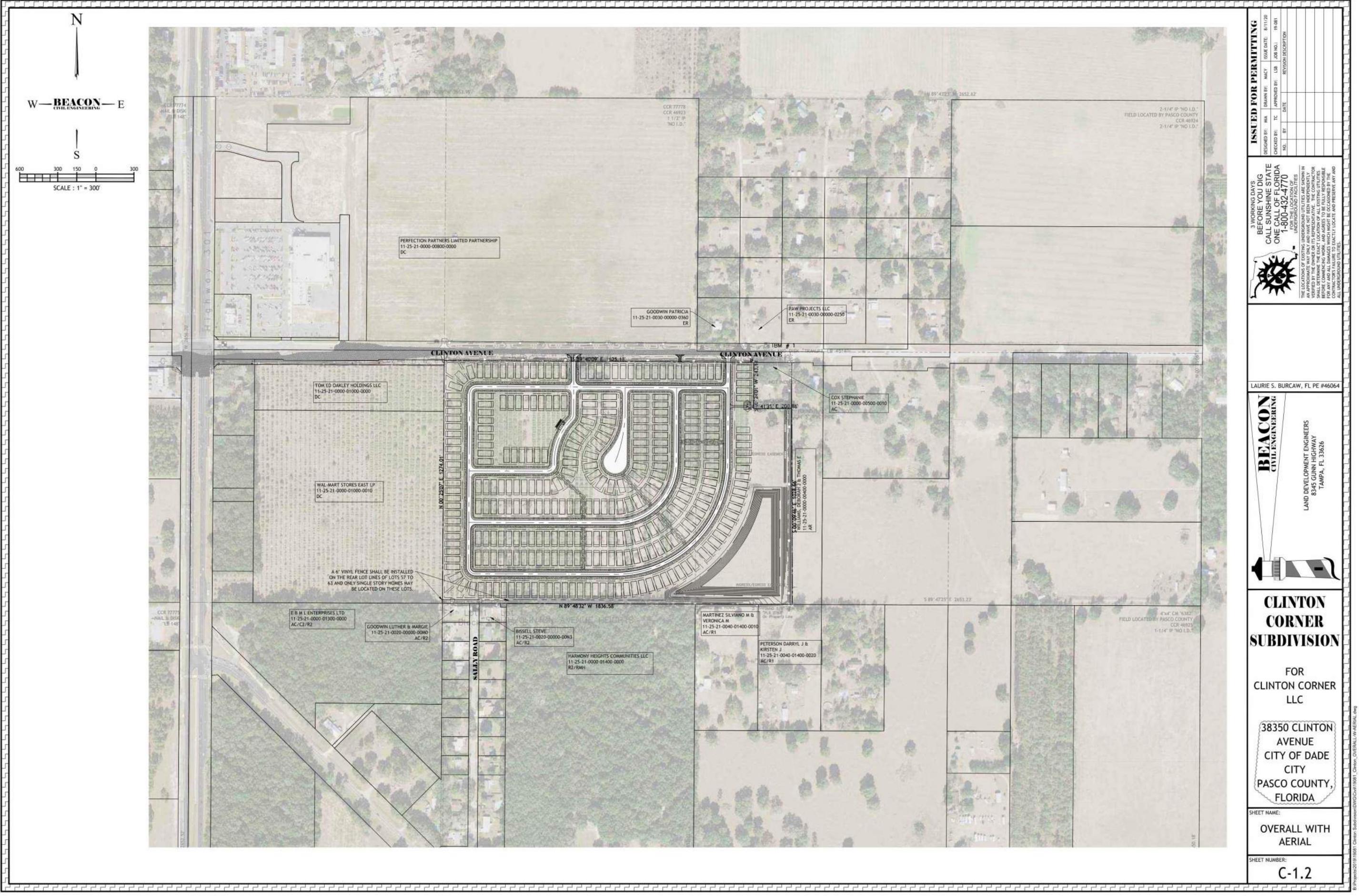
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop Control	No	Although this control strategy has the lowest anticipated construction costs, it does not meet the operational requirements of this intersection.
Traffic Signal Control	Yes	The operational characteristics of the signalized control are the best analyzed and it provides well balanced safety accommodations. Likewise, signal warrant analysis suggests that a traffic signal is needed at this intersection.
2NS x 1EW Roundabout	No	This control strategy meets operational qualifications but has the worst safety performance and should not be considered for these reasons.

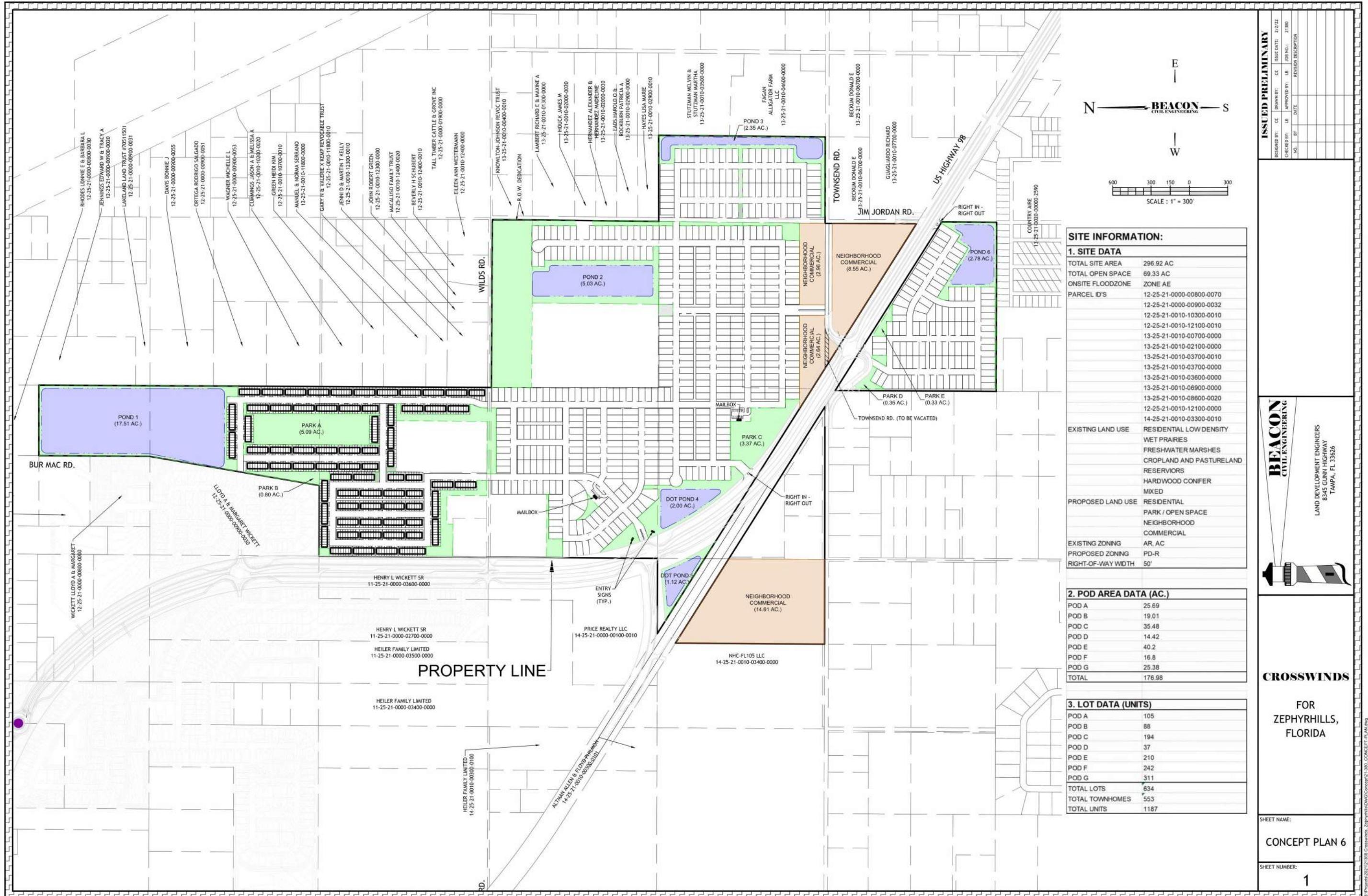
Appendices

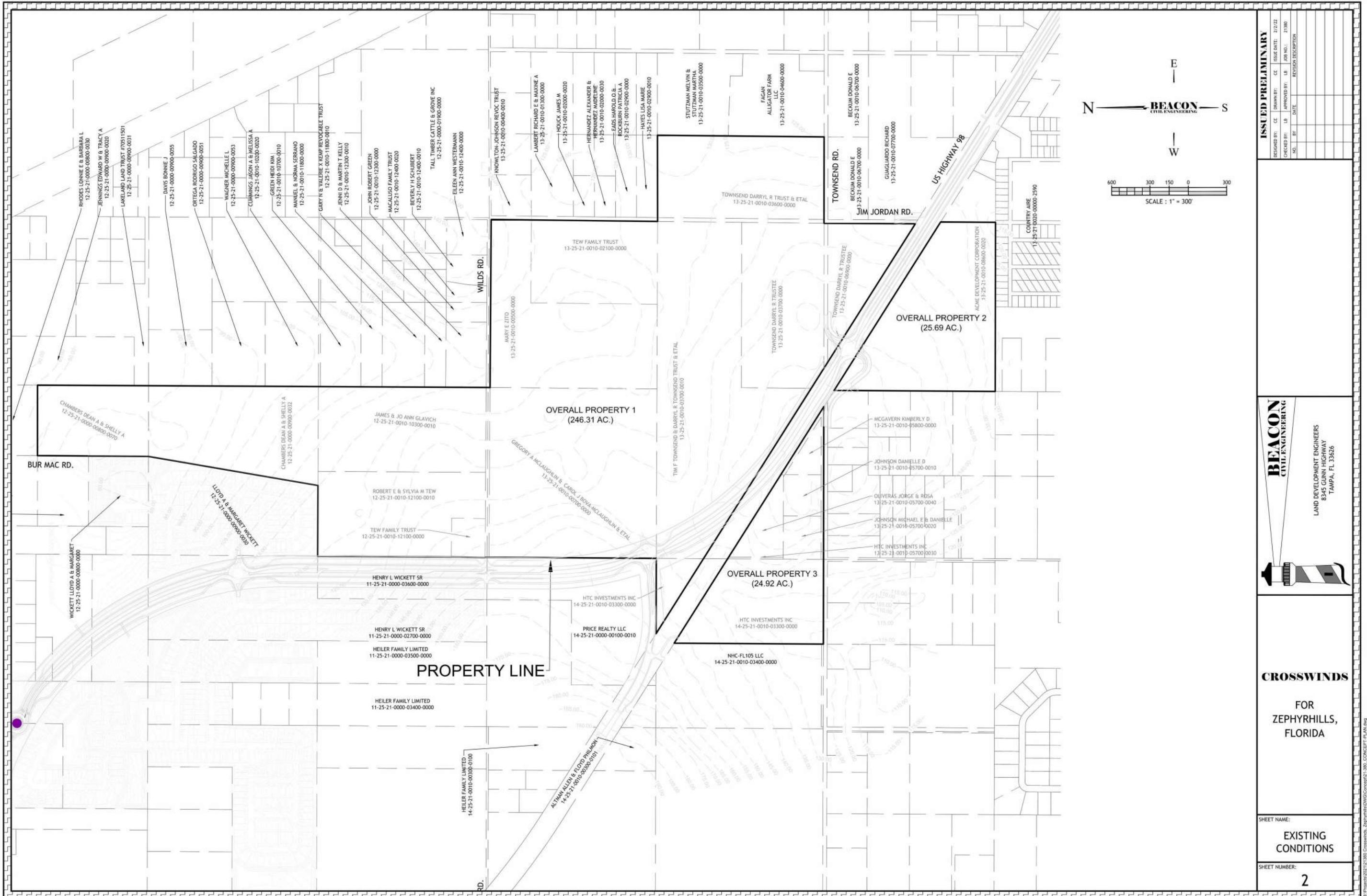


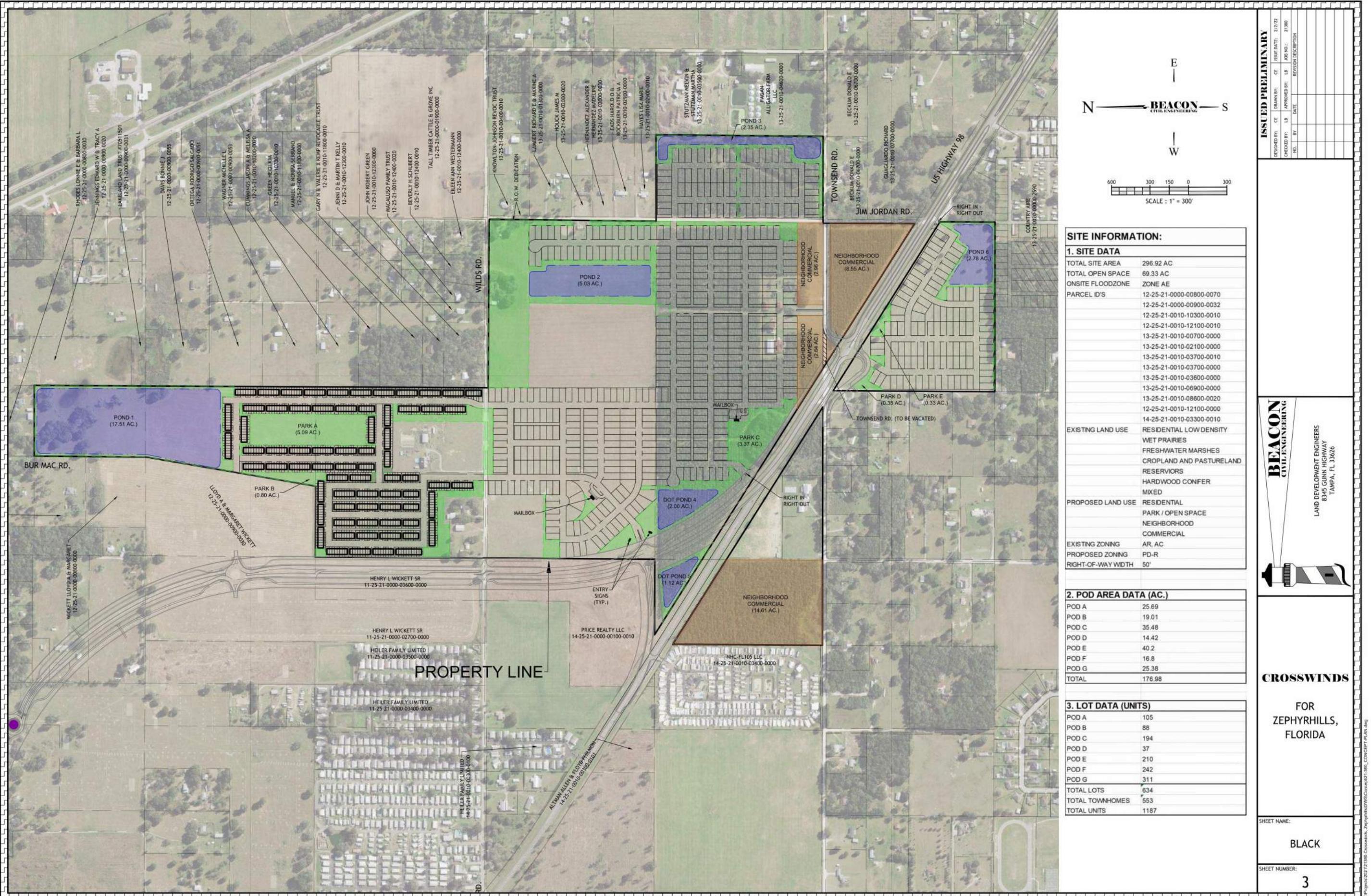
Appendix A

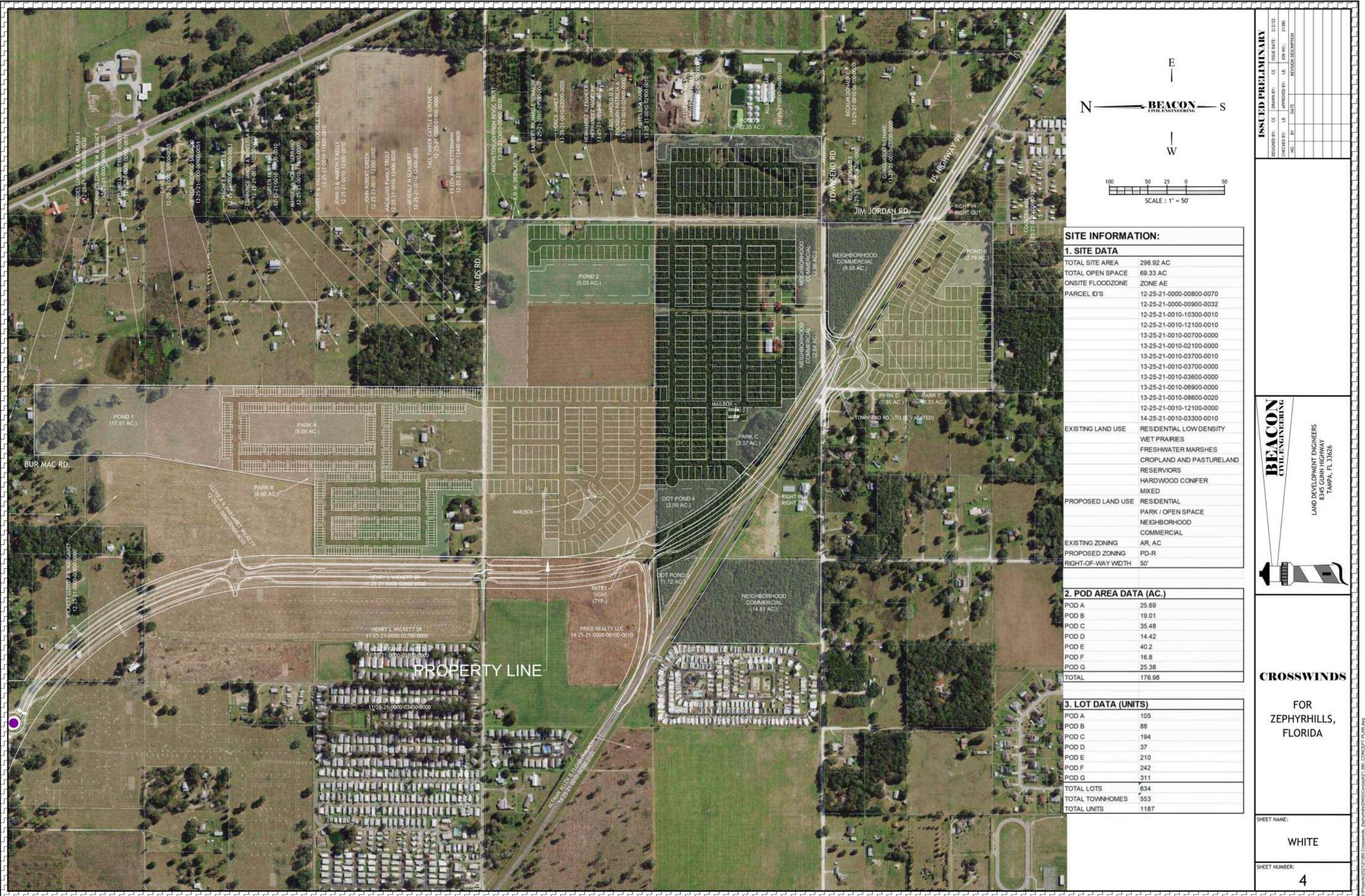
Development Concept Plans

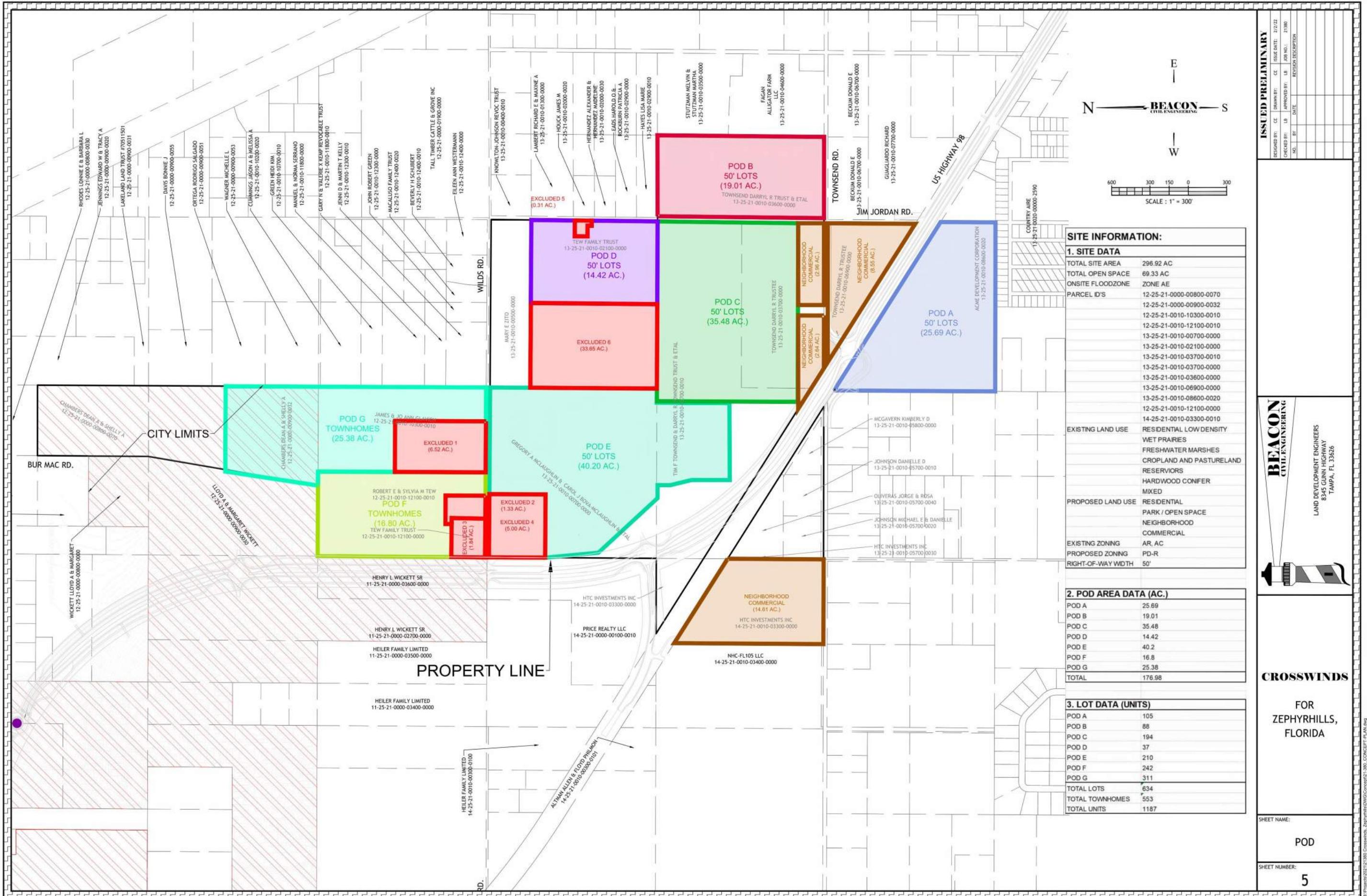












Appendix B

US 98 PD&E Demand Volumes

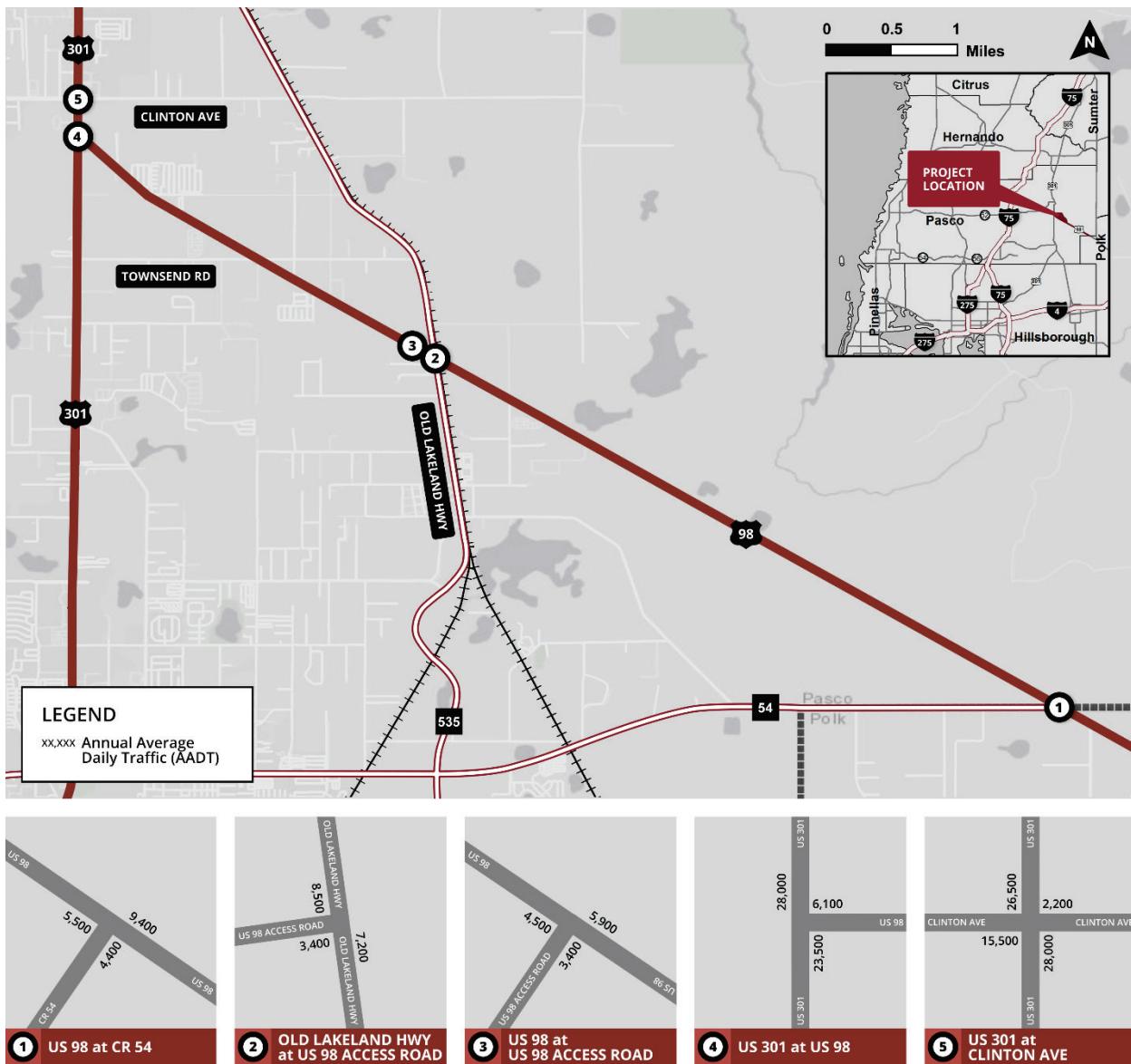


Figure 1: Existing Year (2019) AADTs

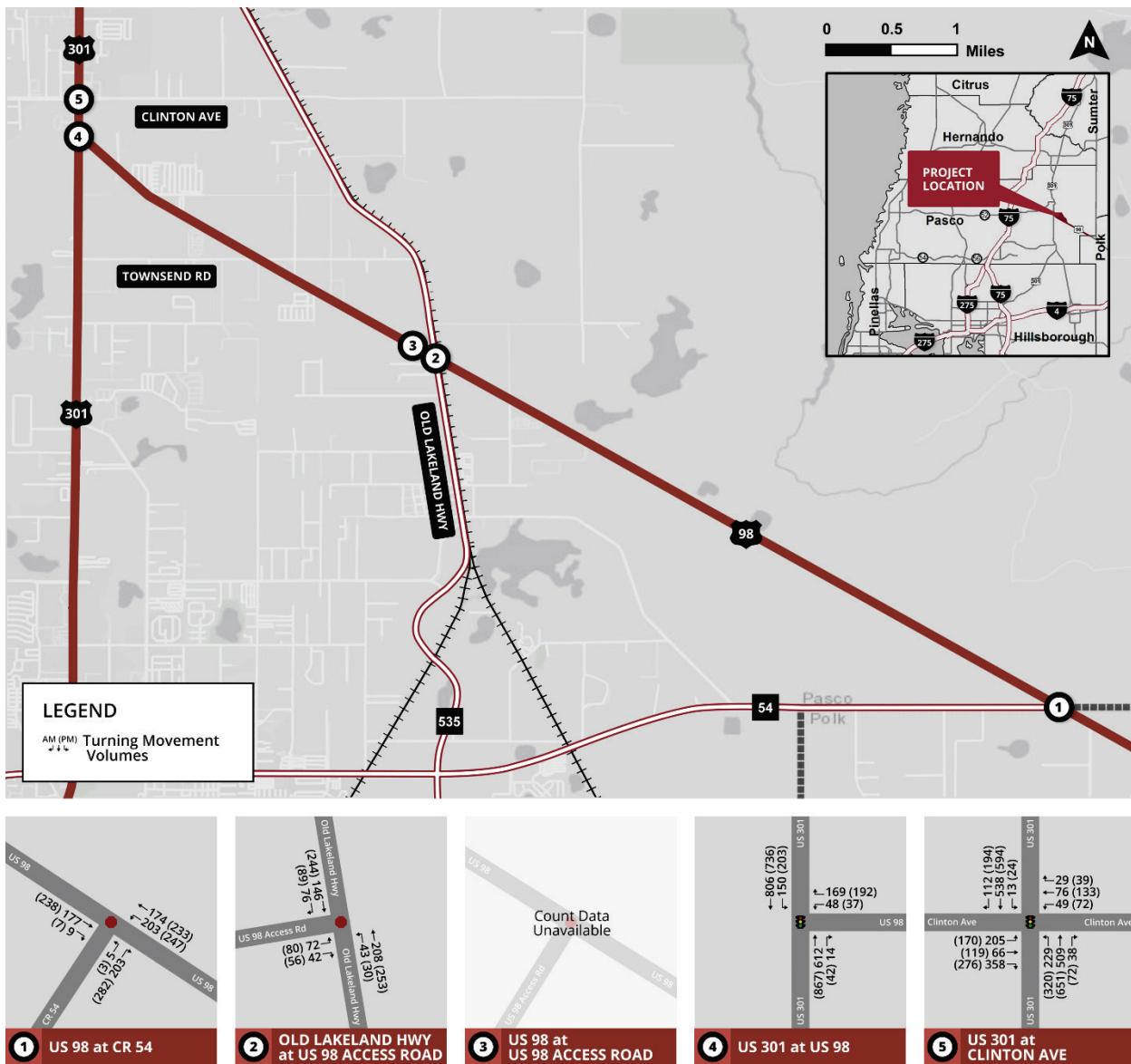


Figure 2: Existing Year (2019) Turning Movement Counts

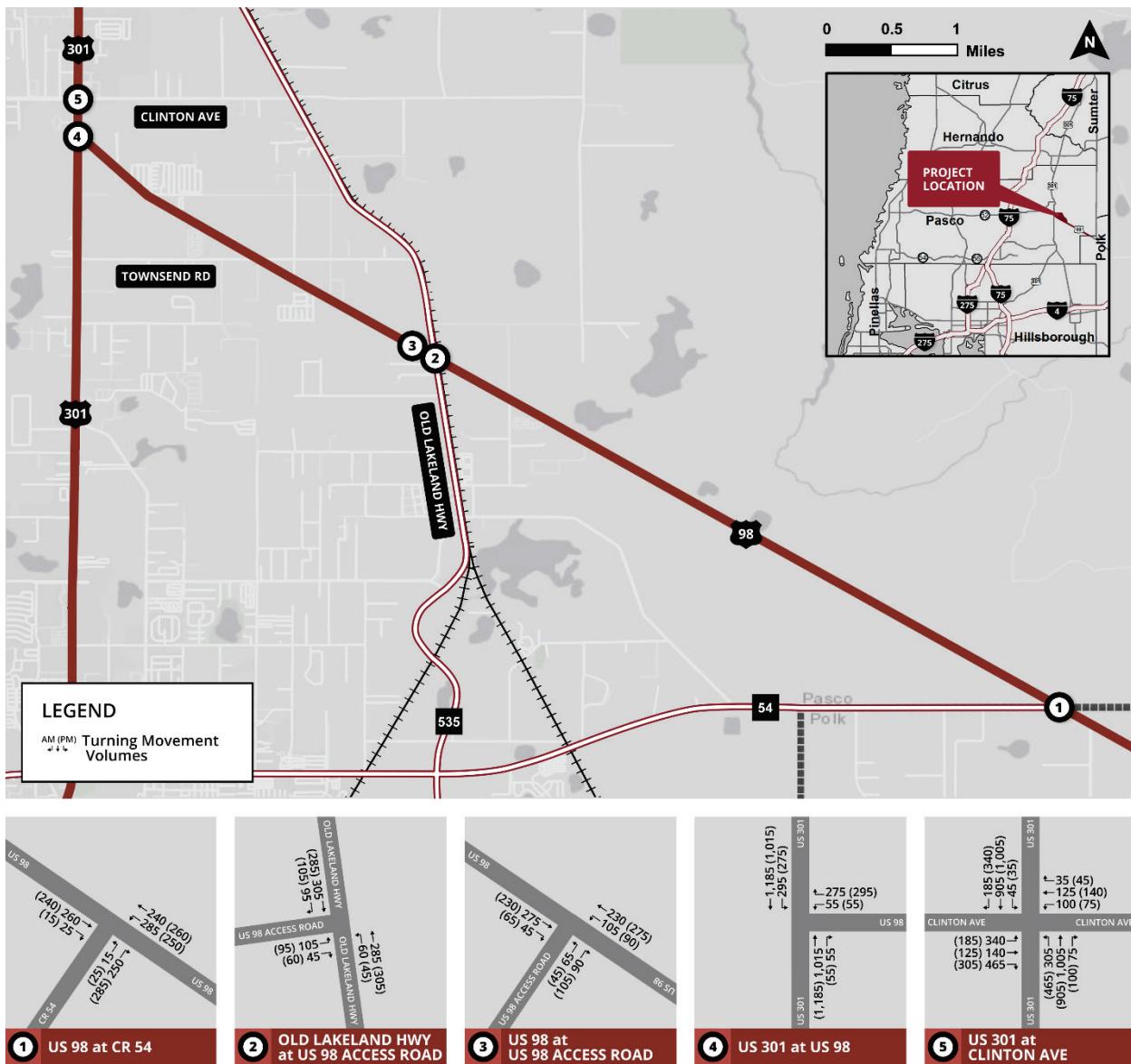


Figure 3: Existing Year (2019) Turning Movement Design Volumes

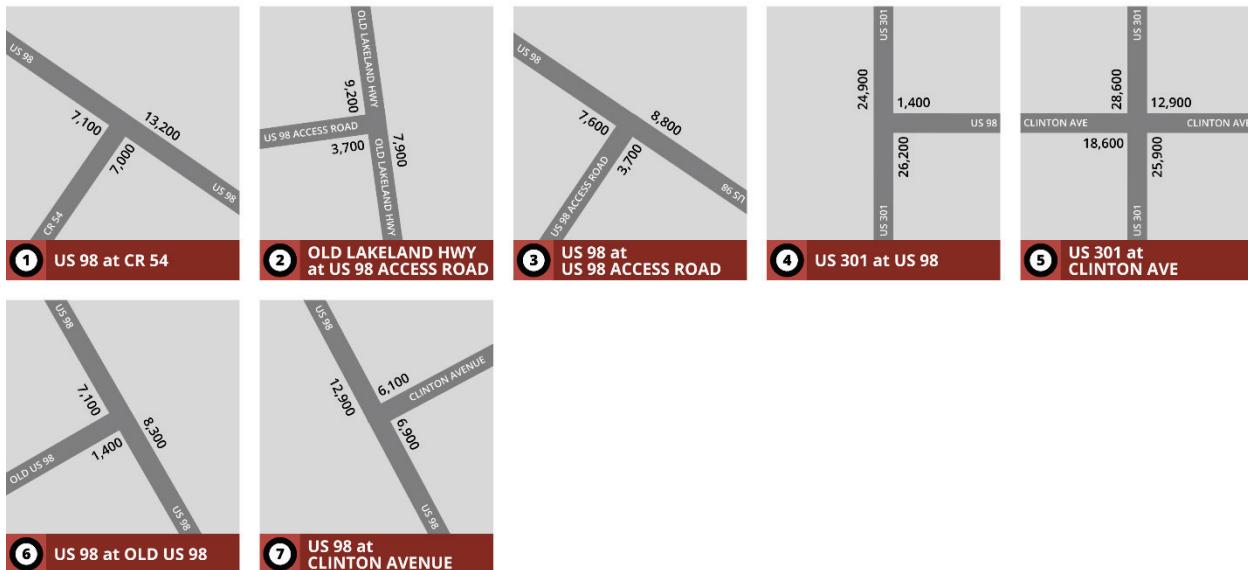
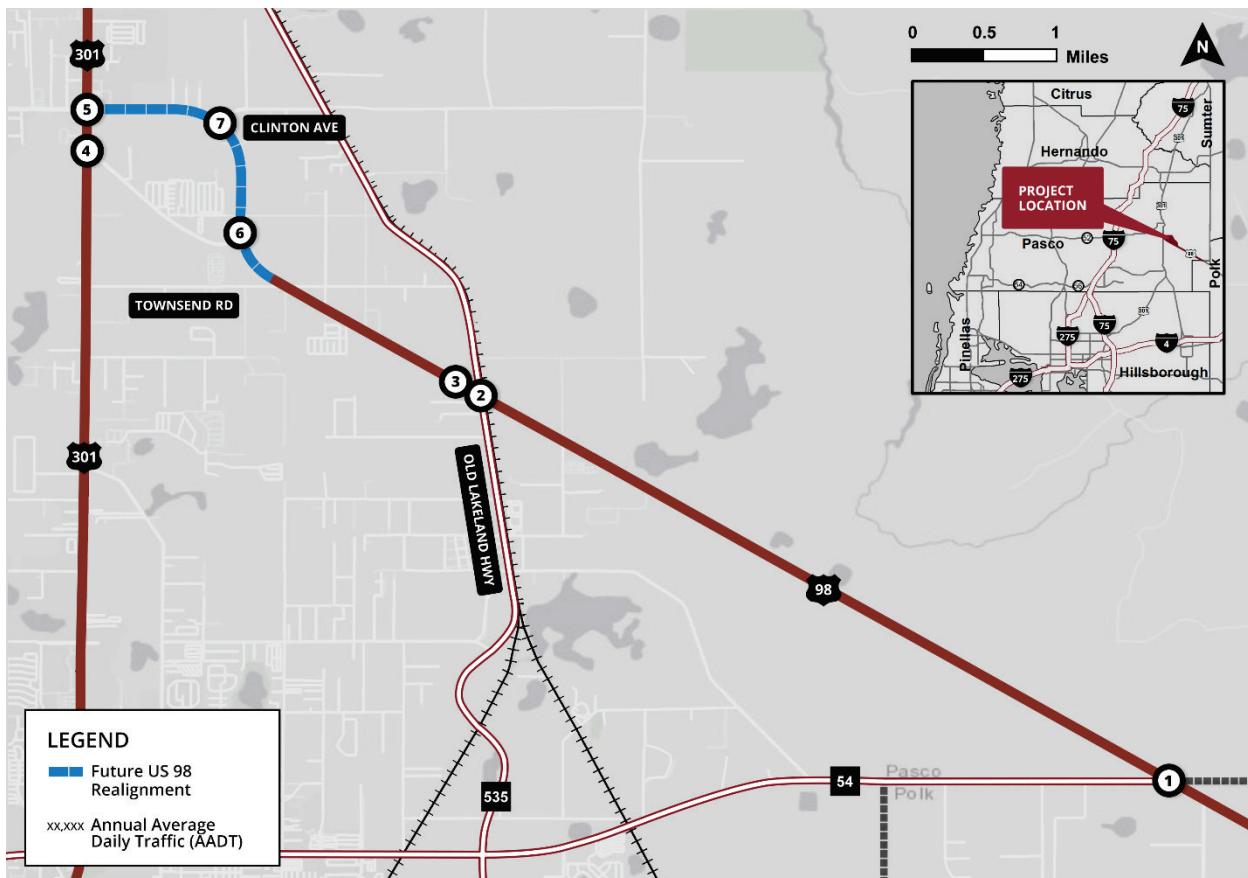


Figure 4: Opening Year (2025) Build AADTs

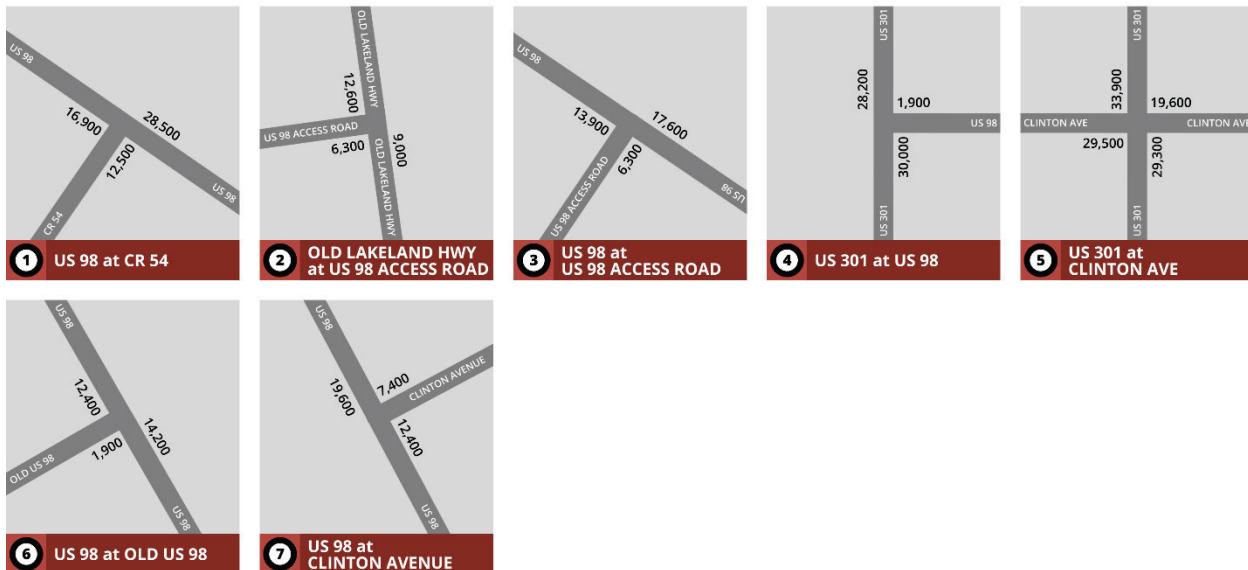
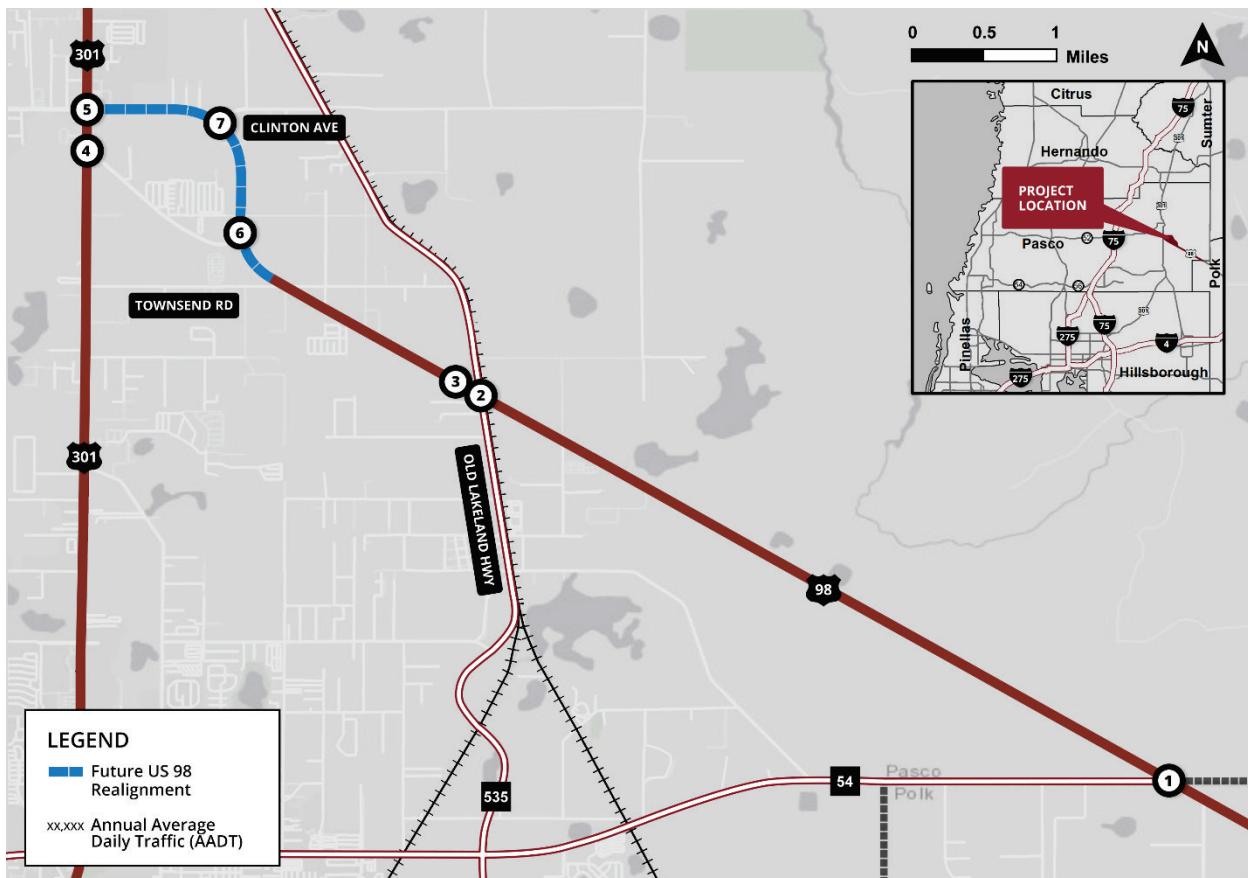


Figure 5: Design Year (2045) Build AADTs

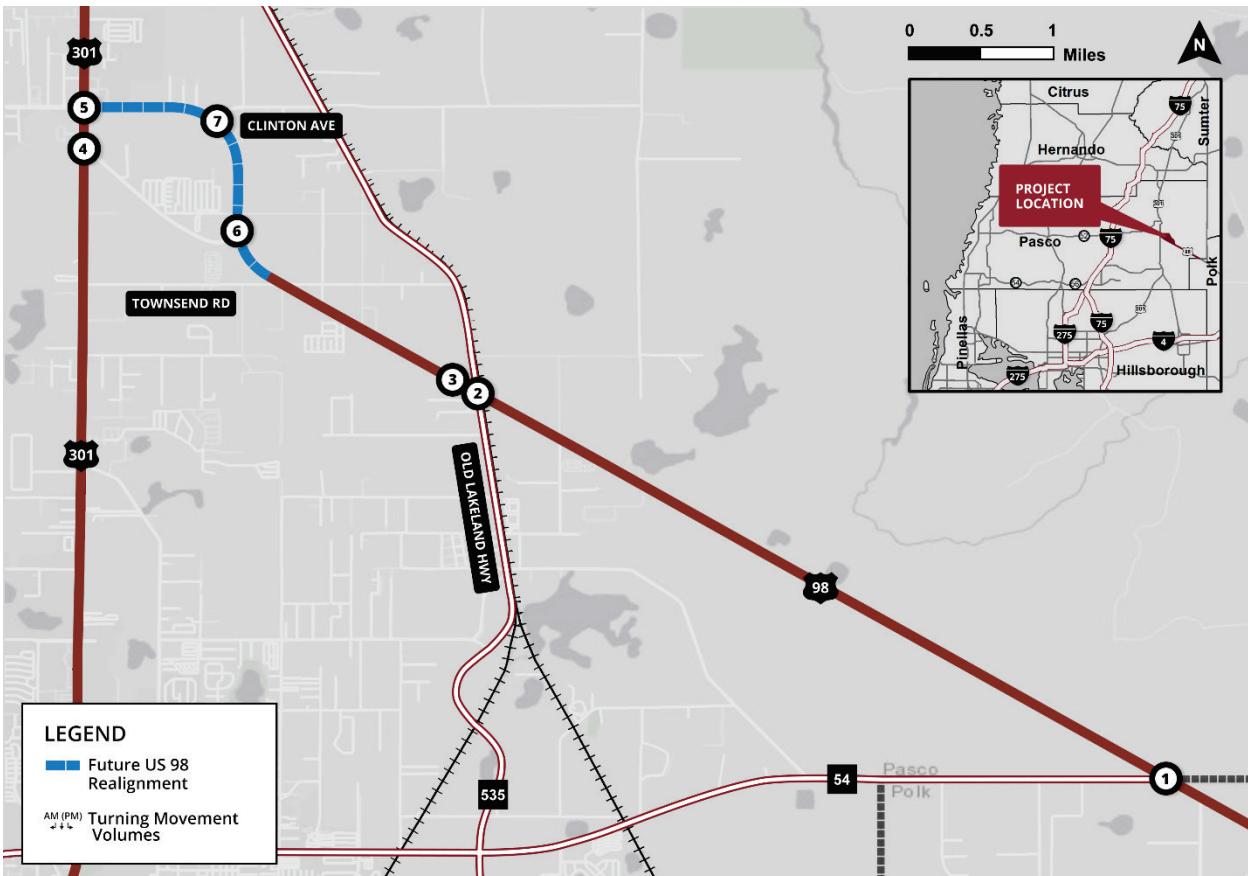


Figure 6: Design Year (2045) Build Turning Movement Volumes

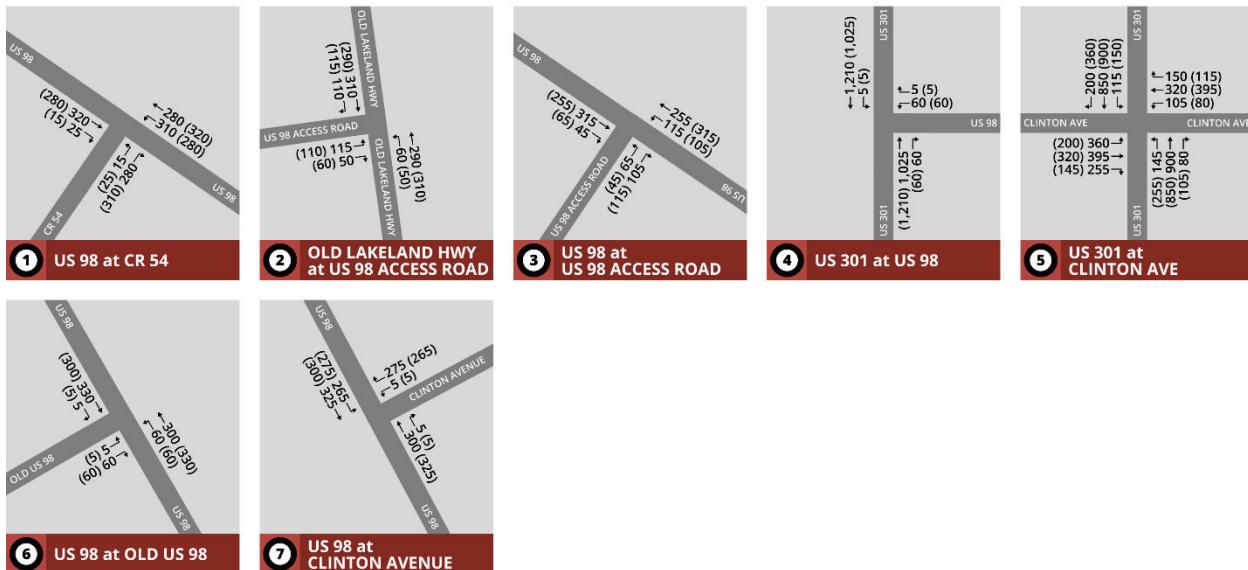
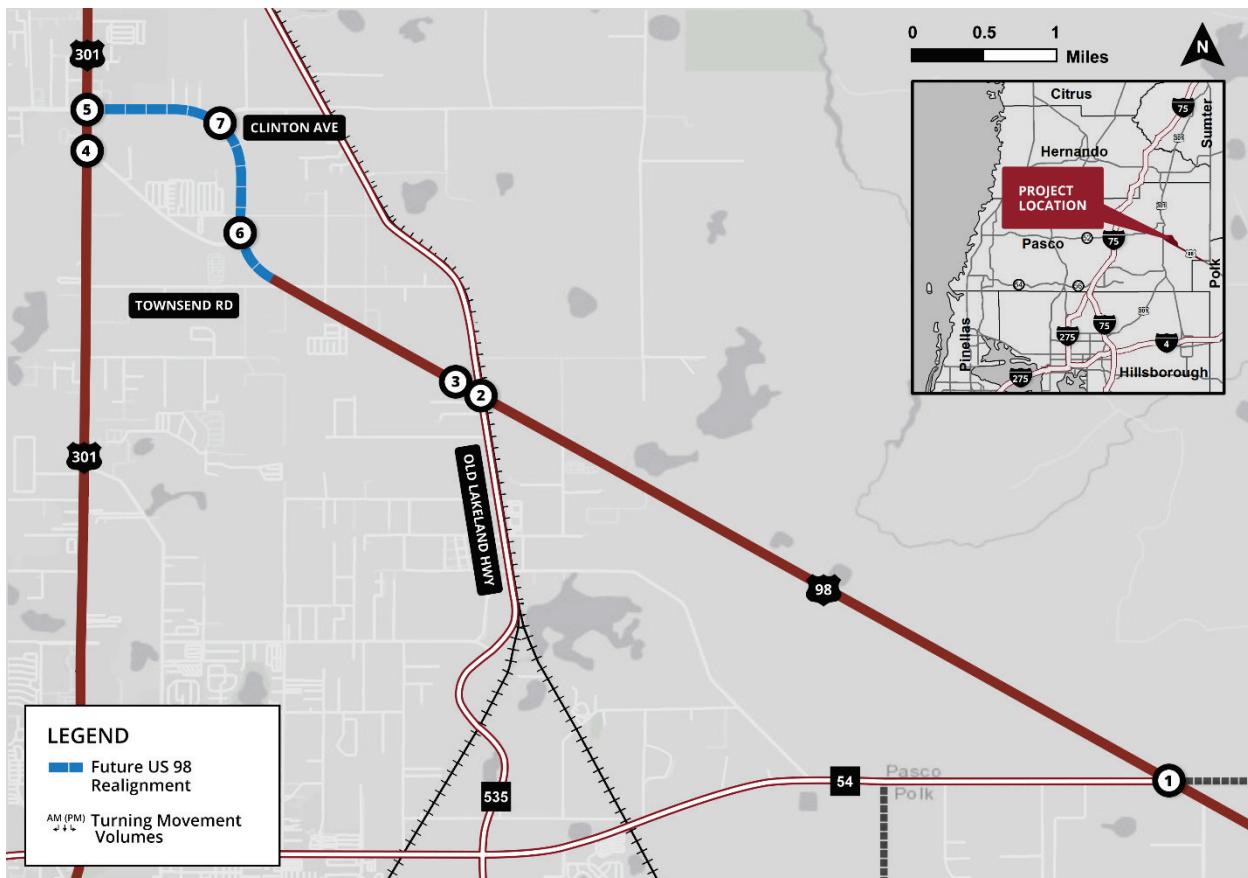


Figure 7: Opening Year (2025) Build Turning Movement Volumes

Appendix C

ITE Trip Generation Calculations

Trip Generation
ITE Trip Generation 11th Edition

Development	Site Info	ITE Code	Number	Units	Hour Ave	Hour Ave/ Average	AM Enter	AM Exit	AM Total	PM Enter	PM Exit	PM Total	Daily Enter	Daily Exit	Daily Total	
Clinton Corner	Single family residential	210	297	DU	0.7	0.94	9.43	54.05	153.85	207.90	175.88	103.30	279.18	1,400.36	1,400.36	2,800.71
Clinton Corner	Parks	411	3.4	acres	0.02	0.11	0.78	0.04	0.03	0.07	0.21	0.17	0.37	1.33	1.33	2.65
Crossroads	Single family residential	210	356	DU	0.7	0.94	9.43	64.79	184.41	249.20	210.82	123.82	334.64	1,678.54	1,678.54	3,357.08
Crossroads	Townhomes	215	244	DU	0.48	0.57	7.2	36.31	80.81	117.12	79.28	59.80	139.08	878.40	878.40	1,756.80
Crossroads	Multi-family residential	220	200	DU	0.4	0.51	6.74	19.20	60.80	80.00	64.26	37.74	102.00	674.00	674.00	1,348.00
Crossroads	Assisted living facility	254	200	Beds	0.18	0.24	2.6	21.60	14.40	36.00	18.72	29.28	48.00	260.00	260.00	520.00
Crossroads	Parks	411	3.08	acres	0.02	0.11	0.78	0.04	0.03	0.06	0.19	0.15	0.34	1.20	1.20	2.40
Crossroads	Open Space	411	18.98	acres	0.02	0.11	0.78	0.22	0.16	0.38	1.15	0.94	2.09	7.40	7.40	14.80
Crosswinds	Single family residential	210	755	DU	0	0.94	9.43	137.41	391.09	528.50	447.11	262.59	709.70	3,559.83	3,559.83	7,119.65
Crosswinds	Townhomes	215	554	DU	0.48	0.57	7.2	82.44	183.48	265.92	179.99	135.79	315.78	1,994.40	1,994.40	3,988.80

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	310	280	0	0	0	320	25	0	15	0	280	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	290	0	0	0	310	110	0	115	0	50	0	0	0	0	0
3	US 98 at US 98 Access Road	115	255	0	0	0	315	45	0	65	0	105	0	0	0	0	0
4	US 301 at US 98	0	1,025	60	0	5	1,210	0	0	0	0	0	60	0	5	0	0
5	US 301 at Clinton Avenue	145	900	80	0	115	850	200	0	360	395	255	0	105	320	150	0
6	US 98 at Townsend Road	20	350	0	0	15	365	10	0	10	5	10	0	10	0	0	0
7	US 98 at Old US 98	60	300	0	0	0	330	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	305	0	0	0	330	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	300	5	0	265	325	0	0	0	0	0	5	0	275	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	645	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	13	0	0	0	0	0	25	0	51	0	22	0	0	0	0	0
3	US 98 at US 98 Access Road	0	149	0	0	0	515	74	0	38	0	0	0	0	0	0	0
4	US 301 at US 98	0	31	0	0	0	0	88	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	31	0	45	0	0	0	0	152	0	0	88	268	125	0
6	US 98 at Townsend Road	14	153	19	0	25	475	19	0	38	0	49	0	65	0	50	0
7	US 98 at Old US 98	0	260	20	0	24	405	0	0	0	0	0	63	0	52	0	0
8	US 98 at Crossroads	38	228	45	0	56	178	47	0	92	0	113	0	138	0	113	0
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	145	0	0	0	480	40	0	10	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	15	0	0	0	0	0	25	0	55	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	150	0	0	0	515	75	0	40	0	0	0	0	0	0	0
4	US 301 at US 98	0	35	0	0	0	90	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	35	0	45	0	0	0	0	155	0	90	270	130	0	0
6	US 98 at Townsend Road	15	155	20	0	25	475	20	0	40	0	50	0	65	0	55	0
7	US 98 at Old US 98	0	260	20	0	25	405	0	0	0	0	0	65	0	55	0	0
8	US 98 at Crossroads	40	230	50	0	60	180	50	0	95	0	115	0	140	0	115	0
9	US 98 at Clinton Avenue	0	735	5	0	265	610	0	75	0	0	0	0	5	0	275	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trips will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads (101, 102) and Townsend (103, 104) and Clinton (105, 106) and Old US 98 (107, 108) and Crossroads (109, 110) and Townsend (111, 112) and Old US 98 (113, 114) and Clinton (115, 116) and Old US 98 (117, 118) and Crossroads (119, 120) and Townsend (121, 122) and Old US 98 (123, 124) and Clinton (125, 126) and Old US 98 (127, 128) and Crossroads (129, 130) and Townsend (131, 132) and Old US 98 (133, 134) and Clinton (135, 136) and Old US 98 (137, 138) and Crossroads (139, 140) and Townsend (141, 142) and Old US 98 (143, 144) and Clinton (145, 146) and Old US 98 (147, 148) and Crossroads (149, 150) and Townsend (151, 152) and Old US 98 (153, 154) and Clinton (155, 156) and Old US 98 (157, 158) and Crossroads (159, 160) and Townsend (161, 162) and Old US 98 (163, 164) and Clinton (165, 166) and Old US 98 (167, 168) and Crossroads (169, 170) and Townsend (171, 172) and Old US 98 (173, 174) and Clinton (175, 176) and Old US 98 (177, 178) and Crossroads (179, 180) and Townsend (181, 182) and Old US 98 (183, 184) and Clinton (185, 186) and Old US 98 (187, 188) and Crossroads (189, 190) and Townsend (191, 192) and Old US 98 (193, 194) and Clinton (195, 196) and Old US 98 (197, 198) and Crossroads (199, 200) and Townsend (201, 202) and Old US 98 (203, 204) and Clinton (205, 206) and Old US 98 (207, 208) and Crossroads (209, 210) and Townsend (211, 212) and Old US 98 (213, 214) and Clinton (215, 216) and Old US 98 (217, 218) and Crossroads (219, 220) and Townsend (221, 222) and Old US 98 (223, 224) and Clinton (225, 226) and Old US 98 (227, 228) and Crossroads (229, 230) and Townsend (231, 232) and Old US 98 (233, 234) and Clinton (235, 236) and Old US 98 (237, 238) and Crossroads (239, 240) and Townsend (241, 242) and Old US 98 (243, 244) and Clinton (245, 246) and Old US 98 (247, 248) and Crossroads (249, 250) and Townsend (251, 252) and Old US 98 (253, 254) and Clinton (255, 256) and Old US 98 (257, 258) and Crossroads (259, 260) and Townsend (261, 262) and Old US 98 (263, 264) and Clinton (265, 266) and Old US 98 (267, 268) and Crossroads (269, 270) and Townsend (271, 272) and Old US 98 (273, 274) and Clinton (275, 276) and Old US 98 (277, 278) and Crossroads (279, 280) and Townsend (281, 282) and Old US 98 (283, 284) and Clinton (285, 286) and Old US 98 (287, 288) and Crossroads (289, 290) and Townsend (291, 292) and Old US 98 (293, 294) and Clinton (295, 296) and Old US 98 (297, 298) and Crossroads (299, 300) and Townsend (301, 302) and Old US 98 (303, 304) and Clinton (305, 306) and Old US 98 (307, 308) and Crossroads (309, 310) and Townsend (311, 312) and Old US 98 (313, 314) and Clinton (315, 316) and Old US 98 (317, 318) and Crossroads (319, 320) and Townsend (321, 322) and Old US 98 (323, 324) and Clinton (325, 326) and Old US 98 (327, 328) and Crossroads (329, 330) and Townsend (331, 332) and Old US 98 (333, 334) and Clinton (335, 336) and Old US 98 (337, 338) and Crossroads (339, 340) and Townsend (341, 342) and Old US 98 (343, 344) and Clinton (345, 346) and Old US 98 (347, 348) and Crossroads (349, 350) and Townsend (351, 352) and Old US 98 (353, 354) and Clinton (355, 356) and Old US 98 (357, 358) and Crossroads (359, 360) and Townsend (361, 362) and Old US 98 (363, 364) and Clinton (365, 366) and Old US 98 (367, 368) and Crossroads (369, 370) and Townsend (371, 372) and Old US 98 (373, 374) and Clinton (375, 376) and Old US 98 (377, 378) and Crossroads (379, 380) and Townsend (381, 382) and Old US 98 (383, 384) and Clinton (385, 386) and Old US 98 (387, 388) and Crossroads (389, 390) and Townsend (391, 392) and Old US 98 (393, 394) and Clinton (395, 396) and Old US 98 (397, 398) and Crossroads (399, 400) and Townsend (401, 402) and Old US 98 (403, 404) and Clinton (405, 406) and Old US 98 (407, 408) and Crossroads (409, 410) and Townsend (411, 412) and Old US 98 (413, 414) and Clinton (415, 416) and Old US 98 (417, 418) and Crossroads (419, 420) and Townsend (421, 422) and Old US 98 (423, 424) and Clinton (425, 426) and Old US 98 (427, 428) and Crossroads (429, 430) and Townsend (431, 432) and Old US 98 (433, 434) and Clinton (435, 436) and Old US 98 (437, 438) and Crossroads (439, 440) and Townsend (441, 442) and Old US 98 (443, 444) and Clinton (445, 446) and Old US 98 (447, 448) and Crossroads (449, 450) and Townsend (451, 452) and Old US 98 (453, 454) and Clinton (455, 456) and Old US 98 (457, 458) and Crossroads (459, 460) and Townsend (461, 462) and Old US 98 (463, 464) and Clinton (465, 466) and Old US 98 (467, 468) and Crossroads (469, 470) and Townsend (471, 472) and Old US 98 (473, 474) and Clinton (475, 476) and Old US 98 (477, 478) and Crossroads (479, 480) and Townsend (481, 482) and Old US 98 (483, 484) and Clinton (485, 486) and Old US 98 (487, 488) and Crossroads (489, 490) and Townsend (491, 492) and Old US 98 (493, 494) and Clinton (495, 496) and Old US 98 (497, 498) and Crossroads (499, 500) and Townsend (501, 502) and Old US 98 (503, 504) and Clinton (505, 506) and Old US 98 (507, 508) and Crossroads (509, 510) and Townsend (511, 512) and Old US 98 (513, 514) and Clinton (515, 516) and Old US 98 (517, 518) and Crossroads (519, 520) and Townsend (521, 522) and Old US 98 (523, 524) and Clinton (525, 5

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	320	0	0	0	280	15	0	25	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	50	310	0	0	0	290	115	0	110	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	105	315	0	0	0	255	65	0	45	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,210	60	0	5	1,025	0	0	0	0	0	60	0	5	0	0
5	US 98 at Clinton Avenue	255	850	105	0	150	900	360	0	200	320	145	0	80	395	115	0
6	US 98 at Townsend Road	15	380	0	0	10	330	15	0	5	5	15	0	0	5	0	0
7	US 98 at Old US 98	60	330	0	0	0	300	5	0	5	0	60	0	0	0	0	0
8	US 98 at Crossroads	0	335	0	0	0	305	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	325	5	0	275	300	0	0	0	0	0	5	0	265	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	685	550	1,135	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	50%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	14	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	24	0	0	0	0	0	55	0	46	0	25	0	0	0	0	0
3	US 98 at US 98 Access Road	0	551	0	0	0	279	71	0	79	0	0	0	0	0	0	0
4	US 301 at US 98	0	100	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	100	0	143	0	0	0	0	205	0	0	55	270	79	0
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	515	0	0	0	265	15	0	40	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	25	0	0	0	0	0	55	0	50	0	30	0	0	0	0	0
3	US 98 at US 98 Access Road	0	555	0	0	0	280	75	0	80	0	0	0	0	0	0	0
4	US 301 at US 98	0	105	0	0	0	0	55	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	105	0	145	0	0	0	0	305	0	0	55	270	80	0
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBU	WBL	WBT	WBR	WBU
1	US 98 at CR 54	280	835	0	0	0	545	20	0	65	0	310	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	70	310	0	0	0	290	170	0	160	0	99	0	0	0	0	0
3	US 98 at US 98 Access Road	105	870	0	0	0	525	140	0	125	0	115	0	0	0	0	0
4	US 301 at US 98	0	1,315	60	0	5	1,080	0	0	0	0	0	0	60	0	5	0
5	US 301 at Clinton Avenue	255	850	210	0	295	900	360	0	200	625	145	0	135	665	195	0
6	US 98 at Townsend Road	65	900	65	0	75	615	65	0	40	5	45	0	40	5	45	0
7	US 98 at Old US 98	60	820	70	0	60	685	5	0	5	5	60	0	40	5	45	0
8	US 98 at Crossroads	125	595	155	0	125	595	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	770	5	0	275	815	0	55	0	0	0	0	5	0	265	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trips will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads (101, 102) and Townsend (104, 105) have the EB and WB approaches and exits from the Townsend and US 98 (203) and Crossroads intersections (203), respectively.

7. Driveway at Townsend (102) is Right-in only. It is a turn-around before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	625	0	0	0	860	25	0	15	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	60	340	0	0	0	350	235	0	205	0	55	0	0	0	0	0
3	US 98 at US 98 Access Road	215	480	0	0	0	655	50	0	70	0	235	0	0	0	0	0
4	US 301 at US 98	0	1,090	75	0	5	1,440	0	0	0	0	0	95	0	5	0	0
5	US 98 at Clinton Avenue	230	880	85	0	180	920	305	0	550	645	410	0	115	515	220	0
6	US 98 at Townsend Road	35	575	5	0	20	650	20	0	15	10	20	0	0	15	5	0
7	US 98 at Old US 98	95	500	0	0	0	615	5	0	5	0	75	0	0	0	0	0
8	US 98 at Crossroads	0	505	0	0	0	615	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	495	5	0	300	610	0	0	0	0	0	5	0	355	0	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	645	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	220	575
B	Crossroads	142	341
C	Clinton Corner	54	154
	Total	416	1069

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	33	86	119	15%
102	Crosswinds Townsend (east)	44	115	159	20%
103	Crosswinds US 98	55	144	199	25%
104	Crosswinds Old US 98	44	115	159	20%
105	Crosswinds through Crossroads	44	115	159	20%
106	Crossroad Roundabout (west)	85	204	290	60%
107	Crossroad Roundabout (east)	57	136	193	40%
108	Clinton Corner East Exit	27	77	104	50%
109	Clinton Corner West Exit	27	77	104	50%
	Total	416	1069	1485	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	14	19	38	49	119	1
102	Crosswinds Townsend (east)	19	25	50	65	159	1
103	Crosswinds US 98	24	31	63	81	199	1
104	Crosswinds Old US 98	20	24	52	63	159	2
105	Crosswinds through Crossroads	20	24	52	63	159	2
106	Crossroad Roundabout (west)	38	47	92	113	290	2
107	Crossroad Roundabout (east)	26	31	61	75	193	2
108	Clinton Corner East Exit	13	14	37	40	104	3
109	Clinton Corner West Exit	13	14	37	40	104	3
	Total	187	229	481	588	1485	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	150	0	0	0	0	0	0	531	15	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	0	0	19	0	33	0	9	0	0	0
3	US 98 at US 98 Access Road	0	163	0	0	0	0	0	0	547	42	0	0	0	0	0	0
4	US 301 at US 98	0	21	0	0	0	0	0	0	65	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	21	0	0	45	0	0	0	0	162	0	0	65	291	124
6	US 98 at Townsend Road	14	153	19	0	0	25	475	19	0	38	0	49	0	65	0	50
7	US 98 at Old US 98	0	260	20	0	0	24	405	0	0	0	0	0	0	63	0	52
8	US 98 at Crossroads	38	228	45	0	0	56	178	47	0	92	0	113	0	138	0	113
9	US 98 at Clinton Avenue	0	432	0	0	0	281	0	74	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	160	0	0	0	535	20	0	5	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	5	0	0	0	0	0	20	0	35	0	10	0	0	0	0	0
3	US 98 at US 98 Access Road	0	165	0	0	0	550	45	0	25	0	0	0	0	0	0	0
4	US 301 at US 98	0	25	0	0	0	70	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	25	0	0	50	0	0	0	0	165	0	0	70	295	125
6	US 98 at Townsend Road	15	155	20	0	0	25	475	20	0	40	0	50	0	65	0	55
7	US 98 at Old US 98	0	260	20	0	0	25	405	0	0	0	0	0	0	65	0	55
8	US 98 at Crossroads	40	230	50	0	0	60	180	50	0	95	0	115	0	140	0	115
9	US 98 at Clinton Avenue	0	435	5	0	0	285	0	75	0	0	0	0	0	5	0	355

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	795	0	0	0	1,295	45	0	20	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	340	0	0	0	350	255	0	240	0	45	0	0	0	0	0
3	US 98 at US 98 Access Road	215	645	0	0	0	1,205	95	0	95	0	225	0	0	0	0	0
4	US 301 at US 98	0	1,115	75	0	5	1,510	0	0	0	0	0	0	95	0	5	0
5	US 301 at Clinton Avenue	230	880	110	0	0	230	920	305	0	550	810	410	0	185	810	345
6	US 98 at Townsend Road	50	730	25	0	45	1,125	40	0	55	10	70	0	65	15	60	0
7	US 98 at Old US 98	95	760	20	0	25	1,020	5	0	5	5	75	0	65	5	55	0
8	US 98 at Crossroads	40	735	50	0	60	795	50	0	95	5	115	0	140	5	115	0
9	US 98 at Clinton Avenue	0	930	5	0	0	300	895	0	75	0	0	0	0	5	0	355

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trip traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104, 105) (e.g. the EB and WB driveways and exits from the Townsend and US 98 (104) and Crossroads intersections (203), respectively).

7. If driveway at Townsend (102) is Right-in only, it is a turn-around before the intersection in Crossroads (203) that provides a U-turn to EB traffic to cross SBL from this driveway. If this turn-around was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107/108 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background TMVs

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	860	0	0	0	625	15	0	25	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	55	350	0	0	0	340	205	0	235	0	60	0	0	0	0	0
3	US 98 at US 98 Access Road	235	655	0	0	0	480	70	0	50	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,440	95	0	5	1,090	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	115	0	220	880	550	0	305	515	230	0	85	645	180	0
6	US 98 at Townsend Road	30	675	5	0	15	550	30	0	10	10	25	0	0	5	5	0
7	US 98 at Old US 98	75	615	0	0	0	500	5	0	5	0	95	0	0	0	0	0
8	US 98 at Crossroads	0	620	0	0	0	500	0	0	0	0	0	0	0	0	0	0
9	US 98 at Clinton Avenue	0	610	5	0	355	495	0	0	0	0	0	0	5	0	300	0

Step 2 - Calculate traffic flow directionality on US 98

ID	Segment	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	685	550	1,135	52%	48%
2	US 98, from Old US 98 to Clinton Avenue	620	505	1,125	55%	45%
3	US 98, north of Clinton Avenue	910	850	1,760	52%	48%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Development	Entering	Exiting
A	Crosswinds	627	398
B	Crossroads	374	252
C	Clinton Corner	176	103
	Total	1,178	754

Step 4 - Determine trip splits at the new development driveways

ID	Driveway	Entering	Exiting	Total	Assumed % of Trips
101	Crosswinds Townsend (west)	94	60	154	15%
102	Crosswinds Townsend (east)	125	80	205	20%
103	Crosswinds US 98	157	100	256	25%
104	Crosswinds Old US 98	125	80	205	20%
105	Crosswinds through Crossroads	125	80	205	20%
106	Crossroad Roundabout (west)	225	151	376	60%
107	Crossroad Roundabout (east)	150	100	250	40%
108	Clinton Corner East Exit	88	52	140	50%
109	Clinton Corner West Exit	88	52	140	50%
	Total	1,178	754	1931	

Step 5 - Distribute development trips at the driveways

ID	Driveway	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Total	Nearest Traffic Flow
101	Crosswinds Townsend (west)	48	46	31	29	154	1
102	Crosswinds Townsend (east)	65	61	41	39	205	1
103	Crosswinds US 98	81	76	51	48	256	1
104	Crosswinds Old US 98	69	56	44	36	205	2
105	Crosswinds through Crossroads	69	56	44	36	205	2
106	Crossroad Roundabout (west)	124	101	83	68	376	2
107	Crossroad Roundabout (east)	83	67	55	45	250	2
108	Clinton Corner East Exit	46	43	27	25	140	3
109	Clinton Corner West Exit	46	43	27	25	140	3
	Total	630	548	403	350	1931	

Step 6 - Raw distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	568	0	0	0	299	25	0	45	36	0	9	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	9	0	0	0	0	0	35	0	36	0	9	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	306	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	74	0	0	0	0	38	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	74	0	0	142	0	0	0	0	232	0	0	38	286	80
6	US 98 at Townsend Road	48	516	65	0	61	283	46	0	31	0	29	0	39	0	41	0
7	US 98 at Old US 98	0	490	69	0	56	381	0	0	0	0	0	0	36	0	44	0
8	US 98 at Crossroads	124	258	152	0	124	289	101	0	83	0	68	0	81	0	99	0
9	US 98 at Clinton Avenue	0	441	0	0	0	513	0	53	0	0	0	0	0	0	0	0

Step 7 - Rounded distributed development on all intersections

ID	Intersection	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	0	570	0	0	0	300	10	0	20	0	0	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	10	0	0	0	0	40	0	40	0	10	0	0	0	0	0	0
3	US 98 at US 98 Access Road	0	585	0	0	0	310	45	0	45	0	0	0	0	0	0	0
4	US 301 at US 98	0	75	0	0	0	40	0	0	0	0	0	0	0	0	0	0
5	US 301 at Clinton Avenue	0	0	75	0	0	145	0	0	0	0	335	0	0	40	290	80
6	US 98 at Townsend Road	50	520	65	0	65	285	50	0	35	0	30	0	40	0	45	0
7	US 98 at Old US 98	0	490	70	0	60	385	0	0	0	0	0	0	40	0	45	0
8	US 98 at Crossroads	125	260	155	0	125	290	105	0	85	0	70	0	85	0	100	0
9	US 98 at Clinton Avenue	0	445	0	0	0	515	0	55	0	0	0	0	0	0	0	0

Step 8 - Final TMV at intersections

ID	Location on US 98	NBL	NBT	NBR	NBU	SBL	SBT	SBR	SBU	EBL	EBT	EBC	EBC	WBL	WBT	WBR	WBU
1	US 98 at CR 54	545	1,600	0	0	0	925	25	0	45	0	545	0	0	0	0	0
2	Old Lakeland Hwy at US 98 Access Road	65	350	0	0	0	340	245	0	235	0	70	0	0	0	0	0
3	US 98 at US 98 Access Road	235	1,240	0	0	0	790	115	0	95	0	215	0	0	0	0	0
4	US 301 at US 98	0	1,515	95	0	5	1,130	0	0	0	0	0	0	75	0	5	0
5	US 301 at Clinton Avenue	410	920	190	0	365	880	550	0	305	850	230	0	125	935	260	0
6	US 98 at Townsend Road	80	1,195	70	0	80	835	80	0	45	10	55	0	40	5	50	0
7	US 98 at Old US 98	75	1,105	70	0	60	885	5	0	5	5	95	0	40	5	45	0
8	US 98 at Crossroads	125	880	155	0	125	790	105	0	85	5	70	0	85	5	100	0
9	US 98 at Clinton Avenue	0	1,055	5	0	355	1,010	0	55	0	0	0	0	5	0	300	0

1. Both entering and exiting trips add volume to the already existing mainline volume (background traffic).

2. Trips will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).

3. Entering and exiting trips will all originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will not add traffic to cross streets).

4. Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SBL direction will affect ALL intersections North of the neighborhood).

5. Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the EBL direction will affect ALL intersections South of the neighborhood).

6. Driveways at Crossroads Townsend (101, 102) and Crossroads (104, 105) (e.g. the EB and WB approaches and exits from the Townsend and US 98 (104) and Crossroads intersections (203), respectively).

7. A driveway at Clinton Avenue (103) is Right-in only. It is a turn-around before the intersection in Crossroads (203) that provides a U-turn to the EB direction. If this turn-around was eliminated, increased U-turn traffic at the intersection will be necessary.

8. Both Clinton Corner driveways (107, 108) are Right-out only. Any traffic exiting to 107/108 must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,100	13,200	0	7,000
2	Old Lakeland Hwy at US 98 Access Road	9,200	7,900	0	3,700
3	US 98 at US 98 Access Road	7,600	8,800	0	3,700
4	US 301 at US 98	24,900	26,200	1,400	0
5	US 301 at Clinton Avenue	28,600	25,900	12,900	18,600
6	US 98 at Townsend Road	8,300	8,300	280	710
7	US 98 at Old US 98	7,100	8,300	0	1,400
8	US 98 at Crossroads	6,900	7,100	0	0
9	US 98 at Clinton Avenue	12,900	6,900	6,100	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveway:

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveway:

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersection:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,361	4,810	0	2,551
2	Old Lakeland Hwy at US 98 Access Road	1,665	1,430	0	3,095
3	US 98 at US 98 Access Road	10,456	7,361	0	3,095
4	US 301 at US 98	3,705	3,705	0	0
5	US 301 at Clinton Avenue	4,091	3,705	10,456	2,660
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,400	4,800	0	2,600
2	Old Lakeland Hwy at US 98 Access Road	1,700	1,400	0	3,100
3	US 98 at US 98 Access Road	10,500	7,400	0	3,100
4	US 301 at US 98	3,700	3,700	0	0
5	US 301 at Clinton Avenue	4,100	3,700	10,500	2,700
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	14,500	18,000	0	9,600
2	Old Lakeland Hwy at US 98 Access Road	10,900	9,300	0	6,800
3	US 98 at US 98 Access Road	18,100	16,200	0	6,800
4	US 301 at US 98	28,600	29,900	1,400	0
5	US 301 at Clinton Avenue	32,700	29,600	23,400	21,300
6	US 98 at Townsend Road	18,800	18,800	2,480	2,410
7	US 98 at Old US 98	17,600	18,800	2,200	1,400
8	US 98 at Crossroads	17,400	17,600	5,000	4,200
9	US 98 at Clinton Avenue	24,900	17,400	6,100	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
- Entering and exiting trips will originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveaways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203) respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Step 1 - Background AADTs

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	16,900	28,500	0	12,500
2	Old Lakeland Hwy at US 98 Access Road	12,600	9,000	0	6,300
3	US 98 at US 98 Access Road	13,900	17,600	0	6,300
4	US 301 at US 98	28,200	30,000	1,900	0
5	US 301 at Clinton Avenue	33,900	29,300	19,600	29,500
6	US 98 at Townsend Road	14,200	14,200	460	1,200
7	US 98 at Old US 98	12,400	14,200	0	1,900
8	US 98 at Crossroads	12,400	12,400	0	0
9	US 98 at Clinton Avenue	19,600	12,400	7,400	0

Step 2 - Calculate directionality on US 98 using AM Peak Hour Directionality

ID	Location	Northbound US 98	Southbound US 98	Bi-directional US 98	% Flow NB	% Flow SB
1	US 98, from US 98 Access Road to Old US 98	545	705	1,250	44%	56%
2	US 98, from Old US 98 to Clinton Avenue	505	620	1,125	45%	55%
3	US 98, north of Clinton Avenue	850	910	1,760	48%	52%

Step 3 - Determine trip generation of the new developments using ITE Trip Generation Manual 11th Edition

ID	Neighborhood	Entering	Exiting
A	Crosswinds	5,554	5,554
B	Crossroads	3,500	3,500
C	Clinton Corner	1,402	1,402

Step 4 - Determine trip splits at the new development driveway:

ID	Location	Entering	Exiting	Assumed % of Trips
101	Crosswinds Townsend (west)	833	833	15%
102	Crosswinds Townsend (east)	1,111	1,111	20%
103	Crosswinds US 98	1,389	1,389	25%
104	Crosswinds Old US 98	1,111	1,111	20%
105	Crosswinds through Crossroads	1,111	1,111	20%
106	Crossroad Roundabout (west)	2,100	2,100	60%
107	Crossroad Roundabout (east)	1,400	1,400	40%
108	Clinton Corner East Exit	701	701	50%
109	Clinton Corner West Exit	701	701	50%

Step 5 - Distribute development trips at the driveway:

ID	Location	Entering From NB	Entering From SB	Exiting to NB	Exiting to SB	Nearest Traffic Flows
101	Crosswinds Townsend (west)	363	470	363	470	1
102	Crosswinds Townsend (east)	484	626	484	626	1
103	Crosswinds US 98	605	783	605	783	1
104	Crosswinds Old US 98	499	612	499	612	2
105	Crosswinds through Crossroads	499	612	499	612	2
106	Crossroad Roundabout (west)	943	1,157	943	1,157	2
107	Crossroad Roundabout (east)	628	772	628	772	2
108	Clinton Corner East Exit	339	362	339	362	3
109	Clinton Corner West Exit	339	362	339	362	3

Step 6 - Raw distributed development on all intersection:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,352	0	2,348
2	Old Lakeland Hwy at US 98 Access Road	1,608	1,148	0	2,756
3	US 98 at US 98 Access Road	10,456	7,700	0	2,756
4	US 301 at US 98	3,305	3,305	0	0
5	US 301 at Clinton Avenue	3,824	3,305	10,456	3,327
6	US 98 at Townsend Road	10,456	10,456	2,222	1,666
7	US 98 at Old US 98	10,456	10,456	2,222	0
8	US 98 at Crossroads	10,456	10,456	5,022	4,200
9	US 98 at Clinton Avenue	11,810	10,456	0	0

Step 7 - Rounded distributed development on all intersections:

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	7,700	5,400	0	2,300
2	Old Lakeland Hwy at US 98 Access Road	1,600	1,100	0	2,800
3	US 98 at US 98 Access Road	10,500	7,700	0	2,800
4	US 301 at US 98	3,300	3,300	0	0
5	US 301 at Clinton Avenue	3,800	3,300	10,500	3,300
6	US 98 at Townsend Road	10,500	10,500	2,200	1,700
7	US 98 at Old US 98	10,500	10,500	2,200	0
8	US 98 at Crossroads	10,500	10,500	5,000	4,200
9	US 98 at Clinton Avenue	12,000	10,500	0	0

Step 8 - Final AADT at Intersections

ID	Location	North Leg	South Leg	East Leg	West Leg
1	US 98 at CR 54	24,600	33,900	0	14,800
2	Old Lakeland Hwy at US 98 Access Road	14,200	10,100	0	9,100
3	US 98 at US 98 Access Road	24,400	25,300	0	9,100
4	US 301 at US 98	31,500	33,300	1,900	0
5	US 301 at Clinton Avenue	37,700	32,600	30,100	32,800
6	US 98 at Townsend Road	24,700	24,700	2,660	2,900
7	US 98 at Old US 98	22,900	24,700	2,200	1,900
8	US 98 at Crossroads	22,900	22,900	5,000	4,200
9	US 98 at Clinton Avenue	31,600	22,900	7,400	0

Notes:

- Both entering and exiting trips add volume to the already existing mainline volume (background traffic).
- Trips traffic will join general directional distribution of mainline flow (e.g. if the mainline flow is 40% SB, 40% of SB Entering trips will originate North of the Neighborhood, 40% of SB Exiting trips will terminate South of the Neighborhood).
- Entering and exiting trips will originate or terminate from OUTSIDE of the study area by following the mainline (i.e. these trips will NOT add traffic to cross streets).
- Entering trips will affect ALL intersections BEFORE entering the neighborhood (e.g. trips entering from the SB direction will affect ALL intersections North of the neighborhood).
- Exiting trips will affect ALL intersections AFTER exiting the neighborhood (e.g. trips exiting to the NB direction will affect ALL intersections North of the neighborhood).
- Driveaways at Crosswinds Townsend (101, 102) and Crossroads (104,105) feed the EB and WB approaches and exits from the Townsend and US 98 (201) and Crossroads intersections (203) respectively.
- The driveway at Wilds (103) is Right-out only. There is a turnaround before the intersection in Crossroads (203) that provides a U-turn to traffic exiting to SB from this driveway. If this turnaround was eliminated, increased U-turn traffic at the intersection will be necessary.
- Both Clinton Corner driveways (107,108) are Right-out only. Any traffic Exiting to NB must take a U-turn at the intersection at Clinton and US 98 (204).

Appendix D

ICE Stage 1 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.

Project Name	US 98 PD&E Studies - US 98 at US 98 Access Road		FDOT Project #	443368-2-22-01	
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Date 5/6/2022
Email	jsamus@hwlochner.com		FDOT District	District 7	County Pasco
Project Locality (City/Town/Village)		Dade City			
Intersection Type	At-Grade Intersection		FDOT Context Classification	C3R - Suburban Residential	
Project Funding Source	Federal		Project Type	Corridor Improvement Project	
Project Purpose <i>(What is the catalyst for this project and why is it being undertaken?)</i>	The primary purpose of this project is to evaluate the need of widening US 98 from two to four lanes, from CR 54 to US 301. Additionally, the US 98 PD&E Study is evaluating the realignment of US 98 to Clinton Avenue to eliminate the existing, closely spaced, intersections of US 301 at US 98 and US 301 at Clinton Avenue in Pasco County, Florida. The improvements seek to relieve congestion while also improving safety.				
Project Setting Description <i>(Describe the area surrounding the intersection)</i>	The existing area around the intersection is minimally developed. The surrounding area will be developed into a more suburban area by Clinton Corner, Crossroads, and Crosswinds developments.				
Multimodal Context <i>(Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns)</i>	For the intersection of US 98 at US 98 Access Road, the anticipated pedestrian and bicycle activity levels are low for the area. No multimodal facilities are proposed at this location as a part of the PD&E.				

Major Street Information						
Route #:	98	Route Name(s)	US 98		Milepost	5.320
Existing Control Type	None/New Intersection		Existing AADT	5,900	Design Year AADT	25,300
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)		
Primary Functional Classification		Urban Principal Arterial - Other			Design Speed (mph)	55
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]	
Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along	Neither side of the approach	Left-Turn	1		
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	
	On-Street Bike Facilities?	No	Through	2	Left	215
	Multi-Use Path?	No	Left-Through-Right	0	Through	645
	Scheduled Bus Service?	No	Through-Right	0	Right	0
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %	
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along:	Neither side of the approach	Left-Turn	0		
	Crosswalk on Approach?	No	Left-Through	0	Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	2	Left	0
	Multi-Use Path?	No	Left-Through-Right	0	Through	1,205
	Scheduled Bus Service?	No	Through-Right	0	Right	95
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %	

Minor Street Information						
Route #:	Route Name(s)	US 98 Access Road			Milepost (if app.)	5.32
Existing Control Type	None/New Intersection	Existing AADT		Design Year AADT	9,100	
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)	Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification		Urban Major Collector			Design Speed (mph)	55
Secondary Functional Classification (if app.)						Target Speed (mph) [if app.]
Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along:	Neither side of the approach	Left-Turn	1		
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak	Weekday PM Peak
	On-Street Bike Facilities?	No	Through	0	Left	95
	Multi-Use Path?	No	Left-Through-Right	0	Through	0
	Scheduled Bus Service?	No	Through-Right	0	Right	235
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %	11.0%
Approach #2	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along:		Left-Turn			
	Crosswalk on Approach?		Left-Through		Weekday AM Peak	Weekday PM Peak
	On-Street Bike Facilities?		Through		Left	Left
	Multi-Use Path?		Left-Through-Right		Through	Through
	Scheduled Bus Service?		Through-Right		Right	Right
	Bus Stop on Approach?		Right-Turn		Daily Truck %	
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes	Study Period #2 Traffic Volumes
	Sidewalks along:		Left-Turn			
	Crosswalk on Approach?		Left-Through		Weekday AM Peak	Weekday PM Peak
	On-Street Bike Facilities?		Through		Left	Left
	Multi-Use Path?		Left-Through-Right		Through	Through
	Scheduled Bus Service?		Through-Right		Right	Right
	Bus Stop on Approach?		Right-Turn		Daily Truck %	

Crash History (Existing Intersections Only)

Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

There was one left-turn crash reported. The accident occurred in 2015, a left-turn accident with severe injuries during dark conditions. Additionally, this intersection was modified in 2019 to facilitate heavy vehicles making right-turns and reducing northbound lane widths with pavement markings.

Control Strategy Evaluation									
Control Strategy	CAP-X Outputs			SPICE Outputs		Strategy to Be Advanced?	Justification		
	V/C Ratio		Multimodal Score	Crash Prediction Rank	SSI Rank				
	Weekday AM Peak	Weekday PM Peak							
Two-Way Stop-Controlled	14.59	14.05	5.6	1	3	Yes	Does not meet V/C necessary for intersection, but will be advanced as baseline criteria for comparisons in ICE Stage 2.		
All-Way Stop-Controlled									
Signalized Control	0.61	0.48	7.2	2	2	Yes	Advanced as current preferred strategy. Best operational characteristics and comparable safety characteristics.		
Roundabout	0.85	0.65	8.3	3	1	Yes	Advanced as second preferred strategy. Second best operational characteristics and worst expected crash characteristics.		
Median U-Turn									
RCUT (Signalized)									
RCUT (Unsignalized)									
Jughandle									
Displaced Left-Turn									
Continuous Green Tee									
Quadrant Roadway									
Thru-Cut									
Other 1 (Type)									
Other 2 (Type)									

Resolution					
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>					
Project Determination	Multiple Viable Alternatives Identified: Continue to Stage 2				
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Appendix E

CAP-X – AM Peak Hour

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at US 98 Access Road
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 AM
Number of Intersection Legs:	3
Which leg is the minor street?	W

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	95	0	235	11.00%	0.00%
Westbound	0	0	0	0	2.00%	0.00%
Southbound	0	0	1250	95	12.00%	0.00%
Northbound	0	215	645	0	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C2-Rural				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at US 98 Access Road											
Project Number:	443368-2											
Location:	Dade City, FL											
Date:	2045 AM											
Analysis Type:	At-Grade Intersections and Interchanges											

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	0	2	1	/	1	0	1	/	0	0	0
Two-Way Stop Control	N-S	/	1	2	0	/	0	2	1	/	1	0	1	/	0	0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix F

CAP-X – PM Peak Hour

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	US 98 at US 98 Access Road
Project Number:	443368-2
Location:	Dade City, FL
Date:	2045 PM
Number of Intersection Legs:	3
Which leg is the minor street?	W

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Heavy Vehicles	Volume Growth
Eastbound	0	95	0	215	11.00%	0.00%
Westbound	0	0	0	0	2.00%	0.00%
Southbound	0	0	790	115	12.00%	0.00%
Northbound	0	235	1240	0	8.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
FDOT Context Zone		C2-Rural				
Critical Lane Volume Threshold	2-phase signal		Suggested = 1800		1800	
	3-phase signal		Suggested = 1750		1750	
	4-phase signal		Suggested = 1700		1700	

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	US 98 at US 98 Access Road													
Project Number:	443368-2													
Location:	Dade City, FL													
Date:	2045 PM													
Analysis Type:	At-Grade Intersections and Interchanges													

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL	/	1	2	0	/	0	2	1	/	1	0	1	/	0	0	0
Two-Way Stop Control	N-S	/	1	2	0	/	0	2	1	/	1	0	1	/	0	0	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges																	
TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Appendix G

SPICE

Federal Highway Administration (FHWA)
Safety Performance for Intersection Control Evaluation Tool
Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	US 98 PD&E	Intersection Type	At-Grade Intersections
Intersection:	US 98 at US 98 Access Road (Build Only)	Opening Year	2025
Agency:	FDOT	Design Year	2045
Project Reference:	FPID 443368-2-22-01	Facility Type	On Urban and Suburban Arterial
City:	Dade City	Number of Legs	3-leg
State:	Florida	1-Way/2-Way	2-way Intersecting 2-way
Date:	4/29/2022	# of Major Street Lanes (both directions)	5 or fewer
Analyst:	Lochner	Major Street Approach Speed	55+ mph

Appendix H

ICE Stage 2 Forms

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 2: Initial Control Strategy Assessment

Intersection Control Evaluation Form 750-010-003

To fulfill the requirements of Stage 2 (Intersection Control Strategy) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms can be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval.

Project Name	98 PD&E Studies - US 98 at US 98 Access Rd	FDOT Project #	443368-2-22-01		Date	05/06/22		
Submitted By	JJ Samus	Agency/Company	H.W. Lochner		Email	jsamus@hwlochner.com		
List all viable intersection control strategies identified in Stage 1 (Screening):								
Two-Way Stop-Controlled		Signalized Control			Roundabout			

Operational Analyses										
Design Vehicle		Florida Interstate Semitrailer (WB-62FL)			Control Vehicle		Florida Interstate Semitrailer (WB-62FL)			
Opening Year		Peak Hour Analysis								
Control Strategy		Peak Hour	Weekday AM Peak		Peak Hour	Weekday PM Peak		Peak Hour		
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?
Two-Way Stop-Controlled		C	23.7	Yes	C	22.3	Yes			
Signalized Control		B	11.9	Yes	B	11.6	Yes			
Roundabout		A	7.5	Yes	A	7.5	Yes			
Design Year		2045	Peak Hour Analysis							
Control Strategy		Peak Hour	Weekday AM Peak		Peak Hour	Weekday PM Peak		Peak Hour		
		LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?	LOS	Delay (sec.)	All Queues Accommodated?
Two-Way Stop-Controlled		F	87.2	No	F	62.2	No			
Signalized Control		B	18.6	Yes	B	14.0	Yes			
Roundabout		C	15.9	Yes	B	11.9	Yes			
Provide any additional discussion necessary regarding the results of the operational analysis:		LOS and Delay for critical approach are shown for Two-Way Stop-Controlled strategy. Under Two-way Stop-Controlled strategy, the queue on westbound Townsend Rd is 4.1 vehicles for AM and 3.8 vehicles for PM. The spillback during PM may exceeds the adjacent intersection, Townsend Rd at Jim Jordan Rd, which is a TWSC intersection and Townsend Rd is the major street.								

Safety Performance						
Enter the most recent five (5) years of crash data from the CAR System.			Most recent year of crash data available			2018
Crash Type	2014	2015	2016	2017	2018	Total
Combined	Total	0	0	0	0	0
	Fatal/Injury	0	0	0	0	0
	PDO	0	0	0	0	0
Single-Vehicle	Total	0	0	0	0	0
	Fatal/Injury	0	0	0	0	0
	PDO	0	0	0	0	0
Multi-Vehicle	Total	0	1	0	0	1
	Fatal/Injury	0	1	0	0	1
	PDO	0	0	0	0	0
Vehicle-Pedestrian	Fatal/Injury	0	0	0	0	0
Vehicle-Bicycle	Fatal/Injury	0	0	0	0	0
Total	All	0	1	0	0	1

Apply the FDOT SPICE Tool to model anticipated safety performance of each control strategy. For intersection types not accommodated in the tool, manually apply crash modification factors detailed in the ICE procedures document or qualitatively describe anticipated safety impacts.

Control Strategy	Anticipated Impact on Safety Performance	Opening Year			Design Year		
		Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score	Predicted Total Crashes	Predicted Fatal+Injury Crashes	SSI Score
Two-Way Stop-Controlled	Crash Prediction Rank 3, SSI Score Rank 3	3.43	0.92	46	4.86	1.19	31
Signalized Control	Crash Prediction Rank 2, SSI Score Rank 2	3.65	1.28	67	4.46	1.68	55
Roundabout	Crash Prediction Rank 1, SSI Score Rank 1	7.16	1.30	86	10.22	1.98	80

Costs and Benefit/Cost Ratios						
Control Strategy	ROW Costs (\$)	Construction Costs (\$)	FDOT ICE Tool Outputs			
			Delay B/C	Safety B/C	Overall B/C	Net Present Value
Two-Way Stop-Controlled	\$228,624	\$1,237,719	N/A	N/A	N/A	N/A
Signalized Control	\$228,624	\$1,725,579	N/A	N/A	N/A	-\$10,323,880
Roundabout	\$228,624	\$1,544,437	N/A	N/A	N/A	-\$6,557,326

Multimodal Accommodations								
Peak Hour:	Weekday AM Peak		Weekday PM Peak				Activity Level	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Ped.	Bicycles
# of ped. crossings (both approaches, if app.):	N/A	N/A	N/A	N/A	N/A	N/A	Low	Low
# of cyclists (both approaches, if app.):	N/A	N/A	N/A	N/A	N/A	N/A		

Summarize the ability of each viable control strategy to accommodate the existing/anticipated level of:

Control Strategy	Pedestrians and Bicyclists	Transit Services	Freight Needs
Two-Way Stop-Controlled	Pedestrians crossing the minor street have right-of-way; lack protections for pedestrians across major street	No Existing Transit Facilities near the intersection.	N/A
Signalized Control	Pedestrian phases can be built into the signal timing to allow for permissive pedestrian crossings	No Existing Transit Facilities near the intersection.	N/A
Roundabout	Pedestrian crossings are located only across the legs of the roundabout	No Existing Transit Facilities near the intersection.	N/A

Environmental, Utility, and Right-of-Way Impacts	
Summarize any issues related to environmental, utility, or right-of-way (including relocation) impacts specific to each control strategy. Be sure to consider the NEPA requirements for each control type.	
Two-Way Stop-Controlled	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Signalized Control	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.
Roundabout	The intersection is located in agricultural land areas and low density residential areas. There is limited involvement with utilities. Environmental, Utility, and ROW impacts are identical for three intersection types.

Public Input/Feedback (if appropriate)
Summarize any agency or public input regarding the control strategies:
A Public Hearing was conducted at the Pasco County Fairgrounds Clayton Auditorium, Dade City on Thursday, December 2, 2021, with an option to attend virtually.

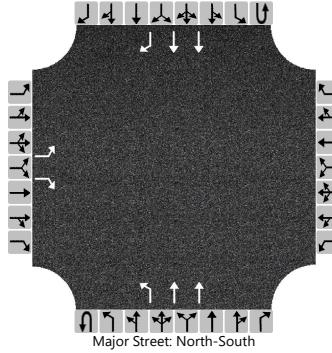
Control Strategy Evaluation		
Provide a brief justification as to why each of the following is either viable or not viable. If a single control strategy is recommended, select it as the only strategy to be advanced.		
Control Strategy	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	No	Although this control strategy has the lowest anticipated construction and ROW costs, this strategy does not fit the operational characteristics required throughout the study period.
Signalized Control	Yes	This control strategy has the best operational performance and safety scores. Although the calculated NPV is highest with this strategy, due to highest cost installation, due to operational characteristics it is still the preferred strategy for this intersection.
Roundabout	No	This control strategy has appropriate operational characteristics but the lowest safety score of all strategies in this study. While the NPV is similar to the preferred strategy, due to lower safety rating, this strategy is not being recommended.

Resolution				
<i>To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer</i>				
Project Determination	Identified Control Strategy Approved			
Comments				
DTOE Name		Signature		Date
DDE Name		Signature		Date

Appendix I

HCS 7 Reports – Stage 2

HCS7 Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	Nashid Sharmin			Intersection		US 98 at Access Road																								
Agency/Co.	H.W. Lochner Inc.			Jurisdiction		FDOT D7																								
Date Performed	5/24/2021			East/West Street		Access Road																								
Analysis Year	2025			North/South Street		US 98																								
Time Analyzed	7:30 - 8:30 AM			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		1.00																								
Project Description	US 98 PD&E Studies																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		1	0	1		0	0	0	0	1	2	0																		
Configuration		L		R					L	T		T																		
Volume (veh/h)		105		105					0	115	405																			
Percent Heavy Vehicles (%)		11		11					12	12																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized	No									Yes																				
Median Type Storage	Left Only								1																					
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.5		6.9					4.1																					
Critical Headway (sec)		7.02		7.12					4.34																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.61		3.41					2.32																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		111		111					121																					
Capacity, c (veh/h)		233		543					708																					
v/c Ratio		0.47		0.20					0.17																					
95% Queue Length, Q ₉₅ (veh)		2.6		0.8					0.6																					
Control Delay (s/veh)		34.1		13.3					11.1																					
Level of Service (LOS)		D		B					B																					
Approach Delay (s/veh)	23.7						2.5																							
Approach LOS	C																													

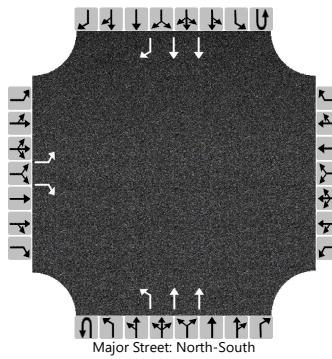
HCS7 Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	Nashid Sharmin			Intersection		US 98 at Access Road																								
Agency/Co.	H.W. Lochner Inc.			Jurisdiction		FDOT D7																								
Date Performed	5/24/2021			East/West Street		Access Road																								
Analysis Year	2025			North/South Street		US 98																								
Time Analyzed	4:45 - 5:45 PM			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		1.00																								
Project Description	US 98 PD&E Studies																													
Lanes																														
<p style="text-align: center;">Major Street: North-South</p>																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	10	11	12		7	8	9	1U	1	2	3	4U																		
Number of Lanes	1	0	1		0	0	0	0	1	2	0	0																		
Configuration	L		R						L	T																				
Volume (veh/h)	125		115						0	105	870	535																		
Percent Heavy Vehicles (%)	11		11						12	12																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized	No																													
Median Type Storage	Left Only					1																								
Critical and Follow-up Headways																														
Base Critical Headway (sec)	7.5		6.9					4.1																						
Critical Headway (sec)	7.02		7.12					4.34																						
Base Follow-Up Headway (sec)	3.5		3.3					2.2																						
Follow-Up Headway (sec)	3.61		3.41					2.32																						
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	132		121					111																						
Capacity, c (veh/h)	262		689					938																						
v/c Ratio	0.50		0.18					0.12																						
95% Queue Length, Q ₉₅ (veh)	2.9		0.6					0.4																						
Control Delay (s/veh)	32.4		11.3					9.3																						
Level of Service (LOS)	D		B					A																						
Approach Delay (s/veh)	22.3																													
Approach LOS	C																													

HCS7 Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	Nashid Sharmin			Intersection		US 98 at Access Road																								
Agency/Co.	H.W. Lochner Inc.			Jurisdiction		FDOT D7																								
Date Performed	5/24/2021			East/West Street		Access Road																								
Analysis Year	2045			North/South Street		US 98																								
Time Analyzed	7:30 - 8:30 AM			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		1.00																								
Project Description	US 98 PD&E Studies																													
Lanes																														
<p>Major Street: North-South</p>																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	10	11	12		7	8	9	1U	1	2	3	4U																		
Number of Lanes	1	0	1		0	0	0	0	1	2	0	0																		
Configuration	L		R						L	T																				
Volume (veh/h)	95		235						0	215	645	1205																		
Percent Heavy Vehicles (%)	11		11						12	12																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized	No																													
Median Type Storage	Left Only					1																								
Critical and Follow-up Headways																														
Base Critical Headway (sec)	7.5		6.9					4.1																						
Critical Headway (sec)	7.02		7.12					4.34																						
Base Follow-Up Headway (sec)	3.5		3.3					2.2																						
Follow-Up Headway (sec)	3.61		3.41					2.32																						
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	100		247					226																						
Capacity, c (veh/h)	106		401					492																						
v/c Ratio	0.94		0.62					0.46																						
95% Queue Length, Q ₉₅ (veh)	10.8		4.6					2.5																						
Control Delay (s/veh)	233.0		28.2					18.5																						
Level of Service (LOS)	F		D					C																						
Approach Delay (s/veh)	87.2																													
Approach LOS	F																													

HCS7 Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	Nashid Sharmin			Intersection		US 98 at Access Road																								
Agency/Co.	H.W. Lochner Inc.			Jurisdiction		FDOT D7																								
Date Performed	5/24/2021			East/West Street		Access Road																								
Analysis Year	2045			North/South Street		US 98																								
Time Analyzed	4:45 - 5:45 PM			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		1.00																								
Project Description	US 98 PD&E Studies																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		1	0	1		0	0	0	0	1	2	0																		
Configuration		L		R					L	T		T																		
Volume (veh/h)		95		215					0	235	1240																			
Percent Heavy Vehicles (%)		11		11					12	12																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized	No									Yes																				
Median Type Storage	Left Only								1																					
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.5		6.9					4.1																					
Critical Headway (sec)		7.02		7.12					4.34																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.61		3.41					2.32																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		100		226					247																					
Capacity, c (veh/h)		115		561					736																					
v/c Ratio		0.87		0.40					0.34																					
95% Queue Length, Q ₉₅ (veh)		9.0		2.0					1.5																					
Control Delay (s/veh)		167.3		15.7					12.4																					
Level of Service (LOS)		F		C					B																					
Approach Delay (s/veh)	62.2						2.0																							
Approach LOS	F																													

Appendix J

Synchro Reports – Stage 2

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	105	105	115	405	830	120
Future Volume (veh/h)	105	105	115	405	830	120
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	111	111	121	426	874	126
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	184	207	504	2707	2435	1086
Arrive On Green	0.11	0.09	0.08	0.83	0.72	0.72
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	111	111	121	426	874	126
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	8.3	9.1	1.9	3.4	12.7	3.3
Cycle Q Clear(g_c), s	8.3	9.1	1.9	3.4	12.7	3.3
Prop In Lane	1.00	1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	184	207	504	2707	2435	1086
V/C Ratio(X)	0.60	0.54	0.24	0.16	0.36	0.12
Avail Cap(c_a), veh/h	242	258	706	2707	2435	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	51.9	3.6	2.2	6.9	5.6
Incr Delay (d2), s/veh	3.2	2.2	0.2	0.0	0.4	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.3	12.1	0.7	1.0	6.7	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	58.2	54.1	3.8	2.3	7.3	5.8
LnGrp LOS	E	D	A	A	A	A
Approach Vol, veh/h	222			547	1000	
Approach Delay, s/veh	56.1			2.6	7.1	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	14.0	97.5		18.5		111.5
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	22.9	69.9		15.9		99.9
Max Q Clear Time (g_c+l1), s	3.9	14.7		11.1		5.4
Green Ext Time (p_c), s	0.3	6.7		0.3		2.6
Intersection Summary						
HCM 6th Ctrl Delay			11.9			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	125	115	105	870	535	140
Future Volume (veh/h)	125	115	105	870	535	140
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	132	121	111	916	563	147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	193	212	626	2704	2458	1096
Arrive On Green	0.12	0.09	0.07	0.83	0.73	0.73
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	132	121	111	916	563	147
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	10.7	10.7	1.9	9.5	7.6	4.1
Cycle Q Clear(g_c), s	10.7	10.7	1.9	9.5	7.6	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	193	212	626	2704	2458	1096
V/C Ratio(X)	0.68	0.57	0.18	0.34	0.23	0.13
Avail Cap(c_a), veh/h	295	303	907	2704	2458	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	55.9	3.0	2.9	6.3	5.8
Incr Delay (d2), s/veh	4.3	2.4	0.1	0.1	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	8.1	13.8	0.7	3.2	4.2	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.6	58.4	3.2	3.0	6.5	6.1
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	253			1027	710	
Approach Delay, s/veh	61.1			3.0	6.4	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.0	105.7		20.3		119.7
Change Period (Y+Rc), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	30.9	65.9		21.9		103.9
Max Q Clear Time (g_c+l1), s	3.9	9.6		12.7		11.5
Green Ext Time (p_c), s	0.3	4.1		0.5		6.7
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑ ↗	↗ ↘	↖ ↗	↑ ↑	↑ ↑	↗
Traffic Volume (veh/h)	95	235	215	645	1205	95
Future Volume (veh/h)	95	235	215	645	1205	95
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	100	247	226	679	1268	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	242	261	365	2593	2311	1031
Arrive On Green	0.15	0.12	0.08	0.79	0.68	0.68
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	100	247	226	679	1268	100
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	7.1	15.9	4.6	7.1	24.7	2.9
Cycle Q Clear(g_c), s	7.1	15.9	4.6	7.1	24.7	2.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	242	261	365	2593	2311	1031
V/C Ratio(X)	0.41	0.95	0.62	0.26	0.55	0.10
Avail Cap(c_a), veh/h	242	261	564	2593	2311	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.99	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	52.9	10.9	3.5	10.5	7.0
Incr Delay (d2), s/veh	1.1	40.9	1.7	0.1	0.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.3	26.4	4.0	2.7	12.5	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.6	93.7	12.7	3.6	11.4	7.2
LnGrp LOS	D	F	B	A	B	A
Approach Vol, veh/h	347			905	1368	
Approach Delay, s/veh	81.6			5.9	11.1	
Approach LOS	F			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	14.3	92.7		23.0		107.0
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	22.9	69.9		15.9		99.9
Max Q Clear Time (g_c+l1), s	6.6	26.7		17.9		9.1
Green Ext Time (p_c), s	0.5	11.1		0.0		4.5
Intersection Summary						
HCM 6th Ctrl Delay			18.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑↑	↑↑	↑ ↗
Traffic Volume (veh/h)	95	215	235	1240	790	115
Future Volume (veh/h)	95	215	235	1240	790	115
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	100	226	247	1305	832	121
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	295	323	482	2502	2203	983
Arrive On Green	0.18	0.16	0.09	0.76	0.65	0.65
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	100	226	247	1305	832	121
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	7.4	19.8	6.2	21.9	15.9	4.3
Cycle Q Clear(g_c), s	7.4	19.8	6.2	21.9	15.9	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	295	323	482	2502	2203	983
V/C Ratio(X)	0.34	0.70	0.51	0.52	0.38	0.12
Avail Cap(c_a), veh/h	295	323	741	2502	2203	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.99	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	50.4	7.2	6.4	11.3	9.3
Incr Delay (d2), s/veh	0.7	6.5	0.8	0.2	0.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.5	22.8	3.2	9.6	9.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.0	57.0	8.1	6.6	11.8	9.5
LnGrp LOS	D	E	A	A	B	A
Approach Vol, veh/h	326			1552	953	
Approach Delay, s/veh	55.1			6.9	11.5	
Approach LOS	E			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	15.9	95.1		28.9		111.1
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	30.9	65.9		21.9		103.9
Max Q Clear Time (g_c+l1), s	8.2	17.9		21.8		23.9
Green Ext Time (p_c), s	0.6	6.3		0.0		11.8
Intersection Summary						
HCM 6th Ctrl Delay			14.0			
HCM 6th LOS			B			

Appendix K

Sidra Reports – Stage 2

MOVEMENT SUMMARY

▼ Site: 6 [US 98 at US 98 Access Road_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
1	L2	115	12.0	121	12.0	0.241	5.4	LOS A	1.0	27.8	0.28	0.15	0.28	38.2
6	T1	405	12.0	426	12.0	0.241	5.4	LOS A	1.0	27.8	0.28	0.15	0.28	39.8
Approach		520	12.0	547	12.0	0.241	5.4	LOS A	1.0	27.8	0.28	0.15	0.28	39.4
North: US 98														
2	T1	830	8.0	874	8.0	0.430	7.6	LOS A	2.3	62.1	0.36	0.22	0.36	39.0
12	R2	120	8.0	126	8.0	0.430	7.6	LOS A	2.3	62.1	0.36	0.22	0.36	37.8
Approach		950	8.0	1000	8.0	0.430	7.6	LOS A	2.3	62.1	0.36	0.22	0.36	38.8
West: US 98 Access Road														
3	L2	105	11.0	111	11.0	0.385	12.1	LOS B	1.6	43.1	0.67	0.73	0.91	34.3
18	R2	105	11.0	111	11.0	0.385	12.1	LOS B	1.6	43.1	0.67	0.73	0.91	33.6
Approach		210	11.0	221	11.0	0.385	12.1	LOS B	1.6	43.1	0.67	0.73	0.91	33.9
All Vehicles		1680	9.6	1768	9.6	0.430	7.5	LOS A	2.3	62.1	0.38	0.26	0.40	38.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: 6 [US 98 at US 98 Access Road_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
1	L2	105	12.0	111	12.0	0.462	8.3	LOS A	2.5	67.2	0.39	0.24	0.39	37.1
6	T1	870	12.0	916	12.0	0.462	8.3	LOS A	2.5	67.2	0.39	0.24	0.39	38.1
Approach		975	12.0	1026	12.0	0.462	8.3	LOS A	2.5	67.2	0.39	0.24	0.39	38.0
North: US 98														
2	T1	535	8.0	563	8.0	0.302	5.9	LOS A	1.4	37.8	0.30	0.17	0.30	40.1
12	R2	140	8.0	147	8.0	0.302	5.9	LOS A	1.4	37.8	0.30	0.17	0.30	38.9
Approach		675	8.0	711	8.0	0.302	5.9	LOS A	1.4	37.8	0.30	0.17	0.30	39.9
West: US 98 Access Road														
3	L2	125	11.0	132	11.0	0.331	8.7	LOS A	1.2	33.7	0.58	0.58	0.58	36.1
18	R2	115	11.0	121	11.0	0.331	8.7	LOS A	1.2	33.7	0.58	0.58	0.58	35.3
Approach		240	11.0	253	11.0	0.331	8.7	LOS A	1.2	33.7	0.58	0.58	0.58	35.7
All Vehicles		1890	10.4	1989	10.4	0.462	7.5	LOS A	2.5	67.2	0.38	0.26	0.38	38.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: 6 [US 98 at US 98 Access Road_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
1	L2	215	12.0	226	12.0	0.395	7.2	LOS A	2.0	54.0	0.31	0.17	0.31	36.9
6	T1	645	12.0	679	12.0	0.395	7.2	LOS A	2.0	54.0	0.31	0.17	0.31	38.6
Approach		860	12.0	905	12.0	0.395	7.2	LOS A	2.0	54.0	0.31	0.17	0.31	38.1
North: US 98														
2	T1	1205	8.0	1268	8.0	0.655	13.0	LOS B	7.6	202.7	0.64	0.63	0.94	35.6
12	R2	95	8.0	100	8.0	0.655	13.0	LOS B	7.6	202.7	0.64	0.63	0.94	34.7
Approach		1300	8.0	1368	8.0	0.655	13.0	LOS B	7.6	202.7	0.64	0.63	0.94	35.6
West: US 98 Access Road														
3	L2	95	11.0	100	11.0	0.870	50.3	LOS F	7.3	199.0	0.91	1.34	2.87	21.9
18	R2	235	11.0	247	11.0	0.870	50.3	LOS F	7.3	199.0	0.91	1.34	2.87	21.6
Approach		330	11.0	347	11.0	0.870	50.3	LOS F	7.3	199.0	0.91	1.34	2.87	21.7
All Vehicles		2490	9.8	2621	9.8	0.870	15.9	LOS C	7.6	202.7	0.56	0.56	0.98	33.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

▼ Site: 6 [US 98 at US 98 Access Road_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
1	L2	235	12.0	247	12.0	0.677	12.8	LOS B	5.1	139.2	0.47	0.27	0.47	34.3
6	T1	1240	12.0	1305	12.0	0.677	12.8	LOS B	5.1	139.2	0.47	0.27	0.47	35.3
Approach		1475	12.0	1553	12.0	0.677	12.8	LOS B	5.1	139.2	0.47	0.27	0.47	35.1
North: US 98														
2	T1	790	8.0	832	8.0	0.466	8.9	LOS A	2.4	64.6	0.52	0.42	0.52	38.1
12	R2	115	8.0	121	8.0	0.466	8.9	LOS A	2.4	64.6	0.52	0.42	0.52	37.0
Approach		905	8.0	953	8.0	0.466	8.9	LOS A	2.4	64.6	0.52	0.42	0.52	38.0
West: US 98 Access Road														
3	L2	95	11.0	100	11.0	0.547	15.8	LOS C	3.0	82.2	0.72	0.86	1.25	32.9
18	R2	215	11.0	226	11.0	0.547	15.8	LOS C	3.0	82.2	0.72	0.86	1.25	32.2
Approach		310	11.0	326	11.0	0.547	15.8	LOS C	3.0	82.2	0.72	0.86	1.25	32.4
All Vehicles		2690	10.5	2832	10.5	0.677	11.9	LOS B	5.1	139.2	0.51	0.39	0.58	35.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix L

Traffic Signal Warrant

TRAFFIC SIGNAL WARRANT SUMMARY

City: Dade City
 County: 16 – Polk
 District: Seven

Engineer: Lochner
 Date: May 11, 2022

Major Street: US 98 Lanes: 4 Major Approach Speed: 55
 Minor Street: US 98 Access Road Lanes: 2 Minor Approach Speed: 55

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? 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" MAY 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.

Unusual condition justifying use of warrant:

Industrial Complex

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

Peak Hour 100% Volume		
Time	Major Vol.	Minor Vol.

Peak Hour 70% Volume		
Time	Major Vol.	Minor Vol.
5:00 PM	1650	125

Criteria**1. Delay on Minor Approach *(vehicle-hours)**

Approach Lanes	1	2
Delay Criteria*	4.0	5.0
Delay*	1.5	
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*	125	
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*	1,890	
Fulfilled?:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Applicable: Yes No

Satisfied: Yes No

Plot volume combination on the applicable figure below.

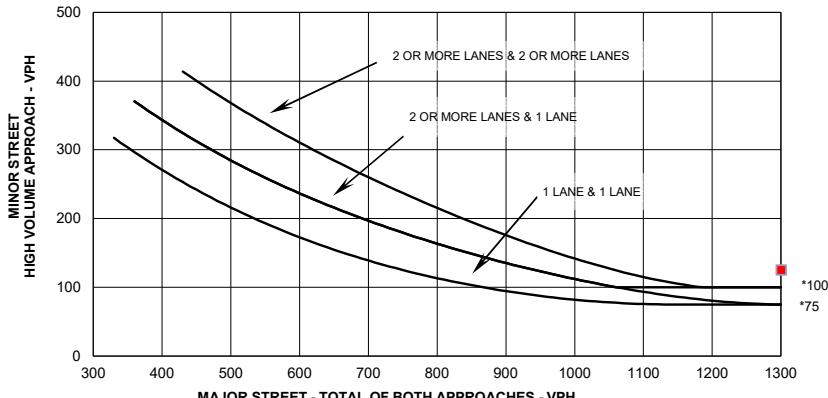
FIGURE 4C-3: Criteria for "100%" Volume Level



* 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.

FIGURE 4C-4: Criteria for "70%" Volume Level

(Community Less than 10,000 population or above 70 km/hr. (40 mph) on Major Street)



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

Appendix M

Long Range Estimation System Reports

Date: 6/24/2022 3:21:22 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO **Market Area:** 07 **Units:** English
Contract Class: 9 Lump Sum Project: N **Design/Build:** Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 12 Project Grand Total **\$1,287,718.71**

Description: STOP CONTROLLED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total		\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	Value 50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total		\$149,951.49
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Sequence: 4 NUR - New Construction, Undivided, Rural

Net Length: 0.057 MI
300 LF

Description: EB 2-LANE APPROACH

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
---------------------------------	--------------------

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT 0 LF

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

Sequence 5 Total \$85,353.29

Date: 6/24/2022 3:21:23 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01

Letting Date: 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07 **County:** 14 PASCO**Market Area:** 07 **Units:** English**Contract Class:** 9 **Lump Sum Project:** N**Design/Build:** Y **Project Length:** 3.057 MI**Project Manager:** PRD-KIL**Version 12 Project Grand Total** \$1,287,718.71**Description:** STOP CONTROLLED INTERSECTION ALTERNATIVE**Project Sequences Subtotal** **\$1,022,908.03**

102-1	Maintenance of Traffic	10.00 %	\$102,290.80
101-1	Mobilization	10.00 %	\$112,519.88

Project Sequences Total **\$1,237,718.71**

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00

Project Non-Bid Subtotal **\$50,000.00****Version 12 Project Grand Total** **\$1,287,718.71**

Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 15 Project Grand Total **\$1,775,578.57**

Description: SIGNALIZED INTERSECTION ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI

301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40 CY	\$10.20	\$59,551.68
Earthwork Component Total				\$77,070.32

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15 SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94 SY	\$40.46	\$96,494.67

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23 TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63 TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00 EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46 GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23 GM	\$437.70	\$100.67

Roadway Component Total	\$174,547.29
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47 SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39 TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38 TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57 SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50 LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25 LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.25 LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02 AC	\$50.04	\$51.04
107-2	MOWING	1.02 AC	\$61.82	\$63.06

Shoulder Component Total	\$17,890.91
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MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32
Median Component Total					\$18,436.81

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 1 Total	\$318,825.88
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out)

Net Length: 0.057 MI
301 LF

Description: SB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,838.40	CY	\$10.20	\$59,551.68
Earthwork Component Total					\$77,070.32

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 41.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,182.15	SY	\$8.46	\$26,920.99
285-709	OPTIONAL BASE,BASE GROUP 09	2,384.94	SY	\$40.46	\$96,494.67
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	386.23	TN	\$95.81	\$37,004.70
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	93.63	TN	\$143.38	\$13,424.67

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67

Roadway Component Total

\$174,547.29

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06

Shoulder Component Total

\$17,890.91

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
570-1-2	PERFORMANCE TURF, SOD	334.40	SY	\$4.05	\$1,354.32

Median Component Total

\$18,436.81

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81
Signing Component Total					\$19,699.29

Sequence 2 Total

\$318,825.88

Sequence: 3 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** WB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data****Description**

Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51

570-1-1	PERFORMANCE TURF	177.94 SY	\$2.36	\$419.94
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Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66
Shoulder Component Total					\$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total

\$149,951.49

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16

Roadway Component Total	\$65,355.40
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SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ½ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total	\$19,430.18
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DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total	\$13,026.58
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SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total	\$8,492.23
Sequence 4 Total	\$149,951.49

Sequence: 5 MIS - Miscellaneous Construction **Net Length:** 0.00 MI
Description: INTERSECTION PAVEMENT 0 LF

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.23 AC	\$17,175.14	\$3,950.28
	Comment: 10,000/43,560 = 0.23 acres			
120-1	REGULAR EXCAVATION	185.00 CY	\$6.91	\$1,278.35
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
120-6	EMBANKMENT	185.00 CY	\$10.20	\$1,887.00
	Comment: 10,000 sqft * 0.5 ft depth / 27 = 185 CY			
Earthwork Component Total				\$7,115.63

ROADWAY COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,111.00 SY	\$8.17	\$9,076.87
	Comment: Assumed 1,111 SY for intersection area based on generic 90 degree intersection.			
285-709	OPTIONAL BASE,BASE GROUP 09	1,111.00 SY	\$40.98	\$45,528.78
	Comment: Same comment			
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.00 TN	\$96.23	\$11,740.06
	Comment: Calculation = 1,111 SY * 110 * 2" (same depth as roundabout pavement depth)/2000 = 122 tons			
337-7-82	ASPH CONC FC,TRAFFIC C,FC- 9.5,PG 76-22	61.00 TN	\$194.95	\$11,891.95
	Comment: Same calculation but only for 1" depth. Therefore 122 tons/2 = 61 tons			
Roadway Component Total				\$78,237.66

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00 LF	\$15.56	\$12,448.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00 LF	\$30.07	\$6,014.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,131.15	\$5,131.15
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	2.00 EA	\$1,064.47	\$2,128.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$839.88	\$10,078.56
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,416.02	\$3,416.02
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$8.12	\$487.20
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$71,616.29	\$286,465.16
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$997.96	\$7,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$612.38	\$4,899.04
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	\$362.84	\$2,902.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	\$1,120.21	\$8,961.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$238.60	\$1,908.80
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$44,475.01	\$44,475.01
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$207.25	\$829.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
650-1-16	VEH TRAF SIGNAL,F&I ALUMINUM, 4 S 1 W	4.00	AS	\$1,265.25	\$5,061.00
Comment: Signal for LT lanes in the NB and SB directions					
Signalizations Component Total					\$403,189.96

Sequence 5 Total	\$488,543.25
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Date: 6/27/2022 9:45:49 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 15 Project Grand Total	\$1,775,578.57
Description: SIGNALIZED INTERSECTION ALTERNATIVE	

Project Sequences Subtotal	\$1,426,097.99
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102-1	Maintenance of Traffic	10.00 %	\$142,609.80
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101-1	Mobilization	10.00 %	\$156,870.78
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Project Sequences Total	\$1,725,578.57
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
Project Non-Bid Subtotal					\$50,000.00

Version 15 Project Grand Total	\$1,775,578.57
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Date: 6/24/2022 3:30:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01 **Letting Date:** 02/2023

Description: US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700

District: 07 **County:** 14 PASCO

Market Area: 07 **Units:** English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y **Project Length:** 3.057 MI

Project Manager: PRD-KIL

Version 14 Project Grand Total **\$1,594,436.88**

Description: ROUNDABOUT ALTERNATIVE

Sequence: 1 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI

301 LF

Description: NB 4-LANE APPROACH

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02	AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31	CY	\$10.20	\$56,072.56
Earthwork Component Total					\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87	SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66	SY	\$40.46	\$80,258.88

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON					

EACH SIDE OF THE APPROACH. TOTAL FOR THIS
APPROACH = 250 FT

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
Median Component Total					\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
Drainage Component Total					\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20	1.00	AS	\$1,346.31	\$1,346.31

	SF			
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$12,228.81	\$12,228.81
Signing Component Total				\$19,699.29

Sequence 1 Total	\$347,274.28
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Sequence: 2 NDS - New, Divided, Suburban (Urban In/Rural Out) **Net Length:** 0.057 MI
Description: SB 4-LANE APPROACH 301 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	74.00 / 74.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.02 AC	\$17,175.14	\$17,518.64
120-6	EMBANKMENT	5,497.31 CY	\$10.20	\$56,072.56
Earthwork Component Total				\$73,591.20

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,780.87 SY	\$8.46	\$23,526.16
285-709	OPTIONAL BASE,BASE GROUP 09	1,983.66 SY	\$40.46	\$80,258.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	320.02 TN	\$95.81	\$30,661.12
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.58 TN	\$143.38	\$11,123.42

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
654-2-17	MID:RECT RAPID FLASH BCN, F&I AC, ACCESS	4.00	AS	\$12,024.44	\$48,097.76
Comment: 4 TOTAL RRFB ASSEMBLIES FOR THE 4-LANE APPROACH					

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	23.00	EA	\$3.90	\$89.70
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.46	GM	\$1,112.81	\$511.89
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	\$437.70	\$100.67
Roadway Component Total					\$194,369.60

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	356.47	SY	\$22.81	\$8,131.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.39	TN	\$95.81	\$1,761.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.38	TN	\$143.38	\$1,918.42
570-1-1	PERFORMANCE TURF	178.57	SY	\$2.36	\$421.43

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
Comment: 125 FT OF TYPE F CURB AND GUTTER ON EACH SIDE OF THE APPROACH. TOTAL FOR THIS APPROACH = 250 FT					

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	782.50	LF	\$1.78	\$1,392.85
104-11	FLOATING TURBIDITY BARRIER	14.25	LF	\$15.77	\$224.72
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.25	LF	\$7.91	\$112.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
104-18	INLET PROTECTION SYSTEM	1.00	EA	\$140.08	\$140.08
107-1	LITTER REMOVAL	1.02	AC	\$50.04	\$51.04
107-2	MOWING	1.02	AC	\$61.82	\$63.06
Shoulder Component Total					\$23,463.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	601.92	LF	\$28.38	\$17,082.49
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
570-1-1	PERFORMANCE TURF	601.92	SY	\$2.36	\$1,420.53
	Median Component Total				\$24,969.52

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$4,818.04	\$4,818.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	24.00	LF	\$102.07	\$2,449.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1.00	EA	\$1,691.16	\$1,691.16
570-1-1	PERFORMANCE TURF	21.89	SY	\$2.36	\$51.66
	Drainage Component Total				\$11,181.26

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	\$324.56	\$649.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,346.31	\$1,346.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	\$12,228.81	\$12,228.81

Signing Component Total	\$19,699.29
Sequence 2 Total	\$347,274.28
Sequence: 3 NUR - New Construction, Undivided, Rural	Net Length: 0.057 MI 300 LF
Description: WB 2-LANE APPROACH	

EARTHWORK COMPONENT**User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50

Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT

520-5-16 TRAF SEP CONC-TYPE I, 8.5' WIDE 50.00 LF \$129.33 \$6,466.50
Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38
Drainage Component Total					\$13,026.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05
Signing Component Total					\$8,492.23

Sequence 3 Total**\$161,990.49****Sequence:** 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.057 MI
300 LF**Description:** EB 2-LANE APPROACH**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.69	AC	\$17,175.14	\$11,850.85
120-6	EMBANKMENT	3,117.28	CY	\$10.20	\$31,796.26
Earthwork Component Total					\$43,647.10

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,466.20	SY	\$8.46	\$12,404.05
285-709	OPTIONAL BASE,BASE GROUP 09	821.74	SY	\$40.46	\$33,247.60
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	109.96	TN	\$95.81	\$10,535.27
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	65.98	TN	\$133.74	\$8,824.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	250.00	LF	\$22.29	\$5,572.50
	Comment: 125 FT CURB AND GUTTER ON BOTH SIDES OF THE ROADWAY APPROACH. TOTAL 250 FT				
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	50.00	LF	\$129.33	\$6,466.50
	Comment: 50 FT TRAFFIC SEPARATOR FOR APPROACH LEG. ASSUMED 8.5 AVERAGE WIDTH.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-3	RAISED PAVMT MARK, TYPE B	8.00	EA	\$3.90	\$31.20
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.23	GM	\$1,112.81	\$255.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.11	GM	\$519.64	\$57.16
Roadway Component Total					\$77,394.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T

Rumble Strips 1/2 No. of Sides

0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	355.22	SY	\$22.81	\$8,102.57
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	18.33	TN	\$95.81	\$1,756.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	27.49	TN	\$133.74	\$3,676.51
570-1-1	PERFORMANCE TURF	177.94	SY	\$2.36	\$419.94

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	779.75	LF	\$1.78	\$1,387.96
104-11	FLOATING TURBIDITY BARRIER	14.20	LF	\$15.77	\$223.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	14.20	LF	\$7.91	\$112.32
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.69	AC	\$50.04	\$34.53
107-2	MOWING	0.69	AC	\$61.82	\$42.66

Shoulder Component Total \$19,430.18**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	48.00	LF	\$118.50	\$5,688.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00	LF	\$135.67	\$2,170.72
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	3.00	EA	\$1,691.16	\$5,073.48
570-1-1	PERFORMANCE TURF	39.99	SY	\$2.36	\$94.38

Drainage Component Total \$13,026.58**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$324.56	\$324.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	\$1,346.31	\$2,692.62
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,475.05	\$5,475.05

Signing Component Total \$8,492.23**Sequence 4 Total** \$161,990.49**Sequence: 5 NDR - New Construction, Divided, Rural** **Net Length:** 0.057 MI

Description: Roundabout Central Island, includes landscaping and irrigation system

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$17,175.14	\$8,587.57

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	400.00	CY	\$6.91	\$2,764.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				
120-6	EMBANKMENT	400.00	CY	\$10.20	\$4,080.00
	Comment: 22000 ft x 0.5 ft deep / 27 = 407 CY use 400 CY				

Earthwork Component Total	\$15,431.57
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ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	110

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,800.00	SY	\$8.46	\$15,228.00
	Comment: measure (22121-6175)SF /9 = 1772 SY use 1800 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	1,300.00	SY	\$40.46	\$52,598.00
	Comment: measure (22121-10477)SF /9 = 1294 SY use 1300 SY				
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	143.00	TN	\$95.81	\$13,700.83
	Comment: 2" Superpave Traffic C (1300 X 110 X 2)/2000				
337-7-82	ASPH CONC FC,TRAFFIC C,FC-	72.00	TN	\$194.95	\$14,036.40

9.5,PG 76-22

Comment: 1" FC-9.5 Traffic C PG 76-22 (1300 X 110)/2000

710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.05 GM	\$1,112.81	\$55.64
710-11-141	PAINTED PAVT MARK,STD,WH,DOT GUIDE, 6"	0.02 GM	\$548.94	\$10.98
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	6.00 EA	\$29.54	\$177.24
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.07 GM	\$1,125.02	\$78.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total	\$95,885.84
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SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,673.56	\$3,673.56
107-1	LITTER REMOVAL	0.25 AC	\$50.04	\$12.51
107-2	MOWING	0.25 AC	\$61.82	\$15.46

Shoulder Component Total	\$3,701.53
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MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDABOUT APRON, 12"	480.00	SY	\$154.80	\$74,304.00
520-2-4	CONCRETE CURB, TYPE D	280.00	LF	\$38.28	\$10,718.40
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$37.00	\$13,690.00
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.05	\$2,835.00
Median Component Total					\$101,547.40

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	\$324.56	\$1,298.24
Signing Component Total					\$1,298.24

LANDSCAPING COMPONENT**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

Landscaping Component Total	\$40,000.00
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Sequence 5 Total	\$257,864.58
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Date: 6/24/2022 3:30:50 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 443368-4-52-01**Letting Date:** 02/2023**Description:** US98/SR700 FROM S OF OLD LAKELAND HIGHWAY TO SR35/39/700**District:** 07**County:** 14 PASCO**Market Area:** 07**Units:** English**Contract Class:** 9 Lump Sum Project: N**Design/Build:** Y**Project Length:** 3.057 MI**Project Manager:** PRD-KIL

Version 14 Project Grand Total	\$1,594,436.88
Description: ROUNDABOUT ALTERNATIVE	

Project Sequences Subtotal	\$1,276,394.12
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102-1	Maintenance of Traffic	10.00 %	\$127,639.41
101-1	Mobilization	10.00 %	\$140,403.35

Project Sequences Total	\$1,544,436.88
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Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$50,000.00	\$50,000.00
	Project Non-Bid Subtotal				\$50,000.00

Version 14 Project Grand Total **\$1,594,436.88**

Appendix N

ICE Tool – Stage 2

Outputs

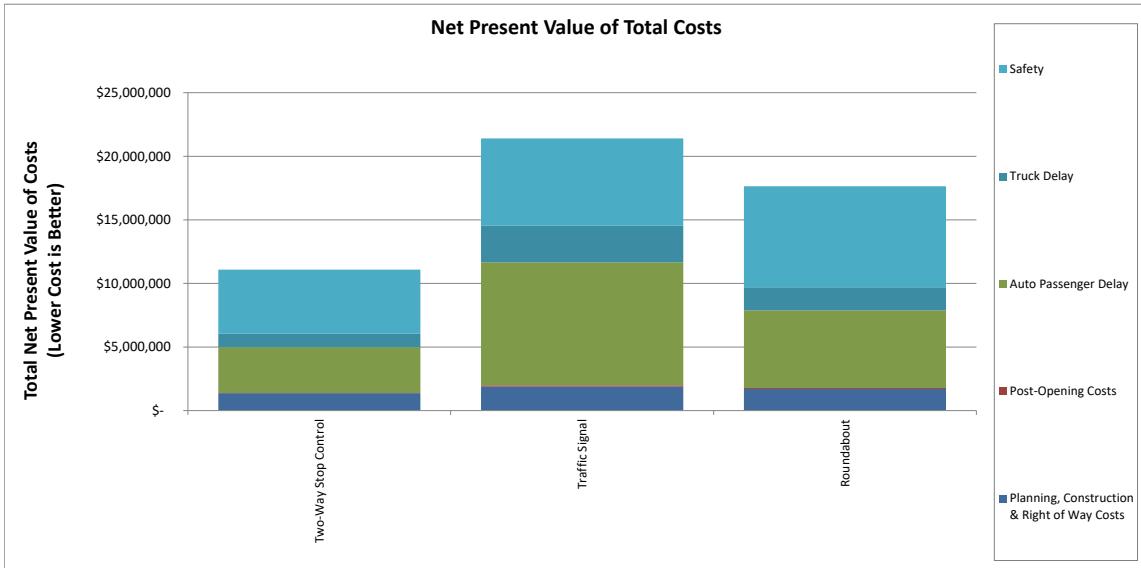
This sheet compiles the data from summary tables in individual alternatives sheets.
To populate the output sheet press the "Setup Worksheets" button in the Alternatives_MasterList tab.

Agency:	Florida Department of Transportation
Project Name:	US 98 PD&E
Project Reference:	FPID 443368-2-22-01
Intersection:	US 98 at US 98 Access Road (Build Only)
City:	Dade City
State:	Florida
Performing Department or Organization:	H.W. Lochner
Date:	6/28/2022
Analyst:	Claire McGinnis
Analysis Type	At-Grade Intersection

Analysis Summary

Cost Categories	Net Present Value of Costs				
	Base Case - Two-Way Stop Control	Two-Way Stop Control	Traffic Signal	Roundabout	
Planning, Construction & Right of Way Costs	\$ 1,370,084	\$ 1,370,084	\$ 1,892,094	\$ 1,698,272	
Post-Opening Costs	\$ 14,590	\$ 14,590	\$ 98,229	\$ 72,952	
Auto Passenger Delay	\$ 3,594,296	\$ 3,594,296	\$ 9,670,261	\$ 6,119,704	
Truck Delay	\$ 1,065,490	\$ 1,065,490	\$ 2,870,318	\$ 1,815,260	
Safety	\$ 5,043,544	\$ 5,043,544	\$ 6,880,983	\$ 7,939,142	
Total cost	\$11,088,004	\$11,088,004	\$21,411,885	\$17,645,330	

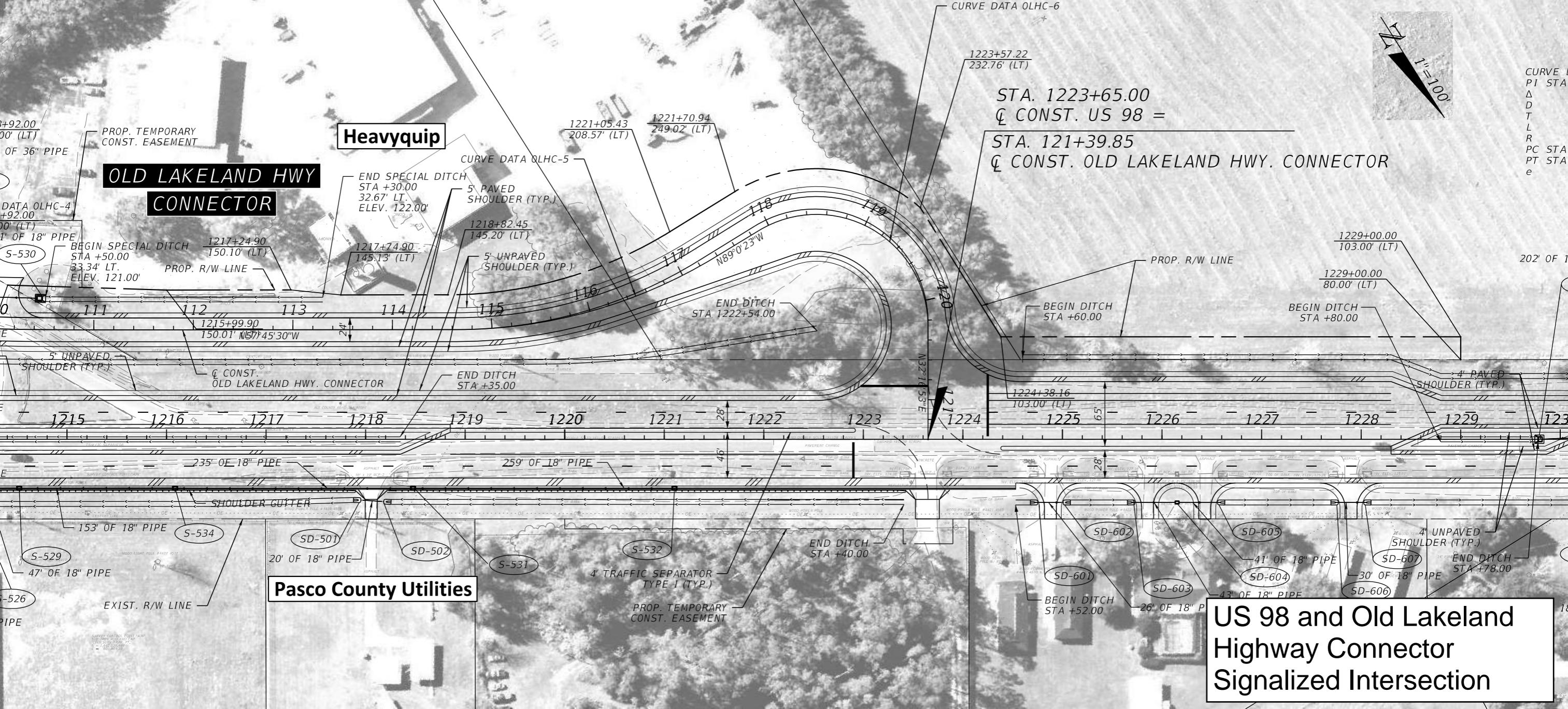
Select Base Case for Benefit-Cost Comparison: (Choose from list)	Two-Way Stop Control				
Benefit Categories	Net Present Value of Benefits Relative to Base Case				
		Two-Way Stop Control	Traffic Signal	Roundabout	
Auto Passenger Delay			\$ (6,075,965)	\$ (2,525,408)	
Truck Delay			\$ (1,804,828)	\$ (749,770)	
Safety			\$ (1,837,439)	\$ (2,895,598)	
Net Present Value of Benefits			\$ (9,718,232)	\$ (6,170,776)	
Net Present Value of Costs			\$ 605,648	\$ 386,550	
Net Present Value of Improvement			\$ (10,323,880)	\$ (6,557,326)	
Benefit-Cost (B/C) Ratio			Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	
Delay B/C			Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	
Safety B/C			Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	Control Strategy not preferred. Benefits are less than base case and cost is greater than base case.	



Warnings and Error Log
[Not used]

Appendix O

Recommended ICE Concept



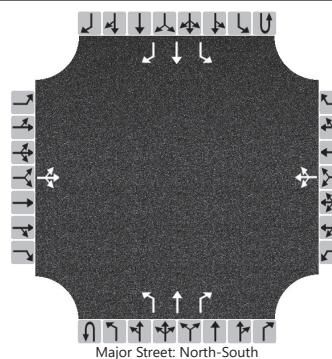
Appendix N

Opening Year (2025) No-Build Operational Analysis

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	CR 54 at US 98
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/17/2021	East/West Street	CR 54
Analysis Year	2025	North/South Street	US 98
Time Analyzed	7:30-8:30 AM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	1	1	0	1	1	1				
Configuration			LTR				LTR			L	T	R		L	T	R				
Volume (veh/h)	15	0	280		0	0	0		310	280	0		0	320	25					
Percent Heavy Vehicles (%)	3	3	3		3	3	3		7					12						
Proportion Time Blocked																				
Percent Grade (%)	0				0															
Right Turn Channelized									No				Yes							
Median Type Storage	Undivided																			

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		311				0				326				0		
Capacity, c (veh/h)		553								1195				1212		
v/c Ratio		0.56								0.27				0.00		
95% Queue Length, Q ₉₅ (veh)		3.7								1.1				0.0		
Control Delay (s/veh)		19.7								9.1				8.0		
Level of Service (LOS)		C								A				A		
Approach Delay (s/veh)	19.7								4.8				0.0			
Approach LOS	C															

HCM 6th Signalized Intersection Summary
4: Old Lakeland Hwy & US 98 Access Road

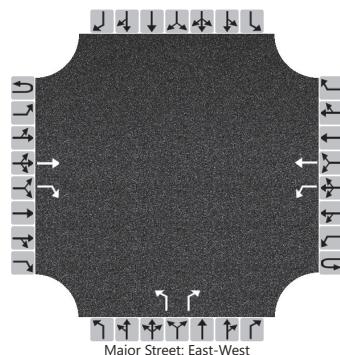
Opening Year (2025) - No Build
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	50	60	290	310	110
Future Volume (veh/h)	115	50	60	290	310	110
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	121	0	63	305	326	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	189		228	1079	1433	
Arrive On Green	0.11	0.00	0.79	0.82	0.82	0.00
Sat Flow, veh/h	1654	1472	235	1320	1752	0
Grp Volume(v), veh/h	121	0	368	0	326	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1555	0	1752	0
Q Serve(g_s), s	8.2	0.0	0.0	0.0	4.9	0.0
Cycle Q Clear(g_c), s	8.2	0.0	5.9	0.0	4.9	0.0
Prop In Lane	1.00	1.00	0.17			0.00
Lane Grp Cap(c), veh/h	189		1266	0	1433	
V/C Ratio(X)	0.64		0.29	0.00	0.23	
Avail Cap(c_a), veh/h	507		1266	0	1433	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	0.0	2.5	0.0	2.4	0.0
Incr Delay (d2), s/veh	3.6	0.0	0.6	0.0	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.2	0.0	2.8	0.0	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	53.3	0.0	3.1	0.0	2.8	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	121	A		368	326	A
Approach Delay, s/veh	53.3			3.1	2.8	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		100.0		17.4		100.0
Change Period (Y+Rc), s		7.1		7.1		7.1
Max Green Setting (Gmax), s		92.9		32.9		92.9
Max Q Clear Time (g_c+l1), s		7.9		10.2		6.9
Green Ext Time (p_c), s		2.2		0.3		1.8
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	US 98 at Access Road
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/18/2021	East/West Street	US 98
Analysis Year	2025	North/South Street	Access Road
Time Analyzed	7:30-8:30 AM	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			315	45		115	255			65		105				
Percent Heavy Vehicles (%)						12				11		11				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			Yes							No						
Median Type Storage			Undivided													

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2					
Critical Headway (sec)					4.22				6.51		6.31					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.31				3.60		3.40					

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					121				68		111					
Capacity, c (veh/h)					1174				289		690					
v/c Ratio					0.10				0.24		0.16					
95% Queue Length, Q ₉₅ (veh)					0.3				0.9		0.6					
Control Delay (s/veh)					8.4				21.3		11.2					
Level of Service (LOS)					A				C		B					
Approach Delay (s/veh)					2.6				15.1							
Approach LOS											C					

HCM 6th Signalized Intersection Summary
3: US 301 & US 98

Opening Year (2025) - No Build
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	60	300	1025	60	330	1210
Future Volume (veh/h)	60	300	1025	60	330	1210
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	63	316	1079	63	347	1274
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	347	602	1760	785	546	2588
Arrive On Green	0.20	0.20	0.50	0.50	0.40	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	63	316	1079	63	347	1274
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	4.0	20.7	28.8	2.7	8.9	0.0
Cycle Q Clear(g_c), s	4.0	20.7	28.8	2.7	8.9	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	347	602	1760	785	546	2588
V/C Ratio(X)	0.18	0.52	0.61	0.08	0.64	0.49
Avail Cap(c_a), veh/h	561	793	1760	785	546	2588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.62	0.62
Uniform Delay (d), s/veh	42.7	29.7	23.2	16.7	10.7	0.0
Incr Delay (d2), s/veh	0.2	0.7	1.6	0.2	3.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.0	11.6	17.0	1.7	5.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	43.0	30.4	24.8	16.9	14.1	0.4
LnGrp LOS	D	C	C	B	B	A
Approach Vol, veh/h	379		1142		1621	
Approach Delay, s/veh	32.5		24.4		3.4	
Approach LOS	C		C		A	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	30.0	69.4		99.4		30.6
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	22.5	45.5		75.5		40.2
Max Q Clear Time (g_c+l1), s	10.9	30.8		2.0		22.7
Green Ext Time (p_c), s	0.8	9.6		27.6		1.1
Intersection Summary						
HCM 6th Ctrl Delay			14.5			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
1: US 301 & Clinton Ave

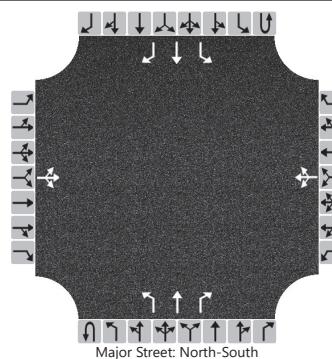
Opening Year (2025) - No Build
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	360	145	505	105	135	40	330	1010	80	45	920	200
Future Volume (veh/h)	360	145	505	105	135	40	330	1010	80	45	920	200
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	379	153	532	111	142	42	347	1063	84	47	968	211
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	484	216	291	330	94	445	2041	910	402	1819	811
Arrive On Green	0.11	0.14	0.14	0.09	0.12	0.10	0.18	0.77	0.77	0.07	0.52	0.52
Sat Flow, veh/h	3401	3497	1560	1767	2705	774	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	379	153	532	111	91	93	347	1063	84	47	968	211
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1716	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	14.0	5.1	18.0	6.9	6.2	6.6	11.1	15.1	1.7	1.5	23.8	9.8
Cycle Q Clear(g_c), s	14.0	5.1	18.0	6.9	6.2	6.6	11.1	15.1	1.7	1.5	23.8	9.8
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	484	216	291	215	209	445	2041	910	402	1819	811
V/C Ratio(X)	1.03	0.32	2.46	0.38	0.42	0.45	0.78	0.52	0.09	0.12	0.53	0.26
Avail Cap(c_a), veh/h	366	484	216	320	244	238	620	2041	910	471	1819	811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	50.5	56.0	43.0	52.9	53.7	16.4	8.0	6.5	11.7	21.0	17.6
Incr Delay (d2), s/veh	56.3	0.4	672.1	0.8	1.3	1.5	2.6	0.6	0.1	0.1	1.1	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	13.8	4.0	74.2	5.4	5.0	5.2	6.6	6.7	1.0	1.0	14.5	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	114.3	50.8	728.1	43.8	54.2	55.2	19.1	8.6	6.6	11.9	22.1	18.4
LnGrp LOS	F	D	F	D	D	E	B	A	A	B	C	B
Approach Vol, veh/h	1064				295			1494			1226	
Approach Delay, s/veh	412.1				50.6			10.9			21.1	
Approach LOS	F				D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	79.2	15.8	22.0	21.1	71.1	18.0	19.8				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	64.8	10.9	14.9	26.8	48.8	10.9	14.9				
Max Q Clear Time (g_c+l1), s	3.5	17.1	8.9	20.0	13.1	25.8	16.0	8.6				
Green Ext Time (p_c), s	0.0	19.1	0.0	0.0	0.8	13.0	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				121.5								
HCM 6th LOS				F								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	CR 54 at US 98
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/17/2021	East/West Street	CR 54
Analysis Year	2025	North/South Street	US 98
Time Analyzed	4:45-5:45 PM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	1	1	0	1	1	1				
Configuration			LTR				LTR			L	T	R		L	T	R				
Volume (veh/h)	25	0	310		0	0	0		280	320	0		0	280	15					
Percent Heavy Vehicles (%)	3	3	3		3	3	3		7					12						
Proportion Time Blocked																				
Percent Grade (%)	0				0															
Right Turn Channelized									No				Yes							
Median Type Storage	Undivided																			

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		353			0				295				0		
Capacity, c (veh/h)		546							1239				1169		
v/c Ratio		0.65							0.24				0.00		
95% Queue Length, Q ₉₅ (veh)		5.2							0.9				0.0		
Control Delay (s/veh)		23.4							8.8				8.1		
Level of Service (LOS)		C							A				A		
Approach Delay (s/veh)	23.4								4.1				0.0		
Approach LOS	C														

HCM 6th Signalized Intersection Summary
4: Old Lakeland Hwy & US 98 Access Road

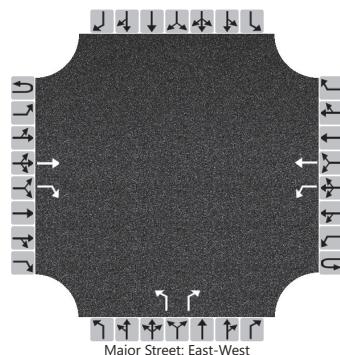
Opening Year (2025) - No Build
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	110	60	50	310	290	115
Future Volume (veh/h)	110	60	50	310	290	115
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	116	0	53	326	305	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	186		191	1148	1429	
Arrive On Green	0.11	0.00	0.79	0.82	0.82	0.00
Sat Flow, veh/h	1654	1472	189	1407	1752	0
Grp Volume(v), veh/h	116	0	379	0	305	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1597	0	1752	0
Q Serve(g_s), s	7.5	0.0	0.0	0.0	4.3	0.0
Cycle Q Clear(g_c), s	7.5	0.0	5.9	0.0	4.3	0.0
Prop In Lane	1.00	1.00	0.14			0.00
Lane Grp Cap(c), veh/h	186		1295	0	1429	
V/C Ratio(X)	0.62		0.29	0.00	0.21	
Avail Cap(c_a), veh/h	608		1295	0	1429	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	47.2	0.0	2.5	0.0	2.3	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.6	0.0	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.6	0.0	2.7	0.0	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.6	0.0	3.1	0.0	2.6	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	116	A		379	305	A
Approach Delay, s/veh	50.6			3.1	2.6	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s	95.0		16.6		95.0	
Change Period (Y+Rc), s	7.1		7.1		7.1	
Max Green Setting (Gmax), s	87.9		37.9		87.9	
Max Q Clear Time (g_c+l1), s	7.9		9.5		6.3	
Green Ext Time (p_c), s	2.2		0.3		1.6	
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	US 98 at Access Road
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/18/2021	East/West Street	US 98
Analysis Year	2025	North/South Street	Access Road
Time Analyzed	4:45-5:45 PM	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			255	65		105	315			45		115				
Percent Heavy Vehicles (%)						12				11		11				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized	Yes								No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2					
Critical Headway (sec)					4.22				6.51		6.31					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.31				3.60		3.40					

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					111				47		121					
Capacity, c (veh/h)					1240				303		749					
v/c Ratio					0.09				0.16		0.16					
95% Queue Length, Q ₉₅ (veh)					0.3				0.6		0.6					
Control Delay (s/veh)					8.2				19.1		10.7					
Level of Service (LOS)					A				C		B					
Approach Delay (s/veh)	2.0				13.1											
Approach LOS	B															

HCM 6th Signalized Intersection Summary
3: US 301 & US 98

Opening Year (2025) - No Build
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	60	330	1210	60	300	1025
Future Volume (veh/h)	60	330	1210	60	300	1025
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	63	347	1274	63	316	1079
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	380	589	1815	809	453	2534
Arrive On Green	0.22	0.22	0.52	0.52	0.34	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	63	347	1274	63	316	1079
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	4.2	25.5	38.6	2.8	9.1	0.0
Cycle Q Clear(g_c), s	4.2	25.5	38.6	2.8	9.1	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	589	1815	809	453	2534
V/C Ratio(X)	0.17	0.59	0.70	0.08	0.70	0.43
Avail Cap(c_a), veh/h	521	715	1815	809	453	2534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.56	0.56
Uniform Delay (d), s/veh	43.8	33.8	25.5	16.9	16.4	0.0
Incr Delay (d2), s/veh	0.2	0.9	2.3	0.2	4.9	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.1	14.0	22.0	1.8	7.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	44.0	34.7	27.8	17.1	21.3	0.3
LnGrp LOS	D	C	C	B	C	A
Approach Vol, veh/h	410		1337		1395	
Approach Delay, s/veh	36.1		27.3		5.1	
Approach LOS	D		C		A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+R _c), s	28.0	76.6			104.6	35.4
Change Period (Y+R _c), s	7.5	7.5			7.5	6.8
Max Green Setting (Gmax), s	20.5	57.5			85.5	40.2
Max Q Clear Time (g_c+l1), s	11.1	40.6			2.0	27.5
Green Ext Time (p_c), s	0.6	12.2			21.1	1.1
Intersection Summary						
HCM 6th Ctrl Delay			18.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
1: US 301 & Clinton Ave

Opening Year (2025) - No Build
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	200	135	330	80	145	45	505	920	105	40	1010	360
Future Volume (veh/h)	200	135	330	80	145	45	505	920	105	40	1010	360
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	211	142	347	84	153	47	532	968	111	42	1063	379
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	332	475	212	274	304	90	560	2156	962	382	1491	665
Arrive On Green	0.10	0.14	0.14	0.08	0.11	0.09	0.50	1.00	1.00	0.06	0.42	0.42
Sat Flow, veh/h	3401	3497	1560	1767	2679	796	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	211	142	347	84	99	101	532	968	111	42	1063	379
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1712	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	8.4	5.1	19.0	5.7	7.4	7.8	29.6	0.0	0.0	1.8	34.9	25.7
Cycle Q Clear(g_c), s	8.4	5.1	19.0	5.7	7.4	7.8	29.6	0.0	0.0	1.8	34.9	25.7
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	475	212	274	200	194	560	2156	962	382	1491	665
V/C Ratio(X)	0.64	0.30	1.64	0.31	0.50	0.52	0.95	0.45	0.12	0.11	0.71	0.57
Avail Cap(c_a), veh/h	413	475	212	343	227	220	582	2156	962	447	1491	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.55	0.55	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	54.5	60.5	48.4	58.3	59.2	19.2	0.0	0.0	18.9	33.4	30.7
Incr Delay (d2), s/veh	2.2	0.3	307.9	0.6	1.9	2.2	16.6	0.4	0.1	0.1	2.9	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.6	4.0	40.2	4.5	6.0	6.3	16.9	0.2	0.1	1.3	21.1	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	62.9	54.9	368.4	49.0	60.2	61.3	35.8	0.4	0.1	19.1	36.3	34.2
LnGrp LOS	E	D	F	D	E	E	D	A	A	B	D	C
Approach Vol, veh/h	700				284			1611			1484	
Approach Delay, s/veh	212.7				57.3			12.1			35.3	
Approach LOS	F				E			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.8	89.6	14.5	23.0	39.3	63.2	17.7	19.9				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	71.8	12.9	15.9	33.8	48.8	13.9	14.9				
Max Q Clear Time (g_c+l1), s	3.8	2.0	7.7	21.0	31.6	36.9	10.4	9.8				
Green Ext Time (p_c), s	0.0	18.9	0.1	0.0	0.4	9.1	0.2	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				58.1								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												

Appendix O

Opening Year (2025) Build Operational Analysis

HCM 6th Signalized Intersection Summary
1: US 98 & CR 54

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	280	0	0	0	310	425	0	0	800	65
Future Volume (veh/h)	25	0	280	0	0	0	310	425	0	0	800	65
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1670	1670	1670	1683	1683	1683	1617	1617	1617	1550	1550	1550
Adj Flow Rate, veh/h	26	0	223	0	0	0	326	447	0	0	842	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	12	12	12
Cap, veh/h	153	0	323	0	129	0	452	2646	1180	55	2001	
Arrive On Green	0.05	0.00	0.08	0.00	0.00	0.00	0.15	0.86	0.00	0.00	0.68	0.00
Sat Flow, veh/h	1266	0	1415	0	1683	0	2987	3072	1370	781	2945	1314
Grp Volume(v), veh/h	26	0	223	0	0	0	326	447	0	0	842	0
Grp Sat Flow(s), veh/h/ln	1266	0	1415	0	1683	0	1493	1536	1370	781	1472	1314
Q Serve(g_s), s	2.6	0.0	10.0	0.0	0.0	0.0	13.5	3.1	0.0	0.0	16.7	0.0
Cycle Q Clear(g_c), s	2.6	0.0	10.0	0.0	0.0	0.0	13.5	3.1	0.0	0.0	16.7	0.0
Prop In Lane	1.00		1.00	0.00			0.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	123	0	323	0	129	0	452	2646	1180	55	2001	
V/C Ratio(X)	0.21	0.00	0.69	0.00	0.00	0.00	0.72	0.17	0.00	0.00	0.42	
Avail Cap(c_a), veh/h	123	0	323	0	129	0	965	2646	1180	55	2001	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	58.0	0.0	46.0	0.0	0.0	0.0	52.6	1.5	0.0	0.0	9.3	0.0
Incr Delay (d2), s/veh	0.9	0.0	6.1	0.0	0.0	0.0	2.2	0.1	0.0	0.0	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	1.5	0.0	11.6	0.0	0.0	0.0	8.7	0.6	0.0	0.0	8.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.9	0.0	52.1	0.0	0.0	0.0	54.8	1.6	0.0	0.0	10.0	0.0
LnGrp LOS	E	A	D	A	A	A	D	A	A	A	A	A
Approach Vol, veh/h	249				0			773			842	A
Approach Delay, s/veh	52.8				0.0			24.0			10.0	
Approach LOS		D						C			A	
Timer - Assigned Phs	2		4	5	6			8				
Phs Duration (G+Y+Rc), s	116.0		14.0	23.7	92.3			14.0				
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1			7.1				
Max Green Setting (Gmax), s	108.9		6.9	38.9	62.9			6.9				
Max Q Clear Time (g_c+l1), s	5.1		12.0	15.5	18.7			0.0				
Green Ext Time (p_c), s	2.7		0.0	1.0	5.9			0.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
2: Old Lakeland Hwy & US 98 Access Road

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↔	
Traffic Volume (veh/h)	170	75	75	290	310	135
Future Volume (veh/h)	170	75	75	290	310	135
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	179	0	79	305	326	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	241		782	1377	1204	
Arrive On Green	0.15	0.00	0.07	0.79	0.69	0.00
Sat Flow, veh/h	1654	1472	1654	1737	1752	0
Grp Volume(v), veh/h	179	0	79	305	326	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1654	1737	1752	0
Q Serve(g_s), s	13.5	0.0	1.5	5.7	9.3	0.0
Cycle Q Clear(g_c), s	13.5	0.0	1.5	5.7	9.3	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	241		782	1377	1204	
V/C Ratio(X)	0.74		0.10	0.22	0.27	
Avail Cap(c_a), veh/h	433		798	1377	1204	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.2	0.0	3.9	3.4	7.8	0.0
Incr Delay (d2), s/veh	4.4	0.0	0.1	0.4	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	9.6	0.0	0.6	2.6	5.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	57.7	0.0	4.0	3.8	8.4	0.0
LnGrp LOS	E		A	A	A	
Approach Vol, veh/h	179	A		384	326	A
Approach Delay, s/veh	57.7			3.8	8.4	
Approach LOS	E			A	A	
Timer - Assigned Phs	2		4	5	6	
Phs Duration (G+Y+Rc), s	107.1		22.9	13.7	93.4	
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1	
Max Green Setting (Gmax), s	84.9		30.9	7.9	69.9	
Max Q Clear Time (g_c+l1), s	7.7		15.5	3.5	11.3	
Green Ext Time (p_c), s	1.6		0.4	0.0	1.7	
Intersection Summary						
HCM 6th Ctrl Delay			16.3			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	105	105	115	405	830	120
Future Volume (veh/h)	105	105	115	405	830	120
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	111	111	121	426	874	126
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	184	207	504	2707	2435	1086
Arrive On Green	0.11	0.09	0.08	0.83	0.72	0.72
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	111	111	121	426	874	126
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	8.3	9.1	1.9	3.4	12.7	3.3
Cycle Q Clear(g_c), s	8.3	9.1	1.9	3.4	12.7	3.3
Prop In Lane	1.00	1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	184	207	504	2707	2435	1086
V/C Ratio(X)	0.60	0.54	0.24	0.16	0.36	0.12
Avail Cap(c_a), veh/h	242	258	706	2707	2435	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.0	51.9	3.6	2.2	6.9	5.6
Incr Delay (d2), s/veh	3.2	2.2	0.2	0.0	0.4	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.3	12.1	0.7	1.0	6.7	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	58.2	54.1	3.8	2.3	7.3	5.8
LnGrp LOS	E	D	A	A	A	A
Approach Vol, veh/h	222			547	1000	
Approach Delay, s/veh	56.1			2.6	7.1	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	14.0	97.5		18.5		111.5
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	22.9	69.9		15.9		99.9
Max Q Clear Time (g_c+l1), s	3.9	14.7		11.1		5.4
Green Ext Time (p_c), s	0.3	6.7		0.3		2.6
Intersection Summary						
HCM 6th Ctrl Delay			11.9			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
4: US 301 & Old US 98

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑↑ ↗	↑ ↗	↑ ↗	↑↑ ↗
Traffic Volume (veh/h)	60	5	1060	60	5	1300
Future Volume (veh/h)	60	5	1060	60	5	1300
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	63	5	1116	63	5	1368
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	156	432	2154	961	614	2985
Arrive On Green	0.09	0.09	0.62	0.62	0.40	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	63	5	1116	63	5	1368
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	4.6	0.3	23.4	2.1	0.0	0.0
Cycle Q Clear(g_c), s	4.6	0.3	23.4	2.1	0.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	156	432	2154	961	614	2985
V/C Ratio(X)	0.40	0.01	0.52	0.07	0.01	0.46
Avail Cap(c_a), veh/h	561	793	2154	961	614	2985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.73	0.73
Uniform Delay (d), s/veh	55.7	33.2	14.1	10.0	3.3	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.9	0.1	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.5	0.2	13.1	1.2	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	57.4	33.2	15.0	10.1	3.3	0.4
LnGrp LOS	E	C	B	B	A	A
Approach Vol, veh/h	68		1179		1373	
Approach Delay, s/veh	55.6		14.7		0.4	
Approach LOS	E		B		A	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	30.0	84.1		114.1		15.9
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	22.5	45.5		75.5		40.2
Max Q Clear Time (g_c+l1), s	2.0	25.4		2.0		6.6
Green Ext Time (p_c), s	0.0	12.3		30.5		0.2
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave/US 98

Opening Year (2025) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	360	550	255	195	590	280	145	900	115	160	850	200
Future Volume (veh/h)	360	550	255	195	590	280	145	900	115	160	850	200
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1841	1841	1841	1781	1781	1781	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	379	579	268	205	621	295	153	947	121	168	895	211
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	8	8	8	3	3	3	3	3	3
Cap, veh/h	514	953	425	343	827	369	282	1399	624	290	1408	628
Arrive On Green	0.15	0.27	0.27	0.12	0.24	0.24	0.11	0.53	0.53	0.08	0.40	0.40
Sat Flow, veh/h	3401	3497	1560	1697	3385	1510	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	379	579	268	205	621	295	153	947	121	168	895	211
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1697	1692	1510	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	13.8	18.8	19.6	11.3	22.1	23.9	5.5	25.7	5.3	6.1	26.6	12.1
Cycle Q Clear(g_c), s	13.8	18.8	19.6	11.3	22.1	23.9	5.5	25.7	5.3	6.1	26.6	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	514	953	425	343	827	369	282	1399	624	290	1408	628
V/C Ratio(X)	0.74	0.61	0.63	0.60	0.75	0.80	0.54	0.68	0.19	0.58	0.64	0.34
Avail Cap(c_a), veh/h	654	1211	540	343	937	418	290	1399	624	290	1408	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	41.2	41.6	30.9	45.5	46.1	55.6	24.6	19.8	57.3	31.4	27.1
Incr Delay (d2), s/veh	3.3	0.6	1.5	2.8	3.0	9.5	0.8	1.1	0.3	2.9	2.2	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	10.0	12.6	12.0	8.3	14.4	14.8	3.9	12.2	3.3	4.9	16.6	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.0	41.9	43.1	33.7	48.5	55.6	56.4	25.6	20.0	60.1	33.6	28.5
LnGrp LOS	E	D	D	C	D	E	E	C	C	E	C	C
Approach Vol, veh/h	1226				1121				1221			1274
Approach Delay, s/veh	46.5				47.7				28.9			36.3
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	55.6	20.0	39.4	14.7	55.9	23.6	35.8				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	7.8	38.8	12.9	41.9	7.8	38.8	21.9	32.9				
Max Q Clear Time (g_c+l1), s	8.1	27.7	13.3	21.6	7.5	28.6	15.8	25.9				
Green Ext Time (p_c), s	0.0	7.2	0.0	4.4	0.0	6.8	0.7	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				39.6								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	35	8.0	37	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	36.5
8	T1	505	8.0	532	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	40.7
18	R2	20	8.0	21	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	35.2
Approach		560	8.0	589	8.0	0.247	5.2	LOS A	1.1	29.2	0.26	0.13	0.26	40.2
East: Townsend														
1	L2	65	2.0	68	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.8
6	T1	10	2.0	11	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	30.5
16	R2	55	2.0	58	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.2
Approach		130	2.0	137	2.0	0.173	6.4	LOS A	0.6	16.2	0.55	0.54	0.55	33.3
North: US 98														
7	L2	40	8.0	42	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	35.2
4	T1	840	8.0	884	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	39.1
14	R2	30	8.0	32	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	34.0
Approach		910	8.0	958	8.0	0.406	7.2	LOS A	2.2	57.5	0.33	0.19	0.33	38.7
West: Townsend														
5	L2	50	2.0	53	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	32.5
2	T1	5	2.0	5	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	29.3
12	R2	60	2.0	63	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	31.9
Approach		115	2.0	121	2.0	0.216	9.3	LOS A	0.8	19.1	0.65	0.65	0.65	32.0
All Vehicles		1715	7.1	1805	7.1	0.406	6.6	LOS A	2.2	57.5	0.35	0.23	0.35	38.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	60	8.0	63	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	39.8
8	T1	560	8.0	589	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	40.6
18	R2	20	8.0	21	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	35.2
Approach		640	8.0	674	8.0	0.265	5.2	LOS A	1.2	32.9	0.15	0.05	0.15	40.4
East: Old US 98														
1	L2	65	2.0	68	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.7
6	T1	5	2.0	5	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	31.6
16	R2	55	2.0	58	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.1
Approach		125	2.0	132	2.0	0.173	6.6	LOS A	0.6	16.0	0.56	0.56	0.56	33.4
North: US 98														
7	L2	25	8.0	26	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	35.7
4	T1	735	8.0	774	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	39.6
14	R2	5	8.0	5	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	38.4
Approach		765	8.0	805	8.0	0.349	6.5	LOS A	1.7	45.5	0.34	0.21	0.34	39.4
West: Old US 98														
5	L2	5	2.0	5	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	39.7
2	T1	5	2.0	5	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	36.7
12	R2	60	2.0	63	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	38.7
Approach		70	2.0	74	2.0	0.117	7.1	LOS A	0.4	10.2	0.60	0.60	0.60	38.7
All Vehicles		1600	7.3	1684	7.3	0.349	6.0	LOS A	1.7	45.5	0.29	0.19	0.29	39.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	40	8.0	42	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	36.0
8	T1	535	8.0	563	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	40.1
18	R2	50	8.0	53	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	34.7
Approach		625	8.0	658	8.0	0.294	6.0	LOS A	1.3	35.6	0.35	0.23	0.35	39.3
East: Crossroad														
1	L2	140	2.0	147	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	32.2
6	T1	5	2.0	5	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	30.3
16	R2	115	2.0	121	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	31.6
Approach		260	2.0	274	2.0	0.374	9.7	LOS A	1.7	43.7	0.65	0.70	0.79	31.9
North: US 98														
7	L2	60	8.0	63	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	35.5
4	T1	510	8.0	537	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	39.6
14	R2	50	8.0	53	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	34.5
Approach		620	8.0	653	8.0	0.298	6.2	LOS A	1.4	35.9	0.38	0.26	0.38	38.7
West: Crossroad														
5	L2	95	2.0	100	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.6
2	T1	5	2.0	5	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	30.6
12	R2	115	2.0	121	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.0
Approach		215	2.0	226	2.0	0.320	9.1	LOS A	1.3	33.2	0.64	0.65	0.69	32.2
All Vehicles		1720	6.3	1811	6.3	0.374	7.0	LOS A	1.7	43.7	0.44	0.36	0.47	36.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2025-AM (Site Folder: General)]

Opening Year (2025)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	735	8.0	774	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	38.3
18	R2	5	8.0	5	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	35.2
Approach		740	8.0	779	8.0	0.422	8.8	LOS A	2.0	52.9	0.57	0.51	0.57	38.3
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	34.4
16	R2	275	3.0	289	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	33.7
Approach		280	3.0	295	3.0	0.469	13.0	LOS B	2.4	61.9	0.71	0.81	1.06	33.7
North: Clinton Avenue														
7u	U	75	8.0	82	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	37.6
7	L2	265	8.0	279	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	35.3
4	T1	610	8.0	642	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	39.4
Approach		950	8.0	1003	8.0	0.383	6.4	LOS A	2.1	56.2	0.06	0.01	0.06	38.0
All Vehicles		1970	7.3	2076	7.3	0.469	8.2	LOS A	2.4	61.9	0.34	0.31	0.39	37.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: I:\TPA\PRJ\000015360\ACER Study\TRAFFIC\B - Operational Analysis\5 - Build - Sidra Analysis\2025\US 98 at Clinton Avenue_2025.sip9

HCM 6th Signalized Intersection Summary
1: US 98 & CR 54

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	310	0	0	0	280	835	0	0	545	30
Future Volume (veh/h)	65	0	310	0	0	0	280	835	0	0	545	30
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1722	1722	1722
Adj Flow Rate, veh/h	68	0	-6	0	0	0	295	879	0	0	574	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	12	12	12
Cap, veh/h	163	0	327	0	148	0	427	2947	1314	52	2310	
Arrive On Green	0.06	0.00	0.00	0.00	0.00	0.00	0.13	0.86	0.00	0.00	0.71	0.00
Sat Flow, veh/h	1406	0	1572	0	1870	0	3319	3413	1522	581	3272	1459
Grp Volume(v), veh/h	68	0	-6	0	0	0	295	879	0	0	574	0
Grp Sat Flow(s), veh/h/ln	1406	0	1572	0	1870	0	1659	1706	1522	581	1636	1459
Q Serve(g_s), s	6.7	0.0	0.0	0.0	0.0	0.0	11.8	6.6	0.0	0.0	8.7	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0	0.0	0.0	0.0	11.8	6.6	0.0	0.0	8.7	0.0
Prop In Lane	1.00		1.00	0.00			0.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	131	0	327	0	148	0	427	2947	1314	52	2310	
V/C Ratio(X)	0.52	0.00	-0.02	0.00	0.00	0.00	0.69	0.30	0.00	0.00	0.25	
Avail Cap(c_a), veh/h	142	0	338	0	162	0	1337	2947	1314	52	2310	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	63.5	0.0	0.0	0.0	0.0	0.0	57.9	1.7	0.0	0.0	7.3	0.0
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.0	0.0	0.0	2.0	0.3	0.0	0.0	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.5	0.0	0.0	0.0	0.0	0.0	8.5	1.5	0.0	0.0	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.6	0.0	0.0	0.0	0.0	0.0	59.9	2.0	0.0	0.0	7.5	0.0
LnGrp LOS	E	A	A	A	A	A	E	A	A	A	A	
Approach Vol, veh/h	62				0			1174			574	A
Approach Delay, s/veh	73.1				0.0			16.5			7.5	
Approach LOS	E						B				A	
Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	124.0		15.0	21.9	102.1		15.0					
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1		7.1					
Max Green Setting (Gmax), s	116.9		8.9	52.9	56.9		8.9					
Max Q Clear Time (g_c+l1), s	8.6		8.7	13.8	10.7		0.0					
Green Ext Time (p_c), s	6.3		0.0	1.0	3.7		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			15.6									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
2: Old Lakeland Hwy & US 98 Access Road

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↔	
Traffic Volume (veh/h)	160	90	75	310	290	170
Future Volume (veh/h)	160	90	75	310	290	170
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	168	0	79	326	305	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	226		812	1400	1240	
Arrive On Green	0.14	0.00	0.07	0.81	0.71	0.00
Sat Flow, veh/h	1654	1472	1654	1737	1752	0
Grp Volume(v), veh/h	168	0	79	326	305	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1654	1737	1752	0
Q Serve(g_s), s	13.7	0.0	1.5	6.3	8.6	0.0
Cycle Q Clear(g_c), s	13.7	0.0	1.5	6.3	8.6	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	226		812	1400	1240	
V/C Ratio(X)	0.74		0.10	0.23	0.25	
Avail Cap(c_a), veh/h	484		826	1400	1240	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	58.1	0.0	3.6	3.2	7.2	0.0
Incr Delay (d2), s/veh	4.7	0.0	0.1	0.4	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	9.8	0.0	0.6	2.8	5.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	62.8	0.0	3.7	3.6	7.7	0.0
LnGrp LOS	E		A	A	A	
Approach Vol, veh/h	168	A		405	305	A
Approach Delay, s/veh	62.8			3.6	7.7	
Approach LOS	E			A	A	
Timer - Assigned Phs	2		4	5	6	
Phs Duration (G+Y+Rc), s	116.9		23.1	13.8	103.1	
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1	
Max Green Setting (Gmax), s	87.9		37.9	7.9	72.9	
Max Q Clear Time (g_c+l1), s	8.3		15.7	3.5	10.6	
Green Ext Time (p_c), s	1.8		0.4	0.0	1.6	
Intersection Summary						
HCM 6th Ctrl Delay			16.4			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	125	115	105	870	535	140
Future Volume (veh/h)	125	115	105	870	535	140
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	132	121	111	916	563	147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	193	212	626	2704	2458	1096
Arrive On Green	0.12	0.09	0.07	0.83	0.73	0.73
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	132	121	111	916	563	147
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	10.7	10.7	1.9	9.5	7.6	4.1
Cycle Q Clear(g_c), s	10.7	10.7	1.9	9.5	7.6	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	193	212	626	2704	2458	1096
V/C Ratio(X)	0.68	0.57	0.18	0.34	0.23	0.13
Avail Cap(c_a), veh/h	295	303	907	2704	2458	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	55.9	3.0	2.9	6.3	5.8
Incr Delay (d2), s/veh	4.3	2.4	0.1	0.1	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	8.1	13.8	0.7	3.2	4.2	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.6	58.4	3.2	3.0	6.5	6.1
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	253			1027	710	
Approach Delay, s/veh	61.1			3.0	6.4	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	14.0	105.7		20.3		119.7
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	30.9	65.9		21.9		103.9
Max Q Clear Time (g_c+l1), s	3.9	9.6		12.7		11.5
Green Ext Time (p_c), s	0.3	4.1		0.5		6.7
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
4: US 301 & Old US 98

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑↑ ↗	↑ ↗	↑ ↗	↑↑ ↗
Traffic Volume (veh/h)	60	5	1315	60	5	1080
Future Volume (veh/h)	60	5	1315	60	5	1080
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	63	5	1384	63	5	1137
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	147	382	2296	1024	512	3020
Arrive On Green	0.09	0.09	0.66	0.66	0.34	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	63	5	1384	63	5	1137
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	4.9	0.3	31.5	2.0	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.3	31.5	2.0	0.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	147	382	2296	1024	512	3020
V/C Ratio(X)	0.43	0.01	0.60	0.06	0.01	0.38
Avail Cap(c_a), veh/h	521	715	2296	1024	512	3020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.74	0.74
Uniform Delay (d), s/veh	60.7	39.2	13.7	8.6	4.6	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.2	0.1	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.9	0.2	16.5	1.2	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	62.7	39.2	14.8	8.7	4.6	0.3
LnGrp LOS	E	D	B	A	A	A
Approach Vol, veh/h	68		1447		1142	
Approach Delay, s/veh	60.9		14.6		0.3	
Approach LOS	E		B		A	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	28.0	95.9		123.9		16.1
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	20.5	57.5		85.5		40.2
Max Q Clear Time (g_c+l1), s	2.0	33.5		2.0		6.9
Green Ext Time (p_c), s	0.0	16.9		22.5		0.2
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave/US 98

Opening Year (2025) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑	↑	↑↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	200	625	145	135	665	195	255	850	210	295	900	360
Future Volume (veh/h)	200	625	145	135	665	195	255	850	210	295	900	360
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No	No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1781	1781	1781	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	211	658	153	142	700	205	268	895	221	311	947	379
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	8	8	8	3	3	3	3	3	3
Cap, veh/h	328	922	411	256	856	382	387	1445	645	433	1493	666
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.25	0.15	0.55	0.55	0.13	0.42	0.42
Sat Flow, veh/h	3401	3497	1560	1697	3385	1510	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	211	658	153	142	700	205	268	895	221	311	947	379
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1697	1692	1510	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	8.4	23.9	11.2	8.5	27.3	16.4	10.4	24.4	11.0	12.2	29.6	25.6
Cycle Q Clear(g_c), s	8.4	23.9	11.2	8.5	27.3	16.4	10.4	24.4	11.0	12.2	29.6	25.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	328	922	411	256	856	382	387	1445	645	433	1493	666
V/C Ratio(X)	0.64	0.71	0.37	0.55	0.82	0.54	0.69	0.62	0.34	0.72	0.63	0.57
Avail Cap(c_a), veh/h	340	1049	468	256	967	431	441	1445	645	490	1493	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.29	0.29	0.29	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	46.7	42.1	35.7	49.2	45.2	57.2	24.3	21.3	58.8	31.8	30.7
Incr Delay (d2), s/veh	3.9	2.0	0.6	2.6	5.0	1.2	1.2	0.6	0.4	4.4	2.1	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	6.7	15.7	7.7	6.5	17.5	10.2	6.2	11.3	5.5	9.3	18.3	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.8	48.7	42.6	38.3	54.3	46.4	58.4	24.9	21.7	63.2	33.9	34.2
LnGrp LOS	E	D	D	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h	1022				1047			1384			1637	
Approach Delay, s/veh	51.1				50.6			30.9			39.5	
Approach LOS	D				D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.7	61.4	16.0	40.9	19.8	63.3	17.5	39.4				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	16.8	46.8	8.9	38.9	14.8	48.8	10.9	36.9				
Max Q Clear Time (g_c+l1), s	14.2	26.4	10.5	25.9	12.4	31.6	10.4	29.3				
Green Ext Time (p_c), s	0.3	11.3	0.0	3.8	0.2	11.4	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				41.8								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	65	8.0	68	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	34.9
8	T1	900	8.0	947	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	38.7
18	R2	65	8.0	68	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	33.7
Approach		1030	8.0	1084	8.0	0.466	8.1	LOS A	2.6	70.5	0.38	0.23	0.38	38.1
East: Townsend														
1	L2	40	2.0	42	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.6
6	T1	5	2.0	5	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	29.5
16	R2	45	2.0	47	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.0
Approach		90	2.0	95	2.0	0.179	9.2	LOS A	0.6	15.5	0.66	0.66	0.66	32.1
North: US 98														
7	L2	75	8.0	79	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	35.4
4	T1	615	8.0	647	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	39.5
14	R2	65	8.0	68	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	34.5
Approach		755	8.0	795	8.0	0.338	6.3	LOS A	1.7	43.9	0.31	0.18	0.31	38.6
West: Townsend														
5	L2	40	2.0	42	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.7
2	T1	5	2.0	5	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	30.3
12	R2	45	2.0	47	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.0
Approach		90	2.0	95	2.0	0.137	6.7	LOS A	0.5	12.2	0.58	0.58	0.58	33.1
All Vehicles		1965	7.5	2068	7.5	0.466	7.4	LOS A	2.6	70.5	0.37	0.25	0.37	37.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	60	8.0	63	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	38.8
8	T1	820	8.0	863	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	39.4
18	R2	70	8.0	74	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	34.2
Approach		950	8.0	1000	8.0	0.409	7.0	LOS A	2.2	59.4	0.27	0.13	0.27	39.0
East: Old US 98														
1	L2	40	2.0	42	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	33.2
6	T1	5	2.0	5	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	31.2
16	R2	45	2.0	47	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	32.6
Approach		90	2.0	95	2.0	0.160	8.0	LOS A	0.6	14.0	0.62	0.62	0.62	32.8
North: US 98														
7	L2	60	8.0	63	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	35.6
4	T1	685	8.0	721	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	39.6
14	R2	5	8.0	5	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	38.5
Approach		750	8.0	789	8.0	0.334	6.2	LOS A	1.6	43.3	0.30	0.17	0.30	39.3
West: Old US 98														
5	L2	5	2.0	5	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	40.0
2	T1	5	2.0	5	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	36.9
12	R2	60	2.0	63	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	38.9
Approach		70	2.0	74	2.0	0.113	6.8	LOS A	0.4	9.8	0.59	0.59	0.59	38.9
All Vehicles		1860	7.5	1958	7.5	0.409	6.7	LOS A	2.2	59.4	0.31	0.19	0.31	38.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	Dist ft				
South: US 98														
3	L2	125	8.0	132	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	34.4
8	T1	595	8.0	626	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	38.3
18	R2	155	8.0	163	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	33.6
Approach		875	8.0	921	8.0	0.435	8.2	LOS A	2.2	59.6	0.48	0.36	0.48	36.8
East: Crossroad														
1	L2	85	2.0	89	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	32.4
6	T1	5	2.0	5	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	30.5
16	R2	100	2.0	105	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	31.8
Approach		190	2.0	200	2.0	0.311	9.7	LOS A	1.2	31.4	0.65	0.68	0.72	32.1
North: US 98														
7	L2	125	8.0	132	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	34.3
4	T1	595	8.0	626	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	38.4
14	R2	105	8.0	111	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	33.7
Approach		825	8.0	868	8.0	0.410	7.8	LOS A	2.1	54.7	0.46	0.35	0.46	37.0
West: Crossroad														
5	L2	85	2.0	89	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	32.5
2	T1	5	2.0	5	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	30.5
12	R2	70	2.0	74	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	31.9
Approach		160	2.0	168	2.0	0.262	8.9	LOS A	1.0	24.5	0.64	0.64	0.64	32.2
All Vehicles		2050	7.0	2158	7.0	0.435	8.2	LOS A	2.2	59.6	0.50	0.40	0.51	36.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2025-PM (Site Folder: General)]

Opening Year (2025)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	770	8.0	811	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	38.2
18	R2	5	8.0	5	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	35.1
Approach		775	8.0	816	8.0	0.437	9.0	LOS A	2.2	57.5	0.57	0.51	0.58	38.2
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	34.5
16	R2	265	3.0	279	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	33.8
Approach		270	3.0	284	3.0	0.458	12.9	LOS B	2.3	59.1	0.71	0.80	1.05	33.8
North: Clinton Avenue														
7u	U	55	8.0	60	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	37.6
7	L2	275	8.0	289	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	35.2
4	T1	815	8.0	858	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	38.6
Approach		1145	8.0	1207	8.0	0.461	7.4	LOS A	2.9	76.1	0.06	0.01	0.06	37.7
All Vehicles		2190	7.4	2307	7.4	0.461	8.6	LOS A	2.9	76.1	0.32	0.28	0.37	37.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: I:\TPA\PRJ\000015360\ACER Study\TRAFFIC\B - Operational Analysis\5 - Build - Sidra Analysis\2025\US 98 at Clinton Avenue_2025.sip9

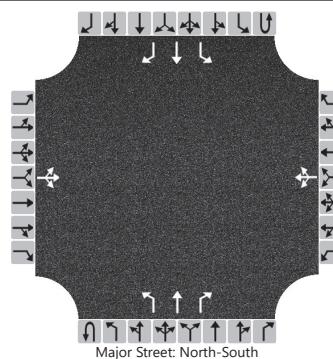
Appendix P

Design Year (2045) No-Build Operational Analysis

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	CR 54 at US 98
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/17/2021	East/West Street	CR 54
Analysis Year	2045	North/South Street	US 98
Time Analyzed	7:30-8:30 AM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	1	1	0	1	1	1				
Configuration			LTR				LTR			L	T	R		L	T	R				
Volume (veh/h)	15	0	545		0	0	0		545	625	0		0	860	25					
Percent Heavy Vehicles (%)	3	3	3		3	3	3		7					12						
Proportion Time Blocked																				
Percent Grade (%)	0				0															
Right Turn Channelized									No				Yes							
Median Type Storage	Undivided																			

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		589			0				574				0		
Capacity, c (veh/h)		117							731				884		
v/c Ratio		5.03							0.78				0.00		
95% Queue Length, Q ₉₅ (veh)		239.8							9.7				0.0		
Control Delay (s/veh)		7323.2							27.1				9.1		
Level of Service (LOS)		F							D				A		
Approach Delay (s/veh)	7323.2								12.6				0.0		
Approach LOS	F														

HCM 6th Signalized Intersection Summary
4: Old Lakeland Hwy & US 98 Access Road

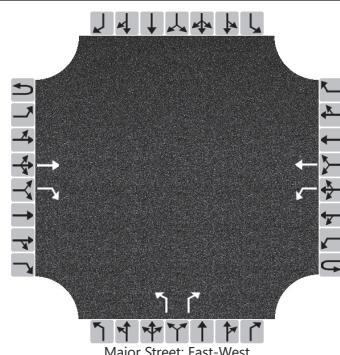
Design Year (2045) - No Build
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	205	55	65	340	350	235
Future Volume (veh/h)	205	55	65	340	350	235
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	216	0	68	358	368	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	280		199	1026	1343	
Arrive On Green	0.17	0.00	0.74	0.77	0.77	0.00
Sat Flow, veh/h	1654	1472	217	1337	1752	0
Grp Volume(v), veh/h	216	0	426	0	368	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1554	0	1752	0
Q Serve(g_s), s	15.6	0.0	0.0	0.0	7.8	0.0
Cycle Q Clear(g_c), s	15.6	0.0	9.7	0.0	7.8	0.0
Prop In Lane	1.00	1.00	0.16			0.00
Lane Grp Cap(c), veh/h	280		1187	0	1343	
V/C Ratio(X)	0.77		0.36	0.00	0.27	
Avail Cap(c_a), veh/h	476		1187	0	1343	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	0.0	4.6	0.0	4.3	0.0
Incr Delay (d2), s/veh	4.5	0.0	0.8	0.0	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	10.7	0.0	5.6	0.0	3.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	54.2	0.0	5.5	0.0	4.8	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	216	A		426	368	A
Approach Delay, s/veh	54.2			5.5	4.8	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		100.0		25.2		100.0
Change Period (Y+Rc), s		7.1		7.1		7.1
Max Green Setting (Gmax), s		92.9		32.9		92.9
Max Q Clear Time (g_c+l1), s		11.7		17.6		9.8
Green Ext Time (p_c), s		2.6		0.5		2.0
Intersection Summary						
HCM 6th Ctrl Delay			15.6			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	US 98 at Access Road
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/18/2021	East/West Street	US 98
Analysis Year	2045	North/South Street	Access Road
Time Analyzed	7:30-8:30 AM	Peak Hour Factor	0.95
Intersection Orientation	East-West	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			655	50		215	480			70		235				
Percent Heavy Vehicles (%)						12				11		11				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized	Yes								No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2					
Critical Headway (sec)					4.22				6.51		6.31					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.31				3.60		3.40					

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					226				74		247					
Capacity, c (veh/h)					860				76		430					
v/c Ratio					0.26				0.96		0.57					
95% Queue Length, Q ₉₅ (veh)					1.1				9.8		3.9					
Control Delay (s/veh)					10.7				307.3		24.5					
Level of Service (LOS)					B				F		C					
Approach Delay (s/veh)	3.3				89.4											
Approach LOS	F															

HCM 6th Signalized Intersection Summary
3: US 301 & US 98

Design Year (2045) - No Build
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	95	510	1090	75	625	1440
Future Volume (veh/h)	95	510	1090	75	625	1440
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	100	537	1147	79	658	1516
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	533	768	1377	614	453	2202
Arrive On Green	0.31	0.31	0.39	0.39	0.40	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	100	537	1147	79	658	1516
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	5.6	35.3	38.5	4.2	26.0	0.0
Cycle Q Clear(g_c), s	5.6	35.3	38.5	4.2	26.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	533	768	1377	614	453	2202
V/C Ratio(X)	0.19	0.70	0.83	0.13	1.45	0.69
Avail Cap(c_a), veh/h	561	793	1377	614	453	2202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	32.5	24.4	35.6	25.2	24.4	0.0
Incr Delay (d2), s/veh	0.2	2.6	6.0	0.4	204.8	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.0	17.7	23.3	2.8	46.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	32.7	27.0	41.6	25.6	229.2	0.2
LnGrp LOS	C	C	D	C	F	A
Approach Vol, veh/h	637		1226		2174	
Approach Delay, s/veh	27.9		40.6		69.5	
Approach LOS	C		D		E	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	30.0	55.2		85.2		44.8
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	22.5	45.5		75.5		40.2
Max Q Clear Time (g_c+l1), s	28.0	40.5		2.0		37.3
Green Ext Time (p_c), s	0.0	4.0		37.4		0.7
Intersection Summary						
HCM 6th Ctrl Delay			54.1			
HCM 6th LOS			D			

HCM 6th Signalized Intersection Summary
1: US 301 & Clinton Ave

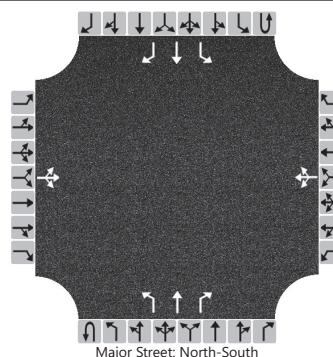
Design Year (2045) - No Build
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	550	175	880	115	200	45	545	1055	85	45	1055	305
Future Volume (veh/h)	550	175	880	115	200	45	545	1055	85	45	1055	305
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	579	184	926	121	211	47	574	1111	89	47	1111	321
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	366	484	216	270	364	79	516	2024	903	367	1452	648
Arrive On Green	0.11	0.14	0.14	0.10	0.13	0.10	0.31	0.76	0.76	0.07	0.41	0.41
Sat Flow, veh/h	3401	3497	1560	1767	2877	628	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	579	184	926	121	128	130	574	1111	89	47	1111	321
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1743	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	14.0	6.2	18.0	7.4	8.9	9.2	30.0	16.7	1.9	1.8	35.2	19.6
Cycle Q Clear(g_c), s	14.0	6.2	18.0	7.4	8.9	9.2	30.0	16.7	1.9	1.8	35.2	19.6
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	484	216	270	223	220	516	2024	903	367	1452	648
V/C Ratio(X)	1.58	0.38	4.29	0.45	0.57	0.59	1.11	0.55	0.10	0.13	0.76	0.50
Avail Cap(c_a), veh/h	366	484	216	291	244	241	516	2024	903	436	1452	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.0	50.9	56.0	42.3	53.5	54.1	31.7	8.5	6.8	18.0	32.8	28.2
Incr Delay (d2), s/veh	274.1	0.5	1490.0	1.2	2.7	3.2	64.5	0.5	0.1	0.2	3.9	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	31.5	4.9	146.2	5.9	7.2	7.5	31.2	6.9	1.1	1.3	21.3	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	332.1	51.4	1546.0	43.5	56.1	57.4	96.2	9.1	6.9	18.2	36.7	30.9
LnGrp LOS	F	D	F	D	E	E	F	A	A	B	D	C
Approach Vol, veh/h	1689				379			1774			1479	
Approach Delay, s/veh	967.1				52.5			37.2			34.9	
Approach LOS	F				D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.9	78.6	16.4	22.0	34.0	57.6	18.0	20.4				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	64.8	10.9	14.9	26.8	48.8	10.9	14.9				
Max Q Clear Time (g_c+l1), s	3.8	18.7	9.4	20.0	32.0	37.2	16.0	11.2				
Green Ext Time (p_c), s	0.0	20.1	0.0	0.0	0.0	9.0	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				332.8								
HCM 6th LOS				F								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Nashid Sharmin	Intersection	CR 54 at US 98
Agency/Co.	H.W. Lochner Inc.	Jurisdiction	FDOT D7
Date Performed	5/17/2021	East/West Street	CR 54
Analysis Year	2045	North/South Street	US 98
Time Analyzed	4:45-5:45 PM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	1.00
Project Description	US 98 PD&E Studies		

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	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	1	0		0	1	0		0	1	1	1	0	1	1	1				
Configuration			LTR				LTR			L	T	R		L	T	R				
Volume (veh/h)	25	0	545		0	0	0		545	860	0		0	625	15					
Percent Heavy Vehicles (%)	3	3	3		3	3	3		7					12						
Proportion Time Blocked																				
Percent Grade (%)	0				0															
Right Turn Channelized									No				Yes							
Median Type Storage	Undivided																			

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.17				4.22		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.26				2.31		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		600			0				574				0		
Capacity, c (veh/h)		116							907				711		
v/c Ratio		5.17							0.63				0.00		
95% Queue Length, Q ₉₅ (veh)		245.6							5.0				0.0		
Control Delay (s/veh)		7574.0							15.7				10.1		
Level of Service (LOS)		F							C				B		
Approach Delay (s/veh)	7574.0								6.1				0.0		
Approach LOS	F														

HCM 6th Signalized Intersection Summary
4: Old Lakeland Hwy & US 98 Access Road

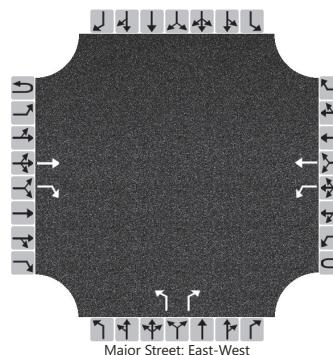
Design Year (2045) - No Build
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	235	65	55	350	340	205
Future Volume (veh/h)	235	65	55	350	340	205
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	247	0	58	368	358	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	313		169	1047	1306	
Arrive On Green	0.19	0.00	0.72	0.75	0.75	0.00
Sat Flow, veh/h	1654	1472	182	1405	1752	0
Grp Volume(v), veh/h	247	0	426	0	358	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1586	0	1752	0
Q Serve(g_s), s	17.4	0.0	0.0	0.0	8.0	0.0
Cycle Q Clear(g_c), s	17.4	0.0	10.3	0.0	8.0	0.0
Prop In Lane	1.00	1.00	0.14			0.00
Lane Grp Cap(c), veh/h	313		1176	0	1306	
V/C Ratio(X)	0.79		0.36	0.00	0.27	
Avail Cap(c_a), veh/h	556		1176	0	1306	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	47.2	0.0	5.3	0.0	5.0	0.0
Incr Delay (d2), s/veh	4.5	0.0	0.9	0.0	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	11.6	0.0	6.2	0.0	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.6	0.0	6.2	0.0	5.5	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	247	A		426	358	A
Approach Delay, s/veh	51.6			6.2	5.5	
Approach LOS	D			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s	95.0		27.1		95.0	
Change Period (Y+Rc), s	7.1		7.1		7.1	
Max Green Setting (Gmax), s	87.9		37.9		87.9	
Max Q Clear Time (g_c+l1), s	12.3		19.4		10.0	
Green Ext Time (p_c), s	2.6		0.6		2.0	
Intersection Summary						
HCM 6th Ctrl Delay			16.8			
HCM 6th LOS			B			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst		Nashid Sharmin				Intersection	
Agency/Co.		H.W. Lochner Inc.				Jurisdiction	
Date Performed		5/18/2021				East/West Street	
Analysis Year		2045				North/South Street	
Time Analyzed		4:45-5:45 PM				Peak Hour Factor	
Intersection Orientation		East-West				Analysis Time Period (hrs)	
Project Description		US 98 PD&E Studies					

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	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	1	1	0		1	0	1		0	0	0
Configuration			T	R		L	T			L		R				
Volume (veh/h)			480	70		235	655			50		215				
Percent Heavy Vehicles (%)						12				11		11				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized			Yes							No						
Median Type Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)					4.1				7.1		6.2					
Critical Headway (sec)					4.22				6.51		6.31					
Base Follow-Up Headway (sec)					2.2				3.5		3.3					
Follow-Up Headway (sec)					2.31				3.60		3.40					

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					247				53		226					
Capacity, c (veh/h)					1010				74		549					
v/c Ratio					0.24				0.71		0.41					
95% Queue Length, Q ₉₅ (veh)					1.0				5.1		2.1					
Control Delay (s/veh)					9.7				155.6		16.1					
Level of Service (LOS)					A				F		C					
Approach Delay (s/veh)					2.6				42.4							
Approach LOS									E							

HCM 6th Signalized Intersection Summary
3: US 301 & US 98

Design Year (2045) - No Build
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	75	625	1440	95	510	1090
Future Volume (veh/h)	75	625	1440	95	510	1090
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	79	658	1516	100	537	1147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	521	715	1524	680	356	2241
Arrive On Green	0.31	0.31	0.44	0.44	0.34	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	79	658	1516	100	537	1147
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	4.7	43.0	60.4	5.4	24.0	0.0
Cycle Q Clear(g_c), s	4.7	43.0	60.4	5.4	24.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	521	715	1524	680	356	2241
V/C Ratio(X)	0.15	0.92	0.99	0.15	1.51	0.51
Avail Cap(c_a), veh/h	521	715	1524	680	356	2241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.39	0.39
Uniform Delay (d), s/veh	35.2	34.4	39.3	23.8	36.4	0.0
Incr Delay (d2), s/veh	0.1	17.2	21.9	0.5	235.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.5	30.4	37.7	3.6	40.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	35.4	51.6	61.2	24.3	271.6	0.3
LnGrp LOS	D	D	E	C	F	A
Approach Vol, veh/h	737		1616		1684	
Approach Delay, s/veh	49.9		58.9		86.8	
Approach LOS	D		E		F	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	28.0	65.0		93.0		47.0
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	20.5	57.5		85.5		40.2
Max Q Clear Time (g_c+l1), s	26.0	62.4		2.0		45.0
Green Ext Time (p_c), s	0.0	0.0		23.6		0.0
Intersection Summary						
HCM 6th Ctrl Delay		68.9				
HCM 6th LOS			E			

HCM 6th Signalized Intersection Summary
1: US 301 & Clinton Ave

Design Year (2045) - No Build
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (veh/h)	305	200	545	85	175	45	880	1055	115	45	1055	550
Future Volume (veh/h)	305	200	545	85	175	45	880	1055	115	45	1055	550
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	321	211	574	89	184	47	926	1111	121	47	1111	579
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	413	515	230	253	291	73	553	2099	936	344	1396	623
Arrive On Green	0.12	0.15	0.15	0.08	0.10	0.08	0.35	0.79	0.79	0.06	0.40	0.40
Sat Flow, veh/h	3401	3497	1560	1767	2796	697	1767	3526	1572	1767	3526	1572
Grp Volume(v), veh/h	321	211	574	89	114	117	926	1111	121	47	1111	579
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1767	1763	1730	1767	1763	1572	1767	1763	1572
Q Serve(g_s), s	12.8	7.7	20.6	6.1	8.7	9.1	37.0	15.8	2.5	2.1	38.9	49.3
Cycle Q Clear(g_c), s	12.8	7.7	20.6	6.1	8.7	9.1	37.0	15.8	2.5	2.1	38.9	49.3
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	515	230	253	184	180	553	2099	936	344	1396	623
V/C Ratio(X)	0.78	0.41	2.50	0.35	0.62	0.65	1.68	0.53	0.13	0.14	0.80	0.93
Avail Cap(c_a), veh/h	413	515	230	317	227	222	553	2099	936	406	1396	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.18	0.18	0.18	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	54.2	59.7	49.3	60.1	60.9	35.0	7.5	6.2	20.9	37.3	40.4
Incr Delay (d2), s/veh	9.1	0.5	688.3	0.8	3.5	4.6	305.6	0.2	0.1	0.2	4.8	22.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	9.9	6.1	81.3	4.9	7.2	7.5	89.7	5.5	1.4	1.5	23.6	29.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.7	54.7	748.0	50.1	63.6	65.4	340.6	7.7	6.2	21.1	42.1	62.9
LnGrp LOS	E	D	F	D	E	E	F	A	A	C	D	E
Approach Vol, veh/h	1106				320			2158			1737	
Approach Delay, s/veh	418.6				60.5			150.5			48.4	
Approach LOS	F				E			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.1	87.3	15.0	24.6	41.0	59.4	21.0	18.6				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	10.8	71.8	12.9	15.9	33.8	48.8	13.9	14.9				
Max Q Clear Time (g_c+l1), s	4.1	17.8	8.1	22.6	39.0	51.3	14.8	11.1				
Green Ext Time (p_c), s	0.0	21.9	0.1	0.0	0.0	0.0	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				167.5								
HCM 6th LOS				F								
Notes												
User approved pedestrian interval to be less than phase max green.												

Appendix Q

Design Year (2045) Build Operational Analysis

HCM 6th Signalized Intersection Summary
1: US 98 & CR 54

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	545	0	0	0	545	785	0	0	1395	45
Future Volume (veh/h)	20	0	545	0	0	0	545	785	0	0	1395	45
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1670	1670	1670	1683	1683	1683	1617	1617	1617	1550	1550	1550
Adj Flow Rate, veh/h	21	0	502	0	0	0	574	826	0	0	1468	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	12	12	12
Cap, veh/h	153	0	441	0	129	0	700	2646	1180	55	1756	
Arrive On Green	0.05	0.00	0.08	0.00	0.00	0.00	0.23	0.86	0.00	0.00	0.60	0.00
Sat Flow, veh/h	1266	0	1415	0	1683	0	2987	3072	1370	550	2945	1314
Grp Volume(v), veh/h	21	0	502	0	0	0	574	826	0	0	1468	0
Grp Sat Flow(s), veh/h/ln	1266	0	1415	0	1683	0	1493	1536	1370	550	1472	1314
Q Serve(g_s), s	2.1	0.0	10.0	0.0	0.0	0.0	23.7	6.6	0.0	0.0	52.2	0.0
Cycle Q Clear(g_c), s	2.1	0.0	10.0	0.0	0.0	0.0	23.7	6.6	0.0	0.0	52.2	0.0
Prop In Lane	1.00		1.00	0.00			0.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	123	0	441	0	129	0	700	2646	1180	55	1756	
V/C Ratio(X)	0.17	0.00	1.14	0.00	0.00	0.00	0.82	0.31	0.00	0.00	0.84	
Avail Cap(c_a), veh/h	123	0	441	0	129	0	965	2646	1180	55	1756	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	57.8	0.0	44.8	0.0	0.0	0.0	47.2	1.7	0.0	0.0	21.1	0.0
Incr Delay (d2), s/veh	0.7	0.0	86.7	0.0	0.0	0.0	4.1	0.3	0.0	0.0	4.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	1.2	0.0	34.6	0.0	0.0	0.0	13.7	1.2	0.0	0.0	23.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.5	0.0	131.5	0.0	0.0	0.0	51.2	2.0	0.0	0.0	26.0	0.0
LnGrp LOS	E	A	F	A	A	A	D	A	A	A	C	
Approach Vol, veh/h	523				0			1400			1468	A
Approach Delay, s/veh	128.5				0.0			22.2			26.0	
Approach LOS		F						C			C	
Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+R _c), s	116.0		14.0	34.5	81.5		14.0					
Change Period (Y+R _c), s	7.1		7.1	7.1	7.1		7.1					
Max Green Setting (Gmax), s	108.9		6.9	38.9	62.9		6.9					
Max Q Clear Time (g_c+l1), s	8.6		12.0	25.7	54.2		0.0					
Green Ext Time (p_c), s	5.8		0.0	1.7	5.7		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
2: Old Lakeland Hwy & US 98 Access Road

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↔	
Traffic Volume (veh/h)	240	65	65	340	350	255
Future Volume (veh/h)	240	65	65	340	350	255
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	253	0	68	358	368	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	313		695	1301	1131	
Arrive On Green	0.19	0.00	0.07	0.75	0.65	0.00
Sat Flow, veh/h	1654	1472	1654	1737	1752	0
Grp Volume(v), veh/h	253	0	68	358	368	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1654	1737	1752	0
Q Serve(g_s), s	19.0	0.0	1.5	8.5	12.3	0.0
Cycle Q Clear(g_c), s	19.0	0.0	1.5	8.5	12.3	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	313		695	1301	1131	
V/C Ratio(X)	0.81		0.10	0.28	0.33	
Avail Cap(c_a), veh/h	433		714	1301	1131	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.90	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.4	0.0	5.6	5.2	10.4	0.0
Incr Delay (d2), s/veh	7.0	0.0	0.1	0.5	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	12.6	0.0	0.7	4.5	7.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	57.5	0.0	5.7	5.7	11.1	0.0
LnGrp LOS	E		A	A	B	
Approach Vol, veh/h	253	A		426	368	A
Approach Delay, s/veh	57.5			5.7	11.1	
Approach LOS	E			A	B	
Timer - Assigned Phs	2		4	5	6	
Phs Duration (G+Y+Rc), s	101.4		28.6	13.5	87.9	
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1	
Max Green Setting (Gmax), s	84.9		30.9	7.9	69.9	
Max Q Clear Time (g_c+l1), s	10.5		21.0	3.5	14.3	
Green Ext Time (p_c), s	2.0		0.5	0.0	2.0	
Intersection Summary						
HCM 6th Ctrl Delay			20.1			
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑ ↗	↗ ↘	↖ ↗	↑ ↑	↑ ↑	↗
Traffic Volume (veh/h)	95	235	215	645	1205	95
Future Volume (veh/h)	95	235	215	645	1205	95
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	100	247	226	679	1268	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	242	261	365	2593	2311	1031
Arrive On Green	0.15	0.12	0.08	0.79	0.68	0.68
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	100	247	226	679	1268	100
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	7.1	15.9	4.6	7.1	24.7	2.9
Cycle Q Clear(g_c), s	7.1	15.9	4.6	7.1	24.7	2.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	242	261	365	2593	2311	1031
V/C Ratio(X)	0.41	0.95	0.62	0.26	0.55	0.10
Avail Cap(c_a), veh/h	242	261	564	2593	2311	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.99	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	52.9	10.9	3.5	10.5	7.0
Incr Delay (d2), s/veh	1.1	40.9	1.7	0.1	0.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.3	26.4	4.0	2.7	12.5	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.6	93.7	12.7	3.6	11.4	7.2
LnGrp LOS	D	F	B	A	B	A
Approach Vol, veh/h	347			905	1368	
Approach Delay, s/veh	81.6			5.9	11.1	
Approach LOS	F			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	14.3	92.7		23.0		107.0
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	22.9	69.9		15.9		99.9
Max Q Clear Time (g_c+l1), s	6.6	26.7		17.9		9.1
Green Ext Time (p_c), s	0.5	11.1		0.0		4.5
Intersection Summary						
HCM 6th Ctrl Delay			18.6			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
4: US 301 & Old US 98

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑↑ ↗	↑ ↗	↑ ↗	↑↑ ↗
Traffic Volume (veh/h)	95	5	1115	75	5	1510
Future Volume (veh/h)	95	5	1115	75	5	1510
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	100	5	1174	79	5	1589
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	164	440	2137	953	591	2968
Arrive On Green	0.10	0.10	0.61	0.61	0.40	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	100	5	1174	79	5	1589
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	7.4	0.3	25.6	2.7	0.0	0.0
Cycle Q Clear(g_c), s	7.4	0.3	25.6	2.7	0.0	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	164	440	2137	953	591	2968
V/C Ratio(X)	0.61	0.01	0.55	0.08	0.01	0.54
Avail Cap(c_a), veh/h	561	793	2137	953	591	2968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.55	0.55
Uniform Delay (d), s/veh	56.4	32.8	14.8	10.4	3.7	0.0
Incr Delay (d2), s/veh	3.6	0.0	1.0	0.2	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.8	0.2	14.1	1.6	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	60.0	32.8	15.8	10.5	3.7	0.4
LnGrp LOS	E	C	B	B	A	A
Approach Vol, veh/h	105		1253		1594	
Approach Delay, s/veh	58.7		15.5		0.4	
Approach LOS	E		B		A	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	30.0	83.4		113.4		16.6
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	22.5	45.5		75.5		40.2
Max Q Clear Time (g_c+l1), s	2.0	27.6		2.0		9.4
Green Ext Time (p_c), s	0.0	11.9		39.5		0.3
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave/US 98

Design Year (2045) - Build Alternative
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑	↑	↑↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	550	810	410	185	810	345	230	880	110	230	920	305
Future Volume (veh/h)	550	810	410	185	810	345	230	880	110	230	920	305
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/ln	1841	1841	1841	1781	1781	1781	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	579	853	432	195	853	363	242	926	116	242	968	321
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	8	8	8	3	3	3	3	3	3
Cap, veh/h	654	1228	548	314	937	418	290	1139	508	290	1139	508
Arrive On Green	0.19	0.35	0.35	0.12	0.28	0.28	0.06	0.22	0.22	0.08	0.32	0.32
Sat Flow, veh/h	3401	3497	1560	1697	3385	1510	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	579	853	432	195	853	363	242	926	116	242	968	321
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1697	1692	1510	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	21.5	27.2	32.3	10.2	31.7	29.8	9.1	32.5	7.9	9.0	33.3	22.6
Cycle Q Clear(g_c), s	21.5	27.2	32.3	10.2	31.7	29.8	9.1	32.5	7.9	9.0	33.3	22.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	654	1228	548	314	937	418	290	1139	508	290	1139	508
V/C Ratio(X)	0.89	0.69	0.79	0.62	0.91	0.87	0.83	0.81	0.23	0.83	0.85	0.63
Avail Cap(c_a), veh/h	654	1228	548	322	937	418	290	1139	508	290	1139	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	36.2	37.8	29.1	45.4	44.7	60.4	47.2	37.6	58.6	41.1	37.4
Incr Delay (d2), s/veh	13.8	1.7	7.6	3.5	12.7	17.4	7.0	2.2	0.3	18.5	8.0	5.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	15.4	17.1	18.9	7.7	20.8	18.7	6.1	18.4	4.8	8.1	21.4	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.9	37.9	45.4	32.7	58.1	62.2	67.4	49.4	37.9	77.1	49.1	43.3
LnGrp LOS	E	D	D	C	E	E	E	D	D	E	D	D
Approach Vol, veh/h	1864				1411			1284			1531	
Approach Delay, s/veh	48.0				55.6			51.8			52.3	
Approach LOS	D				E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	46.0	19.3	49.7	15.0	46.0	29.0	40.0				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	7.8	38.8	12.9	41.9	7.8	38.8	21.9	32.9				
Max Q Clear Time (g_c+l1), s	11.0	34.5	12.2	34.3	11.1	35.3	23.5	33.7				
Green Ext Time (p_c), s	0.0	3.2	0.0	4.1	0.0	2.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				51.6								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												

MOVEMENT SUMMARY

Site: 9 [US 98 at Townsend_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	50	8.0	53	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	35.7
8	T1	730	8.0	768	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	39.8
18	R2	25	8.0	26	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	34.5
Approach		805	8.0	847	8.0	0.360	6.6	LOS A	1.8	48.0	0.32	0.18	0.32	39.3
East: Townsend														
1	L2	65	2.0	68	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.8
6	T1	15	2.0	16	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	29.6
16	R2	60	2.0	63	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.2
Approach		140	2.0	147	2.0	0.237	8.7	LOS A	0.9	21.7	0.63	0.63	0.63	32.2
North: US 98														
7	L2	45	8.0	47	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	34.0
4	T1	1125	8.0	1184	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	37.5
14	R2	40	8.0	42	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	32.8
Approach		1210	8.0	1274	8.0	0.552	9.6	LOS A	3.5	93.5	0.44	0.28	0.44	37.2
West: Townsend														
5	L2	55	2.0	58	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	30.4
2	T1	10	2.0	11	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	27.6
12	R2	70	2.0	74	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	29.8
Approach		135	2.0	142	2.0	0.336	14.4	LOS B	1.3	32.0	0.77	0.83	0.98	29.8
All Vehicles		2290	7.3	2411	7.3	0.552	8.8	LOS A	3.5	93.5	0.43	0.30	0.44	37.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Old US 98_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	95	8.0	100	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.0
8	T1	760	8.0	800	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.8
18	R2	20	8.0	21	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	34.6
Approach		875	8.0	921	8.0	0.363	6.3	LOS A	1.9	50.8	0.17	0.06	0.17	39.6
East: Old US 98														
1	L2	65	2.0	68	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.7
6	T1	5	2.0	5	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	30.8
16	R2	55	2.0	58	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.1
Approach		125	2.0	132	2.0	0.217	8.7	LOS A	0.8	19.6	0.63	0.63	0.63	32.4
North: US 98														
7	L2	25	8.0	26	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	34.5
4	T1	1020	8.0	1074	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	38.1
14	R2	5	8.0	5	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	36.9
Approach		1050	8.0	1105	8.0	0.497	8.9	LOS A	2.8	75.7	0.46	0.31	0.46	38.0
West: Old US 98														
5	L2	5	2.0	5	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	37.7
2	T1	5	2.0	5	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	35.0
12	R2	75	2.0	79	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	36.8
Approach		85	2.0	89	2.0	0.187	10.2	LOS B	0.6	15.9	0.70	0.70	0.70	36.8
All Vehicles		2135	7.4	2247	7.4	0.497	7.8	LOS A	2.8	75.7	0.36	0.25	0.36	38.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay v/c	Level of Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	40	8.0	42	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	35.5
8	T1	735	8.0	774	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	39.4
18	R2	50	8.0	53	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	34.2
Approach		825	8.0	868	8.0	0.387	7.2	LOS A	2.0	52.0	0.39	0.26	0.39	38.8
East: Crossroads Development														
1	L2	140	2.0	147	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.7
6	T1	5	2.0	5	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	29.0
16	R2	115	2.0	121	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.2
Approach		260	2.0	274	2.0	0.453	13.1	LOS B	2.2	57.1	0.71	0.83	1.05	30.4
North: US 98														
7	L2	60	8.0	63	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	34.7
4	T1	795	8.0	837	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	38.5
14	R2	50	8.0	53	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	33.6
Approach		905	8.0	953	8.0	0.435	8.0	LOS A	2.3	60.8	0.44	0.31	0.44	37.9
West: Crossroads Development														
5	L2	95	2.0	100	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.6
2	T1	5	2.0	5	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	28.8
12	R2	115	2.0	121	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.0
Approach		215	2.0	226	2.0	0.422	13.6	LOS B	1.9	48.3	0.73	0.83	1.04	30.3
All Vehicles		2205	6.7	2321	6.7	0.453	8.8	LOS A	2.3	60.8	0.48	0.40	0.55	36.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2045-AM (Site Folder: General)]

Design Year (2045)

AM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	930	8.0	979	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	36.6
18	R2	5	8.0	5	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	33.7
Approach		935	8.0	984	8.0	0.552	11.6	LOS B	4.3	113.6	0.66	0.72	0.97	36.6
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	28.4
16	R2	355	3.0	374	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	27.9
Approach		360	3.0	379	3.0	0.726	26.7	LOS D	5.2	133.5	0.85	1.11	1.85	28.0
North: Clinton Avenue														
7u	U	75	8.0	79	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	37.1
7	L2	300	8.0	316	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	34.7
4	T1	895	8.0	942	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	38.1
Approach		1270	8.0	1337	8.0	0.511	8.1	LOS A	3.4	91.6	0.07	0.01	0.07	37.2
All Vehicles		2565	7.3	2700	7.3	0.726	12.0	LOS B	5.2	133.5	0.39	0.42	0.65	35.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: I:\TPA\PRJ\000015360\ACER Study\TRAFFIC\B - Operational Analysis\5 - Build - Sidra Analysis\2045\US 98 at Clinton Avenue_2045.sip9

HCM 6th Signalized Intersection Summary
1: US 98 & CR 54

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	0	545	0	0	0	545	1430	0	0	925	25
Future Volume (veh/h)	45	0	545	0	0	0	545	1430	0	0	925	25
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1796	1796	1796	1722	1722	1722
Adj Flow Rate, veh/h	47	0	242	0	0	0	574	1505	0	0	974	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	2	2	2	7	7	7	12	12	12
Cap, veh/h	172	0	473	0	160	0	713	2925	1305	51	2008	
Arrive On Green	0.06	0.00	0.09	0.00	0.00	0.00	0.21	0.86	0.00	0.00	0.61	0.00
Sat Flow, veh/h	1406	0	1572	0	1870	0	3319	3413	1522	321	3272	1459
Grp Volume(v), veh/h	47	0	242	0	0	0	574	1505	0	0	974	0
Grp Sat Flow(s), veh/h/ln	1406	0	1572	0	1870	0	1659	1706	1522	321	1636	1459
Q Serve(g_s), s	4.5	0.0	12.0	0.0	0.0	0.0	23.0	15.8	0.0	0.0	22.9	0.0
Cycle Q Clear(g_c), s	4.5	0.0	12.0	0.0	0.0	0.0	23.0	15.8	0.0	0.0	22.9	0.0
Prop In Lane	1.00		1.00	0.00			0.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	141	0	473	0	160	0	713	2925	1305	51	2008	
V/C Ratio(X)	0.33	0.00	0.51	0.00	0.00	0.00	0.80	0.51	0.00	0.00	0.49	
Avail Cap(c_a), veh/h	141	0	473	0	160	0	1328	2925	1305	51	2008	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.1	0.0	40.5	0.0	0.0	0.0	52.2	2.6	0.0	0.0	14.9	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.9	0.0	0.0	0.0	2.2	0.7	0.0	0.0	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	3.0	0.0	11.4	0.0	0.0	0.0	14.4	4.2	0.0	0.0	12.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.4	0.0	41.4	0.0	0.0	0.0	54.3	3.2	0.0	0.0	15.7	0.0
LnGrp LOS	E	A	D	A	A	A	D	A	A	A	B	
Approach Vol, veh/h	289				0			2079			974	A
Approach Delay, s/veh	45.0				0.0			17.3			15.7	
Approach LOS		D						B			B	
Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	124.0		16.0	34.1	89.9		16.0					
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1		7.1					
Max Green Setting (Gmax), s	116.9		8.9	52.9	56.9		8.9					
Max Q Clear Time (g_c+l1), s	17.8		14.0	25.0	24.9		0.0					
Green Ext Time (p_c), s	15.4		0.0	2.0	6.9		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
2: Old Lakeland Hwy & US 98 Access Road

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↔	
Traffic Volume (veh/h)	275	70	65	350	340	245
Future Volume (veh/h)	275	70	65	350	340	245
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1737	1737	1752	1752
Adj Flow Rate, veh/h	289	0	68	368	358	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	11	11	10	10
Cap, veh/h	345		682	1276	1116	
Arrive On Green	0.21	0.00	0.07	0.73	0.64	0.00
Sat Flow, veh/h	1654	1472	1654	1737	1752	0
Grp Volume(v), veh/h	289	0	68	368	358	0
Grp Sat Flow(s), veh/h/ln	1654	1472	1654	1737	1752	0
Q Serve(g_s), s	23.5	0.0	1.7	10.0	13.0	0.0
Cycle Q Clear(g_c), s	23.5	0.0	1.7	10.0	13.0	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	345		682	1276	1116	
V/C Ratio(X)	0.84		0.10	0.29	0.32	
Avail Cap(c_a), veh/h	484		698	1276	1116	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.94	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.1	0.0	6.6	6.3	11.6	0.0
Incr Delay (d2), s/veh	8.4	0.0	0.1	0.6	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	15.2	0.0	0.9	5.7	8.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	61.5	0.0	6.7	6.8	12.3	0.0
LnGrp LOS	E		A	A	B	
Approach Vol, veh/h	289	A		436	358	A
Approach Delay, s/veh	61.5			6.8	12.3	
Approach LOS	E			A	B	
Timer - Assigned Phs	2		4	5	6	
Phs Duration (G+Y+Rc), s	106.8		33.2	13.6	93.2	
Change Period (Y+Rc), s	7.1		7.1	7.1	7.1	
Max Green Setting (Gmax), s	87.9		37.9	7.9	72.9	
Max Q Clear Time (g_c+l1), s	12.0		25.5	3.7	15.0	
Green Ext Time (p_c), s	2.0		0.6	0.0	1.9	
Intersection Summary						
HCM 6th Ctrl Delay			23.2			
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary
3: US 98 & US 98 Access Road

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑↑	↑↑	↑ ↗
Traffic Volume (veh/h)	95	215	235	1240	790	115
Future Volume (veh/h)	95	215	235	1240	790	115
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1737	1737	1722	1722	1781	1781
Adj Flow Rate, veh/h	100	226	247	1305	832	121
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	11	12	12	8	8
Cap, veh/h	295	323	482	2502	2203	983
Arrive On Green	0.18	0.16	0.09	0.76	0.65	0.65
Sat Flow, veh/h	1654	1472	1640	3358	3474	1510
Grp Volume(v), veh/h	100	226	247	1305	832	121
Grp Sat Flow(s), veh/h/ln	1654	1472	1640	1636	1692	1510
Q Serve(g_s), s	7.4	19.8	6.2	21.9	15.9	4.3
Cycle Q Clear(g_c), s	7.4	19.8	6.2	21.9	15.9	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	295	323	482	2502	2203	983
V/C Ratio(X)	0.34	0.70	0.51	0.52	0.38	0.12
Avail Cap(c_a), veh/h	295	323	741	2502	2203	983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.99	0.99	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	50.4	7.2	6.4	11.3	9.3
Incr Delay (d2), s/veh	0.7	6.5	0.8	0.2	0.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	5.5	22.8	3.2	9.6	9.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.0	57.0	8.1	6.6	11.8	9.5
LnGrp LOS	D	E	A	A	B	A
Approach Vol, veh/h	326			1552	953	
Approach Delay, s/veh	55.1			6.9	11.5	
Approach LOS	E			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+R _c), s	15.9	95.1		28.9		111.1
Change Period (Y+R _c), s	7.1	7.1		7.1		7.1
Max Green Setting (Gmax), s	30.9	65.9		21.9		103.9
Max Q Clear Time (g_c+l1), s	8.2	17.9		21.8		23.9
Green Ext Time (p_c), s	0.6	6.3		0.0		11.8
Intersection Summary						
HCM 6th Ctrl Delay			14.0			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
4: US 301 & Old US 98

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑↑	↑	↑	↑↑
Traffic Volume (veh/h)	75	5	1515	95	5	1130
Future Volume (veh/h)	75	5	1515	95	5	1130
Initial Q (Q _b), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1781	1781	1841	1841	1856	1856
Adj Flow Rate, veh/h	79	5	1595	100	5	1189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	8	4	4	3	3
Cap, veh/h	150	385	2288	1020	459	3011
Arrive On Green	0.09	0.09	0.65	0.65	0.34	1.00
Sat Flow, veh/h	1697	1510	3589	1560	1767	3618
Grp Volume(v), veh/h	79	5	1595	100	5	1189
Grp Sat Flow(s), veh/h/ln	1697	1510	1749	1560	1767	1763
Q Serve(g_s), s	6.2	0.3	40.6	3.3	0.1	0.0
Cycle Q Clear(g_c), s	6.2	0.3	40.6	3.3	0.1	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	150	385	2288	1020	459	3011
V/C Ratio(X)	0.52	0.01	0.70	0.10	0.01	0.39
Avail Cap(c_a), veh/h	521	715	2288	1020	459	3011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.71	0.71
Uniform Delay (d), s/veh	61.0	39.0	15.4	8.9	6.6	0.0
Incr Delay (d2), s/veh	2.8	0.0	1.8	0.2	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.9	0.2	20.6	1.9	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	63.8	39.0	17.2	9.1	6.7	0.3
LnGrp LOS	E	D	B	A	A	A
Approach Vol, veh/h	84		1695		1194	
Approach Delay, s/veh	62.3		16.7		0.3	
Approach LOS	E		B		A	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+R _c), s	28.0	95.6		123.6		16.4
Change Period (Y+R _c), s	7.5	7.5		7.5		6.8
Max Green Setting (Gmax), s	20.5	57.5		85.5		40.2
Max Q Clear Time (g_c+l1), s	2.1	42.6		2.0		8.2
Green Ext Time (p_c), s	0.0	12.7		24.4		0.2
Intersection Summary						
HCM 6th Ctrl Delay			11.4			
HCM 6th LOS			B			

HCM 6th Signalized Intersection Summary
5: US 301 & Clinton Ave/US 98

Design Year (2045) - Build Alternative
PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑	↑	↑↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	305	850	230	125	935	260	410	920	190	365	880	550
Future Volume (veh/h)	305	850	230	125	935	260	410	920	190	365	880	550
Initial Q (Q _b), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No	No		No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1781	1781	1781	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	321	895	242	132	984	274	432	968	200	384	926	579
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	8	8	8	3	3	3	3	3	3
Cap, veh/h	340	1049	468	225	967	431	441	1259	562	490	1309	584
Arrive On Green	0.10	0.30	0.30	0.09	0.29	0.29	0.26	0.71	0.71	0.14	0.37	0.37
Sat Flow, veh/h	3401	3497	1560	1697	3385	1510	3428	3526	1572	3428	3526	1572
Grp Volume(v), veh/h	321	895	242	132	984	274	432	968	200	384	926	579
Grp Sat Flow(s), veh/h/ln	1700	1749	1560	1697	1692	1510	1714	1763	1572	1714	1763	1572
Q Serve(g_s), s	13.1	33.7	18.0	7.4	40.0	22.2	17.5	24.4	6.8	15.1	31.3	51.3
Cycle Q Clear(g_c), s	13.1	33.7	18.0	7.4	40.0	22.2	17.5	24.4	6.8	15.1	31.3	51.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	340	1049	468	225	967	431	441	1259	562	490	1309	584
V/C Ratio(X)	0.94	0.85	0.52	0.59	1.02	0.64	0.98	0.77	0.36	0.78	0.71	0.99
Avail Cap(c_a), veh/h	340	1049	468	225	967	431	441	1259	562	490	1309	584
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.6	46.1	40.6	34.8	50.0	43.6	51.8	16.3	13.8	57.9	37.5	43.8
Incr Delay (d2), s/veh	34.4	6.9	1.0	3.9	33.4	3.1	8.8	0.4	0.2	8.1	3.2	35.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	11.6	21.6	11.2	5.8	28.7	13.2	8.0	6.4	2.7	11.3	19.6	33.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	97.0	53.0	41.6	38.8	83.4	46.7	60.6	16.8	14.0	66.1	40.7	79.0
LnGrp LOS	F	D	D	D	F	D	E	B	B	E	D	E
Approach Vol, veh/h	1458				1390			1600			1889	
Approach Delay, s/veh	60.8				71.9			28.3			57.6	
Approach LOS	E				E			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	54.0	16.0	46.0	22.0	56.0	18.0	44.0				
Change Period (Y+Rc), s	7.2	7.2	7.1	7.1	7.2	7.2	7.1	7.1				
Max Green Setting (Gmax), s	16.8	46.8	8.9	38.9	14.8	48.8	10.9	36.9				
Max Q Clear Time (g_c+l1), s	17.1	26.4	9.4	35.7	19.5	53.3	15.1	42.0				
Green Ext Time (p_c), s	0.0	11.9	0.0	1.9	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				54.1								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Townsend_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	80	8.0	84	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	33.3
8	T1	1195	8.0	1258	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	36.8
18	R2	70	8.0	74	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	32.2
Approach		1345	8.0	1416	8.0	0.617	11.1	LOS B	4.3	115.0	0.50	0.33	0.50	36.3
East: Townsend														
1	L2	40	2.0	42	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.7
6	T1	5	2.0	5	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	27.9
16	R2	50	2.0	53	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.2
Approach		95	2.0	100	2.0	0.257	13.7	LOS B	0.9	22.0	0.77	0.80	0.85	30.3
North: US 98														
7	L2	80	8.0	84	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	34.7
4	T1	835	8.0	879	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	38.5
14	R2	80	8.0	84	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	33.7
Approach		995	8.0	1047	8.0	0.452	7.9	LOS A	2.5	67.0	0.38	0.23	0.38	37.7
West: Townsend														
5	L2	45	2.0	47	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	32.6
2	T1	10	2.0	11	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	29.4
12	R2	55	2.0	58	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	31.9
Approach		110	2.0	116	2.0	0.209	9.2	LOS A	0.7	18.4	0.66	0.66	0.66	32.0
All Vehicles		2545	7.5	2679	7.5	0.617	9.9	LOS A	4.3	115.0	0.47	0.32	0.47	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 9 [US 98 at Old US 98_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]			sec	[Veh. veh]	[Dist ft]				
South: US 98														
3	L2	75	8.0	79	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	37.6
8	T1	1105	8.0	1163	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	38.1
18	R2	70	8.0	74	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	33.2
Approach		1250	8.0	1316	8.0	0.538	9.0	LOS A	3.5	94.3	0.32	0.16	0.32	37.8
East: Old US 98														
1	L2	40	2.0	42	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.7
6	T1	5	2.0	5	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	29.8
16	R2	45	2.0	47	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.1
Approach		90	2.0	95	2.0	0.214	11.4	LOS B	0.7	18.0	0.73	0.73	0.73	31.3
North: US 98														
7	L2	60	8.0	63	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	34.9
4	T1	885	8.0	932	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	38.8
14	R2	5	8.0	5	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	37.7
Approach		950	8.0	1000	8.0	0.429	7.5	LOS A	2.3	62.0	0.36	0.22	0.36	38.5
West: Old US 98														
5	L2	5	2.0	5	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	38.3
2	T1	5	2.0	5	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	35.5
12	R2	95	2.0	100	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	37.4
Approach		105	2.0	111	2.0	0.205	9.4	LOS A	0.7	17.9	0.66	0.66	0.66	37.3
All Vehicles		2395	7.5	2521	7.5	0.538	8.5	LOS A	3.5	94.3	0.37	0.23	0.37	37.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 9 [US 98 at Crossroad_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance															
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. v/c	Level of Delay	Service sec	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: US 98															
3	L2	125	8.0	132	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	33.3	
8	T1	880	8.0	926	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	36.8	
18	R2	155	8.0	163	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	32.3	
Approach		1160	8.0	1221	8.0	0.577	10.8	LOS B	4.1	109.5	0.56	0.46	0.62	35.8	
East: Crossroads Development															
1	L2	85	2.0	89	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	30.3	
6	T1	5	2.0	5	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	28.6	
16	R2	100	2.0	105	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	29.8	
Approach		190	2.0	200	2.0	0.410	14.5	LOS B	1.8	44.6	0.76	0.85	1.06	30.0	
North: US 98															
7	L2	125	8.0	132	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	33.7	
4	T1	790	8.0	832	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	37.4	
14	R2	105	8.0	111	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	32.9	
Approach		1020	8.0	1074	8.0	0.507	9.4	LOS A	2.8	75.5	0.52	0.39	0.52	36.4	
West: Crossroads Development															
5	L2	85	2.0	89	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	31.4	
2	T1	5	2.0	5	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	29.5	
12	R2	70	2.0	74	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	30.8	
Approach		160	2.0	168	2.0	0.317	11.4	LOS B	1.2	31.1	0.70	0.74	0.83	31.0	
All Vehicles		2530	7.2	2663	7.2	0.577	10.6	LOS B	4.1	109.5	0.57	0.48	0.63	35.2	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 8 [US 98 at Clinton Avenue_2045-PM (Site Folder: General)]

Design Year (2045)

PM Peak Hour

Site Category: (None)

Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
		[Total veh/h]	HV %	[Total veh/h]	HV %	v/c	sec		[Veh. veh]	Dist ft				
South: US 98														
8	T1	1055	8.0	1111	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	34.8
18	R2	5	8.0	5	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	32.2
Approach		1060	8.0	1116	8.0	0.648	14.8	LOS B	6.5	174.1	0.74	0.91	1.32	34.8
East: Clinton Avenue														
1	L2	5	3.0	5	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.7
16	R2	300	3.0	316	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.3
Approach		305	3.0	321	3.0	0.681	25.8	LOS D	4.2	106.7	0.85	1.07	1.71	28.3
North: Clinton Avenue														
7u	U	55	8.0	58	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	36.5
7	L2	355	8.0	374	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	34.3
4	T1	1010	8.0	1063	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	37.5
Approach		1420	8.0	1495	8.0	0.571	9.2	LOS A	4.3	114.4	0.08	0.01	0.08	36.6
All Vehicles		2785	7.5	2932	7.5	0.681	13.2	LOS B	6.5	174.1	0.41	0.47	0.73	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: I:\TPA\PRJ\000015360\ACER Study\TRAFFIC\B - Operational Analysis\5 - Build - Sidra Analysis\2045\US 98 at Clinton Avenue_2045.sip9