INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR)

INTERSTATE 275 (SR 93) AT 31ST STREET SOUTH

CITY OF ST. PETERSBURG, FLORIDA

FPID #254677-1-52-33

Prepared for:

FLORIDA DEPARTMENT OF TRANSPORTATION

DISTRICT 7

11201 N McKinley Drive

Tampa, Florida 33612

September 2019

PROFESSIONAL ENGINEER CERTIFICATION

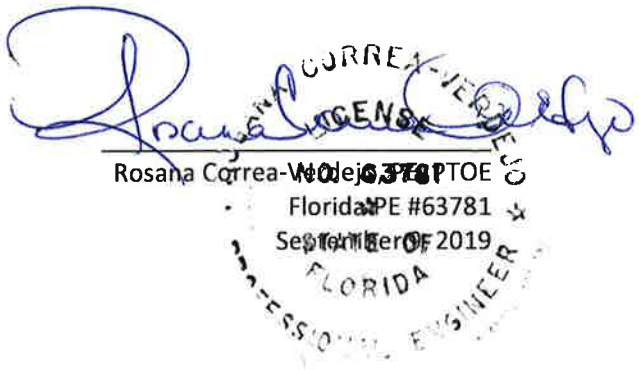
I hereby certify that I am a registered professional engineer in the State of Florida and that this study has been prepared in accordance with FDOT and FHWA methodologies and guidelines. I certify that I have prepared/supervised the preparation of this study, traffic analysis, findings, and recommendations for the following project:

INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR)

INTERSTATE 275 (SR 93) AT 31ST STREET SOUTH

CITY OF ST. PETERSBURG, FLORIDA

FPID #254677-1-52-33



Rosana Correa-Velez, PTOE
Florida PE #63781
September 6, 2019

Interchange Operational Analysis Report (IOAR)

I-275 at 31st Street S

FPID: 254677-1-52-33

Florida Department of Transportation

Determination of Engineering and Operational Acceptability

Acceptance of this document indicates successful completion of the review and determination of engineering and operational acceptability of the Interchange Access Request. Approval of the access request is contingent upon compliance with applicable Federal requirements, specifically the National Environmental Policy Act (NEPA) or Department's Project Development and Environment (PD&E) Procedures. Completion of the NEPA/PD&E process is considered approval of the project location design concept described in the environmental document.

Requestor	DocuSigned by: Richard Moss CADF49BFE536492... Richard Moss, P.E. FDOT District Seven	10/1/2019 | 2:04 PM EDT Date
Interchange Review Coordinator	DocuSigned by: Waddah Farah 9C8365A20D9447F... Waddah Farah District Seven	10/1/2019 | 2:45 PM EDT Date
Systems Management Administrator	DocuSigned by: [signature] Maria J. Overton, PE, CPM Systems Implementation Office – Central Office	10/14/2019 | 11:14 AM Date
State Chief Engineer	DocuSigned by: Will Watts 022E6284390B41A... Will Watts, P.E. Central Office	10/14/2019 | 11:24 Date

SYSTEMS IMPLEMENTATION OFFICE

QUALITY CONTROL CERTIFICATION FOR INTERCHANGE ACCESS REQUEST SUBMITTAL

Submittal Date: September 2019

FM Number: 254677-1-52-33

Project Title: I-275 at 31st Street S Interchange Operational Analysis Report (IOAR)

District: Seven

Requestor: FDOT D7 Phone: _____

District IRC: Waddah Farah Phone: 813-975-6440

Document Type: ☐ MLOU ☐ IJR ☐ IMR X IOAR ☐ OTHER_____

Status of Document The document presented herewith is the I-275/31st Street South IOAR.

Quality Control (QC) Statement

This document has been prepared following FDOT Procedure Topic No. 525-030-160 (New or Modified Interchanges) and complies with the FHWA two policy requirements. Appropriate District level quality control reviews have been conducted and all comments and issues have been resolved to their satisfaction. A record of all comments and responses provided during QC review is available in the project file or Electronic Review Comments (ERC) system.

Requestor DocuSigned by: Richard Moss CADF49BFE536492... Date: 10/1/2019 | 2:04 PM EDT

Richard Moss, P.E., (813) 975-6000

IRC DocuSigned by: Waddah Farah 9C8365A20D9447F... Date: 10/1/2019 | 2:45 PM EDT

Waddah Farah

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Note: Appendices are included in the attached CD

EXECUTIVE SUMMARY

The purpose of this study is to evaluate current traffic operations, identify operational deficiencies, and recommend operational improvements for the I-275 at 31st Street South interchange. The proposed improvements were a product of the coordination between FDOT and the City of St. Petersburg.

The proposed improvements are expected to improve the operations and safety of the I-275 and 31st Street South intersection and the study area.

The proposed improvements include:

- Improving the current 4-foot bike lanes to 6-foot bike lanes on the east and west sides of 31St Street South from Melrose Avenue South to north of 7th Avenue South
- At the I-275 at 31st Street South intersection:
    - A traffic signal replacing the existing Two-Way Stop Control (TWSC) control
    - Changing the existing eastbound shared through/left turn lane to a left turn lane and changing the existing eastbound right turn lane to a shared through/left turn lane
    - Adding a 375 ft right turn lane on the eastbound approach
    - Adding concrete right turn channelized islands to provide refuge for pedestrian crossing the west leg of the intersection
    - Changing the outside southbound through lane to an exclusive right turn lane
    - Providing one through lane going northbound and southbound through the intersection
- At the intersection of Gibbs High School student drop-off/pick-up driveway with 31st Street South, the northbound left turn lane was removed and the inside northbound through lane changed to a shared through/left turn lane.
- 31st Street South between Melrose and I-275 will be changed from two through lanes in each direction to one lane in each direction.

The overall intersection of I-275 at 31st Street South is expected to operate at level of service (LOS) C in the design year 2040 compared to LOS F under no-build conditions. Also, the proposed improvements are expected to reduce intersection crashes by 46%. The cost estimate for the proposed improvements is $804,309.

The proposed improvements will enhance the traffic operation and safety of the I-275 and 31st Street South interchange study area.

1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) and the City of St. Petersburg (City) worked together to evaluate the operational issues at Interstate 275 (I-275) at 31st Street South interchange. **Figure 1-1** shows the study area.

I-275 is designated a SIS highway corridor as part of Florida's Strategic Intermodal System (SIS). The "SIS is a statewide network of high-priority transportation facilities, including the state's largest and most significant airports, spaceports, deep-water seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways, and highways. These facilities represent the state's primary means for moving people and freight between Florida's diverse regions, as well as between Florida and other states and nations".[1]

The I-275 at 31st Street South interchange is a partial interchange providing a southbound entrance and a northbound exit to/from I-275. The interchange provides access to Gibbs High School. The ramp terminus operates under Two Way Stop Control (TWSC).

1.1 Purpose and Need

Pedestrians and bicyclists cross the west leg of this intersection to access Gibbs High School or the Pinellas Trail that is located approximately 800 feet north of the intersection. A field review was conducted on Wednesday, February 6, 2019 that identified several conflicts between vehicles and pedestrians/bicyclists at this intersection. Also, long vehicle queues were observed for the left turn movement at the I-275 off-ramp to 31st Street South, especially during the morning peak hour. Because of the long vehicle queues at the ramp terminus, some drivers make a right turn and proceed to make a U-turn at the intersection creating unsafe situations for pedestrians, bicyclists and other drivers. Pedestrians had the most conflicts with the eastbound left-turn vehicles because of their aggressive behavior. Also, the current intersection configuration of the I-275 off-ramp to 31st Street South requires a pedestrian to cross a distance of 185 feet with no refuge. As a result, the pedestrians and bicyclists struggle crossing with vehicles turning left from the northbound approach and vehicles making the southbound right turn movement towards the I-275 southbound on-ramp. Based on this information, there is a need to make the intersection safer for all users.

The purpose of this study was to evaluate current traffic operations, identify operational deficiencies, and recommend operational improvements for the I-275 at 31st Street South interchange.

[1] *Strategic Intermodal System Handbook, Section 1: Strategic System Background, 2013*

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FDOT | SIS Strategic Intermodal System

I-275 at 31st STREET SOUTH
INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR)
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PROJECT LOCATION MAP

FIGURE 1-1

2.0 STUDY METHODOLOGY

The methodology discussed in this section was used to conduct the I-275 at 31st Street South Interchange Operational Analysis Report (IOAR). This report follows the guidelines in the FDOT Interchange Access Request User's Guide dated January 2018.

- Available 72-hour bi-directional vehicle approach counts and turning movement counts collected for the FDOT District Seven Traffic Operations were used in this study.
- Field observations were conducted during the morning and afternoon peak hours on Wednesday February 6, 2019.
- Crash data provided by FDOT and the City of St. Petersburg were used to conducted safety analysis for the interchange.
- 72-hour counts were converted to Annual Average Daily Traffic (AADT) by applying a seasonal factor (SF) and an axle correction factor. Design Hour factor (K) and the Directional Distribution (D) factor were applied to the AADTs to obtain the directional design hourly volume (DDHV). Evaluation of existing conditions was done with Synchro 10 and the Highway Capacity Manual (HCM) 6th edition results were reported.
- The years of analysis for this study are:
    - Existing Year – 2018
    - Opening Year – 2020
    - Design Year – 2040
- Year 2040 volumes were estimated using a comparison between historical traffic data, the Tampa Bay Regional Planning Model version 8.2, and population estimates for Pinellas County from the Bureau of Economics and Business Research (BEBR).
- Future condition traffic analyses were performed for No-Build Conditions and Build Alternative. HCM 6th results were reported for No-Build Conditions. HCM 2000 results are shown for Build conditions analyses (traffic signal) because HCM 6th methodology does not support turning movements with shared lanes.
- Cost estimate for the Build Alternative was developed and a project funding and schedule was coordinated with FDOT District Seven Traffic Operations and the City of St. Petersburg.
- A signing plan was developed for the Build Alternative.
- FHWA Policy Points are discussed.

3.0 EXISTING INTERCHANGE CONDITIONS

I-275 at 31St Street South is a partial interchange providing a southbound entrance and a northbound exit to/from I-275 and provides access to Gibbs High School. 31st Street South at the intersection of I-275 is classified as a Major Collector Urban per the 2010 Urban Area Boundaries and Federal Functional Classification Map (**see Appendix A**). The study limits along 31st Street South are from Melrose Avenue to the Pinellas Trail. 31st Street South is a four-lane undivided roadway from Melrose Avenue to north of the Pinellas Trail. North and south of the study area, 31st Street South is a two-lane undivided roadway. The speed limit along 31st street South is 35 miles per hour (mph).

Gibbs High School is located on the west side of 31st Street South in the study area with a student drop-off/pick-up driveway with the access located along 31st Street South. A rectangular rapid flashing beacon (RRFB) crossing is located at the student drop-off/pick up driveway and 31st Street South. There is a reduced speed zone indicating a 15-mph speed limit during school arrivals and release times.

North of Gibbs High School entrance, there is a High Intensity Activated Crosswalk (HAWK) for the Pinellas Trail Crossing at 31st Street South.

Pinellas Suncoast Transit Authority (PSTA) Routes 14 and 15 have stops along 31st Street South within the study area.

Figure 3-1 shows the existing geometry and traffic control features of the intersections in the study area.

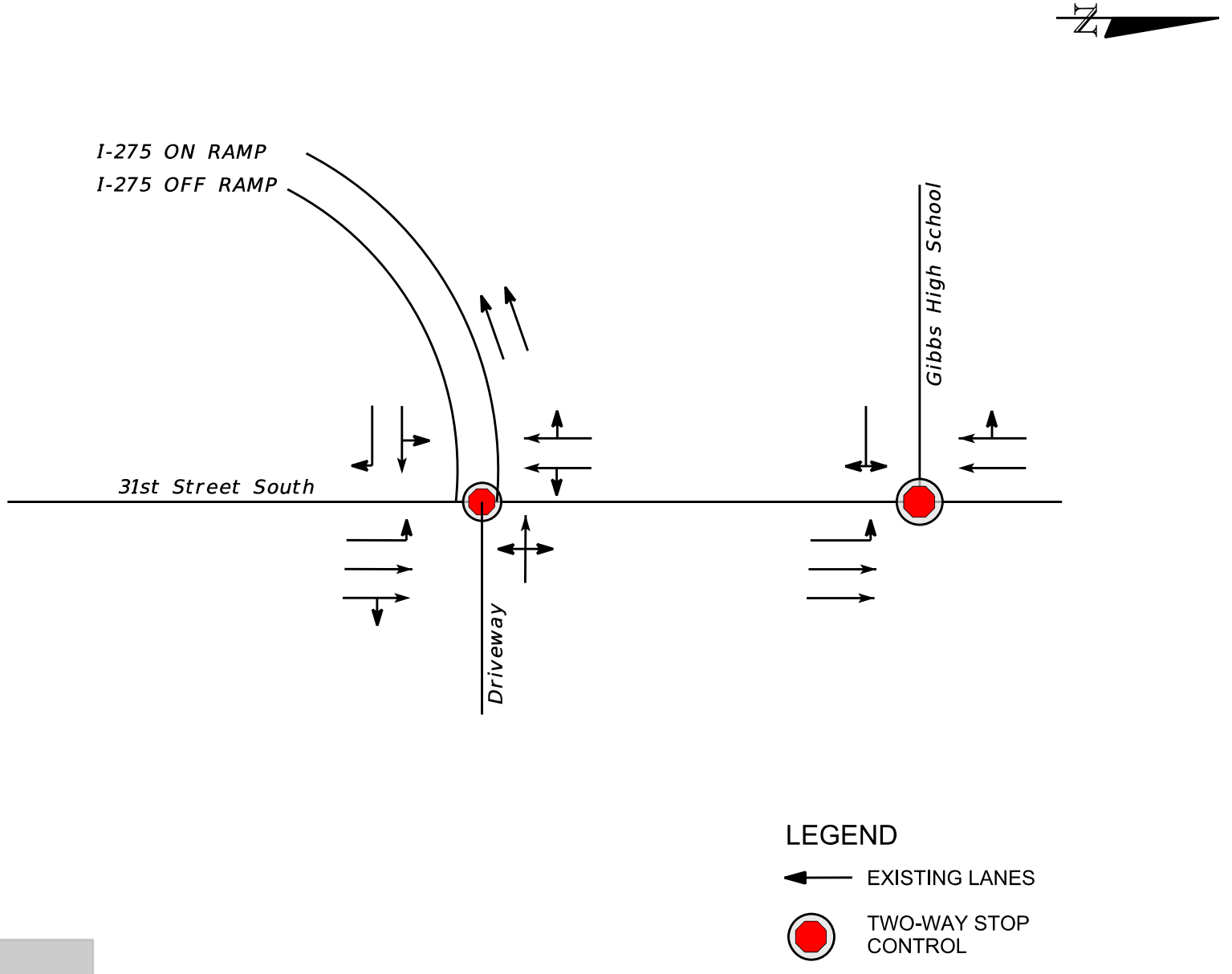
3.1 Field Observations

AM and PM Peak hour field observations were conducted at the I-275 at 31st Street South Interchange on Wednesday, February 6, 2019. Below is a summary of the observations. The complete field observations and photos are included in **Appendix B**.

3.1.1 AM Peak Hour

Observations during the AM Peak hour were taken from 6:30 am to 9:00 am. The peak hour for vehicular traffic at the I-275 at 31st Street South interchange starts at 7:15 am but the peak hour for the school driveway starts at 6:45 am. Observations were made during that period to observe the interaction between vehicles and students arriving at Gibbs High School. The following observations were made:

- Students were observed crossing 31st Street South towards the school without using the crosswalk.



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FDOT SIS	*I-275 at 31st STREET SOUTH* *INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR)* *FPID 254677-1-52-33*	EXISTING GEOMETRY / FIGURE 3-1

- School flashing light (15 mph) activated at 6:35 am with vehicles observed not following the speed limit.
- Most cars exiting the I-275 off-ramp to northbound 31st Street South are not coming to a complete stop at the crossbar before turning.
- At 6:50 am a left-turn queue of 15 cars was observed at the I-275 off-ramp. By 7:00 am the queue was reduced to three vehicles.
- Some vehicles did not wait for student to completely cross 31st Street at RRFP before continuing through the crosswalk.
- The school zone flashing light is off at 7:15 am
- The I-275 off-ramp left-turn queue backed up to the overpass (approximately 950 feet) starting at 7:24 am and lasted until 8:45 am.
- Three vehicles nearly collided, as two vehicles coming from the right-turn lane of the off-ramp both swerved to merge northbound as a vehicle making the left-turn from I-275 off-ramp attempts to enter northbound onto 31st Street South.
- A vehicle made a right turn at the I-275 off-ramp and almost immediately made a U-turn, slightly avoiding collision with a truck making the left-turn movement from I-275 off-ramp onto 31st Street South.
- A vehicle made the left turn movement from the I-275 off-ramp and stopped on crosswalk, forcing a cyclist to cross within the southbound lane.
- Several vehicles were observed making U-turns from the I-275 off-ramp right lane onto northbound 31st Street South to avoid waiting in the I-275 off-ramp left-turn queue.
- A vehicle making the left turn from I-275 off-ramp onto 31st Street South nearly collided with a vehicle making a U-turn from the I-275 off-ramp right turn lane.
- Most vehicles making a right turn at the I-275 off-ramp and making U-turns to go north on 31st Street South are using the two nearest commercial entrances.

3.1.2 PM Peak Hour

The PM field observations were conducted from 4:00 pm to 5:30 pm.

- A truck making a right turn from the I-275 off-ramp makes a U-turn using the immediate commercial entrance south of off-ramp.
- A vehicle entering the I-275 on-ramp did not slow or stop for pedestrian at the crosswalk.

- Students use the crosswalk located in front of I-275 off-ramp.
- Students crossing 31st Street South near the school's entrance were observed not using the marked crosswalk.
- At 4:15 pm, the I-275 off-ramp left turn queue was 15 vehicles. The queue was consistent until 5:00 pm when the left-turn queue was reduced to five to eight vehicles.
- Vehicles in the I-275 off-ramp right turn lane encroached into the southbound lane of 31st Street South to see past vehicles stopped within the crosswalk in the left-turn lane.
- Vehicles exiting Structural Steel entrance onto northbound 31st Street conflicted with vehicles attempting to make the U-turn movement from the right turn lane at the I-275 off-ramp.
- A cyclist crossing the 31st Street South at the I-275 ramps intersection stopped for opening as vehicles turning right from southbound 31st Street South to the I-275 on-ramp are not yielding or stopping.
- A motorcyclist made an immediate U-turn from I-275 off-ramp right turn lane at the same time a school bus merged onto 31st Street South from the I-275 off-ramp left turn lane.

4.0 EXISTING (2018) TRAFFIC VOLUMES AND OPERATIONAL ANALYSIS

4.1 Annual Average Daily Traffic Volumes

72-hour bi-directional vehicle approach counts were conducted during the month of August 2018 on the I-275 off and on ramps, 31st Street South approaches north and south of the interchange, and the driveway east of the 31st Street South. A seasonal factor (SF) of 1.06 and an axle correction factor of 0.98 were applied to the 72-hour counts to calculate the AADT. **Table 4-1** summarizes the 2018 AADTs for the study area and the AADTs are shown graphically on **Figure 4-1**. The 72-hour counts are included in **Appendix C.**

Table 4-1: I-275 at 31st Street South Study Area Existing (2018) AADTs

Location	ADT	SF	Axle Correction Factor	AADT	2018 AADT (Rounded)
I-275 from 31st Street South On-Ramp	4,728	1.06	0.98	4,911	4,900
I-275 to 31st Street South Off-Ramp	5,811	1.06	0.98	6,036	6,000
31st Street South north of Interchange	17,191	1.06	0.98	17,858	18,000
31st Street South, south of Interchange	7,606	1.06	0.98	7,901	7,900
Driveway east of 31st Street South	163	1.06	0.98	169	170

4.2 Design Hour Volumes

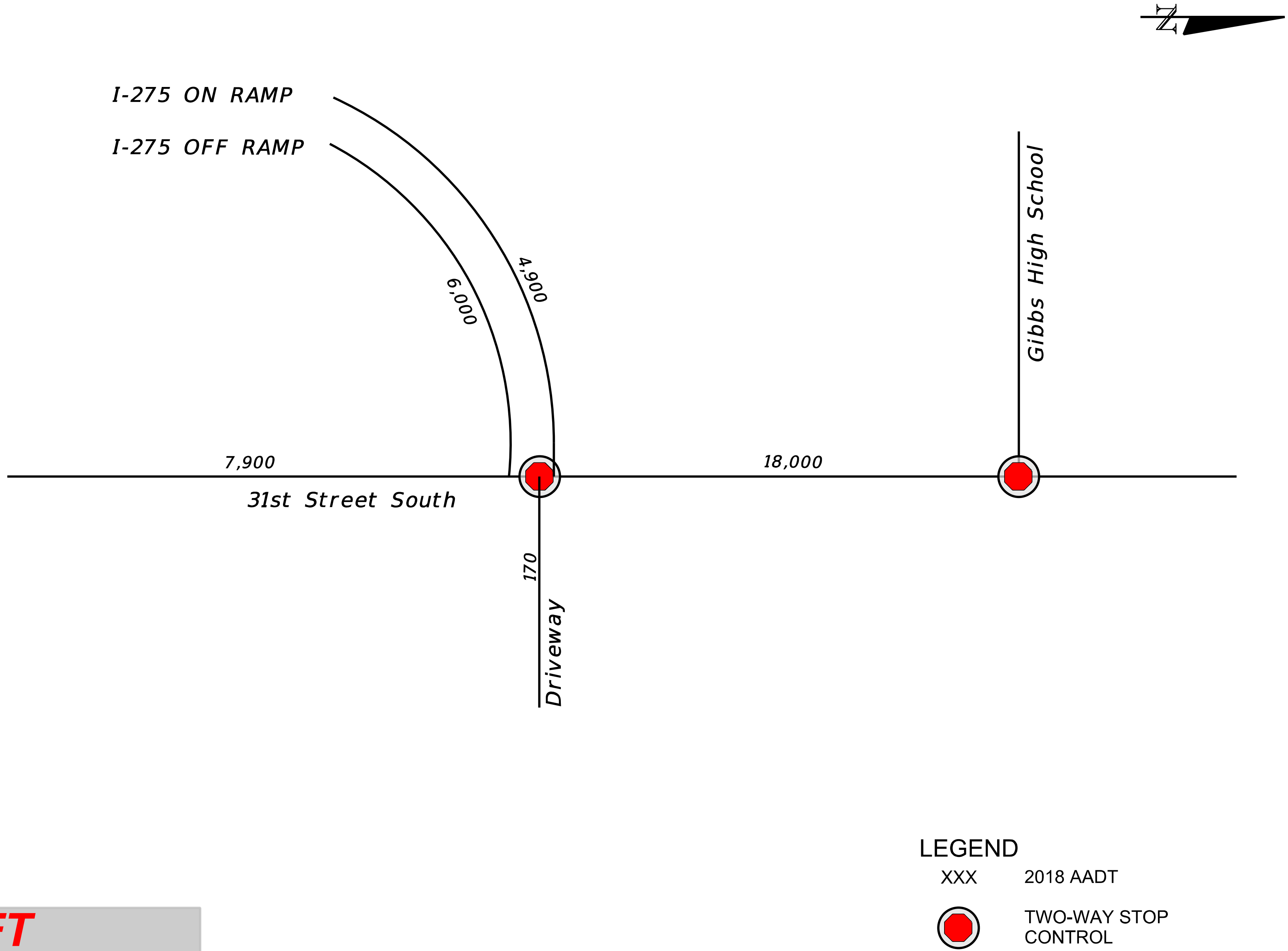
The K and D factors were applied to the 2018 AADTs to obtain the DDHV. The K and D factors are the percentage of daily traffic volumes occurring during the peak hour and the proportion of traffic traveling in the peak direction, respectively. FDOT adopted a standard K for roadways to apply between the planning and design phases, making the K factor consistent among all phases of a project. A K-factor of 9.0% was used in this study. The D-factor used in the study was obtained from the 72-hour counts and the turning movement counts. 31st Street South is a City road and there is not a historical D-factor available for the road.

Design Hour Trucks (DHT) is the percentage of truck traffic during the design hour. A truck percentage of 2.0% was used in the report based on historical truck percentage at the I-275 ramps and the 2018 counts. The traffic factors are shown in **Table 4-2.**

Table 4-2: I-275 at 31st Street South Interchange Study Area Traffic Factors

K Factor (%)	D Factor (%)		DHT (%)
9.00	AM Peak	PM Peak	2.00
	62.0	56.0	

The DDHVs calculation spreadsheets are included in **Appendix D**.



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2018 ANNUAL AVERAGE DAILY TRAFFIC (AADT) VOLUMES

FIGURE 4-1

4.3 Turning Movement Volumes

The intersection turning volumes were determined by applying turning movement percentages derived from existing turning movement counts (TMCs) to the segment DDHVs. Once the segment DDHVs and intersection turning movements were calculated, the existing design hour traffic volumes were subsequently adjusted and balanced through the system.

The existing 2018 AM and PM peak hours turning movement volumes are shown in **Figure 4-2.** The turning movement volume calculation spreadsheet is included in **Appendix D.**

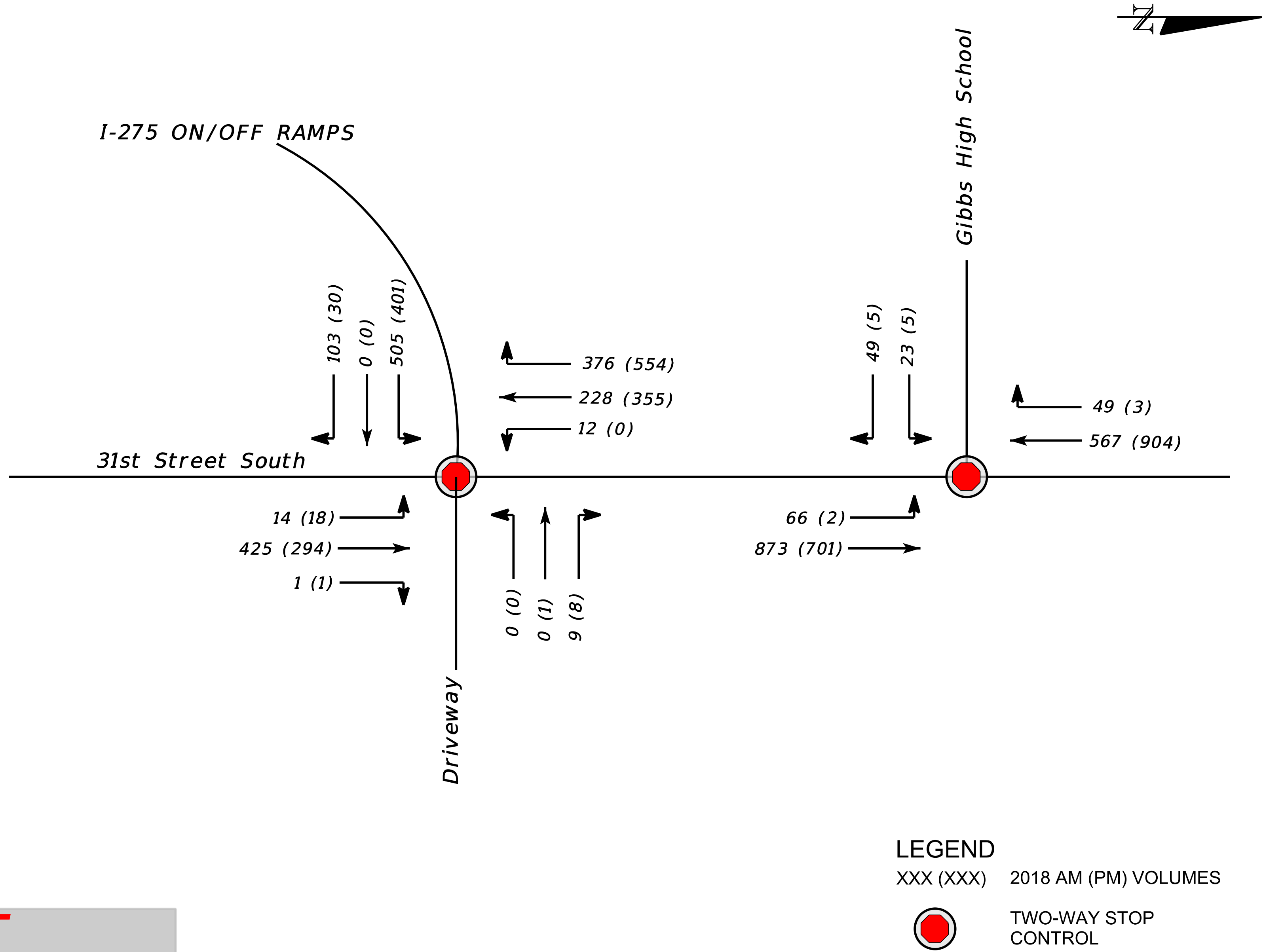
4.4 Existing (2018) Operational Analysis

There are two unsignalized intersections in the study area: I-275 at 31st Street South and the 31st Street South and Gibbs High School student pick-up/drop-off driveway. The intersections operations were analyzed using Synchro 10 and the Highway Capacity Manual (HCM), 6th edition results are summarized in **Tables 4-3 and 4-4**.

Table 4-3: I-275 at 31st Street South Study Area Intersections – Peak Hour Results

Intersection	Eastbound		Westbound		Northbound		Southbound		Intersection	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
AM Peak Hour										
I-275 at 31st Street South	159.3	F	9.7	A	0.2	A	0.5	A	74.9	F
31st Street South at Gibbs High School Driveway	20.2	C	--	--	0.7	A	0.0	A	1.3	A
PM Peak Hour										
I-275 at 31st Street South	113.7	F	10	B	0.5	A	0.0	A	44.5	E
31st Street South at Gibbs High School Driveway	22.5	C	--	--	0.0	A	0.0	A	0.1	A

Table 4-3 shows that the delay and level of service (LOS) for the existing conditions during the AM and PM peak hours and **Table 4-4** shows the vehicle queue results for the minor movements.



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I-275 at 31st STREET SOUTH INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR) FPID 254677-1-52-33	EXISTING AM AND PM PEAK (2018) TURNING MOVEMENT VOLUMES	FIGURE 4-2

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Table 4-4: I-275 at 31 Street South Study Area Intersections – Peak Hour 95th Percentile Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95th Percentile)		AM Peak Hour Queues (95th Percentile)	
			Veh	Feet*	Veh	Feet*
I-275 at 31st Street South	NBL Left	150	0	0	0.1	3
	EB Left	1,200	25.1	628	16.5	413
	EB Right	1,200	0.4	10	0.1	3
31st Street South at Gibbs High School Driveway	NB Left	100	0.3	8	0.0	0
	EB	250	1	25	0.2	5

*Queue in feet estimated by multiplying the number of vehicles times 25 ft.

The intersection of I-275 ramps and 31st Street South operates at LOS F in the AM peak hour and at LOS E in the PM peak hour. FDOT Policy indicates the automobile LOS target during peak hours is LOS D in urbanized areas.

The eastbound left (I-275 off-ramp) operates at LOS F during both peak hours. The AM peak hour shows a queue of 25 vehicles for the eastbound left and the PM shows a queue of 17 vehicles, which are similar to the queues observed during the field observations.

The intersection of 31st Street South at Gibbs High School operates at LOS A during both peak hours. The Synchro results are included in **Appendix E**.

5.0 FUTURE TRAFFIC VOLUMES DEVELOPMENT

5.1 Future Years AADT Projections

To estimate the 2040 traffic volumes, a comparison was made between historical traffic data, 2040 Tampa Bay Regional Planning Model version 8.2 (TBRPM) volumes, and population estimates for Pinellas County. **Tables 5-1 through Tables 5-4** show the analysis.

Table 5-1: Percent growth calculation from TBRPM - 2010 Base Model vs 2040 Outputs

Location	2010 Base Model	2040 CA Model Output	Growth Per Year
I-275 from 31st Street South On-Ramp	6,400	6,800	0.21%
I-275 to 31st Street South Off-Ramp	9,900	11,000	0.37%
31st Street South north of Interchange	17,000	19,000	0.39%
		Average	**0.32%**

Table 5-2: Percent growth calculation from 2018 AADTs vs 2040 TBRPM Outputs

Location	2018 AADT	2040 CA Model Output	Growth Per Year
I-275 from 31st Street South On-Ramp	4,900	6,800	1.76%
I-275 to 31st Street South Off-Ramp	6,000	11,000	3.79%
31st Street South north of Interchange	18,000	19,000	0.25%
		Average	**1.93%**

Table 5-3: Historical Traffic Data (from 2018 FDOT Historical AADT Report)

Location	Year 2007	Year 2018	% Growth/Year (Trend Analysis)
I-275 from 31st Street South On-Ramp	3,300	4,700	4.11%
I-275 to 31st Street South Off-Ramp	4,400	5,000	1.73%
		Average	**2.92%**

Table 5-4: Pinellas County Population Estimates (Medium)*

Year 2018	Year 2040	% Growth/Year
970,532	1,063,500	**0.44%**

*Source: Bureau of Economic and Business Research

Based on the information presented above, the recommended annual growth per year used to estimate 2040 traffic is 1.4% per year, which represents the average of the results presented in **Tables 5-1 through Table 5-4**. The data used to estimate the growth percentages are included in **Appendix F.**

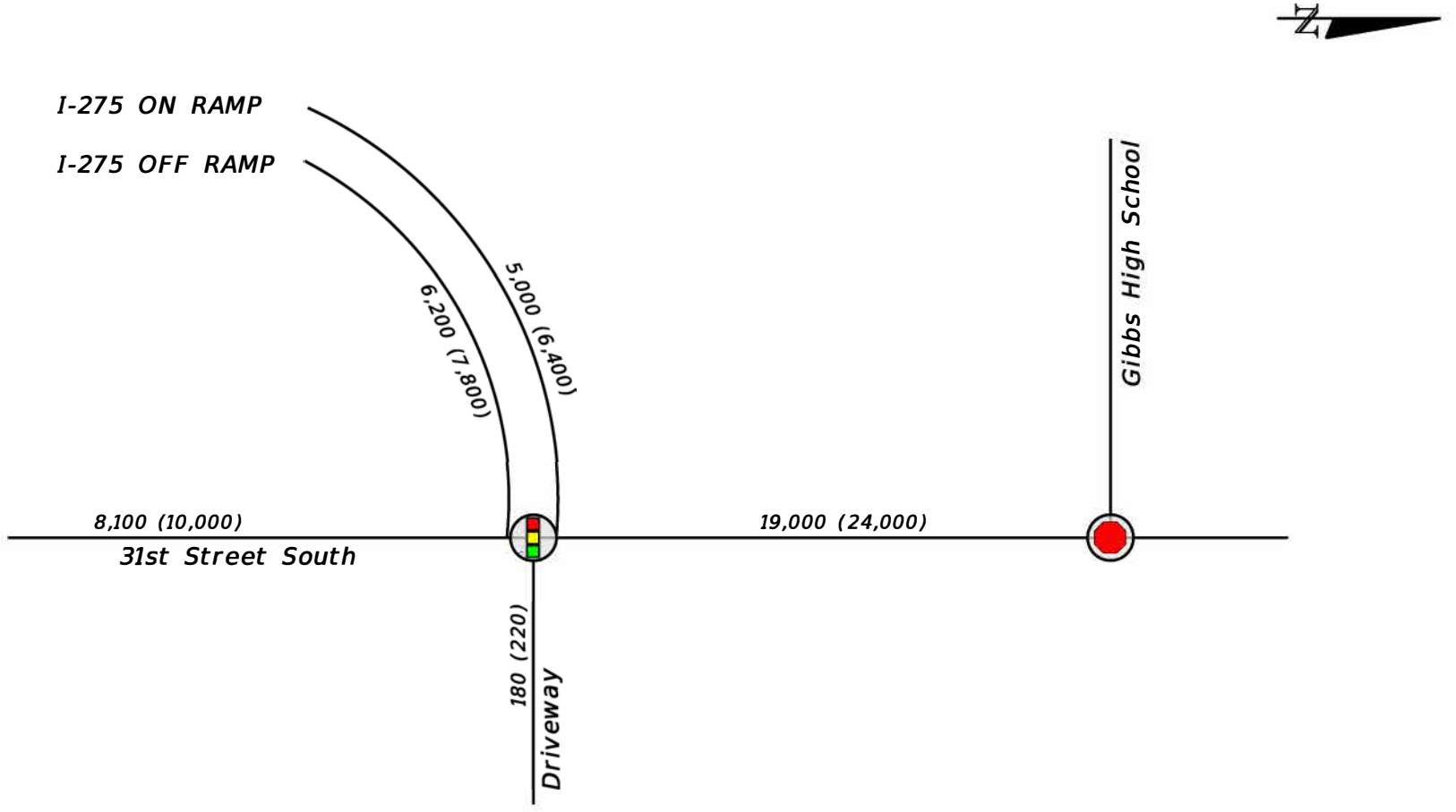
A 1.4% growth per year was applied to the 2018 AADTs to obtain the 2020 (opening year) and 2040 (design year) AADTs. **Table 5-5** shows the future AADTs. The AADTs were rounded using the guidelines on Section 1.8 of the 2014 FDOT Project Traffic Forecasting Handbook. **Figure 5-1** shows the projected 2020 and 2040 AADTs for the study area.

Table 5-5: Projected 2020 and 2040 AADT

Location	Year 2018	Opening Year 2020	Year 2020 Rounded	Design Year 2040	Year 2040 Rounded
I-275 from 31st Street South On-Ramp	4,900	5,037	5,000	6,409	6,400
I-275 to 31st Street South Off-Ramp	6,000	6,168	6,200	7,848	7,800
31st Street South north of Interchange	18,000	18,504	19,000	23,544	24,000
31st Street South, south of Interchange	7,900	8,121	8,100	10,333	10,000
Driveway east of 31st Street South	170	175	180	222	220

5.2 Future Design Hourly Volumes

The DDHVs for the opening year (2020) and design year (2040) were developed by multiplying the AADT volume by the design traffic factors (Standard K and D factors) described in **Section 4.2**. Peak hour intersection turning movement volumes were obtained from the design hourly volumes using the existing turning movement percentages. **Figures 5-2 and 5-3** show the design hourly volume for the opening and design years, respectively. The turning movement volume calculation spreadsheet is included in **Appendix D.**



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XXX (XXX) 2020 (2040) FUTURE AADT

TRAFFIC SIGNAL

TWO-WAY STOP CONTROL

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USER: Roderick Bull 8/8/2019

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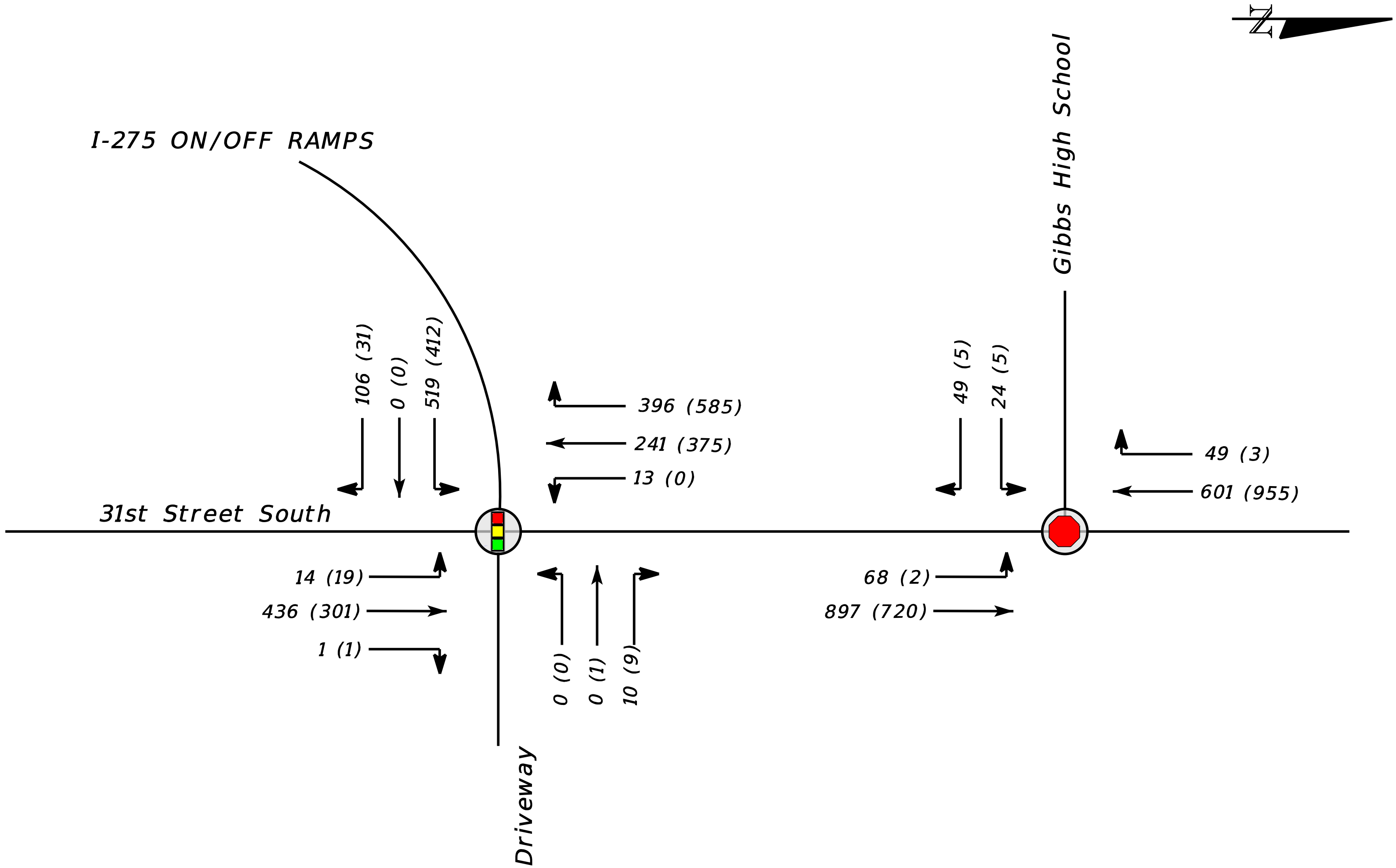

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XXX (XXX) 2020 AM (PM) VOLUMES

TRAFFIC SIGNAL

TWO-WAY STOP CONTROL

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I-275 at 31st STREET SOUTH
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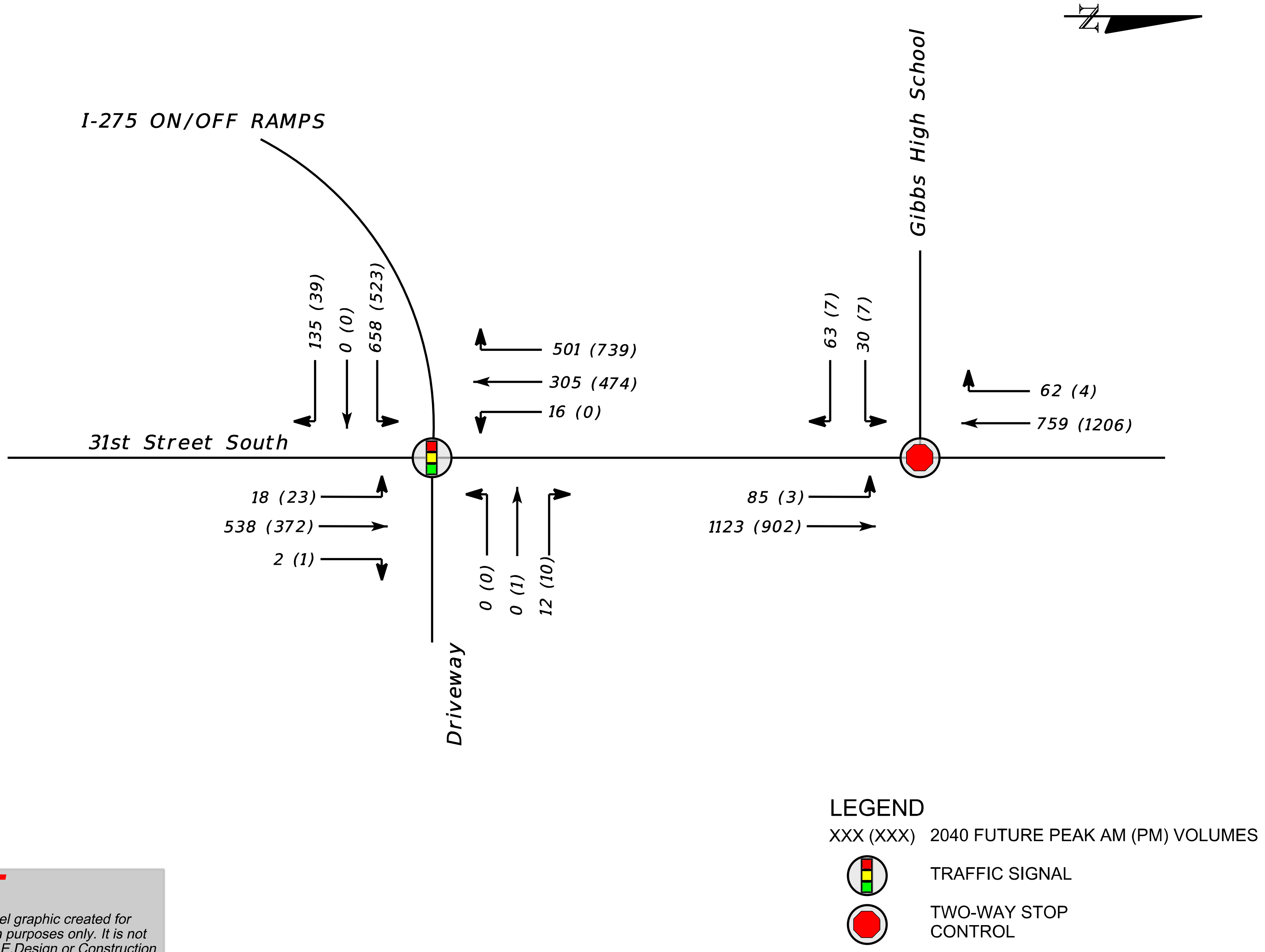
OPENING YEAR (2020)
TURNING MOVEMENT VOLUMES

FIGURE 5-2



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DESIGN YEAR (2040) AM AND PM TURNING MOVEMENT VOLUMES

FIGURE 5-3

6.0 ALTERNATIVES CONSIDERED AND ANALYSIS

The I-275 at 31st Street South traffic analysis was conducted for the following scenarios:

- No-Build Conditions
- Build Alternative

The No-Build Conditions and the Preferred Alternative were evaluated for years 2020 and 2040.

6.1 Alternatives Considered

The FDOT District Seven Traffic Operations Department conducted an Operational Analysis Report to evaluate several alternatives to improve the operations at the intersection of the I-275 and 31St Street South. The alternatives evaluated included an All Way Stop Control (AWSC) intersection, a traffic signal, and a roundabout. The alternatives were evaluated in terms of costs, delay, right of way impacts, and safety of the traveling public. Based on the results of signal warrant analysis, cost estimates, and right-of-way considerations, the installation of a traffic signal was recommended as the preferred alternative. The Operational Analysis Report is included in **Appendix G.** The build alternative is described in Section 6.3.1.

6.2 No-Build Conditions Analysis

6.2.1 Year 2020 Analysis

Tables 6-1 and 6-2 summarize the intersections operational analysis results for the year 2020 No-Build.

Table 6-1: I-275 at 31st Street South Study Area Intersections – 2020 No-Build Peak Hour Results

Intersection	Eastbound		Westbound		Northbound		Southbound		Intersection	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
AM Peak Hour										
I-275 at 31st Street South	190.3	F	9.8	A	0.2	A	0.5	A	89.0	F
31st Street South at Gibbs High School Driveway	22.0	C	--	--	0.7	A	0.0	A	1.4	A
PM Peak Hour										
I-275 at 31st Street South	145.5	F	10	B	0.5	A	0.0	A	56.3	F
31st Street South at Gibbs High School Driveway	24.1	C	--	--	0.0	A	0.0	A	0.1	A

Table 6-2: I-275 at 31 Street South Study Area Intersections – 2020 No-Build Peak Hour 95th Percentile Queues

Intersection	Movement	Storage (ft)	AM Peak Hour		PM Peak Hour	
			Veh	Feet*	Veh	Feet*
I-275 at 31st Street South	NBL Left	150	0	0	0.1	3
	EB Left	1,200	28.2	705	19.1	478
	EB Right	1,200	0.4	10	0.1	3
31st Street South at Gibbs High School Driveway	NB Left	100	0.3	8	0.0	0
	EB	250	1.1	28	0.2	5

*Queue in feet estimated by multiplying the number of vehicles times 25 ft.

Table 6-1 shows that the delay and LOS for the 2020 No-build conditions during the AM and PM peak hours and **Table 6-2** shows the queue results for the minor movements**.** The results show that the operations of the off-ramp will continue to worsen if the intersection keeps its current configuration. The AM peak hour shows a queue of 28 vehicles for the eastbound left at the I-275 off ramp and the PM peak hour shows a queue of 19 vehicles.

The intersection of 31st Street South at Gibbs High School is expected to operate at LOS A during both peak hours. The No-Build Synchro results are included in **Appendix H.**

6.2.2 Year 2040

Tables 6-3 and 6-4 summarize the intersections operations results for year 2040 No-Build analysis.

Table 6-3 and **6-4** show that the I-275 off-ramp left turn movement will greatly deteriorate by the design year under no-build conditions. The projected queue extends beyond available storage and is expected to impact the I-275 mainline. The queue is projected to be 55 vehicles in the morning and 41 vehicles in the afternoon. The projected queue will cause more of the illegal movements that drivers are currently doing today creating even more unsafe situations for pedestrians, bicyclists and other drivers.

The intersection of 31st Street South at Gibbs High School is projected to operate at LOS A during both peak hours. The No-Build Synchro results are included in **Appendix H**.

Table 6-3: I-275 at 31st Street South Study Area Intersections – 2040 No-Build Peak Hour Results

Intersection	Eastbound		Westbound		Northbound		Southbound		Intersection	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
AM Peak Hour										
I-275 at 31st Street South	514.4	F	10.2	B	0.3	A	0.5	A	242.5	F
31st Street South at Gibbs High School Driveway	44.9	E	--	--	0.7	A	0.0	A	2.4	A
PM Peak Hour										
I-275 at 31st Street South	468.2	F	10.5	B	0.5	A	0.0	A	182.6	F
31st Street South at Gibbs High School Driveway	39.6	E	--	--	0.0	A	0.0	A	0.3	A

Table 6-4: I-275 at 31 Street Study South Area Intersections – 2040 No-Build Peak Hour Queues

Intersection	Movement	Storage (ft)	AM Peak Hour		PM Peak Hour	
			Veh	Feet*	Veh	Feet*
I-275 at 31st Street South	NB Left	150	0	0	0.1	3
	EB Left	1,200	55.3	1,383	41.1	1,028
	EB Right	1,200	0.6	15	0.2	5
31st Street South at Gibbs High School Driveway	NB Left	100	0.4	10	0.0	0
	EB	250	2.8	70	0.4	10

*Queue in feet estimated by multiplying the number of vehicles times 25 ft.

6.3 Build Analysis

6.3.1 Build Alternative

The build alternative includes the following improvements:

- Improving the current 4-foot bike lanes to 6-foot bike lanes on the east and west sides of 31St Street South from Melrose Avenue South to north of 7th Avenue South
- At the I-275 at 31st Street South intersection:
    - A traffic signal replacing the existing Two-Way Stop Control (TWSC) control

- Changing the existing eastbound shared through/left turn lane to a left turn lane and changing the existing eastbound right turn lane to a shared through/left turn lane
- Adding a 375 ft right turn lane on the eastbound approach
- Adding concrete right turn channelized islands to provide refuge for pedestrian crossing the west leg of the intersection
- Changing the outside southbound through lane to an exclusive right turn lane
- Providing one through lane going northbound and southbound through the intersection

- At the intersection of Gibbs High School student drop-off/pick-up driveway with 31st Street South, the northbound left turn lane was removed and the inside northbound through lane changed to a shared through/left turn lane.
- 31st Street South between Melrose and I-275 will be changed from two through lanes in each direction to a one lane in each direction.

The build alternative is provided in **Figures 6-1 through 6-3**.

6.3.2 Year 2020 Build Analysis

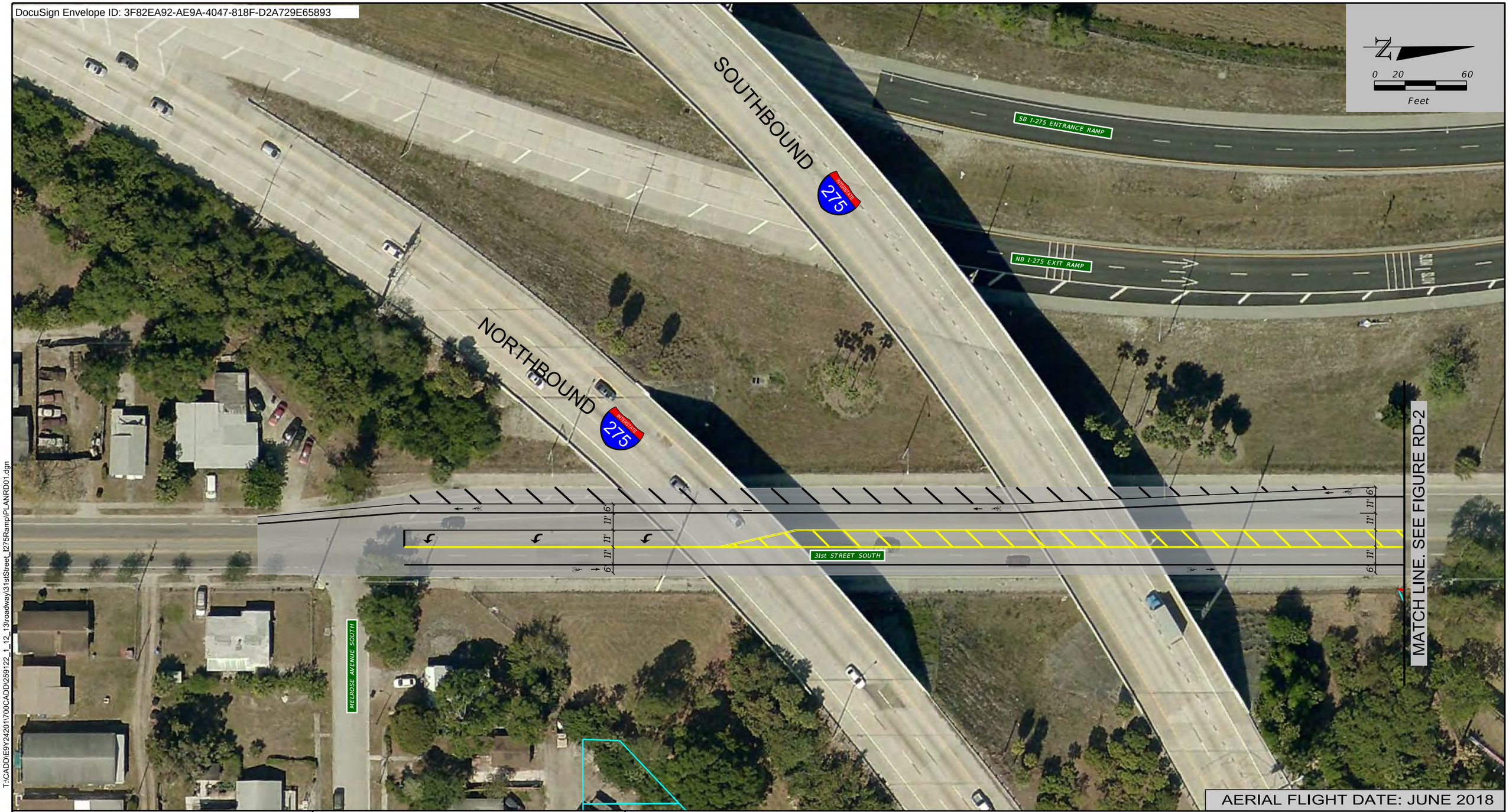
The improvements included in **Figures 6-1 through 6-3** and discussed in Section 6.3.1 are included in the Year 2020 Build Analysis. **Tables 6-5 and 6-6** summarize the intersections operations results for year 2020 Build analysis.

Table 6-5 shows the build alternative will improve the operations of the I-275 ramps and 31st Street South intersection when compared to the no-build conditions**.** The intersection of 31st Street South at Gibbs High School will continue to operate at LOS A during both peak hours. The Build Synchro results are included in **Appendix I**.

Table 6-5: I-275 at 31st Street South Study Area Intersections – 2020 Build Peak Hour Results*

Intersection	Eastbound		Westbound		Northbound		Southbound		Intersection	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
AM Peak Hour										
I-275 at 31st Street South	16.5	B	33.9	C	26.2	C	18.0	B	19.7	B
31st Street South at Gibbs High School Driveway	24.1	C	--	--	1.3	A	0.0	A	1.8	A
PM Peak Hour										
I-275 at 31st Street South	16.0	B	34.5	C	19.4	B	19.9	B	18.9	B
31st Street South at Gibbs High School Driveway	24.3	C	--	--	0.0	A	0.0	A	0.1	A

*HCM 2000 results shown for Build Analysis



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LEGEND

- ROADWAY WIDENING
- CONCRETE SIDEWALK/ TRAFFIC SEPARATOR
- EXISTING L/A RIGHT-OF-WAY
- EXISTING R/W
- EXISTING PARCEL LINE
- PROPOSED TRAFFIC SIGNAL
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO BE RELOCATED

FDOT SIS

I-275 at 31st STREET SOUTH
INTERCHANGE OPERATIONAL ANALYSIS REPORT (IOAR)
FPID 254677-1-52-33

I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED ROADWAY CONCEPT

FIGURE 6-1

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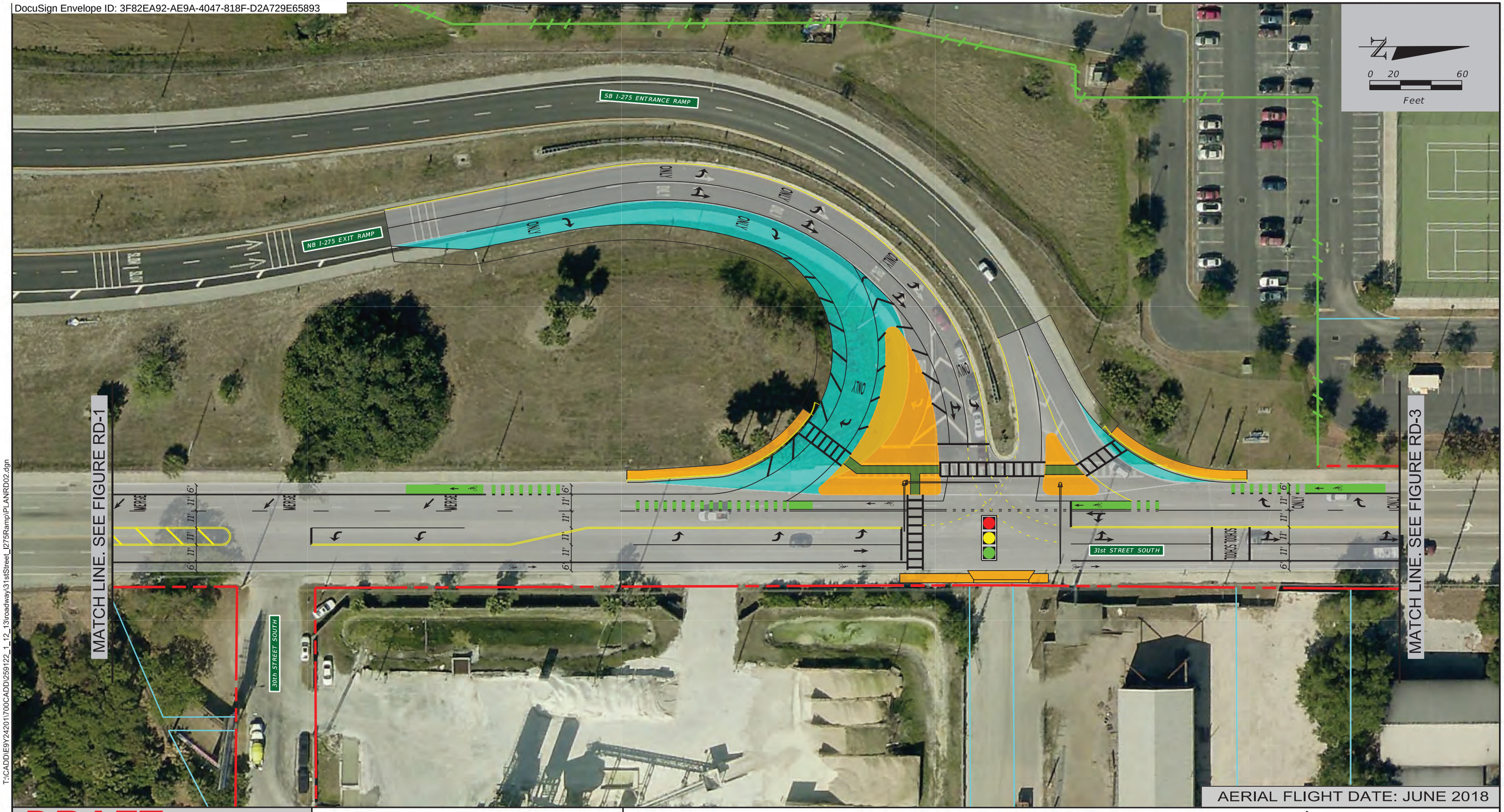

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I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED ROADWAY CONCEPT

FIGURE 6-2

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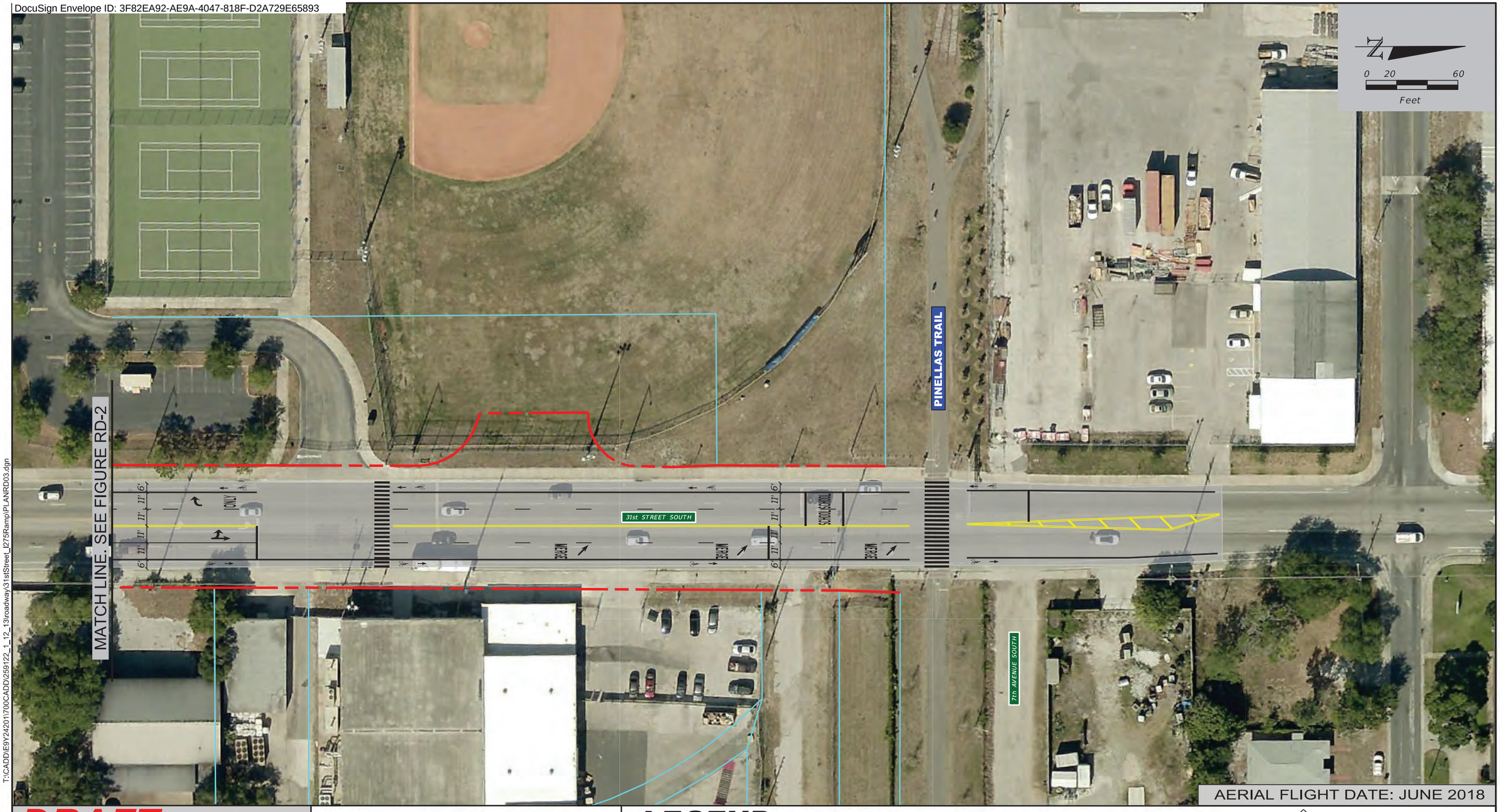
7/11/2019 RodereSR Default



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I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED ROADWAY CONCEPT

FIGURE 6-3

Table 6-6: I-275 at 31 Street South Study Area Intersections – 2020 Build Peak Hour 95th Percentile Queues

Intersection	Movement	Storage (ft)	AM Peak Hour	PM Peak Hour
			Feet	Feet
I-275 at 31st Street South	NB Left	150	17	23
	EB Left	1,200	197	148
	EB Right	1,200	34	0

Intersection	Movement	Storage (ft)	AM Peak Hour		PM Peak Hour	
			Veh	Feet*	Veh	Feet*
31st Street South at Gibbs High School Driveway	NB Left	100	0.3	8	0.0	0
	EB	250	1.2	30	0.2	5

*Queue in feet estimated by multiplying the number of vehicles times 25 ft.

6.3.3 Year 2040 Build Analysis

The improvements included in **Figures 6-1 through 6-3** and discussed in Section 6.3.1 are included in the Year 2040 Build Analysis and the results are summarized in **Tables 6-7 and 6-8**.

Table 6-7: I-275 at 31st Street South Study Area Intersections – 2040 Build Peak Hour Results*

Intersection	Eastbound		Westbound		Northbound		Southbound		Intersection	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
AM Peak Hour										
I-275 at 31st Street South	21.1	C	36.1	D	30.1	C	18.7	B	22.6	C
31st Street South at Gibbs High School Driveway	77.7	F	--	--	2.3	A	0.0	A	4.7	A
PM Peak Hour										
I-275 at 31st Street South	19.9	B	36.6	D	19.7	B	21.0	C	20.5	C
31st Street South at Gibbs High School Driveway	40.0	E	--	--	0.1	A	0.0	A	0.3	A

*HCM 2000 results shown for Build Analysis

Table 6-8: I-275 at 31 Street South Study Area Intersections – 2040 Build Peak Hour 95th Percentile Queues

Intersection	Movement	Storage (ft)	AM Peak Hour		PM Peak Hour	
			Feet		Feet	
I-275 at 31st Street South	NBL Left	150	21		27	
	EB Left	1,200	257		204	
	EB Right	1,200	38		0	
Intersection	**Movement**	**Storage (ft)**	**AM Peak Hour**		**PM Peak Hour**	
			Veh	**Feet***	**Veh**	**Feet***
31st Street South at Gibbs High School Driveway	NB Left	100	0.4	10	0.0	0
	EB	250	4.1	103	0.4	10

*Queue in feet estimated by multiplying the number of vehicles times 25 ft.

Table 6-7 shows the build alternative will greatly improve the design year operations of the I-275 ramps and 31st Street South intersection when compared to the no-build conditions**.** The intersection is expected to operate at LOS C during both AM and PM peak hours.

The intersection of 31st Street South at Gibbs High School will continue to operate at LOS A during both AM and PM peak hours.

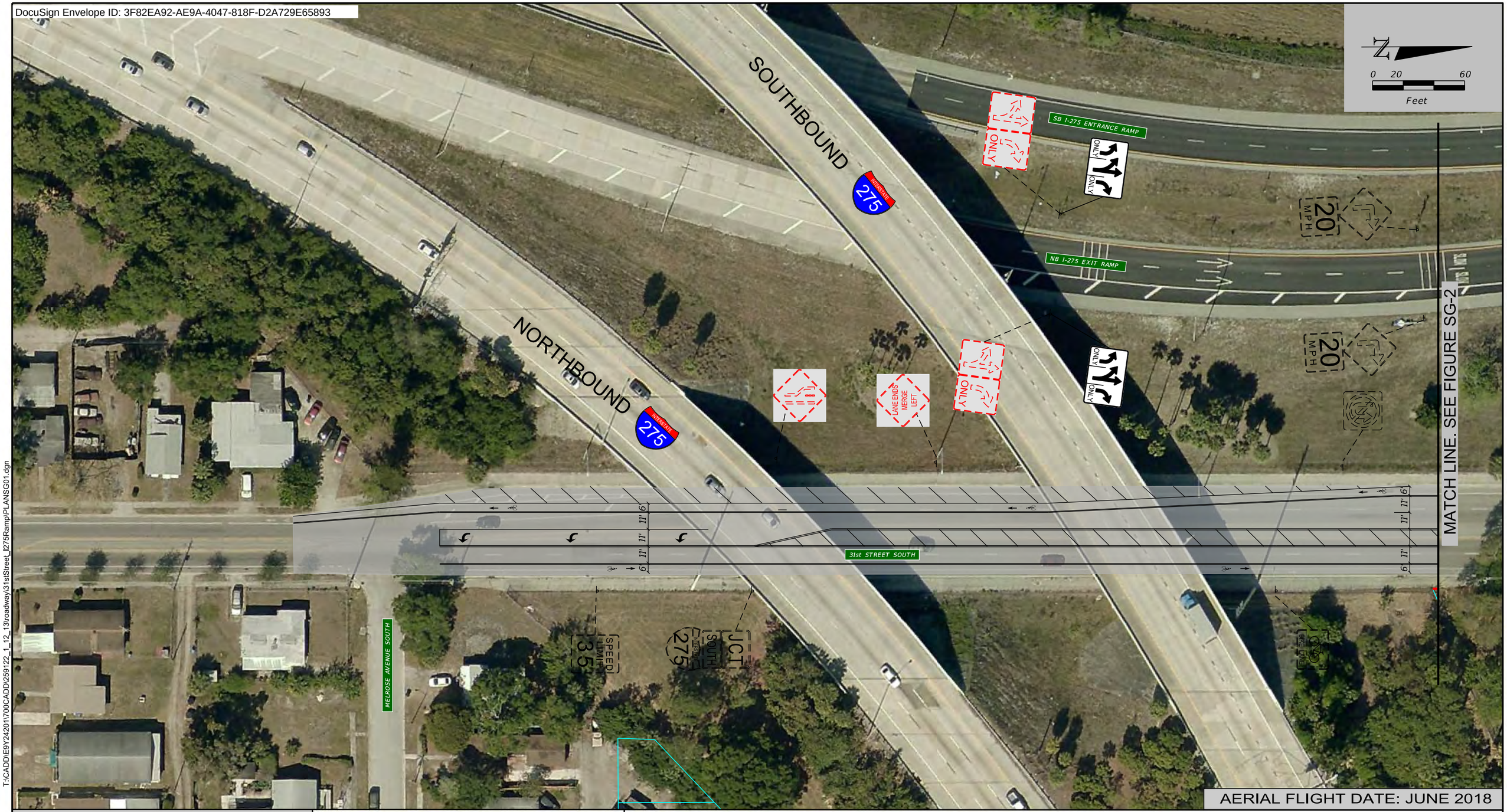
The intersection of 31st Street South at Gibbs High School operates at LOS A during both peak hours and the proposed lane changes do not have a significant impact on the intersection. The conversion of the southbound left turn lane to a shared through left turn lane is not expected to adversely affect the operations of the southbound through movement or the intersection. The Build Synchro results are included in **Appendix I**.

6.4 Build Alternative Conceptual Signing Plan

Figures 6-4 through 6-6 shows the proposed signing plan for the build alternative. New signage will be required because of changes in lane configuration and the installation of the traffic signal. Relocation and updates to existing signs are also proposed.

6.5 Design Exceptions and Variations

No design exceptions or variations are expected for the proposed improvements.



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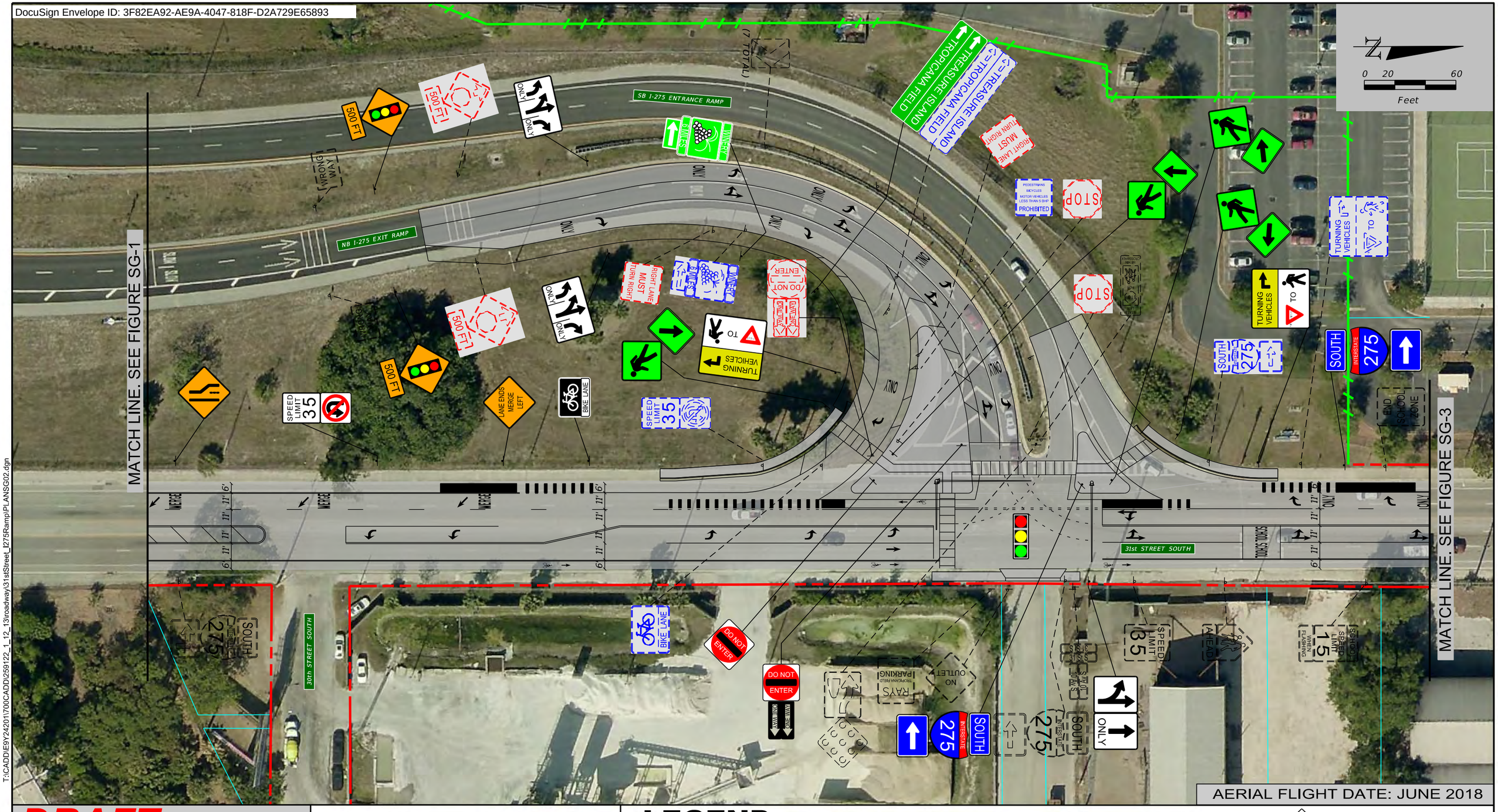
I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED SIGNAGE CONCEPT

FIGURE 6-4



AERIAL FLIGHT DATE: JUNE 2018

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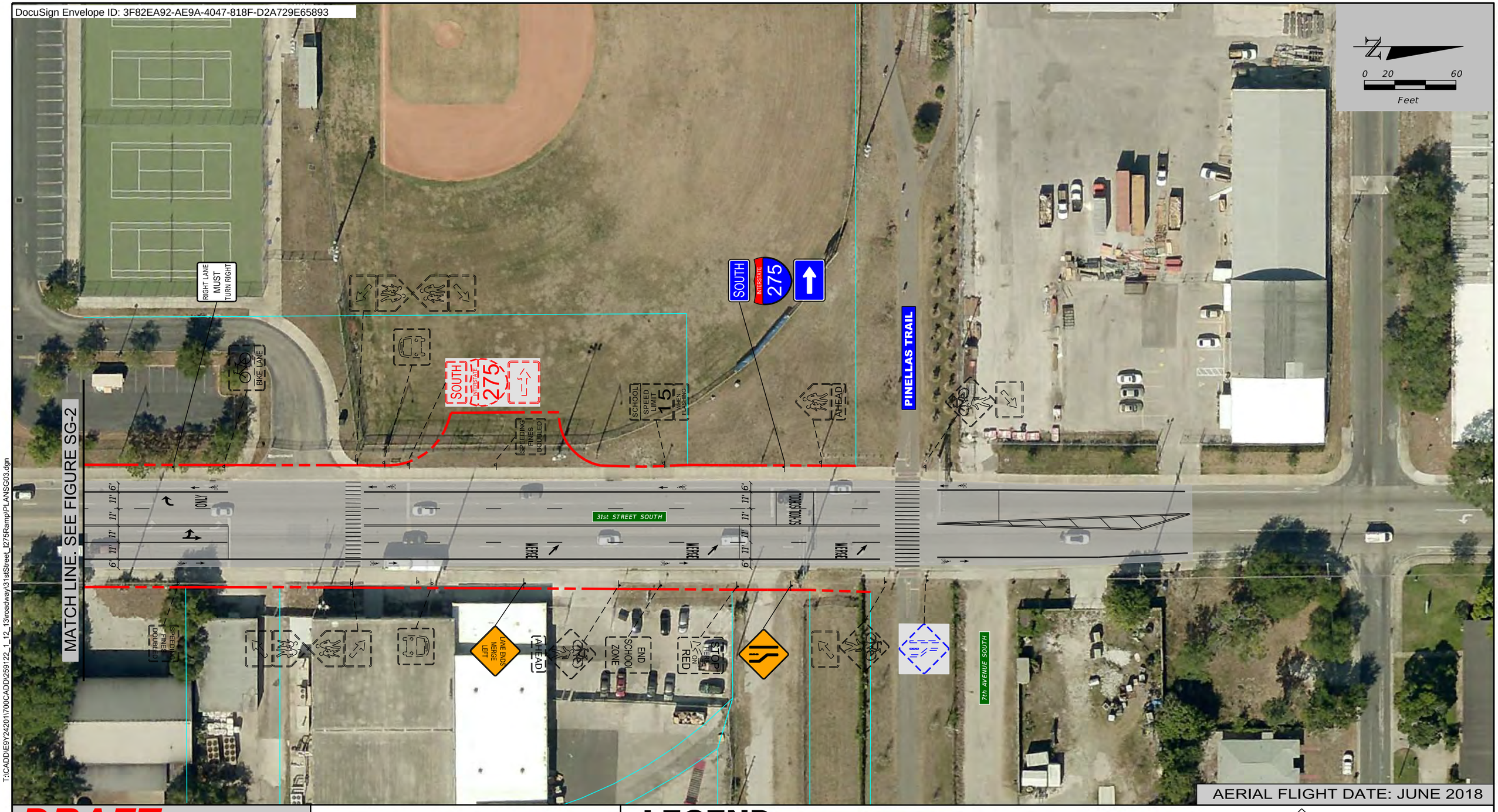
I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED SIGNAGE CONCEPT

FIGURE 6-5



AERIAL FLIGHT DATE: JUNE 2018

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FPID 254677-1-52-33

I-275 AT 31st STREET SOUTH INTERCHANGE IMPROVEMENT

PROPOSED SIGNAGE CONCEPT

FIGURE 6-6

7.0 SAFETY ANALYSIS

Crash data for the I-275 ramps were provided by FDOT and crash data for 31st Street South was provided by the City. Crash data was provided for the six-year period from January 1, 2013 to December 31, 2018. **Table 7-1** shows the total number of crashes.

Table 7-1: I-275 at 31st Street South Interchange Study Area – Crash Summary (2013-2018)

Year	Total Number of Crashes	Number of Fatal Crashes	Number of Fatalities	Number of Injury Crashes	Number of Injuries	Number of Property Damage Only (PDO) Crashes
2013	12	1	1	2	2	9
2014	21	0	0	8	8	13
2015	18	0	0	4	5	14
2016	14	0	0	5	7	9
2017	14	0	0	4	4	10
2018	19	0	0	7	8	12
Total	**98**	**1**	**1**	**30**	**34**	**67**

As shown in **Table 7-1**, 98 crashes occurred in the I-275 at 31st Street South Interchange study area, of which one was a fatal crash and 30 were injury crashes, resulting in one fatality and 34 injuries. 67 of crashes resulted in property damaged only (PDO). There were four crashes involving bicyclists and two crashes involving pedestrians. The crash frequency for the I-275 at 31st Street South interchange study area is 16.3 crashes per year. **Table 7-2** summarizes the types of crashes.

The 2018 Annual Average Daily Traffic (AADT) volume taken during the data collection process were used to determine the crashes per million vehicles entering the intersection. The intersection crash rate for the I-275 at 31st Street South intersection is 2.35 crashes per million entering vehicles.

The most predominant crash types are hit fixed object with 39 crashes (40%), rear end with 20 crashes (20%), and angle with 19 crashes (19%).

The build alternative improvements for the I-275 ramps and 31st Street South intersection include a traffic signal and adding a left turn lane in the eastbound approach. A crash modification factor (CMF) of 0.54 was obtained from the CMF Clearinghouse (CMF ID: 7966). This CMF represents a reduction of 46% in total crashes at the intersection. Therefore, the improvement is expected to reduce 46% of the 40 crashes that occur at the intersection.

Table 7-2: I-275 at 31st Street South Interchange Study Area – Type of Crashes

Type of Crash	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Total
Hit Fixed Object	7	9	10	3	6	4	39
Hit Non-Fixed Object	1	0	0	0	0	0	1
Single Vehicle	1	2	0	1	0	1	5
Angle	1	2	1	3	3	9	19
Rear End	1	4	5	4	4	2	20
Sideswipe	0	1	1	1	0	1	4
Bike	0	1	0	1	1	1	4
Run Off Road	1	0	0	0	0	0	1
Pedestrian	0	1	0	0	0	1	2
Right Turn	0	0	1	0	0	0	1
Left Turn	0	0	0	1	0	0	1
U-Turn	0	1	0	0	0	0	1
Total	**12**	**21**	**18**	**14**	**14**	**19**	**98**

The crash data and the CMF 7966 information are included in **Appendix J.**

8.0 PROJECT FUNDING PLAN AND SCHEDULE

Table 8-1 shows the estimated cost for the proposed improvements.

Table 8-1: **Cost Estimate for Build Alternative**

Item	Cost
Roadway Cost	$483,620
Signalization Cost	By the City of St. Petersburg
Signage and Pavement Marking Cost	$65,273
Lighting Cost	$22,176
Mobilization (8%)	$45,686
Maintenance of Traffic (8%)	$49,340
Project Unknowns (15%)	$99,914
Contingency (5%)	$38,300
Total Construction Cost	**$804,309**

FDOT District Seven Traffic Operations will issue a Task Work Order (TWO) under the Design Push Button Contract as soon as the IOAR is approved. The design process is anticipated to take six months followed by construction that is anticipated to take six to nine months. The City of St. Petersburg has committed to assist with in-kind services to supply and install the signal mast arms at the I-275 at 31st Street South intersection.

9.0 FHWA POLICY POINTS

The following FHWA policy points were followed during this IOAR.

Policy Point 1: *An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).*

- The operational and safety analysis conducted as part of this IOAR shows that the operations will greatly be improved when compared to no-build conditions and queues from the off-ramp are not expected to impact mainline I-275. Currently, the intersection of I-275 at 31st Street South operates at LOS F in the AM peak hour and LOS E in the PM peak hour. The results show a queue of 26 and 17 vehicles on the I-275 off-ramp in the AM and PM peak hour respectively, which are similar to the conditions observed in the field. Under No-Build conditions, the operations of the intersection will continue to deteriorate, and the off-ramp queues are expected to impact the I-275 mainline. With the proposed improvements, the I-275 at 31st Street intersection is expected to operate at LOS C on both AM and PM peak hours and the queues are expected to be reduced significantly.

- The current intersection configuration of the I-275 off-ramp to 31st Street South requires a pedestrian to cross a distance of 185 feet with no refuge. As a result, the pedestrians and bicyclists struggle crossing with vehicles turning left from the northbound approach and vehicles making the southbound right turn movement towards the I-275 southbound on-ramp. The proposed improvements provide pedestrian refuge and shorten the crossing distance to 69 feet on the eastbound approach, 35 feet on the off-ramp right

turn lane and 31 feet on the on-ramp right turn lane. The bicycles lanes are improved from the current 4-foot to 6-foot bike lanes on the east and west sides of 31St Street South. Therefore, the proposed improvements will make the intersection safer for all users.

- Also, the total number of crashes at the intersection is expected to be reduced by 46%.

Policy Point 2: *The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.*

- The proposed improvements will not alter the existing configuration of the I-275 and 31st Street South interchange, but it will greatly improve the operations and safety of the intersection. The proposed lane configuration changes are not expected to adversely impact the operations of the intersections in the study area.

10.0 RECOMMENDATIONS

The purpose of this study was to evaluate current traffic operations, identify operational deficiencies, and recommend operational improvements at the I-275 at 31st Street South interchange.

The proposed improvements identified for the study area are:

- Improving the current 4-foot bike lanes to 6-foot bike lanes on the east and west sides of 31St Street South from Melrose Avenue South to north of 7th Avenue South
- At the I-275 at 31st Street South intersection:
    - A traffic signal replacing the existing Two-Way Stop Control (TWSC) control
    - Changing the existing eastbound shared through/left turn lane to a left turn lane and changing the existing eastbound right turn lane to a shared through/left turn lane
    - Adding a 375 ft right turn lane on the eastbound approach
    - Adding concrete right turn channelized islands to provide refuge for pedestrian crossing the west leg of the intersection
    - Changing the outside southbound through lane to an exclusive right turn lane
    - Providing one through lane going northbound and southbound through the intersection
- At the intersection of Gibbs High School student drop-off/pick-up driveway with 31st Street South, the northbound left turn lane was removed and the inside northbound through lane changed to a shared through/left turn lane.
- 31st Street South between Melrose and I-275 will be changed from two through lanes in each direction to one lane in each direction.

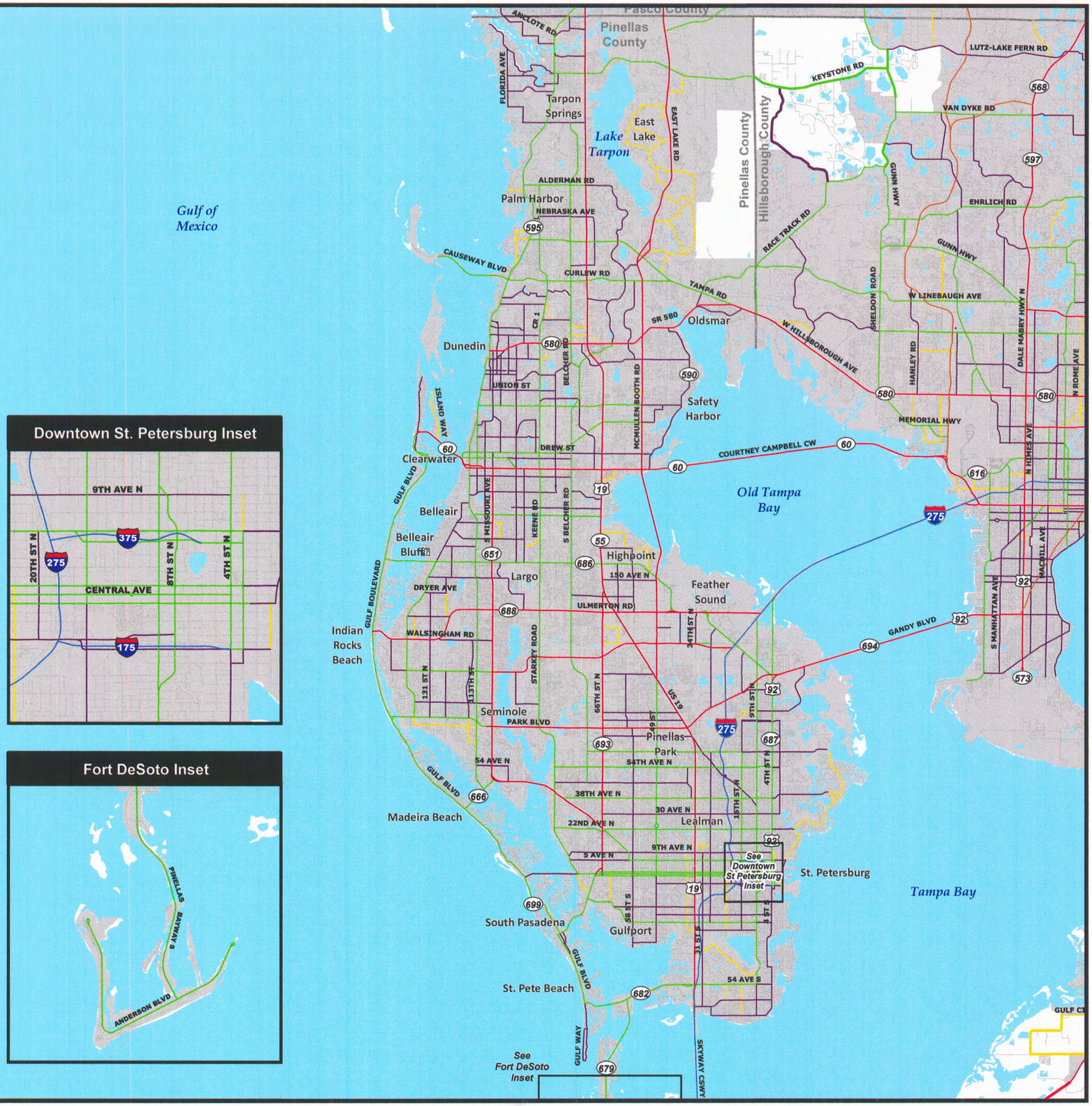
This IOAR shows the proposed improvements will improve the operations and safety of the intersection and the turning movement queues will not impact the mainline I-275. Also, the proposed improvements are expected to reduce the intersection total crashes by 46%. Therefore, the proposed improvements will enhance the traffic operation and safety of the I-275 and 31st Street South interchange study area.

Appendix A:

2010 Urban Area Boundaries and

Federal Functional Classification Map

2010 Urban Area Boundaries and Federal Functional Classification Pinellas County



Karen Seel
Chair, Pinellas Metropolitan Planning Organization — Date 12/11/13

Debbie Hunt
FDOT District Director of Transportation — Date 12/20/13

APPROVED BY:

Carl Ekstrom
Federal Highway Administration — Date 01/23/2014

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
- 2010 FHWA Urban Area

0 1 2 3 4 5 Miles

1:140,000

Appendix B:

Field Observations

Field Observations at 31st Street and I-275 SB Ramp
Date: Wednesday February 6, 2019
A.M. Peak Hour: 6:30 to 9:00 a.m.
P.M. Peak Hour: 4:00 p.m. to 5:30 p.m.

A.M. Period

6:28 a.m.
- Two students crossed 31st Street towards school without using the crosswalk

6:30 a.m.
- Cyclist headed northbound on 31st St with lights on
- No issues were observed

6:31 a.m.
- Three students used the crosswalk at the RRFB
- No issues were observed

6:35 a.m.
- School flashing light (15 mph) activated with cars observed as not following speed limit

6:39 a.m.
- Most cars exiting the off-ramp to northbound 31st Street are not coming to a complete stop at the crossbar before turning.
- Hawk light activated at trail crossing and car drove through the red light without coming to a complete stop

6:41 a.m.
- Student on bicycle rides past off-ramp using crosswalk
- No issues were observed

6:44 a.m.
- School bus traveling northbound on 31st Street does not stop at the activated red light/hawk light

6:48 a.m.
- Eight vehicles cleared the off-ramp turning northbound onto 31st Street
- No issues were observed

General observation:
- Some cars are not stopping at hawk when red light is activated

6:51 a.m.
- 15 vehicles queued on off-ramp to turn northbound on 31st Street
- No issues were observed

6:55 a.m.

- Some vehicles did not wait for student to completely cross 31st Street at RRFP before continuing through the crosswalk

6:56 a.m.
- Half of the queue reduced to eight vehicles at the off-ramp left-turn
- No issues were observed

7:00 a.m.
- Off-ramp vehicle queue reduced to three vehicles
- No issues were observed

7:01 a.m.
- RRFP was activated, and a vehicle attempted to exit the school turning NB across the crosswalk while the student was attempting to cross 31st Street

7:06 a.m.
- The off-ramp cleared; eight vehicles merged left northbound onto 31st Street
- No issues were observed

7:09 a.m.
- Vehicle stops halfway into crosswalk at the off-ramp in the left turn lane, as students approach preparing to cross

7:12 a.m.
- The off-ramp cleared; two vehicles merged left onto 31st Street
- No issues were observed

7:14 a.m.
- Student uses crosswalk at off-ramp
- No issues observed with vehicle queued at off-ramp entering crosswalk

7:15 a.m.
- School flashing off; vehicles resume normal speed
- Most vehicles are not observing speed limit

7:18 a.m.
- Student crosses 31st Street to school without using the crosswalk

7:20 a.m.
- Vehicle queued at off-ramp on crosswalk, forcing cyclist to cross within the southbound lane

7:22 a.m.
- Ten to seventeen vehicles queued to turn northbound onto 31st Street

- No issues observed

7:24 a.m.
- Vehicle queue at off-ramp in left-turn lane backed up to overpass

7:26 a.m.
- Vehicle slowly attempts to merge onto 31st Street from off-ramp, while vehicle driving northbound on 31st Street does not slow down to allow for vehicle to merge

7:27 a.m.
- Off-ramp queue still extends to the overpass in the left-turn lane

7:30 a.m.
- Vehicle queue for the off-ramp still extends to the overpass
- Three vehicles nearly collided, as two vehicles coming from right-turn lane of off-ramp both swerved to merge northbound as a vehicle from left-turn lane attempts to enter northbound onto 31st Street **(See photo 1-1)**

7:33 a.m.
- Vehicle entering northbound from off-ramp almost collides with vehicle making a U-turn from southbound to northbound on 31st St

Note:
- Vehicles in right-turn lane of off-ramp were observed pulling further into the southbound lane of 31st St to see past the vehicles queued within the crosswalk in left-turn lane

7:35 a.m.
- Off-ramp queue in the left-turn lane still extends to the overpass

7:37 a.m.
- Vehicle exists off-ramp southbound and almost immediately makes a U-turn, slightly avoiding collision with a truck merging northbound onto 31st Street from the left-turn lane

7:39 a.m.
- Cyclist passes the off-ramp southbound, avoiding crosswalk as a vehicle in the left-turn lane is within the crosswalk **(See photo 1-2)**

7:25-7:39 a.m.
- Vehicle queue in left-turn lane of off-ramp has been backed up to the overpass

Note:
- Several vehicles have been observed making u-turns from the off-ramp right lane onto 31st Street northbound to avoid waiting in left-turn queue **(See photo 1-3)**

Field Observations at 31st Street and I-275 Off-Ramp
February 6, 2019

7:44 a.m.

- Vehicle queue still backed up to the overpass
- Vehicle turning left onto 31st street nearly collided with vehicle making u-turn from SB exit ramp right turn lane. **(See photo 1-4)**

7:48 a.m.

- Vehicle turning left from 31st street onto ramp nearly collided with vehicle exiting off-ramp to merge northbound on 31st Street.

7:55 a.m.

- Truck making a U-turn from southbound exit of off-ramp nearly hit a cyclist riding northbound on 31st Street

7:58 a.m.

- Vehicle queue in left-turn lane of off-ramp still has not fully cleared

8:00 a.m.

- Continuous queue of eight to ten vehicles in left-turn lane of off-ramp

8:02 a.m.

- Vehicle queue in left-turn lane of off-ramp backed up again nearly to overpass

Note:

- Fewer vehicles attempting to U-turn from southbound after exiting off-ramp from right lane when queue is shorter in left-turn lane from off-ramp

8:07 a.m.

- Two adults observed running across 31st Street not using the crosswalk

Note:

- Approximately half of the vehicles heading southbound onto the ramp use their turning signal, which may confuse drivers exiting off-ramp onto 31st Street

8:15 a.m.

- Vehicle queue in left-turn lane of off-ramp backed up again nearly to overpass

8:17 a.m.

- When left-turn lane of off-ramp queue is more than 15 vehicles, more vehicles are observed making a U-turn, if not immediately from the right-turn lane then using the 1st or 2nd closest commercial entrance south of the off-ramp

8:25 a.m.

- Vehicle observed blocking crosswalk from left-turn lane of off ramp while cyclist attempts to ride pass the off-ramp

8:29 a.m.

- Most vehicles in the right-turn lane from off-ramp are making U-turns when merging onto 31st Street **(See Photo 1-5)**

8:35 a.m.

- Vehicle queue in left-turn lane of off-ramp is still backed up nearly to the overpass

8:45 a.m.

- Vehicle queue in left-turn lane of off-ramp still hasn't completely cleared

8:46 a.m.

- Pickup truck with trailer observed making a U-turn from right-turn lane of off-ramp onto 31st Street near commercial driveway

Note:

- Most vehicles making a U-turn from off-ramp are using the two nearest commercial entrances, or immediately making a U-turn to northbound on 31st Street

8:56 a.m.

- Vehicle queue of left-turn lane from off-ramp reduced to approximately eight to ten vehicles
- No issues observed

9:00

- 1 car and two trucks cleared the off-ramp merging onto 31st Street northbound

P.M. PERIOD

General Observations:

- Southbound traffic is heavier on 31st Street in the PM period, with majority of vehicles not observing the speed limit

4:00 p.m.

- Vehicle made an immediate U-turn from right lane of off-ramp

4:01 p.m.

- Truck makes a U-turn from right lane of off ramp using immediate commercial entrance south of off-ramp

4:03 p.m.

- Left turn of off-ramp clear of all but 1 car

4:06 p.m.

- Vehicle entering the on-ramp does not slow or stop for pedestrian at the crosswalk

Field Observations at 31st Street and I-275 Off-Ramp
February 6, 2019

4:07 p.m.
- Two cars, one truck clear the left-turn off-ramp

4:08 p.m.
- School bus merges onto 31st Street from left-turn of off-ramp, no issues noted

4:09 p.m.
- Truck pulls out in front of black SUV traveling southbound from left-turn lane of off-ramp, near missing the SUV

4:10 p.m.
- Two vehicles cleared the left turn off-ramp merging onto 31st Street

4:11 p.m.
- Four students use crosswalk in front of off-ramp **(See photo 2-3)**
- No issues noted as vehicle uses stop bar before crosswalk

4:13 p.m.
- Freight truck clears the left turn of off-ramp, slowing down a school bus traveling southbound on 31st Street **(See photo 2-4)**

4:15 p.m.
- Fifteen vehicles queued in left turn of off-ramp
- Cyclist crosses at trail without using Hawk signal
- **Student crossing 31st Street near school not using a marked crosswalk.** **(See photo 2-5)**

4:18 p.m.
- Fire Rescue vehicle travels southbound to emergency along 31st Street, all vehicles in vicinity stop or slow
- No issues noted

4:19 p.m.
- Cyclist rides by with child on lap and no helmet, uses crosswalk of off-ramp
- Vehicle in left turn lane uses stop bar to give cyclist full use of crosswalk

4:21 p.m.
- Sixteen vehicles queued at left turn of off-ramp

4:25 p.m.
- Vehicle at speed from northbound of 31st Street cut off a car merging onto 31st Street from left lane of off-ramp

Field Observations at 31st Street and I-275 Off-Ramp
February 6, 2019

Note:

- Most vehicles in right turn lane of off-ramp pulling into southbound lane of 31st Street to see past vehicles stopped within the crosswalk in the left-turn lane

4:29 p.m.

- Vehicle changes lane from right turn to left turn lanes prior to stop bar of off-ramp
- No issues noted

4:31 p.m.

- Vehicle makes an immediate U-turn after exiting off-ramp from right turn lane

4:32 p.m.

- Consistent queue in left turn of off-ramp of ten to fifteen vehicles

4:33 p.m.

- Vehicles exiting Structural Steel entrance onto northbound 31st Street are conflicting with vehicles attempting to U-turn from right lane of off-ramp **(See photo 2-6)**

4:34 p.m.

- Queue of vehicles in left turn lane of off-ramp nearly backed up to the overpass

4:38 p.m.

- Cyclist crossing off-ramp stopped for opening as vehicles using on ramp are not yielding or stopping

4:40 p.m.

- Pedestrian safely crosses off-ramp with vehicle stopped at stop bar
- No issues noted

4:41 p.m.

- Car from left turn lane nearly collides with moped driver traveling southbound on 31st Street

4:45 p.m.

- Consistent queue of fifteen + vehicles in the left turn lane of off-ramp

4:46 p.m.

- Car takes an immediate U-turn from left turn lane of off-ramp

4:49 p.m.

- Northbound and southbound of 31st Street nearly clear of traffic
- No issues noted

4:51 p.m.

- Car takes a U-turn from right turn lane of off-ramp using 1st commercial entrance south of off-ramp

4:53 p.m.
- Cyclist waits for on-ramp traffic to clear before using crosswalk
- Car in left turn lane of off-ramp stops at stop bar, respecting crosswalk

4:59 p.m.
- Queue in left turn of off-ramp reduced to continuous 5-7 vehicles

5:00 p.m.
- Freight truck merging onto 31st Street from left turn of off-ramp slows southbound traffic

5:02 p.m.
- Vehicle traveling southbound makes U-turn in front of vehicle traveling northbound on 31st Street, near miss

5:03 p.m.
- Motorcyclist makes an immediate U-turn from right lane of off-ramp at same time as school bus merging onto 31st Street from left turn lane

5:05 p.m.
- Queue briefly cleared from left turn of off-ramp **(See photo 2-7)**

5:07 p.m.
- Queue in left turn lane backed up again to average of 5-8 vehicles
- Vehicle turning/merging onto 31st Street from left turn of off-ramp nearly hit by car traveling southbound

5:10 p.m.
- Cyclist rides past vehicle stopped within crosswalk at the off-ramp

Note:
- More vehicles entering on-ramp from northbound and southbound 31st Street in PM period

5:12 p.m.
- Truck makes a U-turn from left turn of off-ramp back onto the on-ramp

Note:
- Overall faster travel speed along 31st Street, limiting opportunities for vehicles at off-ramp to merge onto 31st Street

5:19 p.m.
- Drivers showing more aggressive behavior as 31st Street clears of traffic, in attempt to merge more quickly from off-ramp

5:20 p.m.

- Driver headed southbound makes U-turn in front of the on-ramp to return northbound

5:22 p.m.
- Vehicle makes immediate U-turn from right lane off-ramp

5:26 p.m.
- Northbound vehicle speeds up to pass vehicle merging onto 31st Street from left lane of off-ramp, near miss

5:30 p.m.
- Vehicle queue down to 1 car briefly, before increasing to average of 5-8 vehicles in left turn lane of off-ramp
- Student safely uses crosswalk in front of off-ramp with no issues noted

Photos 1-1 through 1-6 were taken during the morning field observations.

Photo 1-1: NB 1-275 exit ramp left turn vehicle queue.

Photo 1-2: Cyclist southbound on 31st Street at NB I-275 ramp termini.

Photo 1-3: Vehicle bypassing left turn lane queue to make left turn to northbound 31st street.

Photo 1-4: Two vehicles nearly colliding after vehicle makes U-turn to avoid existing left turn queue.

Photo 1-5: Two vehicles making U-turns to avoid existing left turn queue.

Photos 2-1 through 2-6 were taken during the afternoon field observations.

Photo 2-1: NB 1-275 exit ramp left turn vehicle queue to northbound 31st street with panhandler in median.

Photo 2-2: Pedestrians crossing along SB 31st Street at NB I-275 ramp termini.

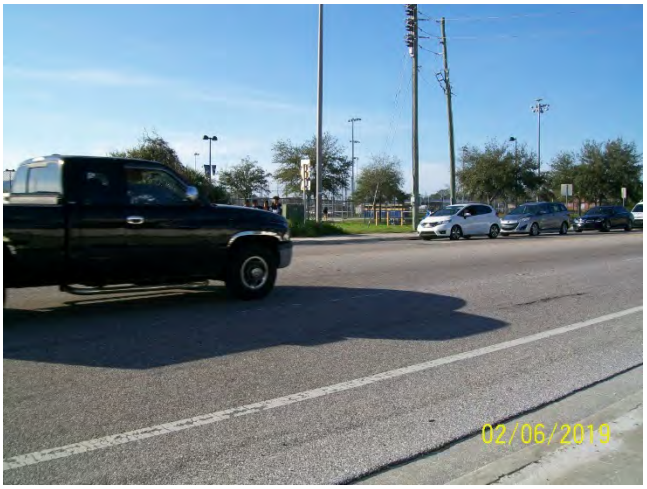


Photo 2-3: Students preparing to use crosswalk at entrance ramp. Cars queuing to allow pedestrian crossing.

Photo 2-4: Freight truck clears the left turn of off-ramp, slowing down a school bus traveling southbound on 31st Street.

Photo 2-5: Student crossing 31st street near school not in a marked crosswalk.

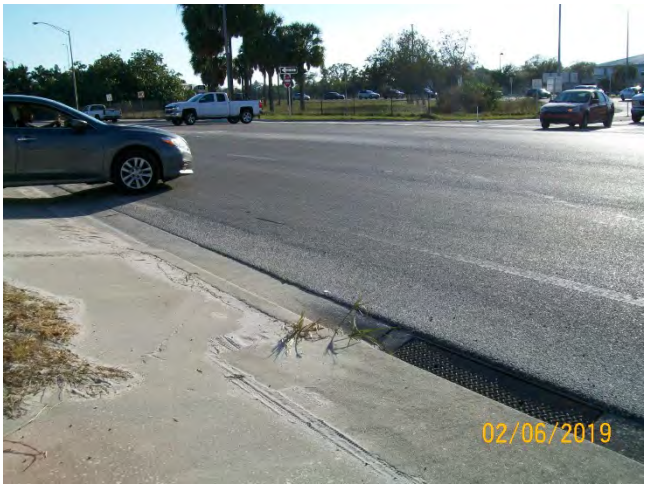


Photo 2-6: Vehicles exiting Structural Steel entrance onto northbound 31st Street are conflicting with vehicles attempting to U-turn from right lane of off-ramp

Photo 2-7: Queue briefly cleared from left turn lane on off ramp.

Appendix C:

72-hour counts, Turning Movement Counts, and FDOT Adjustment Factors

TRAFFIC COUNTS
TASK 8.6 – 8-HOUR TURNING MOVEMENT COUNT

I-275 Ramp at 31st Street S
Section 15190-000; Milepost 3.216
Pinellas County

Districtwide Traffic Data Collection
Financial Project No.: 434372-1-32-01
Contract No.: C-9E12
Assignment No. 256 (TWO #16)

Prepared for:

Florida Department of Transportation
District Seven Traffic Operations
11201 N. McKinley Drive
Tampa, FL 33612

February 2017

Turning Movement Count
Field Data Sheet & Sketch

Date: 2/23/17

Count Times: 6:30-8:30am; 11:30am-1pm; 1:30-6pm

Major Street: 31st Street S

Direction: N-S Speed Limit: 35 mph

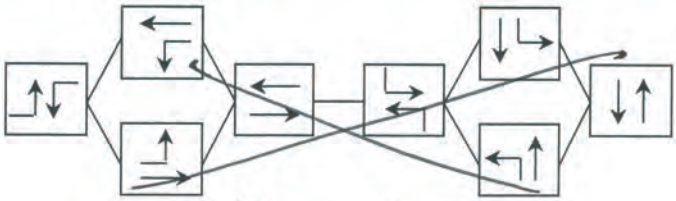
Minor Street: I-275 Ramp

Direction: E-W Speed Limit: N/P mph

City/County: St Petersburg / Pinellas

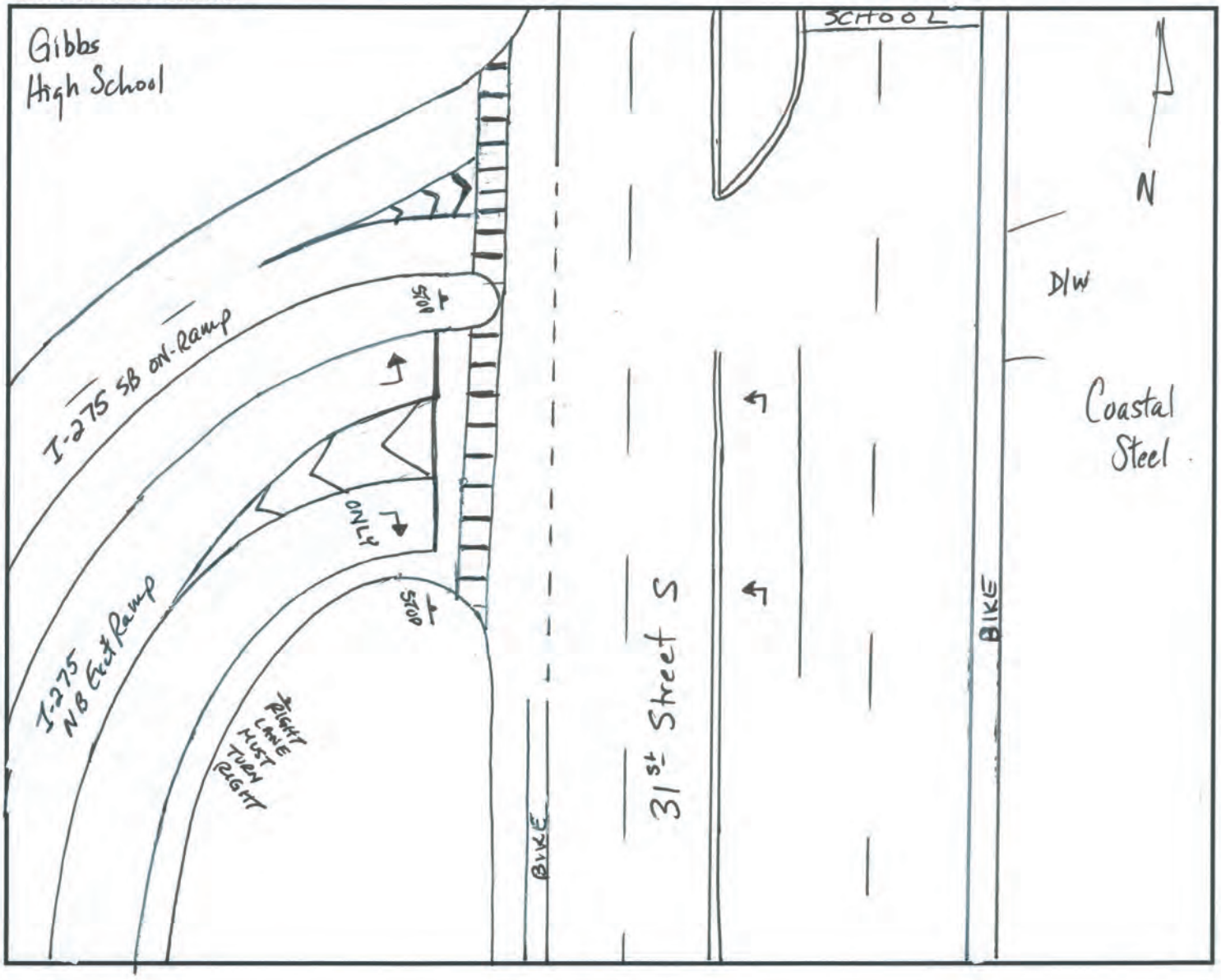
Weather: 6:30-8:30am - on/off light rain

Phasing:



Unsignalized

Intersection Sketch



Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - UTurns

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
06:30 AM	1	21	39	61	0	0	0	0	1	55	0	56	85	0	0	1	86	203
06:45 AM	2	47	52	101	0	0	0	0	5	78	2	85	91	0	0	5	96	282
Total	3	68	91	162	0	0	0	0	6	133	2	141	176	0	0	6	182	485
07:00 AM	1	40	56	97	0	0	0	0	2	38	0	40	96	0	0	3	99	236
07:15 AM	2	33	56	91	0	0	1	1	3	50	0	53	121	0	0	4	125	270
07:30 AM	3	24	50	77	0	0	1	1	4	99	0	103	126	4	0	23	153	334
07:45 AM	3	40	70	113	0	0	0	0	3	125	0	128	111	11	0	59	181	422
Total	9	137	232	378	0	0	2	2	12	312	0	324	454	15	0	89	558	1262
08:00 AM	0	45	57	102	0	0	0	0	1	63	1	65	140	2	0	19	161	328
08:15 AM	2	34	57	93	0	0	0	0	2	95	0	97	136	4	0	29	169	359
*** BREAK ***																		
Total	2	79	114	195	0	0	0	0	3	158	1	162	276	6	0	48	330	687
*** BREAK ***																		
11:30 AM	2	51	49	102	0	0	3	3	2	64	1	67	78	1	0	3	82	254
11:45 AM	3	48	49	100	0	0	1	1	1	60	0	61	78	2	0	3	83	245
Total	5	99	98	202	0	0	4	4	3	124	1	128	156	3	0	6	165	499
12:00 PM	1	56	52	109	0	0	1	1	1	69	0	70	81	0	0	6	87	267
12:15 PM	0	73	64	137	0	0	3	3	1	60	0	61	76	0	0	4	80	281
12:30 PM	1	53	69	123	0	0	2	2	3	52	0	55	85	0	0	7	92	272
12:45 PM	0	56	54	110	0	0	1	1	0	59	0	59	79	1	0	4	84	254
Total	2	238	239	479	0	0	7	7	5	240	0	245	321	1	0	21	343	1074
*** BREAK ***																		
01:30 PM	1	65	71	137	0	1	1	2	1	72	0	73	67	1	1	3	72	284
01:45 PM	1	72	74	147	0	0	1	1	1	51	1	53	71	1	0	3	75	276
Total	2	137	145	284	0	1	2	3	2	123	1	126	138	2	1	6	147	560
02:00 PM	0	84	69	153	0	0	1	1	1	80	0	81	68	0	0	2	70	305
02:15 PM	1	67	60	128	0	0	1	1	6	62	0	68	94	2	1	4	101	298
02:30 PM	1	83	65	149	0	0	1	1	5	87	0	92	91	1	0	6	98	340
02:45 PM	0	63	73	136	0	0	2	2	3	71	0	74	99	1	2	5	107	319
Total	2	297	267	566	0	0	5	5	15	300	0	315	352	4	3	17	376	1262
03:00 PM	1	68	84	153	0	0	0	0	0	81	0	81	82	0	0	6	88	322
03:15 PM	0	74	83	157	0	1	2	3	6	72	0	78	101	2	0	7	110	348
03:30 PM	0	77	93	170	0	0	3	3	5	84	1	90	81	5	0	10	96	359
03:45 PM	0	92	102	194	0	0	1	1	7	67	0	74	94	8	0	9	111	380
Total	1	311	362	674	0	1	6	7	18	304	1	323	358	15	0	32	405	1409
04:00 PM	1	91	110	202	0	0	3	3	3	76	0	79	82	2	0	7	91	375
04:15 PM	2	94	99	195	0	0	0	0	6	75	0	81	102	2	1	9	114	390
04:30 PM	0	77	104	181	0	1	11	12	5	69	1	75	97	5	0	7	109	377
04:45 PM	0	69	115	184	0	0	2	2	4	65	0	69	105	6	0	7	118	373
Total	3	331	428	762	0	1	16	17	18	285	1	304	386	15	1	30	432	1515
05:00 PM	0	68	124	192	0	0	3	3	7	81	0	88	94	4	0	9	107	390
05:15 PM	0	83	128	211	0	0	1	1	2	79	0	81	96	2	0	8	106	399
05:30 PM	0	85	107	192	0	0	0	0	7	65	0	72	96	1	0	8	105	369
05:45 PM	1	81	86	168	1	0	1	2	3	79	0	82	105	4	0	11	120	372
Total	1	317	445	763	1	0	5	6	19	304	0	323	391	11	0	36	438	1530
Grand Total	30	2014	2421	4465	1	3	47	51	101	2283	7	2391	3008	72	5	291	3376	10283
Apprch %	0.7	45.1	54.2		2	5.9	92.2		4.2	95.5	0.3		89.1	2.1	0.1	8.6		
Total %	0.3	19.6	23.5	43.4	0	0	0.5	0.5	1	22.2	0.1	23.3	29.3	0.7	0	2.8	32.8	
Passenger Vehicles	27	1940	2365	4332	1	3	46	50	92	2207	7	2306	2950	71	4	283	3308	9996
% Passenger Vehicles	90	96.3	97.7	97	100	100	97.9	98	91.1	96.7	100	96.4	98.1	98.6	80	97.3	98	97.2
Heavy Vehicles	3	74	56	133	0	0	1	1	8	76	0	84	52	1	1	8	62	280

Intersection Turning Movement Count

% Heavy Vehicles	10	3.7	2.3	3	0	0	2.1	2	7.9	3.3	0	3.5	1.7	1.4	20	2.7	1.8	2.7
UTurns	0	0	0	0	0	0	0	0	1	0	0	1	6	0	0	0	6	7
% UTurns	0	0	0	0	0	0	0	0	1	0	0	0	0.2	0	0	0	0.2	0.1

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	2	33	56	91	0	0	1	1	3	50	0	53	121	0	0	4	125	270
07:30 AM	3	24	50	77	0	0	1	1	4	99	0	103	126	4	0	23	153	334
07:45 AM	3	40	70	113	0	0	0	0	3	125	0	128	111	11	0	59	181	422
08:00 AM	0	45	57	102	0	0	0	0	1	63	1	65	140	2	0	19	161	328
Total Volume	8	142	233	383	0	0	2	2	11	337	1	349	498	17	0	105	620	1354
% App. Total	2.1	37.1	60.8		0	0	100		3.2	96.6	0.3		80.3	2.7	0	16.9		
PHF	.667	.789	.832	.847	.000	.000	.500	.500	.688	.674	.250	.682	.889	.386	.000	.445	.856	.802
Passenger Vehicles	8	131	228	367	0	0	1	1	9	332	1	342	494	17	0	104	615	1325
% Passenger Vehicles	100	92.3	97.9	95.8	0	0	50.0	50.0	81.8	98.5	100	98.0	99.2	100	0	99.0	99.2	97.9
Heavy Vehicles	0	11	5	16	0	0	1	1	2	5	0	7	4	0	0	1	5	29
% Heavy Vehicles	0	7.7	2.1	4.2	0	0	50.0	50.0	18.2	1.5	0	2.0	0.8	0	0	1.0	0.8	2.1
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:15 AM				06:45 AM				07:15 AM				07:15 AM					
+0 mins.	2	33	56	91	0	0	0	0	3	50	0	53	121	0	0	4	125	
+15 mins.	3	24	50	77	0	0	0	0	4	99	0	103	126	4	0	23	153	
+30 mins.	3	40	70	113	0	0	1	1	3	125	0	128	111	11	0	59	181	
+45 mins.	0	45	57	102	0	0	1	1	1	63	1	65	140	2	0	19	161	
Total Volume	8	142	233	383	0	0	2	2	11	337	1	349	498	17	0	105	620	
% App. Total	2.1	37.1	60.8		0	0	100		3.2	96.6	0.3		80.3	2.7	0	16.9		
PHF	.667	.789	.832	.847	.000	.000	.500	.500	.688	.674	.250	.682	.889	.386	.000	.445	.856	
Passenger Vehicles	8	131	228	367	0	0	1	1	9	332	1	342	494	17	0	104	615	
% Passenger Vehicles	100	92.3	97.9	95.8	0	0	50	50	81.8	98.5	100	98	99.2	100	0	99	99.2	
Heavy Vehicles	0	11	5	16	0	0	1	1	2	5	0	7	4	0	0	1	5	
% Heavy Vehicles	0	7.7	2.1	4.2	0	0	50	50	18.2	1.5	0	2	0.8	0	0	1	0.8	
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 12:00 PM																		
12:00 PM	1	56	52	109	0	0	1	1	1	69	0	70	81	0	0	6	87	267
12:15 PM	0	73	64	137	0	0	3	3	1	60	0	61	76	0	0	4	80	281
12:30 PM	1	53	69	123	0	0	2	2	3	52	0	55	85	0	0	7	92	272
12:45 PM	0	56	54	110	0	0	1	1	0	59	0	59	79	1	0	4	84	254
Total Volume	2	238	239	479	0	0	7	7	5	240	0	245	321	1	0	21	343	1074
% App. Total	0.4	49.7	49.9		0	0	100		2	98	0		93.6	0.3	0	6.1		
PHF	.500	.815	.866	.874	.000	.000	.583	.583	.417	.870	.000	.875	.944	.250	.000	.750	.932	.956
Passenger Vehicles	2	226	231	459	0	0	7	7	5	229	0	234	309	1	0	21	331	1031
% Passenger Vehicles	100	95.0	96.7	95.8	0	0	100	100	100	95.4	0	95.5	96.3	100	0	100	96.5	96.0
Heavy Vehicles	0	12	8	20	0	0	0	0	0	11	0	11	11	0	0	0	11	42
% Heavy Vehicles	0	5.0	3.3	4.2	0	0	0	0	0	4.6	0	4.5	3.4	0	0	0	3.2	3.9
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0.3	0.1

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	12:00 PM				11:30 AM				11:30 AM				12:00 PM					
+0 mins.	1	56	52	109	0	0	3	3	2	64	1	67	81	0	0	6	87	
+15 mins.	0	73	64	137	0	0	1	1	1	60	0	61	76	0	0	4	80	
+30 mins.	1	53	69	123	0	0	1	1	1	69	0	70	85	0	0	7	92	
+45 mins.	0	56	54	110	0	0	3	3	1	60	0	61	79	1	0	4	84	
Total Volume	2	238	239	479	0	0	8	8	5	253	1	259	321	1	0	21	343	
% App. Total	0.4	49.7	49.9		0	0	100		1.9	97.7	0.4		93.6	0.3	0	6.1		
PHF	.500	.815	.866	.874	.000	.000	.667	.667	.625	.917	.250	.925	.944	.250	.000	.750	.932	
Passenger Vehicles	2	226	231	459	0	0	8	8	5	243	1	249	309	1	0	21	331	
% Passenger Vehicles	100	95	96.7	95.8	0	0	100	100	100	96	100	96.1	96.3	100	0	100	96.5	
Heavy Vehicles	0	12	8	20	0	0	0	0	0	10	0	10	11	0	0	0	11	
% Heavy Vehicles	0	5	3.3	4.2	0	0	0	0	0	4	0	3.9	3.4	0	0	0	3.2	
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0.3	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	0	77	104	181	0	1	11	12	5	69	1	75	97	5	0	7	109	377
04:45 PM	0	69	115	184	0	0	2	2	4	65	0	69	105	6	0	7	118	373
05:00 PM	0	68	124	192	0	0	3	3	7	81	0	88	94	4	0	9	107	390
05:15 PM	0	83	128	211	0	0	1	1	2	79	0	81	96	2	0	8	106	399
Total Volume	0	297	471	768	0	1	17	18	18	294	1	313	392	17	0	31	440	1539
% App. Total	0	38.7	61.3		0	5.6	94.4		5.8	93.9	0.3		89.1	3.9	0	7		
PHF	.000	.895	.920	.910	.000	.250	.386	.375	.643	.907	.250	.889	.933	.708	.000	.861	.932	.964
Passenger Vehicles	0	290	463	753	0	1	17	18	18	285	1	304	389	17	0	31	437	1512
% Passenger Vehicles	0	97.6	98.3	98.0	0	100	100	100	100	96.9	100	97.1	99.2	100	0	100	99.3	98.2
Heavy Vehicles	0	7	8	15	0	0	0	0	0	9	0	9	2	0	0	0	2	26
% Heavy Vehicles	0	2.4	1.7	2.0	0	0	0	0	0	3.1	0	2.9	0.5	0	0	0	0.5	1.7
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0.2	0.1
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	04:45 PM				04:30 PM				02:30 PM				04:15 PM					
+0 mins.	0	69	115	184	0	1	11	12	5	87	0	92	102	2	1	9	114	
+15 mins.	0	68	124	192	0	0	2	2	3	71	0	74	97	5	0	7	109	
+30 mins.	0	83	128	211	0	0	3	3	0	81	0	81	105	6	0	7	118	
+45 mins.	0	85	107	192	0	0	1	1	6	72	0	78	94	4	0	9	107	
Total Volume	0	305	474	779	0	1	17	18	14	311	0	325	398	17	1	32	448	
% App. Total	0	39.2	60.8		0	5.6	94.4		4.3	95.7	0		88.8	3.8	0.2	7.1		
PHF	.000	.897	.926	.923	.000	.250	.386	.375	.583	.894	.000	.883	.948	.708	.250	.889	.949	
Passenger Vehicles	0	299	465	764	0	1	17	18	14	302	0	316	392	17	1	31	441	
% Passenger Vehicles	0	98	98.1	98.1	0	100	100	100	100	97.1	0	97.2	98.5	100	100	96.9	98.4	
Heavy Vehicles	0	6	9	15	0	0	0	0	0	9	0	9	5	0	0	1	6	
% Heavy Vehicles	0	2	1.9	1.9	0	0	0	0	0	2.9	0	2.8	1.3	0	0	3.1	1.3	
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0	0.2	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017

Groups Printed- Passenger Vehicles

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
06:30 AM	1	21	37	59	0	0	0	0	0	50	0	50	84	0	0	0	84	193
06:45 AM	2	45	52	99	0	0	0	0	2	78	2	82	90	0	0	4	94	275
Total	3	66	89	158	0	0	0	0	2	128	2	132	174	0	0	4	178	468
07:00 AM	0	40	53	93	0	0	0	0	2	36	0	38	96	0	0	2	98	229
07:15 AM	2	29	54	85	0	0	1	1	2	49	0	51	120	0	0	3	123	260
07:30 AM	3	22	47	72	0	0	0	0	3	97	0	100	125	4	0	23	152	324
07:45 AM	3	36	70	109	0	0	0	0	3	124	0	127	109	11	0	59	179	415
Total	8	127	224	359	0	0	1	1	10	306	0	316	450	15	0	87	552	1228
08:00 AM	0	44	57	101	0	0	0	0	1	62	1	64	140	2	0	19	161	326
08:15 AM	2	31	57	90	0	0	0	0	2	92	0	94	135	4	0	29	168	352
*** BREAK ***																		
Total	2	75	114	191	0	0	0	0	3	154	1	158	275	6	0	48	329	678
*** BREAK ***																		
11:30 AM	2	49	46	97	0	0	3	3	2	59	1	62	76	1	0	3	80	242
11:45 AM	3	47	49	99	0	0	1	1	1	59	0	60	76	2	0	3	81	241
Total	5	96	95	196	0	0	4	4	3	118	1	122	152	3	0	6	161	483
12:00 PM	1	54	51	106	0	0	1	1	1	66	0	67	78	0	0	6	84	258
12:15 PM	0	68	60	128	0	0	3	3	1	59	0	60	73	0	0	4	77	268
12:30 PM	1	52	67	120	0	0	2	2	3	50	0	53	82	0	0	7	89	264
12:45 PM	0	52	53	105	0	0	1	1	0	54	0	54	76	1	0	4	81	241
Total	2	226	231	459	0	0	7	7	5	229	0	234	309	1	0	21	331	1031
*** BREAK ***																		
01:30 PM	1	62	69	132	0	1	1	2	0	65	0	65	66	1	0	3	70	269
01:45 PM	1	67	73	141	0	0	1	1	1	50	1	52	66	1	0	3	70	264
Total	2	129	142	273	0	1	2	3	1	115	1	117	132	2	0	6	140	533
02:00 PM	0	83	67	150	0	0	1	1	1	78	0	79	67	0	0	2	69	299
02:15 PM	1	64	57	122	0	0	1	1	6	62	0	68	89	2	1	4	96	287
02:30 PM	1	79	63	143	0	0	1	1	5	85	0	90	87	1	0	6	94	328
02:45 PM	0	60	69	129	0	0	2	2	3	66	0	69	97	1	2	5	105	305
Total	2	286	256	544	0	0	5	5	15	291	0	306	340	4	3	17	364	1219
03:00 PM	0	65	82	147	0	0	0	0	0	80	0	80	81	0	0	6	87	314
03:15 PM	0	72	82	154	0	1	2	3	6	71	0	77	99	2	0	7	108	342
03:30 PM	0	75	92	167	0	0	3	3	5	83	1	89	78	4	0	9	91	350
03:45 PM	0	91	102	193	0	0	1	1	6	65	0	71	92	8	0	8	108	373
Total	0	303	358	661	0	1	6	7	17	299	1	317	350	14	0	30	394	1379
04:00 PM	0	86	106	192	0	0	3	3	3	72	0	75	81	2	0	6	89	359
04:15 PM	2	93	95	190	0	0	0	0	6	73	0	79	99	2	1	8	110	379
04:30 PM	0	75	104	179	0	1	11	12	5	68	1	74	96	5	0	7	108	373
04:45 PM	0	67	113	180	0	0	2	2	4	59	0	63	104	6	0	7	117	362
Total	2	321	418	741	0	1	16	17	18	272	1	291	380	15	1	28	424	1473
05:00 PM	0	67	121	188	0	0	3	3	7	80	0	87	93	4	0	9	106	384
05:15 PM	0	81	125	206	0	0	1	1	2	78	0	80	96	2	0	8	106	393
05:30 PM	0	84	106	190	0	0	0	0	7	60	0	67	94	1	0	8	103	360
05:45 PM	1	79	86	166	1	0	1	2	2	77	0	79	105	4	0	11	120	367
Total	1	311	438	750	1	0	5	6	18	295	0	313	388	11	0	36	435	1504
Grand Total	27	1940	2365	4332	1	3	46	50	92	2207	7	2306	2950	71	4	283	3308	9996
Apprch %	0.6	44.8	54.6		2	6	92		4	95.7	0.3		89.2	2.1	0.1	8.6		
Total %	0.3	19.4	23.7	43.3	0	0	0.5	0.5	0.9	22.1	0.1	23.1	29.5	0.7	0	2.8	33.1	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:15 AM																		
07:15 AM	2	29	54	85	0	0	1	1	2	49	0	51	120	0	0	3	123	260
07:30 AM	3	22	47	72	0	0	0	0	3	97	0	100	125	4	0	23	152	324
07:45 AM	3	36	70	109	0	0	0	0	3	124	0	127	109	11	0	59	179	415
08:00 AM	0	44	57	101	0	0	0	0	1	62	1	64	140	2	0	19	161	326
Total Volume	8	131	228	367	0	0	1	1	9	332	1	342	494	17	0	104	615	1325
% App. Total	2.2	35.7	62.1		0	0	100		2.6	97.1	0.3		80.3	2.8	0	16.9		
PHF	.667	.744	.814	.842	.000	.000	.250	.250	.750	.669	.250	.673	.882	.386	.000	.441	.859	.798

Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				06:30 AM				07:15 AM				07:15 AM					
+0 mins.	2	29	54	85	0	0	0	0	2	49	0	51	120	0	0	3	123	
+15 mins.	3	22	47	72	0	0	0	0	3	97	0	100	125	4	0	23	152	
+30 mins.	3	36	70	109	0	0	0	0	3	124	0	127	109	11	0	59	179	
+45 mins.	0	44	57	101	0	0	1	1	1	62	1	64	140	2	0	19	161	
Total Volume	8	131	228	367	0	0	1	1	9	332	1	342	494	17	0	104	615	
% App. Total	2.2	35.7	62.1		0	0	100		2.6	97.1	0.3		80.3	2.8	0	16.9		
PHF	.667	.744	.814	.842	.000	.000	.250	.250	.750	.669	.250	.673	.882	.386	.000	.441	.859	
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 11:45 AM																		
11:45 AM	3	47	49	99	0	0	1	1	1	59	0	60	76	2	0	3	81	241
12:00 PM	1	54	51	106	0	0	1	1	1	66	0	67	78	0	0	6	84	258
12:15 PM	0	68	60	128	0	0	3	3	1	59	0	60	73	0	0	4	77	268
12:30 PM	1	52	67	120	0	0	2	2	3	50	0	53	82	0	0	7	89	264
Total Volume	5	221	227	453	0	0	7	7	6	234	0	240	309	2	0	20	331	1031
% App. Total	1.1	48.8	50.1		0	0	100		2.5	97.5	0		93.4	0.6	0	6		
PHF	.417	.813	.847	.885	.000	.000	.583	.583	.500	.886	.000	.896	.942	.250	.000	.714	.930	.962

Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				11:30 AM				11:30 AM				11:45 AM					
+0 mins.	1	54	51	106	0	0	3	3	2	59	1	62	76	2	0	3	81	
+15 mins.	0	68	60	128	0	0	1	1	1	59	0	60	78	0	0	6	84	
+30 mins.	1	52	67	120	0	0	1	1	1	66	0	67	73	0	0	4	77	
+45 mins.	0	52	53	105	0	0	3	3	1	59	0	60	82	0	0	7	89	
Total Volume	2	226	231	459	0	0	8	8	5	243	1	249	309	2	0	20	331	
% App. Total	0.4	49.2	50.3		0	0	100		2	97.6	0.4		93.4	0.6	0	6		
PHF	.500	.831	.862	.896	.000	.000	.667	.667	.625	.920	.250	.929	.942	.250	.000	.714	.930	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	0	75	104	179	0	1	11	12	5	68	1	74	96	5	0	7	108	373
04:45 PM	0	67	113	180	0	0	2	2	4	59	0	63	104	6	0	7	117	362
05:00 PM	0	67	121	188	0	0	3	3	7	80	0	87	93	4	0	9	106	384
05:15 PM	0	81	125	206	0	0	1	1	2	78	0	80	96	2	0	8	106	393
Total Volume	0	290	463	753	0	1	17	18	18	285	1	304	389	17	0	31	437	1512
% App. Total	0	38.5	61.5		0	5.6	94.4		5.9	93.8	0.3		89	3.9	0	7.1		
PHF	.000	.895	.926	.914	.000	.250	.386	.375	.643	.891	.250	.874	.935	.708	.000	.861	.934	.962

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				03:00 PM				04:15 PM					
+0 mins.	0	67	113	180	0	1	11	12	0	80	0	80	99	2	1	8	110	
+15 mins.	0	67	121	188	0	0	2	2	6	71	0	77	96	5	0	7	108	
+30 mins.	0	81	125	206	0	0	3	3	5	83	1	89	104	6	0	7	117	
+45 mins.	0	84	106	190	0	0	1	1	6	65	0	71	93	4	0	9	106	
Total Volume	0	299	465	764	0	1	17	18	17	299	1	317	392	17	1	31	441	
% App. Total	0	39.1	60.9		0	5.6	94.4		5.4	94.3	0.3		88.9	3.9	0.2	7		
PHF	.000	.890	.930	.927	.000	.250	.386	.375	.708	.901	.250	.890	.942	.708	.250	.861	.942	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017
Page No : 1

Groups Printed- Heavy Vehicles

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
06:30 AM	0	0	2	2	0	0	0	0	1	5	0	6	1	0	0	1	2	10
06:45 AM	0	2	0	2	0	0	0	0	2	0	0	2	1	0	0	1	2	6
Total	0	2	2	4	0	0	0	0	3	5	0	8	2	0	0	2	4	16
07:00 AM	1	0	3	4	0	0	0	0	0	2	0	2	0	0	0	1	1	7
07:15 AM	0	4	2	6	0	0	0	0	1	1	0	2	1	0	0	1	2	10
07:30 AM	0	2	3	5	0	0	1	1	1	2	0	3	1	0	0	0	1	10
07:45 AM	0	4	0	4	0	0	0	0	0	1	0	1	2	0	0	0	2	7
Total	1	10	8	19	0	0	1	1	2	6	0	8	4	0	0	2	6	34
08:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	2
08:15 AM	0	3	0	3	0	0	0	0	0	3	0	3	1	0	0	0	1	7
*** BREAK ***																		
Total	0	4	0	4	0	0	0	0	0	4	0	4	1	0	0	0	1	9
*** BREAK ***																		
11:30 AM	0	2	3	5	0	0	0	0	0	5	0	5	2	0	0	0	2	12
11:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	2	0	0	0	2	4
Total	0	3	3	6	0	0	0	0	0	6	0	6	4	0	0	0	4	16
12:00 PM	0	2	1	3	0	0	0	0	0	3	0	3	3	0	0	0	3	9
12:15 PM	0	5	4	9	0	0	0	0	0	1	0	1	3	0	0	0	3	13
12:30 PM	0	1	2	3	0	0	0	0	0	2	0	2	3	0	0	0	3	8
12:45 PM	0	4	1	5	0	0	0	0	0	5	0	5	2	0	0	0	2	12
Total	0	12	8	20	0	0	0	0	0	11	0	11	11	0	0	0	11	42
*** BREAK ***																		
01:30 PM	0	3	2	5	0	0	0	0	1	7	0	8	0	0	1	0	1	14
01:45 PM	0	5	1	6	0	0	0	0	0	1	0	1	5	0	0	0	5	12
Total	0	8	3	11	0	0	0	0	1	8	0	9	5	0	1	0	6	26
02:00 PM	0	1	2	3	0	0	0	0	0	2	0	2	1	0	0	0	1	6
02:15 PM	0	3	3	6	0	0	0	0	0	0	0	0	5	0	0	0	5	11
02:30 PM	0	4	2	6	0	0	0	0	0	2	0	2	4	0	0	0	4	12
02:45 PM	0	3	4	7	0	0	0	0	0	5	0	5	1	0	0	0	1	13
Total	0	11	11	22	0	0	0	0	0	9	0	9	11	0	0	0	11	42
03:00 PM	1	3	2	6	0	0	0	0	0	1	0	1	0	0	0	0	0	7
03:15 PM	0	2	1	3	0	0	0	0	0	1	0	1	2	0	0	0	2	6
03:30 PM	0	2	1	3	0	0	0	0	0	1	0	1	3	1	0	1	5	9
03:45 PM	0	1	0	1	0	0	0	0	1	2	0	3	2	0	0	1	3	7
Total	1	8	4	13	0	0	0	0	1	5	0	6	7	1	0	2	10	29
04:00 PM	1	5	4	10	0	0	0	0	0	4	0	4	0	0	0	1	1	15
04:15 PM	0	1	4	5	0	0	0	0	0	2	0	2	3	0	0	1	4	11
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	1	0	0	0	1	4
04:45 PM	0	2	2	4	0	0	0	0	0	6	0	6	1	0	0	0	1	11
Total	1	10	10	21	0	0	0	0	0	13	0	13	5	0	0	2	7	41
05:00 PM	0	1	3	4	0	0	0	0	0	1	0	1	0	0	0	0	0	5
05:15 PM	0	2	3	5	0	0	0	0	0	1	0	1	0	0	0	0	0	6
05:30 PM	0	1	1	2	0	0	0	0	0	5	0	5	2	0	0	0	2	9
05:45 PM	0	2	0	2	0	0	0	0	1	2	0	3	0	0	0	0	0	5
Total	0	6	7	13	0	0	0	0	1	9	0	10	2	0	0	0	2	25
Grand Total	3	74	56	133	0	0	1	1	8	76	0	84	52	1	1	8	62	280
Apprch %	2.3	55.6	42.1		0	0	100		9.5	90.5	0		83.9	1.6	1.6	12.9		
Total %	1.1	26.4	20	47.5	0	0	0.4	0.4	2.9	27.1	0	30	18.6	0.4	0.4	2.9	22.1	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	1	0	3	4	0	0	0	0	0	2	0	2	0	0	0	1	1	7
07:15 AM	0	4	2	6	0	0	0	0	1	1	0	2	1	0	0	1	2	10
07:30 AM	0	2	3	5	0	0	1	1	1	2	0	3	1	0	0	0	1	10
07:45 AM	0	4	0	4	0	0	0	0	0	1	0	1	2	0	0	0	2	7
Total Volume	1	10	8	19	0	0	1	1	2	6	0	8	4	0	0	2	6	34
% App. Total	5.3	52.6	42.1		0	0	100		25	75	0		66.7	0	0	33.3		
PHF	.250	.625	.667	.792	.000	.000	.250	.250	.500	.750	.000	.667	.500	.000	.000	.500	.750	.850

Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	07:00 AM				06:45 AM				06:30 AM				06:30 AM					
+0 mins.	1	0	3	4	0	0	0	0	1	5	0	6	1	0	0	1	2	
+15 mins.	0	4	2	6	0	0	0	0	2	0	0	2	1	0	0	1	2	
+30 mins.	0	2	3	5	0	0	0	0	0	2	0	2	0	0	0	1	1	
+45 mins.	0	4	0	4	0	0	1	1	1	1	0	2	1	0	0	1	2	
Total Volume	1	10	8	19	0	0	1	1	4	8	0	12	3	0	0	4	7	
% App. Total	5.3	52.6	42.1		0	0	100		33.3	66.7	0		42.9	0	0	57.1		
PHF	.250	.625	.667	.792	.000	.000	.250	.250	.500	.400	.000	.500	.750	.000	.000	1.000	.875	
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 12:00 PM																		
12:00 PM	0	2	1	3	0	0	0	0	0	3	0	3	3	0	0	0	3	9
12:15 PM	0	5	4	9	0	0	0	0	0	1	0	1	3	0	0	0	3	13
12:30 PM	0	1	2	3	0	0	0	0	0	2	0	2	3	0	0	0	3	8
12:45 PM	0	4	1	5	0	0	0	0	0	5	0	5	2	0	0	0	2	12
Total Volume	0	12	8	20	0	0	0	0	0	11	0	11	11	0	0	0	11	42
% App. Total	0	60	40		0	0	0		0	100	0		100	0	0	0		
PHF	.000	.600	.500	.556	.000	.000	.000	.000	.000	.550	.000	.550	.917	.000	.000	.000	.917	.808

Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	12:00 PM				11:30 AM				12:00 PM				11:45 AM					
+0 mins.	0	2	1	3	0	0	0	0	0	3	0	3	2	0	0	0	2	
+15 mins.	0	5	4	9	0	0	0	0	0	1	0	1	3	0	0	0	3	
+30 mins.	0	1	2	3	0	0	0	0	0	2	0	2	3	0	0	0	3	
+45 mins.	0	4	1	5	0	0	0	0	0	5	0	5	3	0	0	0	3	
Total Volume	0	12	8	20	0	0	0	0	0	11	0	11	11	0	0	0	11	
% App. Total	0	60	40		0	0	0		0	100	0		100	0	0	0		
PHF	.000	.600	.500	.556	.000	.000	.000	.000	.000	.550	.000	.550	.917	.000	.000	.000	.917	
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 02:15 PM																		
02:15 PM	0	3	3	6	0	0	0	0	0	0	0	0	5	0	0	0	5	11
02:30 PM	0	4	2	6	0	0	0	0	0	2	0	2	4	0	0	0	4	12
02:45 PM	0	3	4	7	0	0	0	0	0	5	0	5	1	0	0	0	1	13
03:00 PM	1	3	2	6	0	0	0	0	0	1	0	1	0	0	0	0	0	7
Total Volume	1	13	11	25	0	0	0	0	0	8	0	8	10	0	0	0	10	43
% App. Total	4	52	44		0	0	0		0	100	0		100	0	0	0		
PHF	.250	.813	.688	.893	.000	.000	.000	.000	.000	.400	.000	.400	.500	.000	.000	.000	.500	.827

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
	02:15 PM				02:00 PM				04:00 PM				03:30 PM					
+0 mins.	0	3	3	6	0	0	0	0	0	4	0	4	3	1	0	1	5	
+15 mins.	0	4	2	6	0	0	0	0	0	2	0	2	2	0	0	1	3	
+30 mins.	0	3	4	7	0	0	0	0	0	1	0	1	0	0	0	1	1	
+45 mins.	1	3	2	6	0	0	0	0	0	6	0	6	3	0	0	1	4	
Total Volume	1	13	11	25	0	0	0	0	0	13	0	13	8	1	0	4	13	
% App. Total	4	52	44		0	0	0		0	100	0		61.5	7.7	0	30.8		
PHF	.250	.813	.688	.893	.000	.000	.000	.000	.000	.542	.000	.542	.667	.250	.000	1.000	.650	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017
Page No : 1

Groups Printed- UTurns

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
*** BREAK ***																		
06:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
*** BREAK ***																		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
*** BREAK ***																		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	1	0	0	1	6	0	0	0	6	7
Apprch %	0	0	0		0	0	0		100	0	0		100	0	0	0		
Total %	0	0	0	0	0	0	0	0	14.3	0	0	14.3	85.7	0	0	0	85.7	

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 06:30 AM																		
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
07:00 AM	0	0	0	0	0	0	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	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250

Peak Hour Analysis From 06:30 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:30 AM				06:30 AM				06:30 AM				06:30 AM					
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
+30 mins.	0	0	0	0	0	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	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Lt Rain in AM
Comments:

File Name : 31stSt&I-275
Site Code : 13100256
Start Date : 2/23/2017

	31ST STREET S Southbound				DRIVEWAY Westbound				31ST STREET S Northbound				I-275 RAMP Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left from Left Lane	Left from Right Lane	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 12:00 PM																		
12:00 PM	0	0	0	0	0	0	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	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	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	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.250

	11:30 AM				11:30 AM				11:30 AM				12:00 PM					
Peak Hour Analysis From 11:30 AM to 12:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	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	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 02:15 PM																		
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	.500

	02:00 PM				02:00 PM				02:00 PM				02:15 PM					
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Each Approach Begins at:																		
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	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	1	0	0	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.000	.500	

Intersection Pedestrian & Bicycle Count

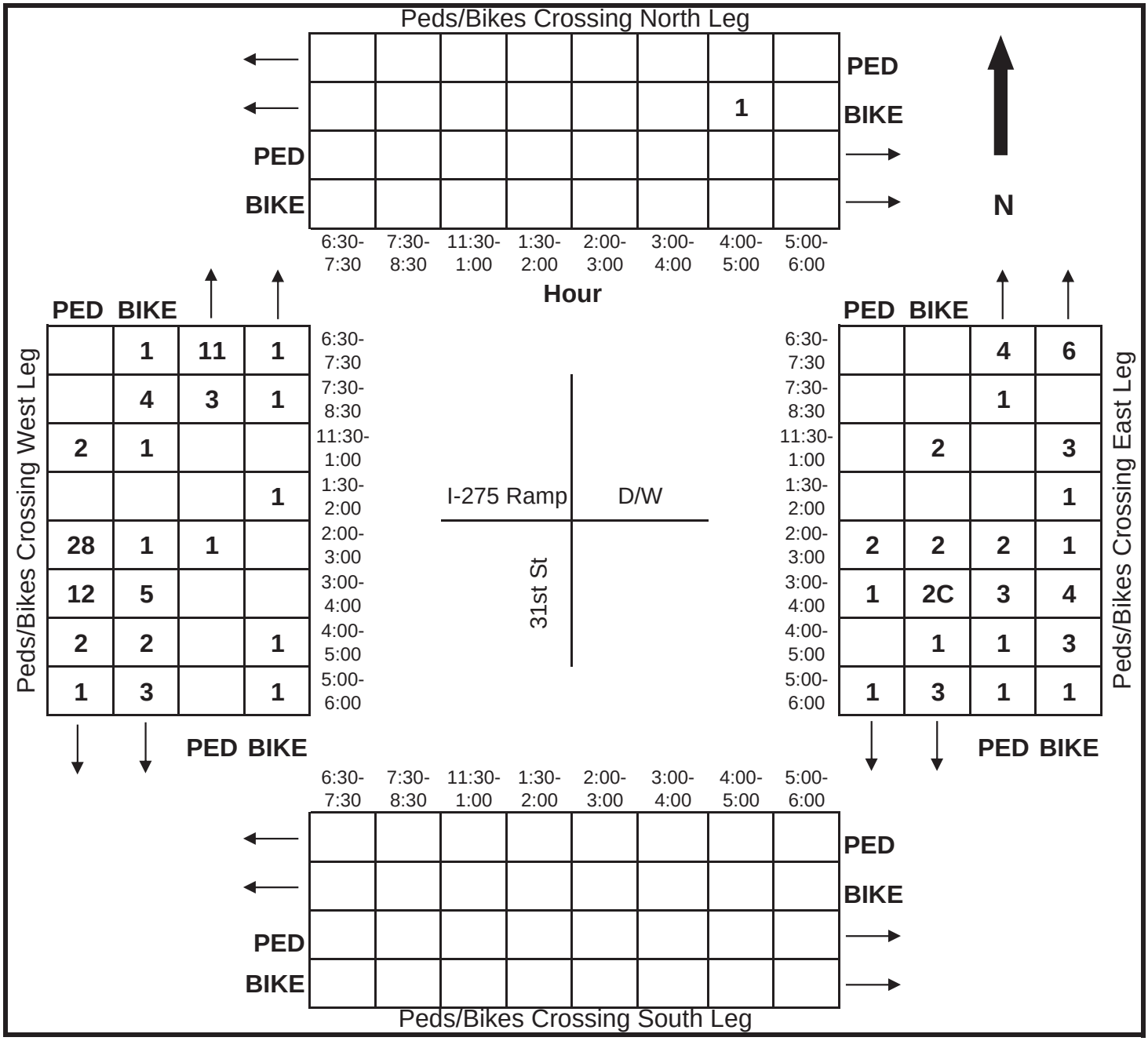
Date: 2/23/17 Day: Thursday

Count Times: 6:30-8:30am; 11:30am-1pm; 1:30-6pm Weather: On/Off Light Rain

Intersection: 31st Street S at I-275 Ramp 6:30-8:30am

Comments:

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



Traffic/Pedestrian Comments & Observations

Date of Observations: 2/23/2017
Observation Times: 6:30-8:30am; 11:30am-1pm; 1:30-6pm

I-275 Ramp at 31st Street S

- Some vehicles turn left from the right turn lane or turn right and then make U-turn. 7:30-8:30am – half of the right turns made a U-turn down the street.

TRAFFIC COUNTS
TASK 8.3 – 72-HOUR VOLUME COUNTS
&
TASK 8.6 – 8-HOUR TURNING MOVEMENT COUNT

I-275 Ramp at 31st Street S
Section 15190-000; MP 3.216
31st Street S at Gibbs High School
Pinellas County

Districtwide Traffic Data Collection
Financial Project No.: 434372-1-32-01
Contract No.: C-9E12
Assignment No. 535 (TWO #25 & #26)

Prepared for:

Florida Department of Transportation
District Seven Traffic Operations
11201 N. McKinley Drive
Tampa, FL 33612

August 2018

Volume Count Report

Start Date:	August 28, 2018	Start Time:	00:00	GPS:	N 27.75957
Stop Date:	August 28, 2018	Stop Time:	24:00		W 82.67517
City:	St Petersburg	County:	Pinellas		
Location	31st St S south of I-275 Ramp				

Northbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	11	5	3	1	7	5	27	61	62	59	52	52
30	5	3	5	3	5	16	36	48	82	58	59	50
45	13	3	1	3	7	9	45	58	89	49	59	39
00	9	3	4	1	9	11	74	69	58	40	64	49
Hr Total	**38**	**14**	**13**	**8**	**28**	**41**	**182**	**236**	**291**	**206**	**234**	**190**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	56	58	63	66	65	87	48	48	32	23	15	15
30	51	55	56	58	58	70	59	56	28	23	18	11
45	46	64	70	65	71	54	52	29	38	17	20	14
00	54	70	68	61	69	59	58	40	17	16	16	4
Hr Total	**207**	**247**	**257**	**250**	**263**	**270**	**217**	**173**	**115**	**79**	**69**	**44**

24 Hour Total:	3,672					
AM Peak Hour begins:	7:45	AM Peak Volume:	302	AM Peak Hour Factor:	0.85	
PM Peak Hour begins:	16:30	PM Peak Volume:	297	PM PeaK Hour Factor:	0.85	

Southbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	10	5	4	2	3	6	9	71	37	36	35	51
30	9	6	3	5	0	14	13	42	41	41	45	50
45	3	2	4	0	2	4	30	45	43	34	51	43
00	5	3	0	1	2	8	54	53	43	39	38	48
Hr Total	**27**	**16**	**11**	**8**	**7**	**32**	**106**	**211**	**164**	**150**	**169**	**192**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	55	54	67	53	74	79	75	69	46	33	28	18
30	40	58	63	73	71	87	71	51	46	27	15	14
45	49	52	76	83	81	85	75	59	33	20	26	13
00	52	63	62	73	71	68	64	41	34	26	11	8
Hr Total	**196**	**227**	**268**	**282**	**297**	**319**	**285**	**220**	**159**	**106**	**80**	**53**

24 Hour Total:	3,585					
AM Peak Hour begins:	6:45	AM Peak Volume:	212	AM Peak Hour Factor:	0.75	
PM Peak Hour begins:	16:45	PM Peak Volume:	322	PM PeaK Hour Factor:	0.93	

Total Volume for All Lanes

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	21	10	7	3	10	11	36	132	99	95	87	103
30	14	9	8	8	5	30	49	90	123	99	104	100
45	16	5	5	3	9	13	75	103	132	83	110	82
00	14	6	4	2	11	19	128	122	101	79	102	97
Hr Total	**65**	**30**	**24**	**16**	**35**	**73**	**288**	**447**	**455**	**356**	**403**	**382**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	111	112	130	119	139	166	123	117	78	56	43	33
30	91	113	119	131	129	157	130	107	74	50	33	25
45	95	116	146	148	152	139	127	88	71	37	46	27
00	106	133	130	134	140	127	122	81	51	42	27	12
Hr Total	**403**	**474**	**525**	**532**	**560**	**589**	**502**	**393**	**274**	**185**	**149**	**97**

24 Hour Total:	7,257					
AM Peak Hour begins:	7:45	AM Peak Volume:	476	AM Peak Hour Factor:	0.90	
PM Peak Hour begins:	16:30	PM Peak Volume:	615	PM PeaK Hour Factor:	0.93	

Volume Count Report

Start Date:	August 29, 2018	Start Time:	00:00	GPS:	N 27.75957
Stop Date:	August 29, 2018	Stop Time:	24:00		W 82.67517
City:	St Petersburg	County:	Pinellas		
Location	31st St S south of I-275 Ramp				

Northbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	2	1	3	1	7	21	61	64	64	58	53
30	1	4	2	0	4	11	30	54	88	49	46	46
45	4	0	3	4	0	15	51	54	86	66	62	66
00	8	5	4	3	5	20	85	64	62	70	43	39
Hr Total	**17**	**11**	**10**	**10**	**10**	**53**	**187**	**233**	**300**	**249**	**209**	**204**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	48	70	59	53	51	74	61	41	32	34	12	15
30	64	58	59	61	73	83	58	47	19	23	11	10
45	49	61	60	54	75	54	44	31	28	22	11	3
00	49	52	61	70	74	59	49	34	29	18	14	6
Hr Total	**210**	**241**	**239**	**238**	**273**	**270**	**212**	**153**	**108**	**97**	**48**	**34**

24 Hour Total:	3,616					
AM Peak Hour begins:	7:45	AM Peak Volume:	302	AM Peak Hour Factor:	0.86	
PM Peak Hour begins:	16:30	PM Peak Volume:	306	PM PeaK Hour Factor:	0.92	

Southbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	6	4	2	3	3	10	57	48	39	56	42
30	5	0	2	2	3	3	16	52	44	47	43	50
45	6	0	1	4	0	4	26	36	44	45	44	43
00	4	5	2	0	2	5	54	46	49	46	44	39
Hr Total	**23**	**11**	**9**	**8**	**8**	**15**	**106**	**191**	**185**	**177**	**187**	**174**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	53	55	68	69	71	79	79	51	47	35	19	20
30	48	53	76	76	88	108	62	46	46	38	17	22
45	57	51	75	93	77	76	65	33	34	24	19	12
00	55	68	61	95	87	72	70	54	39	18	23	8
Hr Total	**213**	**227**	**280**	**333**	**323**	**335**	**276**	**184**	**166**	**115**	**78**	**62**

24 Hour Total:	3,686					
AM Peak Hour begins:	6:45	AM Peak Volume:	199	AM Peak Hour Factor:	0.87	
PM Peak Hour begins:	16:30	PM Peak Volume:	351	PM PeaK Hour Factor:	0.81	

Total Volume for All Lanes

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	12	8	5	5	4	10	31	118	112	103	114	95
30	6	4	4	2	7	14	46	106	132	96	89	96
45	10	0	4	8	0	19	77	90	130	111	106	109
00	12	10	6	3	7	25	139	110	111	116	87	78
Hr Total	**40**	**22**	**19**	**18**	**18**	**68**	**293**	**424**	**485**	**426**	**396**	**378**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	101	125	127	122	122	153	140	92	79	69	31	35
30	112	111	135	137	161	191	120	93	65	61	28	32
45	106	112	135	147	152	130	109	64	62	46	30	15
00	104	120	122	165	161	131	119	88	68	36	37	14
Hr Total	**423**	**468**	**519**	**571**	**596**	**605**	**488**	**337**	**274**	**212**	**126**	**96**

24 Hour Total:	7,302					
AM Peak Hour begins:	8:00	AM Peak Volume:	485	AM Peak Hour Factor:	0.92	
PM Peak Hour begins:	16:30	PM Peak Volume:	657	PM PeaK Hour Factor:	0.86	

Volume Count Report

Start Date:	August 30, 2018	Start Time:	00:00	GPS:	N 27.75957
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67517
City:	St Petersburg	County:	Pinellas		
Location	31st St S south of I-275 Ramp				

Northbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	12	6	0	3	3	7	23	59	84	63	60	43
30	6	10	4	1	4	10	27	50	72	65	63	54
45	5	3	4	3	0	10	46	61	87	63	69	62
00	18	2	6	2	9	17	87	72	64	59	53	49
Hr Total	**41**	**21**	**14**	**9**	**16**	**44**	**183**	**242**	**307**	**250**	**245**	**208**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	48	52	60	66	72	83	63	126	50	24	19	11
30	61	55	73	74	74	89	70	116	40	22	16	14
45	55	68	70	47	79	68	94	100	36	21	18	13
00	61	68	73	79	70	53	125	90	29	23	17	5
Hr Total	**225**	**243**	**276**	**266**	**295**	**293**	**352**	**432**	**155**	**90**	**70**	**43**

24 Hour Total:	4,320					
AM Peak Hour begins:	7:45	AM Peak Volume:	315	AM Peak Hour Factor:	0.91	
PM Peak Hour begins:	18:45	PM Peak Volume:	467	PM PeaK Hour Factor:	0.93	

Southbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	10	4	3	2	0	4	8	77	64	36	56	42
30	9	8	7	2	0	3	9	44	53	52	42	59
45	4	3	4	2	4	5	22	37	40	41	42	43
00	3	7	4	1	1	5	60	50	28	47	43	49
Hr Total	**26**	**22**	**18**	**7**	**5**	**17**	**99**	**208**	**185**	**176**	**183**	**193**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	52	50	91	76	76	82	63	85	45	50	36	16
30	43	72	77	87	72	102	75	73	42	33	11	16
45	53	54	74	70	95	88	84	68	53	22	19	9
00	52	71	75	92	71	86	87	61	38	29	18	7
Hr Total	**200**	**247**	**317**	**325**	**314**	**358**	**309**	**287**	**178**	**134**	**84**	**48**

24 Hour Total:	3,940					
AM Peak Hour begins:	6:45	AM Peak Volume:	218	AM Peak Hour Factor:	0.71	
PM Peak Hour begins:	17:00	PM Peak Volume:	358	PM PeaK Hour Factor:	0.88	

Total Volume for All Lanes

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	22	10	3	5	3	11	31	136	148	99	116	85
30	15	18	11	3	4	13	36	94	125	117	105	113
45	9	6	8	5	4	15	68	98	127	104	111	105
00	21	9	10	3	10	22	147	122	92	106	96	98
Hr Total	**67**	**43**	**32**	**16**	**21**	**61**	**282**	**450**	**492**	**426**	**428**	**401**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	100	102	151	142	148	165	126	211	95	74	55	27
30	104	127	150	161	146	191	145	189	82	55	27	30
45	108	122	144	117	174	156	178	168	89	43	37	22
00	113	139	148	171	141	139	212	151	67	52	35	12
Hr Total	**425**	**490**	**593**	**591**	**609**	**651**	**661**	**719**	**333**	**224**	**154**	**91**

24 Hour Total:	8,260					
AM Peak Hour begins:	7:45	AM Peak Volume:	522	AM Peak Hour Factor:	0.88	
PM Peak Hour begins:	18:30	PM Peak Volume:	790	PM PeaK Hour Factor:	0.93	

Volume Count Report

3-Day Average

Start Date:	August 28, 2018	Start Time:	00:00	GPS	N 27.75957
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67517
City:	St Petersburg	County:	Pinellas		
Location	31st St S south of I-275 Ramp				

Northbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	4	1	2	4	6	24	60	70	62	57	49
30	4	6	4	1	4	12	31	51	81	57	56	50
45	7	2	3	3	2	11	47	58	87	59	63	56
00	12	3	5	2	8	16	82	68	61	56	53	46
Hr Total	**32**	**15**	**12**	**9**	**18**	**46**	**184**	**237**	**299**	**235**	**229**	**201**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	51	60	61	62	63	81	57	72	38	27	15	14
30	59	56	63	64	68	81	62	73	29	23	15	12
45	50	64	67	55	75	59	63	53	34	20	16	10
00	55	63	67	70	71	57	77	55	25	19	16	5
Hr Total	**214**	**244**	**257**	**251**	**277**	**278**	**260**	**253**	**126**	**89**	**62**	**40**

24 Hour Total:	3,869					
AM Peak Hour begins:	7:45	AM Peak Volume:	306	AM Peak Hour Factor:	0.88	
PM Peak Hour begins:	16:30	PM Peak Volume:	308	PM PeaK Hour Factor:	0.95	

Southbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	5	4	2	2	4	9	68	50	37	49	45
30	8	5	4	3	1	7	13	46	46	47	43	53
45	4	2	3	2	2	4	26	39	42	40	46	43
00	4	5	2	1	2	6	56	50	40	44	42	45
Hr Total	**25**	**16**	**13**	**8**	**7**	**21**	**104**	**203**	**178**	**168**	**180**	**186**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	53	53	75	66	74	80	72	68	46	39	28	18
30	44	61	72	79	77	99	69	57	45	33	14	17
45	53	52	75	82	84	83	75	53	40	22	21	11
00	53	67	66	87	76	75	74	52	37	24	17	8
Hr Total	**203**	**234**	**288**	**313**	**311**	**337**	**290**	**230**	**168**	**118**	**81**	**54**

24 Hour Total:	3,737					
AM Peak Hour begins:	6:45	AM Peak Volume:	210	AM Peak Hour Factor:	0.77	
PM Peak Hour begins:	16:30	PM Peak Volume:	340	PM PeaK Hour Factor:	0.86	

Total Volume for All Lanes

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	18	9	5	4	6	11	33	129	120	99	106	94
30	12	10	8	4	5	19	44	97	127	104	99	103
45	12	4	6	5	4	16	73	97	130	99	109	99
00	16	8	7	3	9	22	138	118	101	100	95	91
Hr Total	**57**	**32**	**25**	**17**	**25**	**67**	**288**	**440**	**477**	**403**	**409**	**387**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	104	113	136	128	136	161	130	140	84	66	43	32
30	102	117	135	143	145	180	132	130	74	55	29	29
45	103	117	142	137	159	142	138	107	74	42	38	21
00	108	131	133	157	147	132	151	107	62	43	33	13
Hr Total	**417**	**477**	**546**	**565**	**588**	**615**	**550**	**483**	**294**	**207**	**143**	**95**

24 Hour Total:	7,606					
AM Peak Hour begins:	7:45	AM Peak Volume:	494	AM Peak Hour Factor:	0.95	
PM Peak Hour begins:	16:30	PM Peak Volume:	648	PM PeaK Hour Factor:	0.90	

Volume Count Report

Start Date:	August 28, 2018	Start Time:	00:00	GPS:	N 27.76134
Stop Date:	August 28, 2018	Stop Time:	24:00		W 82.67541
City:	St Petersburg	County:	Pinellas		
Location	31st St S north of I-275 Ramp				

Northbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	10	10	5	6	21	66	177	203	158	142	108
30	17	12	12	8	6	43	99	195	197	151	153	135
45	22	5	5	5	13	42	113	209	209	146	143	131
00	13	5	5	8	23	66	171	220	160	142	136	141
Hr Total	**71**	**32**	**32**	**26**	**48**	**172**	**449**	**801**	**769**	**597**	**574**	**515**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	132	132	129	146	140	168	132	110	63	47	35	17
30	128	121	127	126	153	151	151	107	78	33	36	22
45	139	140	151	149	172	121	122	67	70	46	34	30
00	141	141	154	144	155	153	138	81	38	41	28	15
Hr Total	**540**	**534**	**561**	**565**	**620**	**593**	**543**	**365**	**249**	**167**	**133**	**84**

24 Hour Total:	9,040					
AM Peak Hour begins:	7:30	AM Peak Volume:	829	AM Peak Hour Factor:	0.94	
PM Peak Hour begins:	16:15	PM Peak Volume:	648	PM PeaK Hour Factor:	0.94	

Southbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	8	5	11	7	10	37	146	104	92	71	108
30	20	9	6	7	1	23	48	116	124	97	104	103
45	6	3	6	3	10	12	65	97	98	79	93	84
00	8	7	3	2	13	22	109	104	87	85	80	109
Hr Total	**53**	**27**	**20**	**23**	**31**	**67**	**259**	**463**	**413**	**353**	**348**	**404**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	119	123	152	128	156	206	152	124	89	70	50	29
30	104	119	145	152	184	163	146	96	101	49	37	21
45	113	103	152	160	172	162	143	95	67	38	36	27
00	109	121	139	189	193	136	115	80	80	56	32	15
Hr Total	**445**	**466**	**588**	**629**	**705**	**667**	**556**	**395**	**337**	**213**	**155**	**92**

24 Hour Total:	7,709					
AM Peak Hour begins:	6:45	AM Peak Volume:	468	AM Peak Hour Factor:	0.80	
PM Peak Hour begins:	16:15	PM Peak Volume:	755	PM PeaK Hour Factor:	0.92	

Total Volume for All Lanes

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	38	18	15	16	13	31	103	323	307	250	213	216
30	37	21	18	15	7	66	147	311	321	248	257	238
45	28	8	11	8	23	54	178	306	307	225	236	215
00	21	12	8	10	36	88	280	324	247	227	216	250
Hr Total	**124**	**59**	**52**	**49**	**79**	**239**	**708**	**1,264**	**1,182**	**950**	**922**	**919**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	251	255	281	274	296	374	284	234	152	117	85	46
30	232	240	272	278	337	314	297	203	179	82	73	43
45	252	243	303	309	344	283	265	162	137	84	70	57
00	250	262	293	333	348	289	253	161	118	97	60	30
Hr Total	**985**	**1,000**	**1,149**	**1,194**	**1,325**	**1,260**	**1,099**	**760**	**586**	**380**	**288**	**176**

24 Hour Total:	16,749					
AM Peak Hour begins:	7:00	AM Peak Volume:	1,264	AM Peak Hour Factor:	0.98	
PM Peak Hour begins:	16:15	PM Peak Volume:	1,403	PM PeaK Hour Factor:	0.94	

Volume Count Report

Start Date:	August 29, 2018	Start Time:	00:00	GPS:	N 27.76134
Stop Date:	August 29, 2018	Stop Time:	24:00		W 82.67541
City:	St Petersburg	County:	Pinellas		
Location	31st St S north of I-275 Ramp				

Northbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	18	8	8	9	14	68	215	178	147	133	135
30	11	12	4	6	6	25	65	172	196	138	164	136
45	8	10	5	7	17	53	113	179	216	155	150	160
00	8	12	5	5	11	50	198	172	213	168	136	155
Hr Total	**46**	**52**	**22**	**26**	**43**	**142**	**444**	**738**	**803**	**608**	**583**	**586**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	101	142	160	126	143	167	130	98	68	49	27	30
30	144	136	162	102	172	174	134	94	60	47	29	22
45	115	161	151	129	177	156	131	62	46	42	34	9
00	138	153	146	170	178	144	115	82	53	39	28	14
Hr Total	**498**	**592**	**619**	**527**	**670**	**641**	**510**	**336**	**227**	**177**	**118**	**75**

24 Hour Total:	9,083					
AM Peak Hour begins:	8:00	AM Peak Volume:	803	AM Peak Hour Factor:	0.93	
PM Peak Hour begins:	16:30	PM Peak Volume:	696	PM PeaK Hour Factor:	0.98	

Southbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	20	11	10	10	6	9	43	119	102	94	105	101
30	12	3	6	4	9	14	52	129	95	104	90	101
45	10	4	1	6	3	15	74	95	93	91	79	90
00	6	8	4	2	9	22	115	96	86	83	78	100
Hr Total	**48**	**26**	**21**	**22**	**27**	**60**	**284**	**439**	**376**	**372**	**352**	**392**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	110	102	175	150	180	198	154	112	79	75	43	35
30	121	97	155	139	194	195	132	90	116	62	32	30
45	107	114	132	172	192	163	123	88	85	48	36	19
00	102	142	126	175	185	149	113	97	80	42	36	17
Hr Total	**440**	**455**	**588**	**636**	**751**	**705**	**522**	**387**	**360**	**227**	**147**	**101**

24 Hour Total:	7,738					
AM Peak Hour begins:	6:45	AM Peak Volume:	458	AM Peak Hour Factor:	0.89	
PM Peak Hour begins:	16:30	PM Peak Volume:	770	PM PeaK Hour Factor:	0.97	

Total Volume for All Lanes

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	39	29	18	18	15	23	111	334	280	241	238	236
30	23	15	10	10	15	39	117	301	291	242	254	237
45	18	14	6	13	20	68	187	274	309	246	229	250
00	14	20	9	7	20	72	313	268	299	251	214	255
Hr Total	**94**	**78**	**43**	**48**	**70**	**202**	**728**	**1,177**	**1,179**	**980**	**935**	**978**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	211	244	335	276	323	365	284	210	147	124	70	65
30	265	233	317	241	366	369	266	184	176	109	61	52
45	222	275	283	301	369	319	254	150	131	90	70	28
00	240	295	272	345	363	293	228	179	133	81	64	31
Hr Total	**938**	**1,047**	**1,207**	**1,163**	**1,421**	**1,346**	**1,032**	**723**	**587**	**404**	**265**	**176**

24 Hour Total:	16,821					
AM Peak Hour begins:	6:45	AM Peak Volume:	1,222	AM Peak Hour Factor:	0.91	
PM Peak Hour begins:	16:30	PM Peak Volume:	1,466	PM PeaK Hour Factor:	0.99	

Volume Count Report

Start Date:	August 30, 2018	Start Time:	00:00	GPS:	N 27.76134
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67541
City:	St Petersburg	County:	Pinellas		
Location	31st St S north of I-275 Ramp				

Northbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	18	15	3	6	8	19	80	176	183	156	121	105
30	9	12	6	2	6	24	87	174	179	155	143	123
45	7	7	6	4	6	50	119	187	204	179	145	143
00	25	9	7	4	18	56	199	202	180	163	133	125
Hr Total	**59**	**43**	**22**	**16**	**38**	**149**	**485**	**739**	**746**	**653**	**542**	**496**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	118	112	162	137	179	160	136	189	84	53	48	21
30	134	145	131	169	154	200	153	177	90	51	44	20
45	112	149	169	164	166	165	161	141	66	49	32	27
00	158	171	142	183	181	124	178	148	65	50	32	9
Hr Total	**522**	**577**	**604**	**653**	**680**	**649**	**628**	**655**	**305**	**203**	**156**	**77**

24 Hour Total:	9,697				
AM Peak Hour begins:	7:45	AM Peak Volume:	768	AM Peak Hour Factor:	0.94
PM Peak Hour begins:	16:30	PM Peak Volume:	707	PM PeaK Hour Factor:	0.88

Southbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	8	8	5	3	15	41	137	120	88	95	98
30	19	12	13	3	2	15	46	126	122	110	94	103
45	14	7	5	4	9	24	62	94	99	76	98	91
00	7	11	9	3	6	28	128	105	89	93	85	126
Hr Total	**59**	**38**	**35**	**15**	**20**	**82**	**277**	**462**	**430**	**367**	**372**	**418**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	109	99	171	162	185	197	135	159	96	102	63	29
30	116	127	150	154	171	201	164	134	88	76	41	33
45	112	111	147	174	182	188	158	107	89	53	34	24
00	111	151	130	171	178	164	164	118	94	67	28	15
Hr Total	**448**	**488**	**598**	**661**	**716**	**750**	**621**	**518**	**367**	**298**	**166**	**101**

24 Hour Total:	8,307				
AM Peak Hour begins:	6:45	AM Peak Volume:	485	AM Peak Hour Factor:	0.89
PM Peak Hour begins:	16:45	PM Peak Volume:	764	PM PeaK Hour Factor:	0.95

Total Volume for All Lanes

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	37	23	11	11	11	34	121	313	303	244	216	203
30	28	24	19	5	8	39	133	300	301	265	237	226
45	21	14	11	8	15	74	181	281	303	255	243	234
00	32	20	16	7	24	84	327	307	269	256	218	251
Hr Total	**118**	**81**	**57**	**31**	**58**	**231**	**762**	**1,201**	**1,176**	**1,020**	**914**	**914**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	227	211	333	299	364	357	271	348	180	155	111	50
30	250	272	281	323	325	401	317	311	178	127	85	53
45	224	260	316	338	348	353	319	248	155	102	66	51
00	269	322	272	354	359	288	342	266	159	117	60	24
Hr Total	**970**	**1,065**	**1,202**	**1,314**	**1,396**	**1,399**	**1,249**	**1,173**	**672**	**501**	**322**	**178**

24 Hour Total:	18,004				
AM Peak Hour begins:	6:45	AM Peak Volume:	1,221	AM Peak Hour Factor:	0.93
PM Peak Hour begins:	16:45	PM Peak Volume:	1,470	PM PeaK Hour Factor:	0.92

Volume Count Report

3-Day Average

Start Date:	August 28, 2018	Start Time:	00:00	GPS	N 27.76134
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67541
City:	St Petersburg	County:	Pinellas		
Location	31st St S north of I-275 Ramp				

Northbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	14	7	6	8	18	71	189	188	154	132	116
30	12	12	7	5	6	31	84	180	191	148	153	131
45	12	7	5	5	12	48	115	192	210	160	146	145
00	15	9	6	6	17	57	189	198	184	158	135	140
Hr Total	**59**	**42**	**25**	**23**	**43**	**154**	**459**	**759**	**773**	**619**	**566**	**532**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	117	129	150	136	154	165	133	132	72	50	37	23
30	135	134	140	132	160	175	146	126	76	44	36	21
45	122	150	157	147	172	147	138	90	61	46	33	22
00	146	155	147	166	171	140	144	104	52	43	29	13
Hr Total	**520**	**568**	**595**	**582**	**657**	**628**	**560**	**452**	**260**	**182**	**136**	**79**

24 Hour Total:	9,273					
AM Peak Hour begins:	7:45	AM Peak Volume:	786	AM Peak Hour Factor:		0.94
PM Peak Hour begins:	16:30	PM Peak Volume:	683	PM PeaK Hour Factor:		0.98

Southbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	19	9	8	9	5	11	40	134	109	91	90	102
30	17	8	8	5	4	17	49	124	114	104	96	102
45	10	5	4	4	7	17	67	95	97	82	90	88
00	7	9	5	2	9	24	117	102	87	87	81	112
Hr Total	**53**	**30**	**25**	**20**	**26**	**70**	**273**	**455**	**406**	**364**	**357**	**405**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	113	108	166	147	174	200	147	132	88	82	52	31
30	114	114	150	148	183	186	147	107	102	62	37	28
45	111	109	144	169	182	171	141	97	80	46	35	23
00	107	138	132	178	185	150	131	98	85	55	32	16
Hr Total	**444**	**470**	**591**	**642**	**724**	**707**	**566**	**433**	**355**	**246**	**156**	**98**

24 Hour Total:	7,918					
AM Peak Hour begins:	6:45	AM Peak Volume:	470	AM Peak Hour Factor:		0.88
PM Peak Hour begins:	16:30	PM Peak Volume:	754	PM PeaK Hour Factor:		0.94

Total Volume for All Lanes

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	38	23	15	15	13	29	112	323	297	245	222	218
30	29	20	16	10	10	48	132	304	304	252	249	234
45	22	12	9	10	19	65	182	287	306	242	236	233
00	22	17	11	8	27	81	307	300	272	245	216	252
Hr Total	**112**	**73**	**51**	**43**	**69**	**224**	**733**	**1,214**	**1,179**	**983**	**924**	**937**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	230	237	316	283	328	365	280	264	160	132	89	54
30	249	248	290	281	343	361	293	233	178	106	73	49
45	233	259	301	316	354	318	279	187	141	92	69	45
00	253	293	279	344	357	290	274	202	137	98	61	28
Hr Total	**964**	**1,037**	**1,186**	**1,224**	**1,381**	**1,335**	**1,127**	**885**	**615**	**428**	**292**	**177**

24 Hour Total:	17,191					
AM Peak Hour begins:	6:45	AM Peak Volume:	1,221	AM Peak Hour Factor:		0.94
PM Peak Hour begins:	16:30	PM Peak Volume:	1,437	PM PeaK Hour Factor:		0.98

Volume Count Report

Start Date:	August 28, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 28, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 NB Off Ramp west of 31st St S				

Eastbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	4	7	3	2	13	41	121	121	98	77	74
30	11	7	6	6	2	24	58	140	107	90	83	92
45	10	3	3	1	5	33	68	157	118	100	90	90
00	4	2	1	6	13	52	121	149	105	114	75	94
Hr Total	**34**	**16**	**17**	**16**	**22**	**122**	**288**	**567**	**451**	**402**	**325**	**350**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	76	77	63	74	81	91	80	70	35	27	23	9
30	81	71	82	84	91	77	92	50	40	24	28	12
45	98	102	64	95	117	87	75	39	35	31	16	7
00	90	76	85	96	92	94	81	44	21	25	22	10
Hr Total	**345**	**326**	**294**	**349**	**381**	**349**	**328**	**203**	**131**	**107**	**89**	**38**

24 Hour Total:	5,550					
AM Peak Hour begins:	7:00	AM Peak Volume:	567	AM Peak Hour Factor:	0.90	
PM Peak Hour begins:	16:15	PM Peak Volume:	391	PM PeaK Hour Factor:	0.84	

N/A

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	4	7	3	2	13	41	121	121	98	77	74
30	11	7	6	6	2	24	58	140	107	90	83	92
45	10	3	3	1	5	33	68	157	118	100	90	90
00	4	2	1	6	13	52	121	149	105	114	75	94
Hr Total	**34**	**16**	**17**	**16**	**22**	**122**	**288**	**567**	**451**	**402**	**325**	**350**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	76	77	63	74	81	91	80	70	35	27	23	9
30	81	71	82	84	91	77	92	50	40	24	28	12
45	98	102	64	95	117	87	75	39	35	31	16	7
00	90	76	85	96	92	94	81	44	21	25	22	10
Hr Total	**345**	**326**	**294**	**349**	**381**	**349**	**328**	**203**	**131**	**107**	**89**	**38**

24 Hour Total:	5,550					
AM Peak Hour begins:	7:00	AM Peak Volume:	567	AM Peak Hour Factor:	0.90	
PM Peak Hour begins:	16:15	PM Peak Volume:	391	PM PeaK Hour Factor:	0.84	

Volume Count Report

Start Date:	August 29, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 29, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 NB Off Ramp west of 31st St S				

Eastbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	6	4	2	0	4	11	56	152	115	113	81	69
30	5	4	2	5	5	25	60	156	132	74	67	57
45	5	0	1	1	8	45	73	152	132	106	85	66
00	5	8	6	3	15	48	114	142	133	113	80	84
Hr Total	**21**	**16**	**11**	**9**	**32**	**129**	**303**	**602**	**512**	**406**	**313**	**276**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	84	82	89	86	111	109	72	67	46	25	20	20
30	77	85	101	50	140	123	82	52	44	34	23	16
45	71	102	98	82	107	99	91	35	28	26	23	8
00	94	97	94	120	134	97	77	54	26	22	19	8
Hr Total	**326**	**366**	**382**	**338**	**492**	**428**	**322**	**208**	**144**	**107**	**85**	**52**

24 Hour Total:	5,880					
AM Peak Hour begins:	7:00	AM Peak Volume:	602	AM Peak Hour Factor:	0.96	
PM Peak Hour begins:	16:00	PM Peak Volume:	492	PM PeaK Hour Factor:	0.88	

N/A

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	6	4	2	0	4	11	56	152	115	113	81	69
30	5	4	2	5	5	25	60	156	132	74	67	57
45	5	0	1	1	8	45	73	152	132	106	85	66
00	5	8	6	3	15	48	114	142	133	113	80	84
Hr Total	**21**	**16**	**11**	**9**	**32**	**129**	**303**	**602**	**512**	**406**	**313**	**276**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	84	82	89	86	111	109	72	67	46	25	20	20
30	77	85	101	50	140	123	82	52	44	34	23	16
45	71	102	98	82	107	99	91	35	28	26	23	8
00	94	97	94	120	134	97	77	54	26	22	19	8
Hr Total	**326**	**366**	**382**	**338**	**492**	**428**	**322**	**208**	**144**	**107**	**85**	**52**

24 Hour Total:	5,880					
AM Peak Hour begins:	7:00	AM Peak Volume:	602	AM Peak Hour Factor:	0.96	
PM Peak Hour begins:	16:00	PM Peak Volume:	492	PM PeaK Hour Factor:	0.88	

Volume Count Report

Start Date:	August 30, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 NB Off Ramp west of 31st St S				

Eastbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	9	3	5	5	15	59	121	117	94	81	75
30	5	3	3	1	2	18	57	150	117	104	80	71
45	3	7	3	1	6	39	81	129	134	129	85	85
00	8	7	2	3	10	43	111	157	123	105	88	86
Hr Total	**25**	**26**	**11**	**10**	**23**	**115**	**308**	**557**	**491**	**432**	**334**	**317**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	72	69	85	71	109	106	88	71	43	45	32	12
30	84	97	76	112	96	133	92	73	57	35	28	12
45	63	86	120	112	118	101	78	48	43	29	19	18
00	92	94	78	147	111	76	62	66	33	36	21	5
Hr Total	**311**	**346**	**359**	**442**	**434**	**416**	**320**	**258**	**176**	**145**	**100**	**47**

24 Hour Total:	6,003					
AM Peak Hour begins:	7:00	AM Peak Volume:	557	AM Peak Hour Factor:	0.89	
PM Peak Hour begins:	15:15	PM Peak Volume:	480	PM PeaK Hour Factor:	0.82	

N/A

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	9	3	5	5	15	59	121	117	94	81	75
30	5	3	3	1	2	18	57	150	117	104	80	71
45	3	7	3	1	6	39	81	129	134	129	85	85
00	8	7	2	3	10	43	111	157	123	105	88	86
Hr Total	**25**	**26**	**11**	**10**	**23**	**115**	**308**	**557**	**491**	**432**	**334**	**317**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	72	69	85	71	109	106	88	71	43	45	32	12
30	84	97	76	112	96	133	92	73	57	35	28	12
45	63	86	120	112	118	101	78	48	43	29	19	18
00	92	94	78	147	111	76	62	66	33	36	21	5
Hr Total	**311**	**346**	**359**	**442**	**434**	**416**	**320**	**258**	**176**	**145**	**100**	**47**

24 Hour Total:	6,003					
AM Peak Hour begins:	7:00	AM Peak Volume:	557	AM Peak Hour Factor:	0.89	
PM Peak Hour begins:	15:15	PM Peak Volume:	480	PM PeaK Hour Factor:	0.82	

Volume Count Report

3-Day Average

Start Date:	August 28, 2018	Start Time:	00:00	GPS	N 27.75835
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 NB Off Ramp west of 31st St S				

Eastbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	6	4	3	4	13	52	131	118	102	80	73
30	7	5	4	4	3	22	58	149	119	89	77	73
45	6	3	2	1	6	39	74	146	128	112	87	80
00	6	6	3	4	13	48	115	149	120	111	81	88
Hr Total	**27**	**19**	**13**	**12**	**26**	**122**	**300**	**575**	**485**	**413**	**324**	**314**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	77	76	79	77	100	102	80	69	41	32	25	14
30	81	84	86	82	109	111	89	58	47	31	26	13
45	77	97	94	96	114	96	81	41	35	29	19	11
00	92	89	86	121	112	89	73	55	27	28	21	8
Hr Total	**327**	**346**	**345**	**376**	**436**	**398**	**323**	**223**	**150**	**120**	**91**	**46**

24 Hour Total:	5,811					
AM Peak Hour begins:	7:00	AM Peak Volume:	575	AM Peak Hour Factor:	0.96	
PM Peak Hour begins:	15:45	PM Peak Volume:	444	PM PeaK Hour Factor:	0.92	

N/A

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	6	4	3	4	13	52	131	118	102	80	73
30	7	5	4	4	3	22	58	149	119	89	77	73
45	6	3	2	1	6	39	74	146	128	112	87	80
00	6	6	3	4	13	48	115	149	120	111	81	88
Hr Total	**27**	**19**	**13**	**12**	**26**	**122**	**300**	**575**	**485**	**413**	**324**	**314**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	77	76	79	77	100	102	80	69	41	32	25	14
30	81	84	86	82	109	111	89	58	47	31	26	13
45	77	97	94	96	114	96	81	41	35	29	19	11
00	92	89	86	121	112	89	73	55	27	28	21	8
Hr Total	**327**	**346**	**345**	**376**	**436**	**398**	**323**	**223**	**150**	**120**	**91**	**46**

24 Hour Total:	5,811					
AM Peak Hour begins:	7:00	AM Peak Volume:	575	AM Peak Hour Factor:	0.96	
PM Peak Hour begins:	15:45	PM Peak Volume:	444	PM PeaK Hour Factor:	0.92	

Volume Count Report

Start Date:	August 28, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 28, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 SB On Ramp west of 31st St S				

Westbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	4	3	7	3	4	23	75	72	50	40	64
30	12	4	3	5	6	18	42	98	82	61	57	65
45	9	1	3	3	7	11	34	60	76	55	55	43
00	4	4	3	1	10	19	57	68	63	55	37	56
Hr Total	**34**	**13**	**12**	**16**	**26**	**52**	**156**	**301**	**293**	**221**	**189**	**228**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	71	76	95	77	96	149	85	66	50	42	24	13
30	64	66	84	81	115	83	86	58	53	28	26	8
45	53	65	81	96	108	76	75	44	50	28	14	14
00	80	51	92	113	126	74	70	48	47	39	25	12
Hr Total	**268**	**258**	**352**	**367**	**445**	**382**	**316**	**216**	**200**	**137**	**89**	**47**

24 Hour Total:	4,618					
AM Peak Hour begins:	7:00	AM Peak Volume:	301	AM Peak Hour Factor:	0.77	
PM Peak Hour begins:	16:15	PM Peak Volume:	498	PM PeaK Hour Factor:	0.84	

N/A

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	4	3	7	3	4	23	75	72	50	40	64
30	12	4	3	5	6	18	42	98	82	61	57	65
45	9	1	3	3	7	11	34	60	76	55	55	43
00	4	4	3	1	10	19	57	68	63	55	37	56
Hr Total	**34**	**13**	**12**	**16**	**26**	**52**	**156**	**301**	**293**	**221**	**189**	**228**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	71	76	95	77	96	149	85	66	50	42	24	13
30	64	66	84	81	115	83	86	58	53	28	26	8
45	53	65	81	96	108	76	75	44	50	28	14	14
00	80	51	92	113	126	74	70	48	47	39	25	12
Hr Total	**268**	**258**	**352**	**367**	**445**	**382**	**316**	**216**	**200**	**137**	**89**	**47**

24 Hour Total:	4,618					
AM Peak Hour begins:	7:00	AM Peak Volume:	301	AM Peak Hour Factor:	0.77	
PM Peak Hour begins:	16:15	PM Peak Volume:	498	PM PeaK Hour Factor:	0.84	

Volume Count Report

Start Date:	August 29, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 29, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 SB On Ramp west of 31st St S				

Westbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	6	6	8	3	3	36	71	60	54	48	64
30	12	4	4	3	5	15	36	97	57	70	51	49
45	5	4	0	3	5	11	40	68	73	60	33	55
00	5	5	3	2	5	20	59	66	57	38	42	63
Hr Total	**35**	**19**	**13**	**16**	**18**	**49**	**171**	**302**	**247**	**222**	**174**	**231**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	56	56	105	98	121	129	87	65	41	52	28	21
30	71	48	95	72	127	116	74	47	64	32	21	13
45	69	62	70	92	124	98	72	54	61	27	16	7
00	50	75	69	98	127	87	49	59	45	29	19	7
Hr Total	**246**	**241**	**339**	**360**	**499**	**430**	**282**	**225**	**211**	**140**	**84**	**48**

24 Hour Total:	4,602					
AM Peak Hour begins:	7:00	AM Peak Volume:	302	AM Peak Hour Factor:	0.78	
PM Peak Hour begins:	16:15	PM Peak Volume:	507	PM PeaK Hour Factor:	0.98	

N/A

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	6	6	8	3	3	36	71	60	54	48	64
30	12	4	4	3	5	15	36	97	57	70	51	49
45	5	4	0	3	5	11	40	68	73	60	33	55
00	5	5	3	2	5	20	59	66	57	38	42	63
Hr Total	**35**	**19**	**13**	**16**	**18**	**49**	**171**	**302**	**247**	**222**	**174**	**231**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	56	56	105	98	121	129	87	65	41	52	28	21
30	71	48	95	72	127	116	74	47	64	32	21	13
45	69	62	70	92	124	98	72	54	61	27	16	7
00	50	75	69	98	127	87	49	59	45	29	19	7
Hr Total	**246**	**241**	**339**	**360**	**499**	**430**	**282**	**225**	**211**	**140**	**84**	**48**

24 Hour Total:	4,602					
AM Peak Hour begins:	7:00	AM Peak Volume:	302	AM Peak Hour Factor:	0.78	
PM Peak Hour begins:	16:15	PM Peak Volume:	507	PM PeaK Hour Factor:	0.98	

Volume Count Report

Start Date:	August 30, 2018	Start Time:	00:00	GPS:	N 27.75835
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 SB On Ramp west of 31st St S				

Westbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	3	5	5	2	6	30	73	73	54	54	62
30	16	7	6	2	3	18	45	92	77	69	48	45
45	8	6	2	5	4	20	31	71	71	44	62	52
00	8	4	4	2	7	21	71	73	70	51	59	83
Hr Total	**45**	**20**	**17**	**14**	**16**	**65**	**177**	**309**	**291**	**218**	**223**	**242**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	64	56	87	84	130	130	86	83	64	62	34	13
30	67	70	78	80	102	127	99	73	61	53	28	19
45	68	63	81	108	109	103	82	50	46	31	21	24
00	60	77	72	102	117	90	89	64	54	42	18	7
Hr Total	**259**	**266**	**318**	**374**	**458**	**450**	**356**	**270**	**225**	**188**	**101**	**63**

24 Hour Total:	4,965					
AM Peak Hour begins:	7:00	AM Peak Volume:	309	AM Peak Hour Factor:	0.84	
PM Peak Hour begins:	16:30	PM Peak Volume:	483	PM PeaK Hour Factor:	0.93	

N/A

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:	#DIV/0!	
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:	#DIV/0!	

Total Volume for All Lanes

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	3	5	5	2	6	30	73	73	54	54	62
30	16	7	6	2	3	18	45	92	77	69	48	45
45	8	6	2	5	4	20	31	71	71	44	62	52
00	8	4	4	2	7	21	71	73	70	51	59	83
Hr Total	**45**	**20**	**17**	**14**	**16**	**65**	**177**	**309**	**291**	**218**	**223**	**242**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	64	56	87	84	130	130	86	83	64	62	34	13
30	67	70	78	80	102	127	99	73	61	53	28	19
45	68	63	81	108	109	103	82	50	46	31	21	24
00	60	77	72	102	117	90	89	64	54	42	18	7
Hr Total	**259**	**266**	**318**	**374**	**458**	**450**	**356**	**270**	**225**	**188**	**101**	**63**

24 Hour Total:	4,965					
AM Peak Hour begins:	7:00	AM Peak Volume:	309	AM Peak Hour Factor:	0.84	
PM Peak Hour begins:	16:30	PM Peak Volume:	483	PM PeaK Hour Factor:	0.93	

Volume Count Report

3-Day Average

Start Date:	August 28, 2018	Start Time:	00:00	GPS	N 27.75835
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67596
City:	St Petersburg	County:	Pinellas		
Location	I-275 SB On Ramp west of 31st St S				

Westbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	12	4	5	7	3	4	30	73	68	53	47	63
30	13	5	4	3	5	17	41	96	72	67	52	53
45	7	4	2	4	5	14	35	66	73	53	50	50
00	6	4	3	2	7	20	62	69	63	48	46	67
Hr Total	**38**	**17**	**14**	**15**	**20**	**55**	**168**	**304**	**277**	**220**	**195**	**234**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	64	63	96	86	116	136	86	71	52	52	29	16
30	67	61	86	78	115	109	86	59	59	38	25	13
45	63	63	77	99	114	92	76	49	52	29	17	15
00	63	68	78	104	123	84	69	57	49	37	21	9
Hr Total	**258**	**255**	**336**	**367**	**467**	**421**	**318**	**237**	**212**	**155**	**91**	**53**

24 Hour Total:	4,728					
AM Peak Hour begins:	7:00	AM Peak Volume:	304	AM Peak Hour Factor:		0.79
PM Peak Hour begins:	16:15	PM Peak Volume:	488	PM PeaK Hour Factor:		0.90

N/A

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0
00	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	0					
AM Peak Hour begins:	0:00	AM Peak Volume:	0	AM Peak Hour Factor:		#DIV/0!
PM Peak Hour begins:	12:00	PM Peak Volume:	0	PM PeaK Hour Factor:		#DIV/0!

Total Volume for All Lanes

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	12	4	5	7	3	4	30	73	68	53	47	63
30	13	5	4	3	5	17	41	96	72	67	52	53
45	7	4	2	4	5	14	35	66	73	53	50	50
00	6	4	3	2	7	20	62	69	63	48	46	67
Hr Total	**38**	**17**	**14**	**15**	**20**	**55**	**168**	**304**	**277**	**220**	**195**	**234**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	64	63	96	86	116	136	86	71	52	52	29	16
30	67	61	86	78	115	109	86	59	59	38	25	13
45	63	63	77	99	114	92	76	49	52	29	17	15
00	63	68	78	104	123	84	69	57	49	37	21	9
Hr Total	**258**	**255**	**336**	**367**	**467**	**421**	**318**	**237**	**212**	**155**	**91**	**53**

24 Hour Total:	4,728					
AM Peak Hour begins:	7:00	AM Peak Volume:	304	AM Peak Hour Factor:		0.79
PM Peak Hour begins:	16:15	PM Peak Volume:	488	PM PeaK Hour Factor:		0.90

Volume Count Report

Start Date:	August 28, 2018	Start Time:	00:00	GPS:	N 27.76049
Stop Date:	August 28, 2018	Stop Time:	24:00		W 82.67511
City:	St Petersburg	County:	Pinellas		
Location	Driveway east of 31st St S				

Eastbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	1	3	0	1	0
30	0	0	0	0	0	1	2	4	2	0	0	1
45	0	0	0	0	0	0	4	2	3	0	5	3
00	0	0	0	0	1	0	14	3	1	1	1	8
Hr Total	**0**	**0**	**0**	**0**	**1**	**1**	**21**	**10**	**9**	**1**	**7**	**12**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	0	0	0	0	0	0	1	0	0	0
30	1	1	1	3	0	0	0	1	2	0	0	0
45	4	1	0	6	0	0	0	0	0	0	0	0
00	0	3	0	1	0	0	0	0	0	0	0	0
Hr Total	**6**	**5**	**1**	**10**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**

24 Hour Total:	88				
AM Peak Hour begins:	6:30	AM Peak Volume:	23	AM Peak Hour Factor:	0.41
PM Peak Hour begins:	15:00	PM Peak Volume:	10	PM PeaK Hour Factor:	0.42

Westbound Volume

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	1	1	0	1	1
30	0	0	0	0	0	0	0	1	0	0	3	4
45	0	0	0	0	0	0	0	2	1	2	4	8
00	0	0	0	0	1	0	2	1	0	1	0	1
Hr Total	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**5**	**2**	**3**	**8**	**14**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	2	1	3	0	0	0	0	0	0	0
30	1	1	1	1	2	0	0	0	1	0	0	0
45	0	1	0	21	2	0	0	0	0	0	0	0
00	4	1	1	1	1	0	0	1	0	0	0	0
Hr Total	**6**	**3**	**4**	**24**	**8**	**0**	**0**	**1**	**1**	**0**	**0**	**0**

24 Hour Total:	83				
AM Peak Hour begins:	11:00	AM Peak Volume:	14	AM Peak Hour Factor:	0.44
PM Peak Hour begins:	15:30	PM Peak Volume:	27	PM PeaK Hour Factor:	0.32

Total Volume for All Lanes

Tuesday, August 28, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	2	2	4	0	2	1
30	0	0	0	0	0	1	2	5	2	0	3	5
45	0	0	0	0	0	0	4	4	4	2	9	11
00	0	0	0	0	2	0	16	4	1	2	1	9
Hr Total	**0**	**0**	**0**	**0**	**2**	**1**	**24**	**15**	**11**	**4**	**15**	**26**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	0	2	1	3	0	0	0	1	0	0	0
30	2	2	2	4	2	0	0	1	3	0	0	0
45	4	2	0	27	2	0	0	0	0	0	0	0
00	4	4	1	2	1	0	0	1	0	0	0	0
Hr Total	**12**	**8**	**5**	**34**	**8**	**0**	**0**	**2**	**4**	**0**	**0**	**0**

24 Hour Total:	171				
AM Peak Hour begins:	6:30	AM Peak Volume:	27	AM Peak Hour Factor:	0.42
PM Peak Hour begins:	15:15	PM Peak Volume:	36	PM PeaK Hour Factor:	0.33

Volume Count Report

Start Date:	August 29, 2018	Start Time:	00:00	GPS:	N 27.76049
Stop Date:	August 29, 2018	Stop Time:	24:00		W 82.67511
City:	St Petersburg	County:	Pinellas		
Location	Driveway east of 31st St S				

Eastbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	2	2	1	3	0
30	0	0	0	0	0	0	2	2	0	0	2	0
45	0	0	0	0	0	0	2	1	5	3	0	3
00	0	0	0	0	0	0	13	2	0	5	0	5
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**7**	**7**	**9**	**5**	**8**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	2	2	0	0	1	0	0	0	0	0	0
30	1	0	0	2	0	0	0	0	0	0	0	0
45	1	3	0	4	4	0	0	0	0	0	0	0
00	0	2	0	1	0	0	0	0	0	0	0	0
Hr Total	**5**	**7**	**2**	**7**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	80					
AM Peak Hour begins:	6:15	AM Peak Volume:	19	AM Peak Hour Factor:	0.37
PM Peak Hour begins:	13:00	PM Peak Volume:	7	PM PeaK Hour Factor:	0.58

Westbound Volume

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	1	1	0	4	0
30	0	0	0	0	0	0	0	0	1	1	1	1
45	0	0	0	0	0	0	0	0	6	0	2	3
00	0	0	0	0	0	0	2	1	1	4	1	4
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**9**	**5**	**8**	**8**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1	0	0	0	1	2	0	0	0	0	0	0
30	1	0	2	3	0	0	0	0	0	0	0	0
45	1	2	2	15	5	0	0	0	0	0	0	0
00	1	0	1	5	1	0	0	0	0	0	0	0
Hr Total	**4**	**2**	**5**	**23**	**7**	**2**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	77					
AM Peak Hour begins:	9:45	AM Peak Volume:	11	AM Peak Hour Factor:	0.69
PM Peak Hour begins:	15:15	PM Peak Volume:	24	PM PeaK Hour Factor:	0.40

Total Volume for All Lanes

Wednesday, August 29, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	3	3	1	7	0
30	0	0	0	0	0	0	2	2	1	1	3	1
45	0	0	0	0	0	0	2	1	11	3	2	6
00	0	0	0	0	0	0	15	3	1	9	1	9
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**9**	**16**	**14**	**13**	**16**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	2	2	0	1	3	0	0	0	0	0	0
30	2	0	2	5	0	0	0	0	0	0	0	0
45	2	5	2	19	9	0	0	0	0	0	0	0
00	1	2	1	6	1	0	0	0	0	0	0	0
Hr Total	**9**	**9**	**7**	**30**	**11**	**3**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	157					
AM Peak Hour begins:	6:15	AM Peak Volume:	22	AM Peak Hour Factor:	0.37
PM Peak Hour begins:	15:15	PM Peak Volume:	31	PM PeaK Hour Factor:	0.41

Volume Count Report

Start Date:	August 30, 2018	Start Time:	00:00	GPS:	N 27.76049
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67511
City:	St Petersburg	County:	Pinellas		
Location	Driveway east of 31st St S				

Eastbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	2	1	3	2	3	5
30	0	0	0	0	0	0	2	2	2	0	3	3
45	0	0	0	0	0	0	6	3	0	0	2	0
00	0	0	0	0	0	0	12	2	0	1	1	7
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**8**	**5**	**3**	**9**	**15**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	0	0	4	0	0	0	0	0	0	0	0
30	1	0	1	2	0	0	0	0	0	0	0	0
45	2	1	0	4	0	0	0	0	0	0	0	0
00	0	0	0	1	0	0	0	0	0	0	0	0
Hr Total	**5**	**1**	**1**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	80				
AM Peak Hour begins:	6:00	AM Peak Volume:	22	AM Peak Hour Factor:	0.46
PM Peak Hour begins:	15:00	PM Peak Volume:	11	PM PeaK Hour Factor:	0.69

Westbound Volume

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	0	0	0	4	4
30	0	0	0	0	0	0	3	2	2	0	2	4
45	0	0	0	0	0	0	0	0	0	1	1	4
00	0	0	0	0	0	0	5	2	0	0	3	3
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**4**	**2**	**1**	**10**	**15**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	3	0	0	4	2	0	0	0	0	0	0	0
30	0	0	1	2	2	0	0	0	0	0	0	0
45	1	1	0	19	0	0	0	0	0	0	0	0
00	2	0	1	4	0	0	0	0	0	0	0	0
Hr Total	**6**	**1**	**2**	**29**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	82				
AM Peak Hour begins:	10:45	AM Peak Volume:	15	AM Peak Hour Factor:	0.94
PM Peak Hour begins:	15:00	PM Peak Volume:	29	PM PeaK Hour Factor:	0.38

Total Volume for All Lanes

Thursday, August 30, 2018

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	2	1	3	2	7	9
30	0	0	0	0	0	0	5	4	4	0	5	7
45	0	0	0	0	0	0	6	3	0	1	3	4
00	0	0	0	0	0	0	17	4	0	1	4	10
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**12**	**7**	**4**	**19**	**30**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	5	0	0	8	2	0	0	0	0	0	0	0
30	1	0	2	4	2	0	0	0	0	0	0	0
45	3	2	0	23	0	0	0	0	0	0	0	0
00	2	0	1	5	0	0	0	0	0	0	0	0
Hr Total	**11**	**2**	**3**	**40**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	162				
AM Peak Hour begins:	6:00	AM Peak Volume:	30	AM Peak Hour Factor:	0.44
PM Peak Hour begins:	15:00	PM Peak Volume:	40	PM PeaK Hour Factor:	0.43

Volume Count Report

3-Day Average

Start Date:	August 28, 2018	Start Time:	00:00	GPS	N 27.76049
Stop Date:	August 30, 2018	Stop Time:	24:00		W 82.67511
City:	St Petersburg	County:	Pinellas		
Location	Driveway east of 31st St S				

Eastbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	1	1	3	1	2	2
30	0	0	0	0	0	0	2	3	1	0	2	1
45	0	0	0	0	0	0	4	2	3	1	2	2
00	0	0	0	0	0	0	13	2	0	2	1	7
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**8**	**7**	**4**	**7**	**12**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	1	1	1	0	0	0	0	0	0	0	0
30	1	0	1	2	0	0	0	0	1	0	0	0
45	2	2	0	5	1	0	0	0	0	0	0	0
00	0	2	0	1	0	0	0	0	0	0	0	0
Hr Total	**5**	**4**	**1**	**9**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**

24 Hour Total:	83					
AM Peak Hour begins:	6:30	AM Peak Volume:	21	AM Peak Hour Factor:		0.40
PM Peak Hour begins:	15:00	PM Peak Volume:	9	PM PeaK Hour Factor:		0.50

Westbound Volume

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	0	1	1	0	3	2
30	0	0	0	0	0	0	1	1	1	0	2	3
45	0	0	0	0	0	0	0	1	2	1	2	5
00	0	0	0	0	0	0	3	1	0	2	1	3
Hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**4**	**4**	**3**	**9**	**12**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	2	0	1	2	2	1	0	0	0	0	0	0
30	1	0	1	2	1	0	0	0	0	0	0	0
45	1	1	1	18	2	0	0	0	0	0	0	0
00	2	0	1	3	1	0	0	0	0	0	0	0
Hr Total	**5**	**2**	**4**	**25**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**

24 Hour Total:	81					
AM Peak Hour begins:	11:00	AM Peak Volume:	12	AM Peak Hour Factor:		0.62
PM Peak Hour begins:	15:15	PM Peak Volume:	26	PM PeaK Hour Factor:		0.35

Total Volume for All Lanes

3-Day Average

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	0	0	0	0	0	0	2	2	3	1	5	3
30	0	0	0	0	0	0	3	4	2	0	4	4
45	0	0	0	0	0	0	4	3	5	2	5	7
00	0	0	0	0	1	0	16	4	1	4	2	9
Hr Total	**0**	**0**	**0**	**0**	**1**	**0**	**25**	**12**	**11**	**7**	**16**	**24**

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	4	1	1	3	2	1	0	0	0	0	0	0
30	2	1	2	4	1	0	0	0	1	0	0	0
45	3	3	1	23	4	0	0	0	0	0	0	0
00	2	2	1	4	1	0	0	0	0	0	0	0
Hr Total	**11**	**6**	**5**	**35**	**8**	**1**	**0**	**1**	**1**	**0**	**0**	**0**

24 Hour Total:	163					
AM Peak Hour begins:	6:30	AM Peak Volume:	26	AM Peak Hour Factor:		0.40
PM Peak Hour begins:	15:00	PM Peak Volume:	35	PM PeaK Hour Factor:		0.38

Turning Movement Count
Field Data Sheet & Sketch

Date: 8/28/18

Count Times: 6:30-9:30am, 11:30am-2:30pm, 4-6pm

Major Street: 31st Street S

Direction: N-S Speed Limit: 35 mph

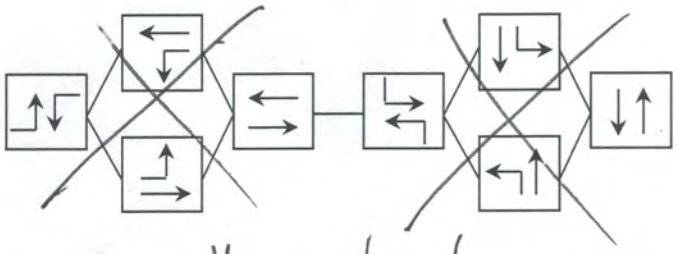
Minor Street: Gibbs High School Driveway

Direction: E-W Speed Limit: 5 mph

City/County: St. Petersburg / Pinellas

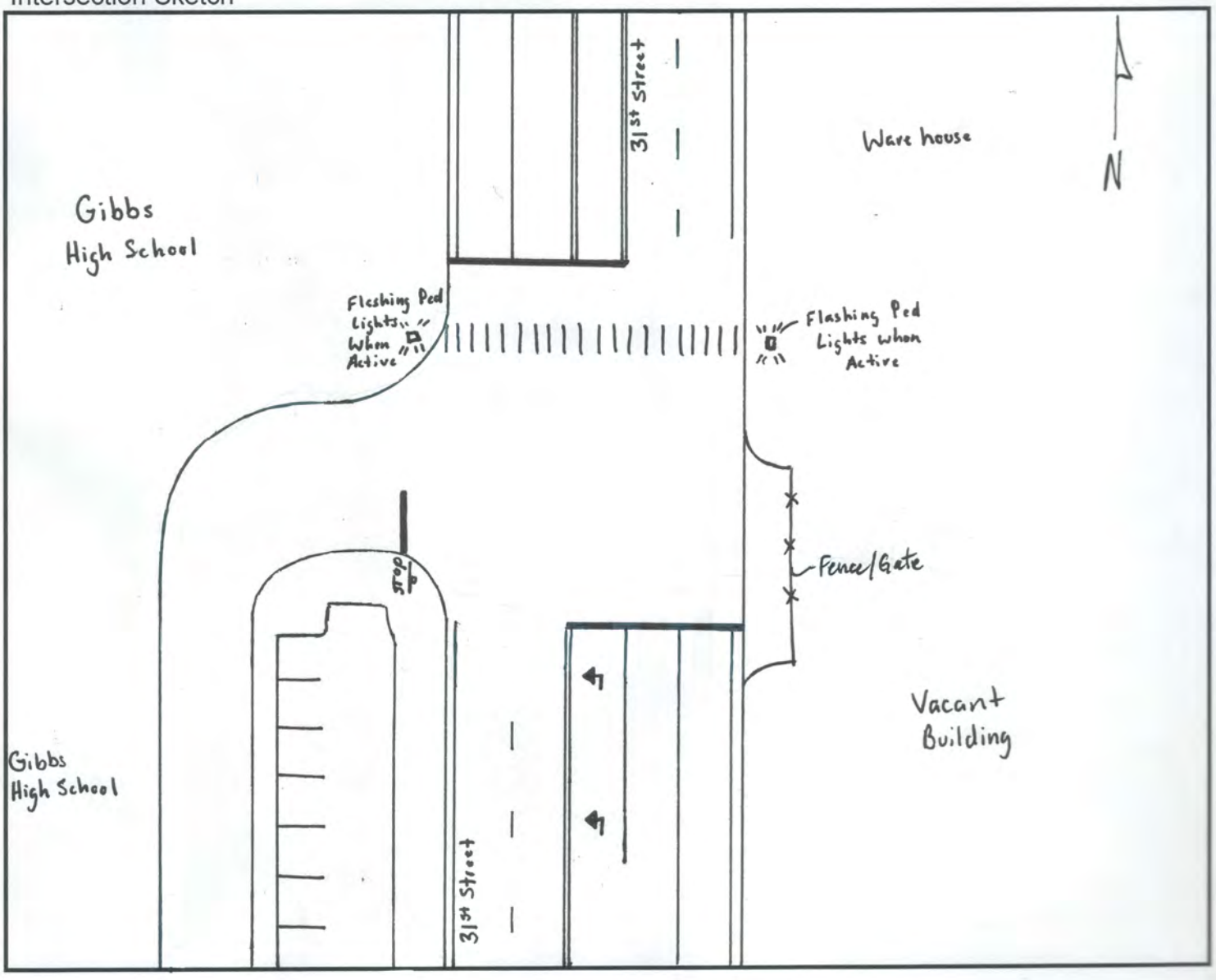
Weather: Rain 5:30 - 5:46pm

Phasing:



Unsignalized

Intersection Sketch



Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018

Groups Printed- Passenger Vehicles - Heavy Vehicles - Motorcycles - UTurns

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	48	8	56	19	85	0	104	4	0	11	15	175
06:45 AM	0	81	32	113	41	122	0	163	17	0	28	45	321
Total	0	129	40	169	60	207	0	267	21	0	39	60	496
07:00 AM	0	125	16	141	10	165	0	175	5	0	20	25	341
07:15 AM	0	117	0	117	0	178	0	178	1	0	0	1	296
07:30 AM	0	95	0	95	0	186	0	186	0	0	0	0	281
07:45 AM	0	102	0	102	0	200	0	200	0	0	0	0	302
Total	0	439	16	455	10	729	0	739	6	0	20	26	1220
08:00 AM	0	105	0	105	0	181	0	181	0	0	0	0	286
08:15 AM	0	114	0	114	0	166	0	166	0	0	0	0	280
08:30 AM	0	104	0	104	0	207	0	207	0	0	0	0	311
08:45 AM	0	79	0	79	0	150	0	150	0	0	0	0	229
Total	0	402	0	402	0	704	0	704	0	0	0	0	1106
09:00 AM	0	89	0	89	0	149	0	149	0	0	0	0	238
09:15 AM	0	91	0	91	0	141	0	141	0	0	0	0	232
*** BREAK ***													
Total	0	180	0	180	0	290	0	290	0	0	0	0	470
*** BREAK ***													
11:30 AM	1	87	0	88	0	127	0	127	0	0	0	0	215
11:45 AM	0	108	0	108	0	137	0	137	0	0	0	0	245
Total	1	195	0	196	0	264	0	264	0	0	0	0	460
12:00 PM	0	113	0	113	0	127	0	127	0	0	0	0	240
12:15 PM	0	101	0	101	0	123	0	123	0	0	0	0	224
12:30 PM	0	112	0	112	1	137	0	138	0	0	0	0	250
12:45 PM	0	107	0	107	0	138	0	138	0	0	0	0	245
Total	0	433	0	433	1	525	0	526	0	0	0	0	959
01:00 PM	0	120	0	120	0	129	0	129	0	0	0	0	249
01:15 PM	0	121	0	121	0	119	0	119	0	0	0	0	240
01:30 PM	1	104	1	106	2	136	0	138	0	0	0	0	244
01:45 PM	0	110	12	122	7	133	0	140	13	0	10	23	285
Total	1	455	13	469	9	517	0	526	13	0	10	23	1018
02:00 PM	0	137	4	141	5	115	0	120	8	0	10	18	279
02:15 PM	0	144	5	149	3	122	0	125	11	0	3	14	288
*** BREAK ***													
Total	0	281	9	290	8	237	0	245	19	0	13	32	567
*** BREAK ***													
04:00 PM	0	154	1	155	0	137	0	137	0	0	2	2	294
04:15 PM	0	189	2	191	1	142	0	143	2	0	4	6	340
04:30 PM	0	179	0	179	0	163	0	163	1	0	1	2	344
04:45 PM	0	192	1	193	1	151	0	152	2	0	0	2	347
Total	0	714	4	718	2	593	0	595	5	0	7	12	1325
05:00 PM	0	209	0	209	0	167	0	167	0	0	0	0	376
05:15 PM	0	166	4	170	1	149	0	150	0	0	0	0	320
05:30 PM	0	173	1	174	2	117	0	119	6	0	3	9	302
05:45 PM	0	132	3	135	5	147	0	152	9	0	6	15	302
Total	0	680	8	688	8	580	0	588	15	0	9	24	1300
Grand Total	2	3908	90	4000	98	4646	0	4744	79	0	98	177	8921
Apprch %	0.1	97.7	2.2		2.1	97.9	0		44.6	0	55.4		
Total %	0	43.8	1	44.8	1.1	52.1	0	53.2	0.9	0	1.1	2	
Passenger Vehicles	0	3766	90	3856	97	4511	0	4608	79	0	98	177	8641
% Passenger Vehicles	0	96.4	100	96.4	99	97.1	0	97.1	100	0	100	100	96.9
Heavy Vehicles	0	134	0	134	0	131	0	131	0	0	0	0	265
% Heavy Vehicles	0	3.4	0	3.3	0	2.8	0	2.8	0	0	0	0	3
Motorcycles	0	8	0	8	0	4	0	4	0	0	0	0	12
% Motorcycles	0	0.2	0	0.2	0	0.1	0	0.1	0	0	0	0	0.1

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018

Groups Printed- Passenger Vehicles - Heavy Vehicles - Motorcycles - UTurns

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
UTurns	2	0	0	2	1	0	0	1	0	0	0	0	3
% UTurns	100	0	0	0.1	1	0	0	0	0	0	0	0	0

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:45 AM													
06:45 AM	0	81	32	113	41	122	0	163	17	0	28	45	321
07:00 AM	0	125	16	141	10	165	0	175	5	0	20	25	341
07:15 AM	0	117	0	117	0	178	0	178	1	0	0	1	296
07:30 AM	0	95	0	95	0	186	0	186	0	0	0	0	281
Total Volume	0	418	48	466	51	651	0	702	23	0	48	71	1239
% App. Total	0	89.7	10.3		7.3	92.7	0		32.4	0	67.6		
PHF	.000	.836	.375	.826	.311	.875	.000	.944	.338	.000	.429	.394	.908
Passenger Vehicles	0	399	48	447	51	631	0	682	23	0	48	71	1200
% Passenger Vehicles	0	95.5	100	95.9	100	96.9	0	97.2	100	0	100	100	96.9
Heavy Vehicles	0	17	0	17	0	18	0	18	0	0	0	0	35
% Heavy Vehicles	0	4.1	0	3.6	0	2.8	0	2.6	0	0	0	0	2.8
Motorcycles	0	2	0	2	0	2	0	2	0	0	0	0	4
% Motorcycles	0	0.5	0	0.4	0	0.3	0	0.3	0	0	0	0	0.3
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:45 AM				07:45 AM				06:30 AM				
+0 mins.	0	81	32	113	0	200	0	200	4	0	11	15	
+15 mins.	0	125	16	141	0	181	0	181	17	0	28	45	
+30 mins.	0	117	0	117	0	166	0	166	5	0	20	25	
+45 mins.	0	95	0	95	0	207	0	207	1	0	0	1	
Total Volume	0	418	48	466	0	754	0	754	27	0	59	86	
% App. Total	0	89.7	10.3		0	100	0		31.4	0	68.6		
PHF	.000	.836	.375	.826	.000	.911	.000	.911	.397	.000	.527	.478	
Passenger Vehicles	0	399	48	447	0	741	0	741	27	0	59	86	
% Passenger Vehicles	0	95.5	100	95.9	0	98.3	0	98.3	100	0	100	100	
Heavy Vehicles	0	17	0	17	0	13	0	13	0	0	0	0	
% Heavy Vehicles	0	4.1	0	3.6	0	1.7	0	1.7	0	0	0	0	
Motorcycles	0	2	0	2	0	0	0	0	0	0	0	0	
% Motorcycles	0	0.5	0	0.4	0	0	0	0	0	0	0	0	
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 01:30 PM

01:30 PM	1	104	1	106	2	136	0	138	0	0	0	0	244
01:45 PM	0	110	12	122	7	133	0	140	13	0	10	23	285
02:00 PM	0	137	4	141	5	115	0	120	8	0	10	18	279
02:15 PM	0	144	5	149	3	122	0	125	11	0	3	14	288
Total Volume	1	495	22	518	17	506	0	523	32	0	23	55	1096
% App. Total	0.2	95.6	4.2		3.3	96.7	0		58.2	0	41.8		
PHF	.250	.859	.458	.869	.607	.930	.000	.934	.615	.000	.575	.598	.951
Passenger Vehicles	0	482	22	504	17	493	0	510	32	0	23	55	1069
% Passenger Vehicles	0	97.4	100	97.3	100	97.4	0	97.5	100	0	100	100	97.5
Heavy Vehicles	0	13	0	13	0	13	0	13	0	0	0	0	26
% Heavy Vehicles	0	2.6	0	2.5	0	2.6	0	2.5	0	0	0	0	2.4
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	0
UTurns	1	0	0	1	0	0	0	0	0	0	0	0	1
% UTurns	100	0	0	0.2	0	0	0	0	0	0	0	0	0.1

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 3

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	01:30 PM				12:15 PM				01:30 PM				
+0 mins.	1	104	1	106	0	123	0	123	0	0	0	0	
+15 mins.	0	110	12	122	1	137	0	138	13	0	10	23	
+30 mins.	0	137	4	141	0	138	0	138	8	0	10	18	
+45 mins.	0	144	5	149	0	129	0	129	11	0	3	14	
Total Volume	1	495	22	518	1	527	0	528	32	0	23	55	
% App. Total	0.2	95.6	4.2		0.2	99.8	0		58.2	0	41.8		
PHF	.250	.859	.458	.869	.250	.955	.000	.957	.615	.000	.575	.598	
Passenger Vehicles	0	482	22	504	0	502	0	502	32	0	23	55	
% Passenger Vehicles	0	97.4	100	97.3	0	95.3	0	95.1	100	0	100	100	
Heavy Vehicles	0	13	0	13	0	25	0	25	0	0	0	0	
% Heavy Vehicles	0	2.6	0	2.5	0	4.7	0	4.7	0	0	0	0	
Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	
% Motorcycles	0	0	0	0	0	0	0	0	0	0	0	0	
UTurns	1	0	0	1	1	0	0	1	0	0	0	0	
% UTurns	100	0	0	0.2	100	0	0	0.2	0	0	0	0	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	189	2	191	1	142	0	143	2	0	4	6	340
04:30 PM	0	179	0	179	0	163	0	163	1	0	1	2	344
04:45 PM	0	192	1	193	1	151	0	152	2	0	0	2	347
05:00 PM	0	209	0	209	0	167	0	167	0	0	0	0	376
Total Volume	0	769	3	772	2	623	0	625	5	0	5	10	1407
% App. Total	0	99.6	0.4		0.3	99.7	0		50	0	50		
PHF	.000	.920	.375	.923	.500	.933	.000	.936	.625	.000	.313	.417	.936
Passenger Vehicles	0	754	3	757	2	607	0	609	5	0	5	10	1376
% Passenger Vehicles	0	98.0	100	98.1	100	97.4	0	97.4	100	0	100	100	97.8
Heavy Vehicles	0	13	0	13	0	16	0	16	0	0	0	0	29
% Heavy Vehicles	0	1.7	0	1.7	0	2.6	0	2.6	0	0	0	0	2.1
Motorcycles	0	2	0	2	0	0	0	0	0	0	0	0	2
% Motorcycles	0	0.3	0	0.3	0	0	0	0	0	0	0	0	0.1
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				05:00 PM				
+0 mins.	0	189	2	191	0	163	0	163	0	0	0	0	
+15 mins.	0	179	0	179	1	151	0	152	0	0	0	0	
+30 mins.	0	192	1	193	0	167	0	167	6	0	3	9	
+45 mins.	0	209	0	209	1	149	0	150	9	0	6	15	
Total Volume	0	769	3	772	2	630	0	632	15	0	9	24	
% App. Total	0	99.6	0.4		0.3	99.7	0		62.5	0	37.5		
PHF	.000	.920	.375	.923	.500	.943	.000	.946	.417	.000	.375	.400	
Passenger Vehicles	0	754	3	757	2	619	0	621	15	0	9	24	
% Passenger Vehicles	0	98	100	98.1	100	98.3	0	98.3	100	0	100	100	
Heavy Vehicles	0	13	0	13	0	11	0	11	0	0	0	0	
% Heavy Vehicles	0	1.7	0	1.7	0	1.7	0	1.7	0	0	0	0	
Motorcycles	0	2	0	2	0	0	0	0	0	0	0	0	
% Motorcycles	0	0.3	0	0.3	0	0	0	0	0	0	0	0	
UTurns	0	0	0	0	0	0	0	0	0	0	0	0	
% UTurns	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 1

Groups Printed- Passenger Vehicles

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	42	8	50	19	83	0	102	4	0	11	15	167
06:45 AM	0	78	32	110	41	116	0	157	17	0	28	45	312
Total	0	120	40	160	60	199	0	259	21	0	39	60	479
07:00 AM	0	123	16	139	10	161	0	171	5	0	20	25	335
07:15 AM	0	109	0	109	0	177	0	177	1	0	0	1	287
07:30 AM	0	89	0	89	0	177	0	177	0	0	0	0	266
07:45 AM	0	97	0	97	0	196	0	196	0	0	0	0	293
Total	0	418	16	434	10	711	0	721	6	0	20	26	1181
08:00 AM	0	101	0	101	0	178	0	178	0	0	0	0	279
08:15 AM	0	109	0	109	0	164	0	164	0	0	0	0	273
08:30 AM	0	103	0	103	0	203	0	203	0	0	0	0	306
08:45 AM	0	74	0	74	0	149	0	149	0	0	0	0	223
Total	0	387	0	387	0	694	0	694	0	0	0	0	1081
09:00 AM	0	87	0	87	0	144	0	144	0	0	0	0	231
09:15 AM	0	86	0	86	0	139	0	139	0	0	0	0	225
*** BREAK ***													
Total	0	173	0	173	0	283	0	283	0	0	0	0	456
*** BREAK ***													
11:30 AM	0	86	0	86	0	116	0	116	0	0	0	0	202
11:45 AM	0	100	0	100	0	132	0	132	0	0	0	0	232
Total	0	186	0	186	0	248	0	248	0	0	0	0	434
12:00 PM	0	109	0	109	0	119	0	119	0	0	0	0	228
12:15 PM	0	95	0	95	0	117	0	117	0	0	0	0	212
12:30 PM	0	103	0	103	0	131	0	131	0	0	0	0	234
12:45 PM	0	101	0	101	0	131	0	131	0	0	0	0	232
Total	0	408	0	408	0	498	0	498	0	0	0	0	906
01:00 PM	0	110	0	110	0	123	0	123	0	0	0	0	233
01:15 PM	0	112	0	112	0	116	0	116	0	0	0	0	228
01:30 PM	0	104	1	105	2	132	0	134	0	0	0	0	239
01:45 PM	0	107	12	119	7	131	0	138	13	0	10	23	280
Total	0	433	13	446	9	502	0	511	13	0	10	23	980
02:00 PM	0	135	4	139	5	111	0	116	8	0	10	18	273
02:15 PM	0	136	5	141	3	119	0	122	11	0	3	14	277
*** BREAK ***													
Total	0	271	9	280	8	230	0	238	19	0	13	32	550
*** BREAK ***													
04:00 PM	0	152	1	153	0	133	0	133	0	0	2	2	288
04:15 PM	0	184	2	186	1	137	0	138	2	0	4	6	330
04:30 PM	0	175	0	175	0	154	0	154	1	0	1	2	331
04:45 PM	0	188	1	189	1	151	0	152	2	0	0	2	343
Total	0	699	4	703	2	575	0	577	5	0	7	12	1292
05:00 PM	0	207	0	207	0	165	0	165	0	0	0	0	372
05:15 PM	0	163	4	167	1	149	0	150	0	0	0	0	317
05:30 PM	0	171	1	172	2	112	0	114	6	0	3	9	295
05:45 PM	0	130	3	133	5	145	0	150	9	0	6	15	298
Total	0	671	8	679	8	571	0	579	15	0	9	24	1282
Grand Total	0	3766	90	3856	97	4511	0	4608	79	0	98	177	8641
Apprch %	0	97.7	2.3		2.1	97.9	0		44.6	0	55.4		
Total %	0	43.6	1	44.6	1.1	52.2	0	53.3	0.9	0	1.1	2	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:45 AM													
06:45 AM	0	78	32	110	41	116	0	157	17	0	28	45	312
07:00 AM	0	123	16	139	10	161	0	171	5	0	20	25	335
07:15 AM	0	109	0	109	0	177	0	177	1	0	0	1	287
07:30 AM	0	89	0	89	0	177	0	177	0	0	0	0	266
Total Volume	0	399	48	447	51	631	0	682	23	0	48	71	1200
% App. Total	0	89.3	10.7		7.5	92.5	0		32.4	0	67.6		
PHF	.000	.811	.375	.804	.311	.891	.000	.963	.338	.000	.429	.394	.896

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:45 AM				07:45 AM				06:30 AM				
+0 mins.	0	78	32	110	0	196	0	196	4	0	11	15	
+15 mins.	0	123	16	139	0	178	0	178	17	0	28	45	
+30 mins.	0	109	0	109	0	164	0	164	5	0	20	25	
+45 mins.	0	89	0	89	0	203	0	203	1	0	0	1	
Total Volume	0	399	48	447	0	741	0	741	27	0	59	86	
% App. Total	0	89.3	10.7		0	100	0		31.4	0	68.6		
PHF	.000	.811	.375	.804	.000	.913	.000	.913	.397	.000	.527	.478	

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 01:30 PM

01:30 PM	0	104	1	105	2	132	0	134	0	0	0	0	239
01:45 PM	0	107	12	119	7	131	0	138	13	0	10	23	280
02:00 PM	0	135	4	139	5	111	0	116	8	0	10	18	273
02:15 PM	0	136	5	141	3	119	0	122	11	0	3	14	277
Total Volume	0	482	22	504	17	493	0	510	32	0	23	55	1069
% App. Total	0	95.6	4.4		3.3	96.7	0		58.2	0	41.8		
PHF	.000	.886	.458	.894	.607	.934	.000	.924	.615	.000	.575	.598	.954

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:30 PM				01:00 PM				01:30 PM				
+0 mins.	0	104	1	105	0	123	0	123	0	0	0	0	
+15 mins.	0	107	12	119	0	116	0	116	13	0	10	23	
+30 mins.	0	135	4	139	2	132	0	134	8	0	10	18	
+45 mins.	0	136	5	141	7	131	0	138	11	0	3	14	
Total Volume	0	482	22	504	9	502	0	511	32	0	23	55	
% App. Total	0	95.6	4.4		1.8	98.2	0		58.2	0	41.8		
PHF	.000	.886	.458	.894	.321	.951	.000	.926	.615	.000	.575	.598	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM

04:15 PM	0	184	2	186	1	137	0	138	2	0	4	6	330
04:30 PM	0	175	0	175	0	154	0	154	1	0	1	2	331
04:45 PM	0	188	1	189	1	151	0	152	2	0	0	2	343
05:00 PM	0	207	0	207	0	165	0	165	0	0	0	0	372
Total Volume	0	754	3	757	2	607	0	609	5	0	5	10	1376
% App. Total	0	99.6	0.4		0.3	99.7	0		50	0	50		
PHF	.000	.911	.375	.914	.500	.920	.000	.923	.625	.000	.313	.417	.925

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				05:00 PM				
+0 mins.	0	184	2	186	0	154	0	154	0	0	0	0	
+15 mins.	0	175	0	175	1	151	0	152	0	0	0	0	
+30 mins.	0	188	1	189	0	165	0	165	6	0	3	9	
+45 mins.	0	207	0	207	1	149	0	150	9	0	6	15	
Total Volume	0	754	3	757	2	619	0	621	15	0	9	24	
% App. Total	0	99.6	0.4		0.3	99.7	0		62.5	0	37.5		
PHF	.000	.911	.375	.914	.500	.938	.000	.941	.417	.000	.375	.400	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 1

Groups Printed- Heavy Vehicles

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
06:30 AM	0	6	0	6	0	2	0	2	0	0	0	0	8
06:45 AM	0	2	0	2	0	5	0	5	0	0	0	0	7
Total	0	8	0	8	0	7	0	7	0	0	0	0	15
07:00 AM	0	1	0	1	0	4	0	4	0	0	0	0	5
07:15 AM	0	8	0	8	0	1	0	1	0	0	0	0	9
07:30 AM	0	6	0	6	0	8	0	8	0	0	0	0	14
07:45 AM	0	4	0	4	0	4	0	4	0	0	0	0	8
Total	0	19	0	19	0	17	0	17	0	0	0	0	36
08:00 AM	0	3	0	3	0	3	0	3	0	0	0	0	6
08:15 AM	0	5	0	5	0	2	0	2	0	0	0	0	7
08:30 AM	0	1	0	1	0	4	0	4	0	0	0	0	5
08:45 AM	0	5	0	5	0	1	0	1	0	0	0	0	6
Total	0	14	0	14	0	10	0	10	0	0	0	0	24
09:00 AM	0	2	0	2	0	5	0	5	0	0	0	0	7
09:15 AM	0	5	0	5	0	2	0	2	0	0	0	0	7
*** BREAK ***													
Total	0	7	0	7	0	7	0	7	0	0	0	0	14
*** BREAK ***													
11:30 AM	0	1	0	1	0	10	0	10	0	0	0	0	11
11:45 AM	0	8	0	8	0	5	0	5	0	0	0	0	13
Total	0	9	0	9	0	15	0	15	0	0	0	0	24
12:00 PM	0	4	0	4	0	8	0	8	0	0	0	0	12
12:15 PM	0	6	0	6	0	6	0	6	0	0	0	0	12
12:30 PM	0	9	0	9	0	6	0	6	0	0	0	0	15
12:45 PM	0	6	0	6	0	7	0	7	0	0	0	0	13
Total	0	25	0	25	0	27	0	27	0	0	0	0	52
01:00 PM	0	9	0	9	0	6	0	6	0	0	0	0	15
01:15 PM	0	9	0	9	0	2	0	2	0	0	0	0	11
01:30 PM	0	0	0	0	0	4	0	4	0	0	0	0	4
01:45 PM	0	3	0	3	0	2	0	2	0	0	0	0	5
Total	0	21	0	21	0	14	0	14	0	0	0	0	35
02:00 PM	0	2	0	2	0	4	0	4	0	0	0	0	6
02:15 PM	0	8	0	8	0	3	0	3	0	0	0	0	11
*** BREAK ***													
Total	0	10	0	10	0	7	0	7	0	0	0	0	17
*** BREAK ***													
04:00 PM	0	2	0	2	0	4	0	4	0	0	0	0	6
04:15 PM	0	4	0	4	0	5	0	5	0	0	0	0	9
04:30 PM	0	4	0	4	0	9	0	9	0	0	0	0	13
04:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	0	13	0	13	0	18	0	18	0	0	0	0	31
05:00 PM	0	2	0	2	0	2	0	2	0	0	0	0	4
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	2	0	2	0	5	0	5	0	0	0	0	7
05:45 PM	0	2	0	2	0	2	0	2	0	0	0	0	4
Total	0	8	0	8	0	9	0	9	0	0	0	0	17
Grand Total	0	134	0	134	0	131	0	131	0	0	0	0	265
Apprch %	0	100	0		0	100	0		0	0	0		
Total %	0	50.6	0	50.6	0	49.4	0	49.4	0	0	0	0	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	8	0	8	0	1	0	1	0	0	0	0	9
07:30 AM	0	6	0	6	0	8	0	8	0	0	0	0	14
07:45 AM	0	4	0	4	0	4	0	4	0	0	0	0	8
08:00 AM	0	3	0	3	0	3	0	3	0	0	0	0	6
Total Volume	0	21	0	21	0	16	0	16	0	0	0	0	37
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.656	.000	.656	.000	.500	.000	.500	.000	.000	.000	.000	.661

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				06:45 AM				06:30 AM				
+0 mins.	0	8	0	8	0	5	0	5	0	0	0	0	
+15 mins.	0	6	0	6	0	4	0	4	0	0	0	0	
+30 mins.	0	4	0	4	0	1	0	1	0	0	0	0	
+45 mins.	0	3	0	3	0	8	0	8	0	0	0	0	
Total Volume	0	21	0	21	0	18	0	18	0	0	0	0	
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.656	.000	.656	.000	.563	.000	.563	.000	.000	.000	.000	

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 12:15 PM

12:15 PM	0	6	0	6	0	6	0	6	0	0	0	0	12
12:30 PM	0	9	0	9	0	6	0	6	0	0	0	0	15
12:45 PM	0	6	0	6	0	7	0	7	0	0	0	0	13
01:00 PM	0	9	0	9	0	6	0	6	0	0	0	0	15
Total Volume	0	30	0	30	0	25	0	25	0	0	0	0	55
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.833	.000	.833	.000	.893	.000	.893	.000	.000	.000	.000	.917

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:30 PM				11:30 AM				11:30 AM				
+0 mins.	0	9	0	9	0	10	0	10	0	0	0	0	
+15 mins.	0	6	0	6	0	5	0	5	0	0	0	0	
+30 mins.	0	9	0	9	0	8	0	8	0	0	0	0	
+45 mins.	0	9	0	9	0	6	0	6	0	0	0	0	
Total Volume	0	33	0	33	0	29	0	29	0	0	0	0	
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.917	.000	.917	.000	.725	.000	.725	.000	.000	.000	.000	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	2	0	2	0	4	0	4	0	0	0	0	6
04:15 PM	0	4	0	4	0	5	0	5	0	0	0	0	9
04:30 PM	0	4	0	4	0	9	0	9	0	0	0	0	13
04:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total Volume	0	13	0	13	0	18	0	18	0	0	0	0	31
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.813	.000	.813	.000	.500	.000	.500	.000	.000	.000	.000	.596

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	2	0	2	0	4	0	4	0	0	0	0	
+15 mins.	0	4	0	4	0	5	0	5	0	0	0	0	
+30 mins.	0	4	0	4	0	9	0	9	0	0	0	0	
+45 mins.	0	3	0	3	0	0	0	0	0	0	0	0	
Total Volume	0	13	0	13	0	18	0	18	0	0	0	0	
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.813	.000	.813	.000	.500	.000	.500	.000	.000	.000	.000	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 1

Groups Printed- Motorcycles

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
*** BREAK ***													
06:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
Total	0	1	0	1	0	1	0	1	0	0	0	0	2
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	1	0	1	0	0	0	0	3
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
11:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
*** BREAK ***													
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
*** BREAK ***													
01:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
01:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
*** BREAK ***													
Total	0	1	0	1	0	1	0	1	0	0	0	0	2
*** BREAK ***													
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	0	0	0	2
*** BREAK ***													
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	8	0	8	0	4	0	4	0	0	0	0	12
Apprch %	0	100	0		0	100	0		0	0	0		
Total %	0	66.7	0	66.7	0	33.3	0	33.3	0	0	0	0	

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:45 AM													
06:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	2	0	2	0	2	0	2	0	0	0	0	4
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.500	.000	.500	.000	.000	.000	.000	.500

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 2

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	06:30 AM				06:45 AM				06:30 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	
Total Volume	0	2	0	2	0	2	0	2	0	0	0	0	
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.500	.000	.500	.000	.000	.000	.000	
Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:30 PM													
12:30 PM	0	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	0
01:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
01:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.500
Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	12:15 PM				11:30 AM				11:30 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	
+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	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	1	0	1	0	1	0	0	0	0	
% App. Total	0	100	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	1	0	1	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	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 1

Groups Printed- UTurns

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
*** BREAK ***													
11:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
12:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
*** BREAK ***													
Total	0	0	0	0	1	0	0	1	0	0	0	0	1
*** BREAK ***													
01:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
*** BREAK ***													
Grand Total	2	0	0	2	1	0	0	1	0	0	0	0	3
Apprch %	100	0	0		100	0	0		0	0	0		
Total %	66.7	0	0	66.7	33.3	0	0	33.3	0	0	0	0	

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:30 AM													
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	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	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 06:30 AM to 09:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	06:30 AM				06:30 AM				06:30 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	
+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	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:30 AM

11:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	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	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

Intersection Turning Movement Count

City/County: St Petersburg/Pinellas
Weather: On/Off Rain 5-6pm
Comments:

File Name : 31stSt&GibbsHS
Site Code : 13100535
Start Date : 8/28/2018
Page No : 2

	31ST STREET S Southbound				31ST STREET S Northbound				GIBBS HIGH SCHOOL Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:30 AM to 02:15 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	11:30 AM				11:45 AM				11:30 AM				
+0 mins.	1	0	0	1	0	0	0	0	0	0	0	0	
+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	1	0	0	1	0	0	0	0	
Total Volume	1	0	0	1	1	0	0	1	0	0	0	0	
% App. Total	100	0	0		100	0	0		0	0	0		
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	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	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	
+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	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

Intersection Pedestrian & Bicycle Count

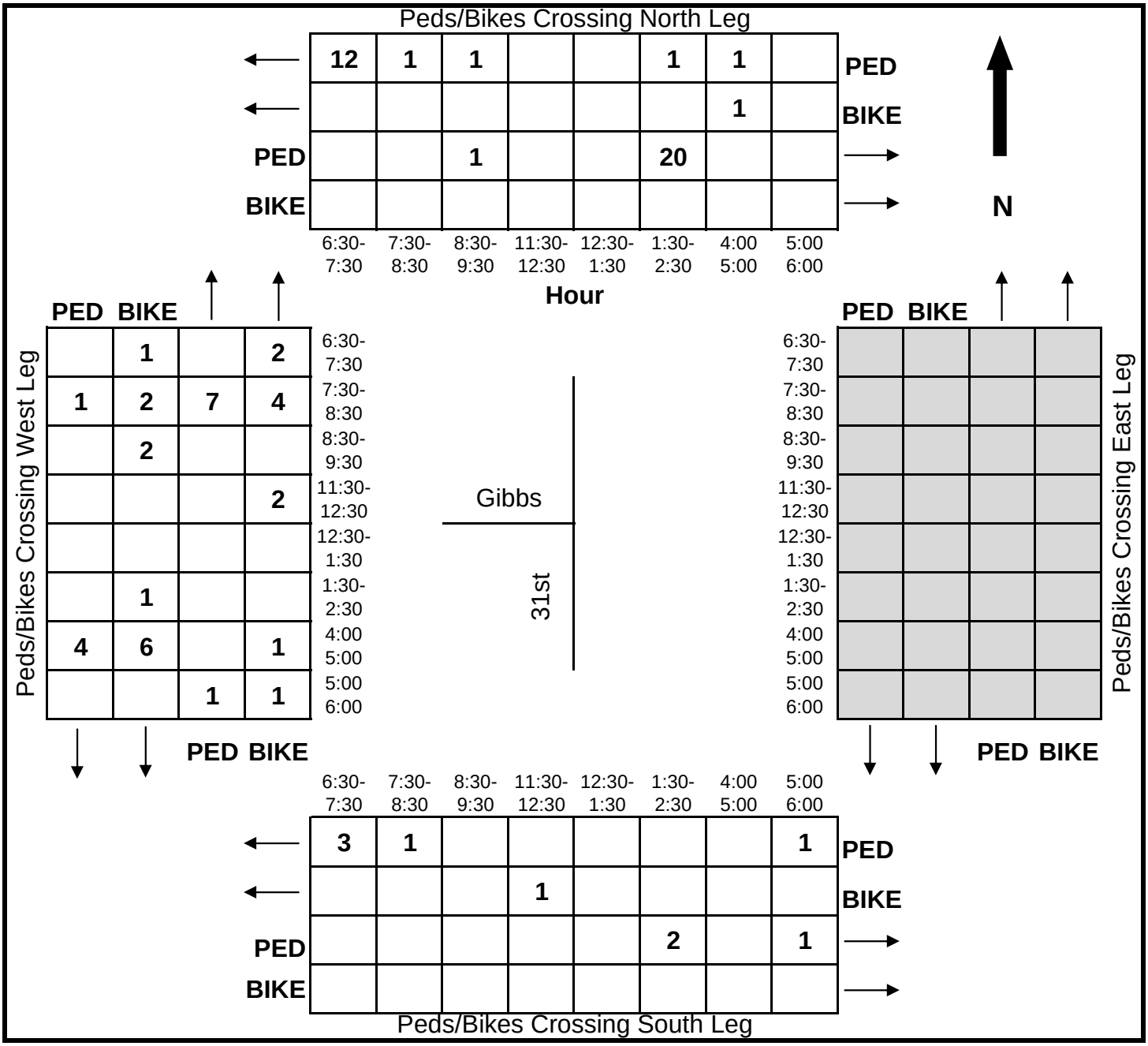
Date: 8/28/18 Day: Tuesday

Count Times: 6:30-9:30am; 11:30am-2:30pm, 4-6pm Weather: On/Off Rain 5-6pm

Intersection: 31st Street S at Gibbs High School

Comments:

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



	6:30-7:30	7:30-8:30	8:30-9:30	11:30-12:30	12:30-1:30	1:30-2:30	4:00 5:00	5:00 6:00
PED	12	1	1			1	1	
BIKE							1	
PED			1			20		
BIKE								

	PED	BIKE	PED	BIKE
6:30-7:30		1		2
7:30-8:30	1	2	7	4
8:30-9:30		2		
11:30-12:30				2
12:30-1:30				
1:30-2:30		1		
4:00 5:00	4	6		1
5:00 6:00			1	1

	PED	BIKE	PED	BIKE
6:30-7:30				
7:30-8:30				
8:30-9:30				
11:30-12:30				
12:30-1:30				
1:30-2:30				
4:00 5:00				
5:00 6:00				

	6:30-7:30	7:30-8:30	8:30-9:30	11:30-12:30	12:30-1:30	1:30-2:30	4:00 5:00	5:00 6:00
PED	3	1						1
BIKE				1				
PED						2		1
BIKE								

Traffic/Pedestrian Comments & Observations

Date of Observations: 8/28/18
Observation Times: 6:30-9:30am; 11:30am-2:30pm; 4-6pm

31st Street S at Gibbs High School

- During the morning school drop off, some NB cars stop in the middle of 31st St S to drop students off

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 15 - PINELLAS

SITE: 2715 - RP, 31ST ST S TO SB SR93/I-275

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	4700 S	0	0	9.00	99.90	4.10
2017	4700 F	0	0	9.00	99.90	5.10
2016	4600 C	S 4600	0	9.00	99.90	4.40
2015	3800 T	0	0	9.00	99.90	4.40
2014	3700 S			9.00	99.90	4.20
2013	3600 F	0	0	9.00	99.90	4.60
2012	3600 C	S 3600	0	9.00	99.90	4.60
2011	3500 S	0	0	9.00	99.90	4.20
2010	3500 F	0	0	10.52	99.99	4.40
2009	3600 C	S 3600	0	10.53	99.99	5.10
2008	3400 C	S 3400	0	10.29	99.99	5.50
2007	3300 C	S 3300	0	10.31	99.99	4.80

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
2018 HISTORICAL AADT REPORT

COUNTY: 15 - PINELLAS

SITE: 2716 - RP, NB SR93/I-275 TO 31ST ST S

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	5000 X	0	0	9.00	99.90	4.10
2017	5000 X	0	0	9.00	99.90	5.10
2016	4900 E	N		9.00	99.90	4.40
2015	4800 T	0	0	9.00	99.90	4.40
2014	4700 S			9.00	99.90	4.20
2013	4600 F	0	0	9.00	99.90	4.60
2012	4600 C	N 4600	0	9.00	99.90	4.60
2011	4300 S	0	0	9.00	99.90	4.20
2010	4300 F	0	0	10.52	99.99	4.40
2009	4400 C	N 4400	0	10.53	99.99	5.10
2008	4200 C	N 4200	0	10.29	99.99	5.50
2007	4400 C	N 4400	0	10.31	99.99	4.80

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

2018 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: ALL

COUNTY: 15 - PINELLAS

WEEK	DATES	1501 I275, SR682 - HILLS	1502 I375, I275 - SR595	1503 I175, I275 - SR687	1504 SR651, SR686 - SR60
1	01/01/2018 - 01/06/2018	0.98	0.98	0.99	1.00
2	01/07/2018 - 01/13/2018	0.98	0.98	0.99	1.00
3	01/14/2018 - 01/20/2018	0.98	0.98	0.99	1.00
4	01/21/2018 - 01/27/2018	0.98	0.98	0.99	1.00
5	01/28/2018 - 02/03/2018	0.98	0.98	0.99	1.00
6	02/04/2018 - 02/10/2018	0.98	0.98	0.99	1.00
7	02/11/2018 - 02/17/2018	0.98	0.98	0.99	1.00
8	02/18/2018 - 02/24/2018	0.98	0.98	0.99	1.00
9	02/25/2018 - 03/03/2018	0.98	0.98	0.99	1.00
10	03/04/2018 - 03/10/2018	0.98	0.98	0.99	1.00
11	03/11/2018 - 03/17/2018	0.98	0.98	0.99	1.00
12	03/18/2018 - 03/24/2018	0.98	0.98	0.99	1.00
13	03/25/2018 - 03/31/2018	0.98	0.98	0.99	1.00
14	04/01/2018 - 04/07/2018	0.98	0.98	0.99	1.00
15	04/08/2018 - 04/14/2018	0.98	0.98	0.99	1.00
16	04/15/2018 - 04/21/2018	0.98	0.98	0.99	1.00
17	04/22/2018 - 04/28/2018	0.98	0.98	0.99	1.00
18	04/29/2018 - 05/05/2018	0.98	0.98	0.99	1.00
19	05/06/2018 - 05/12/2018	0.98	0.98	0.99	1.00
20	05/13/2018 - 05/19/2018	0.98	0.98	0.99	1.00
21	05/20/2018 - 05/26/2018	0.98	0.98	0.99	1.00
22	05/27/2018 - 06/02/2018	0.98	0.98	0.99	1.00
23	06/03/2018 - 06/09/2018	0.98	0.98	0.99	1.00
24	06/10/2018 - 06/16/2018	0.98	0.98	0.99	1.00
25	06/17/2018 - 06/23/2018	0.98	0.98	0.99	1.00
26	06/24/2018 - 06/30/2018	0.98	0.98	0.99	1.00
27	07/01/2018 - 07/07/2018	0.98	0.98	0.99	1.00
28	07/08/2018 - 07/14/2018	0.98	0.98	0.99	1.00
29	07/15/2018 - 07/21/2018	0.98	0.98	0.99	1.00
30	07/22/2018 - 07/28/2018	0.98	0.98	0.99	1.00
31	07/29/2018 - 08/04/2018	0.98	0.98	0.99	1.00
32	08/05/2018 - 08/11/2018	0.98	0.98	0.99	1.00
33	08/12/2018 - 08/18/2018	0.98	0.98	0.99	1.00
34	08/19/2018 - 08/25/2018	0.98	0.98	0.99	1.00
35	08/26/2018 - 09/01/2018	0.98	0.98	0.99	1.00
36	09/02/2018 - 09/08/2018	0.98	0.98	0.99	1.00
37	09/09/2018 - 09/15/2018	0.98	0.98	0.99	1.00
38	09/16/2018 - 09/22/2018	0.98	0.98	0.99	1.00
39	09/23/2018 - 09/29/2018	0.98	0.98	0.99	1.00
40	09/30/2018 - 10/06/2018	0.98	0.98	0.99	1.00
41	10/07/2018 - 10/13/2018	0.98	0.98	0.99	1.00
42	10/14/2018 - 10/20/2018	0.98	0.98	0.99	1.00
43	10/21/2018 - 10/27/2018	0.98	0.98	0.99	1.00
44	10/28/2018 - 11/03/2018	0.98	0.98	0.99	1.00
45	11/04/2018 - 11/10/2018	0.98	0.98	0.99	1.00
46	11/11/2018 - 11/17/2018	0.98	0.98	0.99	1.00
47	11/18/2018 - 11/24/2018	0.98	0.98	0.99	1.00
48	11/25/2018 - 12/01/2018	0.98	0.98	0.99	1.00
49	12/02/2018 - 12/08/2018	0.98	0.98	0.99	1.00
50	12/09/2018 - 12/15/2018	0.98	0.98	0.99	1.00
51	12/16/2018 - 12/22/2018	0.98	0.98	0.99	1.00
52	12/23/2018 - 12/29/2018	0.98	0.98	0.99	1.00
53	12/30/2018 - 12/31/2018	0.98	0.98	0.99	1.00

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1500 PINELLAS COUNTYWIDE

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	1.07	1.15
2	01/07/2018 - 01/13/2018	1.06	1.14
3	01/14/2018 - 01/20/2018	1.04	1.12
4	01/21/2018 - 01/27/2018	1.02	1.10
5	01/28/2018 - 02/03/2018	0.99	1.06
* 6	02/04/2018 - 02/10/2018	0.96	1.03
* 7	02/11/2018 - 02/17/2018	0.93	1.00
* 8	02/18/2018 - 02/24/2018	0.93	1.00
* 9	02/25/2018 - 03/03/2018	0.92	0.99
*10	03/04/2018 - 03/10/2018	0.92	0.99
*11	03/11/2018 - 03/17/2018	0.91	0.98
*12	03/18/2018 - 03/24/2018	0.92	0.99
*13	03/25/2018 - 03/31/2018	0.92	0.99
*14	04/01/2018 - 04/07/2018	0.93	1.00
*15	04/08/2018 - 04/14/2018	0.93	1.00
*16	04/15/2018 - 04/21/2018	0.94	1.01
*17	04/22/2018 - 04/28/2018	0.96	1.03
*18	04/29/2018 - 05/05/2018	0.98	1.05
19	05/06/2018 - 05/12/2018	1.00	1.08
20	05/13/2018 - 05/19/2018	1.02	1.10
21	05/20/2018 - 05/26/2018	1.01	1.09
22	05/27/2018 - 06/02/2018	0.99	1.06
23	06/03/2018 - 06/09/2018	0.98	1.05
24	06/10/2018 - 06/16/2018	0.97	1.04
25	06/17/2018 - 06/23/2018	0.98	1.05
26	06/24/2018 - 06/30/2018	0.98	1.05
27	07/01/2018 - 07/07/2018	0.99	1.06
28	07/08/2018 - 07/14/2018	1.00	1.08
29	07/15/2018 - 07/21/2018	1.00	1.08
30	07/22/2018 - 07/28/2018	1.01	1.09
31	07/29/2018 - 08/04/2018	1.02	1.10
32	08/05/2018 - 08/11/2018	1.02	1.10
33	08/12/2018 - 08/18/2018	1.03	1.11
34	08/19/2018 - 08/25/2018	1.04	1.12
35	08/26/2018 - 09/01/2018	1.06	1.14
36	09/02/2018 - 09/08/2018	1.07	1.15
37	09/09/2018 - 09/15/2018	1.08	1.16
38	09/16/2018 - 09/22/2018	1.08	1.16
39	09/23/2018 - 09/29/2018	1.07	1.15
40	09/30/2018 - 10/06/2018	1.06	1.14
41	10/07/2018 - 10/13/2018	1.05	1.13
42	10/14/2018 - 10/20/2018	1.05	1.13
43	10/21/2018 - 10/27/2018	1.05	1.13
44	10/28/2018 - 11/03/2018	1.05	1.13
45	11/04/2018 - 11/10/2018	1.04	1.12
46	11/11/2018 - 11/17/2018	1.04	1.12
47	11/18/2018 - 11/24/2018	1.05	1.13
48	11/25/2018 - 12/01/2018	1.06	1.14
49	12/02/2018 - 12/08/2018	1.06	1.14
50	12/09/2018 - 12/15/2018	1.07	1.15
51	12/16/2018 - 12/22/2018	1.06	1.14
52	12/23/2018 - 12/29/2018	1.05	1.13
53	12/30/2018 - 12/31/2018	1.04	1.12

* PEAK SEASON

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1527 PINELLAS I275

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	1.02	1.10
2	01/07/2018 - 01/13/2018	1.03	1.11
3	01/14/2018 - 01/20/2018	1.03	1.11
4	01/21/2018 - 01/27/2018	1.01	1.09
* 5	01/28/2018 - 02/03/2018	0.98	1.05
* 6	02/04/2018 - 02/10/2018	0.96	1.03
* 7	02/11/2018 - 02/17/2018	0.93	1.00
* 8	02/18/2018 - 02/24/2018	0.92	0.99
* 9	02/25/2018 - 03/03/2018	0.91	0.98
*10	03/04/2018 - 03/10/2018	0.90	0.97
*11	03/11/2018 - 03/17/2018	0.89	0.96
*12	03/18/2018 - 03/24/2018	0.90	0.97
*13	03/25/2018 - 03/31/2018	0.91	0.98
*14	04/01/2018 - 04/07/2018	0.92	0.99
*15	04/08/2018 - 04/14/2018	0.93	1.00
*16	04/15/2018 - 04/21/2018	0.94	1.01
*17	04/22/2018 - 04/28/2018	0.97	1.04
18	04/29/2018 - 05/05/2018	0.99	1.06
19	05/06/2018 - 05/12/2018	1.02	1.10
20	05/13/2018 - 05/19/2018	1.04	1.12
21	05/20/2018 - 05/26/2018	1.03	1.11
22	05/27/2018 - 06/02/2018	1.02	1.10
23	06/03/2018 - 06/09/2018	1.01	1.09
24	06/10/2018 - 06/16/2018	1.00	1.08
25	06/17/2018 - 06/23/2018	1.01	1.09
26	06/24/2018 - 06/30/2018	1.01	1.09
27	07/01/2018 - 07/07/2018	1.02	1.10
28	07/08/2018 - 07/14/2018	1.02	1.10
29	07/15/2018 - 07/21/2018	1.03	1.11
30	07/22/2018 - 07/28/2018	1.03	1.11
31	07/29/2018 - 08/04/2018	1.04	1.12
32	08/05/2018 - 08/11/2018	1.04	1.12
33	08/12/2018 - 08/18/2018	1.04	1.12
34	08/19/2018 - 08/25/2018	1.06	1.14
35	08/26/2018 - 09/01/2018	1.08	1.16
36	09/02/2018 - 09/08/2018	1.09	1.17
37	09/09/2018 - 09/15/2018	1.11	1.19
38	09/16/2018 - 09/22/2018	1.10	1.18
39	09/23/2018 - 09/29/2018	1.09	1.17
40	09/30/2018 - 10/06/2018	1.07	1.15
41	10/07/2018 - 10/13/2018	1.06	1.14
42	10/14/2018 - 10/20/2018	1.05	1.13
43	10/21/2018 - 10/27/2018	1.04	1.12
44	10/28/2018 - 11/03/2018	1.03	1.11
45	11/04/2018 - 11/10/2018	1.01	1.09
46	11/11/2018 - 11/17/2018	1.00	1.08
47	11/18/2018 - 11/24/2018	1.01	1.09
48	11/25/2018 - 12/01/2018	1.01	1.09
49	12/02/2018 - 12/08/2018	1.02	1.10
50	12/09/2018 - 12/15/2018	1.02	1.10
51	12/16/2018 - 12/22/2018	1.02	1.10
52	12/23/2018 - 12/29/2018	1.03	1.11
53	12/30/2018 - 12/31/2018	1.03	1.11

* PEAK SEASON

Appendix D:

Directional Design Hourly Volume Spreadsheets

(Spreadsheets included in attached CD)

Appendix E:

Existing (2018) Synchro Results

Intersection	
Int Delay, s/veh	74.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	505	0	103	0	0	9	14	425	1	12	228	376
Future Vol, veh/h	505	0	103	0	0	9	14	425	1	12	228	376
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	549	0	112	0	0	10	15	462	1	13	248	409

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	535	767	124	643	767	232	248	0	0	463	0	0
Stage 1	274	274	-	493	493	-	-	-	-	-	-	-
Stage 2	261	493	-	150	274	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 428	331	904	358	331	770	1315	-	-	1095	-	0
Stage 1	709	682	-	526	545	-	-	-	-	-	-	0
Stage 2	721	545	-	837	682	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 414	323	904	308	323	770	1315	-	-	1095	-	-
Mov Cap-2 Maneuver	~ 414	323	-	308	323	-	-	-	-	-	-	-
Stage 1	701	672	-	520	539	-	-	-	-	-	-	-
Stage 2	704	539	-	723	672	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	159.3	9.7	0.2	0.5
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1315	-	-	414	904	770	1095	-
HCM Lane V/C Ratio	0.012	-	-	1.326	0.124	0.013	0.012	-
HCM Control Delay (s)	7.8	-	-	189.8	9.5	9.7	8.3	0.1
HCM Lane LOS	A	-	-	F	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	25.1	0.4	0	0	-

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

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	49	66	873	567	49
Future Vol, veh/h	23	49	66	873	567	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	53	72	949	616	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1262	335	669	0	-	0
Stage 1	643	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	162	661	917	-	-	-
Stage 1	485	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	149	661	917	-	-	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	499	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.2	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	917	-	315	-	-
HCM Lane V/C Ratio	0.078	-	0.248	-	-
HCM Control Delay (s)	9.3	-	20.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1	-	-

Intersection	
Int Delay, s/veh	44.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	401	0	30	0	1	8	18	294	1	0	355	554
Future Vol, veh/h	401	0	30	0	1	8	18	294	1	0	355	554
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	436	0	33	0	1	9	20	320	1	0	386	602

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	587	747	193	554	747	161	386	0	0	321	0	0
Stage 1	386	386	-	361	361	-	-	-	-	-	-	-
Stage 2	201	361	-	193	386	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 393	340	816	415	340	855	1169	-	-	1236	-	0
Stage 1	609	609	-	630	624	-	-	-	-	-	-	0
Stage 2	782	624	-	790	609	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 383	334	816	393	334	855	1169	-	-	1236	-	-
Mov Cap-2 Maneuver	~ 383	334	-	393	334	-	-	-	-	-	-	-
Stage 1	599	609	-	619	613	-	-	-	-	-	-	-
Stage 2	759	613	-	758	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	113.7	10	0.5	0
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1169	-	-	383	816	729	1236	-
HCM Lane V/C Ratio	0.017	-	-	1.138	0.04	0.013	-	-
HCM Control Delay (s)	8.1	-	-	121.5	9.6	10	0	-
HCM Lane LOS	A	-	-	F	A	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	16.5	0.1	0	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	2	701	904	3
Future Vol, veh/h	5	5	2	701	904	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	2	762	983	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1370	493	986	0	-	0
Stage 1	985	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	137	522	696	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	657	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	137	522	696	-	-	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	696	-	217	-	-
HCM Lane V/C Ratio	0.003	-	0.05	-	-
HCM Control Delay (s)	10.2	-	22.5	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Appendix F:

Data for Percentage Growth Estimates

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2018 HISTORICAL AADT REPORT

COUNTY: 15 - PINELLAS

SITE: 2715 - RP, 31ST ST S TO SB SR93/I-275

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	4700 S	0	0	9.00	99.90	4.10
2017	4700 F	0	0	9.00	99.90	5.10
2016	4600 C	S 4600	0	9.00	99.90	4.40
2015	3800 T	0	0	9.00	99.90	4.40
2014	3700 S			9.00	99.90	4.20
2013	3600 F	0	0	9.00	99.90	4.60
2012	3600 C	S 3600	0	9.00	99.90	4.60
2011	3500 S	0	0	9.00	99.90	4.20
2010	3500 F	0	0	10.52	99.99	4.40
2009	3600 C	S 3600	0	10.53	99.99	5.10
2008	3400 C	S 3400	0	10.29	99.99	5.50
2007	3300 C	S 3300	0	10.31	99.99	4.80

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
2018 HISTORICAL AADT REPORT

COUNTY: 15 - PINELLAS

SITE: 2716 - RP, NB SR93/I-275 TO 31ST ST S

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2018	5000 X	0	0	9.00	99.90	4.10
2017	5000 X	0	0	9.00	99.90	5.10
2016	4900 E	N		9.00	99.90	4.40
2015	4800 T	0	0	9.00	99.90	4.40
2014	4700 S			9.00	99.90	4.20
2013	4600 F	0	0	9.00	99.90	4.60
2012	4600 C	N 4600	0	9.00	99.90	4.60
2011	4300 S	0	0	9.00	99.90	4.20
2010	4300 F	0	0	10.52	99.99	4.40
2009	4400 C	N 4400	0	10.53	99.99	5.10
2008	4200 C	N 4200	0	10.29	99.99	5.50
2007	4400 C	N 4400	0	10.31	99.99	4.80

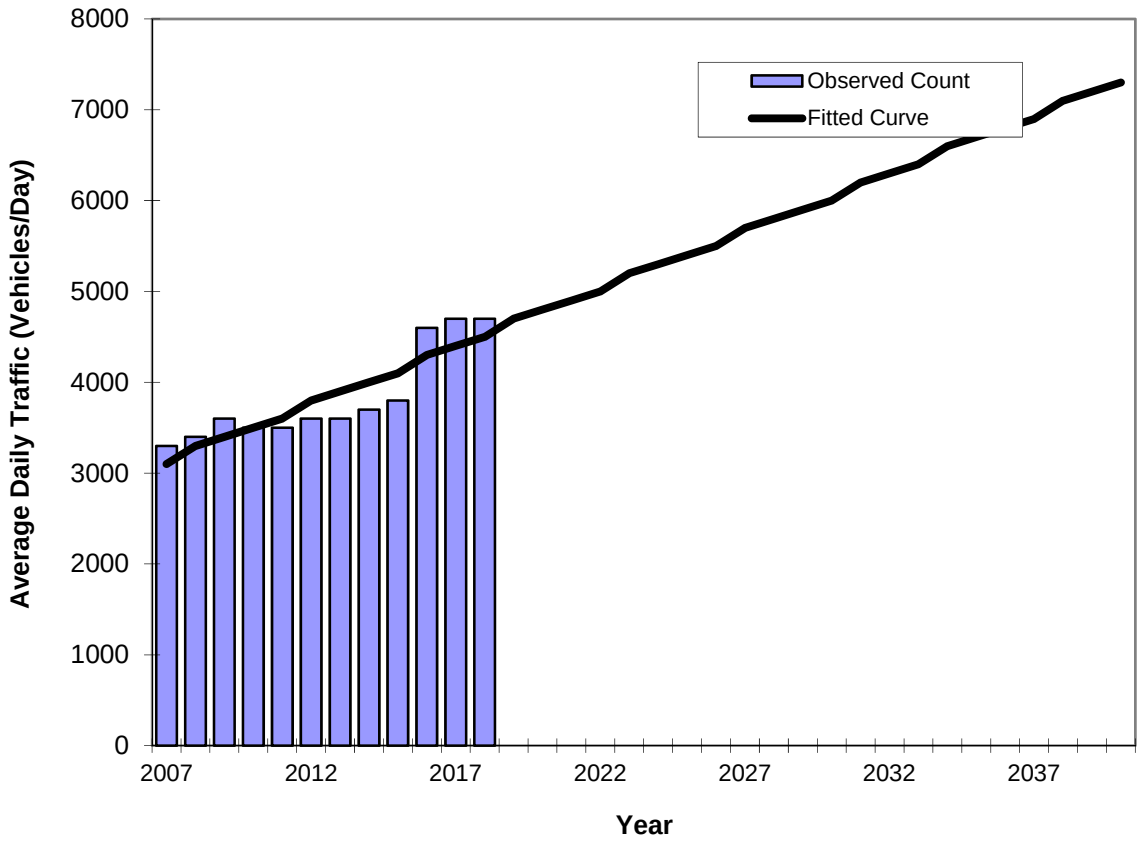
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V03.a

I-275 on-ramp --

FIN#	**1234**
Location	**1**

County:	Pinellas (15)
Station #:	2715
Highway:	I-275 on-ramp



Year	Traffic (ADT/AADT) Count*	Trend**
2007	3300	3100
2008	3400	3300
2009	3600	3400
2010	3500	3500
2011	3500	3600
2012	3600	3800
2013	3600	3900
2014	3700	4000
2015	3800	4100
2016	4600	4300
2017	4700	4400
2018	4700	4500
2020 Opening Year Trend		
2020	N/A	4800
2030 Mid-Year Trend		
2030	N/A	6000
2040 Design Year Trend		
2040	N/A	7300
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

** Annual Trend Increase:	127
Trend R-squared:	77.22%
Trend Annual Historic Growth Rate:	4.11%
Trend Growth Rate (2018 to Design Year):	2.83%
Printed:	8-Aug-19

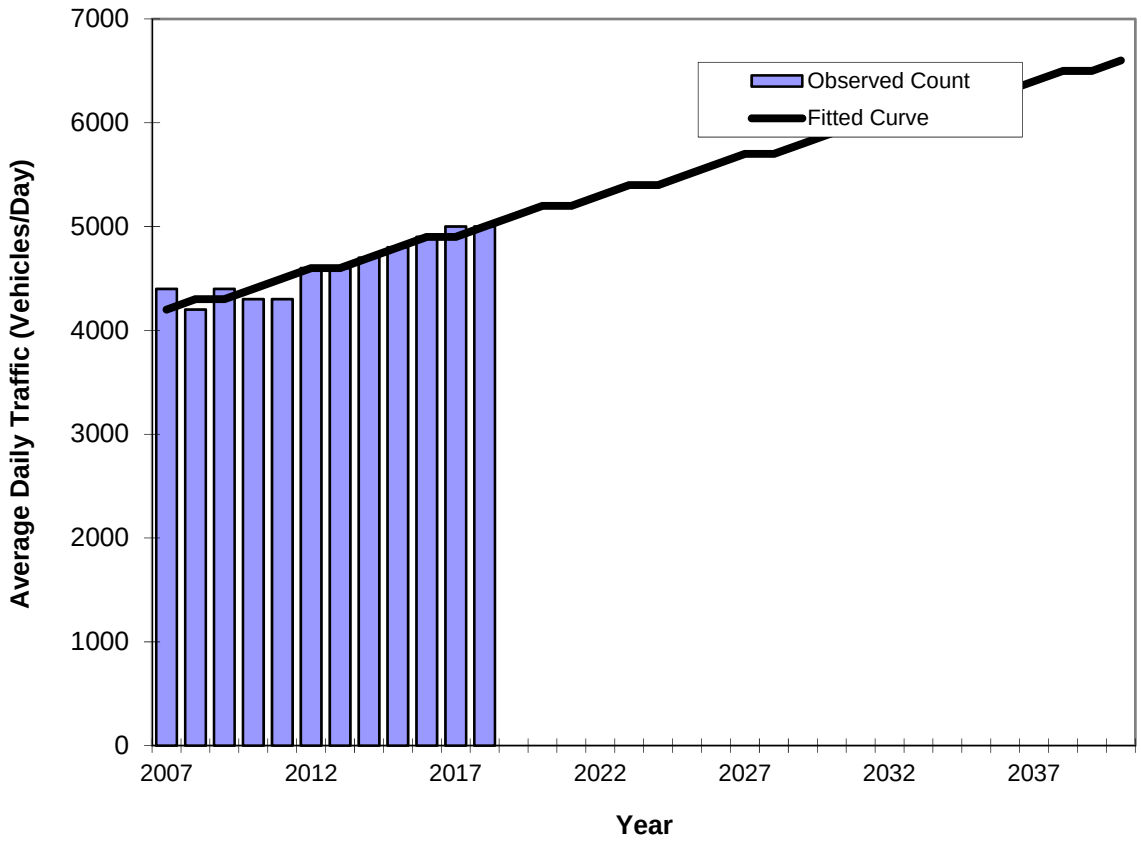
Straight Line Growth Option

Traffic Trends - V03.a

I-275 off-ramp --

FIN#	**1234**
Location	**1**

County:	Pinellas (15)
Station #:	2716
Highway:	I-275 off-ramp



Year	Traffic (ADT/AADT) Count*	Trend**
2007	4400	4200
2008	4200	4300
2009	4400	4300
2010	4300	4400
2011	4300	4500
2012	4600	4600
2013	4600	4600
2014	4700	4700
2015	4800	4800
2016	4900	4900
2017	5000	4900
2018	5000	5000
2020 Opening Year Trend		
2020	N/A	5200
2030 Mid-Year Trend		
2030	N/A	5900
2040 Design Year Trend		
2040	N/A	6600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	73
Trend R-squared:	87.61%
Trend Annual Historic Growth Rate:	1.73%
Trend Growth Rate (2018 to Design Year):	1.45%
Printed:	8-Aug-19

Straight Line Growth Option

*Axle-Adjusted

Projections of Florida Population by County, 2020–2045, with Estimates for 2018

County and State	Estimates April 1, 2018	Projections, April 1 2020	2025	2030	2035	2040	2045
Alachua	263,291	268,254	279,250	288,646	296,549	303,503	309,817
Baker	27,652	28,266	29,507	30,557	31,442	32,178	32,778
Bay	181,199	178,486	189,645	198,223	205,641	211,804	216,936
Bradford	28,057	28,579	28,804	28,941	29,012	29,080	29,183
Brevard	583,563	598,486	630,254	656,288	678,722	698,681	716,861
Broward	1,897,976	1,942,686	2,041,053	2,120,334	2,182,984	2,238,307	2,290,496
Calhoun	15,093	14,914	15,477	15,940	16,338	16,695	17,042
Charlotte	177,987	183,728	196,018	206,145	214,558	222,142	229,050
Citrus	145,721	148,588	155,334	161,148	166,161	170,184	173,718
Clay	212,034	220,221	239,133	255,695	269,654	281,715	292,587
Collier	367,347	382,826	418,396	449,537	475,174	496,809	516,065
Columbia	69,721	71,028	73,948	76,464	78,597	80,310	81,811
DeSoto	35,520	35,964	36,872	37,704	38,416	39,010	39,541
Dixie	16,489	16,618	16,796	16,935	17,034	17,107	17,163
Duval	952,861	981,852	1,044,727	1,095,165	1,139,087	1,177,578	1,212,137
Escambia	318,560	324,438	337,325	347,558	355,524	362,101	367,747
Flagler	107,511	112,463	123,902	134,359	143,638	151,613	158,955
Franklin	12,009	12,123	12,673	13,104	13,458	13,758	14,025
Gadsden	47,828	48,135	48,437	48,534	48,622	48,739	48,847
Gilchrist	17,424	17,846	18,679	19,407	20,047	20,613	21,086
Glades	13,002	13,208	13,570	13,853	14,106	14,322	14,517
Gulf	16,499	16,385	16,912	17,345	17,728	18,072	18,403
Hamilton	14,621	14,927	15,152	15,311	15,420	15,491	15,557
Hardee	27,296	27,337	27,340	27,367	27,392	27,414	27,435
Hendry	39,586	40,334	41,898	43,232	44,389	45,490	46,521
Hernando	185,604	191,741	205,786	218,337	229,155	238,446	246,899
Highlands	102,525	104,077	107,488	110,265	112,710	114,646	116,280
Hillsborough	1,408,864	1,466,803	1,598,412	1,708,550	1,800,203	1,878,668	1,950,504
Holmes	20,133	20,330	20,636	20,850	21,030	21,220	21,399
Indian River	151,825	157,200	169,316	179,407	187,712	194,699	200,868
Jackson	50,435	50,229	50,742	51,162	51,528	51,844	52,128
Jefferson	14,733	14,882	15,163	15,366	15,513	15,642	15,771
Lafayette	8,501	8,674	8,943	9,171	9,352	9,499	9,627
Lake	342,917	360,739	402,065	437,201	467,400	493,556	517,204

Source: Florida Demographic Estimating Conference, February 2019 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Volume 52, Bulletin 183, April 2019

Projections of Florida Population by County, 2020–2045, with Estimates for 2018

County and State	Estimates April 1, 2018	Projections, April 1 2020	2025	2030	2035	2040	2045
Lee	713,903	747,388	824,437	892,108	949,763	999,851	1,045,180
Leon	292,332	298,313	311,878	322,788	331,543	339,214	346,037
Levy	41,054	41,635	42,911	43,970	44,859	45,615	46,289
Liberty	8,915	9,274	9,687	10,027	10,307	10,542	10,750
Madison	19,473	19,541	19,692	19,821	19,938	20,036	20,122
Manatee	377,826	395,246	434,487	467,717	496,741	523,000	545,728
Marion	353,898	363,726	386,211	406,228	423,567	438,178	451,362
Martin	155,556	159,129	167,022	173,908	180,166	185,807	190,835
Miami-Dade	2,779,322	2,861,579	3,040,292	3,190,242	3,315,891	3,427,202	3,523,516
Monroe	73,940	74,004	74,157	74,301	74,436	74,560	74,677
Nassau	82,748	86,416	94,838	102,124	108,634	113,930	118,632
Okaloosa	198,152	202,591	212,083	220,401	227,423	233,440	239,109
Okeechobee	41,120	41,545	42,393	43,074	43,616	44,155	44,669
Orange	1,349,597	1,415,511	1,568,084	1,693,977	1,799,328	1,891,845	1,975,305
Osceola	352,496	380,703	445,286	500,204	548,069	590,986	630,406
Palm Beach	1,433,417	1,473,738	1,563,144	1,640,998	1,707,477	1,763,237	1,811,031
Pasco	515,077	534,491	579,368	619,929	653,954	682,918	708,925
Pinellas	970,532	983,883	1,012,892	1,034,290	1,050,569	1,063,472	1,075,042
Polk	673,028	699,589	758,917	807,917	849,356	884,686	916,188
Putnam	72,981	73,109	73,179	73,312	73,433	73,545	73,649
Saint Johns	238,742	256,127	295,906	329,487	358,612	384,648	408,497
Saint Lucie	302,432	313,070	337,487	359,468	378,719	395,143	410,124
Santa Rosa	174,887	182,635	199,900	214,693	226,949	237,504	246,966
Sarasota	417,442	431,147	460,538	484,314	505,216	523,700	540,245
Seminole	463,560	477,792	508,498	533,481	555,459	573,666	589,226
Sumter	124,935	133,871	155,481	175,068	191,659	206,191	219,471
Suwannee	44,879	45,938	48,238	50,247	51,954	53,358	54,603
Taylor	22,283	22,922	23,429	23,857	24,256	24,611	24,938
Union	15,867	16,112	16,309	16,456	16,570	16,658	16,721
Volusia	531,062	544,093	571,691	594,289	613,559	629,946	644,554
Wakulla	31,943	32,835	35,170	37,219	38,905	40,274	41,474
Walton	67,656	71,814	81,272	89,478	96,600	102,801	108,440
Washington	25,129	25,476	26,290	26,963	27,516	27,948	28,316
FLORIDA	20,840,568	21,517,610	23,050,820	24,340,457	25,429,340	26,373,603	27,219,985

Source: Florida Demographic Estimating Conference, February 2019 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Volume 52, Bulletin 183, April 2019

Appendix G:

FDOT D7 Operational Analysis Report

Florida Department of Transportation District 7

Operational Analysis Report

I-275 and 31st Street South

St. Petersburg, Florida

DRAFT Report

March 13, 2017

Introduction

The intent of this analysis is to evaluate reported operational issues at the intersection of I-275 and 31st Street South. The intersection provides access to southbound I-275 and is exit 20 from I-275 northbound. The intersection was recently improved to reduce run-off-the-road crashes and eliminate illegal turns from a gored area using flexible delineators. The existing conditions and project location is shown in **Exhibits A-E** below.

Exhibit A: Study Intersection Location Map

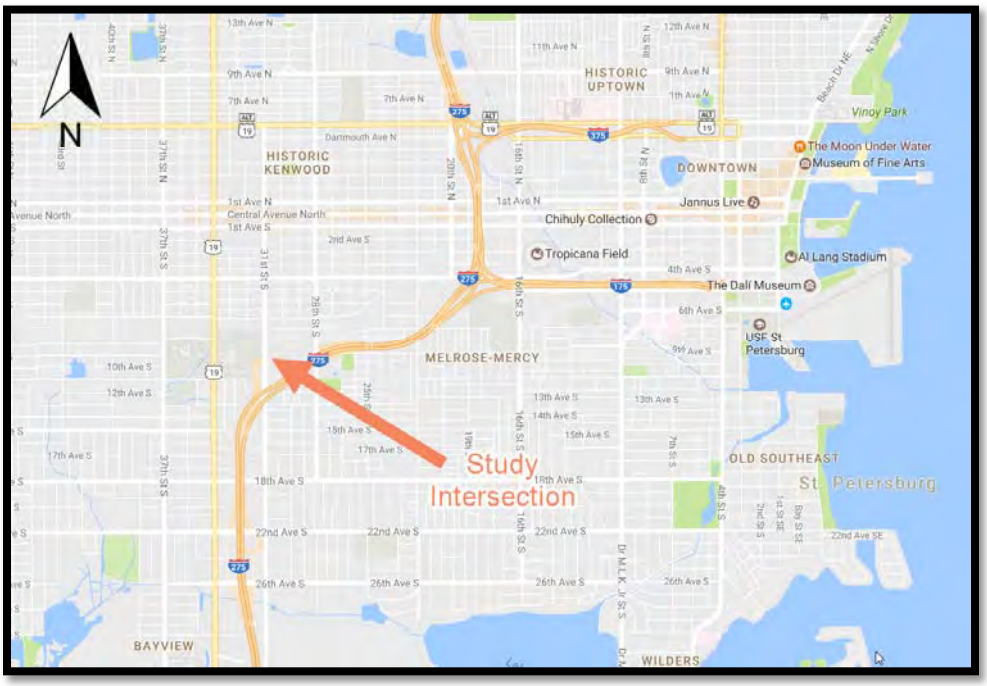


Exhibit B: Study Intersection Aerial

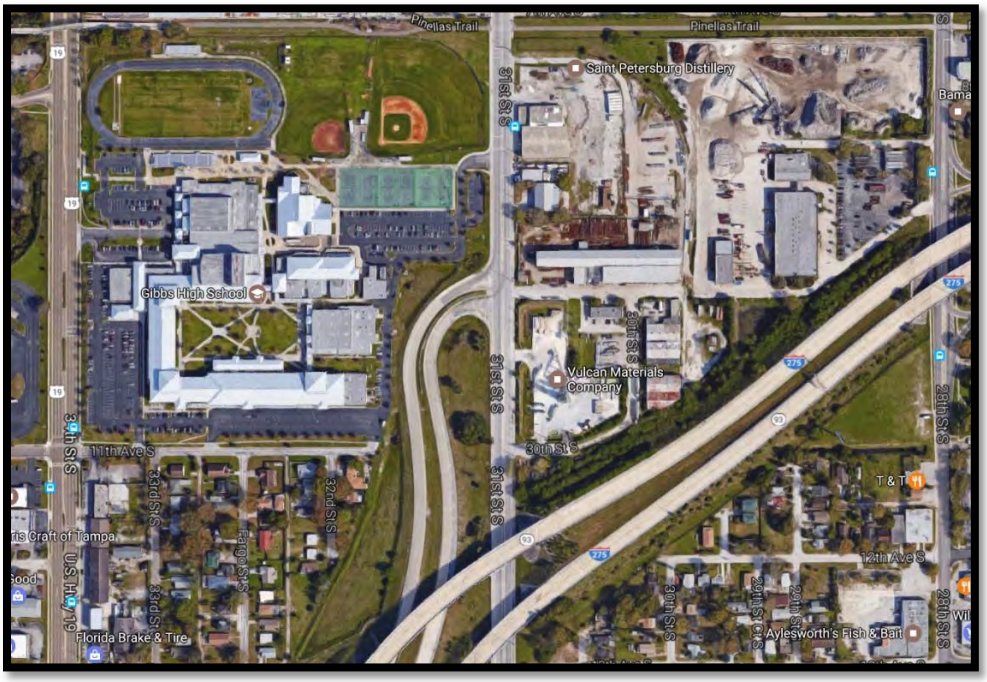


Exhibit C: I-275 Exit Ramp Looking East at 31st Street South

Exhibit D: 31st Street South Looking North at I-275 Exit Ramp

Exhibit E: 31st Street South Looking South at I-275 Exit Ramp

Existing Conditions

31st Street South at the intersection of the I-275 ramp is identified as an urban collector by the City of St. Petersburg and has a posted 35 miles per hour speed limit. The east entrance to Gibbs High School is just north of the study intersection and there are industrial complexes on the east side of 31st Street South. These industrial sites utilize larger semi-trucks to haul goods to and from these sites including concrete trucks and gravel haulers. A significant number of pedestrians and bicyclists cross the west leg of the intersection during the morning peak, school exit (2:00 pm) and evening peak hours headed to the school and the Pinellas Trail. A reduced speed school zone is provided and indicated with a flashing beacon for a 15 mile per hour speed limit during the school arrival and release times. There is an existing rectangular rapid flashing beacon (RRFB) crossing at the school entrance on 31st Street with shoulder-mounted RRFBs and no median refuge. Just to the north, there is a High Intensity Activated Crosswalk (HAWK) for the Pinellas Trail crossing of 31st Street. There are significant overhead utilities on the east side of 31st Street South and existing high-pressure sodium street lighting on the I-275 ramp as well as the west side of 31st Street South. A Pinellas Suncoast Transit Authority (PSTA) line runs along 31st Street and multiple transit buses making stops were observed during the field review. 31st Street South is a four-lane divided roadway around the study intersection, but approximately 1,500 feet to the north and south, it transitions back to a two-lane roadway.

A field review was conducted during the school release time and aggressive driver behavior was observed, with a high number of eastbound left turns being completed from the right-turn lane as well as right turns and immediate u-turn movements, in spite of prohibited u-turns. Queueing along the ramp was consistent and grew significantly during periods of heavy traffic on 31st Street South and during the periods of concentrated pedestrian crossings on the west leg. The outside southbound lane was typically used as a de facto right-turn lane, however, occasional use for a through movement caused uncertainty and additional delay for the vehicles exiting the ramp even when southbound rights were the only potential conflict. Pedestrians were observed to have more conflicts with the eastbound left turns than other movements due to the impatient and aggressive driver behavior. The current crosswalk configuration requires a 185-foot crossing with no refuge. All observed heavy truck traffic utilized the southernmost access point for the concrete plant on the east side of 31st Street. Additional photographs of existing conditions are provided below in **Exhibits F-J.**

Exhibit F: Damaged Flexible Delineators

Exhibit G: Intersection Observations

Exhibit H: Left Turn from Right Lane with Concurrent Left Turn & Stopped Position for Right Turn

Exhibit I: RRFB Crossing, Transit Stop & Pinellas Trail HAWK Crossing

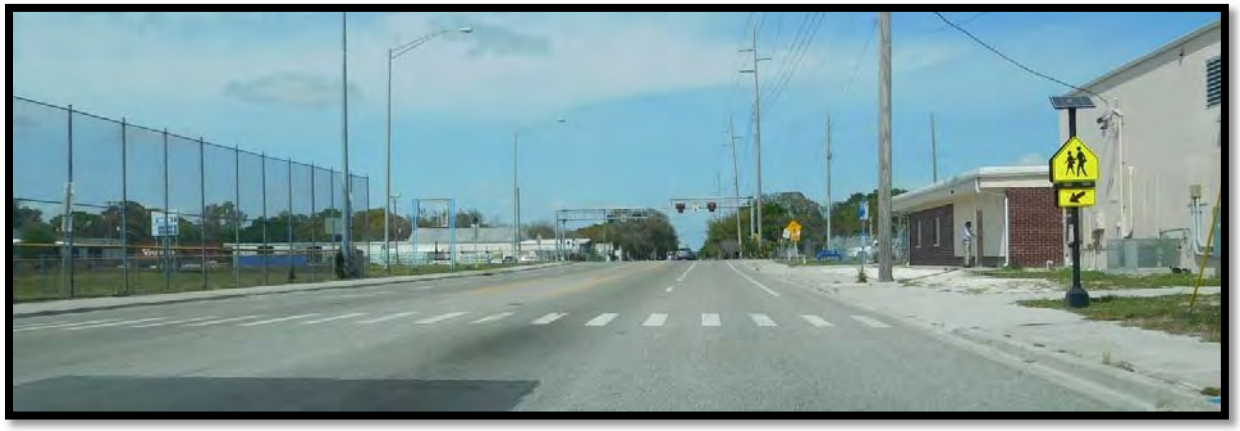


Exhibit J: Pedestrian Crossings

Crash Analysis

Crash analysis was completed using Signal Four Analytics for the intersection for the period between January 1, 2011 and December 31, 2016. A total of 10 angle/left-turn crashes were identified that would be correctable through the installation of a traffic signal. There were two documented crashes involving pedestrians over the study period, both involving pedestrians crossing the west leg of the intersection and both occurring just before 7:00 AM. Additionally, a crash involving a bicyclist being struck by a motor vehicle was reported during the study period crossing the west leg of the intersection. See below for additional information on the crashes at the study intersection as reported in Signal Four Analytics.

Crash Data Summary Table

DHSMV Report	Crash Date	Crash Time	Crash Type	Fatalities	Injuries	Light Condition	Crash Severity
81707974	1/17/2011	5:09 PM	Unknown	0	0	Daylight	PDO
81708055	1/20/2011	6:55 AM	Pedestrian	0	1	Dawn	Injury
81709946	4/10/2011	6:06 PM	Left Turn	0	5	Daylight	Injury
82253563	8/19/2011	11:30 PM	Off Road	0	0	Dark - Lighted	PDO
82063948	9/23/2011	11:27 AM	Off Road	0	2	Daylight	Injury
82815527	10/19/2011	10:12 PM	Off Road	0	1	Dark - Lighted	Injury
82276732	2/29/2012	12:52 AM	Off Road	0	0	Dark - Lighted	PDO
81718532	4/29/2012	9:51 PM	Off Road	0	2	Dark - Lighted	Injury
83510087	6/19/2012	7:45 AM	Off Road	0	1	Daylight	Injury
83518228	5/1/2013	10:16 PM	Angle	0	1	Dark - Lighted	Injury
83519679	7/9/2013	8:15 PM	Left Turn	0	2	Daylight	Injury
84151068	8/29/2013	5:53 PM	Left Turn	0	0	Daylight	PDO
84302316	11/12/2013	8:42 AM	Left Turn	0	1	Daylight	Injury
84471603	3/17/2014	6:59 AM	Pedestrian	0	1	Dark - Not Lighted	Injury
84707022	4/18/2014	5:38 PM	Left Turn	0	1	Daylight	Injury
84707273	4/29/2014	9:27 PM	Other	0	0	Dark - Lighted	PDO
83775577	6/6/2014	4:51 PM	Rear End	0	0	Daylight	PDO
84847981	7/30/2014	11:18 PM	Bicycle	0	1	Dark - Lighted	Injury
84541604	3/4/2015	8:45 AM	Rear End	0	0	Daylight	PDO
84561724	4/19/2015	8:55 PM	Off Road	0	0	Dark - Lighted	PDO
86077889	7/1/2015	4:45 PM	Right Turn	0	0	Daylight	PDO
85122726	7/9/2015	7:11 PM	Angle	0	0	Daylight	PDO
85150544	7/30/2015	5:29 PM	Rear End	0	1	Daylight	Injury
86349514	2/2/2016	3:36 PM	Right Turn	0	2	Daylight	Injury
86349950	2/18/2016	7:12 PM	Left Turn	0	1	Dark - Lighted	Injury
86350705	3/19/2016	10:06 AM	Rear End	0	2	Daylight	Injury
85360941	8/8/2016	7:37 AM	Rear End	0	0	Daylight	PDO
86356804	11/7/2016	6:08 PM	Left Turn	0	0	Dark - Lighted	PDO

Signal Warrant Analysis:

A turning movement count was performed on February 23, 2017 to complete a new signal warrant analysis and compare against the volumes that were collected in 2010, the last time a signal warrant analysis was completed for this intersection. The counts were input into the Department's signal warrant analysis spreadsheet, Form 750-020-01. Warrant 1, Eight-Hour Vehicular Volume, Condition A was met for seven of the eight counted hours, with the final hour falling 16 vehicles short for required

mainline volume. Based on the traffic volumes shown in the PM peak hours, engineering judgment would indicate that the 6:00 PM to 7:00 PM volumes would provide an eighth hour that meets the volume requirements. See **Appendix A** for the traffic volumes and **Appendix B** for the Signal Warrant Analysis outputs for Warrant 1.

Alternatives

Several different alternatives were considered to enhance the operations at this intersection, including implementation of four-way stop controlled operation, a traffic signal, and a roundabout. These alternatives were evaluated to determine potential implementation costs, vehicular delay and potential right of way impacts, along with the potential impacts to the safety of the traveling public. The proximity of Gibbs High School to the study intersection makes safety of pedestrians and bicycles a priority and the current intersection configuration requires a pedestrian crossing of approximately 185 feet on the west leg with no refuge. This crossing also requires pedestrians to contend with vehicles approaching and making permissive northbound left-turns and southbound right-turns.

- **Alternative 1 –** No-Build – Existing Conditions.

- **Alternative 2 –** Geometric Modifications, Stop Control and Laning Changes: This alternative was provided for consideration by the Department during task assignment. Additional capacity is gained with the proposed dual, stop-controlled exit-ramp lanes from I-275. Preliminary consideration was given to use of a free-flow northbound through lane, however, the potential for confusion about which vehicles were stopping and which were in a free-flow required modification prior to further analysis. The potential for driver confusion from the driveway on the east leg is also a consideration since a stopped vehicle may have the right of way, but then be forced to wait for a northbound through vehicle. As a result, the intersection was analyzed as all-way stop controlled. To reduce the overall potential for confusion, the north and southbound approaches were modified to treat the outside southbound lane as a drop lane and the northbound through lane as a drop lane to the interstate. These modifications allow additional area to be provided to develop physical separators to place stop signs on both the inside and outside shoulders to enhance the visibility of the stop condition. LED retrofits are included.

- **Alternative 3 –** Geometric Modifications and Traffic Signal: Given the results of the traffic signal warrant analysis, additional consideration was given to the potential operational improvements that would be associated with a traffic signal. While the north and southbound movements would experience additional delay, the overall delay experienced by the eastbound movement would be significantly reduced. Also, modifying the southbound right-turn to a ramp-only movement would further enhance operations without negatively affecting the overall operation of 31st Street South. With the safety of pedestrians a key focus of this analysis, the traffic signal would be installed in conjunction with islands to provide refuge for each pedestrian crossing. Implementing a protected only northbound left-turn, while increasing delay for vehicles, provides a protected crossing for pedestrians. Additionally, “signalized” right-turns for the southbound right and eastbound right are strongly recommended. As was utilized on a state highway in Panama City Beach, we recommend implementation of signalized right turns to provide a pushbutton activated protected crossing for the pedestrians. For additional detail, see the preliminary concept. LED retrofits and luminaires on the mast arms are also included.

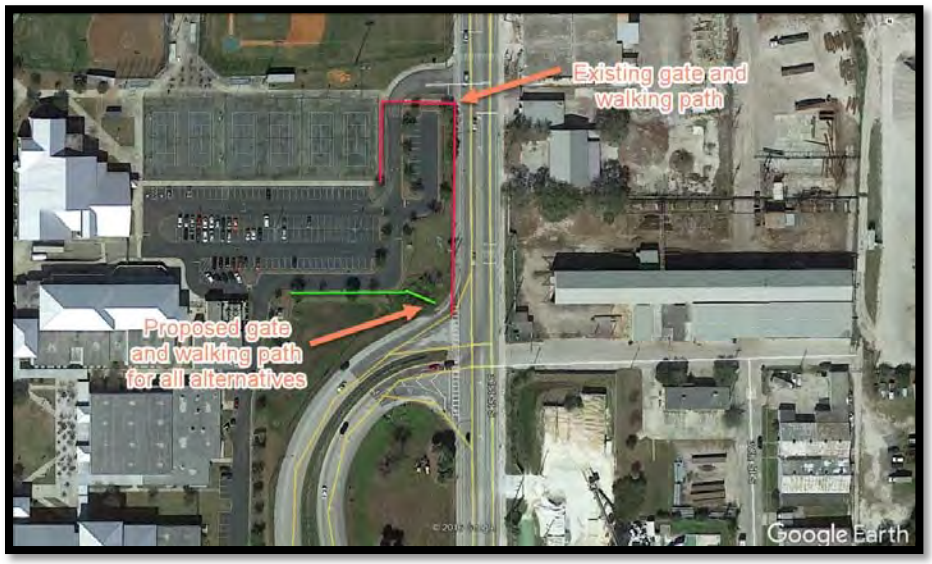
- **Alternative 4 –** Roundabout: Right-of-way availability around the study intersection led to a preliminary analysis of a single lane roundabout. Capacity analysis shows the roundabout as the

most effective in balancing delay to all users, however, the design vehicle and driveways on the east side of 31st Street South pose significant challenges to the overall implementation of a roundabout. After preliminary design, it appears the roundabout is a viable long-term solution to the operational issues at this intersection. The most effective treatment for the roundabout would be to utilize the outside southbound lane as a drop "bypass" lane with supplemental enhancements provided for pedestrian safety. Additionally, a bypass lane would be effectively utilized for the eastbound right-turn. Our analysis utilized only one northbound lane to avoid development of two lanes just north of Melrose Avenue and then transitioning back to one for the roundabout. No other intersections are within this 1,200-foot distance and additional width could be given to the bike lane and through lane in this new configuration. Further refinements of this concept are necessary to ensure WB-62 trucks are accommodated and pedestrian refuge between the bypass lanes and through lanes into the roundabout. Unique treatments may be necessary to accommodate the larger trucks, such as truck aprons for right turns to avoid larger striped out gore traffic separators. Enhanced lighting will be a key for successful implementation of this roundabout.

Pedestrian and Bicycle Considerations

The positioning of pedestrian crossings on the west leg of the roundabout is acknowledged as a challenge for the typical walking path along 31st Street South. We recommend coordination with Gibbs High School to add an additional gate along the northwest corner of the study intersection to reduce the overall walking distance for this movement. Currently, students exit the building and must walk to the north and east to access the 31st Street sidewalk and then walk back south along the west side due to fencing, as shown in **Exhibit K**. A savings of 600 feet of walking distance could occur, depending on the origins and destinations of the students as they enter and exit the campus. Many students were observed crossing from west to east at or south of the study intersection. There are no east-west crossings of 31st Street provided south of the school entrance until the traffic signal at 18th Avenue, approximately 3,100 feet to the south. Providing an additional east-west crossing at the study intersection needs to be a priority, regardless of the alternative selected.

Exhibit K: Existing and Proposed Walking Paths



Please see below for conceptual representations of the various considered alternatives.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST
ALTERNATIVE 1
EXISTING CONDITIONS

SHEET NO. 1

vserpekian 3/13/2017 4:19:22 PM P:\FDT1101\09\I-275 at 31st Street\CAD\roadway\PLANRD01.DGN

1" = 50'

STOP

STOP

SCHOOL

ONLY

ONLY

ONLY

31ST STREET

TURNING VEHICLES

TO

STOP

STOP

I-275 ENTRANCE RAMP

I-275 EXIT RAMP

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST
ALTERNATIVE 2
STOP CONTROL

SHEET NO. 2

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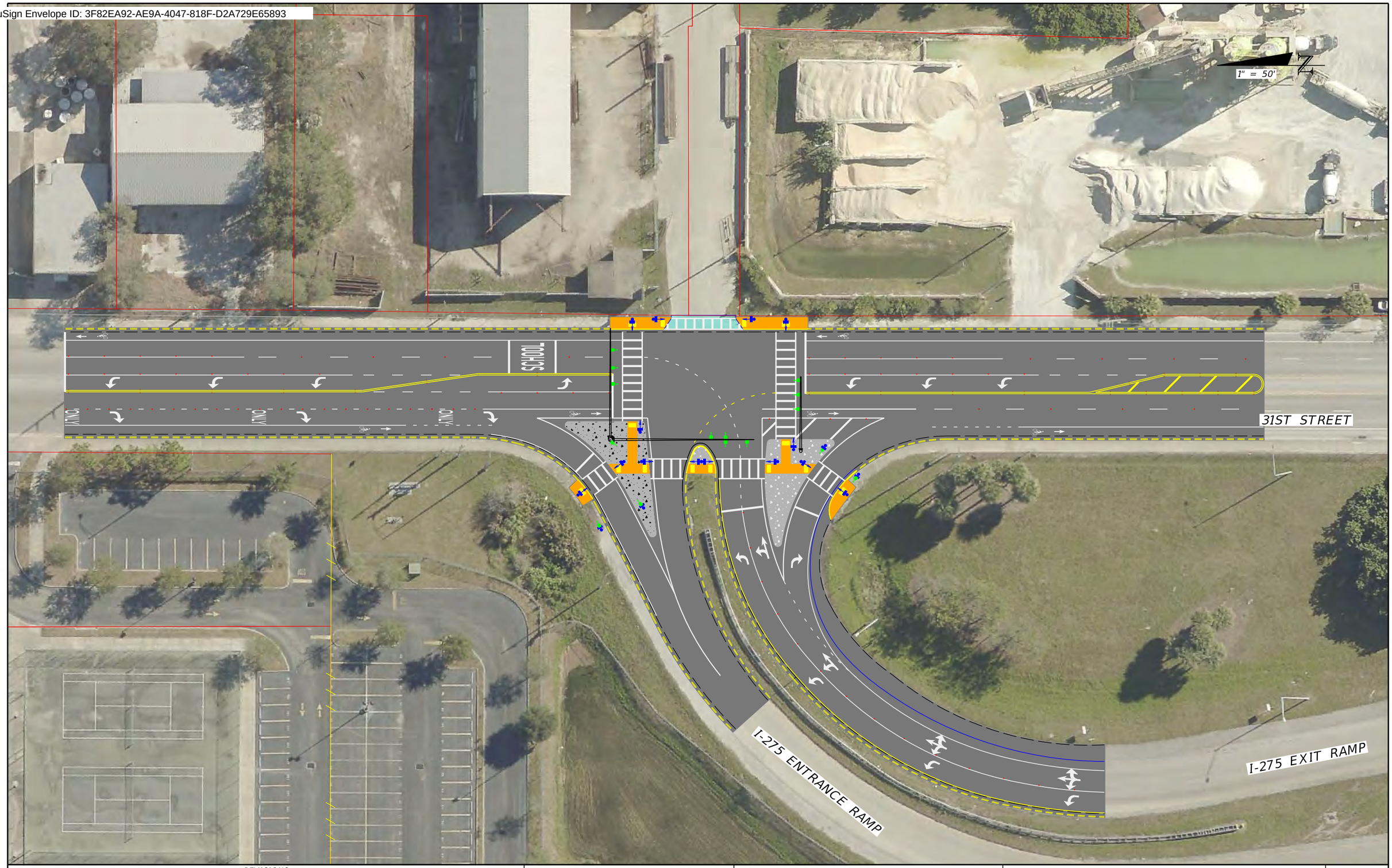

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST
ALTERNATIVE 3A
SIGNAL CONTROL

SHEET NO. 3

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST ALTERNATIVE 4 ROUNDABOUT (1 OF 3)

SHEET NO. 5

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1" = 50'

31ST STREET

ONLY

AHEAD

I-275 ENTRANCE RAMP

I-275 EXIT RAMP

TRUCK APRON

CONCRETE CURB

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST
ALTERNATIVE 4
ROUNDABOUT (2 OF 3)

SHEET NO. 6

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Capacity Analysis

Capacity analysis was completed to evaluate the delay anticipated to occur with each alternative. The overall performance measure for the alternative was seconds of delay per vehicle, specifically for the eastbound approach and for the intersection overall. **Table 1** and **2** show the differences in the level of service per the Highway Capacity Manual. **Table 3** shows the summary of the outputs from Synchro and Sidra for each alternative. Outputs from Synchro and Sidra are included in **Appendix C.**

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F[1]	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.
1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F[1]	>50

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.
1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Table 3: Capacity Analysis Summary Table

Delay - Seconds Per Vehicle (AM/PM)	Eastbound Approach	Westbound Approach	Northbound Approach	Southbound Approach	Intersection Delay
Alternative 1* - Existing Conditions	183.8 - F / 132.5 - F	9.6 - A / 10.2 - B	Free flow	Free Flow	101 - F / 53.7 - F
Alternative 2 - All-way stop controlled	30.0 - D / 19.4 - C	12.6 - B / 13.0 - B	80.2 - F / 40.6 - E	19.8 - C / 56.8 - F	40.9 - E / 42.5 - E
Alternative 3** - Signalized	16.1 - B / 19.6 - B	27.1 - C / 30.0 - C	20.6 - C / 15.8 - B	9.9 - A / 10.2 - B	15.7 - B / 14.1 - B
Alternative 4 - Roundabout	16.1 - C / 13.2 - C	10.4 - B / 7.7 - A	7.4 - A / 18.0 - C	1.9 - A / 2.8 - A	16.6 - C / 8.1 - A

*Alternative 1 - Volume exceeds capacity on eastbound approach.

**Alternative 3 - Assumed 90 second cycle length.

As shown in the summary table, the delay for the eastbound approach and overall intersection is at unacceptable levels. Before any final decisions can be made regarding the roundabout, the full three-step process needs to be evaluated including 20-year capacity analysis. It appears, though, that both the signal and roundabout appear to have adequate capacity for the growth anticipated along this corridor.

Conclusions

Short-Term Recommendation – Based on the results of the signal warrant analysis, cost estimates, right-of-way considerations and need to resolve the observed operational issues quickly, Alternative 3, installation of a traffic signal is recommended as the preferred alternative. This will require a new, longer duration count to be completed to add an additional hour to confirm that all eight hours of warrant one are met. Additionally, installation of a traffic signal should include specific considerations for bicycle and pedestrian safety including refuge islands, signal-controlled right-turn movements which are pushbutton activated in conjunction with the additional pedestrian access gate for Gibbs High School. Additional analysis should be conducted on the feasibility of a roundabout as a long-term solution including detailed capacity and right of way analysis. Coordination with the property owner on the east side should be completed to analyze internal circulation patterns and to ensure that access is maintained for their property, vehicle types and sizes. See **Appendix E** for preliminary autoturn runs for the roundabout.

Long-Term Recommendation – If a roundabout is deemed feasible as a long-term solution, it should be implemented as part of a work-program project because of the potential need for corner clips on the east side. Long-term studies show a 40 percent reduction in pedestrian crashes, a 90 percent reduction in fatalities and a 75 percent reduction in injury crashes when a roundabout replaces a traffic signal. A mini Road Diet on 31st Street South could also be considered to modify the number of lanes and lane widths, potentially allocating additional width to the bike lanes and sidewalks.

To reduce the "throwaway" work that would be required to implement a signal as a short-term solution, we reviewed opportunities to reduce the overall short-term project cost. A diagonal span-wire utilizing a temporary pole on the southwest corner and a shared-use pole on the northeast corner is a potential cost-saving installation method. This alternative is identified as 3B in the summary table below and still includes the modified laning and all previously discussed pedestrian improvements and refuge islands. This alternative needs to be further explored with the utility owners to determine feasibility but this could be coordinated concurrently with the further roundabout analysis. **Alternative 3B** is presented on the next sheet showing the span length, distances to stop lines and the signal head placement.

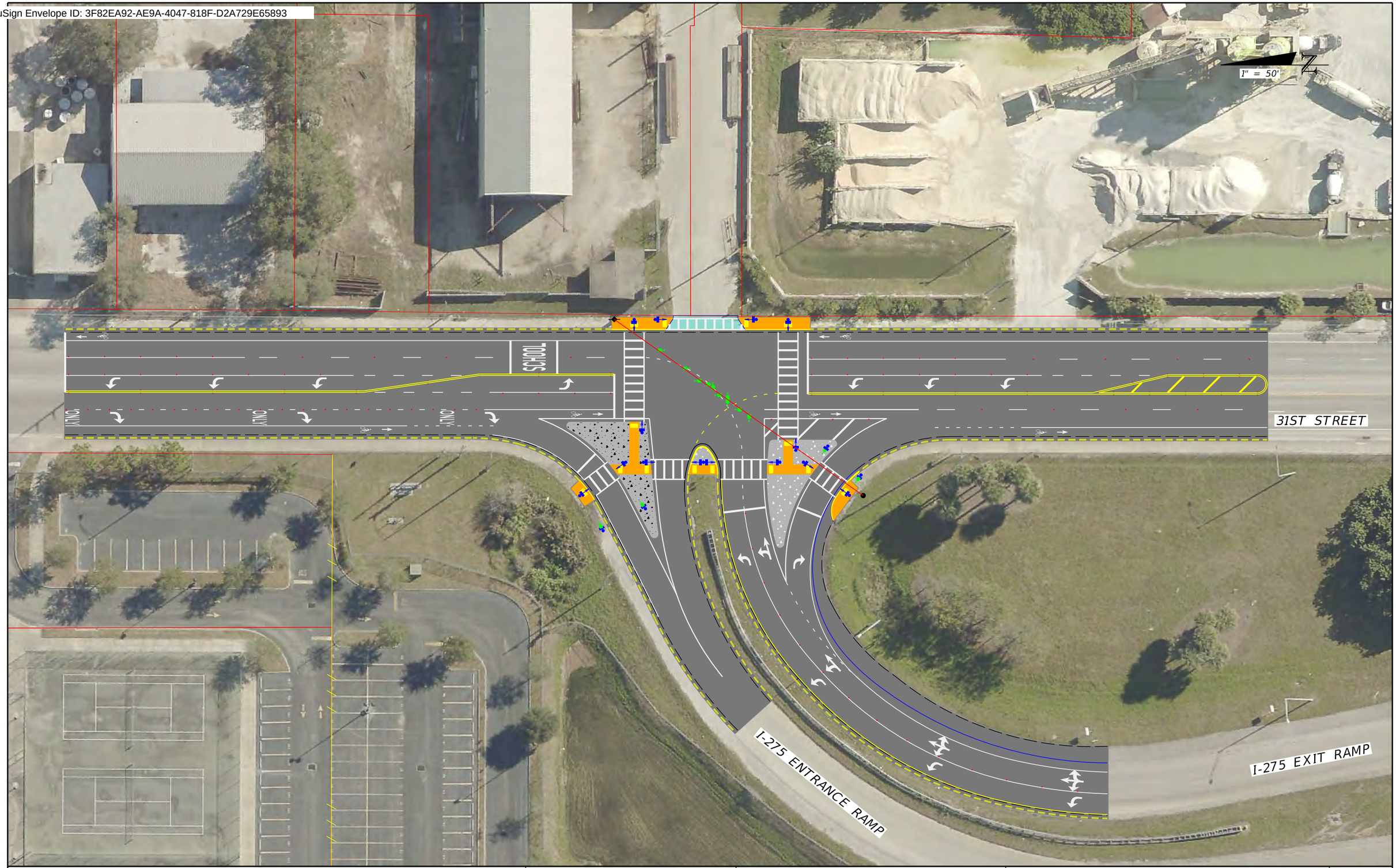
A large portion of the overall cost of each alternative is milling and resurfacing within the project area. For example, milling and resurfacing accounts for approximately $280,000 of Alternative 2 when design, MOT and MOB percentage multipliers are factored in. However, consideration needs to be given to including milling and resurfacing in the scope of work, especially where the laning will be changing significantly to make sure the modified traffic controls and pavement markings are clear to all roadway users. Depending on the selected recommendation, an Interchange Operational Analysis Report or Interchange Modification Report will need to be completed.

Design-Build Pushbutton Cost Estimates – See Appendix D for Full Estimates

Alternative 1 - Existing Conditions	$	-
Alternative 2 - All-way stop controlled	$	447,070.22
Alternative 3A - Signalized	$	788,037.56
Alternative 3B - Temporary Signal	$	683,815.70
Alternative 4* - Roundabout	$	1,662,751.27
Alternative 4* - Roundabout Work Program excluding design costs	$	1,038,832.82

*All estimates include 20 percent contingency, 10 percent MOT, 10 percent MOB & 2 percent constructability

Roundabout alternatives do not include potential corner clip costs.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	PINELLAS	254677-1-52-32

I-275 RAMP AT 31ST ST
ALTERNATIVE 3B
SIGNAL CONTROL

SHEET NO. 4

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ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 7

FINANCIAL PROJECT ID:	254677-1-52-32
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	2 of 4

200-Roadway

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0101 1	MOBILIZATION		10%	See Summary Sheet	
0102 1	MAINTENANCE OF TRAFFIC		10%	See Summary Sheet	
0999 25		LS			
0102 14	TRAFFIC CONTROL OFFICER	MH	36	$46.00	$1,656.00
0102 60	WORK ZONE SIGN	ED	2520	$0.30	$756.00
0102 74 1	CHANNELIZING DEVICE- TYPES I, II, DI, VP, DRUM, OR LCD	ED	24498	$0.20	$4,899.60
0102 76	ARROW BOARD / ADVANCE WARNING ARROW PANEL	ED	540	$7.00	$3,780.00
0102 99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED	540	$14.00	$7,560.00
0104 18	INLET PROTECTION SYSTEM	EA	17	$110.00	$1,870.00
0110 1 1	CLEARING & GRUBBING	AC	2.92	$14,000.00	$40,880.00
0120 1	REGULAR EXCAVATION	CY	487	$6.50	$3,165.50
0160 4	TYPE B STABILIZATION	SY	1510	$6.00	$9,060.00
0285706	OPTIONAL BASE, BASE GROUP 06	SY	209	$24.00	$5,016.00
0285710	OPTIONAL BASE, BASE GROUP 10	SY	956	$16.00	$15,296.00
0327 70 19	MILLING EXIST ASPH PAVT, 3/4" AVG DEPTH	SY	10420	$3.00	$31,260.00
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	249	$100.00	$24,900.00
0337 7 73	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-9.5, PG 76-22, ARB	TN	657	$150.00	$98,550.00
0425 1351	INLETS, CURB, TYPE P-5, <10'	EA	11	$4,800.00	$52,800.00
0425 2 61	MANHOLES, P-8, <10'	EA	11	$4,000.00	$44,000.00
0430175118	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 18"S/CD	LF	165	$70.00	$11,550.00
0430982125	MITERED END SECTION, OPTIONAL ROUND, 18" CD	EA	1	$1,600.00	$1,600.00
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	LF	315	$20.00	$6,300.00
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	2907	$23.00	$66,861.00
0520 5 11	TRAFFIC SEPARATOR CONCRETE-TYPE I, 4' WIDE	LF	285	$50.00	$14,250.00
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	3067	$39.00	$119,613.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	929	$60.00	$55,740.00
0527 2	DETECTABLE WARNINGS	SF	96	$30.00	$2,880.00
0536 73	GUARDRAIL REMOVAL	LF	50	$3.00	$150.00
0536 85 27	GUARDRAIL END ANCHORAGE ASSEMBLY- DOUBLE FACE TERMINAL	EA	1	$3,000.00	$3,000.00
0570 1 1	PERFORMANCE TURF	SY	828	$2.50	$2,070.00
200-Roadway			**COMPONENT TOTAL**		**$629,463.10**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 7

FINANCIAL PROJECT ID:	254677-1-52-32
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	3 of 4

300-Signing & Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	21	$350.00	$7,350.00
0700 1 50	SINGLE POST SIGN, RELOCATE	AS	6	$350.00	$2,100.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	4	$3,600.00	$14,400.00
0700 2 50	MULTI- POST SIGN, F&I GROUND MOUNT, RELOCATE	AS	1	$3,600.00	$3,600.00
0705 11 3	DELINEATOR, FLEXIBLE HIGH VISABILITY MEDIAN	EA	6	$170.00	$1,020.00
0706 3	RETRO-REFLECTIVE PAVEMENT MARKERS	EA	111	$5.00	$555.00
0710 11290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF	750	$2.00	$1,500.00
0711 11124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	483	$3.50	$1,690.50
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	18	$4.50	$81.00
0711 11141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/ 6-10 GAP EXTENSION, 6"	GM	0.125	$2,500.00	$312.50
0711 11153	THERMOPLASTIC, STANDARD, WHITE, DOTTED/GUIDELINE/ 6-10 GAP EXTENSION, 12" WIDE	LF	132	$2.50	$330.00
0711 11160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	6	$150.00	$900.00
0711 11170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	13	$70.00	$910.00
0711 11180	THERMOPLASTIC, STANDARD, WHITE, YIELD LINE	LF	3	$10.00	$30.00
0711 11224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	11	$3.50	$38.50
0711 11241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM	0.045	$3,000.00	$135.00
0711 14123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF	473	$10.00	$4,730.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	484	$17.00	$8,228.00
0711 14160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	EA	7	$300.00	$2,100.00
0711 14170	THERMOPLASTIC, PREFORMED, WHITE, ARROWS	EA	4	$200.00	$800.00
0711 16101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.835	$4,100.00	$3,423.50
0711 16102	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 8"	GM	0.106	$5,500.00	$583.00
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.395	$4,100.00	$1,619.50
300-Signing & Pavement Markings		**COMPONENT TOTAL**			**$56,436.50**

ENGINEER'S ESTIMATE

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 7

FINANCIAL PROJECT ID:	254677-1-52-32
FILE VERSION:	EE_07-22_Rev26
PAGE NUMBER:	

400-Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	450	$9.00	$4,050.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	1350	$2.00	$2,700.00
0715 4400	LIGHT POLE COMPLETE, RELOCATE	EA	4	$3,200.00	$12,800.00
0715 11111	LUMINAIRE, F&I, ROADWAY, COBRA HEAD	EA	4	$2,500.00	$10,000.00
400-Lighting		**COMPONENT TOTAL**			**$29,550.00**

Appendix H:

No-Build Synchro Analysis Results

Intersection	
Int Delay, s/veh	89

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	519	0	106	0	0	10	14	436	1	13	241	396
Future Vol, veh/h	519	0	106	0	0	10	14	436	1	13	241	396
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	564	0	115	0	0	11	15	474	1	14	262	430

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	557	795	131	664	795	238	262	0	0	475	0	0
Stage 1	290	290	-	505	505	-	-	-	-	-	-	-
Stage 2	267	505	-	159	290	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 413	319	894	346	319	763	1299	-	-	1083	-	0
Stage 1	694	671	-	518	539	-	-	-	-	-	-	0
Stage 2	715	539	-	827	671	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 399	310	894	295	310	763	1299	-	-	1083	-	-
Mov Cap-2 Maneuver	~ 399	310	-	295	310	-	-	-	-	-	-	-
Stage 1	686	661	-	512	533	-	-	-	-	-	-	-
Stage 2	697	533	-	710	661	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	190.3	9.8	0.2	0.5
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1299	-	-	399	894	763	1083	-
HCM Lane V/C Ratio	0.012	-	-	1.414	0.129	0.014	0.013	-
HCM Control Delay (s)	7.8	-	-	227.2	9.6	9.8	8.4	0.1
HCM Lane LOS	A	-	-	F	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	28.2	0.4	0	0	-

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

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	49	68	897	601	49
Future Vol, veh/h	24	49	68	897	601	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	53	74	975	653	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1316	353	706	0	-	0
Stage 1	680	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	149	643	888	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	137	643	888	-	-	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	426	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	888	-	290	-	-
HCM Lane V/C Ratio	0.083	-	0.274	-	-
HCM Control Delay (s)	9.4	-	22	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-

Intersection	
Int Delay, s/veh	56.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	412	0	31	0	1	9	19	301	1	0	375	585
Future Vol, veh/h	412	0	31	0	1	9	19	301	1	0	375	585
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	448	0	34	0	1	10	21	327	1	0	408	636

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	614	778	204	574	778	164	408	0	0	328	0	0
Stage 1	408	408	-	370	370	-	-	-	-	-	-	-
Stage 2	206	370	-	204	408	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 376	326	803	402	326	852	1147	-	-	1228	-	0
Stage 1	591	595	-	622	619	-	-	-	-	-	-	0
Stage 2	777	619	-	779	595	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 365	320	803	380	320	852	1147	-	-	1228	-	-
Mov Cap-2 Maneuver	~ 365	320	-	380	320	-	-	-	-	-	-	-
Stage 1	580	595	-	611	608	-	-	-	-	-	-	-
Stage 2	753	608	-	746	595	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	145.5	10	0.5	0
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1147	-	-	365	803	731	1228	-
HCM Lane V/C Ratio	0.018	-	-	1.227	0.042	0.015	-	-
HCM Control Delay (s)	8.2	-	-	155.7	9.7	10	0	-
HCM Lane LOS	A	-	-	F	A	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	19.1	0.1	0	0	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	2	720	955	3
Future Vol, veh/h	5	5	2	720	955	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	2	783	1038	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1436	521	1041	0	-	0
Stage 1	1040	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	124	500	664	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	124	500	664	-	-	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	664	-	199	-	-
HCM Lane V/C Ratio	0.003	-	0.055	-	-
HCM Control Delay (s)	10.4	-	24.1	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	242.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	658	0	135	0	0	12	18	538	2	16	305	501
Future Vol, veh/h	658	0	135	0	0	12	18	538	2	16	305	501
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	715	0	147	0	0	13	20	585	2	17	332	545

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	699	993	166	826	992	294	332	0	0	587	0	0
Stage 1	366	366	-	626	626	-	-	-	-	-	-	-
Stage 2	333	627	-	200	366	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 327	244	849	264	244	702	1224	-	-	984	-	0
Stage 1	~ 626	621	-	439	475	-	-	-	-	-	-	0
Stage 2	~ 654	474	-	783	621	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 312	235	849	212	235	702	1224	-	-	984	-	-
Mov Cap-2 Maneuver	~ 312	235	-	212	235	-	-	-	-	-	-	-
Stage 1	~ 616	608	-	432	467	-	-	-	-	-	-	-
Stage 2	~ 631	466	-	634	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 514.4	10.2	0.3	0.5
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1224	-	-	312	849	702	984	-
HCM Lane V/C Ratio	0.016	-	-	2.292	0.173	0.019	0.018	-
HCM Control Delay (s)	8	-	-	$ 617.9	10.1	10.2	8.7	0.1
HCM Lane LOS	A	-	-	F	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	55.3	0.6	0.1	0.1	-

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

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	63	85	1123	759	62
Future Vol, veh/h	30	63	85	1123	759	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	68	92	1221	825	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1654	446	892	0	-	0
Stage 1	859	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	89	560	756	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	560	756	-	-	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	405	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44.9	0.7	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	756	-	187	-	-
HCM Lane V/C Ratio	0.122	-	0.541	-	-
HCM Control Delay (s)	10.4	-	44.9	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	0.4	-	2.8	-	-

Intersection	
Int Delay, s/veh	182.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	523	0	39	0	1	10	23	372	1	0	474	739
Future Vol, veh/h	523	0	39	0	1	10	23	372	1	0	474	739
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Stop	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	0	-	-	-	150	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	568	0	42	0	1	11	25	404	1	0	515	803

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	768	970	258	713	970	203	515	0	0	405	0	0
Stage 1	515	515	-	455	455	-	-	-	-	-	-	-
Stage 2	253	455	-	258	515	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 291	252	741	319	252	804	1047	-	-	1150	-	0
Stage 1	~ 511	533	-	554	567	-	-	-	-	-	-	0
Stage 2	729	567	-	724	533	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 281	246	741	295	246	804	1047	-	-	1150	-	-
Mov Cap-2 Maneuver	~ 281	246	-	295	246	-	-	-	-	-	-	-
Stage 1	~ 499	533	-	541	553	-	-	-	-	-	-	-
Stage 2	701	553	-	683	533	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 468.2	10.5	0.5	0
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	1047	-	-	281	741	667	1150	-
HCM Lane V/C Ratio	0.024	-	-	2.023	0.057	0.018	-	-
HCM Control Delay (s)	8.5	-	-	$ 502.3	10.2	10.5	0	-
HCM Lane LOS	A	-	-	F	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	41.1	0.2	0.1	0	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	7	3	902	1206	4
Future Vol, veh/h	7	7	3	902	1206	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	8	3	980	1311	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1809	658	1315	0	-	0
Stage 1	1313	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	70	407	522	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	70	407	522	-	-	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	215	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	39.6	0	0
HCM LOS	E		

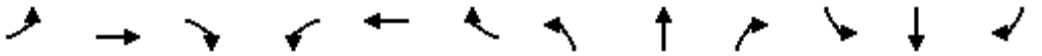
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	522	-	119	-	-
HCM Lane V/C Ratio	0.006	-	0.128	-	-
HCM Control Delay (s)	11.9	-	39.6	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Appendix I:

Build Synchro Analysis Results

HCM Signalized Intersection Capacity Analysis
3: 31st Street S & I-275 Off-ramp/Driveway

08/14/2019



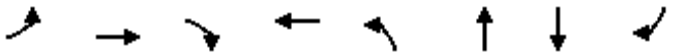
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	519	0	106	0	0	10	14	436	1	13	241	396
Future Volume (vph)	519	0	106	0	0	10	14	436	1	13	241	396
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.86		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1681	1583		1611		1770	1862			1858	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.53	1.00			0.93	1.00
Satd. Flow (perm)	1681	1681	1583		1611		985	1862			1737	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	564	0	115	0	0	11	15	474	1	14	262	430
RTOR Reduction (vph)	0	0	70	0	11	0	0	0	0	0	0	287
Lane Group Flow (vph)	282	282	45	0	0	0	15	475	0	0	276	143
Turn Type	Split	NA	Perm		NA		Perm	NA		Perm	NA	Perm
Protected Phases	4	4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)	27.4	27.4	27.4		0.9		23.0	23.0			23.0	23.0
Effective Green, g (s)	27.4	27.4	27.4		0.9		23.0	23.0			23.0	23.0
Actuated g/C Ratio	0.40	0.40	0.40		0.01		0.33	0.33			0.33	0.33
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	664	664	625		20		326	617			576	525
v/s Ratio Prot	c0.17	0.17			c0.00			c0.26				
v/s Ratio Perm			0.03				0.02				0.16	0.09
v/c Ratio	0.42	0.42	0.07		0.01		0.05	0.77			0.48	0.27
Uniform Delay, d1	15.2	15.2	13.0		33.8		15.7	20.8			18.4	17.0
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	2.0	2.0	0.2		0.1		0.1	5.8			0.6	0.3
Delay (s)	17.2	17.2	13.3		33.9		15.8	26.5			19.0	17.3
Level of Service	B	B	B		C		B	C			B	B
Approach Delay (s)		16.5			33.9			26.2			18.0	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues
3: 31st Street S & I-275 Off-ramp/Driveway

08/14/2019



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	282	282	115	11	15	475	276	430
v/c Ratio	0.39	0.39	0.16	0.04	0.04	0.71	0.45	0.51
Control Delay	16.9	16.9	4.4	0.3	14.8	25.2	18.9	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	16.9	4.4	0.3	14.8	25.2	18.9	4.3
Queue Length 50th (ft)	66	66	0	0	4	146	75	0
Queue Length 95th (ft)	197	197	34	0	17	303	167	55
Internal Link Dist (ft)		1124		194		798	320	
Turn Bay Length (ft)			375		200			
Base Capacity (vph)	715	715	739	462	481	909	848	993
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.39	0.16	0.02	0.03	0.52	0.33	0.43

Intersection Summary

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	49	68	897	601	49
Future Vol, veh/h	24	49	68	897	601	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	53	74	975	653	53

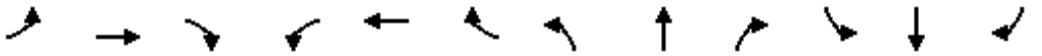
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1316	353	706	0	-	0
Stage 1	680	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	149	643	888	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	643	888	-	-	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	489	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.1	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	888	-	267	-	-
HCM Lane V/C Ratio	0.083	-	0.297	-	-
HCM Control Delay (s)	9.4	0.7	24.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.2	-	-

HCM Signalized Intersection Capacity Analysis
3: 31st Street S & I-275 Off-ramp/Driveway

08/15/2019

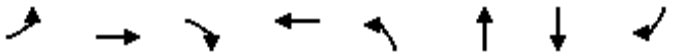


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	412	0	31	0	1	9	19	301	1	0	375	585
Future Volume (vph)	412	0	31	0	1	9	19	301	1	0	375	585
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.88		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1681	1583		1634		1770	1862			1863	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.35	1.00			1.00	1.00
Satd. Flow (perm)	1681	1681	1583		1634		655	1862			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	448	0	34	0	1	10	21	327	1	0	408	636
RTOR Reduction (vph)	0	0	21	0	10	0	0	0	0	0	0	424
Lane Group Flow (vph)	224	224	13	0	1	0	21	328	0	0	408	212
Turn Type	Split	NA	Perm		NA		Perm	NA			NA	Perm
Protected Phases	4	4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)	27.3	27.3	27.3		1.1		23.2	23.2			23.2	23.2
Effective Green, g (s)	27.3	27.3	27.3		1.1		23.2	23.2			23.2	23.2
Actuated g/C Ratio	0.39	0.39	0.39		0.02		0.33	0.33			0.33	0.33
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	659	659	620		25		218	620			621	527
v/s Ratio Prot	c0.13	0.13			c0.00			0.18			c0.22	
v/s Ratio Perm			0.01				0.03					0.13
v/c Ratio	0.34	0.34	0.02		0.05		0.10	0.53			0.66	0.40
Uniform Delay, d1	14.8	14.8	13.0		33.7		16.0	18.8			19.8	17.9
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	1.4	1.4	0.1		0.8		0.2	0.8			2.5	0.5
Delay (s)	16.2	16.2	13.0		34.5		16.2	19.6			22.3	18.4
Level of Service	B	B	B		C		B	B			C	B
Approach Delay (s)		16.0			34.5			19.4			19.9	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	69.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues
3: 31st Street S & I-275 Off-ramp/Driveway



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	224	224	34	10	21	329	386	602
v/c Ratio	0.31	0.31	0.05	0.06	0.09	0.50	0.59	0.64
Control Delay	15.4	15.4	0.1	19.7	16.4	20.2	22.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	15.4	0.1	19.7	16.4	20.2	22.1	5.3
Queue Length 50th (ft)	49	49	0	0	5	92	112	0
Queue Length 95th (ft)	148	148	0	15	23	204	244	68
Internal Link Dist (ft)		1124		194		798	320	
Turn Bay Length (ft)			375		200			
Base Capacity (vph)	718	718	739	472	298	796	796	1021
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.31	0.05	0.02	0.07	0.41	0.48	0.59

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	2	720	955	3
Future Vol, veh/h	5	5	2	720	955	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	2	783	1038	3

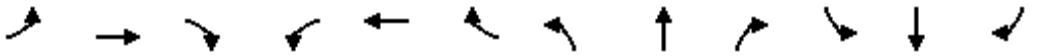
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1436	521	1041	0	-	0
Stage 1	1040	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	124	500	664	-	-	-
Stage 1	302	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	123	500	664	-	-	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	664	-	197	-	-
HCM Lane V/C Ratio	0.003	-	0.055	-	-
HCM Control Delay (s)	10.4	0	24.3	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM Signalized Intersection Capacity Analysis
3: 31st Street S & I-275 Off-ramp/Driveway

08/15/2019



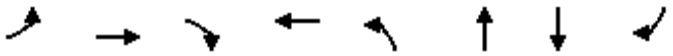
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	658	0	135	0	0	12	18	538	2	16	305	501
Future Volume (vph)	658	0	135	0	0	12	18	538	2	16	305	501
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.86		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1681	1583		1611		1770	1862			1858	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.45	1.00			0.80	1.00
Satd. Flow (perm)	1681	1681	1583		1611		836	1862			1488	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	715	0	147	0	0	13	20	585	2	17	332	545
RTOR Reduction (vph)	0	0	92	0	13	0	0	0	0	0	0	342
Lane Group Flow (vph)	357	358	55	0	0	0	20	587	0	0	349	203
Turn Type	Split	NA	Perm		NA		Perm	NA		Perm	NA	Perm
Protected Phases	4	4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)	27.3	27.3	27.3		0.9		27.4	27.4			27.4	27.4
Effective Green, g (s)	27.3	27.3	27.3		0.9		27.4	27.4			27.4	27.4
Actuated g/C Ratio	0.37	0.37	0.37		0.01		0.37	0.37			0.37	0.37
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	623	623	587		19		311	693			553	589
v/s Ratio Prot	0.21	c0.21			c0.00			c0.32				
v/s Ratio Perm			0.03				0.02				0.23	0.13
v/c Ratio	0.57	0.57	0.09		0.01		0.06	0.85			0.63	0.34
Uniform Delay, d1	18.5	18.5	15.1		35.9		14.9	21.2			19.0	16.6
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.8	3.8	0.3		0.2		0.1	9.4			2.4	0.4
Delay (s)	22.3	22.3	15.4		36.1		14.9	30.6			21.3	17.0
Level of Service	C	C	B		D		B	C			C	B
Approach Delay (s)		21.1			36.1			30.1			18.7	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	73.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Queues
3: 31st Street S & I-275 Off-ramp/Driveway

08/15/2019



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	357	358	147	13	20	587	349	545
v/c Ratio	0.54	0.54	0.21	0.06	0.06	0.79	0.59	0.57
Control Delay	21.5	21.5	4.3	0.5	14.4	28.3	21.6	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.5	4.3	0.5	14.4	28.3	21.6	4.3
Queue Length 50th (ft)	117	117	0	0	5	197	105	0
Queue Length 95th (ft)	257	258	38	0	21	#445	232	61
Internal Link Dist (ft)		1124		194		798	320	
Turn Bay Length (ft)			375		200			
Base Capacity (vph)	667	667	717	418	381	848	678	1018
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.54	0.21	0.03	0.05	0.69	0.51	0.54

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	63	85	1123	759	62
Future Vol, veh/h	30	63	85	1123	759	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	68	92	1221	825	67

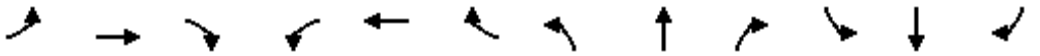
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1654	446	892	0	-	0
Stage 1	859	-	-	-	-	-
Stage 2	795	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	89	560	756	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	560	756	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-
Stage 1	233	-	-	-	-	-
Stage 2	405	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	77.7	2.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	756	-	141	-	-
HCM Lane V/C Ratio	0.122	-	0.717	-	-
HCM Control Delay (s)	10.4	1.7	77.7	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	4.1	-	-

HCM Signalized Intersection Capacity Analysis
3: 31st Street S & I-275 Off-ramp/Driveway

08/16/2019



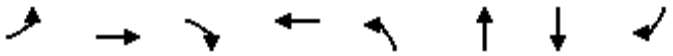
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	523	0	39	0	1	10	23	372	1	0	474	739
Future Volume (vph)	523	0	39	0	1	10	23	372	1	0	474	739
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.88		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.95	1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1681	1583		1632		1770	1862			1863	1583
Flt Permitted	0.95	0.95	1.00		1.00		0.26	1.00			1.00	1.00
Satd. Flow (perm)	1681	1681	1583		1632		478	1862			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	568	0	42	0	1	11	25	404	1	0	515	803
RTOR Reduction (vph)	0	0	27	0	11	0	0	0	0	0	0	504
Lane Group Flow (vph)	284	284	15	0	1	0	25	405	0	0	515	299
Turn Type	Split	NA	Perm		NA		Perm	NA			NA	Perm
Protected Phases	4	4			8			2			6	
Permitted Phases			4	8			2			6		6
Actuated Green, G (s)	27.3	27.3	27.3		1.2		27.6	27.6			27.6	27.6
Effective Green, g (s)	27.3	27.3	27.3		1.2		27.6	27.6			27.6	27.6
Actuated g/C Ratio	0.37	0.37	0.37		0.02		0.37	0.37			0.37	0.37
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	619	619	583		26		178	693			693	589
v/s Ratio Prot	c0.17	0.17			c0.00			0.22			c0.28	
v/s Ratio Perm			0.01				0.05					0.19
v/c Ratio	0.46	0.46	0.03		0.05		0.14	0.58			0.74	0.51
Uniform Delay, d1	17.8	17.8	14.9		35.9		15.4	18.6			20.2	18.0
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	2.4	2.4	0.1		0.7		0.4	1.3			4.3	0.7
Delay (s)	20.2	20.2	15.0		36.6		15.8	19.9			24.5	18.7
Level of Service	C	C	B		D		B	B			C	B
Approach Delay (s)		19.9			36.6			19.7			21.0	
Approach LOS		B			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	74.1	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Queues
3: 31st Street S & I-275 Off-ramp/Driveway

08/16/2019



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	284	284	42	12	25	405	515	803
v/c Ratio	0.43	0.43	0.06	0.08	0.13	0.55	0.69	0.72
Control Delay	19.8	19.8	0.2	20.4	16.6	19.8	23.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	19.8	0.2	20.4	16.6	19.8	23.8	5.8
Queue Length 50th (ft)	92	92	0	0	6	119	163	0
Queue Length 95th (ft)	204	204	0	17	27	256	345	80
Internal Link Dist (ft)		1124		194		798	320	
Turn Bay Length (ft)			375		200			
Base Capacity (vph)	664	664	691	343	217	845	845	1156
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.43	0.06	0.03	0.12	0.48	0.61	0.69

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	7	3	902	1206	4
Future Vol, veh/h	7	7	3	902	1206	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	8	3	980	1311	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1809	658	1315	0	-	0
Stage 1	1313	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	70	407	522	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	69	407	522	-	-	-
Mov Cap-2 Maneuver	69	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	522	-	118	-	-
HCM Lane V/C Ratio	0.006	-	0.129	-	-
HCM Control Delay (s)	11.9	0.1	40	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

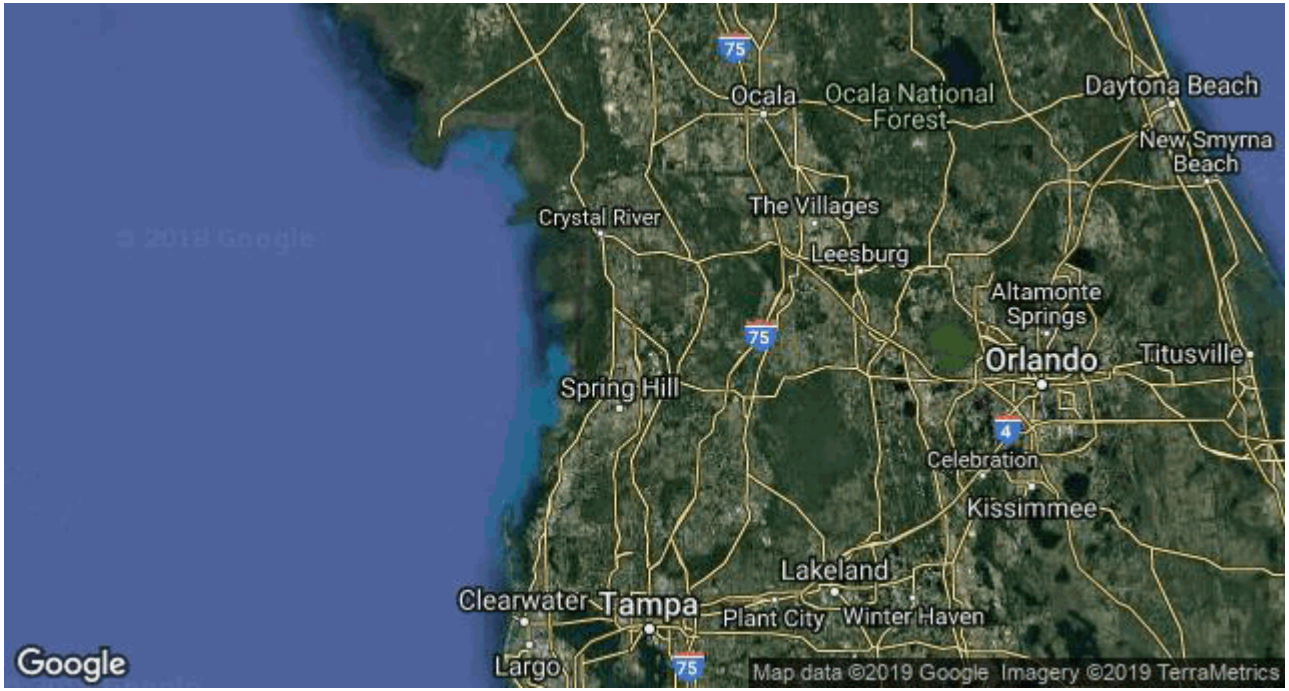
Appendix J:

Crash Data and Crash Modification Factor

(Crash Data in attached CD)

Report Memo:

None



Selections used to generate this report:

Years: 2018,2017,2016,2015,2014,2013

Roadways: Roadway: 15190014 FromMP: 0 - ToMP: 0.441,Roadway: 15190013 FromMP: 0 - ToMP: 0.271,Roadway: 15000253 FromMP: 3.312 - ToMP: 3.713

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Intersection Summary

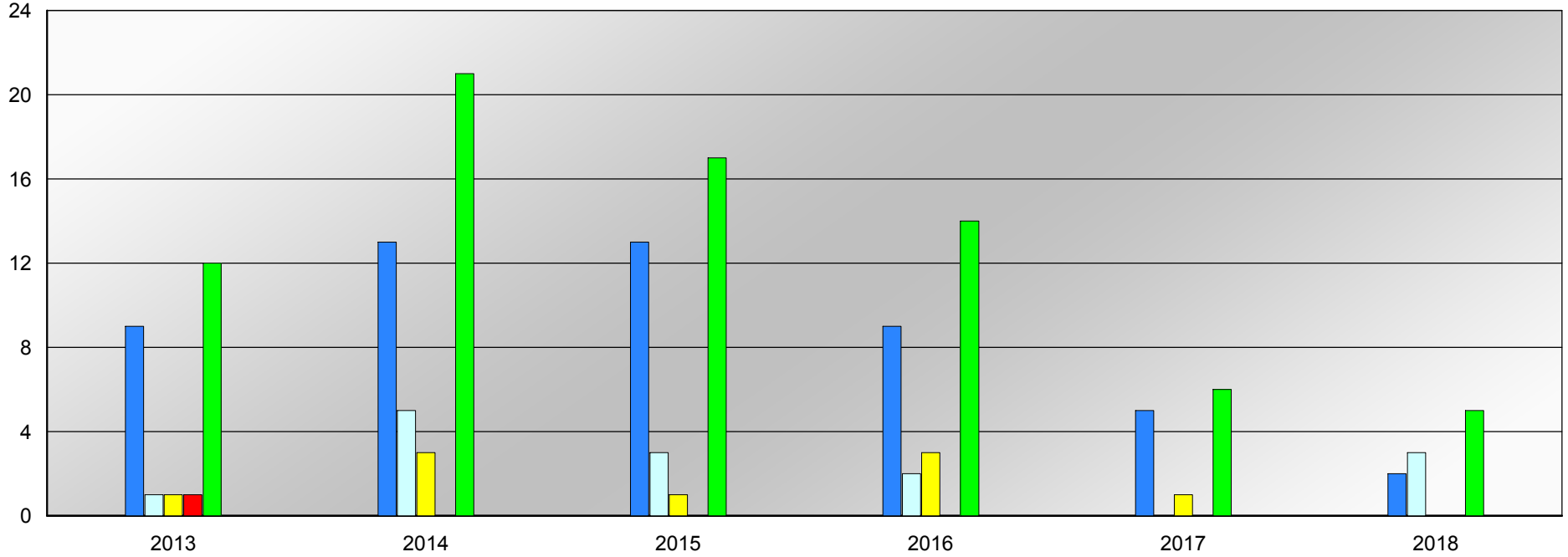
Top 40 Report

Click for Drill Down

				Injury Severity				Ped and Bike		Crash Type				Strategic Highway Safety Plan										
	Total Crashes	Total Fatalities	Total Injuries	Fatal Crashes	Incap	Non Incap	Possible Injury	Ped	Bike	Angle	Left Turn	Right Turn	Head On	Comm. Veh	Work Zone	No Restraint	Speed Agr. Driving	Lane Depart	At Int.	Distract Driving	Teen Driver 15-19	Aging Driver 65+	Impaired	Motor Cycle
SR 93 @ 31ST ST S	**42**	0	14	0	2	3	6	0	1	5	0	0	0	1	0	0	6	26	4	2	4	6	2	0
11TH AVE S @ 31ST ST S	**20**	1	8	1	1	1	6	0	1	3	0	0	0	0	0	1	4	13	3	0	1	2	1	2
I 275 @ 9TH AVE S	**3**	0	2	0	1	1	0	1	0	0	1	0	0	0	0	0	1	1	2	0	1	0	0	0
22ND AVE S @ 31ST ST S	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
31ST ST S @ 20TH AVE S	**1**	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
SR 93 @ 18TH AVE S	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
14TH AVE S @ 31ST ST S	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5TH AVE N @ 31ST ST N	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Number of Crashes By Year

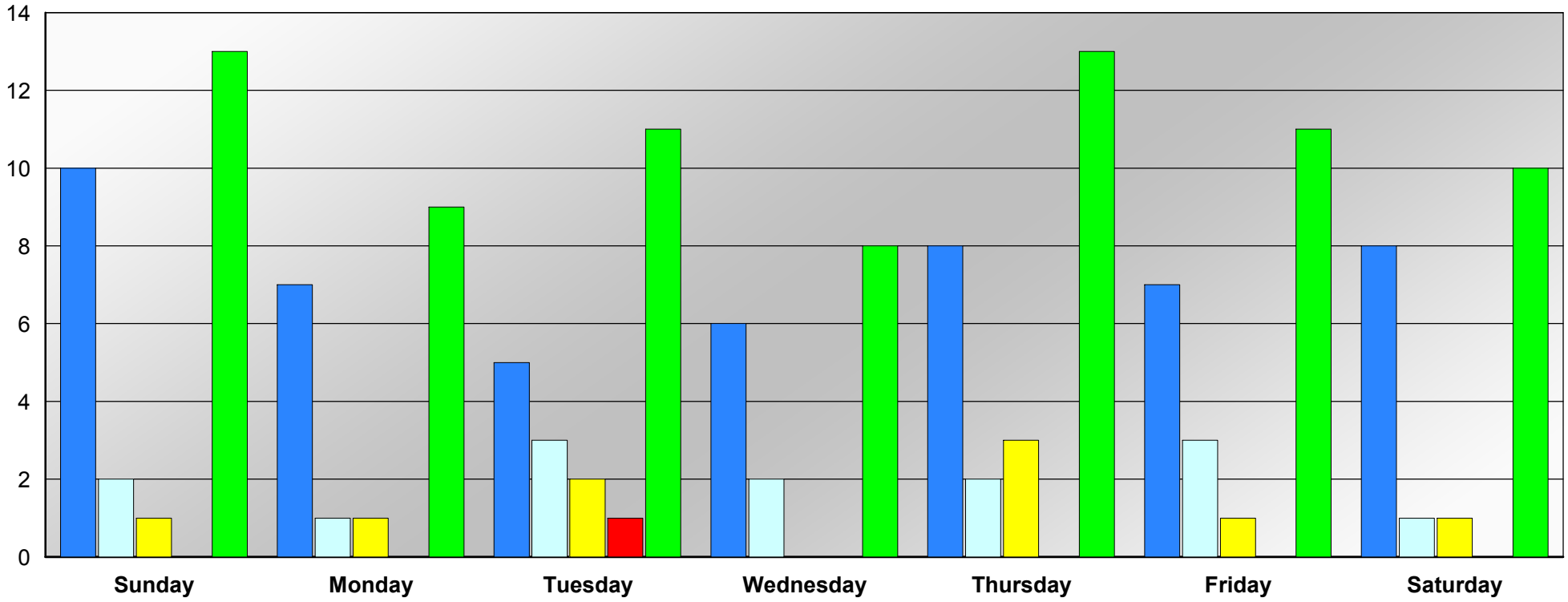


Breakdown of Crashes by Year

	2013	2014	2015	2016	2017	2018
PDO	9	13	13	9	5	2
Possible Injury	1	5	3	2	0	3
Injury Crashes	1	3	1	3	1	0
Fatal Crashes	1	0	0	0	0	0
Total Crashes	**12**	**21**	**17**	**14**	**6**	**5**

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

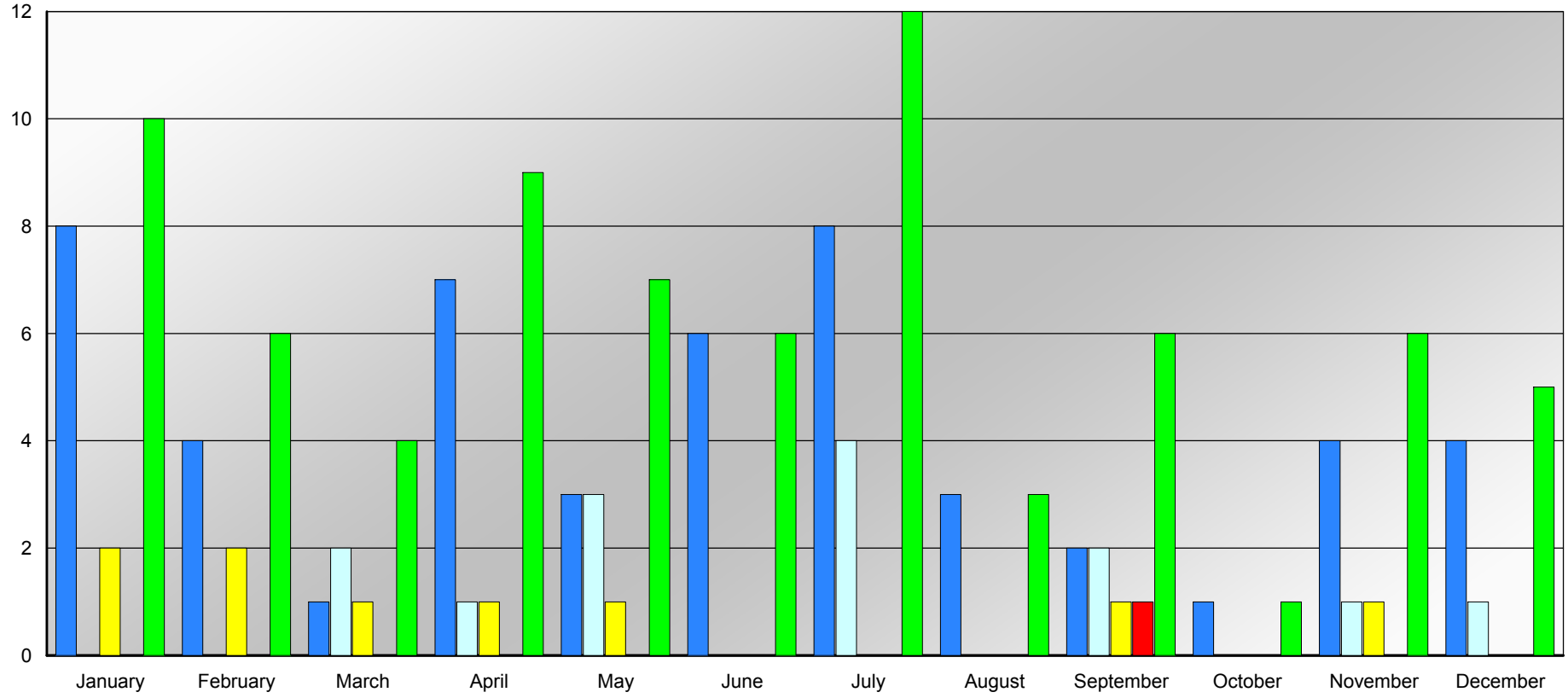
Number of Crashes by Day of Week



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
PDO	10	7	5	6	8	7	8	51
Possible Injury	2	1	3	2	2	3	1	14
Injury Crashes	1	1	2	0	3	1	1	9
Fatal Crashes	0	0	1	0	0	0	0	1
Total Crashes	**13**	**9**	**11**	**8**	**13**	**11**	**10**	**75**

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

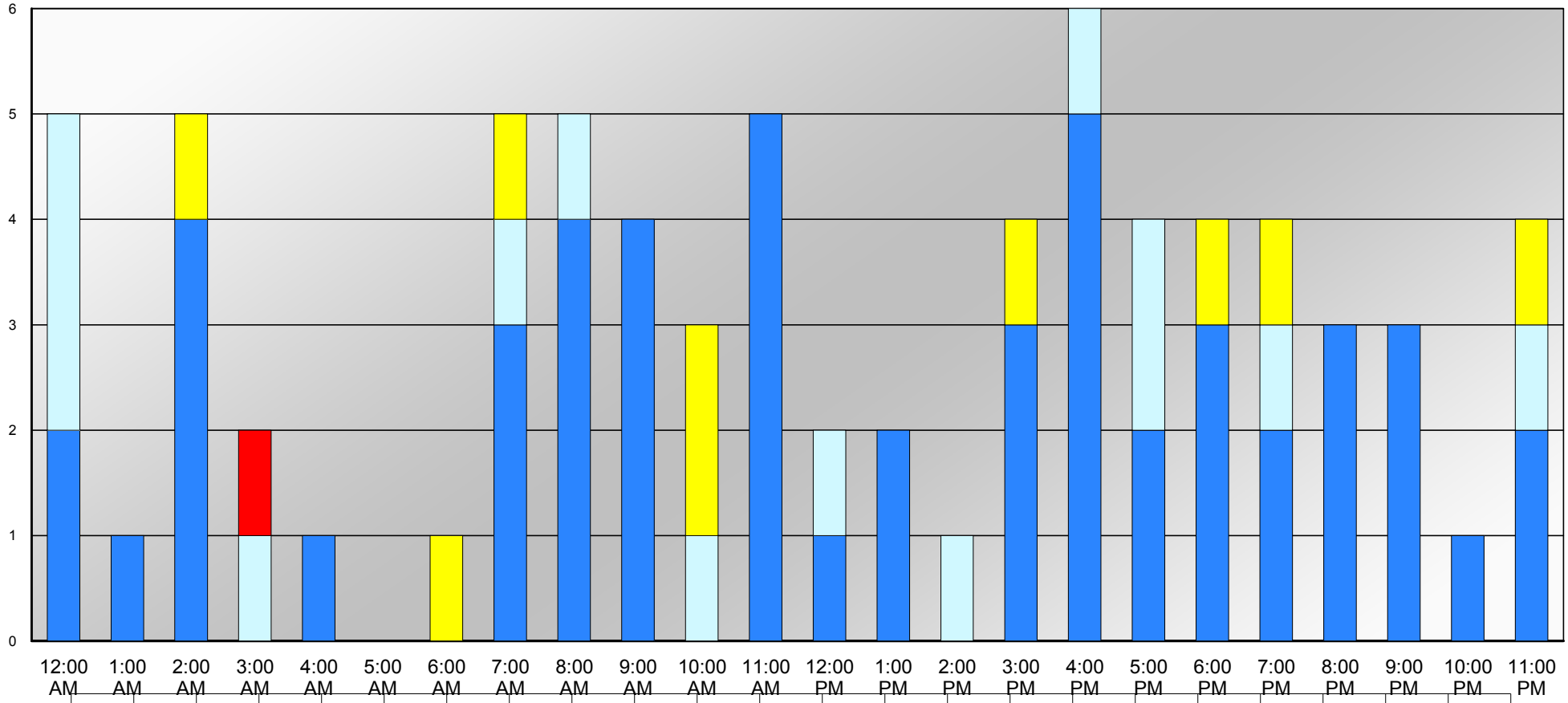
Number of Crashes by Month



	January	February	March	April	May	June	July	August	September	October	November	December	Total
PDO	8	4	1	7	3	6	8	3	2	1	4	4	51
Possible Injury	0	0	2	1	3	0	4	0	2	0	1	1	14
Injury Crashes	2	2	1	1	1	0	0	0	1	0	1	0	9
Fatal Crashes	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Crashes	**10**	**6**	**4**	**9**	**7**	**6**	**12**	**3**	**6**	**1**	**6**	**5**	**75**

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Crashes by Time of Day

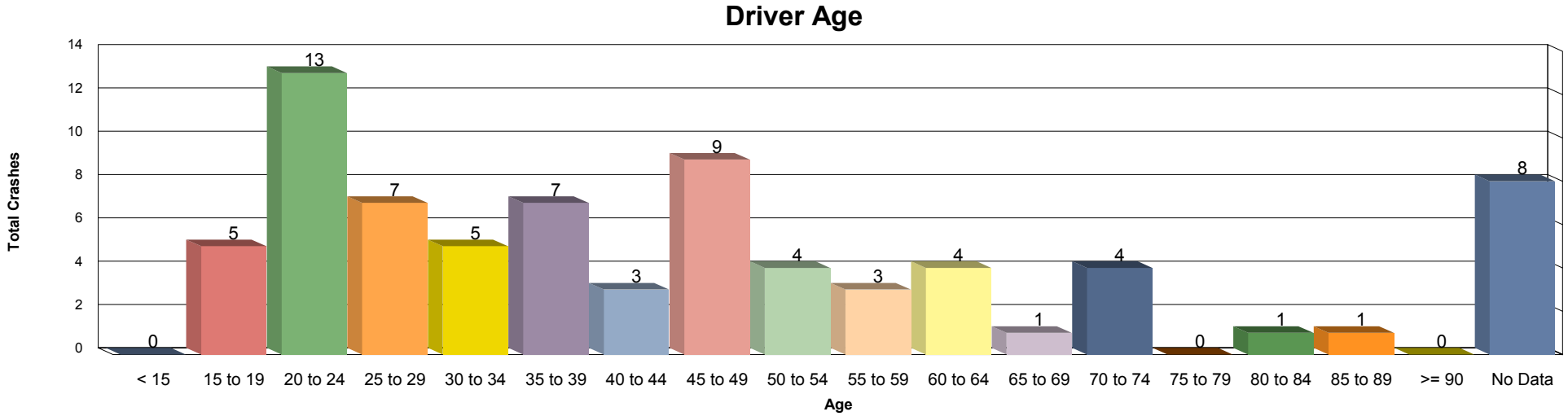


	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
PDO	2	1	4	0	1	0	3	4	4	0	5	1	2	0	3	5	2	3	2	3	3	1	2
Possible Injury	3	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	0	1	0	0	0	1
Injury Crashes	0	0	1	0	0	1	1	0	0	2	0	0	0	0	1	0	0	1	1	0	0	0	1
Fatal Crashes	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**5**	**1**	**5**	**2**	**1**	**1**	**5**	**5**	**4**	**3**	**5**	**2**	**2**	**1**	**4**	**6**	**4**	**4**	**4**	**3**	**3**	**1**	**4**

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Driver Age Summary (Vehicle 1, Driver 1)

							Driver Actions					
Drill Down Rpt.	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Intoxication	Speeding	Run Control	Run Off-Road	Distraction	Agr. Driving
Age < 15	**0**	0	0	0	0	0	0	0	0	0	0	0
Age 15 to 19	**5**	0	0	0	0	0	0	0	0	3	1	1
Age 20 to 24	**13**	1	6	0	0	0	1	0	0	9	0	3
Age 25 to 29	**7**	0	5	0	0	0	2	0	0	7	0	2
Age 30 to 34	**5**	0	2	0	0	1	0	0	0	2	0	0
Age 35 to 39	**7**	0	1	0	0	0	0	1	0	4	0	1
Age 40 to 44	**3**	0	0	0	0	0	0	0	0	3	0	1
Age 45 to 49	**9**	0	3	0	1	1	0	0	0	5	0	0
Age 50 to 54	**4**	0	3	0	1	0	0	0	0	0	1	0
Age 55 to 59	**3**	0	0	0	0	0	0	0	0	1	0	0
Age 60 to 64	**4**	0	2	1	0	0	0	0	0	0	0	0
Age 65 to 69	**1**	0	2	0	0	0	0	0	0	0	0	0
Age 70 to 74	**4**	0	0	0	0	0	0	0	0	3	0	3
Age 75 to 79	**0**	0	0	0	0	0	0	0	0	0	0	0
Age 80 to 84	**1**	0	0	0	0	0	0	0	0	0	0	0
Age 85 to 89	**1**	0	0	0	0	0	0	0	0	0	0	0
Age >= 90	**0**	0	0	0	0	0	0	0	0	0	0	0
Age No Data	**8**	0	2	0	0	0	0	0	0	7	0	0



Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Crash Type Summary

Impact Type

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Angle	**14**	0	6	1	1	0	2	0	1	8
Front to Rear	**13**	0	5	0	0	0	0	1	1	1
Sideswipe, same direction	**4**	0	3	0	0	0	0	0	4	0
Unknown	**44**	1	12	0	1	2	2	10	41	1

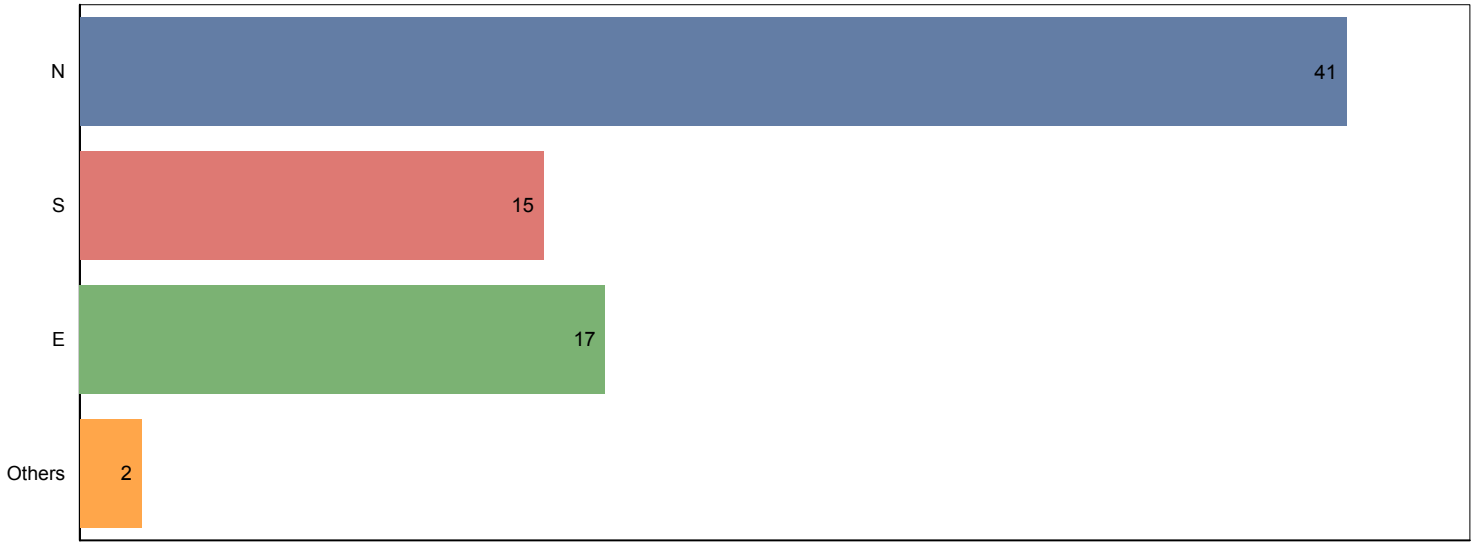
Relation to Intersection

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Intersection	**7**	0	4	0	1	0	1	0	1	7
Intersection-Related	**3**	0	3	1	0	0	1	0	1	3
Non-Junction	**33**	0	6	0	1	0	0	3	23	0
Entrance/Exit Ramp	**29**	1	13	0	0	2	2	7	21	0
Unknown	**3**	0	0	0	0	0	0	1	1	0

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Vehicle 1 Direction Summary

Total Crashes By Vehicle 1 Direction



Crash Type By Vehicle 1 Direction

	Angle	Front to Rear	No Data	Other, Explain in Narrative	Sideswipe, same direction	Unknown
N	**3**	**9**	**0**	**26**	**2**	**1**
S	**3**	**0**	**1**	**10**	**1**	**0**
E	**7**	**4**	**1**	**4**	**1**	**0**
Others	**1**	**0**	**0**	**1**	**0**	**0**
Total	**14**	**13**	**2**	**41**	**4**	**1**

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

At Fault Vehicle Summary

Vehicle Type

Strategic Highway Safety Plan (SHSP)

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Medium/Heavy Trucks (more than 10,000lbs	**1**	0	0	0	0	0	0	0	1	0
Motor Home	**1**	0	0	0	0	0	0	0	0	0
Motorcycle	**2**	0	2	0	0	2	2	0	2	0
Passenger Car	**45**	1	14	0	0	0	0	5	27	8
Pickup	**8**	0	6	1	1	0	2	1	5	2
Unknown	**3**	0	0	0	0	0	0	1	2	0
No Data	**15**	0	4	0	1	0	0	4	10	0

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Vehicle Movement

Strategic Highway Safety Plan (SHSP)

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Straight Ahead	**28**	0	8	0	0	1	1	3	21	2
Turning Left	**7**	0	3	0	2	0	1	0	1	5
Turning Right	**3**	0	3	1	0	0	1	0	0	2
Making U-Turn	**1**	0	0	0	0	0	0	0	0	0
Changing Lanes	**3**	0	0	0	0	0	0	0	1	0
Overtaking/Passing	**1**	0	0	0	0	0	0	0	1	0
Slowing	**3**	0	3	0	0	0	0	0	0	0
Other, Explain in Narrative	**1**	0	0	0	0	0	0	0	0	0
Unknown	**28**	1	9	0	0	1	1	8	23	1

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Roadway Condition Summary

Roadway Location

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
On Roadway	**39**	0	17	1	2	1	3	1	12	9
Median	**10**	1	3	0	0	1	1	4	10	0
Shoulder	**8**	0	4	0	0	0	0	2	8	0
Off Roadway	**15**	0	2	0	0	0	0	3	15	1
Unknown	**3**	0	0	0	0	0	0	1	2	0

Road Condition

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Wet	**33**	1	11	0	0	1	1	8	26	2
Dry	**40**	0	15	1	2	1	3	2	20	8
Unknown	**2**	0	0	0	0	0	0	1	1	0

Road Contributing Cause Summary

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
None	**62**	1	24	1	1	2	4	7	37	10
Other, Explain in Narrative	**1**	0	1	0	1	0	0	0	0	0
Unknown	**12**	0	1	0	0	0	0	4	10	0

Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Traffic Control

Strategic Highway Safety Plan (SHSP)

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Traffic Control Signal	**2**	0	0	0	0	0	0	0	1	0
Stop Sign	**12**	0	7	0	2	0	1	2	2	2
No Controls	**53**	1	17	1	0	2	3	6	38	8
Other, Explain in Narrative	**5**	0	2	0	0	0	0	2	4	0
Unknown	**3**	0	0	0	0	0	0	1	2	0

Road Alignment

Strategic Highway Safety Plan (SHSP)

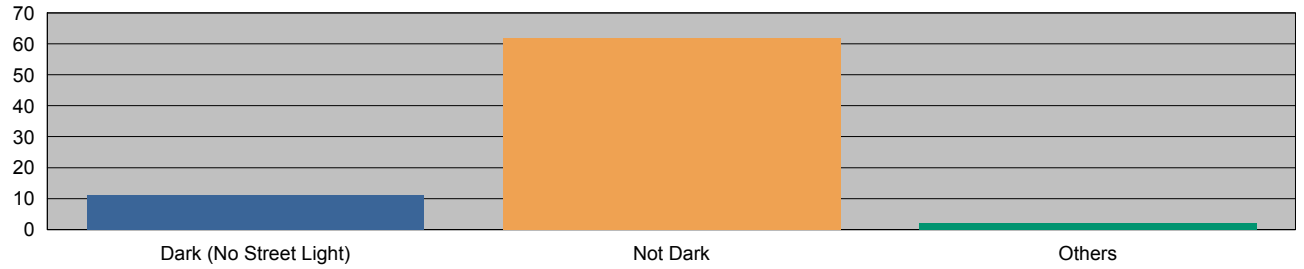
Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Straight	**24**	0	13	1	2	1	3	1	8	8
Curve Left	**9**	0	2	0	0	0	0	1	8	0
Curve Right	**42**	1	11	0	0	1	1	9	31	2

Records Date Range:			Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013	to	07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Environment Summary Report

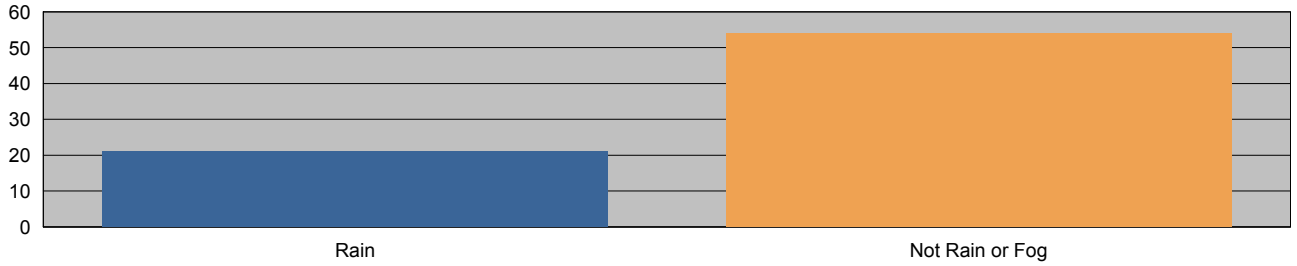
Lighting

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Daylight	41	0	15	0	0	1	1	6	23	6
Dark-Lighted	19	1	4	0	1	0	1	4	13	3
Dusk	2	0	2	0	1	0	0	0	1	0
Dark-Not Lighted	11	0	5	1	0	1	2	0	9	1
Unknown	2	0	0	0	0	0	0	1	1	0



Weather

Click for Drill Down	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Strategic Highway Safety Plan (SHSP): Vulnerable Users	Aggressive Driving	Lane Departure	At Intersection
Clear	34	0	13	1	2	1	3	1	16	7
Cloudy	18	0	5	0	0	0	0	3	14	1
Rain	21	1	8	0	0	1	1	6	16	2
Other, Explain in Narrative	2	0	0	0	0	0	0	1	1	0



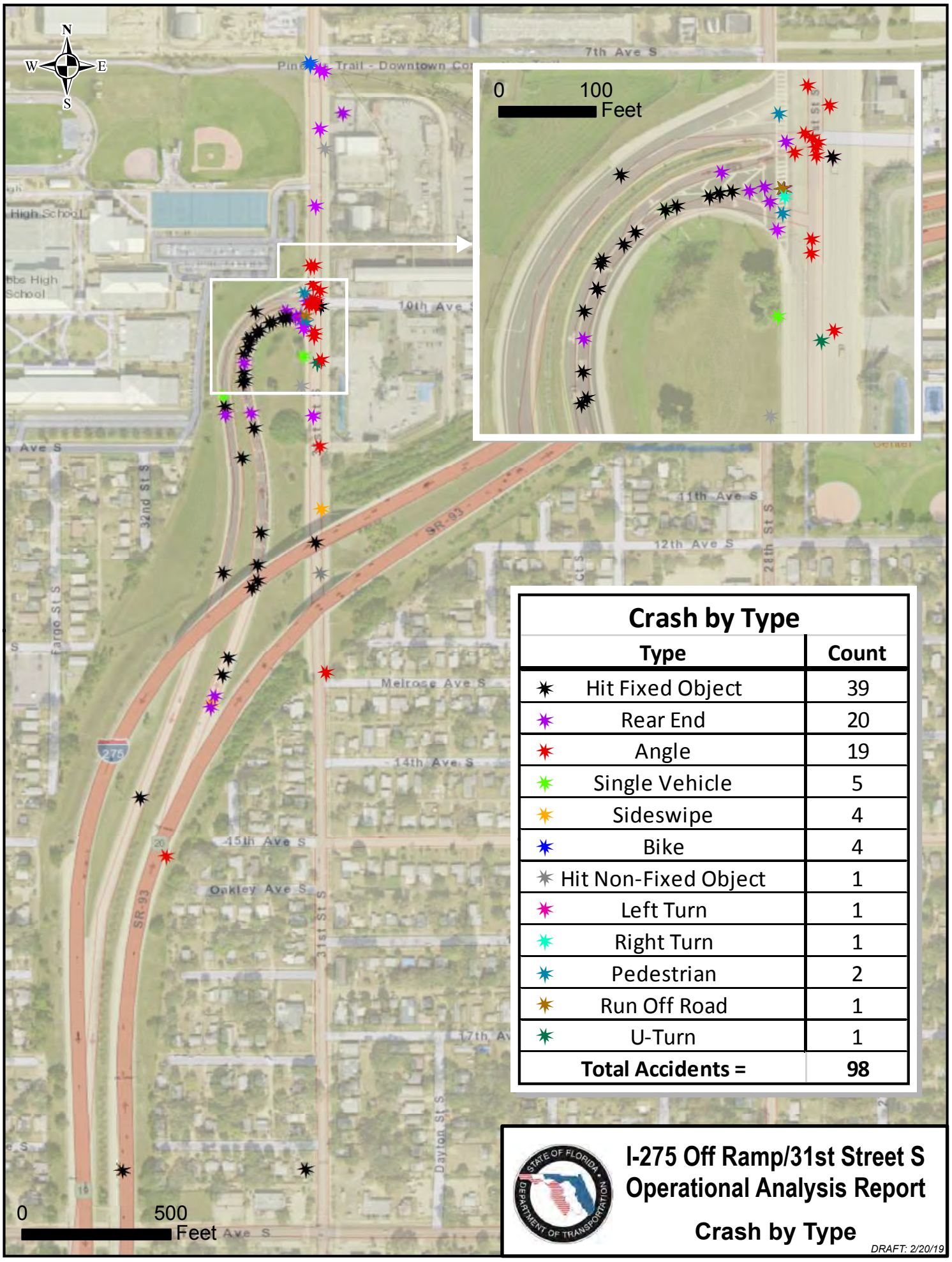
Records Date Range:	Crashes	Fatalities	Injuries	Peds	Bike	Motorcycle	Angles	Head On	Intoxication	Speeding	Run Control	Vul. Users	Agr. Driving	Lane Depart	At Int.
01/03/2013 to 07/17/2018	75	1	26	1	2	2	8	0	3	1	0	4	11	47	10

Located Crashes

Area	*Crashes*	*Fatalities*	*Injuries*
	6	0	1
PINELLAS PARK	1	0	0
SAINT PETERSBURG	29	0	8
ST PETERSBURG	7	0	0
ST. PETERSBURG	24	1	13
UNINCORPORATED	4	0	2
Totals:	**71**	**1**	**24**

Private Property, Parking Lot, and Unlocated Crashes

Area	*Crashes*	*Fatalities*	*Injuries*
SAINT PETERSBURG	1	0	0
ST. PETERSBURG	1	0	1
UNINCORPORATED	2	0	1
Totals:	**4**	**0**	**2**



Crash by Type

Type	Count
Hit Fixed Object	39
Rear End	20
Angle	19
Single Vehicle	5
Sideswipe	4
Bike	4
Hit Non-Fixed Object	1
Left Turn	1
Right Turn	1
Pedestrian	2
Run Off Road	1
U-Turn	1
Total Accidents =	**98**

I-275 Off Ramp/31st Street S Operational Analysis Report

Crash by Type

DRAFT: 2/20/19

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 7966

Install a traffic signal and left turn lanes

Description: Install a traffic signal and left turn lanes

Prior Condition: Intersections with a stop sign on minor roads

Category: Intersection traffic control

Study: *Safety Evaluation of Signal Installation With and Without Left Turn Lanes on Two Lane Roads in Rural and Suburban Areas*, Srinivasan et al., 2014

Star Quality Rating:	★★★★☆ [View score details]

Crash Modification Factor (CMF)	
Value:	0.541
Adjusted Standard Error:	
Unadjusted Standard Error:	0.044

Crash Reduction Factor (CRF)	
Value:	45.9 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	

Unadjusted Standard Error:	4.4

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	2
Road Division Type:	
Speed Limit:	
Area Type:	All
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Not specified
Intersection Geometry:	3-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	2981 to 18248 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	1852 to 13880 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	1992 to 2012
Municipality:	
State:	NC

Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-10-2016
Comments:	The CMF was developed for both rural and suburban areas.

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center