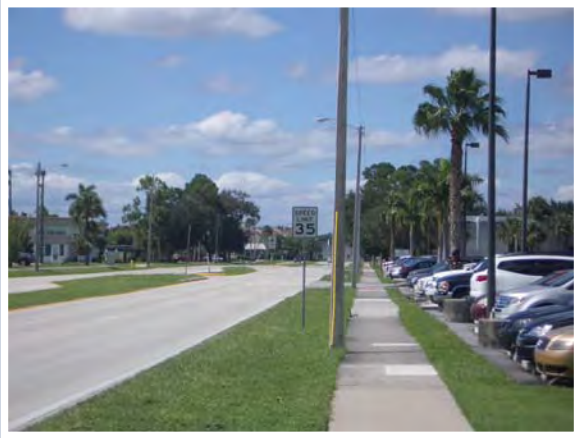
Alternatives Analysis Report
Olean Boulevard - Phase I
FROM US 41 TO HARBOR BOULEVARD

CHARLOTTE COUNTY, FLORIDA
MARCH 2016



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1. Project Background and Description

Charlotte County has adopted a Master Plan for the redevelopment of the Parkside CRA and medical sub-district. The plan has identified the need of Harbor Boulevard to serve as a gateway and potential "main street" of the medical district. It also established a basis for developing a new urban mixed use area and also the need to improve the existing infrastructure, traffic circulation and utilities in the surrounding areas.

In November2014 the voters of Charlotte County passed a one cent sales tax, which included Olean Boulevard improvements. The first phase of the project is evaluating improvements to Olean Boulevard and conducting an Alternatives Analysis Study to evaluate alternatives for improvements to Olean Boulevard from US 41 to Harbor Boulevard. See **Figure 1-1**.

The objective of the study is to evaluate current and future traffic demands, safety improvements, access management, multi-modal needs, and community enhancements. This study evaluates four alternatives and documents the improvements and constraints of each alternative. The alternatives evaluated in this study are as follows:

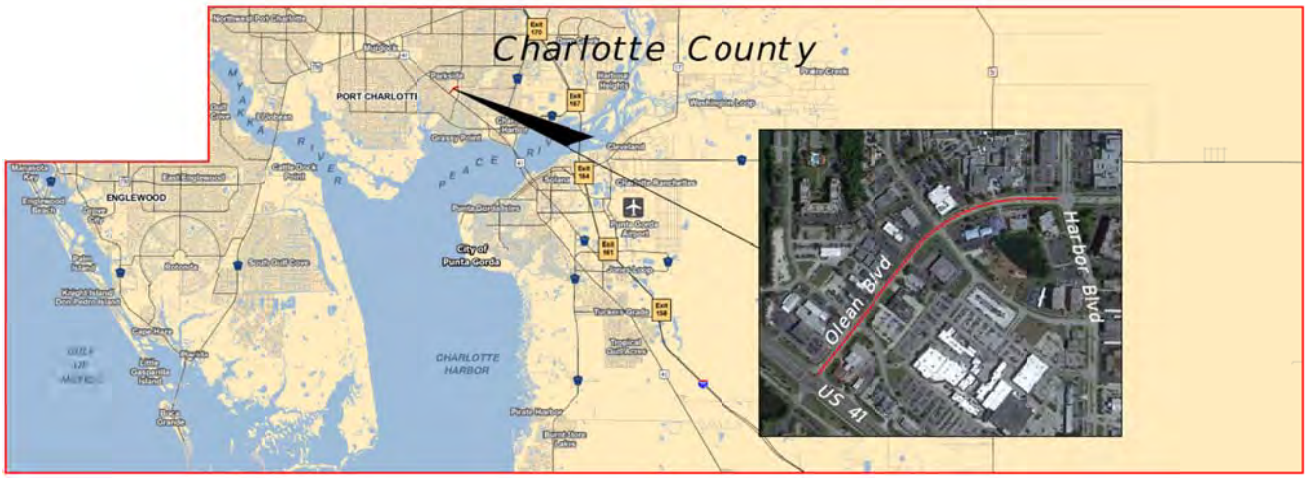
Alternative 1: 4-Lane Divided Roadway

Alternative 2: 5-Lane Undivided Roadway

Alternative 3: 3-Lane Undivided Roadway (4-lanes Eastbound from US 41 to Aaron Street)

Alternative 4: Improvements based on budget constraints

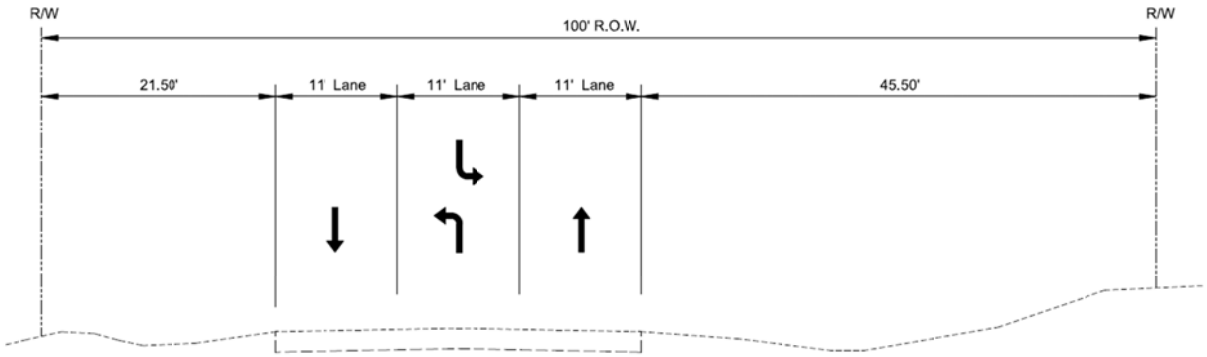
Figure 1-1
Project Location Map



2. Existing Roadway Conditions

Olean Boulevard is classified as an Urban Collector from US 41 to Harbor Boulevard and is typically a three-lane roadway with an open drainage system. The existing typical section consists of two 11-foot travel lanes (one in each direction) and a continuous 11-foot two-way left turn lane. The current shoulders are unpaved and slope toward drainage swales adjacent to the roadway. Between Aaron Street and Harbor Boulevard, the roadway transitions from three-lanes to five-lanes with the addition of auxiliary lanes. The existing right-of-way (ROW) width is 100 feet. See **Figure 2-1**.

Figure 2-1
Existing Typical Section



2.1 Access Classification

The current Olean Boulevard typical section is an undivided three-lane roadway with a non-restrictive painted median for left turns. Based on the Florida Department of Transportation (FDOT) 2014 Median Handbook, the current access classification for Olean Boulevard is an Access Management Class 6. **Table 2-1,** from the Florida Administration Rule Chapter 14-97, summarizes the Access Class 6 spacing requirements.

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Table 2-1
Access Class 6 Spacing Requirements (in feet)

Class	Medians	Median Openings		Signal	Connection	
		Full	Directional		More than 45 mph Posted Speed	45 mph and less Posted Speed
2	Restrictive w/Service Roads	2,640	1,320	2,640	1,320	660
3	Restrictive	2,640	1,320	2,640	660	440
4	Non-Restrictive			2,640	660	440
5	Restrictive	2,640 at greater than 45 mph Posted Speed 1,320 At 45 mph or less Posted Speed	660	2,640 at greater than 45 mph Posted Speed 1,320 At 45 mph or less Posted Speed	440	245
6	Non-Restrictive			1,320	440	245
7	Both Median Types	660	330	1,320	125	125

There are four intersections within the limits of this project: US 41, Caring Way, Aaron Street and Harbor Boulevard. See **Table 2-2** for intersection classifications and existing spacing distances.

Table 2-2
Existing Intersection Spacing

Intersection	Signalized or Non-Signalized Intersection	Station	Opening Type	Distance from Previous		Required Distance		Meets Requirements? (Yes/No)
				Signal	Full	Signal	Full	
US 41	Signalized	0+06	Full	--	--	1,320’	N/A	Yes
Caring Way	Non-Signalized	5+08	Full	--	502’			N/A
Aaron St.	Signalized	13+74	Full	1,368’	866’			Yes
Harbor Blvd.	Signalized	22+85	Full	911’	911’			No

There are 18 commercial driveways within the limits of the project from US 41 to Harbor Boulevard. See **Table 2-3** for connection spacing along the north side of Olean Boulevard and **Table 2-4** for connection spacing along the south side of Olean Boulevard.

Table 2-3
Connection Spacing (Driveways Northside of Olean Boulevard)

Intersection	Driveways	Distance from Previous Connection	Required Distance	Meets Requirements? (Yes/No)
US 41		--	245’	--
	Ford Dealership	185’		No
Caring Way		160’		No
	Family Eyecare Center	210’		No
	Georgia's Flower Shop	20’		No
	Olean Plaza (West Driveway)	30’		No
	Olean Plaza (East Driveway)	170’		No
	Central Plaza West	115’		No
Aaron St.		160’		No
	Gulf Pointe Surgery Center	205’		No
	Fawcett Memorial Hospital (West Driveway)	40’		No
	Fawcett Memorial Hospital (Center Driveway)	75’		No
	Fawcett Memorial Hospital (East Driveway)	170’		No
	Port Charlotte Medical Pavilion	45’		No
Harbor Blvd.		180’		No

The existing driveways along the north side do not meet the current access management spacing requirement.

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Table 2-4
Connection Spacing (Driveways Southside of Olean Boulevard)

Intersection	Business Driveways	Distance from Previous Station	Required Distance	Meets Requirements? (Yes/No)
US 41		--	245’	--
	Shell Gas Station	165’		No
Caring Way		205’		No
	Bank of America (West Driveway)	160’		No
	Bank of America (East Driveway)	115’		No
	Medical Suites	60’		No
	AAA Insurance Travel Agency	60’		No
Aaron St.		255’		Yes
	Community Eye Center	185’		No
	Hector N. Hernandez MD PA	100’		No
Harbor Blvd.		420’		Yes

The majority of the existing driveways along the south side do not meet the current access management spacing requirements. Two existing driveways meet the current access management spacing requirement between driveways and side streets: the AAA Insurance Travel Agency driveway west of Aaron Street; and the Hector N. Hernandez, MD, PA driveway west of Harbor Boulevard.

2.2 Horizontal Alignment

The existing roadway alignment consists of two horizontal compound curves within the project limits. The curves begin west of Aaron Street and ends west of Harbor Boulevard. The baseline of survey was utilized to provide the information in **Table 2-5**. The existing superelevation for the curves meet the superelevation (SE) requirements per Figure 3.2 of the FDOT Manual of Uniform Minimum Standards, dated 2013.

Table 2-5
Curve Data

PI Station	Degree of Curve	Radius (Feet)	Length (Feet)	Design Speed	Existing Superelevation (SE)	Required Superelevation (SE)	Meets SE Requirements? (Yes/No)
13+48.08	5°15'23.38''	1,090	501.21	35 mph	Reverse Crown (+0.02)	Reverse Crown (+0.02)	Yes
18+03.73	6°08'11.60''	933.68	412.29	35 mph	Reverse Crown (+0.02)	Reverse Crown (+0.02)	Yes

2.3 Pedestrian and Bicycle Facilities

Currently there are no pedestrian facilities on Olean Boulevard from US 41 to west of Aaron Street. Five-foot sidewalks begin along both sides of Olean Boulevard from Aaron Street and continue east past Harbor Boulevard to Easy Street. No bicycle facilities exist within the study limits.

2.4 Lighting

Lighting exists along the north side of Olean Boulevard from west of Caring Way to east of Aaron Street. Luminaires are attached to timber joint-use utility poles and spaced approximately 325 feet apart.

2.5 Intersection Layout

The project study area includes four intersections which include:

A. Olean Boulevard and US 41
B. Olean Boulevard and Caring Way
C. Olean Boulevard and Aaron Street
D. Olean Boulevard and Harbor Boulevard

The existing intersection lane configuration is provided in **Figure 2-2**.

2.6 Traffic Signals

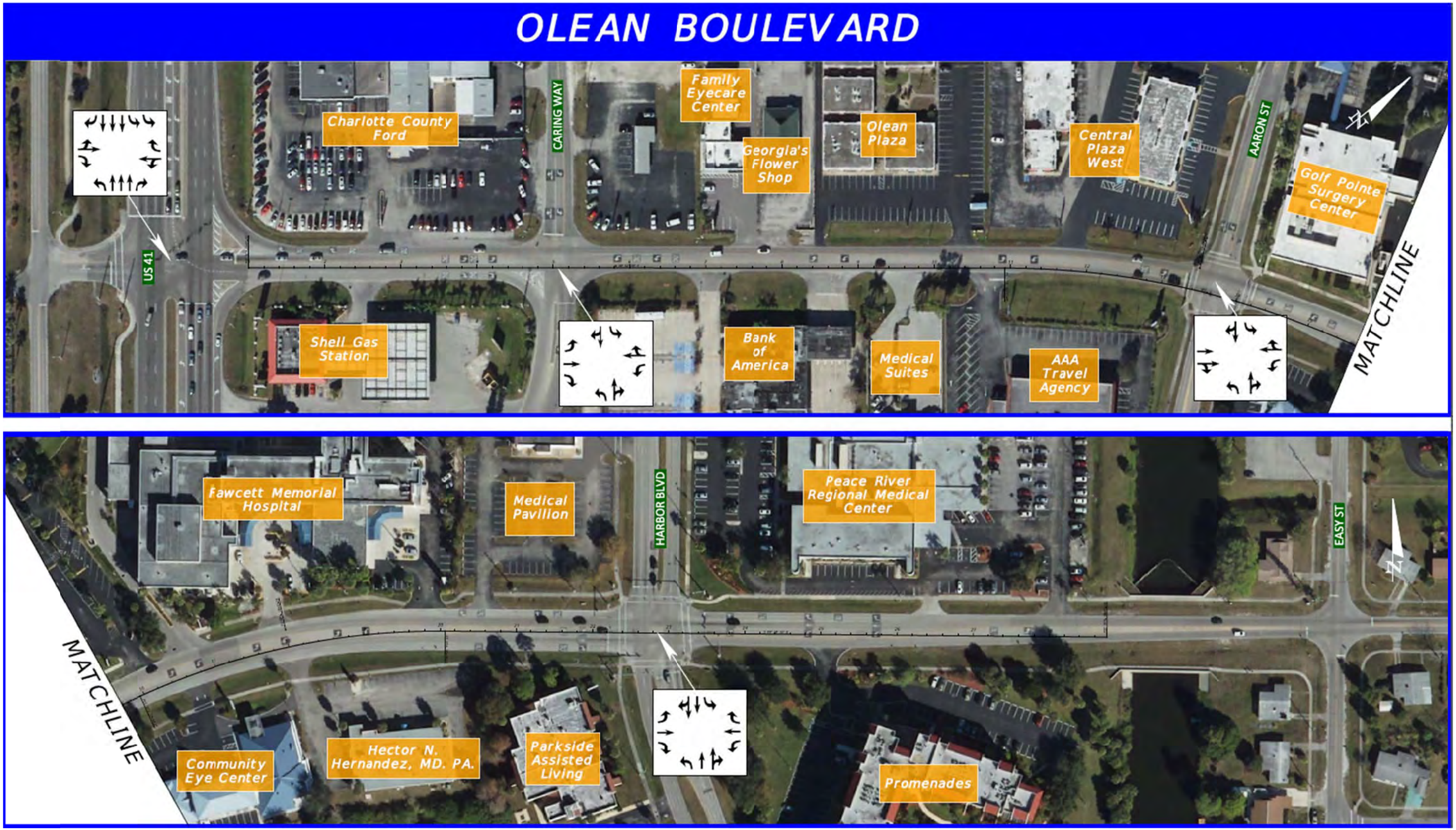
Three of the four intersections within the study area are signalized:

<u>Olean Boulevard and US 41</u>
The existing configuration is a diagonal span with steel poles. FDOT will be upgrading the signalization with mast arms and adding a westbound right turn lane on Olean Boulevard (Anticipated completion 2017).

<u>Olean Boulevard and Aaron Street</u>
The existing configuration is a box span with concrete strain poles.

<u>Olean Boulevard and Harbor Boulevard</u>
The existing configuration is mast arms with single arms located in each corner of the intersection.

Figure 2-2
Existing Intersection Lane Configuration



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2.7 Existing Drainage System

The current surface water runoff for Olean Boulevard drains through a combination of open grass swales and series of inlets and closed drainage to convey storm water eventually to existing drainage canal outfalls.

County-wide Drainage Basin Models for the Olean Boulevard Project Area have been produced and they are managed under the direction of the Charlotte County Public Works Stormwater Utility. The westerly part of the Olean Boulevard Project lies in the "Little Alligator Basin" and the easterly part lies in the "Fordham Niagara Basin". The easterly part of the Olean Boulevard Project drains to the Elkcam Waterway and the westerly part of the Olean Boulevard Project drains to the Sunrise Waterway.

An additional study of the Sunrise Waterway was completed by Charlotte County Public Works Stormwater Utility in 2013. In conjunction with this most recent study, water quality improvements have been made. The improvements are beneficial to the entire Charlotte Harbor Watershed "Little Alligator Basin" and the "Fordham Niagara Basin". "Water Quality Credits" exist and with concurrence of Charlotte County and SWFWMD these credits may be made available to the Olean Boulevard Project to aid in the overall storm water design.

2.8 Crash Data

The 4-year crash history was reviewed for the Project Area. A total of 39 crashes occurred with 38 of the crashes (97%) occurring at intersections. 31 of the intersection crashes occurred at the intersection at Caring Way (82%) while the remaining seven crashes (18%) occurred at Aaron Street.

All of the crashes that occurred at Caring Way were the result of vehicles making a left turn onto Olean Boulevard or crossing Olean Boulevard. A majority of the crashes occurred in the daytime hours (71%) of the weekday between 9:00AM and 3:00PM under dry pavement conditions (90%). Fifty-two percent (52%) of the crashes occurred between the Winter months of December through March. It is recommended that the design alternatives consider safety improvements at Caring Way to alleviate future crashes.

One crash outside of an intersection occurred in 2012 near the Shell Gas Station driveway between US 41 and Caring Way. One vehicle was headed eastbound on Olean Boulevard and turning right into the Shell Gas Station and was rear-ended by another vehicle headed eastbound. The crash occurred in the daytime under dry pavement conditions and resulted in no injuries.

Crashes are summarized in **Tables 2-6**, **2-7**, and **2-8**.

Table 2-6
Study Area Crash Summary

From East of US 41 to Harbor Blvd.		Number of Crashes Year				4 Year Total Crashes	Mean Crashes Per Year	%
		2012	2013	2014	2015			
CRASH TYPE	Rear End	1	3	1	0	5	1	12.8%
	Head On	0	1	1	0	2	1	5.1%
	Right Angle	4	9	12	4	29	7	74.4%
	Left Turn	0	1	0	0	1	0	2.6%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	1	1	0	2	1	5.1%
	Backed Into	0	0	0	0	0	0	0.0%
	Coll. w/ Parked Car	0	0	0	0	0	0	0.0%
	Coll. w/ Pedestrian	0	0	0	0	0	0	0.0%
	Coll. w/ Bicycle	0	0	0	0	0	0	0.0%
	Fixed Object	0	0	0	0	0	0	0.0%
	Ran Off Road	0	0	0	0	0	0	0.0%
	Overturned	0	0	0	0	0	0	0.0%
	Other	0	0	0	0	0	0	0.0%
	Total Crashes	**5**	**15**	**15**	**4**	**39**	10	**100.0%**
SEVERITY	PDO Crashes	3	12	11	3	29	7	74.4%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	2	3	3	1	9	2	23.1%
LIGHTING CONDITIONS	Daylight	4	13	15	3	35	9	89.7%
	Dusk	0	1	0	1	2	1	5.1%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	1	1	0	0	2	1	5.1%
	Unknown	0	0	0	0	0	0	0.0%
SURFACE CONDITIONS	Dry	5	14	13	4	36	12	92.3%
	Wet	0	1	2	0	3	1	7.7%
MONTH OF YEAR	January	1	1	1	2	5	1	12.8%
	February	1	4	2	2	9	2	23.1%
	March	0	0	2	0	2	1	5.1%
	April	1	0	1	0	2	1	5.1%
	May	0	1	1	0	2	1	5.1%
	June	0	1	0	0	1	0	2.6%
	July	0	2	2	0	4	1	10.3%
	August	0	1	2	0	3	1	7.7%
	September	1	2	1	0	4	1	10.3%
	October	1	1	1	0	3	1	7.7%
	November	0	1	1	0	2	1	5.1%
	December	0	1	1	0	2	1	5.1%
DAY OF WEEK	Sunday	0	0	0	1	1	0	2.6%
	Monday	0	2	5	0	7	2	17.9%
	Tuesday	1	2	4	0	7	2	17.9%
	Wednesday	0	3	0	1	4	1	10.3%
	Thursday	2	4	3	1	10	3	25.6%
	Friday	1	0	3	1	5	2	12.8%
	Saturday	1	4	0	0	5	2	12.8%
HOUR OF DAY	00:00-06:00	0	0	0	0	0	0	0.0%
	06:00-09:00	0	1	1	2	4	1	10.3%
	09:00-11:00	1	4	4	0	9	3	23.1%
	11:00-13:00	0	2	3	1	6	2	15.4%
	13:00-15:00	2	3	5	0	10	3	25.6%
	15:00-18:00	1	5	2	0	8	3	20.5%
	18:00-24:00	1	0	0	1	2	1	5.1%

Table 2-7
Caring Way Intersection Crash Summary

Olean Blvd. at Caring Way		Number of Crashes Year				4 Year Total Crashes	Mean Crashes Per Year	%
		2012	2013	2014	2015			
CRASH TYPE	Rear End	0	0	0	0	0	0	0.0%
	Head On	0	1	1	0	2	1	6.5%
	Right Angle	4	8	12	3	27	7	87.1%
	Left Turn	0	0	0	0	0	0	0.0%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	1	1	0	2	1	6.5%
	Backed Into	0	0	0	0	0	0	0.0%
	Coll. w/ Parked Car	0	0	0	0	0	0	0.0%
	Coll. w/ Pedestrian	0	0	0	0	0	0	0.0%
	Coll. w/ Bicycle	0	0	0	0	0	0	0.0%
	Fixed Object	0	0	0	0	0	0	0.0%
	Ran Off Road	0	0	0	0	0	0	0.0%
	Overturned	0	0	0	0	0	0	0.0%
	Other	0	0	0	0	0	0	0.0%
	Total Crashes	**4**	**10**	**14**	**3**	**31**	8	**100.0%**
SEVERITY	PDO Crashes	2	8	10	3	23	6	74.2%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	2	2	3	0	7	2	22.6%
LIGHTING CONDITIONS	Daylight	3	9	14	2	28	7	90.3%
	Dusk	0	0	0	1	1	0	3.2%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	1	1	0	0	2	1	6.5%
	Unknown	0	0	0	0	0	0	0.0%
SURFACE CONDITIONS	Dry	4	9	12	3	28	9	90.3%
	Wet	0	1	2	0	3	1	9.7%
MONTH OF YEAR	January	1	1	1	1	4	1	12.9%
	February	1	3	2	2	8	2	25.8%
	March	0	0	2	0	2	1	6.5%
	April	1	0	1	0	2	1	6.5%
	May	0	0	1	0	1	0	3.2%
	June	0	0	0	0	0	0	0.0%
	July	0	0	2	0	2	1	6.5%
	August	0	1	2	0	3	1	9.7%
	September	0	2	1	0	3	1	9.7%
	October	1	1	1	0	3	1	9.7%
	November	0	1	0	0	1	0	3.2%
	December	0	1	1	0	2	1	6.5%
DAY OF WEEK	Sunday	0	0	0	1	1	0	3.2%
	Monday	0	1	5	0	6	2	19.4%
	Tuesday	1	2	3	0	6	2	19.4%
	Wednesday	0	2	0	1	3	1	9.7%
	Thursday	2	3	3	1	9	3	29.0%
	Friday	1	0	3	0	4	1	12.9%
	Saturday	0	2	0	0	2	1	6.5%
HOUR OF DAY	00:00-06:00	0	0	0	0	0	0	0.0%
	06:00-09:00	0	1	1	2	4	1	12.9%
	09:00-11:00	1	3	4	0	8	3	25.8%
	11:00-13:00	0	2	3	1	6	2	19.4%
	13:00-15:00	1	2	5	0	8	3	25.8%
	15:00-18:00	1	2	1	0	4	1	12.9%
	18:00-24:00	1	0	0	0	1	0	3.2%

Table 2-8
Aaron Street Intersection Crash Summary

Olean Blvd. at Aaron St		Number of Crashes Year				4 Year Total Crashes	Mean Crashes Per Year	%
		2012	2013	2014	2015			
CRASH TYPE	Rear End	0	3	1	0	4	1	57.1%
	Head On	0	0	0	0	0	0	0.0%
	Right Angle	0	1	0	1	2	1	28.6%
	Left Turn	0	1	0	0	1	0	14.3%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	0	0	0	0	0	0.0%
	Backed Into	0	0	0	0	0	0	0.0%
	Coll. w/ Parked Car	0	0	0	0	0	0	0.0%
	Coll. w/ Pedestrian	0	0	0	0	0	0	0.0%
	Coll. w/ Bicycle	0	0	0	0	0	0	0.0%
	Fixed Object	0	0	0	0	0	0	0.0%
	Ran Off Road	0	0	0	0	0	0	0.0%
	Overturned	0	0	0	0	0	0	0.0%
	Other	0	0	0	0	0	0	0.0%
	Total Crashes	**0**	**5**	**1**	**1**	**7**	2	**100.0%**
SEVERITY	PDO Crashes	0	4	1	0	5	1	71.4%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	0	1	0	1	2	1	28.6%
LIGHTING CONDITIONS	Daylight	0	4	1	1	6	2	85.7%
	Dusk	0	1	0	0	1	0	14.3%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	0	0	0	0	0	0	0.0%
	Unknown	0	0	0	0	0	0	0.0%
SURFACE CONDITIONS	Dry	0	5	1	1	7	2	100.0%
	Wet	0	0	0	0	0	0	0.0%
MONTH OF YEAR	January	0	0	0	1	1	0	14.3%
	February	0	1	0	0	1	0	14.3%
	March	0	0	0	0	0	0	0.0%
	April	0	0	0	0	0	0	0.0%
	May	0	1	0	0	1	0	14.3%
	June	0	1	0	0	1	0	14.3%
	July	0	2	0	0	2	1	28.6%
	August	0	0	0	0	0	0	0.0%
	September	0	0	0	0	0	0	0.0%
	October	0	0	0	0	0	0	0.0%
	November	0	0	1	0	1	0	14.3%
	December	0	0	0	0	0	0	0.0%
DAY OF WEEK	Sunday	0	0	0	0	0	0	0.0%
	Monday	0	1	0	0	1	0	14.3%
	Tuesday	0	0	1	0	1	0	14.3%
	Wednesday	0	1	0	0	1	0	14.3%
	Thursday	0	1	0	0	1	0	14.3%
	Friday	0	0	0	1	1	0	14.3%
	Saturday	0	2	0	0	2	1	28.6%
HOUR OF DAY	00:00-06:00	0	0	0	0	0	0	0.0%
	06:00-09:00	0	0	0	0	0	0	0.0%
	09:00-11:00	0	1	0	0	1	0	14.3%
	11:00-13:00	0	0	0	0	0	0	0.0%
	13:00-15:00	0	1	0	0	1	0	14.3%
	15:00-18:00	0	3	1	0	4	1	57.1%
	18:00-24:00	0	0	0	1	1	0	14.3%

3. Traffic Data

Traffic data was collected along the corridor to complete the existing traffic analyses. The traffic data included bi-directional volume counts. Turning movement counts were collected at the intersections and driveways.

3.1 Traffic Volume Counts

The 24-hour machine volume counts were collected during the week of December 7th at the locations where the traffic volume or roadway characteristics changed. The volume counts were collected by 15-minute intervals by direction at the approaches to the intersections identified below.

A. Olean Boulevard and US 41
B. Olean Boulevard and Caring Way
C. Olean Boulevard and Aaron Street
D. Olean Boulevard and Harbor Boulevard

Traffic profiles of the volume counts on Olean Boulevard were graphed and reviewed. The peaking characteristic was identified to be during the middle of the day and during the afternoon. Therefore, the analysis periods are recommended to be the midday and PM peak periods. The hourly traffic profiles by 15-minute period for the study corridor are provided as **Figure 3-1**. The 24-hour machine volume counts are provided in **Appendix A**.

3.2 Turning Movement Counts

Turning movement counts for the intersections identified above were collected during the week of December 7th. A total of eight hours were collected with three hours (7:00 – 10:00) during the AM peak, three hours (11:00 – 2:00) during the mid-day period, and two hours (4:00 – 6:00) during the PM peak.

The data from the turning movement counts indicated that the intersections peaked at relatively the same time during the AM, PM, and mid-day. A summary of the intersection and segment peak hours are provided in **Table 3-1**.

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Figure 3-1
Hourly Traffic Profiles on Olean Boulevard

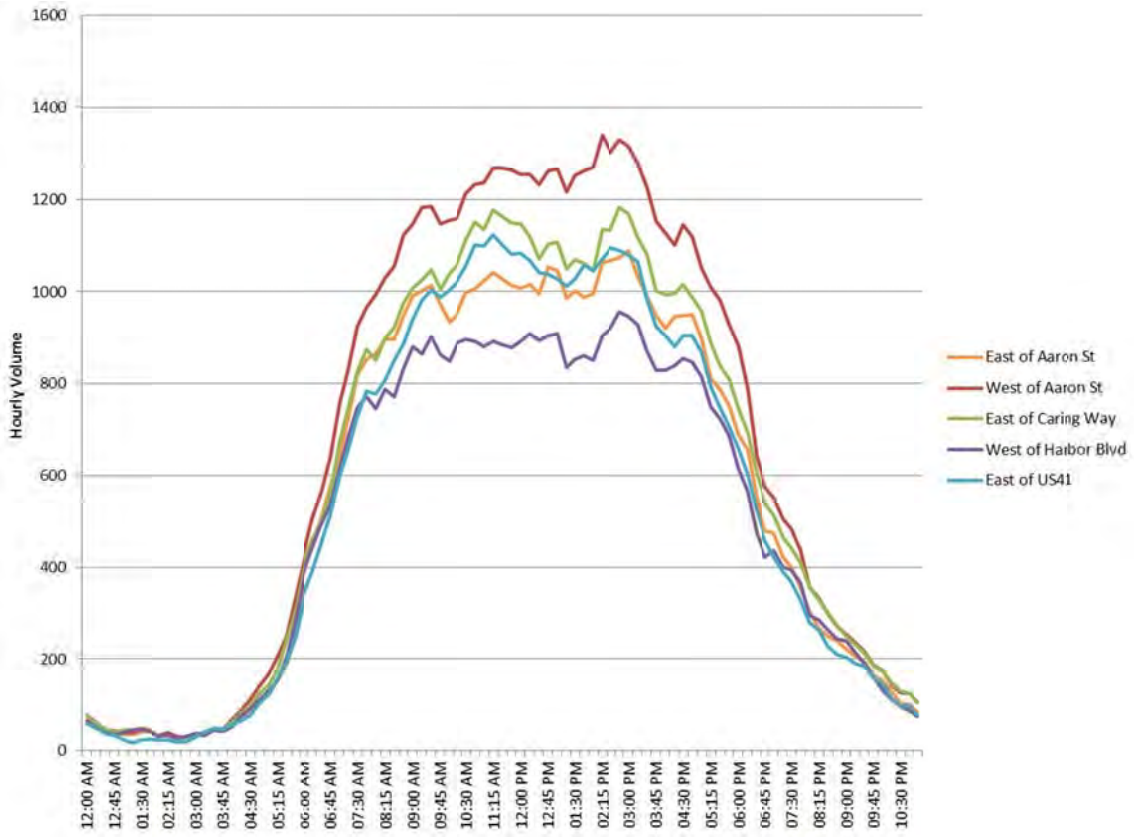

Table 3-1
Summary of Peak Hours

Roadway Peak Hours	AM	Midday	PM
East of US 41	9:00	11:15	4:30
East of Caring Way	9:00	11:15	4:30
West of Aaron Street	9:00	11:15	4:30
East of Aaron Street	9:00	12:45	4:45
West of Harbor Blvd	9:00	12:15	4:30
Intersection Peak Hours	**AM**	**Midday**	**PM**
Olean Blvd at US 41	7:30	12:00	4:30
Olean Blvd at Caring Way	9:00	11:30	4:00
Olean Blvd at Aaron St	8:45	11:00	4:00
Olean Blvd at Harbor Blvd	8:15	12:15	4:00
Selected Corridor Peak Hours	**9:00**	**11:15**	**4:30**

It was determined that the heaviest peak times for the network were 11:15AM to 12:15PM during the midday period and 4:30PM to 5:30PM during the afternoon peak period. These times are recommended as the area wide peak periods for the study. The existing peak hour turning movement volumes are provided in **Figure 3-2**.

In addition, driveway turning movements were collected during the same periods and hours as the intersections. The driveways turning movements were collected by 15-minute intervals at the locations identified below. The 8-hour intersection and driveway turning movement counts are provided in **Appendix B.**

Northside Driveways

1. Ford Dealership
2. Family Eyecare Center
3. Georgia's Flower Shop
4. Olean Plaza (South driveway)
5. Olean Plaza (North driveway)
6. Central Plaza West
7. Gulf Pointe Surgery Center
8. Fawcett Memorial Hospital (South driveway)
9. Fawcett Memorial Hospital (Center driveway)
10. Fawcett Memorial Hospital (North driveway)
11. Port Charlotte Medical Pavilion
12. Peace River Regional Medical Center (South driveway)
13. Peace River Regional Medical Center (North driveway)

Southside Driveways

14. Shell Gas Station
15. Bank of America (South driveway)
16. Bank of America (North driveway)
17. Medical Suites
18. AAA Insurance Travel Agency
19. Community Eye Center
20. Hector N. Hernandez MD PA
21. Promenades

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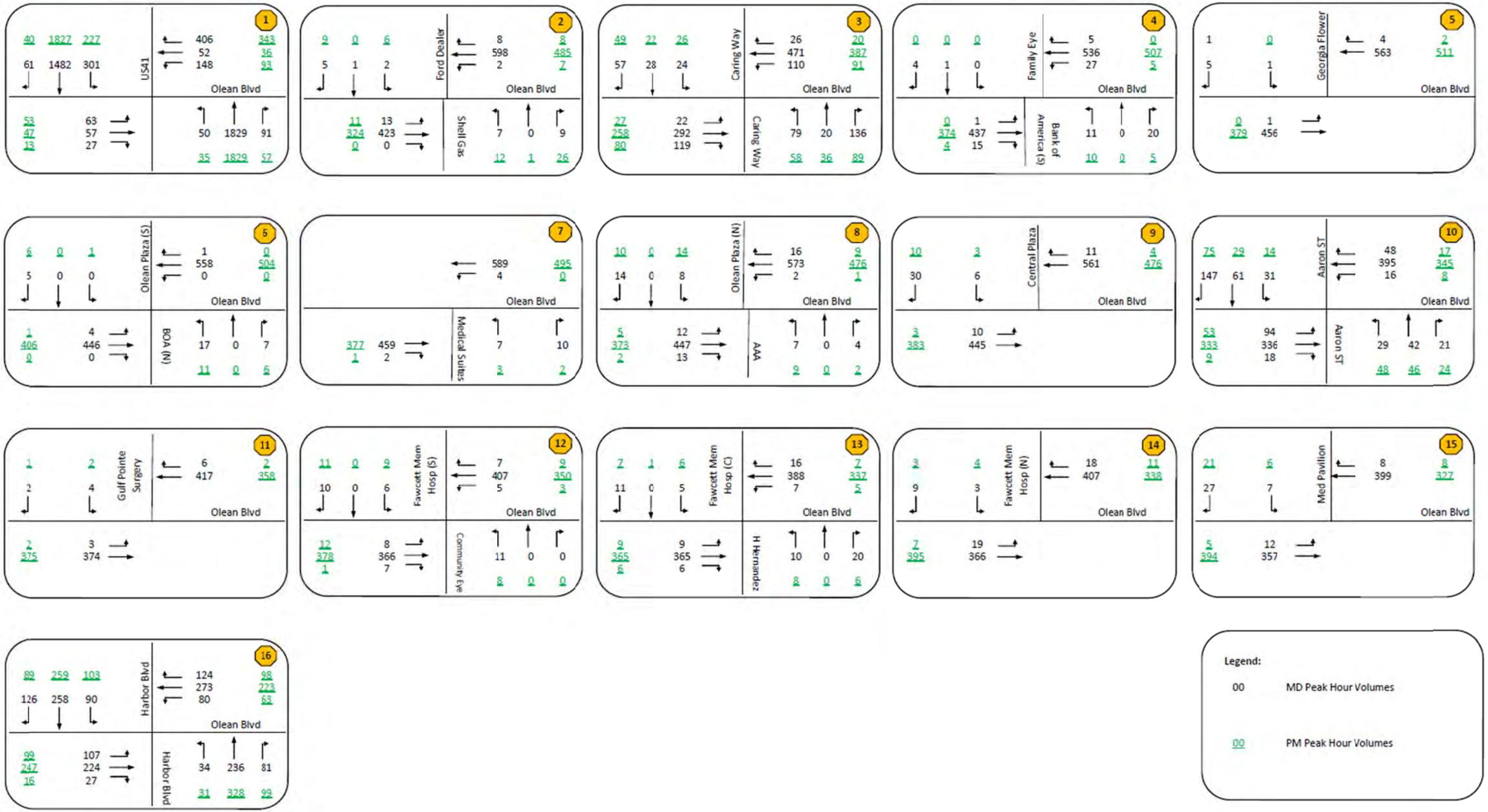
Figure 3-2
2015 Peak Hour Turning Movement Volumes



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3.3 Signal Phasing and Timing

In order to provide an assessment of the traffic operations at the intersections along Olean Boulevard, the existing traffic signal operations plans and timings were reviewed. These traffic control devices define and regulate the traffic flow in the area.

The existing signal phasing and timing plans were obtained from Charlotte County. The traffic signal at US 41 operates under a semi-actuated/coordinated mode. Actuated phases can be skipped and unused green time can be re-assigned to the coordinated phase. The cycle length is 170 seconds for the AM, PM, and mid-day periods. The through movements along US 41 are the coordinated movements. The remaining signalized intersections within the study area operate under actuated mode and are in "free operation" throughout the day. The signal data is provided in **Table 3-2**.

Table 3-2
Signal Phasing and Timing

Traffic Signal No.	Intersection	SOP[1]	AM Pattern	AM Cycle Length	Midday Pattern	Midday Cycle Length	PM Peak Pattern	PM Cycle Length	Remark
108	US 41	10	6:30-9:00	170	10:30-3:00	170	3:00-6:30	170	Coordination
182	Aaron St	10	-	Free	-	Free	-	Free	Free operation
183	Harbor Blvd	10	-	Free	-	Free	-	Free	Free operation

Note 1: Signal Operating Plan

3.4 Existing Intersection Analysis

The operation of the intersections was analyzed for existing conditions using *Trafficware SYNCHRO 9.1.* This marcroscopic software follows the methodologies outlined in the *Highway Capacity Manual, 2010 Edition*. A summary of the intersection analysis using the existing traffic signal phasing and timing for the weekday, midday and PM peak periods are provided in **Table 3-3**. Synchro worksheets for the intersections are provided in **Appendix C**.

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Table 3-3
Existing Intersection LOS

Existing Weekday MD Peak Hour						Existing Weekday PM Peak Hour				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS		Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	147	107.4	F		US 41	EB	113	101.8	F
	WB	606	78.3	E			WB	474	60.7	E
	NB	1970	38.1	D			NB	1921	34.7	C
	SB	1844	31.2	C			SB	2094	30.1	C
	Overall	4567	42.9	D			Overall	4602	36.9	D
Aaron St	EB	443	11.2	B		Aaron St	EB	391	11.1	B
	WB	453	19.7	B			WB	367	15.8	B
	NB	206	14.2	B			NB	181	14.3	B
	SB	236	19.9	B			SB	116	15.5	B
	Overall	1338	16.1	B			Overall	1055	13.8	B
Harbor Blvd	EB	355	24.6	C		Harbor Blvd	EB	357	28	C
	WB	472	25.1	C			WB	380	23.6	C
	NB	403	19.2	B			NB	445	23.6	C
	SB	470	20.9	C			SB	446	20.3	C
	Overall	1700	22.4	C			Overall	1628	23.6	C
Caring Way[1)]	NB	235	35	E		Caring Way[1)]	NB	183	23.3	C
	SB	109	53.2	F			SB	97	21.1	C
	Overall	1384	12	-			Overall	1143	6.9	-

1) Unsignalized Intersection

The intersection of US 41 has deficient LOS on the eastbound and westbound approaches during the midday and PM periods. The design alternatives will need to consider signal timing and phasing as well as geometric improvements to improve the LOS. The intersection of Caring Way has deficient LOS on the northbound and southbound approaches during the midday period.

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4. Traffic Forecasts

4.1 Future Growth

The Sarasota Manatee Charlotte County (SMCC) 2035 model from the Charlotte-Punta Gorda MPO was selected as the travel demand model for this study, as it was the adopted model at the time the project began. The SMCC model has a base year of 2007 and a horizon year of 2035. The growth rate between 2007 and 2035 ranged from less than zero percent to approximately one percent on Olean Boulevard.

The 2035 future traffic volumes were then compared to existing 2015 traffic counts to check the reasonableness of the model output. The model output volumes are Peak Season Weekday Average Daily Traffic (PSWADT). These values were adjusted by the Model Output Conversion Factor (MOCF) to obtain the AADT and were compared to the existing 2015 traffic counts. Similarly, the growth rate ranged from less than zero percent to less than one percent on Olean Boulevard.

Historical data at the FDOT traffic count station on US 41 north of Olean Boulevard was also reviewed. This analysis showed a declining trend.

Charlotte County provides recommended growth rates for concurrency analysis with near term (5 years) horizons. The growth rates were 1.25% for US 41 and 1.0% for Olean Boulevard and Harbor Boulevard. The recommended growth rates for the future conditions are:

- US 41: 1.25% for 5-year horizon; 0.1% from 5-year horizon to design year
- Olean: 1.0% for 5-year horizon; 0.5% from 5-year horizon to design year
- Harbor: 1.0% for 5-year horizon; 0.5% from 5-year horizon to design year

Provided in **Appendix D** are the FDOT trend analysis for US 41 and the Charlotte County Roadway LOS Data with suggested growth rates.

4.2 Future Daily Traffic

The SMCC 2035 model provided future traffic forecasts for Olean Boulevard with one travel lane in each direction. This scenario is considered the No Build condition since it includes the same number of lanes as the existing condition. The model was modified to reflect Olean Boulevard with two travel lanes in each direction. This model scenario is considered as the Build condition. The traffic forecast showed a ratio increase of 1.23 on Olean Boulevard with two travel lanes in each direction.

Future daily traffic was developed by applying the recommended growth rates discussed above for the No Build scenario. The future daily traffic for the Build scenario was developed by applying the ratio of 1.23 to the No Build scenario. Furthermore, the 2038 AADT values were obtained by extrapolation. The future daily traffic for 2018 and 2038 is provided in **Table 4-1**.

Table 4-1
Future Daily Forecast

Segments	Alternatives	Existing Year 2015	Opening Year 2018	Design Year 2038
West of US41	Alt1, Alt2	3800	3900	4400
	Alt3, Alt4	3800	3900	4400
US41 - Caring Way	Alt1, Alt2	12400	13000	17300
	Alt3, Alt4	12400	12600	14100
Caring Way - Aaron St	Alt1, Alt2	14300	15100	20100
	Alt3, Alt4	14300	14600	16400
Aaron St - Harbor Blvd	Alt1, Alt2	11300	11600	13400
	Alt3, Alt4	11300	11500	12900
East of Harbor Blvd	Alt1, Alt2	12000	12200	14100
	Alt3, Alt4	12000	12200	13700
US 41 North Approach	Alt1, Alt2	52000	52800	58400
	Alt3, Alt4	52000	52500	56200
US 41 South Approach	Alt1, Alt2	46100	46600	49900
	Alt3, Alt4	46100	46600	49900

The future daily traffic was compared to the adopted daily roadway LOS D standard service volume. Future traffic for Alternatives 1 and 2 will be within the service volume standard well beyond 2038, especially in the vicinity of the hospital. Future traffic for Alternative 3 will be within the service volume standard, however not as much as compared with Alternatives 1 and 2. For Alternative 4, the future traffic is anticipated to exceed the service volume standard around 2018 between Caring Way and Aaron Street. The roadway service volume comparison is provided in **Table 4-2.**

Table 4-2
Roadway Service Volume Comparison

Segments	Future Year	Alternative 1			Alternative 2			Alternative 3			Alternative 4		
		AADT	Daily Adopted Standard[1]	Reserve Service Volume	AADT	Daily Adopted Standard[2]	Reserve Service Volume	AADT	Daily Adopted Standard[3]	Reserve Service Volume	AADT	Daily Adopted Standard[2]	Reserve Service Volume
US 41 - Caring Way	2018	13000	29160	55%	13000	29160	55%	12600	29160	57%	12600	29160	57%
	2038	17300		41%	17300		41%	14100		52%	14100		52%
Caring Way - Aaron St	2018	15100	29160	48%	15100	27540	45%	14600	20060	27%	14600	14060	Exceeds LOS D Std
	2038	20100		31%	20100		27%	16400		18%	16400		
Aaron St - Harbor Blvd	2018	11600	29160	60%	11600	27540	58%	11500	14060	18%	11500	14060	18%
	2038	13400		54%	13400		51%	12900		8%	12900		8%

Note 1: FDOT, Generalized LOS Annual Average Daily Volume - Urbanized Areas. LOS D service volume adjusted for Non-State Roadway.

Note 2: FDOT, Generalized LOS Annual Average Daily Volume - Urbanized Areas. LOS D service volume adjusted for Non-State Roadway, Medians, and Turn Lanes.

Note 3: FDOT, Generalized LOS Annual Average Daily Volume - Urbanized Areas. Average LOS D service volume adjusted for Non-State Roadway, Medians, and Turn Lanes.

4.3 Design Hour Volumes

The Directional Design Hour Volumes (DDHV) for the intersections were developed using a spreadsheet termed *TMTOOL*. The spreadsheet uses the existing AADTs and the established growth factors to project the future daily traffic demands for the years 2018 (opening year) and 2038 (design year). With the K30 and D30 factors and existing turning percentages, the directional peak hour volumes and assigned turning movement volumes were determined.

The projected DDHVs were manually adjusted to balance the volumes within the study area using the existing counts. The volumes were adjusted to the proposed alternatives. **Appendix E** summarizes the DDHVs developed for the proposed alternatives.

4.4 Future Intersection Analysis

The operation of the intersections was analyzed for future conditions using *Trafficware SYNCHRO 9.1* following the methodologies outlined in the *Highway Capacity Manual, 2010 Edition*. A summary of the intersection analysis for the midday and PM peak periods are provided in Section 6 Design Alternatives.

5. Project Design Standards

Table 5-1
Project Design Standards

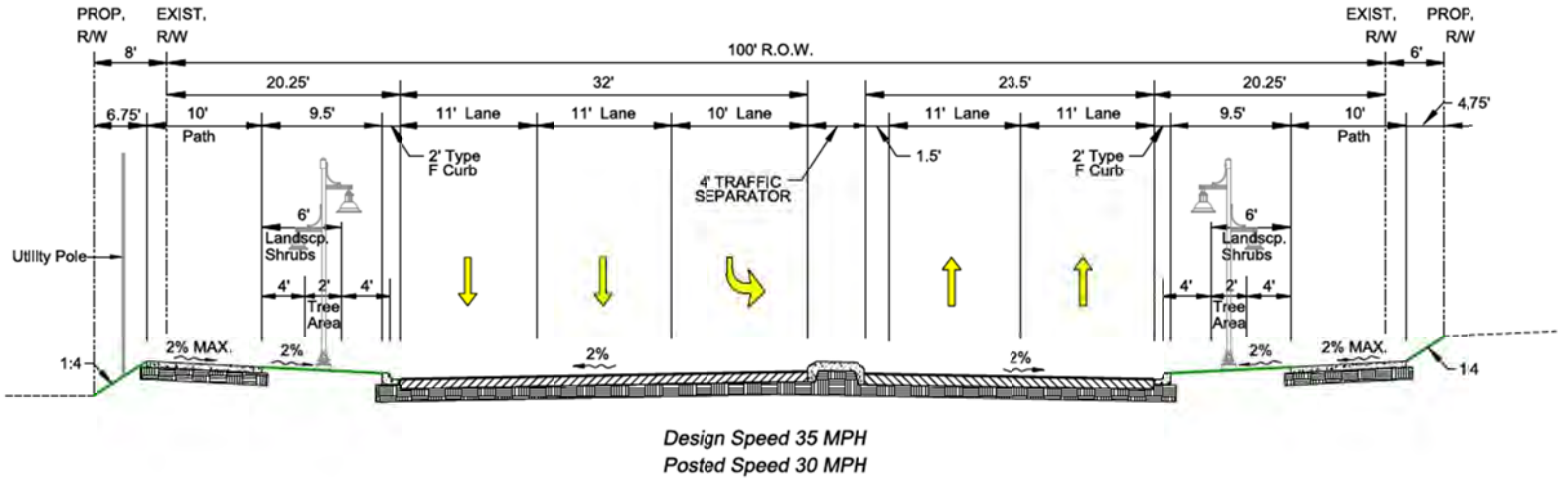
Design Element	Design Standards	Sources
Functional Classification	Urban Collector	Charlotte County: Roadway Level of Service Data
Design Speed	35 mph	FDOT Manual of Uniform Minimum Standards 2013 – Table 3-1
Median Width	15.5 Feet	FDOT Manual of Uniform Minimum Standards 2013 – Table 3-12
Lane Width	11 Feet	FDOT Manual of Uniform Minimum Standards 2013 – Table 3-8
Shoulder Width	Urban – N/A Rural – 6 feet	FDOT Manual of Uniform Minimum Standards 2013 – Sect. C.7.c.1
Cross Slopes	0.02	FDOT Manual of Uniform Minimum Standards 2013 – Sect. C.7.b.2
Superelevation	Reverse Crown (+0.02)	FDOT Manual of Uniform Minimum Standards 2013 – Figure 3-2
Clear Zone	Urban – 4 Feet Rural – 10 Feet	FDOT Manual of Uniform Minimum Standards 2013 – Table 3-13

6. Design Alternatives

6.1 Alternative 1

This alternative consists of reconstructing the existing roadway to provide a four-lane divided urban typical section centered within the existing ROW as shown in **Figure 6-1** and **Figure 6-2**. The typical section will consist of four 11-foot travel lanes (two lanes in each direction) and a 15.5-foot median with Type F curb and gutter.

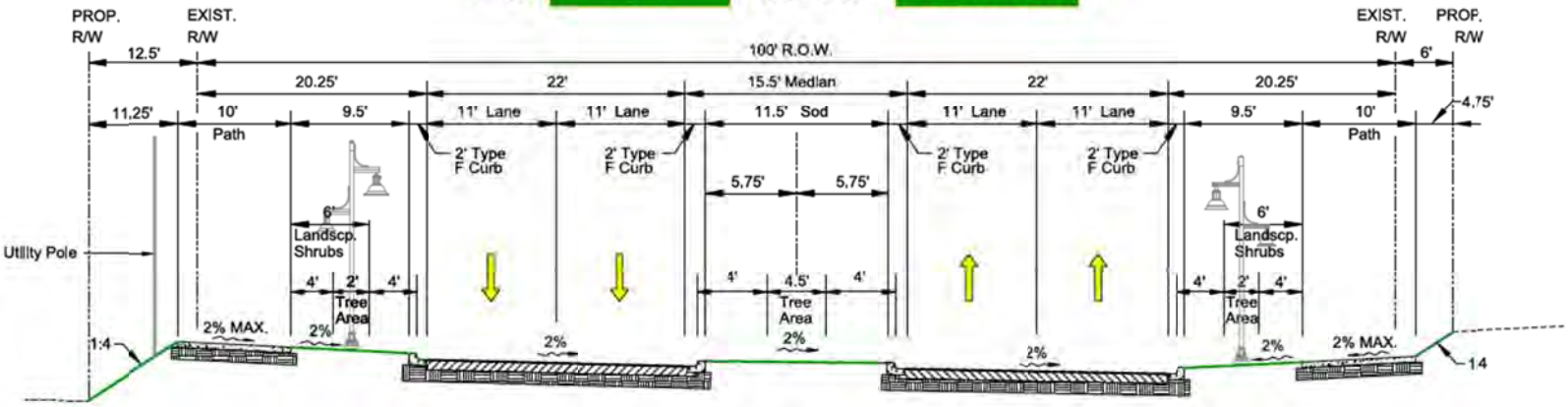
Figure 6-1
Alternative 1 Typical Section



Design Speed 35 MPH
Posted Speed 30 MPH

ALTERNATIVE 1 (4-Lane Divided)

FROM **U.S. 41** *TO EAST OF* **CARING WAY**

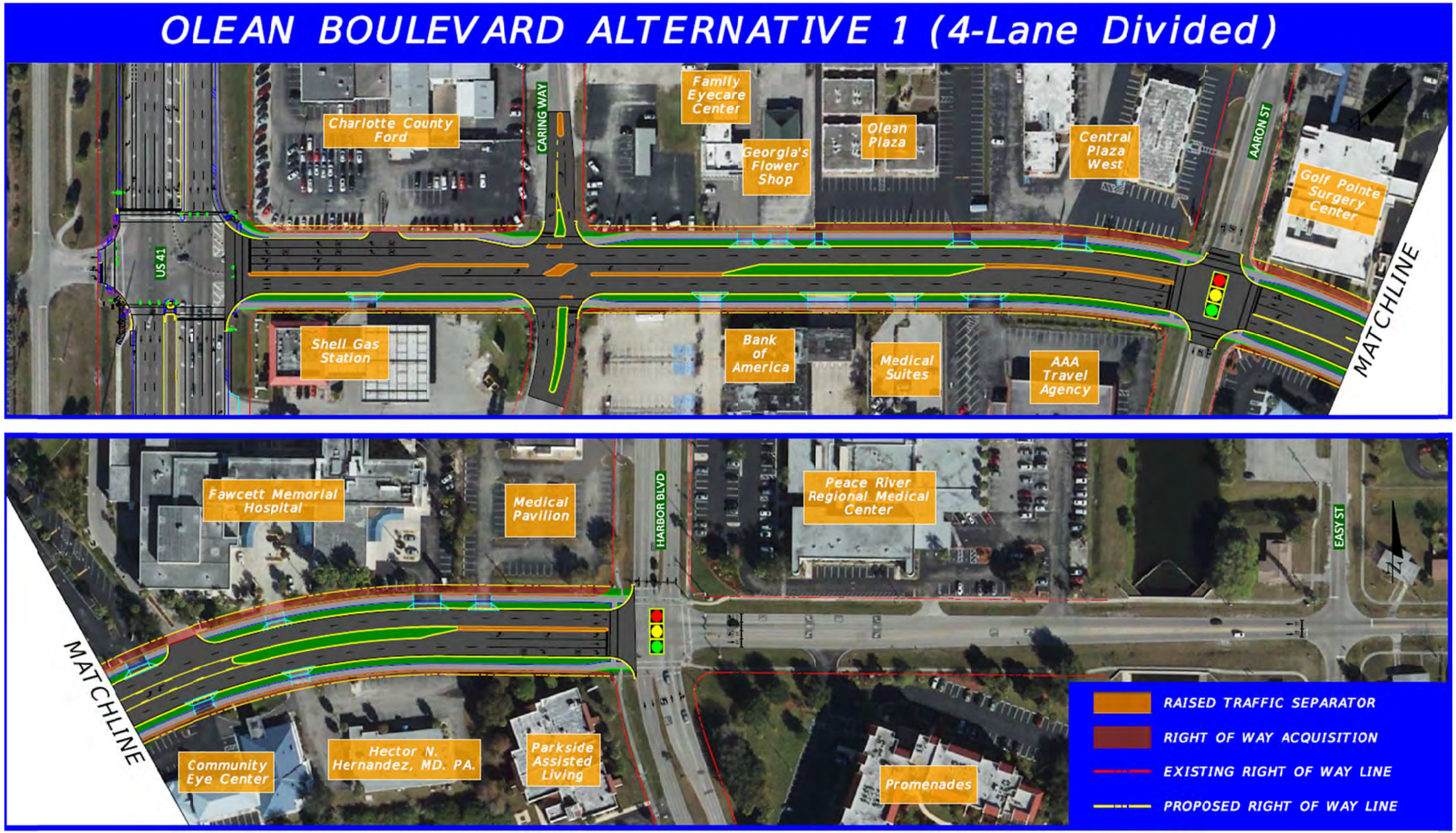


SUPERELEVATION SECTION FOR CURVE
Design Speed 35 MPH
Posted Speed 30 MPH

ALTERNATIVE 1 (4-Lane Divided)

FROM EAST OF **CARING WAY** *TO* **HARBOR BOULEVARD**

Figure 6-2
Alternative 1 Conceptual Plan



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6.1.1 Operational Analysis

This alternative changes the access along Olean Boulevard from non-restrictive to restrictive. A traffic circulation plan was developed assuming a logical travel pattern for these restricted vehicle movements through the study area. The assumptions for the traffic redistribution are provided in **Appendix F**.

The operation of the intersections was analyzed for future conditions using *Trafficware SYNCHRO 9.1*. The existing midday and PM signal timing and phasing was used for this alternative. The intersection of US 41 is anticipated to have acceptable LOS during the midday and PM periods, except for the eastbound approach. The intersection of Caring Way is anticipated to have acceptable LOS on the northbound and southbound right turn approaches. A summary of the intersection analysis for the midday and PM peak periods are provided in **Table 6-1**. Synchro worksheets for the intersections are provided in **Appendix G**. LOS and vehicle queue lengths for 2038 are provided in **Appendix H.**

This alternative also recommends the addition of a dedicated westbound left turn lane at the approach to US 41 to relieve queueing associated with the increase in projected traffic with this 4-lane alternative. To accommodate this additional turn lane, the existing signal heads for the westbound approach and the median nose at the south leg of the intersection will need to be modified.

6.1.2 Access Management

This alternative changes the access classification of the existing roadway from Class 6 (Non-Restrictive) to Class 5 (Restrictive). The westbound and eastbound travel lanes will be divided by either a raised median or concrete traffic separator with the exception of the limits between east of Aaron Street to east of the Fawcett Memorial Hospital driveway. Within these limits, a painted median is proposed to maintain access for emergency vehicles.

Business access would be restricted to right-in/right-out only turning movements and vehicles would be required to make U-turns at the full median openings at Caring Way, Aaron Street or Harbor Boulevard. The 22 feet of pavement width would only accommodate U-turn movements for passenger car and emergency vehicles. Future intersection LOS and delays are provided in **Table 6-1**.

The full opening at Caring Way will be converted to a westbound and an eastbound directional median opening as a safety improvement.

Table 6-1
Future Intersection LOS: Alternative 1

Midday Peak Hour Year 2018					PM Peak Hour Year 2018				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS	Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	149	97.9	F	US 41	EB	115	91.6	F
	WB	640	48.0	D		WB	498	43.1	D
	NB	2065	38.6	D		NB	2011	33.9	C
	SB	1869	32.4	C		SB	2120	29.2	C
	Overall	4723	39.3	D		Overall	4744	34.2	C
Aaron St	EB	503	17.6	B	Aaron St	EB	440	16.2	B
	WB	488	21.2	C		WB	392	19.9	B
	NB	111	21.7	C		NB	141	20.8	C
	SB	295	19.6	B		SB	168	14.8	B
	Overall	1397	19.6	B		Overall	1141	17.8	B
Harbor Blvd	EB	426	23.0	C	Harbor Blvd	EB	413	25.1	C
	WB	485	28.7	C		WB	391	25.6	C
	NB	358	24.5	C		NB	468	25.7	C
	SB	506	23.2	C		SB	483	22.4	C
	Overall	1775	24.9	C		Overall	1755	24.6	C
Caring Way[1)]	NB	148	10.2	B	Caring Way[1)]	NB	108	9.8	A
	SB	58	10.5	B		SB	50	10.0	B
	Overall	1335	3.1	-		Overall	1084	2.8	-

Midday Peak Hour Year 2038					PM Peak Hour Year 2038				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS	Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	168	132.4	F	US 41	EB	130	111.7	F
	WB	851	54.5	D		WB	661	45.2	D
	NB	2219	41.9	D		NB	2162	40.5	D
	SB	2033	36.8	D		SB	2301	33.0	C
	Overall	5271	44.8	D		Overall	5254	39.6	D
Aaron St	EB	650	18.9	B	Aaron St	EB	561	16.7	B
	WB	596	22.8	C		WB	475	21.0	C
	NB	129	22.6	C		NB	163	22.3	C
	SB	348	22.4	C		SB	195	15.6	B
	Overall	1723	21.2	C		Overall	1394	18.7	B
Harbor Blvd	EB	494	25.6	C	Harbor Blvd	EB	479	27.5	C
	WB	562	33.4	C		WB	452	29.8	C
	NB	403	27.2	C		NB	527	29.4	C
	SB	582	25.0	C		SB	555	25.7	C
	Overall	2041	27.9	C		Overall	2013	28.0	C
Caring Way[1)]	NB	171	11.0	B	Caring Way[1)]	NB	125	10.3	B
	SB	64	11.5	B		SB	56	10.7	B
	Overall	1724	3.3	-		Overall	1409	2.9	-

1) Unsignalized Intersection

6.1.3 Pedestrian and Bicyclist

This alternative provides a 10-foot multi-use path along the north and south side of the roadway. This alternative does not provide on-street bicycle accommodations.

6.1.4 Safety

To alleviate the angle crashes occurring at Caring Way, as discussed in Section 2.8, the full median opening will be converted to a directional median opening. Raised channelizing islands will restrict left turns from Caring Way to Olean Boulevard.

With the restrictive median, vehicles will be required to make U-turns at the intersections at US 41, Caring Way, Aaron Street, and Harbor Boulevard. This would increase the queues at the left turn lanes thus increasing the potential of rear end crashes. It should be noted that rear end crashes are less severe than the angle crashes.

6.1.5 Landscaping and Enhancements

This alternative provides two raised medians which can accommodate landscaping and trees. The raised medians are approximately 150 feet in length and located between Caring Way and Aaron Street and between Aaron Street and Harbor Boulevard. The area between the roadway and multi-use path provides additional areas for landscaping and trees. Tree placement would be required to meet the four feet roadway and path clear zone criteria. Lighting can also be placed in this area to light the roadway and pedestrian path and to further enhance the corridor.

6.1.6 Drainage

This alternative proposes additional travel lanes and a closed drainage system which requires design, permitting, and construction of drainage collection and Stormwater Management Facilities to serve the project. Retention ponds are required to store and provide water quality treatment of the project drainage. The stored Stormwater must be released in a controlled manner such that no localized or downstream adverse flooding may occur.

Since part of the Olean Boulevard corridor drains to the Elkcam Waterway and part of the Olean Boulevard corridor drains to the Sunrise Waterway, a pond site in each of the two associated drainage basins is recommended. Potential pond sites which are currently vacant have been identified. The area provided by these potential pond sites is sufficient for the drainage needs of the project. The locations of the potential pond sites in relation to the project area and outfall locations have been determined feasible. See **Appendix I**.

The parcel located at 2400 Aaron Street could serve as a potential pond site for the easterly part of the Olean Boulevard corridor. The property size is approximately a half

acre. It is recommended that the stormwater from the eastern area of the Olean Boulevard project be piped southward on Aaron Street to the potential pond site with an outfall from the pond site to the adjacent lake. This lake has an existing drainage connection with the Elkcam Waterway.

For the westerly part of the Olean Boulevard corridor, the parcels located at 21179 and 21187 Brinson Avenue could serve as potential pond sites. The combined area of these parcels is approximately one acre. It is recommended that the stormwater from the western portion of the Olean Boulevard project be piped northward on Aaron Street and then westward on Brinson Avenue. The outfall from this potential pond site will require piping to an existing outfall location directed to the Sunrise Waterway. Two existing outfalls to the Sunrise Waterway are located within proximity to the potential pond site. One is located near the intersection of Brinson Ave and Caring Way and the other is located about 350 feet southward along Caring Way.

6.1.7 ROW Impacts

This alternative requires mainline ROW acquisition for the implementation of the 10-foot multi-use paths along both sides of the roadway. As depicted in **Figure 6-1**, eight feet to 12.5 feet of additional ROW will be necessary on the north side of the roadway, and six feet of additional ROW will be necessary on the south side of the roadway.

6.2 Alternative 2

This alternative consists of reconstructing the existing roadway to provide a five-lane undivided urban section centered within the existing ROW as shown in **Figure 6-3** and **Figure 6-4**. The urban typical section will consist of four 11-foot travel lanes (two lanes in each direction) and an 11-foot two-way center turn lane.

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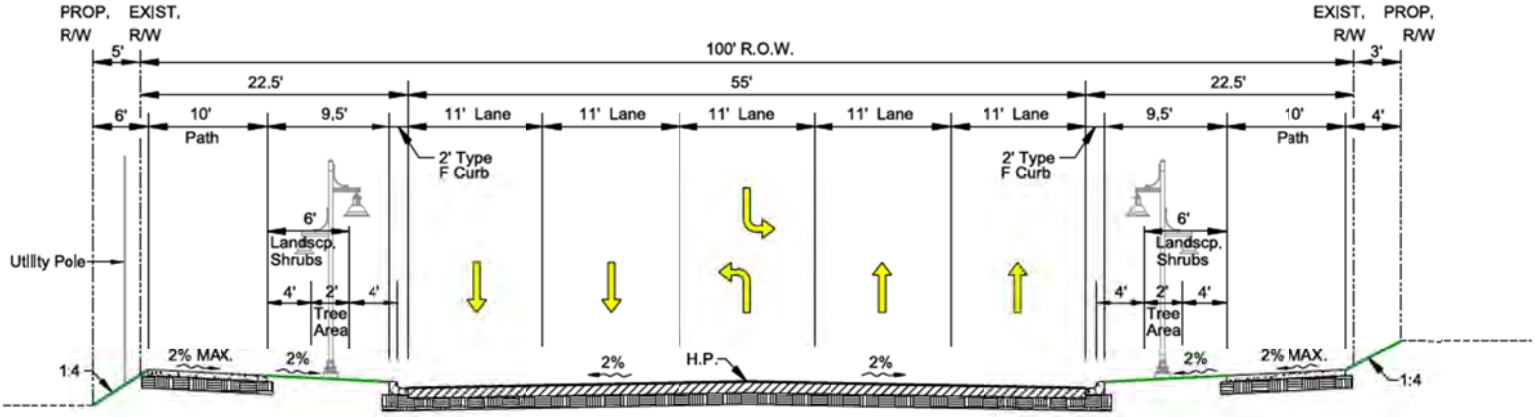
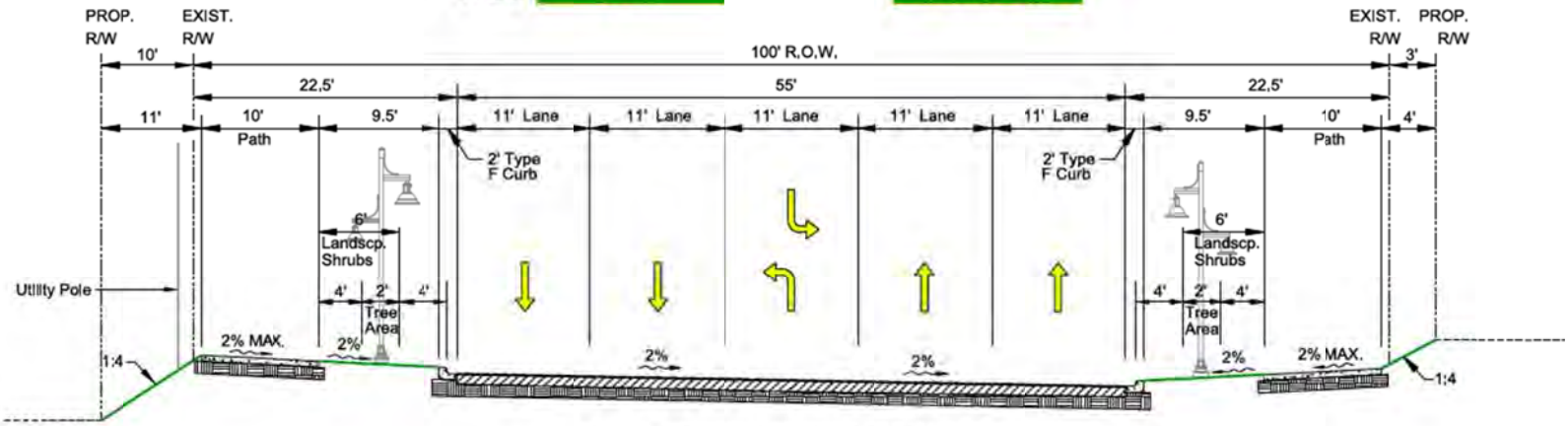
Figure 6-3
Alternative 2 Typical Section



Design Speed 35 MPH
Posted Speed 30 MPH

ALTERNATIVE 2 (5-Lane Undivided)

FROM **U.S. 41** *TO EAST OF* **CARING WAY**



SUPERELEVATION SECTION FOR CURVE
Design Speed 35 MPH
Posted Speed 30 MPH

ALTERNATIVE 2 (5-Lane Undivided)

FROM EAST OF **CARING WAY** *TO* **HARBOR BOULEVARD**

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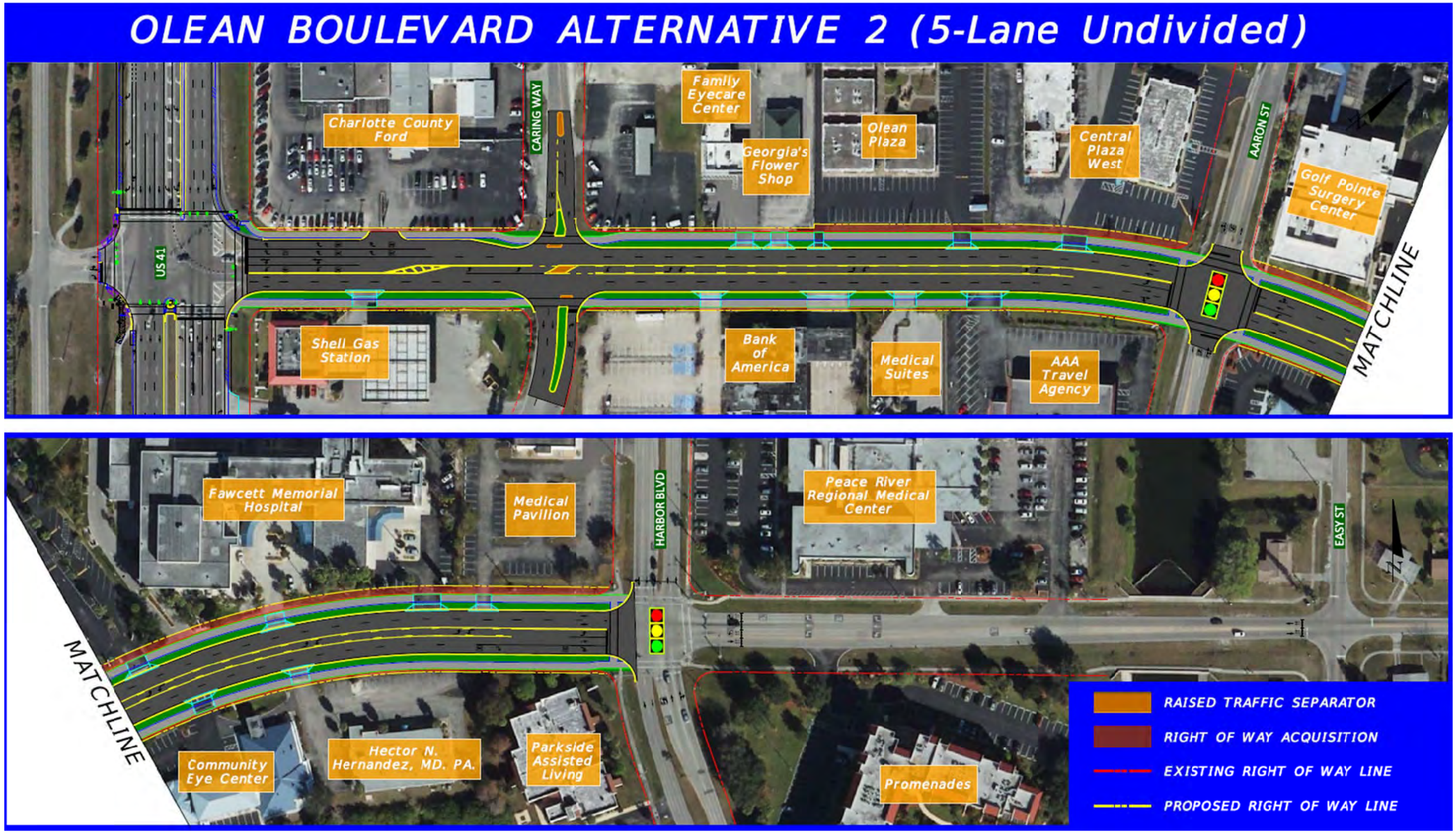
Figure 6-4
Alternative 2 Conceptual Plan



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6.2.1 Operational Analysis

The existing midday and PM signal timing and phasing was used for this alternative. The intersection of US 41 is anticipated to have acceptable LOS during the midday and PM periods, except for the eastbound approach. The intersection with Caring Way is anticipated to have acceptable LOS on the northbound and southbound right turn approaches. A summary of the intersection analysis for the midday and PM peak periods are provided in **Table 6-2**. Synchro worksheets for the intersections are provided in **Appendix G**. LOS and vehicle queue lengths for 2038 are provided in **Appendix H.**

This alternative also recommends the addition of a dedicated westbound left turn lane at the approach to US 41 to relieve queueing associated with the increase in projected traffic with this 5-lane alternative.. To accommodate this additional turn lane, the existing signal heads for the westbound approach and the median nose at the south leg of the intersection will need to be modified.

6.2.2 Access Management

This alternative maintains the current access classification of the existing roadway and provides unrestricted access to the businesses throughout the corridor. The full opening at Caring Way will be converted to a westbound and an eastbound directional median opening as a safety improvement.

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Table 6-2
Future Intersection LOS: Alternative 2

Midday Peak Hour Year 2018					PM Peak Hour Year 2018				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS	Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	149	97.9	F	US 41	EB	115	91.6	F
	WB	640	48.0	D		WB	498	43.1	D
	NB	2065	38.6	D		NB	2011	33.9	C
	SB	1869	32.4	C		SB	2120	29.2	C
	Overall	4723	39.3	D		Overall	4744	34.2	C
Aaron St	EB	480	15.5	B	Aaron St	EB	410	13.0	B
	WB	469	20.7	C		WB	383	19.0	B
	NB	101	20.7	C		NB	133	20.9	C
	SB	287	19.3	B		SB	165	14.6	B
	Overall	1337	18.5	B		Overall	1091	16.3	B
Harbor Blvd	EB	369	24.9	C	Harbor Blvd	EB	370	28.4	C
	WB	487	25.8	C		WB	389	23.8	C
	NB	359	22.9	C		NB	466	23.9	C
	SB	492	21.4	C		SB	466	20.5	C
	Overall	1707	23.7	C		Overall	1691	23.9	C
Caring Way[1)]	NB	149	10.2	B	Caring Way[1)]	NB	108	9.8	A
	SB	59	10.5	B		SB	51	10.0	B
	Overall	1297	2.8	-		Overall	1065	2.7	-

Midday Peak Hour Year 2038					PM Peak Hour Year 2038				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS	Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	168	132.4	F	US 41	EB	130	111.7	F
	WB	851	54.5	D		WB	661	45.2	D
	NB	2219	41.9	D		NB	2162	40.5	D
	SB	2033	36.8	D		SB	2301	33.0	C
	Overall	5271	44.8	D		Overall	5254	39.6	D
Aaron St	EB	634	16.4	B	Aaron St	EB	533	14.4	B
	WB	575	23.0	C		WB	470	21.2	C
	NB	117	22.1	C		NB	155	22.0	C
	SB	339	22.3	C		SB	192	15.6	B
	Overall	1665	20.3	C		Overall	1350	17.8	B
Harbor Blvd	EB	425	25.9	C	Harbor Blvd	EB	431	29.4	C
	WB	562	28.0	C		WB	452	25.3	C
	NB	403	24.6	C		NB	527	26.3	C
	SB	566	23.0	C		SB	537	23.8	C
	Overall	1956	25.4	C		Overall	1947	26.1	C
Caring Way[1)]	NB	171	11.0	B	Caring Way[1)]	NB	125	10.3	B
	SB	64	11.5	B		SB	56	10.7	B
	Overall	1672	2.8	-		Overall	1386	2.7	-

1) Unsignalized Intersection

6.2.3 Pedestrian and Bicyclists

This alternative provides a 10-foot multi-use path along the north and south side of the roadway. This alternative does not provide on-street bicycle accommodation.

6.2.4 Safety

To alleviate the angle crashes occurring at Caring Way, as discussed in Section 2.8, the full median opening will be converted to a westbound and an eastbound directional median opening. Raised channelizing islands will restrict left turns from Caring Way to Olean Boulevard.

6.2.5 Landscaping and Enhancements

This alternative provides landscaping and tree areas between the roadway and multi-use path. Tree placement would be required to meet the four feet roadway and multi-use path clear zone criteria. Lighting can also be placed in this area to light the roadway and pedestrian path and to further enhance the corridor.

6.2.6 Drainage

This alternative proposes additional travel lanes and a closed drainage system. The proposed drainage approach will be same as Alternative 1. See Section 6.1.6.

6.2.7 ROW Impacts

This alternative requires mainline ROW acquisition for the implementation of 10-foot multi-use paths along both sides of the roadway. As depicted in **Figure 6-3**, five feet to 10 feet of additional ROW will be necessary on the north side of the roadway, and three feet of additional ROW will be necessary on the south side of the roadway.

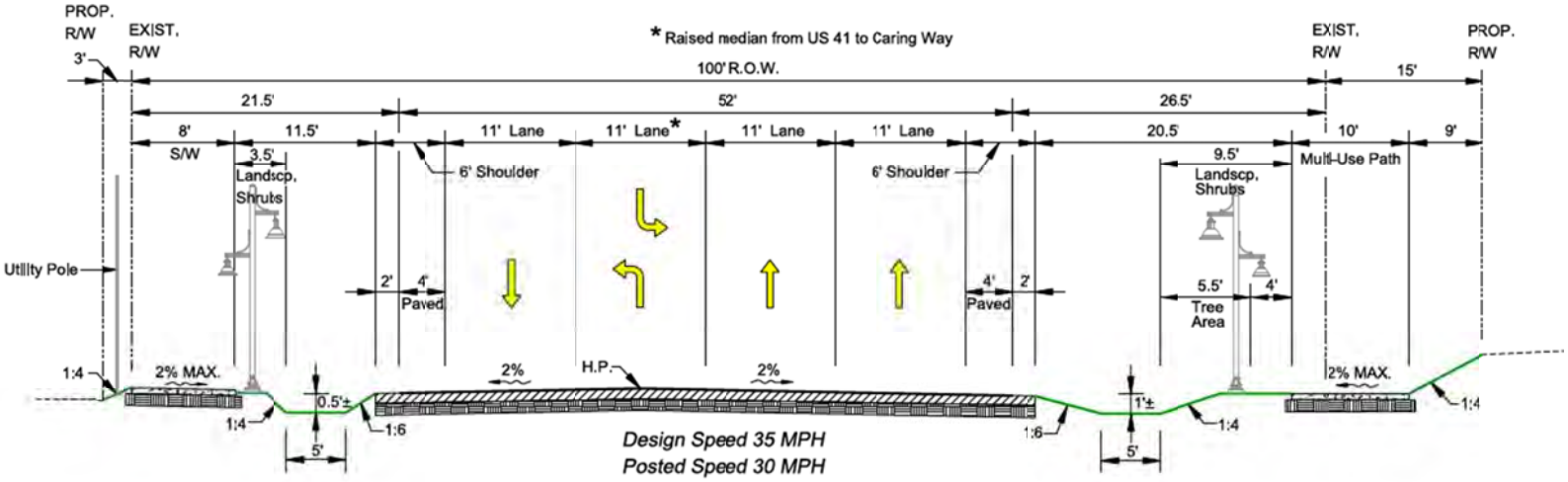
6.3 Alternative 3

This alternative utilizes the existing roadway pavement and provides an undivided rural section from Caring Way to Harbor Boulevard, as shown in **Figure 6-5** and **Figure 6-6**.

The typical section will consist of one 11-foot westbound travel lane, an 11-foot two-way center turn lane, and two 11-foot eastbound lanes from US 41 to Aaron Street where the outside eastbound lane drops and becomes a right turn lane. East of Aaron Street, the typical section will consist of one 11-foot westbound travel lane, an 11-foot two-way center turn lane, and one 11-foot eastbound lane. Six-foot shoulders with four-foot paved will be provided adjacent to the travel lanes.

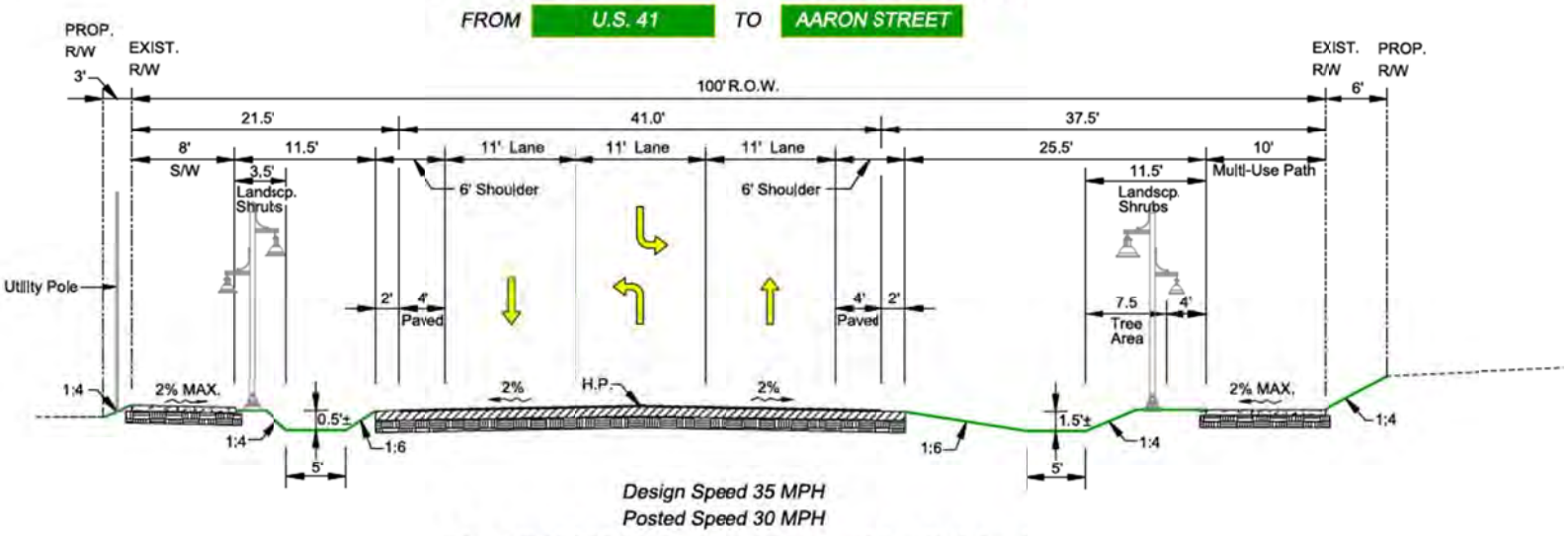
Rather than full reconstruction, this alternative utilizes the existing pavement and would require pavement widening from US 41 to Aaron Street. This alternative also includes the implementation of a roundabout at the intersection of Caring Way as shown in **Figure 6-7**.

Figure 6-5
Alternative 3 Typical Section



ALTERNATIVE 3 (4-Lane Undivided)

FROM U.S. 41 TO AARON STREET



ALTERNATIVE 3 (3-Lane Undivided)

FROM AARON STREET TO HARBOR BOULEVARD

Figure 6-6
Alternative 3 Conceptual Plan

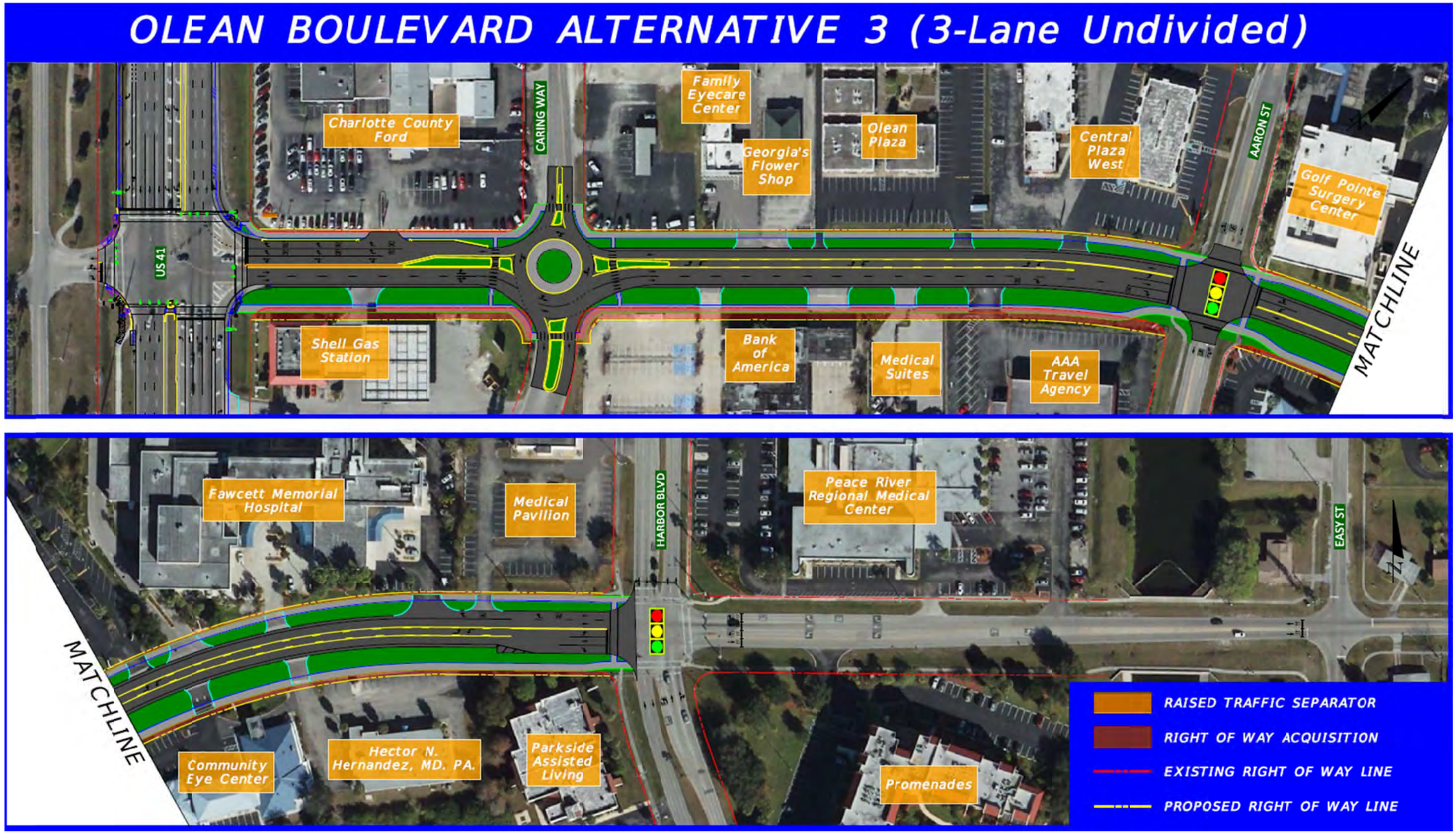


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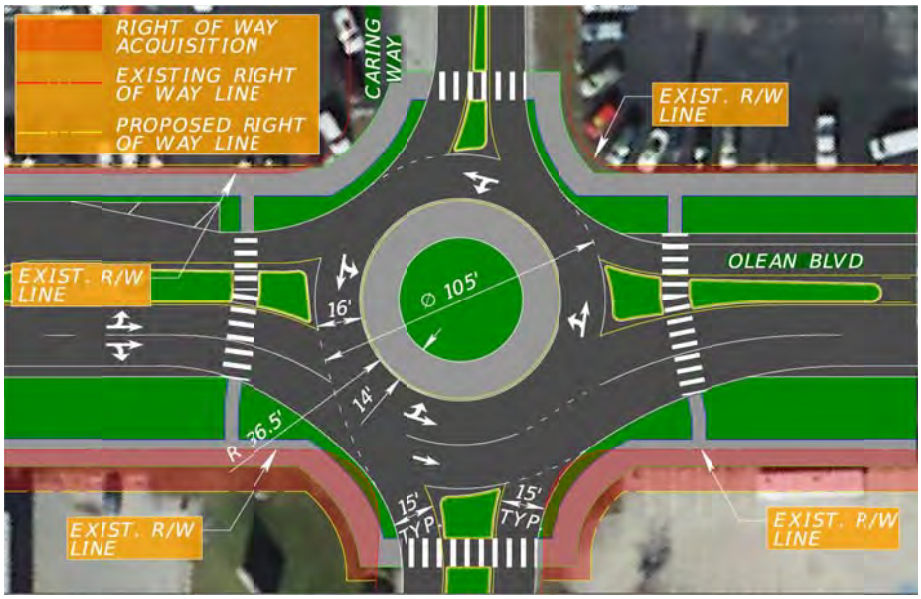
Figure 6-7
Alternative 3 Roundabout at Caring Way



The Roundabout Concept was developed in accordance with the design principles outlined in the NCHRP Report 672 Roundabouts, An Informational Guide. Roundabout design is based upon a set of fundamental principles which guide the design process. These principles include: achieving speed control at entry, providing appropriate lane numbers and arrangements, appropriately aligning the natural path of vehicles, accommodating the design vehicle (WB-50), accommodating non-motorized users, and providing adequate sight distance and visibility.

Inscribed Circle Diameter: The conceptual design utilizes an inscribed circle diameter of 105 feet, which is the minimum diameter to accommodate a WB-50 design vehicle.

Roundabout Position: The positioning of the roundabout concept considered ROW impacts while meeting the roundabout performance objectives for accommodating WB-50 trucks and vehicular speed control.

Lane Width: The concept design utilizes a circulatory roadway width of 16-feet and 15-feet entry and exit widths.

Splitter Islands: The concept design utilizes 100-foot splitter islands typically. The splitter islands are designed to provide sufficient length and width to be visible to drivers, provide adequate pedestrian refuge, channelize vehicles, and to provide vehicle speed control. 50 feet is the minimum length for a splitter island, with 100 feet or more desirable.

Central Island: The concept design utilized a 73-foot diameter raised central island. The island includes a 14-foot wide traversable truck apron to accommodate a WB-50 design vehicle.

6.3.1 Operational Analysis

The existing signal timing and phasing was used for this alternative, except at the intersection with US 41 where the signal timing splits were modified. For the midday period at US 41, the existing cycle length of 170 seconds was used with a modified timing split to reduce the queuing on the westbound approach. The intersection of US 41 is anticipated to have acceptable LOS during the midday and PM periods, except for the eastbound approach. The intersection with Caring Way is anticipated to have acceptable LOS on all approaches with the roundabout. A summary of the intersection analysis for the midday and PM peak periods are provided in **Table 6-3**. Synchro worksheets for the intersections are provided in **Appendix G**. LOS and vehicle queue lengths for 2038 are provided in **Appendix H.**

6.3.2 Access Management

The implementation of the roundabout at Caring Way maintains full access of the intersection at Caring Way. A raised traffic separator and median will be developed from US 41 to the approach of the roundabout, which will restrict access to adjacent properties. However, vehicles will be able to utilize the roundabout to perform U-turn movements. From east of Caring Way, this alternative maintains the current access classification of the existing roadway and provides unrestricted access to the businesses as the roadway will remain an undivided typical section.

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Table 6-3
Future Intersection LOS: Alternative 3

Midday Peak Hour Year 2018				
ntersectio	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	149	84.0	F
	WB	619	46.1	D
	NB	2017	45.6	D
	SB	1857	36.8	D
	Overall	4642	43.4	D
Aaron St	EB	456	20.7	C
	WB	472	36.4	D
	NB	92	20.7	C
	SB	242	14.8	B
	Overall	1262	25.4	C
Harbor Blv	EB	368	24.8	C
	WB	489	25.8	C
	NB	360	22.9	C
	SB	484	21.2	C
	Overall	1701	23.7	C
Caring Wa	EB	446	7.6	A
	WB	624	15.7	C
	NB	240	9.1	A
	SB	117	10.4	B
	Overall	1427	11.6	B

PM Peak Hour Year 2018				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	115	94.1	F
	WB	482	46.8	D
	NB	1964	33.1	C
	SB	2110	29.1	C
	Overall	4671	34.2	C
Aaron St	EB	403	19.3	B
	WB	380	29.5	C
	NB	118	19.9	B
	SB	119	11.3	B
	Overall	1020	22.2	B
Harbor Blvd	EB	369	28.3	C
	WB	391	23.8	C
	NB	468	23.9	C
	SB	457	20.5	C
	Overall	1685	23.9	C
Caring Way[1)]	EB	376	7.0	A
	WB	513	11.8	B
	NB	186	7.7	A
	SB	105	8.4	A
	Overall	1180	9.3	A

Midday Peak Hour Year 2038				
ntersectio	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	168	93.2	F
	WB	692	53.0	D
	NB	2156	54.6	D
	SB	1978	37.5	D
	Overall	4994	48.9	D
Aaron St	EB	511	22.0	C
	WB	527	44.3	D
	NB	105	21.1	C
	SB	273	16.5	B
	Overall	1416	29.2	C
Harbor Blv	EB	409	25.5	C
	WB	545	27.4	C
	NB	402	24.3	C
	SB	538	22.4	C
	Overall	1894	24.9	C
Caring Wa	EB	446	8.5	A
	WB	624	21.3	C
	NB	240	10.6	B
	SB	117	12.0	B
	Overall	1427	14.7	B

PM Peak Hour Year 2038				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	130	98.6	F
	WB	539	48.5	D
	NB	2101	37.7	D
	SB	2258	31.3	C
	Overall	5028	37.5	D
Aaron St	EB	449	20.1	C
	WB	428	32.6	C
	NB	135	20.8	C
	SB	135	11.4	B
	Overall	1147	23.9	C
Harbor Blvd	EB	413	29.2	C
	WB	439	25.0	C
	NB	523	25.9	C
	SB	512	23.3	C
	Overall	1887	25.7	C
Caring Way[1)]	EB	376	6.7	A
	WB	513	14.6	B
	NB	186	8.7	A
	SB	105	9.6	A
	Overall	1180	10.7	A

1) Roundabout

6.3.3 Pedestrian and Bicyclists

This alternative provides an eight-foot sidewalk along the north side of the roadway, and a 10-foot multi-use path along the south side of the roadway from US 41 to Harbor Boulevard. This alternative provides 4-foot paved shoulders on both sides of the roadway which can accommodate bicyclists.

6.3.4 Safety

The implementation of the roundabout at Caring Way is an alternative solution to alleviate the angle crashes occurring at the intersection, as discussed in Section 2.8. Roundabouts have fewer vehicular conflict points in comparison to conventional intersections. The potential for high-severity conflicts, such as right angle and left-turn head-on crashes, is greatly reduced with roundabout use. Low absolute speeds generally associated with roundabouts allow drivers more time to react to potential conflicts, also helping to improve the safety performance of roundabouts. Low vehicle speeds help reduce crash severity, making fatalities and serious injuries uncommon at roundabouts. This alternative would eliminate the angle crashes that are currently occurring, while still maintaining full access of the intersection at Caring Way.

6.3.5 Landscaping and Enhancements

This alternative provides landscape areas between the roadway and sidewalk or multi-use path. The landscape area along the north side of the roadway would be limited to shrubs. The landscape area along the south side of the roadway can accommodate shrubs and trees. Tree placement would be required to meet the four feet multi-use path clear zone criteria. Lighting can also be placed in this area to light the roadway and pedestrian path and to further enhance the corridor.

In addition, the roundabout at Caring Way can serve as an enhancement feature for the Olean Boulevard corridor. Landscaping is one of the distinguishing features that give roundabouts an aesthetic advantage over traditional intersections. Landscaping in the central island, splitter islands (where appropriate), and along the approaches can benefit both public safety and community enhancement. In addition to landscaping, the central island of the roundabout provides the opportunity to display a gateway feature.

6.3.6 Drainage

Roadway improvement projects without proposed additional travel lanes may be exempt from SWFWMD permits and providing Stormwater Management Facilities.

Exempt Projects typically include:

- Turn Lanes less than 0.25 miles in length
- Safety-related Intersection Improvements

- Sidewalks and Multi-Use Paths
- Repair/Replacement of Storm Pipes & Culverts

SWFWMD Exemption Requirements may be met with "No Permit Required" thus minimizing permitting efforts and Stormwater Management Facility acquisition for the benefit of the project. In the event a SWFWMD Exemption cannot be granted based on the intensity of roadway improvements for this alternative, an Individual ERP Permit would need to be obtained and a Stormwater Management Facility would be required.

The area of the project which may require permitting is from US-41 to Aaron Street where the dual eastbound lanes will be extended from Caring Way to Aaron Street. This area is within the westerly portion of Olean Boulevard and can utilize the potential pond location previously discussed in Section 6.1.6 of this report. East of Aaron Street the roadway remains three lanes and meets the SWFWMD Exemption requirements.

6.3.7 ROW Impacts

This alternative requires mainline ROW acquisition for the implementation of an eight-foot sidewalk and a 10-foot multi-use path along the roadway. As depicted in **Figure 6-5**, three feet of additional ROW will be necessary on the north side of the roadway, and six to 15 feet of additional ROW will be necessary on the south side of the roadway.

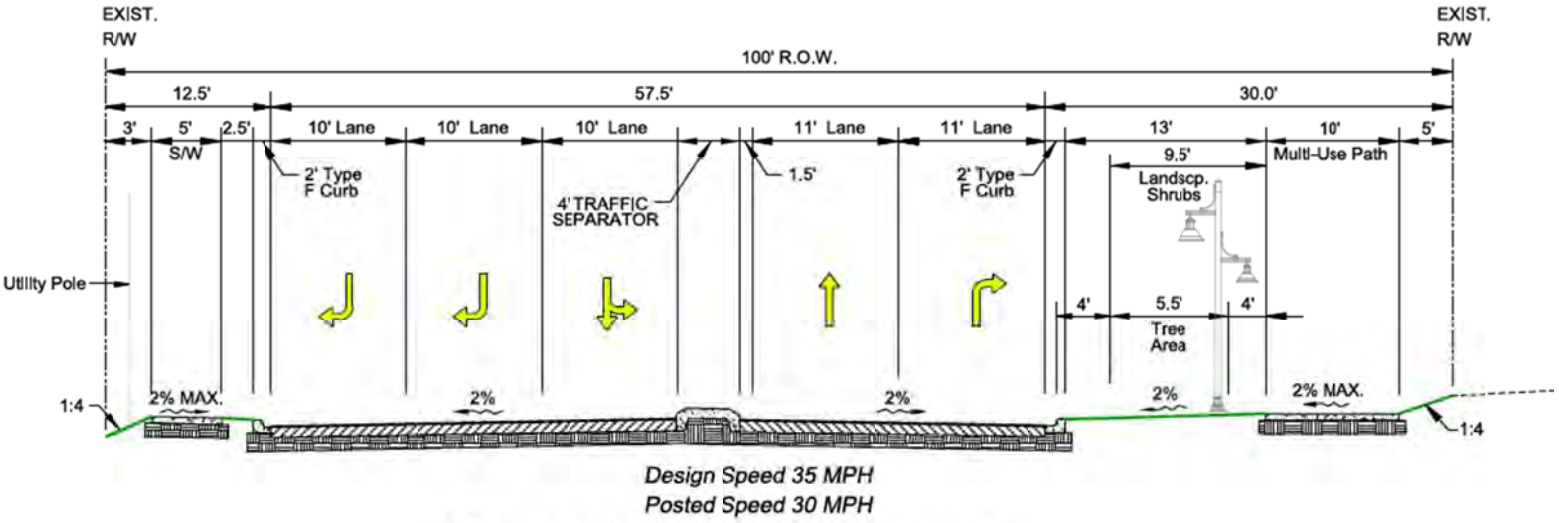
This alternative also requires ROW acquisition for the implementation of the roundabout at Caring Way. The impacts are highlighted in **Figure 6-7**.

6.4 Alternative 4

For this alternative, improvements to the corridor were evaluated within the constraints of the existing ROW. This alternative utilizes the existing roadway pavement and provides a three-lane undivided rural section from Caring Way to Harbor Boulevard, as shown in **Figure 6-8** and **Figure 6-9**. This alternative is similar in geometry and access to Alternative 3 and includes the implementation of a roundabout at the intersection of Caring Way as shown in **Figure 6-10**. The difference compared to Alternative 3 is that the roadway east of Caring Way will remain a three-lane undivided typical section.

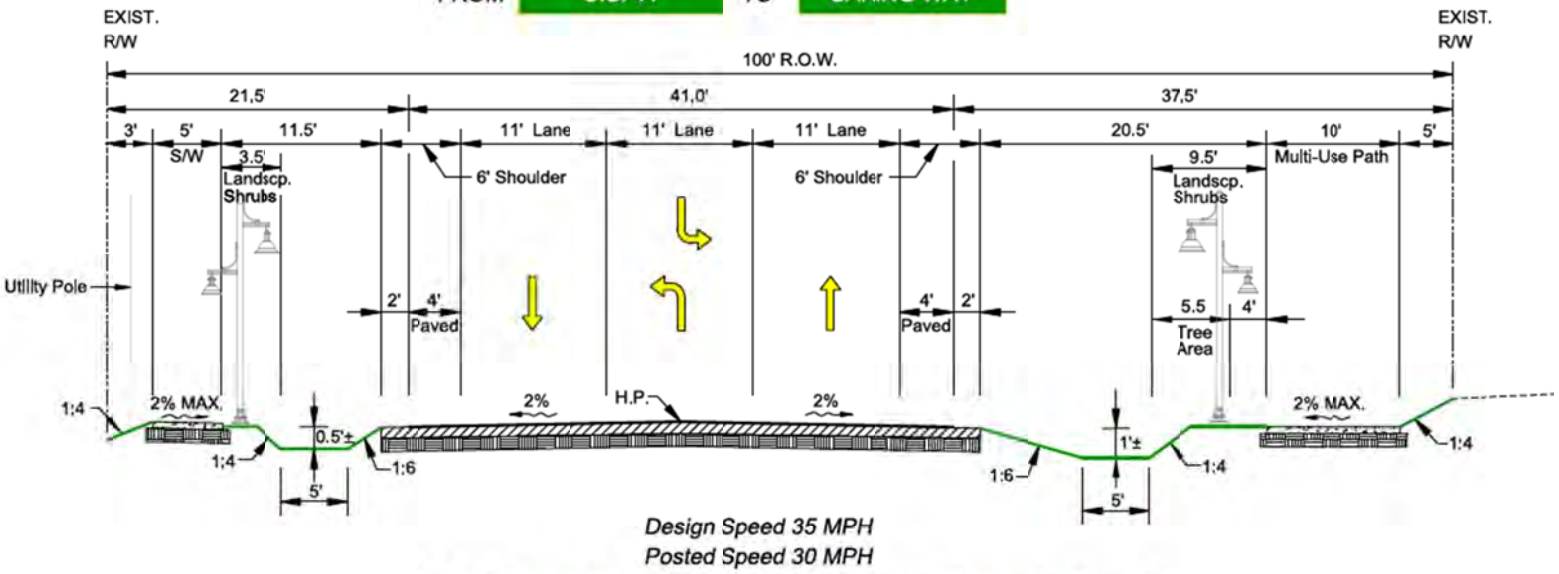
The typical section will consist of one 11-foot westbound travel lane, an 11-foot two-way center turn lane, and two 11-foot eastbound lanes from US 41 to Caring Way where the outside eastbound lane drops and becomes a right turn lane. East of Caring Way, the typical section will consist of one 11-foot westbound travel lane, an 11-foot two-way center turn lane, and one 11-foot eastbound lane. Six-foot shoulders with four-foot paved will be provided adjacent to the travel lanes.

Figure 6-8
Alternative 4 Typical Section



ALTERNATIVE 4 (Improvements within existing ROW)

FROM U.S. 41 TO CARING WAY



ALTERNATIVE 4 (Improvements within existing ROW)

FROM CARING WAY TO HARBOR BOULEVARD

Figure 6-9
Alternative 4 Conceptual Plan

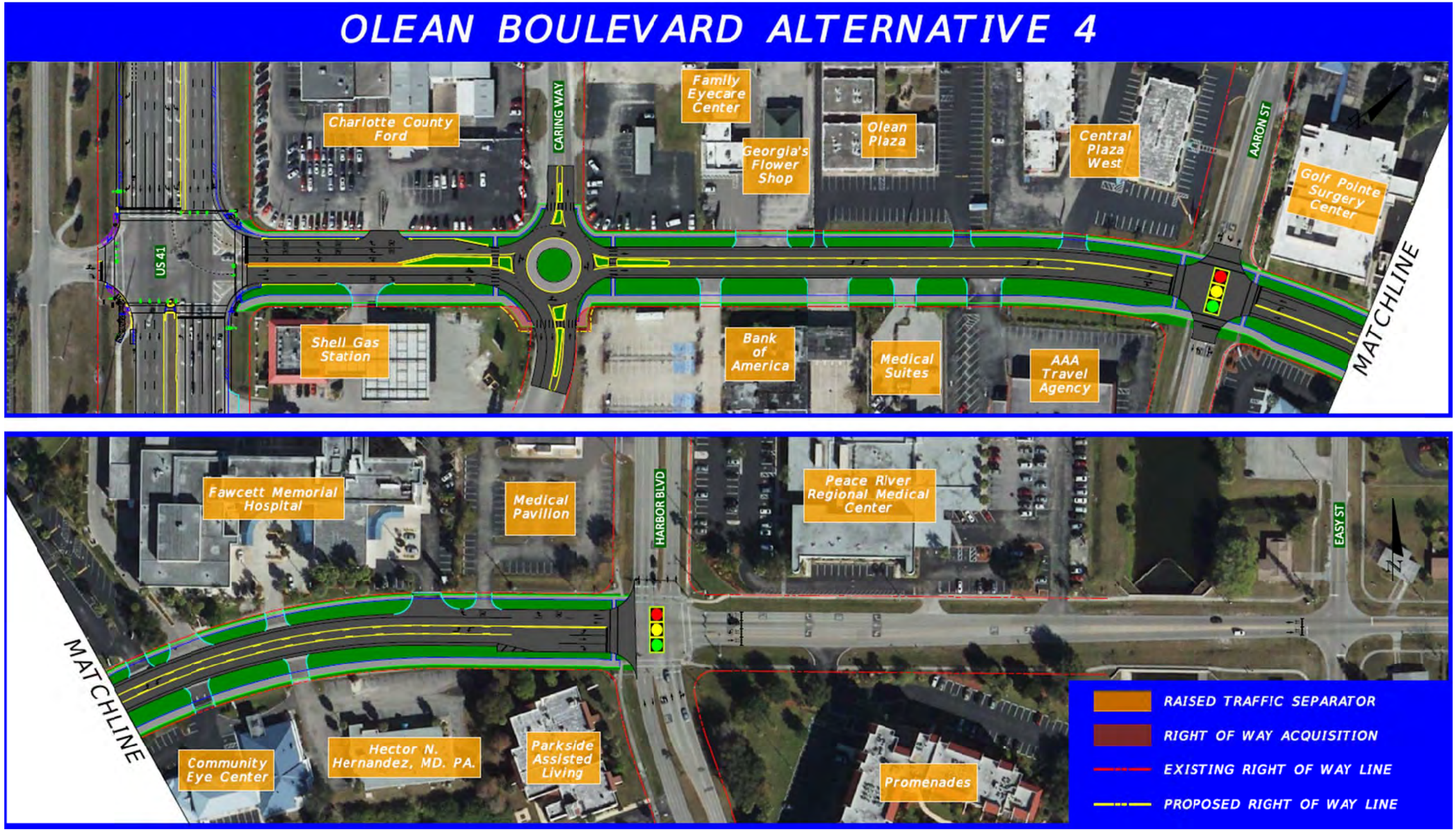


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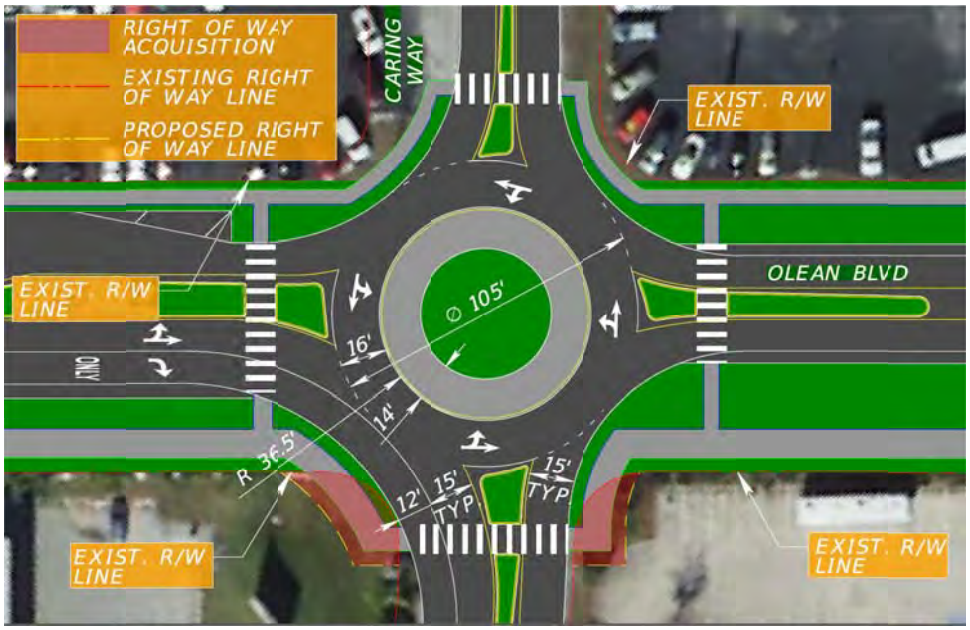
Figure 6-10
Alternative 4 Roundabout at Caring Way



6.4.1 Operational Analysis

The existing signal timing and phasing was used for this alternative, except at the intersection with US 41 where the signal timing splits were optimized. For the midday period at US 41, the existing cycle length of 170 seconds was used with an optimized/modified timing split to reduce the queuing on the westbound approach. The intersection of US 41 is anticipated to have acceptable LOS during the midday and PM periods, except for the eastbound approach. The intersection with Caring Way is anticipated to have acceptable LOS on all approaches with the roundabout. A summary of the intersection analysis for the midday and PM peak periods are provided in **Table 6-4**. Synchro worksheets for the intersections are provided in **Appendix G**. LOS and vehicle queue lengths for 2038 are provided in **Appendix H.**

6.4.2 Access Management

The implementation of a single lane roundabout at Caring Way maintains full access of the intersection opening at Caring Way. A raised traffic separator and median will be developed from US 41 to the approach of the roundabout, which will restrict access to adjacent properties. However, vehicles will be able to utilize the roundabout to perform U-turn movements. From east of Caring Way, this alternative maintains the current access classification of the existing roadway and provides unrestricted access to the businesses as the roadway will remain a three-lane undivided typical section.

Table 6-4
Future Intersection LOS: Alternative 4

Midday Peak Hour Year 2018				
ntersectio	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	149	84.0	F
	WB	619	45.7	D
	NB	2017	46.9	D
	SB	1857	38.3	D
	Overall	4642	44.5	D
Aaron St	EB	456	21.9	C
	WB	472	36.4	D
	NB	92	20.7	C
	SB	242	14.8	B
	Overall	1262	25.9	C
Harbor Blv	EB	368	24.8	C
	WB	489	25.8	C
	NB	360	22.9	C
	SB	484	21.2	C
	Overall	1701	23.7	C
Caring Wa	EB	446	6.2	A
	WB	624	15.7	C
	NB	240	9.1	A
	SB	117	10.4	A
	Overall	1427	11.2	B

PM Peak Hour Year 2018				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	115	94.1	F
	WB	482	46.1	D
	NB	1964	34.3	C
	SB	2110	29.5	C
	Overall	4671	34.8	C
Aaron St	EB	403	19.9	B
	WB	380	29.5	C
	NB	118	19.9	B
	SB	119	11.3	B
	Overall	1020	22.5	B
Harbor Blvd	EB	369	28.3	C
	WB	391	23.8	C
	NB	468	23.9	C
	SB	457	20.5	C
	Overall	1685	23.9	C
Caring Way[1)]	EB	376	6.0	A
	WB	513	11.8	B
	NB	186	7.7	A
	SB	105	8.4	A
	Overall	1180	9.0	A

Midday Peak Hour Year 2038				
ntersectio	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	168	93.2	F
	WB	692	48.5	D
	NB	2156	54.0	D
	SB	1978	40.6	D
	Overall	4994	49.3	D
Aaron St	EB	511	23.5	C
	WB	527	44.3	D
	NB	105	21.1	C
	SB	273	16.5	B
	Overall	1416	29.7	C
Harbor Blv	EB	409	25.5	C
	WB	545	27.4	C
	NB	402	24.3	C
	SB	538	22.4	C
	Overall	1894	24.9	C
Caring Wa	EB	446	6.9	A
	WB	624	21.3	C
	NB	240	10.6	A
	SB	117	12.0	A
	Overall	1427	14.3	B

PM Peak Hour Year 2038				
Intersection	Approach	Volume (vph)	Delay (s/veh)	LOS
US 41	EB	130	98.6	F
	WB	539	47.9	D
	NB	2101	38.8	D
	SB	2258	32.0	C
	Overall	5028	38.3	D
Aaron St	EB	449	20.9	C
	WB	428	32.6	C
	NB	135	20.8	C
	SB	135	11.4	B
	Overall	1147	24.2	C
Harbor Blvd	EB	413	29.2	C
	WB	439	25.0	C
	NB	523	25.9	C
	SB	512	23.3	C
	Overall	1887	25.7	C
Caring Way[1)]	EB	376	6.7	A
	WB	513	14.6	B
	NB	186	8.7	A
	SB	105	9.6	A
	Overall	1180	10.7	B

1) Roundabout

6.4.3 Pedestrian and Bicyclists

This alternative provides a five-foot sidewalk along the north side of the roadway from US 41 to Harbor Boulevard. A 10-foot multi-use path was evaluated; however, it was determined to be infeasible without ROW acquisition. The existing roadway alignment is offset to the north ROW line, which only provides enough area for a shallow drainage swale, five-foot sidewalk, and incorporation of light poles. A 10-foot multi-use path is proposed from US 41 to Harbor Boulevard along the south side of the roadway. This alternative also provides 4-foot paved shoulders on both sides of the roadway which can accommodate bicyclists.

6.4.4 Safety

The implementation of the roundabout at Caring Way is an alternative solution to alleviate the angle crashes occurring at the intersection, as discussed in Section 2.8. Roundabouts have fewer vehicular conflict points in comparison to conventional intersections. The potential for high-severity conflicts, such as right angle and left-turn head-on crashes, is greatly reduced with roundabout use. Low absolute speeds generally associated with roundabouts allow drivers more time to react to potential conflicts, also helping to improve the safety performance of roundabouts. Low vehicle speeds help reduce crash severity, making fatalities and serious injuries uncommon at roundabouts. This alternative would eliminate the angle crashes that are currently occurring, while still maintaining full access of the intersection at Caring Way.

6.4.5 Landscaping and Enhancements

This alternative provides landscape areas between the roadway and sidewalk or multi-use path. The landscape area along the north side of the roadway would be limited to shrubs. The landscape area along the south side of the roadway can accommodate shrubs and trees. Tree placement would be required to meet the four feet multi-use path clear zone criteria. Lighting can also be placed in this area to light the roadway and pedestrian path and to further enhance the corridor.

In addition, the roundabout at Caring Way can serve as an enhancement feature for the Olean Boulevard corridor. Landscaping is one of the distinguishing features that give roundabouts an aesthetic advantage over traditional intersections. Landscaping in the central island, splitter islands (where appropriate), and along the approaches can benefit both public safety and community enhancement. In addition to landscaping, the central island of the roundabout provides the opportunity to display a gateway feature.

6.4.6 Drainage

This alternative proposes intersection improvements and enhancements features and may be exempt from SWFWMD permits and providing Stormwater Management Facilities. See Section 6.3.6 for permit exemption qualifications.

6.4.7 ROW Impacts

This alternative requires ROW acquisition for the implementation of the roundabout at Caring Way. The impacts are highlighted in **Figure 6-10**.

6.5 Cost Comparison and ROW Requirements

The construction cost and ROW requirements necessary to construct the four design alternatives were evaluated in **Table 6-5** and **Table 6-6**. The construction cost includes constructing roadway improvements, sidewalk and or path improvements, signalization, lighting, landscaping, and retention ponds. The cost of constructing the retention ponds does not include the cost of purchasing the ROW for those locations. Both the Landscaping and Decorative Lighting estimates were derived from the Harbor Boulevard Enhancement Project from US 41 to Olean Boulevard.

Table 6-5
Construction Costs for Design Alternatives

Estimate of Probable Construction Cost				
Construction Item	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**
Roadway	$3,011,891	$2,402,544	$1,952,925	$1,299,500
Sidewalk/Path	$335,150	$335,150	$301,635	$251,363
Signalization	$580,941	$580,941	$580,941	$580,941
Conventional Lighting	$249,749	$249,749	$249,749	$249,749
Landscaping	$288,300	$192,200	$192,200	$230,640
Retention Ponds	$453,501	$453,501	$302,334	N/A
Construction Cost (w/Conventional Lighting)	**$4,919,532**	**$4,214,085**	**$3,579,784**	**$2,612,193**
Additonal Cost for Decorative Lighting	$364,164	$364,164	$364,164	$364,164
Construction Cost (w/Decorative Lighting)	**$5,283,696**	**$4,578,249**	**$3,943,948**	**$2,976,357**

Table 6-6
ROW Requirements for Design Alternatives

ROW Acquisition		Alternative 1	Alternative 2	Alternative 3	Alternative 4
Mainline	SF	32,735	21,826	28,152	1,135
Pond Sites	SF	109,403	109,403	57,262	N/A
Total	**SF**	**142,138**	**131,229**	**85,414**	**1,135**
Parcels Impacted		**20**	**20**	**19**	**2**
ROW Cost		**$14,000,000**	**$13,000,000**	**$11,500,000**	**$300,000**

6.6 Evaluation of Alternatives

Table 6-7
Pros and Cons Comparison for Design Alternatives

Pros / Cons	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Operation / LOS	Within roadway service volume to 2038 and beyond	Within roadway service volume to 2038 and beyond	Exceeds roadway service volume (WB Caring Way to Aaron St.) in 2018	Exceeds roadway service volume (2-way Caring Way to Aaron St.) in 2018
	LOS improved for WB approach at US 41	LOS improved for WB approach at US 41	LOS improved for WB approach at US 41	LOS improved for WB approach at US 41; SB Left turns underutilized
	LOS improved for N/S approach at Caring Way	LOS improved for N/S approach at Caring Way	LOS improved for all movements at Caring Way	LOS improved for all movements at Caring Way
Access Management	Restrictive Raised Median from US 41 to Harbor Blvd.	Unrestrictive Median from US 41 to Harbor Blvd.	Unrestrictive Median from Caring Way to Harbor Blvd.	Unrestrictive Median from Caring Way to Harbor Blvd.
	Restricts NB and SB left and thru movements at Caring Way	Restricts NB and SB left and thru movements at Caring Way	Roundabout provides full access at Caring Way with Two EB lanes	Roundabout provides full access at Caring Way with Single EB lane
Safety Improvement	Alleviates Crashes at Caring Way	Alleviates Crashes at Caring Way	Alleviates Crashes at Caring Way	Alleviates Crashes at Caring Way
Pedestrian / Bicyclist Accommodations	10' Path (north side)	10' Path (north side)	8' Sidewalk (north side)	5' Sidewalk (north side)
	10' Path (south side)	10' Path (south side)	10' Path (south side)	10' Path (south side)
No. of Retention Ponds Required	2	2	1	None
Type of SWFWMD Permitting Anticipated	Individual ERP Permit	Individual ERP Permit	Individual ERP Permit	Exemption
ROW Impacts	20 Parcels	20 Parcels	19 Parcels	2 Parcels
Construction Cost	$5 Million	$4.5 Million	$3.5 Million	$2.75 Million
ROW Cost	$14 Million	$13 Million	$11.5 Million	$0.3 Million
Design Cost	$1 Million	$0.9 Million	$0.75 Million	$0.5 Million
Project Cost*	**$20 Million**	**$18.4 Million**	**$15.75 Million**	**$3.55 Million**

* From US 41 to Harbor Boulevard with Conventional Lighting

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Appendix A

24-Hour Volume Counts

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FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010103111100
US-41 S OF OLEAN

Start Time	09-Dec-15 Wed	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		34	430			30	412				
12:15		32	521			26	398				
12:30		33	484			17	378				
12:45		29	437	128	1872	26	428	99	1616	227	3488
01:00		23	486			26	467				
01:15		10	469			27	431				
01:30		15	458			21	421				
01:45		16	500	64	1913	20	487	94	1806	158	3719
02:00		13	500			12	400				
02:15		16	468			10	431				
02:30		14	472			10	497				
02:45		18	481	61	1921	10	452	42	1780	103	3701
03:00		9	472			10	464				
03:15		9	454			24	389				
03:30		12	420			24	500				
03:45		13	567	43	1913	14	417	72	1770	115	3683
04:00		24	419			30	435				
04:15		17	477			27	491				
04:30		25	477			30	449				
04:45		19	473	85	1846	51	420	138	1795	223	3641
05:00		31	431			52	419				
05:15		40	560			60	488				
05:30		74	460			82	376				
05:45		82	454	227	1905	110	388	304	1671	531	3576
06:00		98	378			147	380				
06:15		132	350			180	351				
06:30		168	267			273	270				
06:45		215	276	613	1271	296	269	896	1270	1509	2541
07:00		246	238			275	213				
07:15		248	212			348	186				
07:30		341	210			385	180				
07:45		336	220	1171	880	480	197	1488	776	2659	1656
08:00		343	218			401	176				
08:15		352	200			377	206				
08:30		315	219			452	174				
08:45		400	153	1410	790	434	136	1664	692	3074	1482
09:00		412	127			336	100				
09:15		379	146			353	122				
09:30		409	118			430	104				
09:45		449	108	1649	499	388	91	1507	417	3156	916
10:00		403	108			362	76				
10:15		431	104			393	68				
10:30		479	83			391	83				
10:45		459	70	1772	365	416	60	1562	287	3334	652
11:00		451	62			347	56				
11:15		469	59			480	42				
11:30		459	58			397	49				
11:45		478	46	1857	225	393	36	1617	183	3474	408
Total		9080	15400			9483	14063			18563	29463
Percent		37.1%	62.9%			40.3%	59.7%			38.7%	61.3%
Grand Total		9080	15400			9483	14063			18563	29463
Percent		37.1%	62.9%			40.3%	59.7%			38.7%	61.3%
ADT	ADT 45,182		AADT 45,182								

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010101111100
US 41 N OF OLEAN

Start	09-Dec-15	NB		Hour Totals		SB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		40	516			32	482				
12:15		38	570			26	452				
12:30		36	535			21	438				
12:45		35	478	149	2099	28	538	107	1910	256	4009
01:00		25	544			27	489				
01:15		11	514			27	501				
01:30		19	502			20	490				
01:45		16	550	71	2110	22	539	96	2019	167	4129
02:00		14	557			12	443				
02:15		17	496			13	489				
02:30		16	513			13	578				
02:45		20	547	67	2113	10	517	48	2027	115	4140
03:00		10	549			10	524				
03:15		12	545			27	499				
03:30		13	537			29	528				
03:45		15	587	50	2218	21	491	87	2042	137	4260
04:00		24	495			33	490				
04:15		21	541			30	520				
04:30		27	540			31	461				
04:45		34	545	106	2121	52	496	146	1967	252	4088
05:00		34	507			60	435				
05:15		49	613			71	529				
05:30		71	497			84	422				
05:45		95	520	249	2137	137	425	352	1811	601	3948
06:00		92	440			164	432				
06:15		146	396			202	400				
06:30		181	324			316	318				
06:45		255	310	674	1470	336	290	1018	1440	1692	2910
07:00		252	286			305	229				
07:15		250	270			396	209				
07:30		361	245			448	207				
07:45		400	254	1263	1055	535	225	1684	870	2947	1925
08:00		354	250			444	190				
08:15		377	224			440	219				
08:30		381	226			513	201				
08:45		408	173	1520	873	487	149	1884	759	3404	1632
09:00		433	149			400	121				
09:15		433	151			419	124				
09:30		472	149			481	120				
09:45		479	119	1817	568	431	92	1731	457	3548	1025
10:00		437	130			419	91				
10:15		534	119			449	72				
10:30		508	89			437	86				
10:45		496	83	1975	421	491	68	1796	317	3771	738
11:00		487	67			423	68				
11:15		542	63			500	46				
11:30		535	65			481	51				
11:45		524	50	2088	245	477	37	1881	202	3969	447
Total		10029	17430			10830	15821			20859	33251
Percent		36.5%	63.5%			40.6%	59.4%			38.5%	61.5%
Grand Total		10029	17430			10830	15821			20859	33251
Percent		36.5%	63.5%			40.6%	59.4%			38.5%	61.5%

ADT ADT 51,478 AADT 51,478

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010102311100
OLEAN W OF US 41

Start	09-Dec-15	EB		Hour Totals		WB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	34			0	38				
12:15		4	45			4	55				
12:30		0	47			0	60				
12:45		0	54	4	180	0	51	4	204	8	384
01:00		0	42			0	39				
01:15		1	43			0	46				
01:30		0	52			0	49				
01:45		0	42	1	179	2	44	2	178	3	357
02:00		0	46			1	30				
02:15		0	52			1	36				
02:30		0	49			0	51				
02:45		0	43	0	190	0	36	2	153	2	343
03:00		0	37			0	25				
03:15		1	32			0	54				
03:30		0	44			0	38				
03:45		0	54	1	167	0	47	0	164	1	331
04:00		2	41			1	47				
04:15		3	32			4	36				
04:30		0	50			2	40				
04:45		0	20	5	143	0	47	7	170	12	313
05:00		3	48			1	33				
05:15		0	42			2	44				
05:30		2	30			4	40				
05:45		1	42	6	162	0	39	7	156	13	318
06:00		1	38			2	20				
06:15		3	19			9	20				
06:30		4	28			4	20				
06:45		2	22	10	107	10	25	25	85	35	192
07:00		7	16			10	12				
07:15		8	16			12	10				
07:30		21	22			21	13				
07:45		16	14	52	68	29	5	72	40	124	108
08:00		26	19			23	8				
08:15		29	25			25	23				
08:30		35	20			44	7				
08:45		21	7	111	71	43	10	135	48	246	119
09:00		30	11			38	11				
09:15		36	5			35	6				
09:30		34	8			20	7				
09:45		42	5	142	29	40	5	133	29	275	58
10:00		52	6			44	5				
10:15		45	1			50	3				
10:30		40	4			32	7				
10:45		34	6	171	17	52	1	178	16	349	33
11:00		49	1			36	5				
11:15		35	2			43	1				
11:30		40	4			46	2				
11:45		56	0	180	7	53	0	178	8	358	15
Total		683	1320			743	1251			1426	2571
Percent		34.1%	65.9%			37.3%	62.7%			35.7%	64.3%
Grand Total		683	1320			743	1251			1426	2571
Percent		34.1%	65.9%			37.3%	62.7%			35.7%	64.3%

ADT ADT 3,672 AADT 3,672

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010104311100
OLEAN E OF US 41

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	121			9	163				
12:15		6	140			10	130				
12:30		6	130			6	126				
12:45		4	153	24	544	10	120	35	539	59	1083
01:00		3	135			5	133				
01:15		2	112			1	133				
01:30		1	116			7	135				
01:45		3	128	9	491	2	135	15	536	24	1027
02:00		1	135			1	118				
02:15		6	131			3	130				
02:30		5	155			4	125				
02:45		0	135	12	556	3	117	11	490	23	1046
03:00		1	134			2	145				
03:15		2	130			3	154				
03:30		7	124			1	151				
03:45		9	129	19	517	4	113	10	563	29	1080
04:00		9	115			6	150				
04:15		5	96			9	107				
04:30		2	87			3	127				
04:45		5	89	21	387	18	133	36	517	57	904
05:00		14	106			9	136				
05:15		13	97			13	130				
05:30		18	91			13	122				
05:45		25	97	70	391	18	90	53	478	123	869
06:00		39	90			19	77				
06:15		36	97			25	83				
06:30		48	91			41	82				
06:45		72	76	195	354	58	62	143	304	338	658
07:00		59	46			51	65				
07:15		75	39			48	62				
07:30		89	55			63	53				
07:45		126	45	349	185	87	57	249	237	598	422
08:00		85	46			84	34				
08:15		109	35			85	43				
08:30		118	45			89	24				
08:45		110	26	422	152	97	27	355	128	777	280
09:00		111	30			89	33				
09:15		117	15			120	28				
09:30		121	20			122	30				
09:45		138	19	487	84	123	28	454	119	941	203
10:00		115	26			127	25				
10:15		133	16			124	21				
10:30		111	10			118	14				
10:45		139	13	498	65	136	20	505	80	1003	145
11:00		126	10			134	9				
11:15		128	10			164	10				
11:30		142	14			133	11				
11:45		142	7	538	41	130	8	561	38	1099	79
Total		2644	3767			2427	4029			5071	7796
Percent		41.2%	58.8%			37.6%	62.4%			39.4%	60.6%
Grand Total		2644	3767			2427	4029			5071	7796
Percent		41.2%	58.8%			37.6%	62.4%			39.4%	60.6%
ADT	ADT 12,523		AADT 12,523								

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010106111100
CARING WAY S OF OLEAN

Start	09-Dec-15	NB		Hour Totals		SB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	80			10	104				
12:15		10	92			1	79				
12:30		8	87			2	82				
12:45		6	65	34	324	2	66	15	331	49	655
01:00		3	80			0	88				
01:15		0	55			2	73				
01:30		5	75			2	64				
01:45		8	81	16	291	4	80	8	305	24	596
02:00		7	42			1	88				
02:15		5	79			3	67				
02:30		2	60			3	70				
02:45		2	57	16	238	2	75	9	300	25	538
03:00		4	86			2	68				
03:15		4	77			1	62				
03:30		0	92			0	81				
03:45		3	103	11	358	2	69	5	280	16	638
04:00		1	58			1	52				
04:15		2	60			2	56				
04:30		0	67			1	59				
04:45		5	89	8	274	5	49	9	216	17	490
05:00		3	66			5	78				
05:15		3	79			8	48				
05:30		6	67			6	68				
05:45		11	74	23	286	11	58	30	252	53	538
06:00		13	56			14	50				
06:15		23	57			24	62				
06:30		24	68			24	41				
06:45		30	48	90	229	43	46	105	199	195	428
07:00		22	44			36	27				
07:15		33	48			33	20				
07:30		25	44			57	34				
07:45		39	57	119	193	67	32	193	113	312	306
08:00		42	30			52	22				
08:15		45	23			67	21				
08:30		38	40			63	38				
08:45		58	33	183	126	54	12	236	93	419	219
09:00		46	26			61	16				
09:15		48	24			72	16				
09:30		56	32			77	13				
09:45		55	14	205	96	57	13	267	58	472	154
10:00		53	16			58	10				
10:15		50	10			72	11				
10:30		60	17			83	4				
10:45		57	11	220	54	71	8	284	33	504	87
11:00		54	7			62	10				
11:15		52	10			87	6				
11:30		66	10			77	4				
11:45		68	12	240	39	77	5	303	25	543	64
Total		1165	2508			1464	2205			2629	4713
Percent		31.7%	68.3%			39.9%	60.1%			35.8%	64.2%
Grand Total		1165	2508			1464	2205			2629	4713
Percent		31.7%	68.3%			39.9%	60.1%			35.8%	64.2%

ADT ADT 6,749 AADT 6,749

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010105111100
CARING WAY N OF OLEAN

Start Time	09-Dec-15 Wed	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	23			3	31				
12:15		0	25			3	21				
12:30		1	23			1	19				
12:45		1	24	5	95	0	21	7	92	12	187
01:00		0	37			1	27				
01:15		0	23			0	25				
01:30		0	17			1	20				
01:45		1	25	1	102	0	30	2	102	3	204
02:00		0	23			3	28				
02:15		2	13			0	25				
02:30		0	19			1	25				
02:45		1	17	3	72	1	26	5	104	8	176
03:00		0	24			0	28				
03:15		0	32			0	20				
03:30		0	26			2	30				
03:45		0	28	0	110	1	22	3	100	3	210
04:00		2	16			2	34				
04:15		0	16			1	19				
04:30		0	21			0	24				
04:45		1	23	3	76	1	19	4	96	7	172
05:00		0	16			2	39				
05:15		0	29			2	27				
05:30		0	14			3	36				
05:45		2	24	2	83	5	22	12	124	14	207
06:00		2	14			9	18				
06:15		4	14			13	23				
06:30		6	9			16	17				
06:45		12	10	24	47	19	12	57	70	81	117
07:00		11	5			18	13				
07:15		13	14			11	9				
07:30		13	7			17	8				
07:45		15	12	52	38	18	7	64	37	116	75
08:00		10	5			15	10				
08:15		16	4			20	7				
08:30		29	6			15	9				
08:45		36	10	91	25	22	7	72	33	163	58
09:00		21	7			19	2				
09:15		16	3			18	6				
09:30		17	4			28	5				
09:45		27	4	81	18	33	8	98	21	179	39
10:00		18	7			22	3				
10:15		31	3			28	5				
10:30		25	2			27	6				
10:45		23	3	97	15	29	1	106	15	203	30
11:00		25	3			30	4				
11:15		28	1			31	3				
11:30		32	2			21	2				
11:45		20	1	105	7	38	2	120	11	225	18
Total		464	688			550	805			1014	1493
Percent		40.3%	59.7%			40.6%	59.4%			40.4%	59.6%
Grand Total		464	688			550	805			1014	1493
Percent		40.3%	59.7%			40.6%	59.4%			40.4%	59.6%
ADT		ADT 1,131		AADT 1,131							

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010104311100
OLEAN W OF CARING WAY

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	121			9	163				
12:15		6	140			10	130				
12:30		6	130			6	126				
12:45		4	153	24	544	10	120	35	539	59	1083
01:00		3	135			5	133				
01:15		2	112			1	133				
01:30		1	116			7	135				
01:45		3	128	9	491	2	135	15	536	24	1027
02:00		1	135			1	118				
02:15		6	131			3	130				
02:30		5	155			4	125				
02:45		0	135	12	556	3	117	11	490	23	1046
03:00		1	134			2	145				
03:15		2	130			3	154				
03:30		7	124			1	151				
03:45		9	129	19	517	4	113	10	563	29	1080
04:00		9	115			6	150				
04:15		5	96			9	107				
04:30		2	87			3	127				
04:45		5	89	21	387	18	133	36	517	57	904
05:00		14	106			9	136				
05:15		13	97			13	130				
05:30		18	91			13	122				
05:45		25	97	70	391	18	90	53	478	123	869
06:00		39	90			19	77				
06:15		36	97			25	83				
06:30		48	91			41	82				
06:45		72	76	195	354	58	62	143	304	338	658
07:00		59	46			51	65				
07:15		75	39			48	62				
07:30		89	55			63	53				
07:45		126	45	349	185	87	57	249	237	598	422
08:00		85	46			84	34				
08:15		109	35			85	43				
08:30		118	45			89	24				
08:45		110	26	422	152	97	27	355	128	777	280
09:00		111	30			89	33				
09:15		117	15			120	28				
09:30		121	20			122	30				
09:45		138	19	487	84	123	28	454	119	941	203
10:00		115	26			127	25				
10:15		133	16			124	21				
10:30		111	10			118	14				
10:45		139	13	498	65	136	20	505	80	1003	145
11:00		126	10			134	9				
11:15		128	10			164	10				
11:30		142	14			133	11				
11:45		142	7	538	41	130	8	561	38	1099	79
Total		2644	3767			2427	4029			5071	7796
Percent		41.2%	58.8%			37.6%	62.4%			39.4%	60.6%
Grand Total		2644	3767			2427	4029			5071	7796
Percent		41.2%	58.8%			37.6%	62.4%			39.4%	60.6%
ADT	ADT 12,523		AADT 12,523								

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010107311100
OLEAN E OF CARING WAY

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		11	119			14	196				
12:15		11	145			8	154				
12:30		10	121			9	129				
12:45		5	144	37	529	8	139	39	618	76	1147
01:00		5	136			3	152				
01:15		2	108			5	142				
01:30		5	124			9	159				
01:45		9	140	21	508	7	147	24	600	45	1108
02:00		6	103			2	127				
02:15		7	138			5	132				
02:30		6	138			4	137				
02:45		0	134	19	513	4	137	15	533	34	1046
03:00		4	153			4	165				
03:15		4	103			2	165				
03:30		9	143			0	182				
03:45		9	139	26	538	4	119	10	631	36	1169
04:00		6	112			3	154				
04:15		5	108			10	125				
04:30		3	101			5	144				
04:45		6	98	20	419	24	151	42	574	62	993
05:00		16	113			11	155				
05:15		13	115			18	138				
05:30		21	91			16	127				
05:45		28	104	78	423	20	116	65	536	143	959
06:00		41	99			21	99				
06:15		52	105			44	98				
06:30		51	102			50	87				
06:45		74	89	218	395	73	66	188	350	406	745
07:00		58	64			58	84				
07:15		68	50			66	63				
07:30		81	64			84	60				
07:45		136	63	343	241	123	66	331	273	674	514
08:00		84	54			102	46				
08:15		105	42			110	48				
08:30		101	53			114	38				
08:45		107	43	397	192	128	33	454	165	851	357
09:00		114	33			120	39				
09:15		103	28			136	35				
09:30		122	31			146	31				
09:45		142	20	481	112	124	32	526	137	1007	249
10:00		117	28			135	26				
10:15		115	19			146	25				
10:30		97	20			129	14				
10:45		132	16	461	83	168	25	578	90	1039	173
11:00		129	13			144	15				
11:15		113	13			200	14				
11:30		98	18			166	11				
11:45		147	11	487	55	137	10	647	50	1134	105
Total		2588	4008			2919	4557			5507	8565
Percent		39.2%	60.8%			39.0%	61.0%			39.1%	60.9%
Grand Total		2588	4008			2919	4557			5507	8565
Percent		39.2%	60.8%			39.0%	61.0%			39.1%	60.9%
ADT	ADT 12,893		AADT 12,893								

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010109111100
AARON S OF OLEAN

Start Time	09-Dec-15 Wed	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	35			0	20				
12:15		3	34			0	19				
12:30		0	19			0	24				
12:45		0	30	3	118	0	27	0	90	3	208
01:00		0	19			0	18				
01:15		0	25			0	27				
01:30		0	26			0	20				
01:45		0	24	0	94	0	21	0	86	0	180
02:00		0	29			0	19				
02:15		0	22			0	25				
02:30		0	21			0	20				
02:45		0	29	0	101	0	21	0	85	0	186
03:00		0	33			0	21				
03:15		0	22			0	16				
03:30		0	29			0	16				
03:45		0	21	0	105	0	18	0	71	0	176
04:00		1	28			0	25				
04:15		0	30			0	13				
04:30		0	38			1	19				
04:45		0	31	1	127	0	15	1	72	2	199
05:00		1	51			2	17				
05:15		0	24			0	11				
05:30		0	21			0	10				
05:45		1	16	2	112	3	7	5	45	7	157
06:00		3	10			2	9				
06:15		2	16			5	8				
06:30		3	24			7	6				
06:45		4	9	12	59	22	3	36	26	48	85
07:00		5	5			16	5				
07:15		4	11			16	4				
07:30		7	7			22	4				
07:45		6	4	22	27	36	3	90	16	112	43
08:00		16	7			26	3				
08:15		10	1			21	5				
08:30		19	8			17	4				
08:45		20	2	65	18	18	0	82	12	147	30
09:00		22	4			21	4				
09:15		18	4			20	0				
09:30		16	4			29	0				
09:45		28	1	84	13	28	3	98	7	182	20
10:00		20	4			12	1				
10:15		26	0			21	1				
10:30		26	2			20	1				
10:45		35	2	107	8	23	3	76	6	183	14
11:00		25	0			28	1				
11:15		34	2			14	0				
11:30		36	1			21	0				
11:45		25	3	120	6	20	3	83	4	203	10
Total		416	788			471	520			887	1308
Percent		34.6%	65.4%			47.5%	52.5%			40.4%	59.6%
Grand Total		416	788			471	520			887	1308
Percent		34.6%	65.4%			47.5%	52.5%			40.4%	59.6%
ADT		ADT 1,180		AADT 1,180							

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010110111100
AARON N OF OLEAN

Start	09-Dec-15	NB		Hour Totals		SB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	46			1	82				
12:15		2	51			0	74				
12:30		1	43			0	49				
12:45		0	49	4	189	4	49	5	254	9	443
01:00		1	49			0	61				
01:15		0	60			1	74				
01:30		1	43			0	83				
01:45		0	56	2	208	1	65	2	283	4	491
02:00		0	48			0	57				
02:15		1	63			1	72				
02:30		2	46			2	80				
02:45		0	50	3	207	0	54	3	263	6	470
03:00		0	46			0	82				
03:15		1	38			0	82				
03:30		2	41			0	81				
03:45		3	38	6	163	0	54	0	299	6	462
04:00		2	28			1	63				
04:15		0	29			1	55				
04:30		0	31			1	47				
04:45		2	27	4	115	1	52	4	217	8	332
05:00		1	33			4	43				
05:15		6	34			0	54				
05:30		9	28			0	36				
05:45		16	30	32	125	4	32	8	165	40	290
06:00		17	23			3	20				
06:15		11	23			5	28				
06:30		9	38			11	16				
06:45		15	26	52	110	12	28	31	92	83	202
07:00		20	15			18	27				
07:15		23	13			11	11				
07:30		30	7			33	16				
07:45		40	6	113	41	31	9	93	63	206	104
08:00		37	9			39	8				
08:15		31	9			35	17				
08:30		39	7			49	13				
08:45		43	10	150	35	53	3	176	41	326	76
09:00		47	3			47	18				
09:15		42	6			38	3				
09:30		50	6			87	4				
09:45		51	2	190	17	50	10	222	35	412	52
10:00		36	5			58	7				
10:15		37	2			48	7				
10:30		50	6			40	2				
10:45		51	2	174	15	61	2	207	18	381	33
11:00		54	0			65	3				
11:15		52	2			73	5				
11:30		52	4			67	1				
11:45		58	3	216	9	67	5	272	14	488	23
Total		946	1234			1023	1744			1969	2978
Percent		43.4%	56.6%			37.0%	63.0%			39.8%	60.2%
Grand Total		946	1234			1023	1744			1969	2978
Percent		43.4%	56.6%			37.0%	63.0%			39.8%	60.2%

ADT ADT 2,191 AADT 2,191

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010108311100
OLEAN W OF AARON

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		14	171			10	158				
12:15		14	197			8	126				
12:30		9	176			6	112				
12:45		6	191	43	735	9	124	33	520	76	1255
01:00		5	205			3	124				
01:15		2	165			4	135				
01:30		6	177			8	140				
01:45		8	186	21	733	6	134	21	533	42	1266
02:00		4	163			2	116				
02:15		8	214			6	123				
02:30		7	205			3	121				
02:45		0	207	19	789	4	120	15	480	34	1269
03:00		7	209			4	140				
03:15		4	150			2	149				
03:30		7	204			0	151				
03:45		10	209	28	772	4	104	10	544	38	1316
04:00		7	167			3	143				
04:15		7	139			10	110				
04:30		2	162			5	118				
04:45		10	156	26	624	24	132	42	503	68	1127
05:00		19	147			10	137				
05:15		19	174			22	118				
05:30		22	137			14	119				
05:45		42	130	102	588	18	90	64	464	166	1052
06:00		47	159			21	83				
06:15		47	172			41	92				
06:30		68	130			52	73				
06:45		82	110	244	571	66	64	180	312	424	883
07:00		83	75			66	73				
07:15		90	55			56	60				
07:30		105	81			93	58				
07:45		163	89	441	300	101	61	316	252	757	552
08:00		125	59			97	42				
08:15		128	47			112	47				
08:30		134	64			107	29				
08:45		162	38	549	208	129	30	445	148	994	356
09:00		149	44			109	34				
09:15		127	29			138	32				
09:30		185	37			125	28				
09:45		194	22	655	132	120	28	492	122	1147	254
10:00		172	36			121	24				
10:15		141	17			127	23				
10:30		161	22			111	14				
10:45		192	17	666	92	129	21	488	82	1154	174
11:00		162	15			135	13				
11:15		154	15			169	10				
11:30		160	21			132	13				
11:45		210	11	686	62	114	8	550	44	1236	106
Total		3480	5606			2656	4004			6136	9610
Percent		38.3%	61.7%			39.9%	60.1%			39.0%	61.0%
Grand Total		3480	5606			2656	4004			6136	9610
Percent		38.3%	61.7%			39.9%	60.1%			39.0%	61.0%
ADT	ADT 16,325		AADT 16,325								

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010111311100
OLEAN E OF AARON

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	105			8	178				
12:15		11	119			7	146				
12:30		11	87			6	124				
12:45		6	96	37	407	8	153	29	601	66	1008
01:00		4	119			4	171				
01:15		2	92			4	154				
01:30		2	104			7	165				
01:45		8	99	16	414	5	141	20	631	36	1045
02:00		5	76			3	155				
02:15		7	113			4	148				
02:30		5	105			5	152				
02:45		0	115	17	409	4	132	16	587	33	996
03:00		3	133			4	165				
03:15		4	94			2	171				
03:30		7	109			2	154				
03:45		8	142	22	478	5	122	13	612	35	1090
04:00		4	94			2	147				
04:15		7	101			10	121				
04:30		1	99			4	123				
04:45		4	90	16	384	21	146	37	537	53	921
05:00		11	105			10	162				
05:15		11	104			26	119				
05:30		13	102			15	122				
05:45		14	86	49	397	20	99	71	502	120	899
06:00		29	88			27	92				
06:15		34	103			39	96				
06:30		41	89			58	98				
06:45		55	62	159	342	98	60	222	346	381	688
07:00		49	65			77	83				
07:15		41	45			86	50				
07:30		60	63			111	51				
07:45		75	52	225	225	145	64	419	248	644	473
08:00		63	56			141	41				
08:15		87	34			137	39				
08:30		78	44			128	26				
08:45		73	34	301	168	157	29	563	135	864	303
09:00		96	34			141	28				
09:15		64	28			159	27				
09:30		90	33			168	26				
09:45		118	17	368	112	156	28	624	109	992	221
10:00		102	28			145	18				
10:15		92	19			142	24				
10:30		73	15			144	15				
10:45		95	13	362	75	141	20	572	77	934	152
11:00		101	12			164	10				
11:15		88	12			192	6				
11:30		84	17			140	11				
11:45		112	9	385	50	143	8	639	35	1024	85
Total		1957	3461			3225	4420			5182	7881
Percent		36.1%	63.9%			42.2%	57.8%			39.7%	60.3%
Grand Total		1957	3461			3225	4420			5182	7881
Percent		36.1%	63.9%			42.2%	57.8%			39.7%	60.3%
ADT		ADT 5,318		AADT 5,318							

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010113111100
HARBOR S OF OLEAN

Start Time	09-Dec-17 Sat	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	104			1	103				
12:15		8	98			1	85				
12:30		4	101			5	86				
12:45		10	101	31	404	4	97	11	371	42	775
01:00		6	84			1	114				
01:15		6	99			5	95				
01:30		6	106			6	92				
01:45		4	99	22	388	4	110	16	411	38	799
02:00		6	105			1	87				
02:15		4	125			2	84				
02:30		3	103			1	73				
02:45		2	119	15	452	4	102	8	346	23	798
03:00		3	121			2	78				
03:15		5	119			4	97				
03:30		1	96			0	91				
03:45		2	119	11	455	4	112	10	378	21	833
04:00		3	101			4	107				
04:15		3	107			4	100				
04:30		4	135			7	104				
04:45		5	114	15	457	8	103	23	414	38	871
05:00		5	142			6	97				
05:15		7	142			12	93				
05:30		9	106			17	92				
05:45		17	98	38	488	16	83	51	365	89	853
06:00		22	100			19	92				
06:15		30	70			28	75				
06:30		35	93			33	67				
06:45		27	91	114	354	60	46	140	280	254	634
07:00		38	49			61	50				
07:15		55	55			82	50				
07:30		56	48			87	41				
07:45		81	53	230	205	108	42	338	183	568	388
08:00		74	33			138	31				
08:15		59	46			124	32				
08:30		60	48			110	31				
08:45		70	30	263	157	112	25	484	119	747	276
09:00		84	26			101	26				
09:15		65	20			107	33				
09:30		81	37			85	16				
09:45		112	46	342	129	118	21	411	96	753	225
10:00		104	25			102	13				
10:15		98	29			99	16				
10:30		90	21			97	13				
10:45		100	20	392	95	109	14	407	56	799	151
11:00		101	13			81	14				
11:15		85	12			121	7				
11:30		88	12			105	12				
11:45		96	11	370	48	86	13	393	46	763	94
Total		1843	3632			2292	3065			4135	6697
Percent		33.7%	66.3%			42.8%	57.2%			38.2%	61.8%
Grand Total		1843	3632			2292	3065			4135	6697
Percent		33.7%	66.3%			42.8%	57.2%			38.2%	61.8%
ADT	ADT 10,619		AADT 10,619								

FTE
8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010115111100
HARBOR N OF OLEAN

Start	09-Dec-15	NB		Hour Totals		SB		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	134			6	136				
12:15		15	122			2	101				
12:30		8	128			7	113				
12:45		12	109	43	493	8	127	23	477	66	970
01:00		9	120			0	136				
01:15		4	148			8	120				
01:30		7	109			7	114				
01:45		9	113	29	490	4	126	19	496	48	986
02:00		9	120			2	116				
02:15		6	133			4	115				
02:30		4	139			2	106				
02:45		2	150	21	542	6	143	14	480	35	1022
03:00		4	141			4	116				
03:15		2	164			3	120				
03:30		2	120			2	130				
03:45		2	145	10	570	4	129	13	495	23	1065
04:00		3	116			7	151				
04:15		4	116			7	115				
04:30		7	140			8	112				
04:45		12	126	26	498	7	126	29	504	55	1002
05:00		9	159			9	136				
05:15		8	150			15	108				
05:30		14	146			20	124				
05:45		12	117	43	572	23	91	67	459	110	1031
06:00		29	116			39	96				
06:15		38	111			49	101				
06:30		45	119			56	78				
06:45		53	91	165	437	79	59	223	334	388	771
07:00		50	60			82	70				
07:15		64	66			104	64				
07:30		86	70			119	64				
07:45		100	70	300	266	134	59	439	257	739	523
08:00		106	57			128	52				
08:15		97	66			150	39				
08:30		90	56			128	35				
08:45		110	40	403	219	146	31	552	157	955	376
09:00		117	29			98	51				
09:15		99	22			123	32				
09:30		109	40			100	29				
09:45		138	44	463	135	136	28	457	140	920	275
10:00		129	37			108	24				
10:15		117	26			136	31				
10:30		115	28			131	24				
10:45		114	24	475	115	123	17	498	96	973	211
11:00		128	27			128	15				
11:15		97	10			137	19				
11:30		112	15			147	13				
11:45		120	14	457	66	103	10	515	57	972	123
Total		2435	4403			2849	3952			5284	8355
Percent		35.6%	64.4%			41.9%	58.1%			38.7%	61.3%
Grand Total		2435	4403			2849	3952			5284	8355
Percent		35.6%	64.4%			41.9%	58.1%			38.7%	61.3%

ADT ADT 13,431 AADT 13,431

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010112311100
OLEAN W OF HARBOR

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	112			7	135				
12:15		13	121			7	100				
12:30		9	86			7	107				
12:45		6	101	38	420	5	131	26	473	64	893
01:00		2	119			2	144				
01:15		2	91			6	115				
01:30		5	88			8	116				
01:45		9	111	18	409	6	125	22	500	40	909
02:00		6	79			3	110				
02:15		8	120			3	104				
02:30		3	107			3	105				
02:45		1	114	18	420	5	113	14	432	32	852
03:00		5	124			7	117				
03:15		4	113			0	128				
03:30		8	117			1	130				
03:45		7	124	24	478	5	94	13	469	37	947
04:00		4	108			4	114				
04:15		6	100			10	84				
04:30		2	116			6	90				
04:45		3	110	15	434	19	108	39	396	54	830
05:00		10	121			18	110				
05:15		9	114			24	87				
05:30		10	96			18	102				
05:45		13	98	42	429	29	87	89	386	131	815
06:00		19	91			32	75				
06:15		33	103			52	72				
06:30		34	95			76	65				
06:45		51	69	137	358	91	45	251	257	388	615
07:00		28	58			78	59				
07:15		43	42			92	40				
07:30		48	64			105	46				
07:45		79	70	198	234	144	58	419	203	617	437
08:00		52	54			119	27				
08:15		82	42			118	34				
08:30		78	54			100	27				
08:45		65	36	277	186	132	21	469	109	746	295
09:00		91	40			121	31				
09:15		57	28			127	26				
09:30		96	35			145	26				
09:45		116	19	360	122	127	34	520	117	880	239
10:00		94	25			102	20				
10:15		94	16			128	16				
10:30		76	17			126	14				
10:45		105	15	369	73	125	8	481	58	850	131
11:00		83	16			151	9				
11:15		106	15			124	3				
11:30		85	18			114	3				
11:45		104	8	378	57	113	2	502	17	880	74
Total		1874	3620			2845	3417			4719	7037
Percent		34.1%	65.9%			45.4%	54.6%			40.1%	59.9%
Grand Total		1874	3620			2845	3417			4719	7037
Percent		34.1%	65.9%			45.4%	54.6%			40.1%	59.9%
ADT		ADT 5,669		AADT 5,669							

FTE

8250 Pascal dr
Punta Gorda, FL 33950
Ph# (941) 639 2818, Fax# (941) 639 4851

Station ID: 010114311100
OLEAN E OF HARBOR

Start Time	09-Dec-15 Wed	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		13	112			7	86				
12:15		11	94			5	120				
12:30		3	99			6	84				
12:45		12	102	39	407	14	98	32	388	71	795
01:00		2	113			2	126				
01:15		3	86			6	112				
01:30		1	111			5	106				
01:45		9	121	15	431	4	108	17	452	32	883
02:00		1	96			7	128				
02:15		7	120			4	109				
02:30		3	110			8	105				
02:45		4	120	15	446	4	135	23	477	38	923
03:00		4	174			0	142				
03:15		5	150			0	134				
03:30		9	115			3	122				
03:45		10	185	28	624	3	90	6	488	34	1112
04:00		6	176			11	103				
04:15		7	123			4	102				
04:30		1	113			12	118				
04:45		8	112	22	524	6	104	33	427	55	951
05:00		8	143			6	91				
05:15		10	145			17	112				
05:30		10	118			28	94				
05:45		25	102	53	508	28	112	79	409	132	917
06:00		17	101			31	78				
06:15		35	105			41	87				
06:30		37	96			76	77				
06:45		51	82	140	384	89	57	237	299	377	683
07:00		45	74			84	74				
07:15		52	47			111	82				
07:30		71	71			132	44				
07:45		67	58	235	250	150	40	477	240	712	490
08:00		75	56			154	24				
08:15		86	45			103	50				
08:30		74	41			116	44				
08:45		64	43	299	185	132	26	505	144	804	329
09:00		78	43			126	34				
09:15		54	30			124	30				
09:30		84	38			140	28				
09:45		102	27	318	138	122	24	512	116	830	254
10:00		106	29			128	25				
10:15		106	38			134	20				
10:30		79	17			114	26				
10:45		99	15	390	99	118	10	494	81	884	180
11:00		88	13			140	8				
11:15		93	17			142	14				
11:30		105	23			98	14				
11:45		100	8	386	61	106	7	486	43	872	104
Total		1940	4057			2901	3564			4841	7621
Percent		32.3%	67.7%			44.9%	55.1%			38.8%	61.2%
Grand Total		1940	4057			2901	3564			4841	7621
Percent		32.3%	67.7%			44.9%	55.1%			38.8%	61.2%
ADT	ADT 12,462		AADT 12,462								

Appendix B

8-Hour Turning Movement Counts

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Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: US 41@OLEAN BLVD
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						US 41 Northbound						US 41 Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	3	1	1	1	5	0	13	0	38	0	51	0	4	193	13	0	210	0	38	315	4	0	357	623
7:15	0	3	5	1	0	9	0	15	6	43	0	64	1	0	276	10	0	287	1	58	323	5	0	387	747
7:30	0	4	12	0	0	16	0	21	7	57	0	85	1	0	331	32	0	364	0	61	431	3	0	495	960
7:45	0	5	4	4	0	13	0	22	9	77	0	108	0	4	354	25	0	383	0	101	523	11	0	635	1139
Hourly Total	0	15	22	6	1	43	0	71	22	215	0	308	2	8	1154	80	0	1244	1	258	1592	23	0	1874	3469
8:00	0	5	7	0	0	12	0	17	5	82	0	104	2	2	226	25	0	255	1	62	379	9	0	451	822
8:15	0	5	11	2	0	18	0	24	10	77	0	111	0	6	303	22	0	331	1	85	397	11	0	494	954
8:30	0	5	4	1	0	10	0	21	5	61	0	87	0	8	328	25	0	361	1	74	372	17	0	464	922
8:45	0	8	9	0	0	17	0	27	7	105	0	139	2	3	304	30	0	339	1	72	428	23	0	524	1019
Hourly Total	0	23	31	3	0	57	0	89	27	325	0	441	4	19	1161	102	0	1286	4	293	1576	60	0	1933	3717
9:00	0	12	11	3	0	26	0	25	16	64	1	105	4	4	319	26	0	353	2	72	306	9	0	389	873
9:15	0	9	11	6	0	26	0	22	27	68	0	117	2	6	290	24	0	322	0	69	325	14	0	408	873
9:30	0	8	9	4	2	21	0	19	14	93	0	126	4	5	361	33	0	403	1	73	372	13	0	459	1009
9:45	0	7	12	5	0	24	0	24	27	106	0	157	7	8	378	33	0	426	1	74	373	15	0	463	1070
Hourly Total	0	36	43	18	2	97	0	90	84	331	1	505	17	23	1348	116	0	1504	4	288	1376	51	0	1719	3825
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	10	14	8	0	32	0	28	9	127	0	164	2	10	511	35	0	558	3	77	369	17	0	466	1220
11:15	0	19	11	8	1	38	0	34	15	109	0	158	2	8	416	28	0	454	0	67	375	10	0	452	1102
11:30	0	24	11	10	0	45	0	40	15	119	0	174	4	9	456	24	0	493	2	86	380	20	0	488	1200
11:45	0	10	15	7	0	32	0	42	9	93	0	144	5	12	502	27	0	546	0	64	329	15	0	408	1130
Hourly Total	0	63	51	33	1	147	0	144	48	448	0	640	13	39	1885	114	0	2051	5	294	1453	62	0	1814	4652
12:00	0	13	22	3	0	38	0	38	15	102	0	155	5	7	531	16	0	559	1	93	459	19	0	572	1324
12:15	0	18	16	4	0	38	0	30	16	123	0	169	0	10	458	27	0	495	1	73	397	13	0	484	1186
12:30	0	16	27	1	0	44	0	36	12	90	0	138	3	2	477	25	0	507	2	94	388	16	0	500	1189
12:45	0	14	10	5	1	29	0	12	10	101	0	123	8	5	453	28	0	494	1	82	433	15	0	531	1177
Hourly Total	0	61	75	13	1	149	0	116	53	416	0	585	16	24	1919	96	0	2055	5	342	1677	63	0	2087	4876
13:00	0	11	14	3	0	28	0	21	16	110	0	147	2	7	417	32	0	458	0	82	442	16	0	540	1173
13:15	0	17	14	1	0	32	0	50	15	101	0	166	4	11	417	25	0	457	1	96	380	8	0	485	1140
13:30	0	16	18	5	0	39	0	38	9	100	0	147	5	8	438	28	0	479	2	82	450	17	0	551	1216
13:45	0	12	14	4	0	30	0	23	13	111	0	147	4	6	466	25	0	501	2	80	474	15	0	571	1249
Hourly Total	0	56	60	13	0	129	0	132	53	422	0	607	15	32	1738	110	0	1895	5	340	1746	56	0	2147	4778
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	14	13	2	0	29	0	41	7	93	0	141	3	11	436	10	1	460	0	77	433	17	0	527	1157
16:15	0	9	20	5	0	34	0	23	9	89	0	121	4	19	425	6	0	454	0	58	491	15	0	564	1173
16:30	0	7	9	6	0	22	0	29	8	108	0	145	1	4	359	17	0	381	0	52	482	12	0	546	1094
16:45	0	13	18	1	0	32	0	20	9	84	0	113	3	7	411	15	0	436	0	66	418	12	0	496	1077
Hourly Total	0	43	60	14	0	117	0	113	33	374	0	520	11	41	1631	48	1	1731	0	253	1824	56	0	2133	4501
17:00	0	11	12	2	0	25	0	25	12	96	0	133	1	8	562	13	0	584	0	51	472	9	0	532	1274
17:15	0	24	10	5	0	39	0	23	9	69	0	101	1	11	573	14	0	599	2	63	531	9	0	605	1344
17:30	0	12	15	2	1	29	0	28	6	75	0	109	2	7	403	8	0	420	0	59	406	15	0	480	1038
17:45	0	9	17	6	0	32	0	12	6	54	0	72	4	3	447	5	0	459	1	49	355	12	0	417	980
Hourly Total	0	56	54	15	1	125	0	88	33	294	0	415	8	29	1985	40	0	2062	3	222	1764	45	0	2034	4636
Grand Total	0	353	396	115	6	864	0	843	353	2825	1	4021	86	215	12821	706	1	13828	27	2290	13008	416	0	15741	34454
Lights	0	347	392	113	-	852	0	826	352	2785	-	3963	86	214	12390	689	-	13379	27	2243	12580	407	-	15257	33451
% Lights	-	98.3	99.0	98.3	-	98.6	-	98.0	99.7	98.6	-	98.6	100.0	99.5	96.6	97.6	-	96.8	100.0	97.9	96.7	97.8	-	96.9	97.1
Other Vehicles	0	6	4	2	-	12	0	17	1	40	-	58	0	1	431	17	-	449	0	47	428	9	-	484	1003
% Other Vehicles	-	1.7	1.0	1.7	-	1.4	-	2.0	0.3	1.4	-	1.4	0.0	0.5	3.4	2.4	-	3.2	0.0	2.1	3.3	2.2	-	3.1	2.9
Pedestrians	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: US 41@OLEAN BLVD
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (7:30)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						US 41 Northbound						US 41 Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30	0	4	12	0	0	16	0	21	7	57	0	85	1	0	331	32	0	364	0	61	431	3	0	495	960
7:45	0	5	4	4	0	13	0	22	9	77	0	108	0	4	354	25	0	383	0	101	523	11	0	635	1139
8:00	0	5	7	0	0	12	0	17	5	82	0	104	2	2	226	25	0	255	1	62	379	9	0	451	822
8:15	0	5	11	2	0	18	0	24	10	77	0	111	0	6	303	22	0	331	1	85	397	11	0	494	954
Total	0	19	34	6	0	59	0	84	31	293	0	408	3	12	1214	104	0	1333	2	309	1730	34	0	2075	3875
PHF	0.000	0.950	0.708	0.375	-	0.819	0.000	0.875	0.775	0.893	-	0.919	0.375	0.500	0.857	0.813	-	0.870	0.500	0.765	0.827	0.773	-	0.817	0.851
Lights	0	18	34	6	-	58	0	81	31	285	-	397	3	12	1150	100	-	1265	2	300	1667	34	-	2003	3723
% Lights	-	94.7	100.0	100.0	-	98.3	-	96.4	100.0	97.3	-	97.3	100.0	100.0	94.7	96.2	-	94.9	100.0	97.1	96.4	100.0	-	96.5	96.1
Other Vehicles	0	1	0	0	-	1	0	3	0	8	-	11	0	0	64	4	-	68	0	9	63	0	-	72	152
% Other Vehicles	-	5.3	0.0	0.0	-	1.7	-	3.6	0.0	2.7	-	2.7	0.0	0.0	5.3	3.8	-	5.1	0.0	2.9	3.6	0.0	-	3.5	3.9
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: US 41@OLEAN BLVD
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (12:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						US 41 Northbound						US 41 Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:00	0	13	22	3	0	38	0	38	15	102	0	155	5	7	531	16	0	559	1	93	459	19	0	572	1324
12:15	0	18	16	4	0	38	0	30	16	123	0	169	0	10	458	27	0	495	1	73	397	13	0	484	1186
12:30	0	16	27	1	0	44	0	36	12	90	0	138	3	2	477	25	0	507	2	94	388	16	0	500	1189
12:45	0	14	10	5	1	29	0	12	10	101	0	123	8	5	453	28	0	494	1	82	433	15	0	531	1177
Total	0	61	75	13	1	149	0	116	53	416	0	585	16	24	1919	96	0	2055	5	342	1677	63	0	2087	4876
PHF	0.000	0.847	0.694	0.650	-	0.847	0.000	0.763	0.828	0.846	-	0.865	0.500	0.600	0.903	0.857	-	0.919	0.625	0.910	0.913	0.829	-	0.912	0.921
Lights	0	59	74	12	-	145	0	113	53	410	-	576	16	24	1871	95	-	2006	5	335	1611	62	-	2013	4740
% Lights	-	96.7	98.7	92.3	-	97.3	-	97.4	100.0	98.6	-	98.5	100.0	100.0	97.5	99.0	-	97.6	100.0	98.0	96.1	98.4	-	96.5	97.2
Other Vehicles	0	2	1	1	-	4	0	3	0	6	-	9	0	0	48	1	-	49	0	7	66	1	-	74	136
% Other Vehicles	-	3.3	1.3	7.7	-	2.7	-	2.6	0.0	1.4	-	1.5	0.0	0.0	2.5	1.0	-	2.4	0.0	2.0	3.9	1.6	-	3.5	2.8
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: US 41@OLEAN BLVD
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:30)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						US 41 Northbound						US 41 Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:30	0	7	9	6	0	22	0	29	8	108	0	145	1	4	359	17	0	381	0	52	482	12	0	546	1094
16:45	0	13	18	1	0	32	0	20	9	84	0	113	3	7	411	15	0	436	0	66	418	12	0	496	1077
17:00	0	11	12	2	0	25	0	25	12	96	0	133	1	8	562	13	0	584	0	51	472	9	0	532	1274
17:15	0	24	10	5	0	39	0	23	9	69	0	101	1	11	573	14	0	599	2	63	531	9	0	605	1344
Total	0	55	49	14	0	118	0	97	38	357	0	492	6	30	1905	59	0	2000	2	232	1903	42	0	2179	4789
PHF	0.000	0.573	0.681	0.583	-	0.756	0.000	0.836	0.792	0.826	-	0.848	0.500	0.682	0.831	0.868	-	0.835	0.250	0.879	0.896	0.875	-	0.900	0.891
Lights	0	55	49	14	-	118	0	95	38	356	-	489	6	30	1843	59	-	1938	2	226	1851	42	-	2121	4666
% Lights	-	100.0	100.0	100.0	-	100.0	-	97.9	100.0	99.7	-	99.4	100.0	100.0	96.7	100.0	-	96.9	100.0	97.4	97.3	100.0	-	97.3	97.4
Other Vehicles	0	0	0	0	-	0	0	2	0	1	-	3	0	0	62	0	-	62	0	6	52	0	-	58	123
% Other Vehicles	-	0.0	0.0	0.0	-	0.0	-	2.1	0.0	0.3	-	0.6	0.0	0.0	3.3	0.0	-	3.1	0.0	2.6	2.7	0.0	-	2.7	2.6
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN @ SHELL DR- FORD DROLEAN@BOA-FAMILY EYE CENTER
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						SHELL GAS STATION Northbound						FORD DEALERSHIP Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	0	50	0	0	50	0	1	46	0	0	47	0	6	0	0	0	6	0	0	0	0	0	0	103
7:15	0	3	65	0	0	68	0	1	62	0	0	63	0	4	0	0	0	4	0	0	0	0	0	0	135
7:30	0	1	95	0	0	96	0	0	82	2	0	84	0	5	0	0	0	5	0	0	0	0	0	0	185
7:45	0	2	115	0	0	117	0	0	102	3	0	105	0	3	0	0	0	3	0	1	0	0	0	1	226
Hourly Total	0	6	325	0	0	331	0	2	292	5	0	299	0	18	0	0	0	18	0	1	0	0	0	1	649
8:00	0	3	94	0	0	97	0	2	88	0	0	90	0	8	0	4	0	12	0	0	0	0	0	0	199
8:15	0	5	110	0	0	115	0	4	94	4	0	102	0	5	0	14	0	19	0	1	0	2	0	3	239
8:30	0	8	98	1	0	107	0	4	88	0	0	92	0	5	0	7	0	12	0	2	1	0	0	3	214
8:45	0	3	115	2	1	120	0	5	117	1	0	123	0	6	1	4	0	11	0	2	0	2	0	4	258
Hourly Total	0	19	417	3	1	439	0	15	387	5	0	407	0	24	1	29	0	54	0	5	1	4	0	10	910
9:00	0	2	106	0	3	108	0	0	101	3	0	104	0	5	0	5	0	10	0	1	0	2	0	3	225
9:15	0	2	98	4	2	104	0	0	108	1	0	109	0	4	0	3	0	7	0	0	0	1	0	1	221
9:30	0	7	109	0	0	116	0	0	133	1	0	134	0	5	0	4	0	9	0	0	0	1	0	1	260
9:45	0	3	119	2	0	124	0	2	148	3	0	153	0	4	0	5	0	9	0	2	0	1	0	3	289
Hourly Total	0	14	432	6	5	452	0	2	490	8	0	500	0	18	0	17	0	35	0	3	0	5	0	8	995
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	1	119	0	1	120	0	1	163	0	2	164	0	4	0	4	0	8	0	0	0	1	0	1	293
11:15	0	3	101	0	0	104	0	1	159	3	1	163	0	2	0	0	0	2	0	0	0	2	0	2	271
11:30	0	5	118	0	0	123	0	1	164	2	0	167	0	1	0	5	0	6	0	1	0	2	0	3	299
11:45	0	3	94	0	0	97	0	0	137	1	0	138	0	2	0	0	0	2	0	1	1	1	0	3	240
Hourly Total	0	12	432	0	1	444	0	3	623	6	3	632	0	9	0	9	0	18	0	2	1	6	0	9	1103
12:00	1	2	123	0	0	126	0	0	156	2	1	158	0	2	0	4	0	6	0	0	0	0	0	0	290
12:15	0	2	117	0	0	119	0	1	150	5	0	156	0	7	0	4	0	11	0	1	0	0	0	1	287
12:30	0	3	132	0	1	135	0	0	130	0	0	130	0	2	0	7	0	9	0	1	0	0	0	1	275
12:45	0	6	112	0	2	118	0	0	120	4	0	124	0	4	0	1	0	5	1	0	0	0	0	1	248
Hourly Total	1	13	484	0	3	498	0	1	556	11	1	568	0	15	0	16	0	31	1	2	0	0	0	3	1100
13:00	0	5	125	1	2	131	1	2	143	3	0	149	0	3	0	5	0	8	0	2	0	1	0	3	291
13:15	2	4	130	0	1	136	0	0	144	5	0	149	0	6	0	6	0	12	0	0	0	1	0	1	298
13:30	0	1	117	0	0	118	0	2	135	4	0	141	0	1	0	8	0	9	0	2	0	1	0	3	271
13:45	0	3	119	0	2	122	0	2	153	1	0	156	0	2	0	4	0	6	0	2	0	0	0	2	286
Hourly Total	2	13	491	1	5	507	1	6	575	13	0	595	0	12	0	23	0	35	0	6	0	3	0	9	1146
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	2	103	0	1	105	0	0	146	2	0	148	0	2	0	3	0	5	0	1	0	0	0	1	259
16:15	0	1	87	0	0	88	0	0	116	4	0	120	0	0	0	3	0	3	0	2	0	1	1	3	214
16:30	0	3	83	0	0	86	0	1	140	3	0	144	0	4	0	8	0	12	0	4	0	5	1	9	251
16:45	0	3	82	0	0	85	0	4	116	2	0	122	0	3	0	3	0	6	0	0	0	1	0	1	214
Hourly Total	0	9	355	0	1	364	0	5	518	11	0	534	0	9	0	17	0	26	0	7	0	7	2	14	938
17:00	0	3	73	0	2	76	0	1	142	0	0	143	0	2	1	6	0	9	0	0	0	0	0	0	228
17:15	0	2	96	0	1	98	0	1	102	3	0	106	0	3	0	10	0	13	0	2	0	3	0	5	222
17:30	0	1	87	0	2	88	0	0	97	0	0	97	0	5	0	3	0	8	0	0	0	4	0	4	197
17:45	0	0	80	0	3	80	0	2	80	6	0	88	0	2	0	9	0	11	0	0	0	1	0	1	180
Hourly Total	0	6	336	0	8	342	0	4	421	9	0	434	0	12	1	28	0	41	0	2	0	8	0	10	827
Grand Total	3	92	3272	10	24	3377	1	38	3862	68	4	3969	0	117	2	139	0	258	1	28	2	33	2	64	7668
Lights	3	88	3214	10	-	3315	1	38	3799	65	-	3903	0	115	2	133	-	250	1	28	2	33	-	64	7532
% Lights	100.0	95.7	98.2	100.0	-	98.2	100.0	100.0	98.4	95.6	-	98.3	-	98.3	100.0	95.7	-	96.9	100.0	100.0	100.0	100.0	-	100.0	98.2
Other Vehicles	0	4	58	0	-	62	0	0	63	3	-	66	0	2	0	6	-	8	0	0	0	0	-	0	136
% Other Vehicles	0.0	4.3	1.8	0.0	-	1.8	0.0	0.0	1.6	4.4	-	1.7	-	1.7	0.0	4.3	-	3.1	0.0	0.0	0.0	0.0	-	0.0	1.8
Pedestrians	-	-	-	-	24	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN @ SHELL DR- FORD DROLEAN@BOA-FAMILY EYE CENTER
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (9:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						SHELL GAS STATION Northbound						FORD DEALERSHIP Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
9:00	0	2	106	0	3	108	0	0	101	3	0	104	0	5	0	5	0	10	0	1	0	2	0	3	225
9:15	0	2	98	4	2	104	0	0	108	1	0	109	0	4	0	3	0	7	0	0	0	1	0	1	221
9:30	0	7	109	0	0	116	0	0	133	1	0	134	0	5	0	4	0	9	0	0	0	1	0	1	260
9:45	0	3	119	2	0	124	0	2	148	3	0	153	0	4	0	5	0	9	0	2	0	1	0	3	289
Total	0	14	432	6	5	452	0	2	490	8	0	500	0	18	0	17	0	35	0	3	0	5	0	8	995
PHF	0.000	0.500	0.908	0.375	-	0.911	0.000	0.250	0.828	0.667	-	0.817	0.000	0.900	0.000	0.850	-	0.875	0.000	0.375	0.000	0.625	-	0.667	0.861
Lights	0	13	426	6	-	445	0	2	484	8	-	494	0	18	0	17	-	35	0	3	0	5	-	8	982
% Lights	-	92.9	98.6	100.0	-	98.5	-	100.0	98.8	100.0	-	98.8	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.7
Other Vehicles	0	1	6	0	-	7	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	13
% Other Vehicles	-	7.1	1.4	0.0	-	1.5	-	0.0	1.2	0.0	-	1.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.3
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN @ SHELL DR- FORD DROLEAN@BOA-FAMILY EYE CENTER
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (13:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						SHELL GAS STATION Northbound						FORD DEALERSHIP Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
13:00	0	5	125	1	2	131	1	2	143	3	0	149	0	3	0	5	0	8	0	2	0	1	0	3	291
13:15	2	4	130	0	1	136	0	0	144	5	0	149	0	6	0	6	0	12	0	0	0	1	0	1	298
13:30	0	1	117	0	0	118	0	2	135	4	0	141	0	1	0	8	0	9	0	2	0	1	0	3	271
13:45	0	3	119	0	2	122	0	2	153	1	0	156	0	2	0	4	0	6	0	2	0	0	0	2	286
Total	2	13	491	1	5	507	1	6	575	13	0	595	0	12	0	23	0	35	0	6	0	3	0	9	1146
PHF	0.250	0.650	0.944	0.250	-	0.932	0.250	0.750	0.940	0.650	-	0.954	0.000	0.500	0.000	0.719	-	0.729	0.000	0.750	0.000	0.750	-	0.750	0.961
Lights	2	13	482	1	-	498	1	6	561	13	-	581	0	12	0	21	-	33	0	6	0	3	-	9	1121
% Lights	100.0	100.0	98.2	100.0	-	98.2	100.0	100.0	97.6	100.0	-	97.6	-	100.0	-	91.3	-	94.3	-	100.0	-	100.0	-	100.0	97.8
Other Vehicles	0	0	9	0	-	9	0	0	14	0	-	14	0	0	0	2	-	2	0	0	0	0	-	0	25
% Other Vehicles	0.0	0.0	1.8	0.0	-	1.8	0.0	0.0	2.4	0.0	-	2.4	-	0.0	-	8.7	-	5.7	-	0.0	-	0.0	-	0.0	2.2
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN @ SHELL DR- FORD DROLEAN@BOA-FAMILY EYE CENTER
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						SHELL GAS STATION Northbound						FORD DEALERSHIP Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	2	103	0	1	105	0	0	146	2	0	148	0	2	0	3	0	5	0	1	0	0	0	1	259
16:15	0	1	87	0	0	88	0	0	116	4	0	120	0	0	0	3	0	3	0	2	0	1	1	3	214
16:30	0	3	83	0	0	86	0	1	140	3	0	144	0	4	0	8	0	12	0	4	0	5	1	9	251
16:45	0	3	82	0	0	85	0	4	116	2	0	122	0	3	0	3	0	6	0	0	0	1	0	1	214
Total	0	9	355	0	1	364	0	5	518	11	0	534	0	9	0	17	0	26	0	7	0	7	2	14	938
PHF	0.000	0.750	0.862	0.000	-	0.867	0.000	0.313	0.887	0.688	-	0.902	0.000	0.563	0.000	0.531	-	0.542	0.000	0.438	0.000	0.350	-	0.389	0.905
Lights	0	9	350	0	-	359	0	5	513	10	-	528	0	9	0	16	-	25	0	7	0	7	-	14	926
% Lights	-	100.0	98.6	-	-	98.6	-	100.0	99.0	90.9	-	98.9	-	100.0	-	94.1	-	96.2	-	100.0	-	100.0	-	100.0	98.7
Other Vehicles	0	0	5	0	-	5	0	0	5	1	-	6	0	0	0	1	-	1	0	0	0	0	-	0	12
% Other Vehicles	-	0.0	1.4	-	-	1.4	-	0.0	1.0	9.1	-	1.1	-	0.0	-	5.9	-	3.8	-	0.0	-	0.0	-	0.0	1.3
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@CARING WAY
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						CARING WAY Northbound						CARING WAY Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	7	42	7	0	56	0	18	45	1	0	64	0	2	0	5	0	7	0	1	5	9	0	15	142
7:15	0	11	47	11	0	69	0	19	39	1	0	59	0	12	6	17	0	35	0	2	3	10	0	15	178
7:30	0	14	87	15	0	116	0	23	61	2	0	86	0	12	0	13	0	25	0	4	7	10	0	21	248
7:45	0	10	79	20	0	109	0	31	80	9	0	120	0	6	2	26	0	34	0	7	3	16	0	26	289
Hourly Total	0	42	255	53	0	350	0	91	225	13	0	329	0	32	8	61	0	101	0	14	18	45	0	77	857
8:00	0	14	73	14	0	101	0	37	79	3	0	119	0	11	2	24	0	37	0	6	5	8	0	19	276
8:15	0	14	93	25	0	132	0	33	78	7	0	118	0	11	6	20	0	37	0	2	6	7	1	15	302
8:30	0	6	77	19	1	102	0	24	69	5	0	98	0	12	0	28	0	40	0	5	9	13	0	27	267
8:45	0	6	92	24	1	122	0	19	96	6	0	121	0	21	4	24	0	49	0	6	5	8	2	19	311
Hourly Total	0	40	335	82	2	457	0	113	322	21	0	456	0	55	12	96	0	163	0	19	25	36	3	80	1156
9:00	0	8	77	18	0	103	0	16	83	6	0	105	0	12	2	24	0	38	0	10	6	8	2	24	270
9:15	0	6	86	27	0	119	0	25	86	7	0	118	0	14	4	23	0	41	0	2	5	8	1	15	293
9:30	0	5	77	25	0	107	0	23	110	7	0	140	0	23	2	32	0	57	0	3	5	11	0	19	323
9:45	0	9	91	16	0	116	0	23	117	4	0	144	0	21	4	25	0	50	0	4	8	10	1	22	332
Hourly Total	0	28	331	86	0	445	0	87	396	24	0	507	0	70	12	104	0	186	0	19	24	37	4	80	1218
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	1	5	106	25	0	137	0	20	130	13	1	163	0	22	4	23	1	49	0	4	7	12	3	23	372
11:15	0	4	61	29	0	94	0	28	124	11	0	163	0	24	3	29	0	56	0	7	7	12	0	26	339
11:30	0	4	86	30	0	120	0	27	133	7	0	167	0	18	5	29	0	52	0	7	9	13	0	29	368
11:45	0	6	66	30	0	102	0	27	111	2	0	140	0	18	6	40	0	64	0	8	7	17	0	32	338
Hourly Total	1	19	319	114	0	453	0	102	498	33	1	633	0	82	18	121	1	221	0	26	30	54	3	110	1417
12:00	0	9	91	34	0	134	0	31	117	7	0	155	0	21	7	42	0	70	0	3	6	17	2	26	385
12:15	0	7	83	22	0	112	0	33	109	13	0	155	0	24	4	34	0	62	0	4	8	16	0	28	357
12:30	0	9	97	38	2	144	0	28	93	6	0	127	1	22	3	34	0	60	0	5	7	13	0	25	356
12:45	0	6	85	24	4	115	0	26	109	7	0	142	0	19	8	33	0	60	0	3	3	12	0	18	335
Hourly Total	0	31	356	118	6	505	0	118	428	33	0	579	1	86	22	143	0	252	0	15	24	58	2	97	1433
13:00	0	15	92	31	0	138	0	35	114	2	0	151	0	16	2	42	0	60	0	3	9	12	1	24	373
13:15	0	7	77	26	0	110	0	21	102	4	0	127	0	29	8	32	0	69	0	7	10	13	0	30	336
13:30	0	10	112	28	0	150	0	15	112	5	0	132	0	18	4	30	0	52	0	4	5	11	0	20	354
13:45	0	14	79	19	0	112	0	16	123	6	0	145	1	24	7	37	0	69	0	2	10	9	0	21	347
Hourly Total	0	46	360	104	0	510	0	87	451	17	0	555	1	87	21	141	0	250	0	16	34	45	1	95	1410
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	6	89	28	0	123	0	24	116	6	0	146	0	17	7	30	0	54	0	4	5	13	0	22	345
16:15	0	3	62	17	0	82	0	22	113	9	0	144	0	14	10	29	0	53	0	8	4	9	0	21	300
16:30	0	10	62	21	0	93	0	27	101	3	0	131	0	17	5	20	0	42	0	6	6	12	0	24	290
16:45	0	5	72	13	0	90	0	14	106	4	0	124	0	15	10	24	0	49	0	8	5	15	0	28	291
Hourly Total	0	24	285	79	0	388	0	87	436	22	0	545	0	63	32	103	0	198	0	26	20	49	0	95	1226
17:00	0	8	63	23	0	94	0	33	116	10	0	159	0	10	9	20	0	39	0	6	6	13	0	25	317
17:15	0	5	69	25	0	99	0	20	76	4	0	100	0	18	13	28	0	59	0	7	6	10	0	23	281
17:30	0	10	64	10	0	84	0	24	75	3	0	102	0	15	7	34	0	56	0	6	4	10	0	20	262
17:45	0	7	77	19	0	103	0	21	71	5	0	97	0	6	9	24	0	39	0	4	0	13	0	17	256
Hourly Total	0	30	273	77	0	380	0	98	338	22	0	458	0	49	38	106	0	193	0	23	16	46	0	85	1116
Grand Total	1	260	2514	713	8	3488	0	783	3094	185	1	4062	2	524	163	875	1	1564	0	158	191	370	13	719	9833
Lights	1	255	2465	705	-	3426	0	772	3054	184	-	4010	2	517	162	865	-	1546	0	156	191	365	-	712	9694
% Lights	100.0	98.1	98.1	98.9	-	98.2	-	98.6	98.7	99.5	-	98.7	100.0	98.7	99.4	98.9	-	98.8	-	98.7	100.0	98.6	-	99.0	98.6
Other Vehicles	0	5	49	8	-	62	0	11	40	1	-	52	0	7	1	10	-	18	0	2	0	5	-	7	139
% Other Vehicles	0.0	1.9	1.9	1.1	-	1.8	-	1.4	1.3	0.5	-	1.3	0.0	1.3	0.6	1.1	-	1.2	-	1.3	0.0	1.4	-	1.0	1.4
Pedestrians	-	-	-	-	8	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	13	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@CARING WAY
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (9:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						CARING WAY Northbound						CARING WAY Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
9:00	0	8	77	18	0	103	0	16	83	6	0	105	0	12	2	24	0	38	0	10	6	8	2	24	270
9:15	0	6	86	27	0	119	0	25	86	7	0	118	0	14	4	23	0	41	0	2	5	8	1	15	293
9:30	0	5	77	25	0	107	0	23	110	7	0	140	0	23	2	32	0	57	0	3	5	11	0	19	323
9:45	0	9	91	16	0	116	0	23	117	4	0	144	0	21	4	25	0	50	0	4	8	10	1	22	332
Total	0	28	331	86	0	445	0	87	396	24	0	507	0	70	12	104	0	186	0	19	24	37	4	80	1218
PHF	0.000	0.778	0.909	0.796	-	0.935	0.000	0.870	0.846	0.857	-	0.880	0.000	0.761	0.750	0.813	-	0.816	0.000	0.475	0.750	0.841	-	0.833	0.917
Lights	0	28	326	85	-	439	0	85	393	24	-	502	0	67	12	103	-	182	0	19	24	36	-	79	1202
% Lights	-	100.0	98.5	98.8	-	98.7	-	97.7	99.2	100.0	-	99.0	-	95.7	100.0	99.0	-	97.8	-	100.0	100.0	97.3	-	98.8	98.7
Other Vehicles	0	0	5	1	-	6	0	2	3	0	-	5	0	3	0	1	-	4	0	0	0	1	-	1	16
% Other Vehicles	-	0.0	1.5	1.2	-	1.3	-	2.3	0.8	0.0	-	1.0	-	4.3	0.0	1.0	-	2.2	-	0.0	0.0	2.7	-	1.3	1.3
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@CARING WAY
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (11:30)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						CARING WAY Northbound						CARING WAY Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
11:30	0	4	86	30	0	120	0	27	133	7	0	167	0	18	5	29	0	52	0	7	9	13	0	29	368
11:45	0	6	66	30	0	102	0	27	111	2	0	140	0	18	6	40	0	64	0	8	7	17	0	32	338
12:00	0	9	91	34	0	134	0	31	117	7	0	155	0	21	7	42	0	70	0	3	6	17	2	26	385
12:15	0	7	83	22	0	112	0	33	109	13	0	155	0	24	4	34	0	62	0	4	8	16	0	28	357
Total	0	26	326	116	0	468	0	118	470	29	0	617	0	81	22	145	0	248	0	22	30	63	2	115	1448
PHF	0.000	0.722	0.896	0.853	-	0.873	0.000	0.894	0.883	0.558	-	0.924	0.000	0.844	0.786	0.863	-	0.886	0.000	0.688	0.833	0.926	-	0.898	0.940
Lights	0	25	321	115	-	461	0	117	464	29	-	610	0	80	21	145	-	246	0	21	30	63	-	114	1431
% Lights	-	96.2	98.5	99.1	-	98.5	-	99.2	98.7	100.0	-	98.9	-	98.8	95.5	100.0	-	99.2	-	95.5	100.0	100.0	-	99.1	98.8
Other Vehicles	0	1	5	1	-	7	0	1	6	0	-	7	0	1	1	0	-	2	0	1	0	0	-	1	17
% Other Vehicles	-	3.8	1.5	0.9	-	1.5	-	0.8	1.3	0.0	-	1.1	-	1.2	4.5	0.0	-	0.8	-	4.5	0.0	0.0	-	0.9	1.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@CARING WAY
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						CARING WAY Northbound						CARING WAY Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	6	89	28	0	123	0	24	116	6	0	146	0	17	7	30	0	54	0	4	5	13	0	22	345
16:15	0	3	62	17	0	82	0	22	113	9	0	144	0	14	10	29	0	53	0	8	4	9	0	21	300
16:30	0	10	62	21	0	93	0	27	101	3	0	131	0	17	5	20	0	42	0	6	6	12	0	24	290
16:45	0	5	72	13	0	90	0	14	106	4	0	124	0	15	10	24	0	49	0	8	5	15	0	28	291
Total	0	24	285	79	0	388	0	87	436	22	0	545	0	63	32	103	0	198	0	26	20	49	0	95	1226
PHF	0.000	0.600	0.801	0.705	-	0.789	0.000	0.806	0.940	0.611	-	0.933	0.000	0.926	0.800	0.858	-	0.917	0.000	0.813	0.833	0.817	-	0.848	0.888
Lights	0	24	279	79	-	382	0	87	434	22	-	543	0	62	32	103	-	197	0	26	20	48	-	94	1216
% Lights	-	100.0	97.9	100.0	-	98.5	-	100.0	99.5	100.0	-	99.6	-	98.4	100.0	100.0	-	99.5	-	100.0	100.0	98.0	-	98.9	99.2
Other Vehicles	0	0	6	0	-	6	0	0	2	0	-	2	0	1	0	0	-	1	0	0	0	1	-	1	10
% Other Vehicles	-	0.0	2.1	0.0	-	1.5	-	0.0	0.5	0.0	-	0.4	-	1.6	0.0	0.0	-	0.5	-	0.0	0.0	2.0	-	1.1	0.8
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

File Name : OLEAN@BOA-FAMILY EYE CENTER-FLOWER SHOP
Site Code :
Start Date : 12/8/2015
Page No : 1

Groups Printed- Lights - Other Vehicles - Pedestrians

	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (SOUTH DRIVEWAY) Northbound						OLEAN MEDICAL Southbound						GEORGIA FLOWER SHOP Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00	0	0	51	0	0	51	0	63	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
07:15	0	0	63	0	0	63	0	58	0	0	1	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	123
07:30	0	0	95	0	0	95	0	92	0	1	1	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	189
07:45	0	0	118	0	0	118	4	119	0	0	1	124	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	2	245
Total	0	0	327	0	0	327	4	332	0	1	3	340	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	3	671
08:00	0	1	102	2	0	105	3	115	0	0	0	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	223
08:15	0	1	106	3	0	110	0	122	0	1	0	123	0	0	0	1	0	1	0	0	0	0	0	0	2	0	3	0	0	5	239
08:30	0	2	105	1	0	108	2	93	0	0	0	95	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	205
08:45	0	1	119	2	0	122	7	128	0	0	1	136	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	259
Total	0	5	432	8	0	445	12	458	0	1	1	472	3	0	0	1	0	4	0	0	0	0	0	0	2	0	3	0	0	5	926
09:00	0	2	114	2	0	118	8	96	1	0	0	105	4	0	0	1	0	5	0	0	0	0	0	0	0	0	1	0	0	1	229
09:15	1	0	98	4	0	103	2	122	1	0	0	125	5	0	0	7	0	12	0	0	0	0	0	0	0	0	0	0	0	0	240
09:30	0	0	107	4	0	111	5	135	0	1	0	141	2	0	0	9	0	11	0	0	0	0	0	0	0	0	1	0	0	1	264
09:45	1	1	119	3	1	125	5	131	0	3	0	139	3	0	0	1	0	4	0	0	0	1	0	1	0	0	5	0	0	5	274
Total	2	3	438	13	1	457	20	484	2	4	0	510	14	0	0	18	0	32	0	0	0	1	0	1	0	0	7	0	0	7	1007
BREAK																															
11:00	0	0	125	6	0	131	5	144	3	1	0	153	4	0	0	6	0	10	0	0	0	1	0	1	2	0	1	0	0	3	298
11:15	0	0	100	3	0	103	10	134	1	0	0	145	1	0	0	6	0	7	0	0	0	2	0	2	0	0	1	0	1	2	259
11:30	1	0	122	2	0	125	9	146	1	2	0	158	2	0	0	7	0	9	0	0	0	0	0	0	0	0	2	0	1	3	295
11:45	0	1	104	6	0	111	4	115	1	1	0	121	1	0	0	6	0	7	0	0	0	0	0	0	0	0	0	0	0	0	239
Total	1	1	451	17	0	470	28	539	6	4	0	577	8	0	0	25	0	33	0	0	0	3	0	3	2	0	4	0	2	8	1091
12:00	0	0	123	4	0	127	5	153	1	1	1	161	8	0	0	2	0	10	0	0	1	2	1	4	0	1	1	1	1	4	306
12:15	1	0	135	3	0	139	5	161	0	0	0	166	1	0	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	309
12:30	0	0	124	3	0	127	6	126	0	1	0	133	1	0	0	3	0	4	0	0	0	2	0	2	0	0	0	0	0	0	266
12:45	0	0	117	5	0	122	9	132	0	0	0	141	9	0	0	3	0	12	0	0	0	0	0	0	0	0	0	0	0	0	275
Total	1	0	499	15	0	515	25	572	1	2	1	601	19	0	0	11	0	30	0	0	1	4	1	6	0	1	1	1	1	4	1156
13:00	0	0	137	3	0	140	5	139	0	0	0	144	3	0	0	4	0	7	0	0	0	0	1	1	2	0	0	0	1	3	295
13:15	1	1	125	0	0	127	6	125	0	0	0	131	5	0	0	9	0	14	0	0	0	0	0	0	1	0	0	0	0	1	273
13:30	0	0	128	2	3	133	6	131	0	0	0	137	3	0	0	3	0	6	0	0	0	3	1	4	1	0	0	0	1	2	282
13:45	1	1	123	3	0	128	6	146	0	0	0	152	2	0	0	3	0	5	0	0	0	2	0	2	0	0	0	0	0	0	287
Total	2	2	513	8	3	528	23	541	0	0	0	564	13	0	0	19	0	32	0	0	0	5	2	7	4	0	0	0	2	6	1137
BREAK																															
16:00	0	0	107	2	0	109	2	151	0	0	0	153	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	265
16:15	1	0	103	5	0	109	4	124	0	0	0	128	2	0	0	2	0	4	0	0	0	1	1	2	1	0	0	0	0	1	244
16:30	0	0	91	2	0	93	3	141	0	1	1	146	3	0	0	2	2	7	0	0	0	0	1	1	0	0	1	0	0	1	248
16:45	0	0	96	0	0	96	0	117	0	1	0	118	2	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	218
Total	1	0	397	9	0	407	9	533	0	2	1	545	9	0	0	6	3	18	0	0	0	1	2	3	1	0	1	0	0	2	975
17:00	0	0	83	0	0	83	0	156	0	0	0	156	2	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	243
17:15	0	0	116	2	0	118	2	108	0	0	0	110	3	0	0	0	0	3	0	0	0	0	1	1	0	0	0	0	1	1	233
17:30	0	0	105	2	0	107	3	93	0	0	0	96	4	0	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	208
17:45	0	0	102	1	0	103	3	101	0	0	0	104	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	209
Total	0	0	406	5	0	411	8	458	0	0	0	466	10	0	0	4	0	14	0	0	0	0	1	1	0	0	0	0	1	1	893
Grand Total	7	11	3463	75	4	3560	129	3917	9	14	6	4075	76	0	0	85	3	164	0	0	1	14	6	21	9	1	16	1	9	36	7856
Apprch %	0.2	0.3	97.3	2.1	0.1		3.2	96.1	0.2	0.3	0.1		46.3	0	0	51.8	1.8		0	0	4.8	66.7	28.6		25	2.8	44.4	2.8	25		
Total %	0.1	0.1	44.1	1	0.1	45.3	1.6	49.9	0.1	0.2	0.1	51.9	1	0	0	1.1	0	2.1	0	0	0	0.2	0.1	0.3	0.1	0	0.2	0	0.1	0.5	
Lights	7	11	3400	75	0	3493	129	3864	8	14	0	4015	76	0	0	85	0	161	0	0	1	13	0	14	7	1	16	1	0	25	7708
% Lights	100	100	98.2	100	0	98.1	100	98.6	88.9	100	0	98.5	100	0	0	100	0	98.2	0	0	100	92.9	0	66.7	77.8	100	100	100	0	69.4	98.1
Other Vehicles	0	0	63	0	0	63	0	53	1	0	0	54	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2	120
% Other Vehicles	0	0	1.8	0	0	1.8	0	1.4	11.1	0	0	1.3	0	0	0	0	0	0	0	0	0	7.1	0	4.8	22.2	0	0	0	0	5.6	1.5
Pedestrians	0	0	0	0	4	4	0	0	0	0	6	6	0	0	0	0	3	3	0	0	0	0	6	6	0	0	0	0	9	9	28
% Pedestrians	0	0	0	0	100	0.1	0	0	0	0	100	0.1	0	0	0	0	100	1.8	0	0	0	0	100	28.6	0	0	0	0	100	25	0.4

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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (SOUTH DRIVEWAY) Northbound						OLEAN MEDICAL Southbound						GEORGIA FLOWER SHOP Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 09:00																															
09:00	0	2	114	2	0	118	8	96	1	0	0	105	4	0	0	1	0	5	0	0	0	0	0	0	0	0	1	0	0	1	229
09:15	1	0	98	4	0	103	2	122	1	0	0	125	5	0	0	7	0	12	0	0	0	0	0	0	0	0	0	0	0	0	240
09:30	0	0	107	4	0	111	5	135	0	1	0	141	2	0	0	9	0	11	0	0	0	0	0	0	0	0	1	0	0	1	264
09:45	1	1	119	3	1	125	5	131	0	3	0	139	3	0	0	1	0	4	0	0	0	1	0	1	0	0	5	0	0	5	274
Total Volume	2	3	438	13	1	457	20	484	2	4	0	510	14	0	0	18	0	32	0	0	0	1	0	1	0	0	7	0	0	7	1007
% App. Total	0.4	0.7	95.8	2.8	0.2		3.9	94.9	0.4	0.8	0		43.8	0	0	56.2	0		0	0	0	100	0		0	0	100	0	0		
PHF	.500	.375	.920	.813	.250	.914	.625	.896	.500	.333	.000	.904	.700	.000	.000	.500	.000	.667	.000	.000	.000	.250	.000	.250	.000	.000	.350	.000	.000	.350	.919
Lights	2	3	431	13	0	449	20	480	1	4	0	505	14	0	0	18	0	32	0	0	0	1	0	1	0	0	7	0	0	7	994
% Lights	100	100	98.4	100	0	98.2	100	99.2	50.0	100	0	99.0	100	0	0	100	0	100	0	0	0	100	0	100	0	0	100	0	0	100	98.7
Other Vehicles	0	0	7	0	0	7	0	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
% Other Vehicles	0	0	1.6	0	0	1.5	0	0.8	50.0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2
Pedestrians	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	0	100	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1

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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (SOUTH DRIVEWAY) Northbound						OLEAN MEDICAL Southbound						GEORGIA FLOWER SHOP Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:00																															
12:00	0	0	123	4	0	127	5	153	1	1	1	161	8	0	0	2	0	10	0	0	1	2	1	4	0	1	1	1	1	4	306
12:15	1	0	135	3	0	139	5	161	0	0	0	166	1	0	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	309
12:30	0	0	124	3	0	127	6	126	0	1	0	133	1	0	0	3	0	4	0	0	0	2	0	2	0	0	0	0	0	0	266
12:45	0	0	117	5	0	122	9	132	0	0	0	141	9	0	0	3	0	12	0	0	0	0	0	0	0	0	0	0	0	0	275
Total Volume	1	0	499	15	0	515	25	572	1	2	1	601	19	0	0	11	0	30	0	0	1	4	1	6	0	1	1	1	1	4	1156
% App. Total	0.2	0	96.9	2.9	0		4.2	95.2	0.2	0.3	0.2		63.3	0	0	36.7	0		0	0	16.7	66.7	16.7		0	25	25	25	25		
PHF	.250	.000	.924	.750	.000	.926	.694	.888	.250	.500	.250	.905	.528	.000	.000	.917	.000	.625	.000	.000	.250	.500	.250	.375	.000	.250	.250	.250	.250	.250	.935
Lights	1	0	491	15	0	507	25	560	1	2	0	588	19	0	0	11	0	30	0	0	1	4	0	5	0	1	1	1	0	3	1133
% Lights	100	0	98.4	100	0	98.4	100	97.9	100	100	0	97.8	100	0	0	100	0	100	0	0	100	100	0	83.3	0	100	100	100	0	75.0	98.0
Other Vehicles	0	0	8	0	0	8	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
% Other Vehicles	0	0	1.6	0	0	1.6	0	2.1	0	0	0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7
Pedestrians	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	3
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	0.2	0	0	0	0	0	0	0	0	0	0	100	16.7	0	0	0	0	100	25.0	0.3

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File Name : OLEAN@BOA-FAMILY EYE CENTER-FLOWER SHOP
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (SOUTH DRIVEWAY) Northbound						OLEAN MEDICAL Southbound						GEORGIA FLOWER SHOP Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 16:00																															
16:00	0	0	107	2	0	109	2	151	0	0	0	153	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	265
16:15	1	0	103	5	0	109	4	124	0	0	0	128	2	0	0	2	0	4	0	0	0	1	1	2	1	0	0	0	0	1	244
16:30	0	0	91	2	0	93	3	141	0	1	1	146	3	0	0	2	2	7	0	0	0	0	1	1	0	0	1	0	0	1	248
16:45	0	0	96	0	0	96	0	117	0	1	0	118	2	0	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	218
Total Volume	1	0	397	9	0	407	9	533	0	2	1	545	9	0	0	6	3	18	0	0	0	1	2	3	1	0	1	0	0	2	975
% App. Total	0.2	0	97.5	2.2	0		1.7	97.8	0	0.4	0.2		50	0	0	33.3	16.7		0	0	0	33.3	66.7		50	0	50	0	0		
PHF	.250	.000	.928	.450	.000	.933	.563	.882	.000	.500	.250	.891	.750	.000	.000	.750	.375	.643	.000	.000	.000	.250	.500	.375	.250	.000	.250	.000	.000	.500	.920
Lights	1	0	390	9	0	400	9	529	0	2	0	540	9	0	0	6	0	15	0	0	0	1	0	1	1	0	1	0	0	2	958
% Lights	100	0	98.2	100	0	98.3	100	99.2	0	100	0	99.1	100	0	0	100	0	83.3	0	0	0	100	0	33.3	100	0	100	0	0	100	98.3
Other Vehicles	0	0	7	0	0	7	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
% Other Vehicles	0	0	1.8	0	0	1.7	0	0.8	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1
Pedestrians	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	3	0	0	0	0	2	2	0	0	0	0	0	0	6
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	0.2	0	0	0	0	100	16.7	0	0	0	0	100	66.7	0	0	0	0	0	0	0.6

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Count Name: OLEAN@BANK OF AMERICA
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Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (NORTH DRIVEWAY) Northbound						OLEAN PLAZA (SOUTH DRIVE WAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	0	61	0	0	61	0	0	58	0	0	58	0	0	0	3	0	3	0	0	0	1	0	1	123
7:15	0	0	70	0	0	70	0	0	58	0	0	58	0	0	0	0	0	0	0	1	0	0	0	1	129
7:30	0	0	82	0	0	82	0	0	88	0	0	88	0	3	0	0	0	3	0	0	0	1	0	1	174
7:45	0	0	116	0	0	116	0	0	102	0	0	102	0	1	0	1	0	2	0	0	0	0	0	0	220
Hourly Total	0	0	329	0	0	329	0	0	306	0	0	306	0	4	0	4	0	8	0	1	0	2	0	3	646
8:00	0	0	91	0	0	91	0	0	105	1	0	106	0	1	0	0	0	1	0	0	0	1	0	1	199
8:15	0	0	104	0	0	104	0	0	101	0	0	101	0	0	0	1	0	1	0	1	0	0	0	1	207
8:30	0	1	90	0	0	91	0	0	107	0	0	107	0	5	0	0	0	5	0	0	0	0	0	0	203
8:45	0	0	105	0	0	105	0	0	126	0	0	126	0	2	0	1	0	3	0	1	0	0	1	1	235
Hourly Total	0	1	390	0	0	391	0	0	439	1	0	440	0	8	0	2	0	10	0	2	0	1	1	3	844
9:00	0	0	114	0	0	114	0	0	109	0	0	109	0	1	0	2	0	3	0	0	0	2	0	2	228
9:15	0	1	92	0	0	93	0	0	128	0	0	128	0	7	0	3	0	10	0	1	0	1	0	2	233
9:30	0	3	123	0	0	126	0	0	125	0	0	125	0	2	0	1	0	3	0	0	0	2	1	2	256
9:45	0	2	135	0	0	137	0	0	119	1	0	120	0	2	0	3	0	5	0	4	0	1	0	5	267
Hourly Total	0	6	464	0	0	470	0	0	481	1	0	482	0	12	0	9	0	21	0	5	0	6	1	11	984
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	1	102	0	0	103	0	0	141	0	0	141	0	1	0	2	0	3	0	0	0	1	0	1	248
11:15	0	1	103	0	0	104	0	0	172	0	0	172	0	2	0	2	0	4	0	0	0	0	0	0	280
11:30	0	1	116	0	0	117	0	0	128	0	0	128	0	5	0	1	0	6	0	0	0	3	0	3	254
11:45	0	0	133	0	0	133	0	0	129	1	0	130	0	8	0	2	0	10	0	0	0	0	0	0	273
Hourly Total	0	3	454	0	0	457	0	0	570	1	0	571	0	16	0	7	0	23	0	0	0	4	0	4	1055
12:00	0	2	112	0	1	114	0	0	152	0	0	152	0	3	0	2	0	5	0	0	0	2	0	2	273
12:15	0	1	146	0	0	147	0	0	136	0	0	136	0	4	0	1	0	5	0	0	0	1	0	1	289
12:30	0	1	113	0	0	114	0	0	119	0	0	119	0	6	1	2	0	9	0	0	0	1	0	1	243
12:45	0	1	133	0	0	134	0	0	122	0	0	122	0	4	0	3	0	7	0	0	0	1	0	1	264
Hourly Total	0	5	504	0	1	509	0	0	529	0	0	529	0	17	1	8	0	26	0	0	0	5	0	5	1069
13:00	0	0	134	1	0	135	0	0	133	0	0	133	0	2	0	2	0	4	0	0	0	1	0	1	273
13:15	0	1	105	0	0	106	0	0	128	0	0	128	0	2	0	0	0	2	0	2	0	4	0	6	242
13:30	0	1	112	0	0	113	0	0	137	0	0	137	0	2	0	0	0	2	0	0	0	2	0	2	254
13:45	0	0	127	0	0	127	0	0	138	0	0	138	0	2	0	2	0	4	0	0	0	0	0	0	269
Hourly Total	0	2	478	1	0	481	0	0	536	0	0	536	0	8	0	4	0	12	0	2	0	7	0	9	1038
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	0	96	0	0	96	0	0	150	0	0	150	0	5	0	3	0	8	0	1	0	0	0	1	255
16:15	0	0	90	0	0	90	0	0	111	0	0	111	0	4	0	3	0	7	0	0	0	1	0	1	209
16:30	0	0	107	0	0	107	0	0	123	0	0	123	0	3	0	2	0	5	0	1	0	1	0	2	237
16:45	0	1	98	0	0	99	0	0	126	0	0	126	0	1	0	2	0	3	0	0	0	0	0	0	228
Hourly Total	0	1	391	0	0	392	0	0	510	0	0	510	0	13	0	10	0	23	0	2	0	2	0	4	929
17:00	1	0	100	0	0	101	0	0	161	0	0	161	0	1	0	1	0	2	0	0	0	3	0	3	267
17:15	0	0	118	0	1	118	0	0	115	0	0	115	0	6	0	1	0	7	0	0	0	2	0	2	242
17:30	0	1	88	0	0	89	0	0	117	0	0	117	0	5	0	4	0	9	0	0	0	0	0	0	215
17:45	0	0	82	1	1	83	0	0	88	0	0	88	0	3	0	2	0	5	0	1	0	0	0	1	177
Hourly Total	1	1	388	1	2	391	0	0	481	0	0	481	0	15	0	8	0	23	0	1	0	5	0	6	901
Grand Total	1	19	3398	2	3	3420	0	0	3852	3	0	3855	0	93	1	52	0	146	0	13	0	32	2	45	7466
Lights	1	17	3329	2	-	3349	0	0	3794	3	-	3797	0	93	1	52	-	146	0	13	0	32	-	45	7337
% Lights	100.0	89.5	98.0	100.0	-	97.9	-	-	98.5	100.0	-	98.5	-	100.0	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.3
Other Vehicles	0	2	69	0	-	71	0	0	58	0	-	58	0	0	0	0	-	0	0	0	0	0	-	0	129
% Other Vehicles	0.0	10.5	2.0	0.0	-	2.1	-	-	1.5	0.0	-	1.5	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.7
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@BANK OF AMERICA
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (9:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (NORTH DRIVEWAY) Northbound						OLEAN PLAZA (SOUTH DRIVE WAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
9:00	0	0	114	0	0	114	0	0	109	0	0	109	0	1	0	2	0	3	0	0	0	2	0	2	228
9:15	0	1	92	0	0	93	0	0	128	0	0	128	0	7	0	3	0	10	0	1	0	1	0	2	233
9:30	0	3	123	0	0	126	0	0	125	0	0	125	0	2	0	1	0	3	0	0	0	2	1	2	256
9:45	0	2	135	0	0	137	0	0	119	1	0	120	0	2	0	3	0	5	0	4	0	1	0	5	267
Total	0	6	464	0	0	470	0	0	481	1	0	482	0	12	0	9	0	21	0	5	0	6	1	11	984
PHF	0.000	0.500	0.859	0.000	-	0.858	0.000	0.000	0.939	0.250	-	0.941	0.000	0.429	0.000	0.750	-	0.525	0.000	0.313	0.000	0.750	-	0.550	0.921
Lights	0	6	454	0	-	460	0	0	472	1	-	473	0	12	0	9	-	21	0	5	0	6	-	11	965
% Lights	-	100.0	97.8	-	-	97.9	-	-	98.1	100.0	-	98.1	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.1
Other Vehicles	0	0	10	0	-	10	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	19
% Other Vehicles	-	0.0	2.2	-	-	2.1	-	-	1.9	0.0	-	1.9	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.9
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@BANK OF AMERICA
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (11:30)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (NORTH DRIVEWAY) Northbound						OLEAN PLAZA (SOUTH DRIVE WAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
11:30	0	1	116	0	0	117	0	0	128	0	0	128	0	5	0	1	0	6	0	0	0	3	0	3	254
11:45	0	0	133	0	0	133	0	0	129	1	0	130	0	8	0	2	0	10	0	0	0	0	0	0	273
12:00	0	2	112	0	1	114	0	0	152	0	0	152	0	3	0	2	0	5	0	0	0	2	0	2	273
12:15	0	1	146	0	0	147	0	0	136	0	0	136	0	4	0	1	0	5	0	0	0	1	0	1	289
Total	0	4	507	0	1	511	0	0	545	1	0	546	0	20	0	6	0	26	0	0	0	6	0	6	1089
PHF	0.000	0.500	0.868	0.000	-	0.869	0.000	0.000	0.896	0.250	-	0.898	0.000	0.625	0.000	0.750	-	0.650	0.000	0.000	0.000	0.500	-	0.500	0.942
Lights	0	4	497	0	-	501	0	0	540	1	-	541	0	20	0	6	-	26	0	0	0	6	-	6	1074
% Lights	-	100.0	98.0	-	-	98.0	-	-	99.1	100.0	-	99.1	-	100.0	-	100.0	-	100.0	-	-	-	100.0	-	100.0	98.6
Other Vehicles	0	0	10	0	-	10	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	15
% Other Vehicles	-	0.0	2.0	-	-	2.0	-	-	0.9	0.0	-	0.9	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	1.4
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@BANK OF AMERICA
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (16:30)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						BANK OF AMERICA (NORTH DRIVEWAY) Northbound						OLEAN PLAZA (SOUTH DRIVE WAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:30	0	0	107	0	0	107	0	0	123	0	0	123	0	3	0	2	0	5	0	1	0	1	0	2	237
16:45	0	1	98	0	0	99	0	0	126	0	0	126	0	1	0	2	0	3	0	0	0	0	0	0	228
17:00	1	0	100	0	0	101	0	0	161	0	0	161	0	1	0	1	0	2	0	0	0	3	0	3	267
17:15	0	0	118	0	1	118	0	0	115	0	0	115	0	6	0	1	0	7	0	0	0	2	0	2	242
Total	1	1	423	0	1	425	0	0	525	0	0	525	0	11	0	6	0	17	0	1	0	6	0	7	974
PHF	0.250	0.250	0.896	0.000	-	0.900	0.000	0.000	0.815	0.000	-	0.815	0.000	0.458	0.000	0.750	-	0.607	0.000	0.250	0.000	0.500	-	0.583	0.912
Lights	1	1	407	0	-	409	0	0	518	0	-	518	0	11	0	6	-	17	0	1	0	6	-	7	951
% Lights	100.0	100.0	96.2	-	-	96.2	-	-	98.7	-	-	98.7	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	97.6
Other Vehicles	0	0	16	0	-	16	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	23
% Other Vehicles	0.0	0.0	3.8	-	-	3.8	-	-	1.3	-	-	1.3	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	2.4
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@ MEDIICAL SUITES
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound					OLEAN BLVD Westbound					MEDICAL SUITES Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00	0	47	0	0	47	0	0	56	0	56	0	0	0	0	0	103
7:15	0	61	0	0	61	0	2	59	0	61	0	0	0	0	0	122
7:30	0	101	0	0	101	0	4	89	0	93	0	1	0	0	1	195
7:45	0	115	3	0	118	0	1	121	0	122	0	0	0	0	0	240
Hourly Total	0	324	3	0	327	0	7	325	0	332	0	1	0	0	1	660
8:00	0	91	1	0	92	0	0	113	0	113	0	1	0	0	1	206
8:15	0	109	3	0	112	0	0	119	0	119	0	0	0	0	0	231
8:30	0	122	1	1	123	0	1	86	0	87	0	2	0	0	2	212
8:45	0	116	3	0	119	0	1	117	0	118	0	2	2	0	4	241
Hourly Total	0	438	8	1	446	0	2	435	0	437	0	5	2	0	7	890
9:00	0	120	2	0	122	0	6	108	0	114	0	1	0	0	1	237
9:15	0	104	4	0	108	0	3	125	0	128	0	0	4	0	4	240
9:30	0	112	2	0	114	0	3	127	0	130	0	3	4	1	7	251
9:45	0	120	2	0	122	0	0	134	0	134	0	2	3	1	5	261
Hourly Total	0	456	10	0	466	0	12	494	0	506	0	6	11	2	17	989
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	135	1	0	136	0	0	156	0	156	0	5	4	0	9	301
11:15	0	105	1	0	106	0	2	161	0	163	0	2	3	0	5	274
11:30	0	123	1	0	124	0	2	169	0	171	0	0	3	0	3	298
11:45	0	118	0	0	118	0	0	127	0	127	0	3	1	0	4	249
Hourly Total	0	481	3	0	484	0	4	613	0	617	0	10	11	0	21	1122
12:00	0	127	0	0	127	0	0	150	0	150	0	2	3	0	5	282
12:15	0	125	1	0	126	0	0	161	0	161	0	1	2	0	3	290
12:30	0	135	1	0	136	0	0	127	0	127	0	0	0	0	0	263
12:45	0	121	4	0	125	0	2	130	0	132	0	0	1	0	1	258
Hourly Total	0	508	6	0	514	0	2	568	0	570	0	3	6	0	9	1093
13:00	0	145	2	0	147	0	0	143	0	143	0	0	1	0	1	291
13:15	0	126	1	0	127	0	1	129	0	130	0	1	3	0	4	261
13:30	0	139	3	0	142	0	1	129	0	130	0	1	0	0	1	273
13:45	0	125	1	0	126	0	2	145	0	147	0	1	0	0	1	274
Hourly Total	0	535	7	0	542	0	4	546	0	550	0	3	4	0	7	1099
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	115	0	0	115	0	0	150	0	150	0	0	1	0	1	266
16:15	0	109	0	0	109	0	1	128	0	129	0	0	0	0	0	238
16:30	0	86	0	0	86	0	0	141	0	141	0	3	0	0	3	230
16:45	0	106	0	0	106	0	0	104	0	104	0	0	1	1	1	211
Hourly Total	0	416	0	0	416	0	1	523	0	524	0	3	2	1	5	945
17:00	0	90	0	0	90	0	0	158	0	158	0	0	0	0	0	248
17:15	0	107	1	0	108	0	0	107	0	107	0	0	1	0	1	216
17:30	0	105	0	0	105	0	0	90	0	90	0	0	0	0	0	195
17:45	0	112	0	0	112	0	0	95	0	95	0	0	0	0	0	207
Hourly Total	0	414	1	0	415	0	0	450	0	450	0	0	1	0	1	866
Grand Total	0	3572	38	1	3610	0	32	3954	0	3986	0	31	37	3	68	7664
Lights	0	3503	38	-	3541	0	30	3897	-	3927	0	31	35	-	66	7534
% Lights	-	98.1	100.0	-	98.1	-	93.8	98.6	-	98.5	-	100.0	94.6	-	97.1	98.3
Other Vehicles	0	69	0	-	69	0	2	57	-	59	0	0	2	-	2	130
% Other Vehicles	-	1.9	0.0	-	1.9	-	6.3	1.4	-	1.5	-	0.0	5.4	-	2.9	1.7
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@ MEDIICAL SUITES
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (9:00)

Start Time	OLEAN BLVD Eastbound					OLEAN BLVD Westbound					MEDICAL SUITES Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
9:00	0	120	2	0	122	0	6	108	0	114	0	1	0	0	1	237
9:15	0	104	4	0	108	0	3	125	0	128	0	0	4	0	4	240
9:30	0	112	2	0	114	0	3	127	0	130	0	3	4	1	7	251
9:45	0	120	2	0	122	0	0	134	0	134	0	2	3	1	5	261
Total	0	456	10	0	466	0	12	494	0	506	0	6	11	2	17	989
PHF	0.000	0.950	0.625	-	0.955	0.000	0.500	0.922	-	0.944	0.000	0.500	0.688	-	0.607	0.947
Lights	0	447	10	-	457	0	11	490	-	501	0	6	10	-	16	974
% Lights	-	98.0	100.0	-	98.1	-	91.7	99.2	-	99.0	-	100.0	90.9	-	94.1	98.5
Other Vehicles	0	9	0	-	9	0	1	4	-	5	0	0	1	-	1	15
% Other Vehicles	-	2.0	0.0	-	1.9	-	8.3	0.8	-	1.0	-	0.0	9.1	-	5.9	1.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@ MEDIICAL SUITES
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (11:00)

Start Time	OLEAN BLVD Eastbound					OLEAN BLVD Westbound					MEDICAL SUITES Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
11:00	0	135	1	0	136	0	0	156	0	156	0	5	4	0	9	301
11:15	0	105	1	0	106	0	2	161	0	163	0	2	3	0	5	274
11:30	0	123	1	0	124	0	2	169	0	171	0	0	3	0	3	298
11:45	0	118	0	0	118	0	0	127	0	127	0	3	1	0	4	249
Total	0	481	3	0	484	0	4	613	0	617	0	10	11	0	21	1122
PHF	0.000	0.891	0.750	-	0.890	0.000	0.500	0.907	-	0.902	0.000	0.500	0.688	-	0.583	0.932
Lights	0	473	3	-	476	0	3	603	-	606	0	10	10	-	20	1102
% Lights	-	98.3	100.0	-	98.3	-	75.0	98.4	-	98.2	-	100.0	90.9	-	95.2	98.2
Other Vehicles	0	8	0	-	8	0	1	10	-	11	0	0	1	-	1	20
% Other Vehicles	-	1.7	0.0	-	1.7	-	25.0	1.6	-	1.8	-	0.0	9.1	-	4.8	1.8
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@ MEDIICAL SUITES
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:00)

Start Time	OLEAN BLVD Eastbound					OLEAN BLVD Westbound					MEDICAL SUITES Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
16:00	0	115	0	0	115	0	0	150	0	150	0	0	1	0	1	266
16:15	0	109	0	0	109	0	1	128	0	129	0	0	0	0	0	238
16:30	0	86	0	0	86	0	0	141	0	141	0	3	0	0	3	230
16:45	0	106	0	0	106	0	0	104	0	104	0	0	1	1	1	211
Total	0	416	0	0	416	0	1	523	0	524	0	3	2	1	5	945
PHF	0.000	0.904	0.000	-	0.904	0.000	0.250	0.872	-	0.873	0.000	0.250	0.500	-	0.417	0.888
Lights	0	410	0	-	410	0	1	520	-	521	0	3	2	-	5	936
% Lights	-	98.6	-	-	98.6	-	100.0	99.4	-	99.4	-	100.0	100.0	-	100.0	99.0
Other Vehicles	0	6	0	-	6	0	0	3	-	3	0	0	0	-	0	9
% Other Vehicles	-	1.4	-	-	1.4	-	0.0	0.6	-	0.6	-	0.0	0.0	-	0.0	1.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

File Name : OLEAN@PLAZA-CENTERAL PLAZA WEST-AAA ENTRANCE
Site Code :
Start Date : 12/8/2015
Page No : 1

Groups Printed- Lights - Other Vehicles - Pedestrians

	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AAA ENTRANCE Northbound						OLEAN PLAZA Southbound						OLEAN PLAZA WEST Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00	1	0	44	1	0	46	0	56	1	2	0	59	0	0	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	108
07:15	0	1	65	2	0	68	1	62	3	0	0	66	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	135
07:30	1	4	93	1	0	99	0	89	4	4	0	97	0	0	0	0	0	0	0	2	0	2	0	4	1	0	1	0	0	2	202
07:45	3	1	105	6	0	115	0	121	2	2	0	125	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3	0	0	4	245
Total	5	6	307	10	0	328	1	328	10	8	0	347	0	0	0	0	0	0	0	4	0	5	0	9	2	0	4	0	0	6	690
08:00	1	3	84	3	0	91	0	104	1	2	0	107	0	0	0	0	0	0	0	2	0	2	0	4	1	0	3	1	0	5	207
08:15	4	4	97	4	0	109	4	110	2	4	0	120	0	0	0	1	0	1	0	3	0	3	0	6	2	1	9	2	0	14	250
08:30	0	6	103	3	0	112	0	88	4	5	0	97	1	0	1	1	0	3	0	0	0	0	1	1	2	2	2	0	1	7	220
08:45	4	0	113	2	0	119	0	120	4	4	0	128	2	0	0	0	0	2	0	0	0	1	0	1	1	0	5	0	0	6	256
Total	9	13	397	12	0	431	4	422	11	15	0	452	3	0	1	2	0	6	0	5	0	6	1	12	6	3	19	3	1	32	933
09:00	3	3	109	4	0	119	0	110	1	1	0	112	0	0	0	0	0	0	1	0	0	1	1	3	3	0	6	0	0	9	243
09:15	9	2	91	2	0	104	0	119	3	6	0	128	1	0	0	0	0	1	0	5	0	2	0	7	1	0	4	0	0	5	245
09:30	2	5	106	3	0	116	0	129	7	4	0	140	2	0	0	0	0	2	0	3	0	0	1	4	1	0	7	0	0	8	270
09:45	4	5	111	4	0	124	0	126	3	2	0	131	3	0	0	1	0	4	1	1	0	1	0	3	0	0	8	0	0	8	270
Total	18	15	417	13	0	463	0	484	14	13	0	511	6	0	0	1	0	7	2	9	0	4	2	17	5	0	25	0	0	30	1028
BREAK																															
11:00	7	4	131	2	0	144	2	143	3	7	0	155	3	0	0	1	0	4	1	4	0	8	0	13	2	0	5	0	0	7	323
11:15	2	2	102	2	0	108	0	149	7	2	0	158	1	0	0	0	0	1	0	0	0	7	0	7	2	0	10	0	0	12	286
11:30	2	0	122	3	0	127	0	155	3	5	0	163	2	0	0	3	0	5	0	2	0	3	0	5	1	0	6	0	0	7	307
11:45	6	3	113	4	0	126	0	123	3	1	0	127	1	0	0	1	0	2	2	4	0	1	0	7	2	0	6	0	0	8	270
Total	17	9	468	11	0	505	2	570	16	15	0	603	7	0	0	5	0	12	3	10	0	19	0	32	7	0	27	0	0	34	1186
12:00	2	3	116	4	0	125	2	133	3	3	0	141	3	0	0	0	0	3	0	0	0	3	0	3	1	0	9	0	0	10	282
12:15	2	2	120	3	1	128	0	159	1	3	0	163	0	0	0	2	0	2	0	0	0	2	1	3	1	0	5	0	0	6	302
12:30	3	2	131	0	0	136	0	108	5	0	0	113	2	0	0	1	0	3	0	0	0	8	0	8	0	1	3	0	0	4	264
12:45	3	6	113	4	0	126	1	131	2	2	0	136	1	0	0	2	0	3	0	3	0	4	0	7	0	0	1	0	0	1	273
Total	10	13	480	11	1	515	3	531	11	8	0	553	6	0	0	5	0	11	0	3	0	17	1	21	2	1	18	0	0	21	1121
13:00	3	6	126	4	0	139	3	141	2	1	0	147	1	0	0	0	0	1	0	2	0	4	0	6	1	1	2	0	0	4	297
13:15	2	1	124	2	0	129	0	120	1	1	0	122	2	0	0	0	0	2	0	1	0	1	0	2	2	0	5	0	0	7	262
13:30	0	2	133	5	0	140	2	119	0	4	0	125	1	0	0	3	0	4	0	0	0	0	1	1	1	0	8	1	0	10	280
13:45	4	3	118	2	0	127	0	143	0	2	2	147	2	0	0	1	0	3	0	1	0	3	0	4	2	0	2	1	0	5	286
Total	9	12	501	13	0	535	5	523	3	8	2	541	6	0	0	4	0	10	0	4	0	8	1	13	6	1	17	2	0	26	1125
BREAK																															
16:00	3	3	112	1	0	119	0	142	2	1	0	145	1	0	0	3	0	4	0	1	0	2	0	3	0	0	2	0	0	2	273
16:15	3	2	98	2	0	105	0	119	1	0	0	120	2	0	0	1	0	3	0	5	0	2	0	7	4	0	3	1	0	8	243
16:30	1	1	84	1	0	87	0	134	2	2	0	138	1	0	0	0	1	2	0	4	0	0	0	4	2	0	2	0	0	4	235
16:45	1	1	108	0	0	110	1	105	3	0	0	109	0	0	0	1	1	2	0	2	0	3	0	5	1	0	4	0	0	5	231
Total	8	7	402	4	0	421	1	500	8	3	0	512	4	0	0	5	2	11	0	12	0	7	0	19	7	0	11	1	0	19	982
17:00	1	0	86	1	0	88	0	141	4	1	0	146	7	0	0	1	0	8	0	7	0	6	0	13	0	0	4	0	0	4	259
17:15	2	1	103	0	0	106	0	101	0	1	0	102	1	0	0	0	0	1	0	1	0	1	1	3	0	0	0	0	1	1	213
17:30	3	0	106	0	0	109	0	84	2	0	0	86	3	0	0	3	0	6	0	5	0	4	0	9	2	0	2	1	0	5	215
17:45	0	0	108	0	0	108	0	90	2	1	0	93	0	0	0	0	0	0	0	8	0	2	0	10	1	0	2	0	0	3	214
Total	6	1	403	1	0	411	0	416	8	3	0	427	11	0	0	4	0	15	0	21	0	13	1	35	3	0	8	1	1	13	901
Grand Total	82	76	3375	75	1	3609	16	3774	81	73	2	3946	43	0	1	26	2	72	5	68	0	79	6	158	38	5	129	7	2	181	7966
Apprch %	2.3	2.1	93.5	2.1	0		0.4	95.6	2.1	1.8	0.1		59.7	0	1.4	36.1	2.8		3.2	43	0	50	3.8		21	2.8	71.3	3.9	1.1		
Total %	1	1	42.4	0.9	0	45.3	0.2	47.4	1	0.9	0	49.5	0.5	0	0	0.3	0	0.9	0.1	0.9	0	1	0.1	2	0.5	0.1	1.6	0.1	0	2.3	
Lights	81	76	3303	75	0	3535	15	3718	77	73	0	3883	42	0	1	25	0	68	5	66	0	78	0	149	38	5	129	5	0	177	7812
% Lights	98.8	100	97.9	100	0	97.9	93.8	98.5	95.1	100	0	98.4	97.7	0	100	96.2	0	94.4	100	97.1	0	98.7	0	94.3	100	100	100	71.4	0	97.8	98.1
Other Vehicles	1	0	72	0	0	73	1	56	4	0	0	61	1	0	0	1	0	2	0	2	0	1	0	3	0	0	0	2	0	2	141
% Other Vehicles	1.2	0	2.1	0	0	2	6.2	1.5	4.9	0	0	1.5	2.3	0	0	3.8	0	2.8	0	2.9	0	1.3	0	1.9	0	0	0	28.6	0	1.1	1.8
Pedestrians	0	0	0	0	1	1	0	0	0	0	2	2	0	0	0	0	2	2	0	0	0	0	6	6	0	0	0	0	2	2	13
% Pedestrians	0	0	0	0	100	0	0	0	0	0	100	0.1	0	0	0	0	100	2.8	0	0	0	0	100	3.8	0	0	0	0	100	1.1	0.2

Florida Transportation Engineering, Inc.
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File Name : OLEAN@PLAZA-CENTERAL PLAZA WEST-AAA ENTRANCE
Site Code :
Start Date : 12/8/2015
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AAA ENTRANCE Northbound						OLEAN PLAZA Southbound						OLEAN PLAZA WEST Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 09:00																															
09:00	3	3	109	4	0	119	0	110	1	1	0	112	0	0	0	0	0	0	1	0	0	1	1	3	3	0	6	0	0	9	243
09:15	9	2	91	2	0	104	0	119	3	6	0	128	1	0	0	0	0	1	0	5	0	2	0	7	1	0	4	0	0	5	245
09:30	2	5	106	3	0	116	0	129	7	4	0	140	2	0	0	0	0	2	0	3	0	0	1	4	1	0	7	0	0	8	270
09:45	4	5	111	4	0	124	0	126	3	2	0	131	3	0	0	1	0	4	1	1	0	1	0	3	0	0	8	0	0	8	270
Total Volume	18	15	417	13	0	463	0	484	14	13	0	511	6	0	0	1	0	7	2	9	0	4	2	17	5	0	25	0	0	30	1028
% App. Total	3.9	3.2	90.1	2.8	0		0	94.7	2.7	2.5	0		85.7	0	0	14.3	0		11.8	52.9	0	23.5	11.8		16.7	0	83.3	0	0		
PHF	.500	.750	.939	.813	.000	.933	.000	.938	.500	.542	.000	.913	.500	.000	.000	.250	.000	.438	.500	.450	.000	.500	.500	.607	.417	.000	.781	.000	.000	.833	.952
Lights	18	15	407	13	0	453	0	479	13	13	0	505	6	0	0	1	0	7	2	9	0	4	0	15	5	0	25	0	0	30	1010
% Lights	100	100	97.6	100	0	97.8	0	99.0	92.9	100	0	98.8	100	0	0	100	0	100	100	100	0	100	0	88.2	100	0	100	0	0	100	98.2
Other Vehicles	0	0	10	0	0	10	0	5	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
% Other Vehicles	0	0	2.4	0	0	2.2	0	1.0	7.1	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	11.8	0	0	0	0	0	0	0.2

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File Name : OLEAN@PLAZA-CENTERAL PLAZA WEST-AAA ENTRANCE
Site Code :
Start Date : 12/8/2015
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AAA ENTRANCE Northbound						OLEAN PLAZA Southbound						OLEAN PLAZA WEST Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 to 13:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 11:00																															
11:00	7	4	131	2	0	144	2	143	3	7	0	155	3	0	0	1	0	4	1	4	0	8	0	13	2	0	5	0	0	7	323
11:15	2	2	102	2	0	108	0	149	7	2	0	158	1	0	0	0	0	1	0	0	0	7	0	7	2	0	10	0	0	12	286
11:30	2	0	122	3	0	127	0	155	3	5	0	163	2	0	0	3	0	5	0	2	0	3	0	5	1	0	6	0	0	7	307
11:45	6	3	113	4	0	126	0	123	3	1	0	127	1	0	0	1	0	2	2	4	0	1	0	7	2	0	6	0	0	8	270
Total Volume	17	9	468	11	0	505	2	570	16	15	0	603	7	0	0	5	0	12	3	10	0	19	0	32	7	0	27	0	0	34	1186
% App. Total	3.4	1.8	92.7	2.2	0		0.3	94.5	2.7	2.5	0		58.3	0	0	41.7	0		9.4	31.2	0	59.4	0		20.6	0	79.4	0	0		
PHF	.607	.563	.893	.688	.000	.877	.250	.919	.571	.536	.000	.925	.583	.000	.000	.417	.000	.600	.375	.625	.000	.594	.000	.615	.875	.000	.675	.000	.000	.708	.918
Lights	17	9	459	11	0	496	1	561	15	15	0	592	6	0	0	5	0	11	3	10	0	18	0	31	7	0	27	0	0	34	1164
% Lights	100	100	98.1	100	0	98.2	50.0	98.4	93.8	100	0	98.2	85.7	0	0	100	0	91.7	100	100	0	94.7	0	96.9	100	0	100	0	0	100	98.1
Other Vehicles	0	0	9	0	0	9	1	9	1	0	0	11	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	22
% Other Vehicles	0	0	1.9	0	0	1.8	50.0	1.6	6.3	0	0	1.8	14.3	0	0	0	0	8.3	0	0	0	5.3	0	3.1	0	0	0	0	0	0	1.9
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : OLEAN@PLAZA-CENTERAL PLAZA WEST-AAA ENTRANCE
Site Code :
Start Date : 12/8/2015
Page No : 4

	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AAA ENTRANCE Northbound						OLEAN PLAZA Southbound						OLEAN PLAZA WEST Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 16:00																															
16:00	3	3	112	1	0	119	0	142	2	1	0	145	1	0	0	3	0	4	0	1	0	2	0	3	0	0	2	0	0	2	273
16:15	3	2	98	2	0	105	0	119	1	0	0	120	2	0	0	1	0	3	0	5	0	2	0	7	4	0	3	1	0	8	243
16:30	1	1	84	1	0	87	0	134	2	2	0	138	1	0	0	0	1	2	0	4	0	0	0	4	2	0	2	0	0	4	235
16:45	1	1	108	0	0	110	1	105	3	0	0	109	0	0	0	1	1	2	0	2	0	3	0	5	1	0	4	0	0	5	231
Total Volume	8	7	402	4	0	421	1	500	8	3	0	512	4	0	0	5	2	11	0	12	0	7	0	19	7	0	11	1	0	19	982
% App. Total	1.9	1.7	95.5	1	0		0.2	97.7	1.6	0.6	0		36.4	0	0	45.5	18.2		0	63.2	0	36.8	0		36.8	0	57.9	5.3	0		
PHF	.667	.583	.897	.500	.000	.884	.250	.880	.667	.375	.000	.883	.500	.000	.000	.417	.500	.688	.000	.600	.000	.583	.000	.679	.438	.000	.688	.250	.000	.594	.899
Lights	8	7	395	4	0	414	1	498	8	3	0	510	4	0	0	4	0	8	0	12	0	7	0	19	7	0	11	1	0	19	970
% Lights	100	100	98.3	100	0	98.3	100	99.6	100	100	0	99.6	100	0	0	80.0	0	72.7	0	100	0	100	0	100	100	0	100	100	0	100	98.8
Other Vehicles	0	0	7	0	0	7	0	2	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10
% Other Vehicles	0	0	1.7	0	0	1.7	0	0.4	0	0	0	0.4	0	0	0	20.0	0	9.1	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	18.2	0	0	0	0	0	0	0	0	0	0	0	0	0.2

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Count Name: OLEAN@AARON
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AARON STREET Northbound						AARON STREET Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	6	39	3	0	48	0	1	57	2	1	60	0	0	2	2	0	4	0	3	2	10	0	15	127
7:15	0	11	43	5	0	59	0	9	65	8	0	82	0	1	3	3	0	7	0	0	5	5	0	10	158
7:30	0	22	64	6	0	92	0	5	73	8	0	86	0	1	1	0	0	2	0	4	12	19	0	35	215
7:45	0	18	82	14	0	114	0	5	105	17	4	127	0	3	7	1	0	11	0	3	10	14	0	27	279
Hourly Total	0	57	228	28	0	313	0	20	300	35	5	355	0	5	13	6	0	24	0	10	29	48	0	87	779
8:00	0	18	66	8	0	92	1	3	95	7	0	106	0	4	7	1	0	12	0	2	7	17	0	26	236
8:15	0	21	74	2	0	97	0	5	87	10	1	102	0	7	5	0	0	12	0	3	8	19	0	30	241
8:30	0	24	76	5	0	105	0	3	69	17	2	89	0	9	4	2	0	15	0	9	10	18	0	37	246
8:45	0	29	85	8	0	122	0	5	102	7	2	114	0	7	10	4	0	21	0	7	11	20	0	38	295
Hourly Total	0	92	301	23	0	416	1	16	353	41	5	411	0	27	26	7	0	60	0	21	36	74	0	131	1018
9:00	0	17	84	4	4	105	0	2	81	10	0	93	0	8	6	4	1	18	0	6	11	22	0	39	255
9:15	0	20	71	10	2	101	0	3	93	15	0	111	0	7	9	2	0	18	0	8	11	29	0	48	278
9:30	0	35	80	6	0	121	0	4	95	10	0	109	0	3	7	5	0	15	0	8	10	35	0	53	298
9:45	0	24	80	4	1	108	0	8	98	11	1	117	0	7	4	3	1	14	0	5	13	32	0	50	289
Hourly Total	0	96	315	24	7	435	0	17	367	46	1	430	0	25	26	14	2	65	0	27	45	118	0	190	1120
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	33	93	6	2	132	0	4	111	17	1	132	0	5	13	8	0	26	0	15	12	35	0	62	352
11:15	0	24	77	6	0	107	0	6	102	12	1	120	0	15	16	8	0	39	0	7	12	38	0	57	323
11:30	0	28	99	0	1	127	0	4	97	13	2	114	0	7	11	1	0	19	0	10	15	53	0	78	338
11:45	0	22	74	6	1	102	0	4	92	8	1	104	0	5	11	4	0	20	0	9	13	31	0	53	279
Hourly Total	0	107	343	18	4	468	0	18	402	50	5	470	0	32	51	21	0	104	0	41	52	157	0	250	1292
12:00	0	23	96	7	0	126	0	2	116	16	1	134	0	3	5	9	0	17	0	6	23	29	0	58	335
12:15	0	25	97	11	0	133	0	6	103	4	0	113	0	12	9	6	0	27	0	4	12	35	0	51	324
12:30	0	26	91	4	0	121	0	3	85	10	9	98	0	3	17	10	0	30	0	6	14	28	0	48	297
12:45	0	28	84	2	2	114	0	2	106	8	1	116	0	8	11	7	0	26	0	9	16	30	3	55	311
Hourly Total	0	102	368	24	2	494	0	13	410	38	11	461	0	26	42	32	0	100	0	25	65	122	3	212	1267
13:00	0	43	90	5	0	138	0	9	106	13	1	128	0	8	7	4	0	19	0	8	15	29	1	52	337
13:15	0	30	88	10	0	128	0	8	85	12	1	105	0	5	13	3	0	21	0	6	13	26	0	45	299
13:30	0	23	103	7	2	133	0	3	91	10	0	104	0	10	7	3	0	20	0	5	14	23	0	42	299
13:45	0	28	90	5	0	123	0	1	105	7	0	113	0	6	12	7	0	25	0	5	12	28	3	45	306
Hourly Total	0	124	371	27	2	522	0	21	387	42	2	450	0	29	39	17	0	85	0	24	54	106	4	184	1241
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	14	93	2	0	109	0	0	90	9	1	99	0	9	8	6	0	23	0	16	7	44	0	67	298
16:15	0	16	91	5	2	112	0	2	100	4	2	106	0	5	8	5	0	18	0	10	6	31	1	47	283
16:30	0	12	80	3	0	95	0	3	88	3	0	94	0	16	13	6	1	35	0	4	9	19	0	32	256
16:45	0	13	91	2	1	106	0	2	90	4	0	96	0	8	10	3	1	21	0	4	7	21	0	32	255
Hourly Total	0	55	355	12	3	422	0	7	368	20	3	395	0	38	39	20	2	97	0	34	29	115	1	178	1092
17:00	0	14	81	3	0	98	0	1	104	7	2	112	0	16	8	8	0	32	0	4	8	22	0	34	276
17:15	0	16	91	1	0	108	1	1	74	4	1	80	0	9	16	8	0	33	0	2	6	15	1	23	244
17:30	0	16	95	0	0	111	0	0	68	5	0	73	0	9	5	6	0	20	0	3	5	12	0	20	224
17:45	0	14	98	1	2	113	0	1	79	4	0	84	0	4	6	1	0	11	0	4	3	11	0	18	226
Hourly Total	0	60	365	5	2	430	1	3	325	20	3	349	0	38	35	23	0	96	0	13	22	60	1	95	970
Grand Total	0	693	2646	161	20	3500	2	115	2912	292	35	3321	0	220	271	140	4	631	0	195	332	800	9	1327	8779
Lights	0	680	2596	153	-	3429	2	114	2865	285	-	3266	0	211	270	134	-	615	0	192	324	785	-	1301	8611
% Lights	-	98.1	98.1	95.0	-	98.0	100.0	99.1	98.4	97.6	-	98.3	-	95.9	99.6	95.7	-	97.5	-	98.5	97.6	98.1	-	98.0	98.1
Other Vehicles	0	13	50	8	-	71	0	1	47	7	-	55	0	9	1	6	-	16	0	3	8	15	-	26	168
% Other Vehicles	-	1.9	1.9	5.0	-	2.0	0.0	0.9	1.6	2.4	-	1.7	-	4.1	0.4	4.3	-	2.5	-	1.5	2.4	1.9	-	2.0	1.9
Pedestrians	-	-	-	-	20	-	-	-	-	-	35	-	-	-	-	-	4	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@AARON
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (8:45)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AARON STREET Northbound						AARON STREET Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
8:45	0	29	85	8	0	122	0	5	102	7	2	114	0	7	10	4	0	21	0	7	11	20	0	38	295
9:00	0	17	84	4	4	105	0	2	81	10	0	93	0	8	6	4	1	18	0	6	11	22	0	39	255
9:15	0	20	71	10	2	101	0	3	93	15	0	111	0	7	9	2	0	18	0	8	11	29	0	48	278
9:30	0	35	80	6	0	121	0	4	95	10	0	109	0	3	7	5	0	15	0	8	10	35	0	53	298
Total	0	101	320	28	6	449	0	14	371	42	2	427	0	25	32	15	1	72	0	29	43	106	0	178	1126
PHF	0.000	0.721	0.941	0.700	-	0.920	0.000	0.700	0.909	0.700	-	0.936	0.000	0.781	0.800	0.750	-	0.857	0.000	0.906	0.977	0.757	-	0.840	0.945
Lights	0	98	315	27	-	440	0	14	368	42	-	424	0	22	32	15	-	69	0	29	42	103	-	174	1107
% Lights	-	97.0	98.4	96.4	-	98.0	-	100.0	99.2	100.0	-	99.3	-	88.0	100.0	100.0	-	95.8	-	100.0	97.7	97.2	-	97.8	98.3
Other Vehicles	0	3	5	1	-	9	0	0	3	0	-	3	0	3	0	0	-	3	0	0	1	3	-	4	19
% Other Vehicles	-	3.0	1.6	3.6	-	2.0	-	0.0	0.8	0.0	-	0.7	-	12.0	0.0	0.0	-	4.2	-	0.0	2.3	2.8	-	2.2	1.7
Pedestrians	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@AARON
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (11:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AARON STREET Northbound						AARON STREET Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
11:00	0	33	93	6	2	132	0	4	111	17	1	132	0	5	13	8	0	26	0	15	12	35	0	62	352
11:15	0	24	77	6	0	107	0	6	102	12	1	120	0	15	16	8	0	39	0	7	12	38	0	57	323
11:30	0	28	99	0	1	127	0	4	97	13	2	114	0	7	11	1	0	19	0	10	15	53	0	78	338
11:45	0	22	74	6	1	102	0	4	92	8	1	104	0	5	11	4	0	20	0	9	13	31	0	53	279
Total	0	107	343	18	4	468	0	18	402	50	5	470	0	32	51	21	0	104	0	41	52	157	0	250	1292
PHF	0.000	0.811	0.866	0.750	-	0.886	0.000	0.750	0.905	0.735	-	0.890	0.000	0.533	0.797	0.656	-	0.667	0.000	0.683	0.867	0.741	-	0.801	0.918
Lights	0	105	337	17	-	459	0	17	394	49	-	460	0	31	50	18	-	99	0	41	52	154	-	247	1265
% Lights	-	98.1	98.3	94.4	-	98.1	-	94.4	98.0	98.0	-	97.9	-	96.9	98.0	85.7	-	95.2	-	100.0	100.0	98.1	-	98.8	97.9
Other Vehicles	0	2	6	1	-	9	0	1	8	1	-	10	0	1	1	3	-	5	0	0	0	3	-	3	27
% Other Vehicles	-	1.9	1.7	5.6	-	1.9	-	5.6	2.0	2.0	-	2.1	-	3.1	2.0	14.3	-	4.8	-	0.0	0.0	1.9	-	1.2	2.1
Pedestrians	-	-	-	-	4	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name: OLEAN@AARON
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						AARON STREET Northbound						AARON STREET Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	14	93	2	0	109	0	0	90	9	1	99	0	9	8	6	0	23	0	16	7	44	0	67	298
16:15	0	16	91	5	2	112	0	2	100	4	2	106	0	5	8	5	0	18	0	10	6	31	1	47	283
16:30	0	12	80	3	0	95	0	3	88	3	0	94	0	16	13	6	1	35	0	4	9	19	0	32	256
16:45	0	13	91	2	1	106	0	2	90	4	0	96	0	8	10	3	1	21	0	4	7	21	0	32	255
Total	0	55	355	12	3	422	0	7	368	20	3	395	0	38	39	20	2	97	0	34	29	115	1	178	1092
PHF	0.000	0.859	0.954	0.600	-	0.942	0.000	0.583	0.920	0.556	-	0.932	0.000	0.594	0.750	0.833	-	0.693	0.000	0.531	0.806	0.653	-	0.664	0.916
Lights	0	54	349	11	-	414	0	7	366	19	-	392	0	38	39	20	-	97	0	34	28	114	-	176	1079
% Lights	-	98.2	98.3	91.7	-	98.1	-	100.0	99.5	95.0	-	99.2	-	100.0	100.0	100.0	-	100.0	-	100.0	96.6	99.1	-	98.9	98.8
Other Vehicles	0	1	6	1	-	8	0	0	2	1	-	3	0	0	0	0	-	0	0	0	1	1	-	2	13
% Other Vehicles	-	1.8	1.7	8.3	-	1.9	-	0.0	0.5	5.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	0.0	3.4	0.9	-	1.1	1.2
Pedestrians	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
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8250 Pascal Dr
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File Name : OLEAN@COMMUNITY EYE CENTER-GULF PONIT SURGERY-FAWCETT MEMORIAL
Site Code :
Start Date : 12/9/2015
Page No : 1

Groups Printed- Lights - Other Vehicles - Pedestrians

	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						COMMUNITY EYE CNTR Northbound						FAWCETT MEMORIAL (SOUTH DRIVEWAY) Southbound						GULF POINT SURGERY Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00	2	1	34	1	0	38	0	59	0	1	16	76	0	0	0	0	12	12	2	0	2	0	2	6	0	0	0	2	3	5	137
07:15	1	2	46	1	0	50	2	55	3	3	3	66	1	0	0	2	4	7	1	0	0	0	1	2	0	0	0	0	1	1	126
07:30	1	0	55	1	0	57	0	88	1	1	3	93	0	0	0	2	3	5	1	0	2	0	0	3	0	0	0	1	0	1	159
07:45	0	0	74	3	0	77	4	105	4	0	5	118	0	0	0	2	6	8	1	0	2	0	2	5	0	0	0	0	2	2	210
Total	4	3	209	6	0	222	6	307	8	5	27	353	1	0	0	6	25	32	5	0	6	0	5	16	0	0	0	3	6	9	632
08:00	1	3	52	1	0	57	3	94	4	4	5	110	0	0	0	1	4	5	1	0	3	0	4	8	1	0	0	0	3	4	184
08:15	0	2	74	3	0	79	2	91	0	1	1	95	0	0	0	0	1	1	1	0	5	0	0	6	0	2	0	1	0	3	184
08:30	1	3	71	4	0	79	4	81	0	1	0	86	0	0	0	2	0	2	0	0	0	0	2	2	0	0	0	2	2	4	173
08:45	3	5	67	2	0	77	3	114	1	2	2	122	1	0	0	3	2	6	2	0	0	0	1	3	0	1	0	3	2	6	214
Total	5	13	264	10	0	292	12	380	5	8	8	413	1	0	0	6	7	14	4	0	8	0	7	19	1	3	0	6	7	17	755
09:00	1	3	79	1	0	84	2	90	2	2	0	96	3	0	0	2	1	6	0	0	0	0	2	2	0	1	0	2	2	5	193
09:15	0	1	52	4	0	57	1	114	4	0	1	120	1	0	0	1	0	2	2	0	0	0	1	3	0	1	0	0	1	2	184
09:30	2	5	89	2	0	98	6	107	1	0	0	114	2	0	0	3	1	6	2	0	0	0	0	2	0	1	0	1	1	3	223
09:45	0	3	95	5	0	103	3	103	1	1	0	108	2	0	0	3	0	5	2	0	0	0	3	5	0	1	0	2	3	6	227
Total	3	12	315	12	0	342	12	414	8	3	1	438	8	0	0	9	2	19	6	0	0	0	6	12	0	4	0	5	7	16	827
BREAK																															
11:00	0	3	86	5	0	94	2	108	2	2	0	114	3	0	0	0	1	4	2	0	2	0	4	8	0	0	0	0	4	4	224
11:15	0	0	92	2	0	94	2	117	4	2	0	125	6	0	0	3	1	10	1	0	5	0	0	6	0	1	0	0	0	1	236
11:30	1	1	79	1	0	82	1	93	2	2	0	98	0	0	0	2	0	2	1	0	2	0	1	4	0	1	0	0	1	2	188
11:45	2	5	99	1	0	107	0	89	0	2	0	91	4	0	0	2	0	6	2	0	1	0	0	3	0	1	0	0	1	2	209
Total	3	9	356	9	0	377	5	407	8	8	0	428	13	0	0	7	2	22	6	0	10	0	5	21	0	3	0	0	6	9	857
12:00	0	2	103	3	0	108	2	114	0	1	2	119	1	0	0	3	0	4	2	0	2	0	0	4	0	1	0	2	0	3	238
12:15	0	7	109	3	0	119	3	86	0	2	1	92	2	0	0	2	1	5	0	0	4	0	2	6	0	0	0	0	1	1	223
12:30	0	2	79	3	0	84	2	85	0	2	1	90	0	0	0	2	1	3	1	0	1	0	2	4	0	1	0	2	2	5	186
12:45	1	5	90	3	0	99	4	95	3	4	1	107	2	0	0	2	1	5	2	0	3	0	1	6	0	3	0	1	1	5	222
Total	1	16	381	12	0	410	11	380	3	9	5	408	5	0	0	9	3	17	5	0	10	0	5	20	0	5	0	5	4	14	869
13:00	0	3	106	4	0	113	4	111	2	4	1	122	1	0	0	1	1	3	5	0	1	0	0	6	0	1	0	2	0	3	247
13:15	0	2	81	2	0	85	2	100	2	2	1	107	1	0	0	1	1	3	3	0	2	0	2	7	0	0	0	0	1	1	203
13:30	1	2	90	6	0	99	3	99	1	5	1	109	2	0	0	0	0	2	0	0	5	0	0	5	0	1	0	1	0	2	217
13:45	0	2	99	0	0	101	2	99	2	2	1	106	2	0	0	2	1	5	0	0	3	0	0	3	0	0	0	0	0	0	215
Total	1	9	376	12	0	398	11	409	7	13	4	444	6	0	0	4	3	13	8	0	11	0	2	21	0	2	0	3	1	6	882
BREAK																															
16:00	1	3	84	6	0	94	2	96	1	4	4	107	1	0	0	3	1	5	4	0	2	0	1	7	0	0	0	0	1	1	214
16:15	0	3	98	1	0	102	0	83	0	2	3	88	0	0	0	2	4	6	0	0	1	0	4	5	0	1	0	0	4	5	206
16:30	1	2	93	0	0	96	0	82	2	2	4	90	3	0	0	3	0	6	0	0	0	0	1	1	0	0	0	0	2	2	195
16:45	0	2	85	1	0	88	1	91	0	4	0	96	2	0	0	6	0	8	1	0	4	0	1	6	0	1	0	0	1	2	200
Total	2	10	360	8	0	380	3	352	3	12	11	381	6	0	0	14	5	25	5	0	7	0	7	19	0	2	0	0	8	10	815
17:00	0	3	104	0	0	107	2	106	0	2	2	112	3	0	0	1	3	7	3	0	3	0	1	7	0	1	0	1	1	3	236
17:15	1	5	106	0	0	112	0	80	0	1	1	82	0	0	0	3	1	4	5	0	4	0	0	9	0	0	0	0	0	0	207
17:30	0	3	78	1	0	82	0	87	0	1	2	90	0	0	0	1	2	3	3	0	2	0	0	5	0	0	0	0	0	0	180
17:45	0	1	95	0	0	96	0	76	1	1	1	79	0	0	0	0	1	1	1	0	4	0	1	6	0	0	0	0	1	1	183
Total	1	12	383	1	0	397	2	349	1	5	6	363	3	0	0	5	7	15	12	0	13	0	2	27	0	1	0	1	2	4	806
Grand Total	20	84	2644	70	0	2818	62	2998	43	63	62	3228	43	0	0	60	54	157	51	0	65	0	39	155	1	20	0	23	41	85	6443
Apprch %	0.7	3	93.8	2.5	0		1.9	92.9	1.3	2	1.9		27.4	0	0	38.2	34.4		32.9	0	41.9	0	25.2		1.2	23.5	0	27.1	48.2		
Total %	0.3	1.3	41	1.1	0	43.7	1	46.5	0.7	1	1	50.1	0.7	0	0	0.9	0.8	2.4	0.8	0	1	0	0.6	2.4	0	0.3	0	0.4	0.6	1.3	
Lights	19	78	2600	70	0	2767	62	2950	42	58	0	3112	43	0	0	59	0	102	42	0	63	0	0	105	1	20	0	23	0	44	6130
% Lights	95	92.9	98.3	100	0	98.2	100	98.4	97.7	92.1	0	96.4	100	0	0	98.3	0	65	82.4	0	96.9	0	0	67.7	100	100	0	100	0	51.8	95.1
Other Vehicles	1	6	44	0	0	51	0	48	1	5	0	54	0	0	0	1	0	1	9	0	2	0	0	11	0	0	0	0	0	0	117
% Other Vehicles	5	7.1	1.7	0	0	1.8	0	1.6	2.3	7.9	0	1.7	0	0	0	1.7	0	0.6	17.6	0	3.1	0	0	7.1	0	0	0	0	0	0	1.8
Pedestrians	0	0	0	0	0	0	0	0	0	0	62	62	0	0	0	0	54	54	0	0	0	0	39	39	0	0	0	0	41	41	196
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	1.9	0	0	0	0	100	34.4	0	0	0	0	100	25.2	0	0	0	0	100	48.2	3

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File Name : OLEAN@COMMUNITY EYE CENTER-GULF PONIT SURGERY-FAWCETT MEMORIAL
Site Code :
Start Date : 12/9/2015
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						COMMUNITY EYE CNTR Northbound						FAWCETT MEMORIAL (SOUTH DRIVEWAY) Southbound						GULF POINT SURGERY Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 09:00																															
09:00	1	3	79	1	0	84	2	90	2	2	0	96	3	0	0	2	1	6	0	0	0	0	2	2	0	1	0	2	2	5	193
09:15	0	1	52	4	0	57	1	114	4	0	1	120	1	0	0	1	0	2	2	0	0	0	1	3	0	1	0	0	1	2	184
09:30	2	5	89	2	0	98	6	107	1	0	0	114	2	0	0	3	1	6	2	0	0	0	0	2	0	1	0	1	1	3	223
09:45	0	3	95	5	0	103	3	103	1	1	0	108	2	0	0	3	0	5	2	0	0	0	3	5	0	1	0	2	3	6	227
Total Volume	3	12	315	12	0	342	12	414	8	3	1	438	8	0	0	9	2	19	6	0	0	0	6	12	0	4	0	5	7	16	827
% App. Total	0.9	3.5	92.1	3.5	0		2.7	94.5	1.8	0.7	0.2		42.1	0	0	47.4	10.5		50	0	0	0	50		0	25	0	31.2	43.8		
PHF	.375	.600	.829	.600	.000	.830	.500	.908	.500	.375	.250	.913	.667	.000	.000	.750	.500	.792	.750	.000	.000	.000	.500	.600	.000	1.00	.000	.625	.583	.667	.911
Lights	3	11	312	12	0	338	12	408	8	3	0	431	8	0	0	8	0	16	6	0	0	0	0	6	0	4	0	5	0	9	800
% Lights	100	91.7	99.0	100	0	98.8	100	98.6	100	100	0	98.4	100	0	0	88.9	0	84.2	100	0	0	0	0	50.0	0	100	0	100	0	56.3	96.7
Other Vehicles	0	1	3	0	0	4	0	6	0	0	0	6	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	11
% Other Vehicles	0	8.3	1.0	0	0	1.2	0	1.4	0	0	0	1.4	0	0	0	11.1	0	5.3	0	0	0	0	0	0	0	0	0	0	0	0	1.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2	0	0	0	0	6	6	0	0	0	0	7	7	16
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	0.2	0	0	0	0	100	10.5	0	0	0	0	100	50.0	0	0	0	0	100	43.8	1.9

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File Name : OLEAN@COMMUNITY EYE CENTER-GULF PONIT SURGERY-FAWCETT MEMORIAL
Site Code :
Start Date : 12/9/2015
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						COMMUNITY EYE CNTR Northbound						FAWCETT MEMORIAL (SOUTH DRIVEWAY) Southbound						GULF POINT SURGERY Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:15 to 13:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 12:45																															
12:45	1	5	90	3	0	99	4	95	3	4	1	107	2	0	0	2	1	5	2	0	3	0	1	6	0	3	0	1	1	5	222
13:00	0	3	106	4	0	113	4	111	2	4	1	122	1	0	0	1	1	3	5	0	1	0	0	6	0	1	0	2	0	3	247
13:15	0	2	81	2	0	85	2	100	2	2	1	107	1	0	0	1	1	3	3	0	2	0	2	7	0	0	0	0	1	1	203
13:30	1	2	90	6	0	99	3	99	1	5	1	109	2	0	0	0	0	2	0	0	5	0	0	5	0	1	0	1	0	2	217
Total Volume	2	12	367	15	0	396	13	405	8	15	4	445	6	0	0	4	3	13	10	0	11	0	3	24	0	5	0	4	2	11	889
% App. Total	0.5	3	92.7	3.8	0		2.9	91	1.8	3.4	0.9		46.2	0	0	30.8	23.1		41.7	0	45.8	0	12.5		0	45.5	0	36.4	18.2		
PHF	.500	.600	.866	.625	.000	.876	.813	.912	.667	.750	1.00	.912	.750	.000	.000	.500	.750	.650	.500	.000	.550	.000	.375	.857	.000	.417	.000	.500	.500	.550	.900
Lights	2	11	358	15	0	386	13	399	7	14	0	433	6	0	0	4	0	10	7	0	10	0	0	17	0	5	0	4	0	9	855
% Lights	100	91.7	97.5	100	0	97.5	100	98.5	87.5	93.3	0	97.3	100	0	0	100	0	76.9	70.0	0	90.9	0	0	70.8	0	100	0	100	0	81.8	96.2
Other Vehicles	0	1	9	0	0	10	0	6	1	1	0	8	0	0	0	0	0	0	3	0	1	0	0	4	0	0	0	0	0	0	22
% Other Vehicles	0	8.3	2.5	0	0	2.5	0	1.5	12.5	6.7	0	1.8	0	0	0	0	0	0	30.0	0	9.1	0	0	16.7	0	0	0	0	0	0	2.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	3	3	0	0	0	0	3	3	0	0	0	0	2	2	12
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	0.9	0	0	0	0	100	23.1	0	0	0	0	100	12.5	0	0	0	0	100	18.2	1.3

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File Name : OLEAN@COMMUNITY EYE CENTER-GULF PONIT SURGERY-FAWCETT MEMORIAL
Site Code :
Start Date : 12/9/2015
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	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						COMMUNITY EYE CNTR Northbound						FAWCETT MEMORIAL (SOUTH DRIVEWAY) Southbound						GULF POINT SURGERY Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 16:30																															
16:30	1	2	93	0	0	96	0	82	2	2	4	90	3	0	0	3	0	6	0	0	0	0	1	1	0	0	0	0	2	2	195
16:45	0	2	85	1	0	88	1	91	0	4	0	96	2	0	0	6	0	8	1	0	4	0	1	6	0	1	0	0	1	2	200
17:00	0	3	104	0	0	107	2	106	0	2	2	112	3	0	0	1	3	7	3	0	3	0	1	7	0	1	0	1	1	3	236
17:15	1	5	106	0	0	112	0	80	0	1	1	82	0	0	0	3	1	4	5	0	4	0	0	9	0	0	0	0	0	0	207
Total Volume	2	12	388	1	0	403	3	359	2	9	7	380	8	0	0	13	4	25	9	0	11	0	3	23	0	2	0	1	4	7	838
% App. Total	0.5	3	96.3	0.2	0		0.8	94.5	0.5	2.4	1.8		32	0	0	52	16		39.1	0	47.8	0	13		0	28.6	0	14.3	57.1		
PHF	.500	.600	.915	.250	.000	.900	.375	.847	.250	.563	.438	.848	.667	.000	.000	.542	.333	.781	.450	.000	.688	.000	.750	.639	.000	.500	.000	.250	.500	.583	.888
Lights	2	11	375	1	0	389	3	350	2	8	0	363	8	0	0	13	0	21	5	0	11	0	0	16	0	2	0	1	0	3	792
% Lights	100	91.7	96.6	100	0	96.5	100	97.5	100	88.9	0	95.5	100	0	0	100	0	84.0	55.6	0	100	0	0	69.6	0	100	0	100	0	42.9	94.5
Other Vehicles	0	1	13	0	0	14	0	9	0	1	0	10	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	28
% Other Vehicles	0	8.3	3.4	0	0	3.5	0	2.5	0	11.1	0	2.6	0	0	0	0	0	0	44.4	0	0	0	0	17.4	0	0	0	0	0	0	3.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	4	4	0	0	0	0	3	3	0	0	0	0	4	4	18
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	1.8	0	0	0	0	100	16.0	0	0	0	0	100	13.0	0	0	0	0	100	57.1	2.1

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Count Name: OLEAN@FAWCETT MEMORIAL HECTOR HERNANDEZ
Site Code:
Start Date: 12-09-2015
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Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HECTOR N HERNANDEZ Northbound						FAWCETT MEMORIAL (CENTER DRIVEWAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	1	36	1	12	38	0	1	58	1	0	60	0	0	0	0	0	0	0	0	0	1	14	1	99
7:15	0	2	44	2	3	48	1	0	64	3	0	68	0	0	0	0	0	0	0	0	0	0	4	0	116
7:30	0	1	52	4	4	57	0	1	84	0	0	85	0	0	0	0	0	0	0	1	0	1	2	2	144
7:45	0	2	77	1	4	80	0	2	116	5	0	123	0	1	0	0	0	1	0	0	0	1	3	1	205
Hourly Total	0	6	209	8	23	223	1	4	322	9	0	336	0	1	0	0	0	1	0	1	0	3	23	4	564
8:00	0	0	51	1	5	52	1	0	101	0	0	102	0	0	0	0	0	0	0	0	0	0	2	0	154
8:15	0	0	79	0	1	79	0	2	95	0	0	97	0	2	0	1	0	3	0	0	0	1	0	1	180
8:30	0	1	73	3	1	77	0	3	84	2	0	89	0	2	0	2	0	4	0	0	0	1	1	1	171
8:45	0	4	63	9	1	76	0	6	115	2	0	123	0	3	0	0	1	3	0	1	0	1	1	2	204
Hourly Total	0	5	266	13	8	284	1	11	395	4	0	411	0	7	0	3	1	10	0	1	0	3	4	4	709
9:00	0	3	76	2	0	81	0	1	97	4	0	102	0	1	0	2	1	3	0	2	0	0	2	2	188
9:15	0	2	55	3	1	60	0	3	112	5	0	120	0	1	0	4	0	5	0	1	0	1	1	2	187
9:30	0	2	93	4	0	99	0	6	116	1	0	123	0	1	0	2	1	3	0	0	0	1	0	1	226
9:45	0	4	96	4	0	104	0	7	99	2	0	108	0	9	0	2	0	11	0	4	0	2	3	6	229
Hourly Total	0	11	320	13	1	344	0	17	424	12	0	453	0	12	0	10	2	22	0	7	0	4	6	11	830
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	6	77	4	0	87	0	4	112	9	0	125	0	4	0	2	0	6	0	1	0	3	4	4	222
11:15	0	3	90	3	1	96	0	4	111	6	0	121	0	3	0	6	1	9	0	1	0	7	0	8	234
11:30	0	1	81	1	0	83	0	0	92	5	0	97	0	2	0	8	0	10	0	0	0	1	0	1	191
11:45	0	2	102	1	1	105	0	1	92	2	0	95	0	3	0	2	0	5	0	2	0	2	0	4	209
Hourly Total	0	12	350	9	2	371	0	9	407	22	0	438	0	12	0	18	1	30	0	4	0	13	4	17	856
12:00	0	3	107	1	1	111	0	2	109	4	0	115	0	2	0	5	0	7	0	2	0	1	2	3	236
12:15	0	1	104	1	0	106	0	2	83	4	0	89	0	4	0	1	0	5	0	2	0	7	2	9	209
12:30	0	3	76	3	1	82	0	3	91	3	0	97	0	1	0	5	0	6	0	2	0	1	0	3	188
12:45	0	0	103	1	1	104	0	4	104	3	0	111	0	0	0	3	0	3	0	1	0	2	2	3	221
Hourly Total	0	7	390	6	3	403	0	11	387	14	0	412	0	7	0	14	0	21	0	7	0	11	6	18	854
13:00	0	2	103	1	1	106	0	2	114	3	0	119	0	2	0	6	0	8	0	3	0	5	0	8	241
13:15	0	0	85	0	1	85	0	2	103	4	0	109	0	3	0	1	0	4	0	1	0	1	1	2	200
13:30	0	3	84	2	1	89	0	2	97	0	0	99	0	0	0	2	0	2	0	2	0	7	1	9	199
13:45	0	2	100	1	1	103	0	0	104	3	0	107	0	1	0	1	0	2	0	0	0	5	0	5	217
Hourly Total	0	7	372	4	4	383	0	6	418	10	0	434	0	6	0	10	0	16	0	6	0	18	2	24	857
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	0	89	0	5	89	0	1	97	1	0	99	0	2	0	2	0	4	0	2	0	2	1	4	196
16:15	0	3	103	2	4	108	0	0	82	3	0	85	0	1	0	1	0	2	0	0	0	2	4	2	197
16:30	0	0	90	1	2	91	0	3	84	2	0	89	0	3	0	1	0	4	0	2	0	1	0	3	187
16:45	0	3	89	0	0	92	1	2	92	1	0	96	0	1	0	2	0	3	0	1	0	1	0	2	193
Hourly Total	0	6	371	3	11	380	1	6	355	7	0	369	0	7	0	6	0	13	0	5	0	6	5	11	773
17:00	0	3	107	3	3	113	1	0	105	0	0	106	0	2	0	2	0	4	0	1	0	4	1	5	228
17:15	0	3	107	0	1	110	0	0	70	4	0	74	0	2	0	1	0	3	0	2	1	1	4	4	191
17:30	0	1	83	1	2	85	0	1	84	1	0	86	0	1	0	2	0	3	0	1	0	5	0	6	180
17:45	0	4	89	0	1	93	0	0	74	2	0	76	0	1	0	1	0	2	0	1	0	3	1	4	175
Hourly Total	0	11	386	4	7	401	1	1	333	7	0	342	0	6	0	6	0	12	0	5	1	13	6	19	774
Grand Total	0	65	2664	60	59	2789	4	65	3041	85	0	3195	0	58	0	67	4	125	0	36	1	71	56	108	6217
Lights	0	64	2609	59	-	2732	4	65	2991	85	-	3145	0	57	0	67	-	124	0	35	1	71	-	107	6108
% Lights	-	98.5	97.9	98.3	-	98.0	100.0	100.0	98.4	100.0	-	98.4	-	98.3	-	100.0	-	99.2	-	97.2	100.0	100.0	-	99.1	98.2
Other Vehicles	0	1	55	1	-	57	0	0	50	0	-	50	0	1	0	0	-	1	0	1	0	0	-	1	109
% Other Vehicles	-	1.5	2.1	1.7	-	2.0	0.0	0.0	1.6	0.0	-	1.6	-	1.7	-	0.0	-	0.8	-	2.8	0.0	0.0	-	0.9	1.8
Pedestrians	-	-	-	-	59	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	56	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: OLEAN@FAWCETT MEMORIAL HECTOR HERNANDEZ
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (9:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HECTOR N HERNANDEZ Northbound						FAWCETT MEMORIAL (CENTER DRIVEWAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
9:00	0	3	76	2	0	81	0	1	97	4	0	102	0	1	0	2	1	3	0	2	0	0	2	2	188
9:15	0	2	55	3	1	60	0	3	112	5	0	120	0	1	0	4	0	5	0	1	0	1	1	2	187
9:30	0	2	93	4	0	99	0	6	116	1	0	123	0	1	0	2	1	3	0	0	0	1	0	1	226
9:45	0	4	96	4	0	104	0	7	99	2	0	108	0	9	0	2	0	11	0	4	0	2	3	6	229
Total	0	11	320	13	1	344	0	17	424	12	0	453	0	12	0	10	2	22	0	7	0	4	6	11	830
PHF	0.000	0.688	0.833	0.813	-	0.827	0.000	0.607	0.914	0.600	-	0.921	0.000	0.333	0.000	0.625	-	0.500	0.000	0.438	0.000	0.500	-	0.458	0.906
Lights	0	10	316	13	-	339	0	17	418	12	-	447	0	12	0	10	-	22	0	6	0	4	-	10	818
% Lights	-	90.9	98.8	100.0	-	98.5	-	100.0	98.6	100.0	-	98.7	-	100.0	-	100.0	-	100.0	-	85.7	-	100.0	-	90.9	98.6
Other Vehicles	0	1	4	0	-	5	0	0	6	0	-	6	0	0	0	0	-	0	0	1	0	0	-	1	12
% Other Vehicles	-	9.1	1.3	0.0	-	1.5	-	0.0	1.4	0.0	-	1.3	-	0.0	-	0.0	-	0.0	-	14.3	-	0.0	-	9.1	1.4
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: OLEAN@FAWCETT MEMORIAL HECTOR HERNANDEZ
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (11:15)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HECTOR N HERNANDEZ Northbound						FAWCETT MEMORIAL (CENTER DRIVEWAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
11:15	0	3	90	3	1	96	0	4	111	6	0	121	0	3	0	6	1	9	0	1	0	7	0	8	234
11:30	0	1	81	1	0	83	0	0	92	5	0	97	0	2	0	8	0	10	0	0	0	1	0	1	191
11:45	0	2	102	1	1	105	0	1	92	2	0	95	0	3	0	2	0	5	0	2	0	2	0	4	209
12:00	0	3	107	1	1	111	0	2	109	4	0	115	0	2	0	5	0	7	0	2	0	1	2	3	236
Total	0	9	380	6	3	395	0	7	404	17	0	428	0	10	0	21	1	31	0	5	0	11	2	16	870
PHF	0.000	0.750	0.888	0.500	-	0.890	0.000	0.438	0.910	0.708	-	0.884	0.000	0.833	0.000	0.656	-	0.775	0.000	0.625	0.000	0.393	-	0.500	0.922
Lights	0	9	377	6	-	392	0	7	400	17	-	424	0	10	0	21	-	31	0	5	0	11	-	16	863
% Lights	-	100.0	99.2	100.0	-	99.2	-	100.0	99.0	100.0	-	99.1	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	99.2
Other Vehicles	0	0	3	0	-	3	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	7
% Other Vehicles	-	0.0	0.8	0.0	-	0.8	-	0.0	1.0	0.0	-	0.9	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.8
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
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Count Name: OLEAN@FAWCETT MEMORIAL HECTOR HERNANDEZ
Site Code:
Start Date: 12-09-2015

Turning Movement Peak Hour Data (16:15)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HECTOR N HERNANDEZ Northbound						FAWCETT MEMORIAL (CENTER DRIVEWAY) Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:15	0	3	103	2	4	108	0	0	82	3	0	85	0	1	0	1	0	2	0	0	0	2	4	2	197
16:30	0	0	90	1	2	91	0	3	84	2	0	89	0	3	0	1	0	4	0	2	0	1	0	3	187
16:45	0	3	89	0	0	92	1	2	92	1	0	96	0	1	0	2	0	3	0	1	0	1	0	2	193
17:00	0	3	107	3	3	113	1	0	105	0	0	106	0	2	0	2	0	4	0	1	0	4	1	5	228
Total	0	9	389	6	9	404	2	5	363	6	0	376	0	7	0	6	0	13	0	4	0	8	5	12	805
PHF	0.000	0.750	0.909	0.500	-	0.894	0.500	0.417	0.864	0.500	-	0.887	0.000	0.583	0.000	0.750	-	0.813	0.000	0.500	0.000	0.500	-	0.600	0.883
Lights	0	9	372	6	-	387	2	5	354	6	-	367	0	7	0	6	-	13	0	4	0	8	-	12	779
% Lights	-	100.0	95.6	100.0	-	95.8	100.0	100.0	97.5	100.0	-	97.6	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	96.8
Other Vehicles	0	0	17	0	-	17	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	26
% Other Vehicles	-	0.0	4.4	0.0	-	4.2	0.0	0.0	2.5	0.0	-	2.4	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	3.2
Pedestrians	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
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File Name : OLEAN @FAWCETT MEMORIAL MEDICAL PAVILION
Site Code :
Start Date : 12/9/2015
Page No : 1

Groups Printed- Lights - Other Vehicles - Pedestrians

	OLEAN BLVD Eastbound					OLEAN BLVD Westbound						PORT CHARLOTTE MEDICAL PAV Southwestbound					FAWCWTT MEMORIAL (NORTH DRIVEWAY) Southeastbound					
Start Time	Hard Left	Bear Left	Thru	Peds	App. Total	Left	Thru	Bear Right	Hard Right	Peds	App. Total	Hard Left	Bear Right	Right	Peds	App. Total	Left	Bear Left	Hard Right	Peds	App. Total	Int. Total
07:00	6	1	24	0	31	0	61	7	2	0	70	0	0	1	3	4	0	0	1	4	5	110
07:15	2	4	40	0	46	0	70	8	1	0	79	0	0	0	3	3	0	0	0	1	1	129
07:30	6	1	42	0	49	0	84	5	4	0	93	0	0	1	1	2	0	0	1	2	3	147
07:45	3	4	58	0	65	0	112	6	8	0	126	0	2	2	2	6	0	0	3	2	5	202
Total	17	10	164	0	191	0	327	26	15	0	368	0	2	4	9	15	0	0	5	9	14	588
08:00	1	3	48	0	52	0	105	2	7	0	114	1	3	0	3	7	1	1	0	3	5	178
08:15	5	2	72	0	79	0	92	6	7	0	105	2	0	0	0	2	0	1	2	0	3	189
08:30	5	2	60	0	67	0	87	8	4	0	99	0	2	1	1	4	0	0	2	1	3	173
08:45	3	2	61	0	66	0	115	5	2	0	122	0	2	0	2	4	0	0	4	1	5	197
Total	14	9	241	0	264	0	399	21	20	0	440	3	7	1	6	17	1	2	8	5	16	737
09:00	2	2	78	0	82	0	95	3	5	0	103	0	4	1	2	7	0	2	1	3	6	198
09:15	5	3	50	0	58	0	119	3	2	0	124	2	4	0	0	6	0	1	2	1	4	192
09:30	4	4	87	0	95	0	122	3	3	0	128	0	1	0	3	4	0	0	0	3	3	230
09:45	2	5	96	0	103	0	101	4	4	0	109	0	4	0	1	5	0	1	1	3	5	222
Total	13	14	311	0	338	0	437	13	14	0	464	2	13	1	6	22	0	4	4	10	18	842
BREAK																						
11:00	0	2	80	0	82	0	117	6	3	0	126	0	8	0	0	8	0	1	3	0	4	220
11:15	4	2	89	0	95	0	108	3	2	0	113	1	11	1	2	15	0	2	3	0	5	228
11:30	3	3	82	0	88	0	92	2	2	0	96	0	5	0	4	9	0	1	2	0	3	196
11:45	7	2	95	0	104	0	83	3	1	0	87	1	4	1	1	7	0	0	4	0	4	202
Total	14	9	346	0	369	0	400	14	8	0	422	2	28	2	7	39	0	4	12	0	16	846
12:00	6	5	99	0	110	0	111	9	2	0	122	5	6	0	0	11	0	0	0	0	0	243
12:15	1	5	107	0	113	0	84	4	2	0	90	1	5	0	2	8	0	0	2	0	2	213
12:30	3	0	80	0	83	0	90	2	2	0	94	0	4	1	1	6	0	1	0	6	7	190
12:45	7	3	87	1	98	0	108	2	7	0	117	0	3	1	1	5	0	0	2	1	3	223
Total	17	13	373	1	404	0	393	17	13	0	423	6	18	2	4	30	0	1	4	7	12	869
13:00	6	5	93	1	105	0	114	4	3	0	121	3	3	1	0	7	0	0	3	2	5	238
13:15	5	3	79	0	87	0	105	3	3	0	111	1	6	1	1	9	0	0	0	2	2	209
13:30	4	6	77	0	87	0	94	4	1	0	99	1	5	1	2	9	0	0	1	3	4	199
13:45	3	5	92	0	100	0	97	5	6	0	108	1	5	0	1	7	0	0	1	1	2	217
Total	18	19	341	1	379	0	410	16	13	0	439	6	19	3	4	32	0	0	5	8	13	863
BREAK																						
16:00	1	2	91	0	94	0	90	3	2	0	95	3	6	2	2	13	0	2	2	2	6	208
16:15	6	0	90	0	96	0	76	1	0	0	77	0	6	0	0	6	0	1	2	2	5	184
16:30	2	2	96	0	100	0	81	0	1	0	82	0	4	0	6	10	0	1	0	6	7	199
16:45	0	1	93	0	94	1	90	3	1	0	95	2	6	0	0	8	0	1	1	2	4	201
Total	9	5	370	0	384	1	337	7	4	0	349	5	22	2	8	37	0	5	5	12	22	792
17:00	1	2	103	0	106	0	83	3	2	0	88	3	11	0	0	14	0	1	0	0	1	209
17:15	4	0	110	0	114	0	72	5	0	0	77	1	1	0	1	3	0	1	2	0	3	197
17:30	2	1	78	0	81	0	75	5	1	0	81	0	3	0	0	3	0	0	0	0	0	165
17:45	4	0	88	0	92	0	67	2	3	0	72	3	1	0	3	7	1	0	0	0	1	172
Total	11	3	379	0	393	0	297	15	6	0	318	7	16	0	4	27	1	2	2	0	5	743
Grand Total	113	82	2525	2	2722	1	3000	129	93	0	3223	31	125	15	48	219	2	18	45	51	116	6280
Apprch %	4.2	3	92.8	0.1		0	93.1	4	2.9	0		14.2	57.1	6.8	21.9		1.7	15.5	38.8	44		
Total %	1.8	1.3	40.2	0	43.3	0	47.8	2.1	1.5	0	51.3	0.5	2	0.2	0.8	3.5	0	0.3	0.7	0.8	1.8	
Lights	109	82	2472	0	2663	1	2953	127	93	0	3174	31	125	15	0	171	2	18	43	0	63	6071
% Lights	96.5	100	97.9	0	97.8	100	98.4	98.4	100	0	98.5	100	100	100	0	78.1	100	100	95.6	0	54.3	96.7
Other Vehicles	4	0	53	0	57	0	47	2	0	0	49	0	0	0	0	0	0	0	2	0	2	108
% Other Vehicles	3.5	0	2.1	0	2.1	0	1.6	1.6	0	0	1.5	0	0	0	0	0	0	0	4.4	0	1.7	1.7
Pedestrians	0	0	0	2	2	0	0	0	0	0	0	0	0	0	48	48	0	0	0	51	51	101
% Pedestrians	0	0	0	100	0.1	0	0	0	0	0	0	0	0	0	100	21.9	0	0	0	100	44	1.6

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File Name : OLEAN @FAWCETT MEMORIAL MEDICAL PAVILION
Site Code :
Start Date : 12/9/2015
Page No : 2

	OLEAN BLVD Eastbound					OLEAN BLVD Westbound						PORT CHARLOTTE MEDICAL PAV Southwestbound					FAWCWTT MEMORIAL (NORTH DRIVEWAY) Southeastbound					
Start Time	Hard Left	Bear Left	Thru	Peds	App. Total	Left	Thru	Bear Right	Hard Right	Peds	App. Total	Hard Left	Bear Right	Right	Peds	App. Total	Left	Bear Left	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 09:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 09:00																						
09:00	2	2	78	0	82	0	95	3	5	0	103	0	4	1	2	7	0	2	1	3	6	198
09:15	5	3	50	0	58	0	119	3	2	0	124	2	4	0	0	6	0	1	2	1	4	192
09:30	4	4	87	0	95	0	122	3	3	0	128	0	1	0	3	4	0	0	0	3	3	230
09:45	2	5	96	0	103	0	101	4	4	0	109	0	4	0	1	5	0	1	1	3	5	222
Total Volume	13	14	311	0	338	0	437	13	14	0	464	2	13	1	6	22	0	4	4	10	18	842
% App. Total	3.8	4.1	92	0		0	94.2	2.8	3	0		9.1	59.1	4.5	27.3		0	22.2	22.2	55.6		
PHF	.650	.700	.810	.000	.820	.000	.895	.813	.700	.000	.906	.250	.813	.250	.500	.786	.000	.500	.500	.833	.750	.915
Lights	12	14	307	0	333	0	431	13	14	0	458	2	13	1	0	16	0	4	4	0	8	815
% Lights	92.3	100	98.7	0	98.5	0	98.6	100	100	0	98.7	100	100	100	0	72.7	0	100	100	0	44.4	96.8
Other Vehicles	1	0	4	0	5	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	11
% Other Vehicles	7.7	0	1.3	0	1.5	0	1.4	0	0	0	1.3	0	0	0	0	0	0	0	0	0	0	1.3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	10	10	16
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	27.3	0	0	0	100	55.6	1.9

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File Name : OLEAN @FAWCETT MEMORIAL MEDICAL PAVILION
Site Code :
Start Date : 12/9/2015
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	OLEAN BLVD Eastbound					OLEAN BLVD Westbound						PORT CHARLOTTE MEDICAL PAV Southwestbound					FAWCWTT MEMORIAL (NORTH DRIVEWAY) Southeastbound					
Start Time	Hard Left	Bear Left	Thru	Peds	App. Total	Left	Thru	Bear Right	Hard Right	Peds	App. Total	Hard Left	Bear Right	Right	Peds	App. Total	Left	Bear Left	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 to 13:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 11:15																						
11:15	4	2	89	0	95	0	108	3	2	0	113	1	11	1	2	15	0	2	3	0	5	228
11:30	3	3	82	0	88	0	92	2	2	0	96	0	5	0	4	9	0	1	2	0	3	196
11:45	7	2	95	0	104	0	83	3	1	0	87	1	4	1	1	7	0	0	4	0	4	202
12:00	6	5	99	0	110	0	111	9	2	0	122	5	6	0	0	11	0	0	0	0	0	243
Total Volume	20	12	365	0	397	0	394	17	7	0	418	7	26	2	7	42	0	3	9	0	12	869
% App. Total	5	3	91.9	0		0	94.3	4.1	1.7	0		16.7	61.9	4.8	16.7		0	25	75	0		
PHF	.714	.600	.922	.000	.902	.000	.887	.472	.875	.000	.857	.350	.591	.500	.438	.700	.000	.375	.563	.000	.600	.894
Lights	20	12	363	0	395	0	392	17	7	0	416	7	26	2	0	35	0	3	9	0	12	858
% Lights	100	100	99.5	0	99.5	0	99.5	100	100	0	99.5	100	100	100	0	83.3	0	100	100	0	100	98.7
Other Vehicles	0	0	2	0	2	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
% Other Vehicles	0	0	0.5	0	0.5	0	0.5	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	7
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	16.7	0	0	0	0	0	0.8

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File Name : OLEAN @FAWCETT MEMORIAL MEDICAL PAVILION
Site Code :
Start Date : 12/9/2015
Page No : 4

	OLEAN BLVD Eastbound					OLEAN BLVD Westbound						PORT CHARLOTTE MEDICAL PAV Southwestbound					FAWCWTT MEMORIAL (NORTH DRIVEWAY) Southeastbound					
Start Time	Hard Left	Bear Left	Thru	Peds	App. Total	Left	Thru	Bear Right	Hard Right	Peds	App. Total	Hard Left	Bear Right	Right	Peds	App. Total	Left	Bear Left	Hard Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 16:30																						
16:30	2	2	96	0	100	0	81	0	1	0	82	0	4	0	6	10	0	1	0	6	7	199
16:45	0	1	93	0	94	1	90	3	1	0	95	2	6	0	0	8	0	1	1	2	4	201
17:00	1	2	103	0	106	0	83	3	2	0	88	3	11	0	0	14	0	1	0	0	1	209
17:15	4	0	110	0	114	0	72	5	0	0	77	1	1	0	1	3	0	1	2	0	3	197
Total Volume	7	5	402	0	414	1	326	11	4	0	342	6	22	0	7	35	0	4	3	8	15	806
% App. Total	1.7	1.2	97.1	0		0.3	95.3	3.2	1.2	0		17.1	62.9	0	20		0	26.7	20	53.3		
PHF	.438	.625	.914	.000	.908	.250	.906	.550	.500	.000	.900	.500	.500	.000	.292	.625	.000	1.00	.375	.333	.536	.964
Lights	7	5	384	0	396	1	316	11	4	0	332	6	22	0	0	28	0	4	3	0	7	763
% Lights	100	100	95.5	0	95.7	100	96.9	100	100	0	97.1	100	100	0	0	80.0	0	100	100	0	46.7	94.7
Other Vehicles	0	0	18	0	18	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	28
% Other Vehicles	0	0	4.5	0	4.3	0	3.1	0	0	0	2.9	0	0	0	0	0	0	0	0	0	0	3.5
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	8	8	15
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	20.0	0	0	0	100	53.3	1.9

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Count Name: OLEAN@HARBOR
Site Code:
Start Date: 12-08-2015
Page No: 1

Turning Movement Data

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HARBOR BLVD Northbound						HARBOR BLVD Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:00	0	6	23	0	0	29	0	18	53	9	0	80	0	5	31	4	0	40	0	15	52	12	0	79	228
7:15	0	7	31	2	0	40	0	14	66	25	0	105	0	5	36	6	0	47	0	19	64	26	2	109	301
7:30	0	12	39	1	0	52	0	23	84	27	0	134	0	8	52	8	1	68	0	16	79	15	2	110	364
7:45	0	21	41	3	0	65	0	38	109	30	1	177	1	9	42	12	0	64	0	15	76	28	1	119	425
Hourly Total	0	46	134	6	0	186	0	93	312	91	1	496	1	27	161	30	1	219	0	65	271	81	5	417	1318
8:00	0	17	41	2	0	60	0	19	84	33	0	136	0	11	42	13	0	66	0	16	75	26	2	117	379
8:15	0	19	49	6	2	74	0	22	77	40	0	139	0	4	44	10	1	58	0	18	84	30	0	132	403
8:30	0	15	54	5	0	74	0	15	66	18	0	99	0	10	54	17	0	81	0	29	91	25	0	145	399
8:45	0	22	51	5	1	78	0	25	88	38	0	151	0	17	56	15	2	88	0	14	71	27	0	112	429
Hourly Total	0	73	195	18	3	286	0	81	315	129	0	525	0	42	196	55	3	293	0	77	321	108	2	506	1610
9:00	0	28	46	10	0	84	0	19	85	34	0	138	0	7	55	10	0	72	1	23	77	27	0	128	422
9:15	0	19	45	4	2	68	0	14	85	27	0	126	0	12	47	13	0	72	1	19	54	27	1	101	367
9:30	0	25	45	8	1	78	0	15	74	26	0	115	0	18	52	9	0	79	0	16	70	30	0	116	388
9:45	0	28	37	4	2	69	0	16	71	33	0	120	0	16	76	17	0	109	1	26	75	31	1	133	431
Hourly Total	0	100	173	26	5	299	0	64	315	120	0	499	0	53	230	49	0	332	3	84	276	115	2	478	1608
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	0	36	75	10	2	121	0	17	80	28	0	125	0	13	54	15	0	82	0	17	68	34	2	119	447
11:15	0	23	52	3	2	78	0	24	81	33	3	138	0	9	60	23	3	92	1	27	74	34	0	136	444
11:30	0	27	64	6	3	97	0	25	58	23	0	106	0	7	54	23	1	84	0	24	80	29	1	133	420
11:45	0	26	51	10	0	87	0	19	55	48	0	122	0	12	63	14	0	89	0	25	56	35	0	116	414
Hourly Total	0	112	242	29	7	383	0	85	274	132	3	491	0	41	231	75	4	347	1	93	278	132	3	504	1725
12:00	0	34	64	9	0	107	0	14	87	24	0	125	0	7	66	24	0	97	0	17	56	32	1	105	434
12:15	0	31	68	3	0	102	0	9	75	21	0	105	0	9	73	21	0	103	0	30	54	33	1	117	427
12:30	0	26	69	9	0	104	0	20	63	32	0	115	0	12	54	13	0	79	0	30	73	29	0	132	430
12:45	0	32	52	6	2	90	0	21	81	31	2	133	0	17	69	16	0	102	0	19	71	27	0	117	442
Hourly Total	0	123	253	27	2	403	0	64	306	108	2	478	0	45	262	74	0	381	0	96	254	121	2	471	1733
13:00	0	25	58	10	1	93	0	26	83	24	0	133	0	9	49	19	0	77	0	33	79	32	0	144	447
13:15	0	25	54	6	0	85	0	14	63	23	0	100	0	12	79	22	0	113	0	27	72	30	0	129	427
13:30	0	27	59	14	0	100	0	27	71	31	2	129	0	11	53	25	0	89	1	20	64	18	2	103	421
13:45	0	30	60	5	0	95	0	30	78	33	0	141	0	23	68	24	0	115	0	25	42	33	1	100	451
Hourly Total	0	107	231	35	1	373	0	97	295	111	2	503	0	55	249	90	0	394	1	105	257	113	3	476	1746
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	0	30	88	9	2	127	0	14	46	19	0	79	0	9	92	22	0	123	0	38	77	33	1	148	477
16:15	0	26	71	7	0	104	0	15	70	19	1	104	0	3	75	27	0	105	0	27	51	30	2	108	421
16:30	0	29	66	4	1	99	0	20	55	29	0	104	0	5	90	23	1	118	0	18	80	23	0	121	442
16:45	0	21	60	4	3	85	0	19	63	16	0	98	0	3	80	19	0	102	0	27	51	23	1	101	386
Hourly Total	0	106	285	24	6	415	0	68	234	83	1	385	0	20	337	91	1	448	0	110	259	109	4	478	1726
17:00	0	27	66	5	1	98	0	12	58	28	1	98	0	18	85	37	1	140	0	29	76	25	1	130	466
17:15	0	25	63	3	0	91	0	14	54	28	0	96	0	6	83	23	1	112	0	32	60	21	1	113	412
17:30	0	33	82	2	1	117	0	11	46	30	0	87	0	5	83	22	0	110	0	25	65	21	1	111	425
17:45	0	19	73	7	2	99	0	11	60	20	0	91	1	2	63	24	0	90	0	19	69	19	0	107	387
Hourly Total	0	104	284	17	4	405	0	48	218	106	1	372	1	31	314	106	2	452	0	105	270	86	3	461	1690
Grand Total	0	771	1797	182	28	2750	0	600	2269	880	10	3749	2	314	1980	570	11	2866	5	735	2186	865	24	3791	13156
Lights	0	762	1758	175	-	2695	0	588	2231	856	-	3675	2	310	1947	552	-	2811	5	721	2150	853	-	3729	12910
% Lights	-	98.8	97.8	96.2	-	98.0	-	98.0	98.3	97.3	-	98.0	100.0	98.7	98.3	96.8	-	98.1	100.0	98.1	98.4	98.6	-	98.4	98.1
Other Vehicles	0	9	39	7	-	55	0	12	38	24	-	74	0	4	33	18	-	55	0	14	36	12	-	62	246
% Other Vehicles	-	1.2	2.2	3.8	-	2.0	-	2.0	1.7	2.7	-	2.0	0.0	1.3	1.7	3.2	-	1.9	0.0	1.9	1.6	1.4	-	1.6	1.9
Pedestrians	-	-	-	-	28	-	-	-	-	-	10	-	-	-	-	-	11	-	-	-	-	-	24	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name:
OLEAN@HARBOR
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (8:15)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HARBOR BLVD Northbound						HARBOR BLVD Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
8:15	0	19	49	6	2	74	0	22	77	40	0	139	0	4	44	10	1	58	0	18	84	30	0	132	403
8:30	0	15	54	5	0	74	0	15	66	18	0	99	0	10	54	17	0	81	0	29	91	25	0	145	399
8:45	0	22	51	5	1	78	0	25	88	38	0	151	0	17	56	15	2	88	0	14	71	27	0	112	429
9:00	0	28	46	10	0	84	0	19	85	34	0	138	0	7	55	10	0	72	1	23	77	27	0	128	422
Total	0	84	200	26	3	310	0	81	316	130	0	527	0	38	209	52	3	299	1	84	323	109	0	517	1653
PHF	0.000	0.750	0.926	0.650	-	0.923	0.000	0.810	0.898	0.813	-	0.873	0.000	0.559	0.933	0.765	-	0.849	0.250	0.724	0.887	0.908	-	0.891	0.963
Lights	0	83	195	26	-	304	0	79	312	127	-	518	0	38	204	51	-	293	1	78	320	106	-	505	1620
% Lights	-	98.8	97.5	100.0	-	98.1	-	97.5	98.7	97.7	-	98.3	-	100.0	97.6	98.1	-	98.0	100.0	92.9	99.1	97.2	-	97.7	98.0
Other Vehicles	0	1	5	0	-	6	0	2	4	3	-	9	0	0	5	1	-	6	0	6	3	3	-	12	33
% Other Vehicles	-	1.2	2.5	0.0	-	1.9	-	2.5	1.3	2.3	-	1.7	-	0.0	2.4	1.9	-	2.0	0.0	7.1	0.9	2.8	-	2.3	2.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name:
OLEAN@HARBOR
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (12:15)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HARBOR BLVD Northbound						HARBOR BLVD Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
12:15	0	31	68	3	0	102	0	9	75	21	0	105	0	9	73	21	0	103	0	30	54	33	1	117	427
12:30	0	26	69	9	0	104	0	20	63	32	0	115	0	12	54	13	0	79	0	30	73	29	0	132	430
12:45	0	32	52	6	2	90	0	21	81	31	2	133	0	17	69	16	0	102	0	19	71	27	0	117	442
13:00	0	25	58	10	1	93	0	26	83	24	0	133	0	9	49	19	0	77	0	33	79	32	0	144	447
Total	0	114	247	28	3	389	0	76	302	108	2	486	0	47	245	69	0	361	0	112	277	121	1	510	1746
PHF	0.000	0.891	0.895	0.700	-	0.935	0.000	0.731	0.910	0.844	-	0.914	0.000	0.691	0.839	0.821	-	0.876	0.000	0.848	0.877	0.917	-	0.885	0.977
Lights	0	111	242	26	-	379	0	74	294	102	-	470	0	46	237	68	-	351	0	111	268	118	-	497	1697
% Lights	-	97.4	98.0	92.9	-	97.4	-	97.4	97.4	94.4	-	96.7	-	97.9	96.7	98.6	-	97.2	-	99.1	96.8	97.5	-	97.5	97.2
Other Vehicles	0	3	5	2	-	10	0	2	8	6	-	16	0	1	8	1	-	10	0	1	9	3	-	13	49
% Other Vehicles	-	2.6	2.0	7.1	-	2.6	-	2.6	2.6	5.6	-	3.3	-	2.1	3.3	1.4	-	2.8	-	0.9	3.2	2.5	-	2.5	2.8
Pedestrians	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851

Count Name:
OLEAN@HARBOR
Site Code:
Start Date: 12-08-2015

Turning Movement Peak Hour Data (16:00)

Start Time	OLEAN BLVD Eastbound						OLEAN BLVD Westbound						HARBOR BLVD Northbound						HARBOR BLVD Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	30	88	9	2	127	0	14	46	19	0	79	0	9	92	22	0	123	0	38	77	33	1	148	477
16:15	0	26	71	7	0	104	0	15	70	19	1	104	0	3	75	27	0	105	0	27	51	30	2	108	421
16:30	0	29	66	4	1	99	0	20	55	29	0	104	0	5	90	23	1	118	0	18	80	23	0	121	442
16:45	0	21	60	4	3	85	0	19	63	16	0	98	0	3	80	19	0	102	0	27	51	23	1	101	386
Total	0	106	285	24	6	415	0	68	234	83	1	385	0	20	337	91	1	448	0	110	259	109	4	478	1726
PHF	0.000	0.883	0.810	0.667	-	0.817	0.000	0.850	0.836	0.716	-	0.925	0.000	0.556	0.916	0.843	-	0.911	0.000	0.724	0.809	0.826	-	0.807	0.905
Lights	0	106	279	23	-	408	0	66	231	81	-	378	0	20	332	90	-	442	0	108	258	109	-	475	1703
% Lights	-	100.0	97.9	95.8	-	98.3	-	97.1	98.7	97.6	-	98.2	-	100.0	98.5	98.9	-	98.7	-	98.2	99.6	100.0	-	99.4	98.7
Other Vehicles	0	0	6	1	-	7	0	2	3	2	-	7	0	0	5	1	-	6	0	2	1	0	-	3	23
% Other Vehicles	-	0.0	2.1	4.2	-	1.7	-	2.9	1.3	2.4	-	1.8	-	0.0	1.5	1.1	-	1.3	-	1.8	0.4	0.0	-	0.6	1.3
Pedestrians	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Promenades Driveway
Site Code:
Start Date: 12-22-2015

Turning Movement Data

Start Time	Olean Blvd Eastbound						Olean Blvd Westbound						Promenades Driveway Northbound						Southbound Approach Southbound		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Int. Total
7:00	0	34	0	0	0	34	0	69	1	0	0	70	0	0	0	0	1	0	0	0	104
7:15	0	44	0	0	0	44	0	86	1	0	0	87	1	0	0	0	1	1	2	0	132
7:30	0	45	0	0	0	45	0	96	0	0	0	96	0	0	1	0	2	1	0	0	142
7:45	2	56	0	0	0	58	0	129	0	0	0	129	2	0	2	0	1	4	2	0	191
Hourly Total	2	179	0	0	0	181	0	380	2	0	0	382	3	0	3	0	5	6	4	0	569
8:00	0	61	0	0	0	61	0	85	0	0	0	85	1	0	3	0	0	4	2	0	150
8:15	1	58	0	0	0	59	0	95	0	0	0	95	0	0	1	0	0	1	0	0	155
8:30	0	53	0	0	0	53	0	122	1	0	0	123	0	0	0	0	0	0	2	0	176
8:45	1	67	0	0	0	68	0	116	1	0	0	117	1	0	0	0	0	1	2	0	186
Hourly Total	2	239	0	0	0	241	0	418	2	0	0	420	2	0	4	0	0	6	6	0	667
9:00	2	84	0	0	0	86	0	135	0	0	2	135	2	0	0	0	0	2	2	0	223
9:15	2	57	0	0	0	59	0	119	0	0	1	119	3	0	3	0	1	6	2	0	184
9:30	1	65	0	0	0	66	0	117	0	0	2	117	1	0	0	0	2	1	0	0	184
9:45	1	76	0	0	0	77	0	121	2	0	0	123	0	0	1	0	1	1	1	0	201
Hourly Total	6	282	0	0	0	288	0	492	2	0	5	494	6	0	4	0	4	10	5	0	792
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	1	109	0	0	0	110	0	125	0	0	1	125	0	0	1	0	1	1	2	0	236
11:15	2	103	0	0	1	105	0	117	0	0	0	117	0	0	0	0	1	0	2	0	222
11:30	0	93	0	0	0	93	0	108	0	0	0	108	0	0	2	0	0	2	4	0	203
11:45	0	114	0	0	0	114	0	116	1	0	0	117	0	0	3	0	0	3	1	0	234
Hourly Total	3	419	0	0	1	422	0	466	1	0	1	467	0	0	6	0	2	6	9	0	895
12:00	1	92	0	0	0	93	0	98	0	0	1	98	2	0	3	0	0	5	2	0	196
12:15	0	94	0	0	0	94	0	94	0	0	0	94	1	0	0	0	2	1	4	0	189
12:30	4	112	0	0	0	116	0	105	0	0	2	105	4	0	2	0	0	6	2	0	227
12:45	3	76	0	0	0	79	0	113	0	0	3	113	1	0	2	0	1	3	5	0	195
Hourly Total	8	374	0	0	0	382	0	410	0	0	6	410	8	0	7	0	3	15	13	0	807
13:00	2	96	0	0	0	98	0	121	0	0	0	121	2	0	0	0	0	2	0	0	221
13:15	2	95	0	0	0	97	0	106	3	0	0	109	1	0	0	0	0	1	6	0	207
13:30	1	110	0	0	0	111	0	97	0	0	2	97	2	0	0	0	0	2	4	0	210
13:45	4	111	0	0	0	115	0	109	1	0	1	110	2	0	1	0	0	3	6	0	228
Hourly Total	9	412	0	0	0	421	0	433	4	0	3	437	7	0	1	0	0	8	16	0	866
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	1	130	0	0	0	131	0	90	1	0	0	91	2	0	0	0	1	2	2	0	224
16:15	1	129	0	0	0	130	0	91	1	0	1	92	0	0	1	0	3	1	0	0	223
16:30	2	103	0	0	0	105	0	110	0	0	0	110	2	0	0	0	1	2	0	0	217
16:45	1	116	0	0	0	117	0	96	0	0	0	96	2	0	1	0	0	3	1	0	216
Hourly Total	5	478	0	0	0	483	0	387	2	0	1	389	6	0	2	0	5	8	3	0	880
17:00	2	134	0	0	1	136	0	85	1	0	1	86	0	0	1	0	1	1	0	0	223
17:15	1	124	0	0	0	125	0	96	0	0	0	96	0	0	1	0	0	1	1	0	222
17:30	1	107	0	0	0	108	0	95	0	0	1	95	0	0	1	0	0	1	1	0	204
17:45	3	82	0	0	0	85	0	96	0	0	0	96	0	0	1	0	0	1	0	0	182
Hourly Total	7	447	0	0	1	454	0	372	1	0	2	373	0	0	4	0	1	4	2	0	831
Grand Total	42	2830	0	0	2	2872	0	3358	14	0	18	3372	32	0	31	0	20	63	58	0	6307
Total %	0.7	44.9	0.0	0.0	-	45.5	0.0	53.2	0.2	0.0	-	53.5	0.5	0.0	0.5	0.0	-	1.0	-	0.0	-

Florida Transportation Engineering, Inc.
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8250 Pascal Dr
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(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Promenades Driveway
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (9:00)

Start Time	Olean Blvd Eastbound						Olean Blvd Westbound						Promenades Driveway Northbound						Southbound Approach Southbound		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Int. Total
9:00	2	84	0	0	0	86	0	135	0	0	2	135	2	0	0	0	0	2	2	0	223
9:15	2	57	0	0	0	59	0	119	0	0	1	119	3	0	3	0	1	6	2	0	184
9:30	1	65	0	0	0	66	0	117	0	0	2	117	1	0	0	0	2	1	0	0	184
9:45	1	76	0	0	0	77	0	121	2	0	0	123	0	0	1	0	1	1	1	0	201
Total	6	282	0	0	0	288	0	492	2	0	5	494	6	0	4	0	4	10	5	0	792
Total %	0.8	35.6	0.0	0.0	-	36.4	0.0	62.1	0.3	0.0	-	62.4	0.8	0.0	0.5	0.0	-	1.3	-	0.0	-
PHF	0.750	0.839	0.000	0.000	-	0.837	0.000	0.911	0.250	0.000	-	0.915	0.500	0.000	0.333	0.000	-	0.417	-	0.000	0.888

Florida Transportation Engineering, Inc.
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(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Promenades Driveway
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (11:00)

Start Time	Olean Blvd Eastbound						Olean Blvd Westbound						Promenades Driveway Northbound						Southbound Approach Southbound		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Int. Total
11:00	1	109	0	0	0	110	0	125	0	0	1	125	0	0	1	0	1	1	2	0	236
11:15	2	103	0	0	1	105	0	117	0	0	0	117	0	0	0	0	1	0	2	0	222
11:30	0	93	0	0	0	93	0	108	0	0	0	108	0	0	2	0	0	2	4	0	203
11:45	0	114	0	0	0	114	0	116	1	0	0	117	0	0	3	0	0	3	1	0	234
Total	3	419	0	0	1	422	0	466	1	0	1	467	0	0	6	0	2	6	9	0	895
Total %	0.3	46.8	0.0	0.0	-	47.2	0.0	52.1	0.1	0.0	-	52.2	0.0	0.0	0.7	0.0	-	0.7	-	0.0	-
PHF	0.375	0.919	0.000	0.000	-	0.925	0.000	0.932	0.250	0.000	-	0.934	0.000	0.000	0.500	0.000	-	0.500	-	0.000	0.948

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Count Name: Olean Blvd at Promenades Driveway
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (16:00)

Start Time	Olean Blvd Eastbound						Olean Blvd Westbound						Promenades Driveway Northbound						Southbound Approach Southbound		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Int. Total
16:00	1	130	0	0	0	131	0	90	1	0	0	91	2	0	0	0	1	2	2	0	224
16:15	1	129	0	0	0	130	0	91	1	0	1	92	0	0	1	0	3	1	0	0	223
16:30	2	103	0	0	0	105	0	110	0	0	0	110	2	0	0	0	1	2	0	0	217
16:45	1	116	0	0	0	117	0	96	0	0	0	96	2	0	1	0	0	3	1	0	216
Total	5	478	0	0	0	483	0	387	2	0	1	389	6	0	2	0	5	8	3	0	880
Total %	0.6	54.3	0.0	0.0	-	54.9	0.0	44.0	0.2	0.0	-	44.2	0.7	0.0	0.2	0.0	-	0.9	-	0.0	-
PHF	0.625	0.919	0.000	0.000	-	0.922	0.000	0.880	0.500	0.000	-	0.884	0.750	0.000	0.500	0.000	-	0.667	-	0.000	0.982

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Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Data

Start Time	Bayfront Medical Center (South Driveway) Southbound					Olean Blvd Westbound					Olean Blvd Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:00	2	0	0	1	2	3	71	0	0	74	33	1	0	0	34	110
7:15	6	0	0	1	6	2	80	0	0	82	45	0	0	1	45	133
7:30	3	0	0	1	3	0	92	0	0	92	47	1	0	0	48	143
7:45	1	1	0	2	2	0	125	0	0	125	62	0	0	0	62	189
Hourly Total	12	1	0	5	13	5	368	0	0	373	187	2	0	1	189	575
8:00	3	0	0	3	3	1	86	0	0	87	63	0	0	1	63	153
8:15	1	0	0	0	1	2	94	0	1	96	56	1	0	0	57	154
8:30	1	1	0	3	2	2	125	0	0	127	53	1	0	1	54	183
8:45	0	1	0	2	1	0	116	0	0	116	66	1	0	0	67	184
Hourly Total	5	2	0	8	7	5	421	0	1	426	238	3	0	2	241	674
9:00	4	0	0	2	4	1	130	0	0	131	82	1	0	1	83	218
9:15	3	2	0	5	5	1	117	0	0	118	63	0	0	1	63	186
9:30	1	3	0	2	4	2	117	0	0	119	66	0	0	0	66	189
9:45	0	0	0	1	0	0	122	0	0	122	74	0	0	0	74	196
Hourly Total	8	5	0	10	13	4	486	0	0	490	285	1	0	2	286	789
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	2	4	0	1	6	0	121	0	0	121	106	1	0	0	107	234
11:15	1	2	0	2	3	1	115	0	0	116	104	0	0	0	104	223
11:30	3	2	0	4	5	2	108	0	0	110	95	0	0	0	95	210
11:45	3	4	0	2	7	1	110	0	0	111	109	1	0	0	110	228
Hourly Total	9	12	0	9	21	4	454	0	0	458	414	2	0	0	416	895
12:00	2	2	0	2	4	0	96	0	0	96	95	2	0	0	97	197
12:15	5	1	0	4	6	0	87	0	0	87	91	0	0	0	91	184
12:30	3	3	0	5	6	0	108	0	0	108	116	0	0	2	116	230
12:45	2	1	0	1	3	0	113	0	0	113	77	1	0	0	78	194
Hourly Total	12	7	0	12	19	0	404	0	0	404	379	3	0	2	382	805
13:00	7	0	0	1	7	0	110	0	0	110	92	1	0	0	93	210
13:15	1	1	0	5	2	1	105	0	0	106	94	2	0	0	96	204
13:30	3	2	0	4	5	1	97	0	0	98	113	1	0	0	114	217
13:45	1	2	0	3	3	1	110	0	0	111	116	0	0	0	116	230
Hourly Total	12	5	0	13	17	3	422	0	0	425	415	4	0	0	419	861
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	1	1	0	2	2	0	85	0	0	85	134	0	0	0	134	221
16:15	1	2	0	1	3	1	92	0	0	93	131	0	0	1	131	227
16:30	4	2	0	0	6	1	110	0	0	111	102	0	0	0	102	219
16:45	0	1	0	1	1	1	95	0	0	96	119	0	0	0	119	216
Hourly Total	6	6	0	4	12	3	382	0	0	385	486	0	0	1	486	883
17:00	0	1	0	1	1	1	80	0	0	81	133	1	0	0	134	216

17:15	2	0	0	2	2	1	95	0	0	96	125	0	0	0	125	223
17:30	2	1	0	1	3	0	93	0	0	93	105	0	0	0	105	201
17:45	1	0	0	1	1	0	99	0	0	99	83	0	0	0	83	183
Hourly Total	5	2	0	5	7	2	367	0	0	369	446	1	0	0	447	823
Grand Total	69	40	0	66	109	26	3304	0	1	3330	2850	16	0	8	2866	6305
Approach %	63.3	36.7	0.0	-	-	0.8	99.2	0.0	-	-	99.4	0.6	0.0	-	-	-
Total %	1.1	0.6	0.0	-	1.7	0.4	52.4	0.0	-	52.8	45.2	0.3	0.0	-	45.5	-
Lights	68	39	0	-	107	26	3264	0	-	3290	2781	16	0	-	2797	6194
% Lights	98.6	97.5	-	-	98.2	100.0	98.8	-	-	98.8	97.6	100.0	-	-	97.6	98.2
Other Vehicles	1	1	0	-	2	0	40	0	-	40	69	0	0	-	69	111
% Other Vehicles	1.4	2.5	-	-	1.8	0.0	1.2	-	-	1.2	2.4	0.0	-	-	2.4	1.8
Bicycles on Crosswalk	-	-	-	32	-	-	-	-	0	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	48.5	-	-	-	-	0.0	-	-	-	-	25.0	-	-
Pedestrians	-	-	-	34	-	-	-	-	1	-	-	-	-	6	-	-
% Pedestrians	-	-	-	51.5	-	-	-	-	100.0	-	-	-	-	75.0	-	-

Florida Transportation Engineering, Inc.
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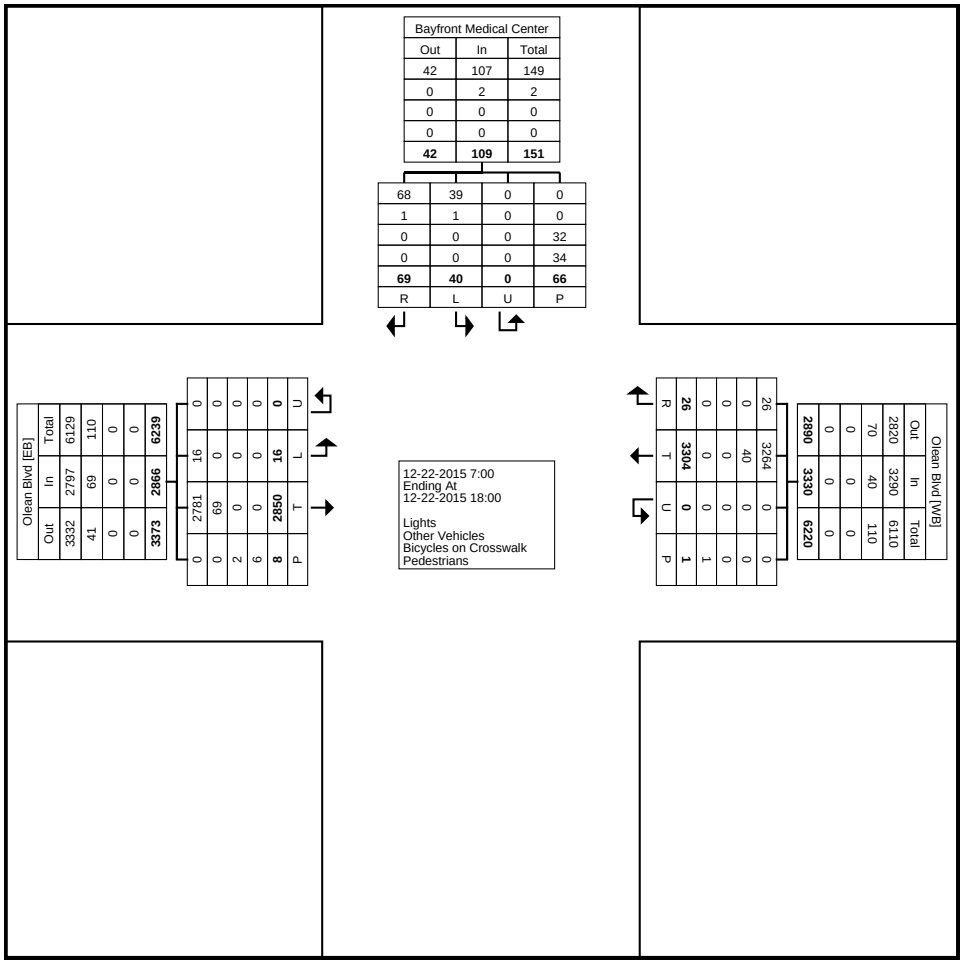
Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015
Page No: 3



Turning Movement Data Plot

Florida Transportation Engineering, Inc.
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Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (9:00)

Start Time	Bayfront Medical Center (South Driveway) Southbound					Olean Blvd Westbound					Olean Blvd Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
9:00	4	0	0	2	4	1	130	0	0	131	82	1	0	1	83	218
9:15	3	2	0	5	5	1	117	0	0	118	63	0	0	1	63	186
9:30	1	3	0	2	4	2	117	0	0	119	66	0	0	0	66	189
9:45	0	0	0	1	0	0	122	0	0	122	74	0	0	0	74	196
Total	8	5	0	10	13	4	486	0	0	490	285	1	0	2	286	789
Approach %	61.5	38.5	0.0	-	-	0.8	99.2	0.0	-	-	99.7	0.3	0.0	-	-	-
Total %	1.0	0.6	0.0	-	1.6	0.5	61.6	0.0	-	62.1	36.1	0.1	0.0	-	36.2	-
PHF	0.500	0.417	0.000	-	0.650	0.500	0.935	0.000	-	0.935	0.869	0.250	0.000	-	0.861	0.905
Lights	8	4	0	-	12	4	481	0	-	485	277	1	0	-	278	775
% Lights	100.0	80.0	-	-	92.3	100.0	99.0	-	-	99.0	97.2	100.0	-	-	97.2	98.2
Other Vehicles	0	1	0	-	1	0	5	0	-	5	8	0	0	-	8	14
% Other Vehicles	0.0	20.0	-	-	7.7	0.0	1.0	-	-	1.0	2.8	0.0	-	-	2.8	1.8
Bicycles on Crosswalk	-	-	-	7	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	70.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	30.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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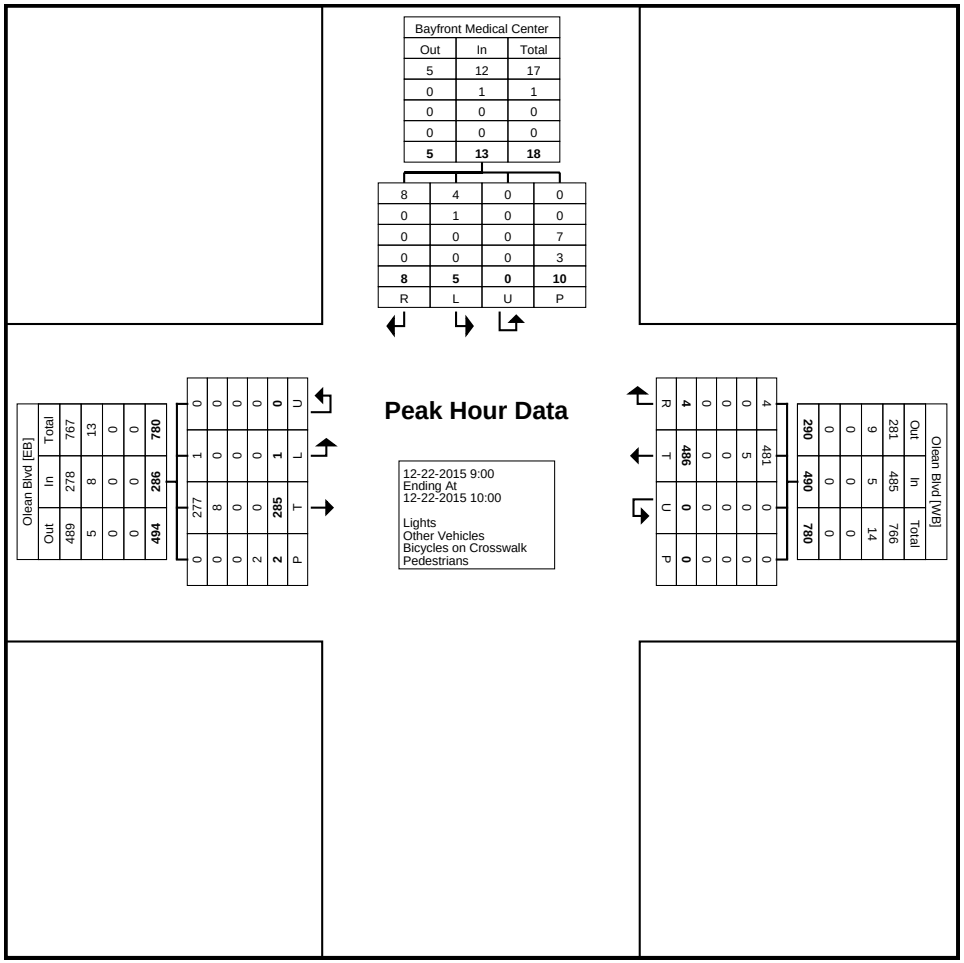
Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015
Page No: 5



Turning Movement Peak Hour Data Plot (9:00)

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (11:00)

Start Time	Bayfront Medical Center (South Driveway) Southbound					Olean Blvd Westbound					Olean Blvd Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
11:00	2	4	0	1	6	0	121	0	0	121	106	1	0	0	107	234
11:15	1	2	0	2	3	1	115	0	0	116	104	0	0	0	104	223
11:30	3	2	0	4	5	2	108	0	0	110	95	0	0	0	95	210
11:45	3	4	0	2	7	1	110	0	0	111	109	1	0	0	110	228
Total	9	12	0	9	21	4	454	0	0	458	414	2	0	0	416	895
Approach %	42.9	57.1	0.0	-	-	0.9	99.1	0.0	-	-	99.5	0.5	0.0	-	-	-
Total %	1.0	1.3	0.0	-	2.3	0.4	50.7	0.0	-	51.2	46.3	0.2	0.0	-	46.5	-
PHF	0.750	0.750	0.000	-	0.750	0.500	0.938	0.000	-	0.946	0.950	0.500	0.000	-	0.945	0.956
Lights	9	12	0	-	21	4	446	0	-	450	408	2	0	-	410	881
% Lights	100.0	100.0	-	-	100.0	100.0	98.2	-	-	98.3	98.6	100.0	-	-	98.6	98.4
Other Vehicles	0	0	0	-	0	0	8	0	-	8	6	0	0	-	6	14
% Other Vehicles	0.0	0.0	-	-	0.0	0.0	1.8	-	-	1.7	1.4	0.0	-	-	1.4	1.6
Bicycles on Crosswalk	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	44.4	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	55.6	-	-	-	-	-	-	-	-	-	-	-	-

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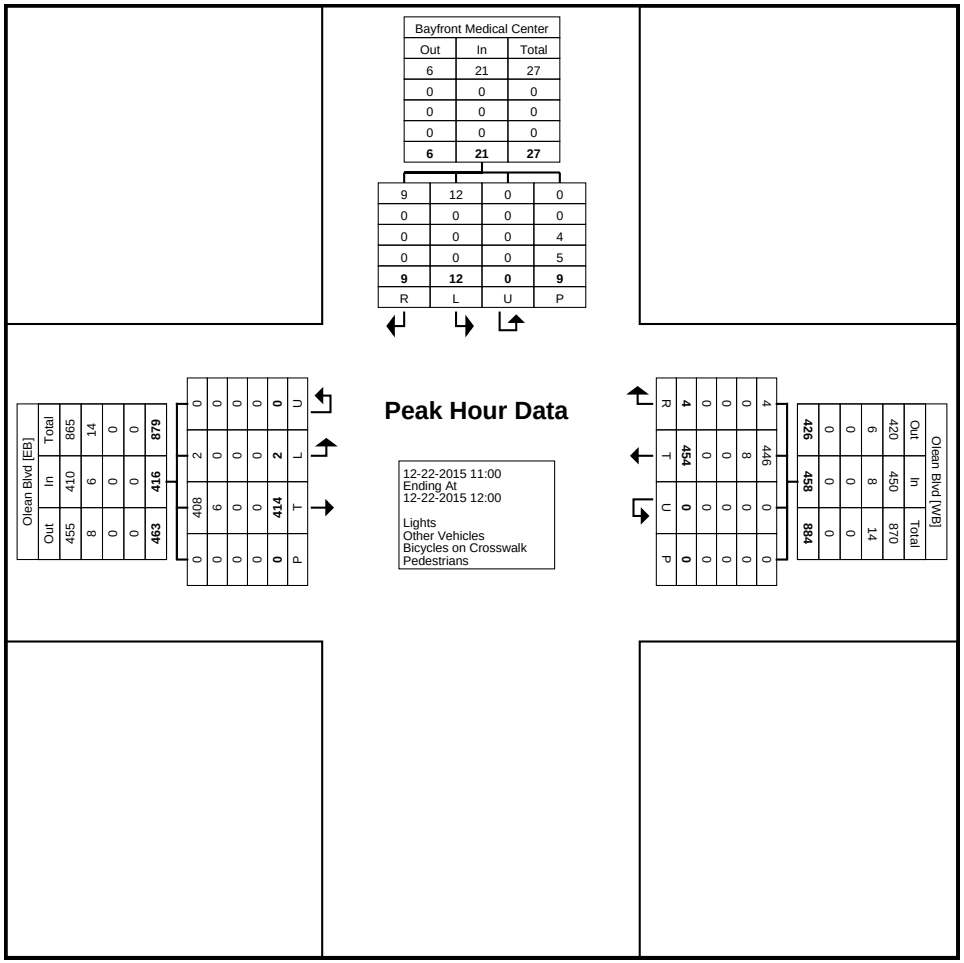
Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015



Turning Movement Peak Hour Data Plot (11:00)

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Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (13:00)

Start Time	Bayfront Medical Center (South Driveway) Southbound					Olean Blvd Westbound					Olean Blvd Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
13:00	7	0	0	1	7	0	110	0	0	110	92	1	0	0	93	210
13:15	1	1	0	5	2	1	105	0	0	106	94	2	0	0	96	204
13:30	3	2	0	4	5	1	97	0	0	98	113	1	0	0	114	217
13:45	1	2	0	3	3	1	110	0	0	111	116	0	0	0	116	230
Total	12	5	0	13	17	3	422	0	0	425	415	4	0	0	419	861
Approach %	70.6	29.4	0.0	-	-	0.7	99.3	0.0	-	-	99.0	1.0	0.0	-	-	-
Total %	1.4	0.6	0.0	-	2.0	0.3	49.0	0.0	-	49.4	48.2	0.5	0.0	-	48.7	-
PHF	0.429	0.625	0.000	-	0.607	0.750	0.959	0.000	-	0.957	0.894	0.500	0.000	-	0.903	0.936
Lights	12	5	0	-	17	3	416	0	-	419	399	4	0	-	403	839
% Lights	100.0	100.0	-	-	100.0	100.0	98.6	-	-	98.6	96.1	100.0	-	-	96.2	97.4
Other Vehicles	0	0	0	-	0	0	6	0	-	6	16	0	0	-	16	22
% Other Vehicles	0.0	0.0	-	-	0.0	0.0	1.4	-	-	1.4	3.9	0.0	-	-	3.8	2.6
Bicycles on Crosswalk	-	-	-	8	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	61.5	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	38.5	-	-	-	-	-	-	-	-	-	-	-	-

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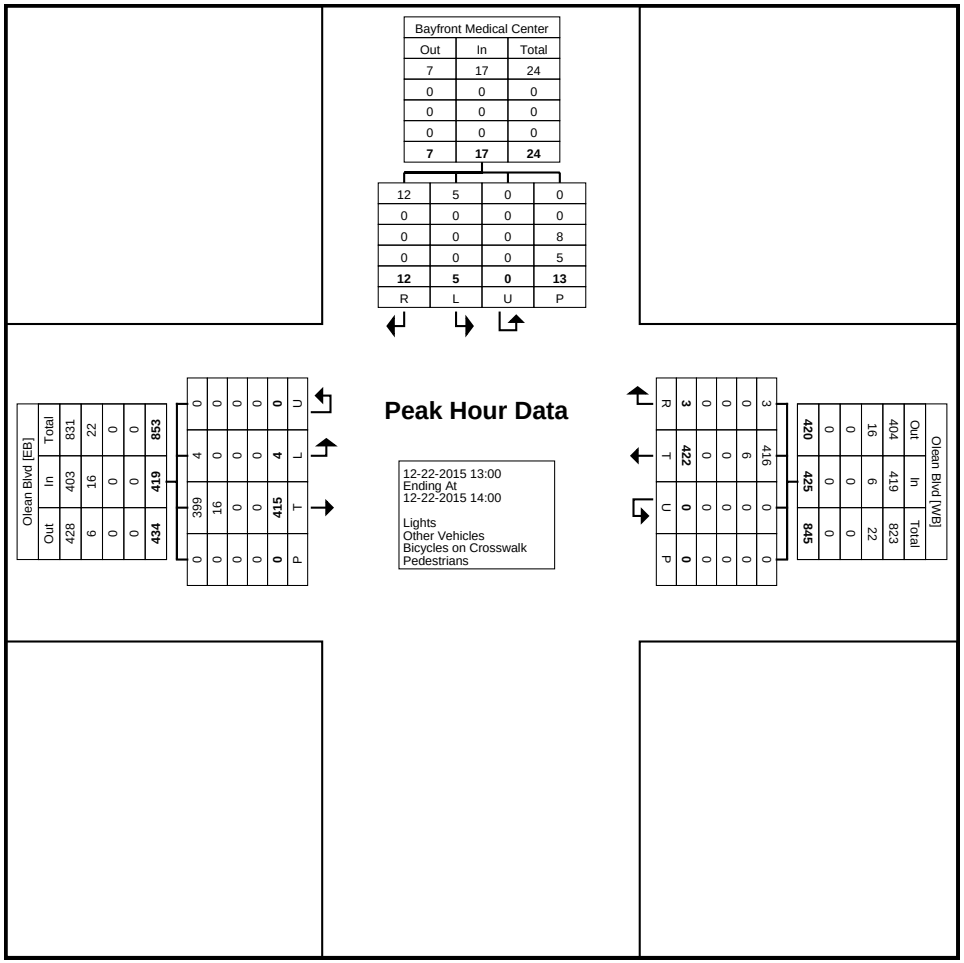
Site Code:
Start Date: 12-22-2015



Turning Movement Peak Hour Data Plot (13:00)

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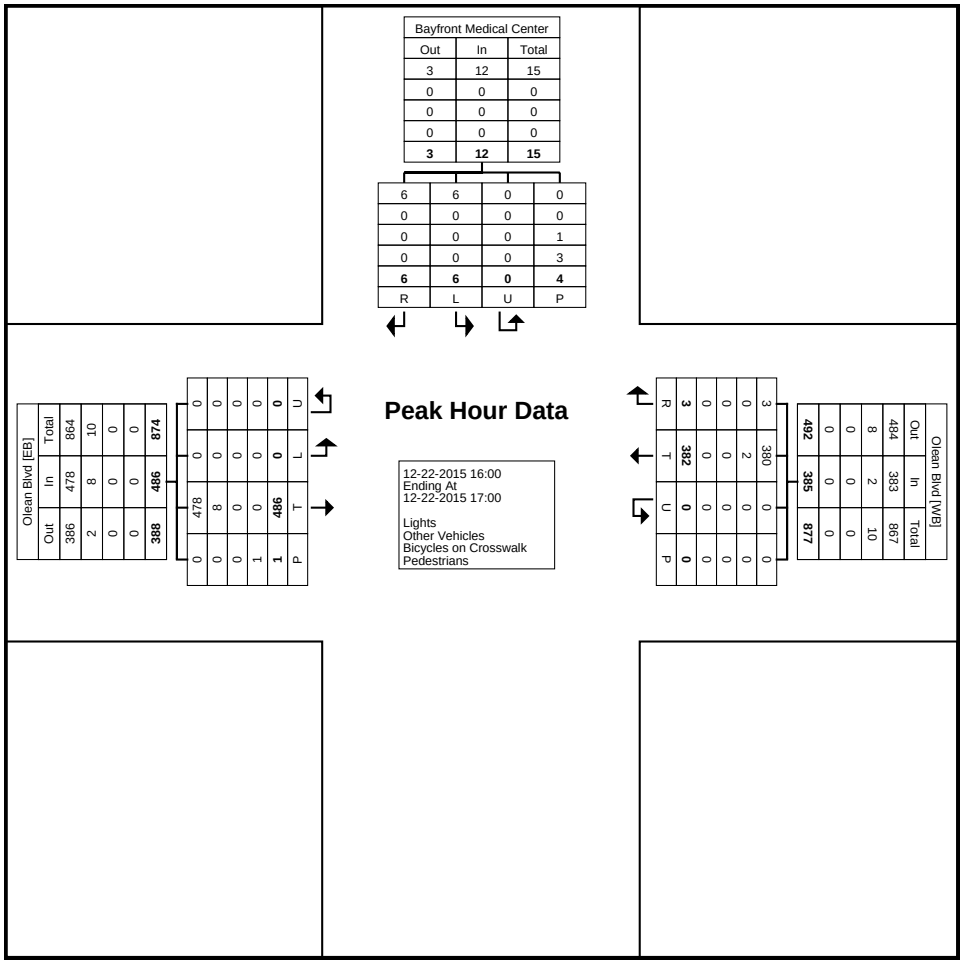
Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (16:00)

Start Time	Bayfront Medical Center (South Driveway) Southbound					Olean Blvd Westbound					Olean Blvd Eastbound					
	Right	Left	U-Turn	Peds	App. Total	Right	Thru	U-Turn	Peds	App. Total	Thru	Left	U-Turn	Peds	App. Total	Int. Total
16:00	1	1	0	2	2	0	85	0	0	85	134	0	0	0	134	221
16:15	1	2	0	1	3	1	92	0	0	93	131	0	0	1	131	227
16:30	4	2	0	0	6	1	110	0	0	111	102	0	0	0	102	219
16:45	0	1	0	1	1	1	95	0	0	96	119	0	0	0	119	216
Total	6	6	0	4	12	3	382	0	0	385	486	0	0	1	486	883
Approach %	50.0	50.0	0.0	-	-	0.8	99.2	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	0.7	0.7	0.0	-	1.4	0.3	43.3	0.0	-	43.6	55.0	0.0	0.0	-	55.0	-
PHF	0.375	0.750	0.000	-	0.500	0.750	0.868	0.000	-	0.867	0.907	0.000	0.000	-	0.907	0.972
Lights	6	6	0	-	12	3	380	0	-	383	478	0	0	-	478	873
% Lights	100.0	100.0	-	-	100.0	100.0	99.5	-	-	99.5	98.4	-	-	-	98.4	98.9
Other Vehicles	0	0	0	-	0	0	2	0	-	2	8	0	0	-	8	10
% Other Vehicles	0.0	0.0	-	-	0.0	0.0	0.5	-	-	0.5	1.6	-	-	-	1.6	1.1
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	25.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	75.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Bayfront Medical Center (South Driveway)
Site Code:
Start Date: 12-22-2015



Turning Movement Peak Hour Data Plot (16:00)

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Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Data

Start Time	Bayfront Medical Center (North Driveway) Southbound						Olean Blvd Westbound						Northbound Approach Northbound		Olean Blvd Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
7:00	4	0	4	0	1	8	6	70	0	0	0	76	0	0	0	32	1	0	0	33	117
7:15	3	0	6	0	1	9	4	80	0	0	0	84	0	0	0	41	4	0	0	45	138
7:30	0	0	3	0	1	3	2	92	0	0	0	94	0	0	0	43	2	0	0	45	142
7:45	0	0	1	0	2	1	7	124	0	0	0	131	1	0	0	59	1	0	0	60	192
Hourly Total	7	0	14	0	5	21	19	366	0	0	0	385	1	0	0	175	8	0	0	183	589
8:00	1	0	4	0	4	5	5	86	0	0	0	91	0	0	0	63	2	0	0	65	161
8:15	2	0	0	0	1	2	4	94	0	0	1	98	0	0	0	55	4	0	0	59	159
8:30	3	0	2	0	3	5	5	124	0	0	0	129	0	0	0	48	2	0	0	50	184
8:45	1	0	1	0	1	2	5	114	0	0	1	119	0	0	0	65	5	0	0	70	191
Hourly Total	7	0	7	0	9	14	19	418	0	0	2	437	0	0	0	231	13	0	0	244	695
9:00	3	0	0	0	2	3	8	128	0	0	0	136	0	0	0	81	1	0	0	82	221
9:15	5	0	2	0	3	7	1	113	0	0	0	114	0	0	0	62	3	0	0	65	186
9:30	1	0	2	0	2	3	0	117	0	0	0	117	0	0	0	66	3	0	0	69	189
9:45	2	0	2	0	1	4	3	119	0	0	0	122	0	0	0	71	5	0	0	76	202
Hourly Total	11	0	6	0	8	17	12	477	0	0	0	489	0	0	0	280	12	0	0	292	798
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00	2	0	1	0	2	3	2	120	0	0	0	122	0	0	0	108	4	0	0	112	237
11:15	2	0	1	0	1	3	0	114	0	0	1	114	0	0	0	103	1	0	0	104	221
11:30	1	0	3	0	4	4	0	109	0	0	0	109	0	0	0	96	0	0	0	96	209
11:45	7	0	2	0	2	9	2	104	0	0	0	106	0	0	0	113	1	0	0	114	229
Hourly Total	12	0	7	0	9	19	4	447	0	0	1	451	0	0	0	420	6	0	0	426	896
12:00	3	0	4	0	4	7	2	93	0	0	0	95	0	0	0	92	4	0	0	96	198
12:15	2	0	2	0	4	4	3	86	0	0	1	89	1	0	0	88	5	0	0	93	186
12:30	4	0	1	0	5	5	1	104	0	0	0	105	0	0	1	113	4	0	0	118	228
12:45	5	0	3	0	3	8	2	107	0	0	2	109	0	0	0	76	2	0	0	78	195
Hourly Total	14	0	10	0	16	24	8	390	0	0	3	398	1	0	1	369	15	0	0	385	807
13:00	2	0	5	0	0	7	1	109	0	0	6	110	0	0	0	93	2	0	2	95	212
13:15	1	0	3	0	3	4	1	105	0	0	0	106	0	0	0	96	1	0	0	97	207
13:30	4	0	3	0	5	7	2	98	0	0	0	100	0	0	0	109	4	0	0	113	220
13:45	3	0	4	0	4	7	2	105	0	0	0	107	0	0	0	110	6	0	0	116	230
Hourly Total	10	0	15	0	12	25	6	417	0	0	6	423	0	0	0	408	13	0	2	421	869
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16:00	7	0	2	0	1	9	2	77	0	0	0	79	0	0	0	130	2	0	0	132	220
16:15	4	0	3	0	0	7	0	87	0	0	0	87	0	0	0	132	2	0	0	134	228
16:30	4	0	7	0	0	11	0	108	0	0	0	108	0	0	0	99	2	0	0	101	220
16:45	1	0	4	0	1	5	1	94	0	0	0	95	0	0	0	123	0	0	0	123	223
Hourly Total	16	0	16	0	2	32	3	366	0	0	0	369	0	0	0	484	6	0	0	490	891
17:00	10	0	4	0	1	14	1	72	0	0	0	73	0	0	0	133	0	0	0	133	220

17:15	8	0	6	0	5	14	2	86	0	0	0	88	0	0	0	124	0	0	0	124	226
17:30	7	0	2	0	2	9	1	86	0	0	0	87	0	0	0	105	2	0	0	107	203
17:45	1	0	1	0	2	2	0	97	0	0	0	97	0	0	0	82	0	0	0	82	181
Hourly Total	26	0	13	0	10	39	4	341	0	0	0	345	0	0	0	444	2	0	0	446	830
Grand Total	103	0	88	0	71	191	75	3222	0	0	12	3297	2	0	1	2811	75	0	2	2887	6375
Approach %	53.9	0.0	46.1	0.0	-	-	2.3	97.7	0.0	0.0	-	-	-	-	0.0	97.4	2.6	0.0	-	-	-
Total %	1.6	0.0	1.4	0.0	-	3.0	1.2	50.5	0.0	0.0	-	51.7	-	0.0	0.0	44.1	1.2	0.0	-	45.3	-
Lights	99	0	82	0	-	181	68	3184	0	0	-	3252	-	0	1	2751	63	0	-	2815	6248
% Lights	96.1	-	93.2	-	-	94.8	90.7	98.8	-	-	-	98.6	-	-	100.0	97.9	84.0	-	-	97.5	98.0
Other Vehicles	4	0	6	0	-	10	7	38	0	0	-	45	-	0	0	60	12	0	-	72	127
% Other Vehicles	3.9	-	6.8	-	-	5.2	9.3	1.2	-	-	-	1.4	-	-	0.0	2.1	16.0	-	-	2.5	2.0
Bicycles on Crosswalk	-	-	-	-	37	-	-	-	-	-	1	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	52.1	-	-	-	-	-	8.3	-	50.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	34	-	-	-	-	-	11	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	47.9	-	-	-	-	-	91.7	-	50.0	-	-	-	-	-	100.0	-	-

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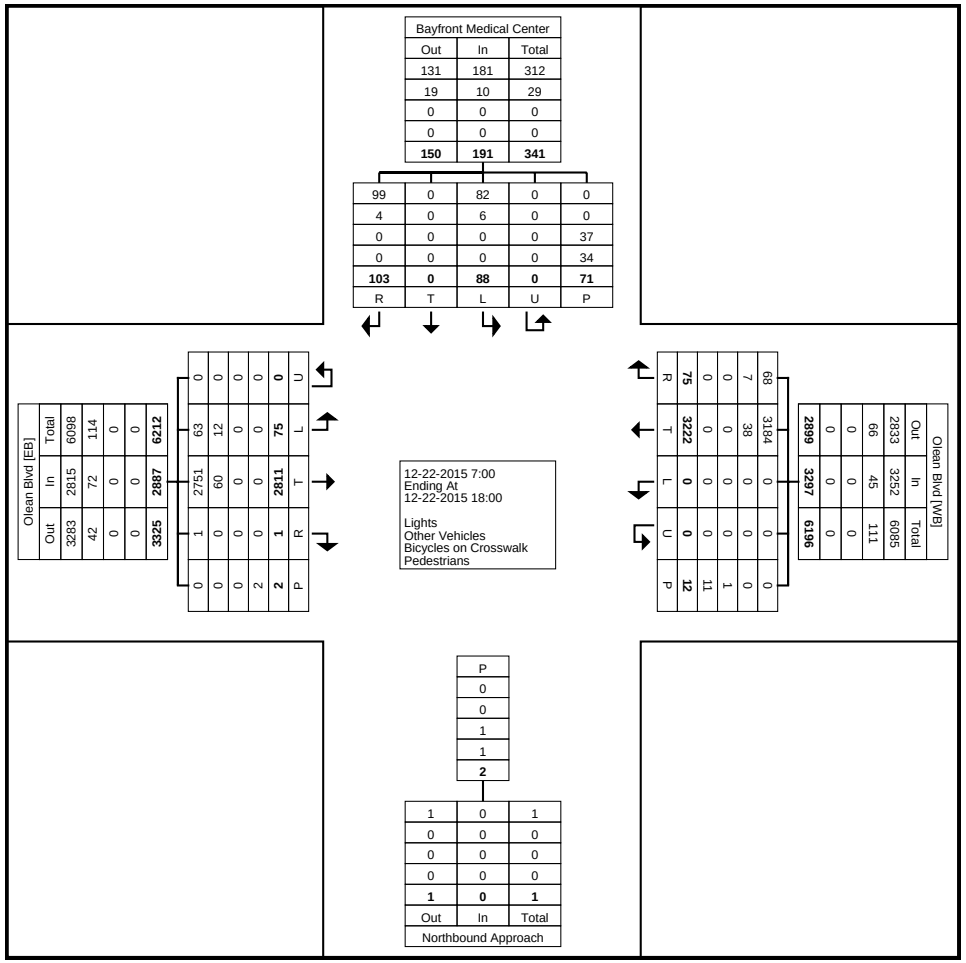
Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015



Turning Movement Data Plot

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Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (9:00)

Start Time	Bayfront Medical Center (North Driveway) Southbound						Olean Blvd Westbound						Northbound Approach Northbound		Olean Blvd Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
9:00	3	0	0	0	2	3	8	128	0	0	0	136	0	0	0	81	1	0	0	82	221
9:15	5	0	2	0	3	7	1	113	0	0	0	114	0	0	0	62	3	0	0	65	186
9:30	1	0	2	0	2	3	0	117	0	0	0	117	0	0	0	66	3	0	0	69	189
9:45	2	0	2	0	1	4	3	119	0	0	0	122	0	0	0	71	5	0	0	76	202
Total	11	0	6	0	8	17	12	477	0	0	0	489	0	0	0	280	12	0	0	292	798
Approach %	64.7	0.0	35.3	0.0	-	-	2.5	97.5	0.0	0.0	-	-	-	-	0.0	95.9	4.1	0.0	-	-	-
Total %	1.4	0.0	0.8	0.0	-	2.1	1.5	59.8	0.0	0.0	-	61.3	-	0.0	0.0	35.1	1.5	0.0	-	36.6	-
PHF	0.550	0.000	0.750	0.000	-	0.607	0.375	0.932	0.000	0.000	-	0.899	-	0.000	0.000	0.864	0.600	0.000	-	0.890	0.903
Lights	10	0	5	0	-	15	11	473	0	0	-	484	-	0	0	273	9	0	-	282	781
% Lights	90.9	-	83.3	-	-	88.2	91.7	99.2	-	-	-	99.0	-	-	-	97.5	75.0	-	-	96.6	97.9
Other Vehicles	1	0	1	0	-	2	1	4	0	0	-	5	-	0	0	7	3	0	-	10	17
% Other Vehicles	9.1	-	16.7	-	-	11.8	8.3	0.8	-	-	-	1.0	-	-	-	2.5	25.0	-	-	3.4	2.1
Bicycles on Crosswalk	-	-	-	-	7	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	87.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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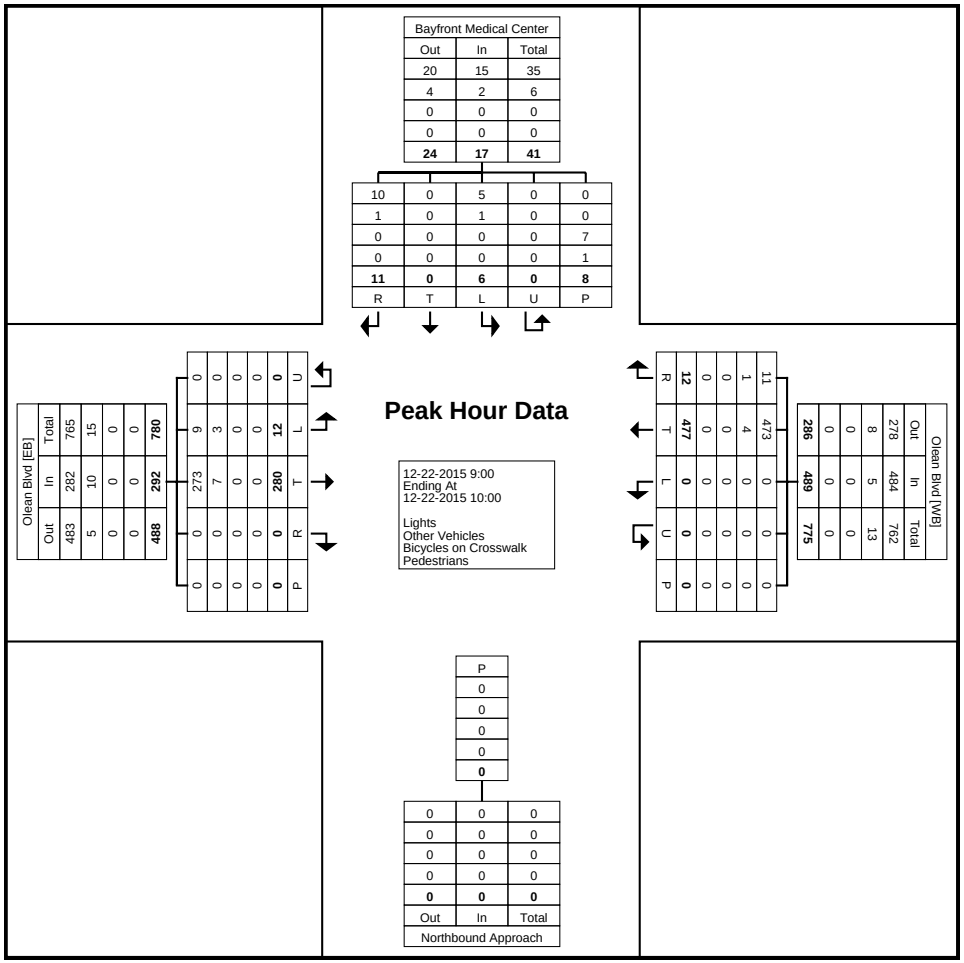

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Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (11:00)

Start Time	Bayfront Medical Center (North Driveway) Southbound						Olean Blvd Westbound						Northbound Approach Northbound		Olean Blvd Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
11:00	2	0	1	0	2	3	2	120	0	0	0	122	0	0	0	108	4	0	0	112	237
11:15	2	0	1	0	1	3	0	114	0	0	1	114	0	0	0	103	1	0	0	104	221
11:30	1	0	3	0	4	4	0	109	0	0	0	109	0	0	0	96	0	0	0	96	209
11:45	7	0	2	0	2	9	2	104	0	0	0	106	0	0	0	113	1	0	0	114	229
Total	12	0	7	0	9	19	4	447	0	0	1	451	0	0	0	420	6	0	0	426	896
Approach %	63.2	0.0	36.8	0.0	-	-	0.9	99.1	0.0	0.0	-	-	-	-	0.0	98.6	1.4	0.0	-	-	-
Total %	1.3	0.0	0.8	0.0	-	2.1	0.4	49.9	0.0	0.0	-	50.3	-	0.0	0.0	46.9	0.7	0.0	-	47.5	-
PHF	0.429	0.000	0.583	0.000	-	0.528	0.500	0.931	0.000	0.000	-	0.924	-	0.000	0.000	0.929	0.375	0.000	-	0.934	0.945
Lights	12	0	7	0	-	19	3	439	0	0	-	442	-	0	0	414	5	0	-	419	880
% Lights	100.0	-	100.0	-	-	100.0	75.0	98.2	-	-	-	98.0	-	-	-	98.6	83.3	-	-	98.4	98.2
Other Vehicles	0	0	0	0	-	0	1	8	0	0	-	9	-	0	0	6	1	0	-	7	16
% Other Vehicles	0.0	-	0.0	-	-	0.0	25.0	1.8	-	-	-	2.0	-	-	-	1.4	16.7	-	-	1.6	1.8
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	44.4	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	1	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	55.6	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-

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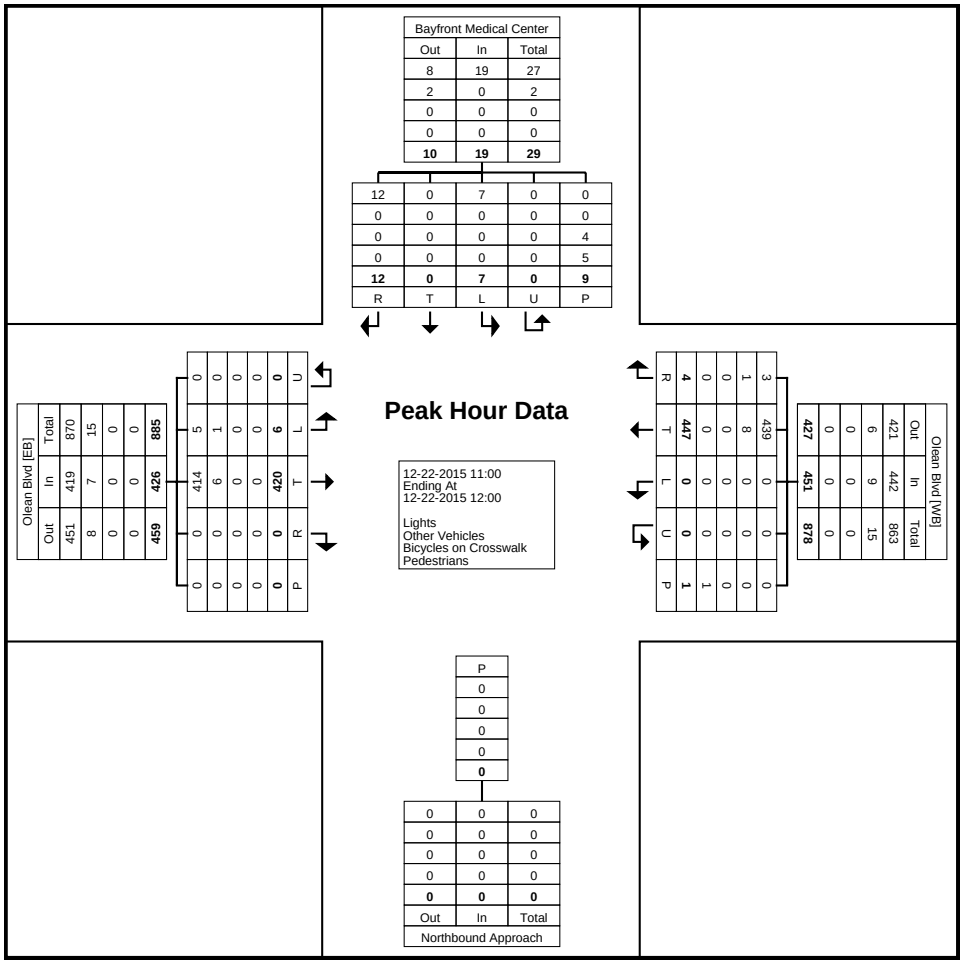

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Start Date: 12-22-2015

Turning Movement Peak Hour Data (13:00)

Start Time	Bayfront Medical Center (North Driveway) Southbound						Olean Blvd Westbound						Northbound Approach Northbound		Olean Blvd Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
13:00	2	0	5	0	0	7	1	109	0	0	6	110	0	0	0	93	2	0	2	95	212
13:15	1	0	3	0	3	4	1	105	0	0	0	106	0	0	0	96	1	0	0	97	207
13:30	4	0	3	0	5	7	2	98	0	0	0	100	0	0	0	109	4	0	0	113	220
13:45	3	0	4	0	4	7	2	105	0	0	0	107	0	0	0	110	6	0	0	116	230
Total	10	0	15	0	12	25	6	417	0	0	6	423	0	0	0	408	13	0	2	421	869
Approach %	40.0	0.0	60.0	0.0	-	-	1.4	98.6	0.0	0.0	-	-	-	-	0.0	96.9	3.1	0.0	-	-	-
Total %	1.2	0.0	1.7	0.0	-	2.9	0.7	48.0	0.0	0.0	-	48.7	-	0.0	0.0	47.0	1.5	0.0	-	48.4	-
PHF	0.625	0.000	0.750	0.000	-	0.893	0.750	0.956	0.000	0.000	-	0.961	-	0.000	0.000	0.927	0.542	0.000	-	0.907	0.945
Lights	10	0	12	0	-	22	3	411	0	0	-	414	-	0	0	394	11	0	-	405	841
% Lights	100.0	-	80.0	-	-	88.0	50.0	98.6	-	-	-	97.9	-	-	-	96.6	84.6	-	-	96.2	96.8
Other Vehicles	0	0	3	0	-	3	3	6	0	0	-	9	-	0	0	14	2	0	-	16	28
% Other Vehicles	0.0	-	20.0	-	-	12.0	50.0	1.4	-	-	-	2.1	-	-	-	3.4	15.4	-	-	3.8	3.2
Bicycles on Crosswalk	-	-	-	-	6	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	6	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-

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Site Code:
Start Date: 12-22-2015

Peak Hour Data

12-22-2015 13:00
Ending At
12-22-2015 14:00

Lights
Other Vehicles
Bicycles on Crosswalk
Pedestrians

Bayfront Medical Center

Out	In	Total
14	22	36
5	3	8
0	0	0
0	0	0
19	**25**	**44**

R	T	L	U	P
10	0	12	0	0
0	0	3	0	0
0	0	0	0	6
0	0	0	0	6
10	**0**	**15**	**0**	**12**

Olean Blvd [EB]

Out	In	Total
421	405	826
6	16	22
0	0	0
0	0	0
427	**421**	**848**

U	L	T	R	P
0	11	394	0	0
0	2	14	0	0
0	0	0	0	0
0	0	0	0	2
0	**13**	**408**	**0**	**2**

Olean Blvd [WB]

Out	In	Total
406	414	820
17	9	26
0	0	0
0	0	0
423	**423**	**846**

R	T	L	U	P
3	411	0	0	0
3	6	0	0	0
0	0	0	0	0
0	0	0	0	6
6	**417**	**0**	**0**	**6**

Northbound Approach

P
0
0
0
0
0

Out	In	Total
0	0	0
0	0	0
0	0	0
0	0	0
0	**0**	**0**

Turning Movement Peak Hour Data Plot (13:00)

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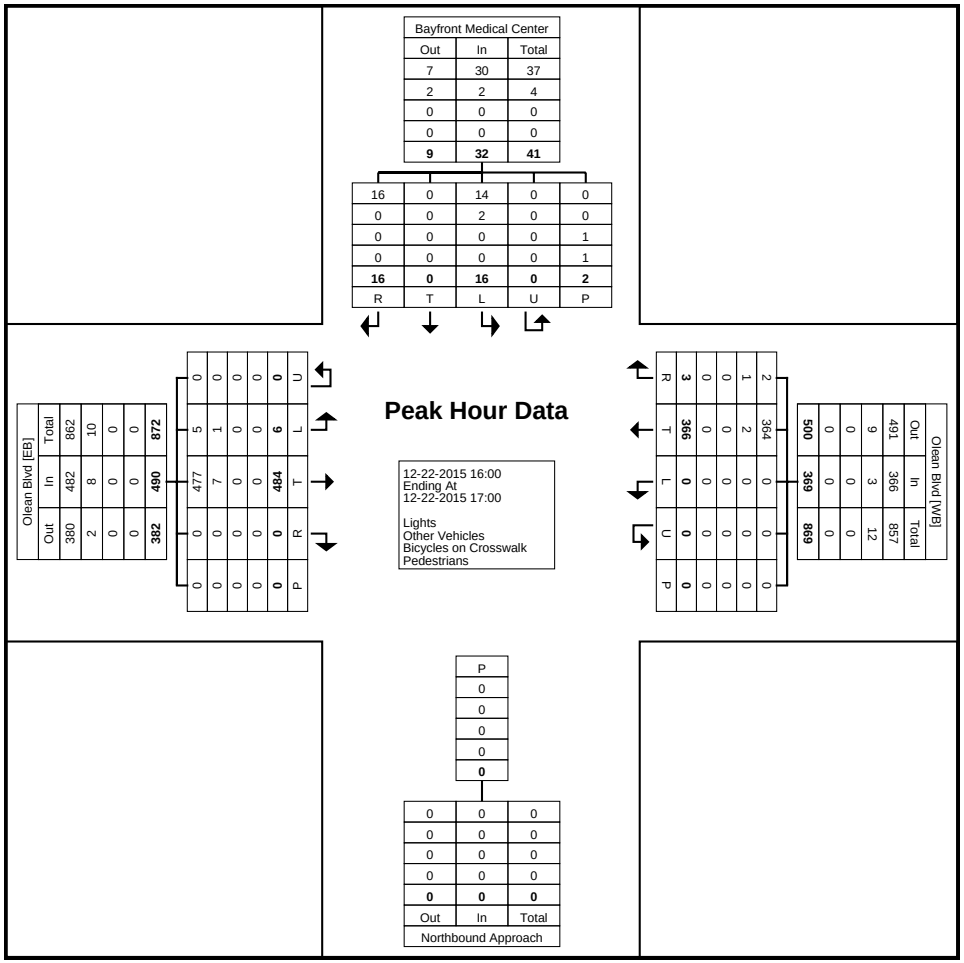
Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015

Turning Movement Peak Hour Data (16:00)

Start Time	Bayfront Medical Center (North Driveway) Southbound						Olean Blvd Westbound						Northbound Approach Northbound		Olean Blvd Eastbound						
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Int. Total
16:00	7	0	2	0	1	9	2	77	0	0	0	79	0	0	0	130	2	0	0	132	220
16:15	4	0	3	0	0	7	0	87	0	0	0	87	0	0	0	132	2	0	0	134	228
16:30	4	0	7	0	0	11	0	108	0	0	0	108	0	0	0	99	2	0	0	101	220
16:45	1	0	4	0	1	5	1	94	0	0	0	95	0	0	0	123	0	0	0	123	223
Total	16	0	16	0	2	32	3	366	0	0	0	369	0	0	0	484	6	0	0	490	891
Approach %	50.0	0.0	50.0	0.0	-	-	0.8	99.2	0.0	0.0	-	-	-	-	0.0	98.8	1.2	0.0	-	-	-
Total %	1.8	0.0	1.8	0.0	-	3.6	0.3	41.1	0.0	0.0	-	41.4	-	0.0	0.0	54.3	0.7	0.0	-	55.0	-
PHF	0.571	0.000	0.571	0.000	-	0.727	0.375	0.847	0.000	0.000	-	0.854	-	0.000	0.000	0.917	0.750	0.000	-	0.914	0.977
Lights	16	0	14	0	-	30	2	364	0	0	-	366	-	0	0	477	5	0	-	482	878
% Lights	100.0	-	87.5	-	-	93.8	66.7	99.5	-	-	-	99.2	-	-	-	98.6	83.3	-	-	98.4	98.5
Other Vehicles	0	0	2	0	-	2	1	2	0	0	-	3	-	0	0	7	1	0	-	8	13
% Other Vehicles	0.0	-	12.5	-	-	6.3	33.3	0.5	-	-	-	0.8	-	-	-	1.4	16.7	-	-	1.6	1.5
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015



Turning Movement Peak Hour Data Plot (16:00)

Florida Transportation Engineering, Inc.
(FTE)
8250 Pascal Dr
Punta Gorda, Florida, United States 33950
(800) 639 4851 ravi@fteinc.net

Count Name: Olean Blvd at Bayfront Medical Center (North Driveway)
Site Code:
Start Date: 12-22-2015

Appendix C

2015 Synchro Worksheets

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Phasings
3: US 41 & Olean Blvd

1/25/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	57	27	148	52	406	50	1829	91	301	1482	61
Satd. Flow (prot)	0	1816	1583	0	1796	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		0.975			0.964		0.950			0.950		
Satd. Flow (perm)	0	1816	1583	0	1796	1583	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			67			112			65
Lane Group Flow (vph)	0	130	29	0	218	441	54	1988	99	327	1611	66
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.3	27.9		23.7	45.5	7.9	85.1	115.6	21.1	101.2	115.9
Actuated g/C Ratio		0.08	0.16		0.14	0.27	0.05	0.50	0.68	0.12	0.60	0.68
v/c Ratio		0.92	0.08		0.87	0.93	0.66	0.78	0.09	0.77	0.53	0.06
Control Delay		131.3	0.4		102.6	66.2	113.6	37.9	1.3	84.3	21.7	1.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		131.3	0.4		102.6	66.2	113.6	37.9	1.3	84.3	21.7	1.3
LOS		F	A		F	E	F	D	A	F	C	A
Approach Delay		107.4			78.3			38.1			31.2	
Approach LOS		F			E			D			C	
Queue Length 50th (ft)		147	0		242	321	60	671	0	182	394	0
Queue Length 95th (ft)		#284	0		#396	#536	#130	731	16	240	436	11
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)							275		200	300		200
Base Capacity (vph)		142	354		250	489	85	2544	1111	464	3027	1100
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.92	0.08		0.87	0.90	0.64	0.78	0.09	0.70	0.53	0.06

Intersection Summary

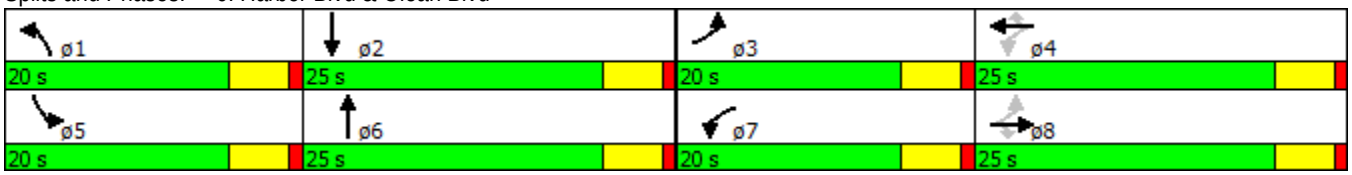
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 42.9 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	222	27	79	270	123	34	233	136	90	255	125
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3345	0	1770	3366	0
Flt Permitted	0.347			0.495			0.950			0.950		
Satd. Flow (perm)	646	1863	1583	922	1863	1583	1770	3345	0	1770	3366	0
Satd. Flow (RTOR)			145			145		121			86	
Lane Group Flow (vph)	115	241	29	86	293	134	37	401	0	98	413	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	23.8	17.0	17.0	22.5	16.4	16.4	10.8	21.6		11.6	25.4	
Actuated g/C Ratio	0.34	0.24	0.24	0.32	0.23	0.23	0.15	0.31		0.16	0.36	
v/c Ratio	0.32	0.54	0.06	0.22	0.68	0.28	0.14	0.36		0.34	0.33	
Control Delay	17.3	31.0	0.2	16.1	36.5	6.2	33.6	17.9		34.9	17.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.3	31.0	0.2	16.1	36.5	6.2	33.6	17.9		34.9	17.5	
LOS	B	C	A	B	D	A	C	B		C	B	
Approach Delay		24.6			25.1			19.2			20.9	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	33	100	0	25	127	0	16	55		43	65	
Queue Length 95th (ft)	69	184	0	55	230	38	47	109		94	115	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		630	280		280						
Base Capacity (vph)	516	578	591	561	567	583	404	1103		404	1260	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.22	0.42	0.05	0.15	0.52	0.23	0.09	0.36		0.24	0.33	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 70.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

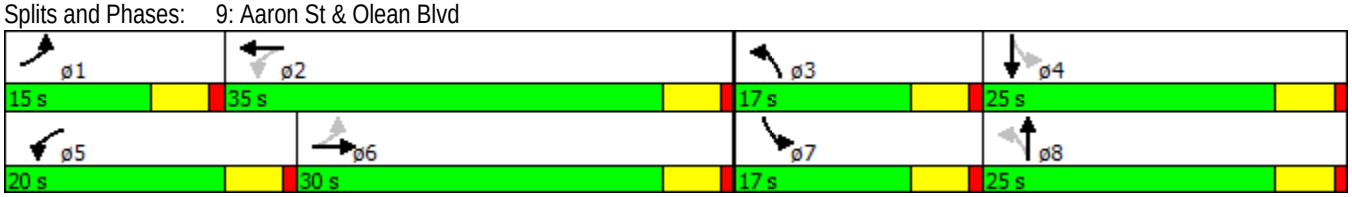
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	332	18	15	391	47	29	41	136	31	60	145
Satd. Flow (prot)	1770	1848	0	1770	1833	0	1770	1649	0	1770	1665	0
Flt Permitted	0.307			0.536			0.419			0.501		
Satd. Flow (perm)	572	1848	0	998	1833	0	780	1649	0	933	1665	0
Satd. Flow (RTOR)		3			7			148			122	
Lane Group Flow (vph)	101	381	0	16	476	0	32	193	0	34	223	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.7	39.2		36.4	31.1		14.5	12.0		14.6	12.0	
Actuated g/C Ratio	0.60	0.58		0.54	0.46		0.21	0.18		0.22	0.18	
v/c Ratio	0.21	0.36		0.03	0.56		0.12	0.47		0.12	0.56	
Control Delay	8.5	11.9		8.5	20.1		20.5	13.1		20.5	19.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.5	11.9		8.5	20.1		20.5	13.1		20.5	19.8	
LOS	A	B		A	C		C	B		C	B	
Approach Delay		11.2			19.7			14.2			19.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	11	47		2	117		11	15		11	35	
Queue Length 95th (ft)	50	238		13	330		30	77		31	115	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	528	1071		783	846		382	608		393	594	
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	0.19	0.36		0.02	0.56		0.08	0.32		0.09	0.38	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 67.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	12

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	292	119	110	471	26	79	20	136	57	28	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	150	-	-	150	-	-	110	-	-
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	24	317	129	120	512	28	86	22	148	62	30	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	-	317	0	0	1158	1144	317	1215	1130	526
Stage 1	-	-	-	-	-	-	365	365	-	765	765	-
Stage 2	-	-	-	-	-	-	793	779	-	450	365	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1028	-	0	1243	-	-	173	200	724	158	204	552
Stage 1	-	-	0	-	-	-	654	623	-	396	412	-
Stage 2	-	-	0	-	-	-	382	406	-	589	623	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1028	-	-	1243	-	-	131	176	724	104	180	552
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	176	-	104	180	-
Stage 1	-	-	-	-	-	-	639	608	-	387	372	-
Stage 2	-	-	-	-	-	-	302	367	-	441	608	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.5	35	53.2
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	131	517	1028	-	1243	-	-	104	261
HCM Lane V/C Ratio	0.655	0.328	0.023	-	0.096	-	-	0.596	0.217
HCM Control Delay (s)	73.8	15.3	8.6	-	8.2	-	-	81.1	22.6
HCM Lane LOS	F	C	A	-	A	-	-	F	C
HCM 95th %tile Q(veh)	3.5	1.4	0.1	-	0.3	-	-	2.9	0.8

Phasings
3: US 41 & Olean Blvd

1/25/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	47	13	93	38	343	35	1829	57	227	1827	40
Satd. Flow (prot)	0	1814	1583	0	1799	1583	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974			0.966		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1799	1583	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			67			112			65
Lane Group Flow (vph)	0	109	14	0	142	373	38	1988	62	247	1986	43
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		12.7	27.0		23.4	42.1	7.6	89.1	119.2	18.0	102.2	116.4
Actuated g/C Ratio		0.07	0.16		0.14	0.25	0.04	0.52	0.70	0.11	0.60	0.68
v/c Ratio		0.81	0.04		0.58	0.84	0.49	0.75	0.05	0.68	0.65	0.04
Control Delay		114.8	0.2		78.7	53.8	99.4	34.5	0.1	82.5	24.2	0.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		114.8	0.2		78.7	53.8	99.4	34.5	0.1	82.5	24.2	0.5
LOS		F	A		E	D	F	C	A	F	C	A
Approach Delay		101.8			60.7			34.7			30.1	
Approach LOS		F			E			C			C	
Queue Length 50th (ft)		121	0		150	263	42	625	0	139	545	0
Queue Length 95th (ft)		#226	0		230	352	87	731	0	183	594	4
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)							275		200	300		200
Base Capacity (vph)		141	342		250	489	85	2664	1146	464	3057	1097
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.77	0.04		0.57	0.76	0.45	0.75	0.05	0.53	0.65	0.04

Intersection Summary

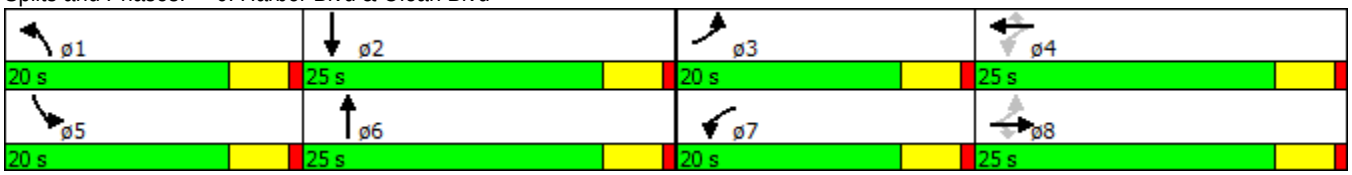
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 36.9 Intersection LOS: D
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	245	15	62	221	97	31	325	89	102	256	88
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3426	0	1770	3401	0
Flt Permitted	0.426			0.430			0.950			0.950		
Satd. Flow (perm)	794	1863	1583	801	1863	1583	1770	3426	0	1770	3401	0
Satd. Flow (RTOR)			145			145		36			49	
Lane Group Flow (vph)	107	266	16	67	240	105	34	450	0	111	374	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	22.5	15.9	15.9	20.9	15.1	15.1	10.8	21.5		11.8	28.4	
Actuated g/C Ratio	0.32	0.23	0.23	0.30	0.22	0.22	0.16	0.31		0.17	0.41	
v/c Ratio	0.28	0.63	0.03	0.19	0.60	0.23	0.12	0.42		0.37	0.26	
Control Delay	17.3	33.9	0.1	16.5	34.3	3.5	32.9	22.9		34.4	16.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.3	33.9	0.1	16.5	34.3	3.5	32.9	22.9		34.4	16.1	
LOS	B	C	A	B	C	A	C	C		C	B	
Approach Delay		28.0			23.6			23.6			20.3	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	31	111	0	19	100	0	14	80		47	41	
Queue Length 95th (ft)	67	203	0	46	190	21	44	152		103	112	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		630	280		280						
Base Capacity (vph)	535	584	596	533	576	589	410	1084		410	1419	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.20	0.46	0.03	0.13	0.42	0.18	0.08	0.42		0.27	0.26	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

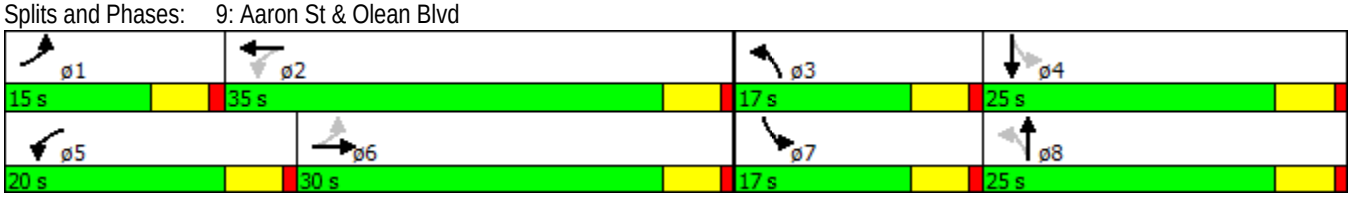
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	329	9	8	342	17	47	45	89	13	29	74
Satd. Flow (prot)	1770	1855	0	1770	1850	0	1770	1676	0	1770	1663	0
Flt Permitted	0.422			0.522			0.526			0.664		
Satd. Flow (perm)	786	1855	0	972	1850	0	980	1676	0	1237	1663	0
Satd. Flow (RTOR)		2			3			97			80	
Lane Group Flow (vph)	58	368	0	9	390	0	51	146	0	14	112	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	38.5	39.0		36.5	34.8		16.0	15.6		13.6	11.2	
Actuated g/C Ratio	0.62	0.62		0.58	0.56		0.26	0.25		0.22	0.18	
v/c Ratio	0.10	0.32		0.01	0.38		0.14	0.30		0.04	0.31	
Control Delay	7.9	11.6		7.9	16.0		19.7	12.3		18.9	15.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.9	11.6		7.9	16.0		19.7	12.3		18.9	15.1	
LOS	A	B		A	B		B	B		B	B	
Approach Delay		11.1			15.8			14.3			15.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	11	83		2	129		17	16		5	13	
Queue Length 95th (ft)	28	207		8	227		41	71		17	58	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	662	1161		821	1034		461	672		475	637	
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	0.09	0.32		0.01	0.38		0.11	0.22		0.03	0.18	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 62.4	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 48.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	27	258	80	91	387	20	58	36	89	26	22	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	150	-	-	150	-	-	110	-	-
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	29	280	87	99	421	22	63	39	97	28	24	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	442	0	-	280	0	0	1007	979	280	1036	968	432
Stage 1	-	-	-	-	-	-	339	339	-	629	629	-
Stage 2	-	-	-	-	-	-	668	640	-	407	339	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1118	-	0	1283	-	-	219	250	759	210	254	624
Stage 1	-	-	0	-	-	-	676	640	-	470	475	-
Stage 2	-	-	0	-	-	-	448	470	-	621	640	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1118	-	-	1283	-	-	170	225	759	147	228	624
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	225	-	147	228	-
Stage 1	-	-	-	-	-	-	658	623	-	458	438	-
Stage 2	-	-	-	-	-	-	357	434	-	495	623	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.5	23.3	21.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	170	451	1118	-	1283	-	-	147	406
HCM Lane V/C Ratio	0.371	0.301	0.026	-	0.077	-	-	0.192	0.19
HCM Control Delay (s)	38.2	16.4	8.3	-	8	-	-	35.2	15.9
HCM Lane LOS	E	C	A	-	A	-	-	E	C
HCM 95th %tile Q(veh)	1.6	1.3	0.1	-	0.2	-	-	0.7	0.7

Appendix D

Traffic Forecast and FDOT Trend Analysis

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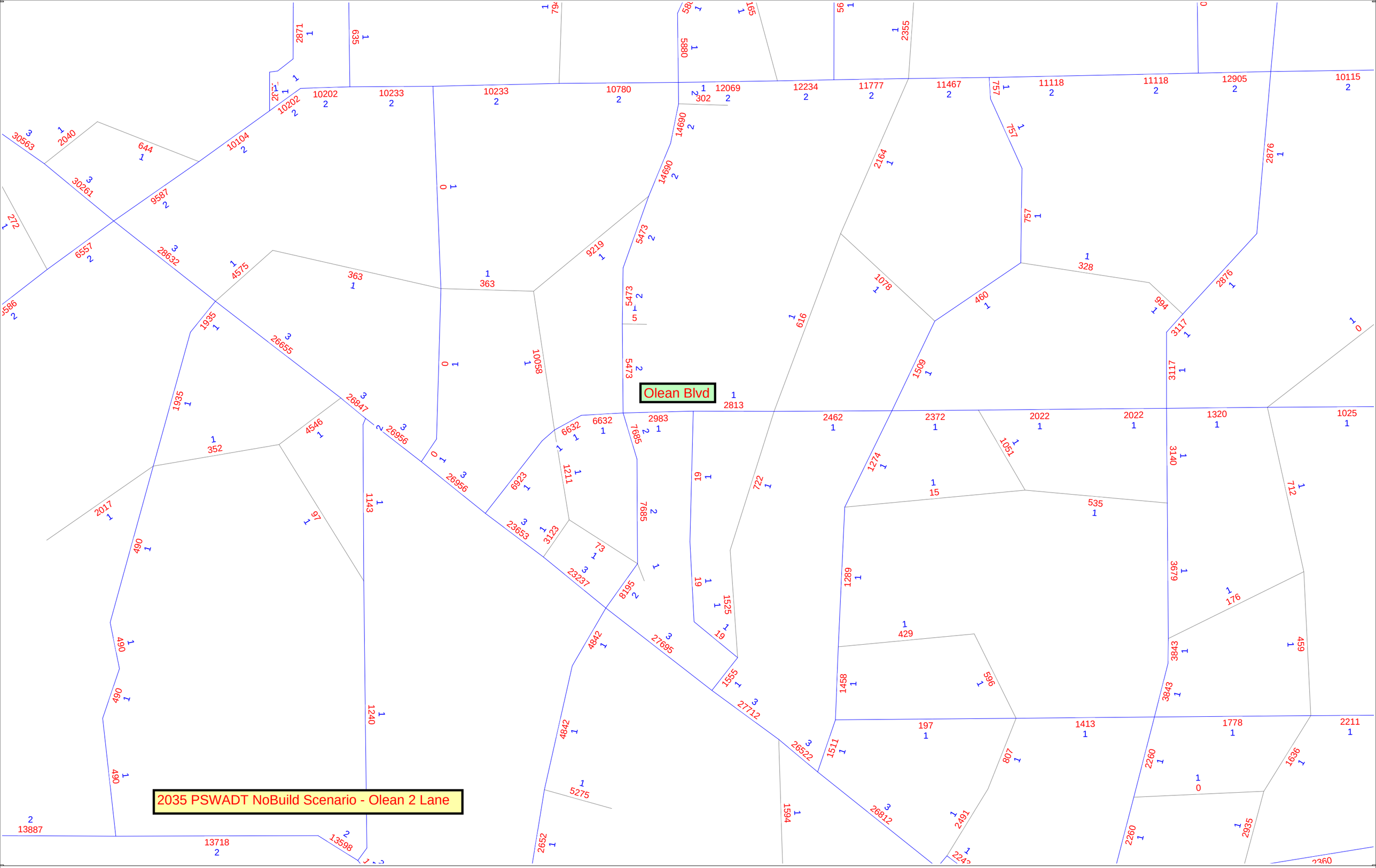

cube
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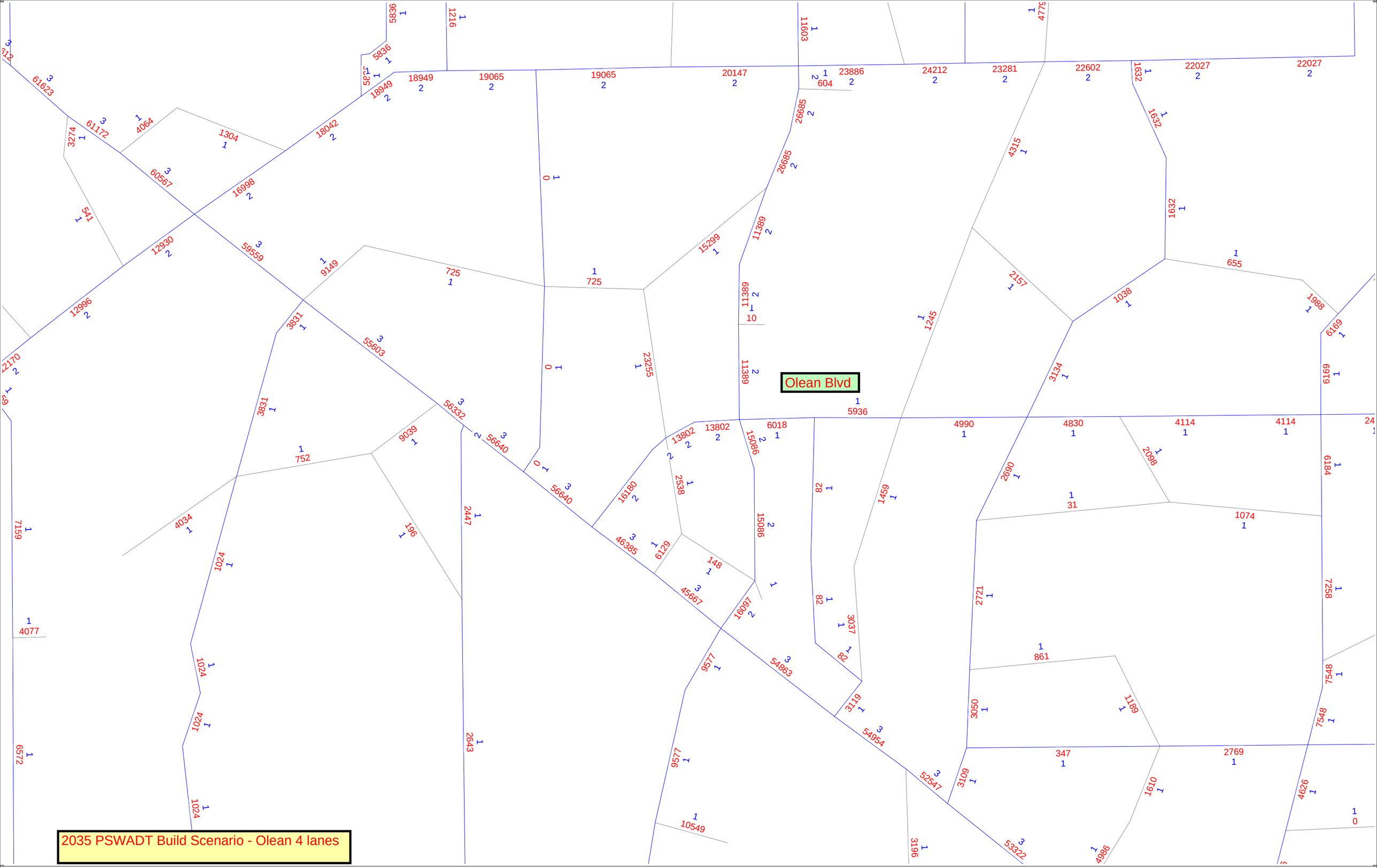


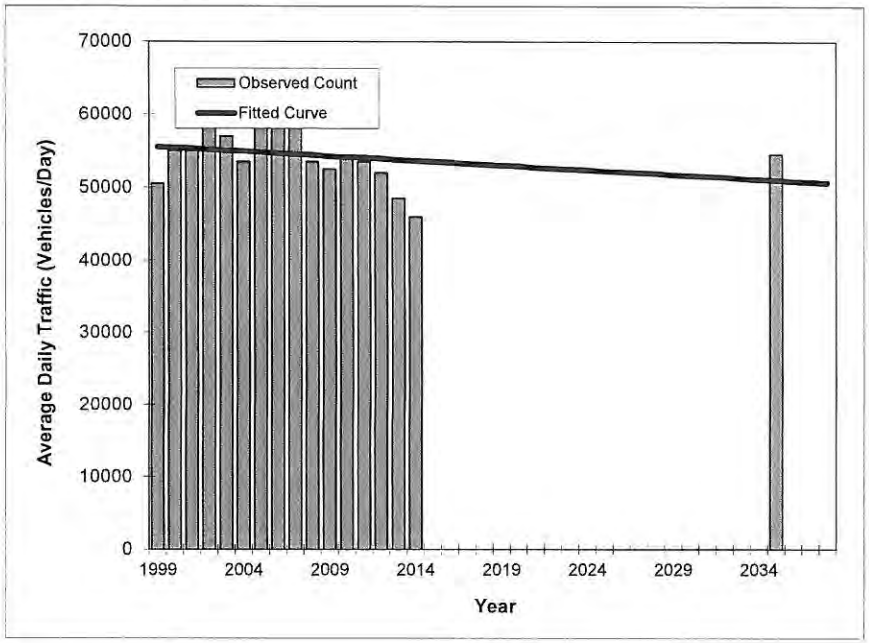
cube
Licensed to Florida Department of Transportation

Traffic Trends - V2.0

USA1 NORTH OF OLEAN BLVD --

PIN#	973215-1
Location	1

County:	Charlotte (01)
Station #:	0
Highway:	OLEAN BLVD



Year	Traffic (ADT/AADT) Count*	Trend**
1999	50500	55500
2000	55000	55400
2001	55000	55300
2002	59500	55100
2003	57000	55000
2004	53500	54900
2005	60000	54800
2006	60500	54600
2007	58500	54500
2008	53500	54400
2009	52500	54200
2010	54000	54100
2011	53500	54000
2012	52000	53900
2013	48500	53700
2014	46000	53600
2018 Opening Year Trend		
2018	N/A	53100
2028 Mid-Year Trend		
2028	N/A	51900
2038 Design Year Trend		
2038	N/A	50600
TRANPLAN Forecasts/Trends		
2035	54486	51000

*Axle-Adjusted

** Annual Trend Increase:	-126
Trend R-squared:	6.96%
Trend Annual Historic Growth Rate:	-0.23%
Trend Growth Rate (2014 to Design Year):	-0.23%
Printed:	21-Jan-16

Straight Line Growth Option

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CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

LOS Report ID	Roadway	From	To	Fed. Func. Class.	Lanes	2015 AADT	Date of Last Count	Sugg. Gr. Rate	Level of Service Calculations[1]					
									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
165	Acline Road	U.S. 41	Taylor Rd.	RJC	2	1,388	Dec-14	1.00%	n/a	918	1,332	1,413	C	9%
189	Acline Road	Burnt Store Rd.	U.S. 41	RJC	2	1,297	Jan-15	1.00%	n/a	918	1,332	1,413	C	9%
246	Airport Road	U.S. 41	Cooper St.	RJC	2	-	Jan-00	4.24%	n/a	918	1,332	1,413	N/A	N/A
247	Airport Road	Cooper St.	Taylor Rd.	RJC	2	4,909	Dec-14	7.32%	n/a	918	1,332	1,413	C	34%
167	Airport Road	Taylor Rd	I-75	RJC	2	4,541	Dec-14	1.00%	n/a	918	1,332	1,413	C	31%
166	Airport Road	I-75	Golf Course Blvd.	RJC	2	2,522	Dec-14	1.00%	n/a	918	1,332	1,413	C	17%
209	Appleton Blvd	San Cruz Waterway	C.R. 771	RNC	2	1,466	Mar-15	4.40%	n/a	918	1,332	1,413	C	10%
168	Aqui Esta Drive	Bal Harbor Blvd.	U.S. 41	UC	2	8,227	Jan-15	1.00%	n/a	918	1,332	1,413	C	56%
248	Aqui Esta Drive	U.S. 41	Airport Rd.	UC	2	3,835	Dec-14	2.36%	n/a	918	1,332	1,413	C	26%
23	Atwater Street	Peachland Blvd.	Veterans Blvd.	RJC	2	2,812	Nov-14	1.00%	n/a	918	1,332	1,413	C	19%
25	Bayshore Road	Sibley Bay St.	Edgewater Dr.	UC	2	4,173	Nov-14	1.00%	n/a	918	1,332	1,413	C	29%
310	Bayshore Road	Edgewater Dr.	U.S. 41	UC	2	3,150	Nov-14	1.00%	n/a	918	1,332	1,413	C	22%
26	Bayshore Road	U.S. 41	Sibley Bay St.	UC	2	3,111	Nov-14	1.00%	n/a	918	1,332	1,413	C	21%
116	Beach Road	Gulf Blvd.	S.R. 776	UC	2	9,309	Feb-15	1.00%	n/a	918	1,332	1,413	C	64%
232	Beacon Drive	Westchester Blvd.	Elmira Blvd.	L	2	2,669	Apr-15	1.00%	n/a	918	1,332	1,413	C	18%
233	Beacon Drive	Elmira Blvd.	Olean Blvd.	L	2	2,768	Apr-15	1.00%	n/a	918	1,332	1,413	C	19%
218	Beacon Drive	Olean Blvd.	Midway Blvd.	L	2	1,872	Apr-15	1.00%	n/a	918	1,332	1,413	C	13%
219	Beacon Drive	Midway Blvd.	Quasar Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
234	Beacon Drive	Quasar Blvd.	Peachland Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
220	Beaver Lane	Hancock Ave.	Westchester Blvd.	L	2	3,659	Apr-15	1.14%	n/a	918	1,332	1,413	C	25%
221	Birchcrest Blvd	Midway Blvd.	Strasburg Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
236	Birchcrest Blvd	Strasburg Dr.	Peachland Blvd.	L	2	-	Jan-00	1.21%	n/a	918	1,332	1,413	N/A	N/A
237	Birchcrest Blvd	Peachland Blvd.	Veterans Blvd.	L	2	503	Apr-15	1.00%	n/a	918	1,332	1,413	C	3%
1	Biscayne Drive	Cornelius Blvd.	Chancellor Blvd.	UC	2	2,204	Mar-15	1.00%	n/a	918	1,332	1,413	C	15%
3	Biscayne Drive	SR-776	Cornelius Blvd.	UC	2	1,451	Feb-15	2.39%	n/a	918	1,332	1,413	C	10%
258	Broadpoint Drive	Sunnybrook Rd.	Voyageur Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
259	Broadpoint Drive	Voyageur Dr.	San Marco Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
185	Burnt Store Road	Lee County line	Zemel Rd.	MA	4	6,933	Dec-14	5.00%	2,556	3,096	3,204	n/a	B	20%
184	Burnt Store Road	Zemel Rd.	Acline Rd.	MA	2	9,677	Dec-14	5.00%	837	1,350	1,440	n/a	C	65%
169	Burnt Store Road	Acline Rd.	U.S. 41	MA	4	12,124	Dec-14	5.00%	2,556	3,096	3,204	n/a	B	36%
270	Burnt Store Road	N. Jones Loop Rd.	Taylor Rd.	MA	2	11,777	Jan-15	1.64%	837	1,350	1,440	n/a	C	74%
202	Calumet Blvd	Ingraham Blvd.	San Domingo Blvd.	RNC	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
22	Campbell Street	Eisenhower Dr.	Chancellor Blvd.	RJC	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
159	Cape Haze Drive	Amberjack Cove Waterway	C.R. 775	RJC	2	3,530	Mar-15	1.00%	n/a	918	1,332	1,413	C	24%
222	Capricorn Blvd	Rampart Blvd.	Sandhill Blvd.	L	2	3,202	Apr-15	1.00%	n/a	918	1,332	1,413	C	22%
188	Carmalita Street	BMX Track	U.S. 41	UC	2	1,625	Dec-14	4.41%	n/a	918	1,332	1,413	C	11%
309	Carmalita Street	Florida St.	BMX Track	UC	2	2,079	Dec-14	1.00%	n/a	918	1,332	1,413	C	14%
2	Chamberlain Blvd	Cornelius Blvd.	US 41	RJC	2	1,511	Feb-15	1.00%	n/a	918	1,332	1,413	C	10%
121	Chancellor Blvd	Campbell St.	Apollo Waterway	UC	2	3,765	Mar-15	6.35%	n/a	918	1,332	1,413	C	26%

CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

LOS Report ID	Roadway	From	To	Fed. Func. Class.	Lanes	2015 AADT	Date of Last Count	Sugg. Gr. Rate	Level of Service Calculations[1]					
									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
122	Chancellor Blvd	Apollo Waterway	US-41	UC	2	3,798	Mar-15	6.04%	n/a	918	1,332	1,413	C	26%
15	Cochran Blvd. (Toledo)	Education Way	Collingswood Blvd.	MA	2	7,173	Nov-14	1.00%	837	1,350	1,440	n/a	B	45%
94	Cochran Blvd. (Toledo)	Pellam Blvd.	Education Way	MA	2	11,318	Nov-14	1.00%	837	1,350	1,440	n/a	C	72%
92	Cochran Blvd. (Toledo)	Lakeview Blvd.	Pellam Blvd.	MA	2	13,686	Nov-14	1.00%	837	1,350	1,440	n/a	C	86%
93	Cochran Blvd. (Toledo)	U.S. 41	Lakeview Blvd.	MA	4	14,433	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	41%
257	Cochran Blvd. (Toledo)	U.S. 41 S.	Veteran's Blvd.	MA	4	16,559	Jan-15	1.40%	2,556	3,096	3,204	n/a	B	47%
260	Collingswood Blvd	S.R. 776	Hillsborough Blvd.	UC	2	1,141	Nov-14	1.00%	n/a	918	1,332	1,413	C	8%
4	Collingswood Blvd	Toledo Blade Blvd.	S.R. 776	UC	2	4,049	Nov-14	1.00%	n/a	918	1,332	1,413	C	28%
5	Collingswood Blvd	Wintergarden Ave.	Toldeo Blade Blvd.	UC	2	6,004	Nov-14	1.00%	n/a	918	1,332	1,413	C	41%
29	Collingswood Blvd	Edgewater Dr.	Wintergarden Ave.	UC	2	2,998	Mar-15	1.00%	n/a	918	1,332	1,413	C	20%
30	Collingswood Blvd	O'Hara Dr.	Edgewater Dr.	UC	2	2,893	Mar-15	1.00%	n/a	918	1,332	1,413	C	20%
240	Como Street	Flamingo Blvd.	Wintergarden Ave.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
245	Como Street	Wintergarden Ave.	S.R. 776	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
31	Conway Blvd	U.S. 41	Olean Blvd	L	2	3,929	Apr-15	1.00%	n/a	918	1,332	1,413	C	27%
149	Cooper Street	Airport Rd.	Taylor Rd.	UC	2	3,393	Dec-14	1.00%	n/a	918	1,332	1,413	C	23%
150	Cooper Street	Carmalita St.	U.S. 17 N	UC	2	7,222	Dec-14	1.00%	n/a	918	1,332	1,413	C	49%
249	Cooper Street	U.S. 17 N	U.S. 17 S	UC	2	3,687	Dec-14	1.00%	n/a	918	1,332	1,413	C	25%
6	Cornelius Blvd	SR-776	Biscayne Dr.	RJC	2	3,202	Feb-15	1.00%	n/a	918	1,332	1,413	C	22%
261	Cornelius Blvd	Biscayne Dr.	U.S. 41	RJC	2	4,048	Feb-15	1.00%	n/a	918	1,332	1,413	C	28%
109	CR 74 / Bermont Road	U.S. 17	County Line	RJC	2	6,794	Jan-15	1.00%	n/a	918	1,332	1,413	C	46%
154	CR 771	CR 775	Appleton Blvd.	RJC	2	6,341	Mar-15	3.00%	n/a	918	1,332	1,413	C	43%
156	CR 771	Appleton Blvd.	Rotonda Blvd. E	RJC	2	-	Jan-00	3.00%	n/a	918	1,332	1,413	N/A	N/A
155	CR 771	Rotonda Blvd. E	Ingraham Blvd.	RJC	4	-	Jan-00	3.00%	n/a	2,178	2,898	3,060	N/A	N/A
153	CR 771	Ingraham Blvd.	Marathon Blvd.	RJC	4	-	Jan-00	3.00%	n/a	2,178	2,898	3,060	N/A	N/A
157	CR 771	Marathon Blvd.	S.R. 776	RJC	4	13,874	Feb-15	3.00%	n/a	2,178	2,898	3,060	C	44%
161	CR 775	C.R. 771	Boca Grande Causeway	RJC	2	6,483	Mar-15	3.00%	n/a	918	1,332	1,413	C	41%
162	CR 775	Boca Grande Causeway	Gaspar Dr.	RJC	2	7,021	Mar-15	3.00%	n/a	918	1,332	1,413	C	45%
163	CR 775	Gaspar Dr.	Cape Haze Dr.	RJC	2	7,318	Mar-15	3.00%	n/a	918	1,332	1,413	C	47%
164	CR 775	Cape Haze Dr.	Esther St.	RJC	2	7,923	Mar-15	3.00%	n/a	918	1,332	1,413	C	51%
139	CR 775	Esther St.	Rotonda Blvd. W	RJC	2	10,409	Mar-15	3.00%	n/a	918	1,332	1,413	C	66%
138	CR 775	Rotonda Blvd. W	Short St.	UC	4	14,328	Mar-15	3.00%	n/a	2,178	2,898	3,060	C	42%
126	CR 775	Short St.	San Casa Dr.	UC	4	13,976	Mar-15	3.00%	n/a	2,178	2,898	3,060	C	41%
125	CR 775	San Casa Dr.	Mississippi Ave.	UC	4	14,768	Mar-15	3.00%	n/a	2,178	2,898	3,060	C	43%
123	CR 775	Mississippi Ave.	Ainger Creek	UC	4	16,386	Mar-15	3.00%	n/a	2,178	2,898	3,060	C	48%
124	CR 775	Ainger Creek	S.R. 776	UC	4	15,887	Mar-15	3.00%	n/a	2,178	2,898	3,060	C	47%
215	Cornelius Blvd	U.S. 41	Hillsborough Blvd.	L	2	11,622	Apr-15	1.50%	n/a	918	1,332	1,413	D	79%
195	David Blvd	Marathon Blvd.	Gulfstream Blvd.	UC	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
196	David Blvd	S.R. 776	Marathon Blvd.	UC	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
207	David Blvd	Kevitt Blvd.	S.R. 776	UC	2	-	Jan-00	2.42%	n/a	918	1,332	1,413	N/A	N/A

CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

LOS Report ID	Roadway	From	To	Fed. Func. Class.	Lanes	2015 AADT	Date of Last Count	Sugg. Gr. Rate	Level of Service Calculations[1]					
									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
208	David Blvd	Lafitte Waterway	Willmington Blvd.	UC	2	2,248	Mar-15	1.00%	n/a	918	1,332	1,413	C	15%
223	Deep Creek Blvd	Rio De Janeiro Ave.	Sandhill Blvd.	UC	2	5,564	Jan-15	1.00%	n/a	918	1,332	1,413	C	38%
262	Deep Creek Blvd	Rio De Janiero Ave.	Seasons Dr.	UC	2	1,775	Jan-15	1.00%	n/a	918	1,332	1,413	C	12%
27	Easy Street	U.S. 41	Olean Blvd.	L	2	1,720	Apr-15	1.00%	n/a	918	1,332	1,413	C	12%
28	Easy Street	Olean Blvd.	Gibralter Dr.	L	2	1,745	Apr-15	1.00%	n/a	918	1,332	1,413	C	12%
7	Edgewater Drive	Flamingo Blvd.	Pellam Blvd.	MA	2	1,520	Mar-15	1.00%	837	1,350	1,440	n/a	B	10%
38	Edgewater Drive	Pellam Blvd.	Midway Blvd.	MA	2	7,632	Nov-14	1.00%	837	1,350	1,440	n/a	B	48%
37	Edgewater Drive	Midway Blvd.	Lakeview Blvd.	MA	4	9,319	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	26%
36	Edgewater Drive	Lakeview Blvd.	W Tarpon Blvd.	MA	4	11,789	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	33%
39	Edgewater Drive	W Tarpon Blvd.	Port Charlotte Blvd.	MA	4	11,757	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	33%
35	Edgewater Drive	Port Charlotte Blvd	Harbor Blvd.	MA	4	11,263	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	32%
34	Edgewater Drive	Harbor Blvd	Cousley Dr.	MA	4	11,941	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	34%
32	Edgewater Drive	Cousley Dr.	Gardner Dr.	MA	4	12,287	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	35%
33	Edgewater Drive	Gardner Dr.	U.S. 41	MA	4	13,010	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	37%
86	Education Way	Toledo Blade Blvd.	Murdock Circle	L	2	4,884	Apr-15	1.00%	n/a	918	1,332	1,413	C	33%
74	Eisenhower Drive	Campbell St.	Biscayne Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
41	Elkcam Blvd	U.S. 41	Midway Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
88	Elmira Blvd	Conway Blvd.	Beacon Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
89	Elmira Blvd	Beacon Dr.	Kings Highway	L	2	1,128	Apr-15	1.00%	n/a	918	1,332	1,413	C	8%
90	Elmira Blvd	Kings Highway	Loveland Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
8	Flamingo Blvd	Edgewater Dr.	Christopher Waterway	MA	2	1,632	Mar-15	1.00%	837	1,350	1,440	n/a	B	10%
9	Flamingo Blvd	Christopher Waterway	SR-776	MA	2	1,571	Mar-15	1.00%	837	1,350	1,440	n/a	B	10%
170	Florida Street	Carmalita St.	La Villa Rd.	RJC	2	2,246	Dec-14	1.00%	n/a	918	1,332	1,413	C	15%
151	Florida Street	Airport Rd	Henry St.	RJC	2	907	Dec-14	1.62%	n/a	918	1,332	1,413	C	6%
80	Forrest Nelson Blvd	U.S. 41	Peachland Blvd.	L	2	4,564	Apr-15	1.00%	n/a	918	1,332	1,413	C	31%
160	Gasparilla Road	Boca Grande Causeway	C.R. 775	RJC	2	7,385	Mar-15	1.00%	n/a	918	1,332	1,413	C	50%
10	Gillot Blvd	Bluestone St.	S.R. 776	RJC	2	2,444	Feb-15	1.00%	n/a	918	1,332	1,413	C	17%
251	Golf Course Blvd	Henry St.	Airport Rd.	RJC	2	925	Dec-14	1.00%	n/a	918	1,332	1,413	C	6%
250	Golf Course Blvd	Tribune Blvd.	U.S. 41	L	2	-	Jan-00	1.02%	n/a	918	1,332	1,413	N/A	N/A
119	Gulf Blvd	Terminus	Beach Rd.	UC	2	2,967	Feb-15	1.00%	n/a	918	1,332	1,413	C	20%
128	Gulfstream Blvd	Sunnybrook Blvd.	S.R. 776 (E)	UC	2	5,131	Feb-15	1.00%	n/a	918	1,332	1,413	C	35%
197	Gulfstream Blvd	S.R. 776 (W)	Sunnybrook Blvd.	RJC	2	3,958	Mar-15	3.00%	n/a	918	1,332	1,413	C	27%
43	Harbor Blvd	Colleen St.	Edgewater Dr.	UC	2	2,264	Nov-14	1.00%	n/a	918	1,332	1,413	C	15%
42	Harbor Blvd	Edgewater Dr.	U.S. 41	UC	2	4,098	Nov-14	1.00%	n/a	918	1,332	1,413	C	28%
46	Harbor Blvd	U.S. 41	Olean Blvd.	UC	4	12,126	Nov-14	1.00%	n/a	2,178	2,898	3,060	C	38%
45	Harbor Blvd	Olean Blvd.	Midway Blvd.	UC	4	12,800	Nov-14	1.00%	n/a	2,178	2,898	3,060	C	40%
44	Harbor Blvd	Midway Blvd.	Burkhart Dr.	UC	2	7,885	Nov-14	1.00%	n/a	918	1,332	1,413	C	54%
49	Harbor Blvd	Burkhart Dr.	Quesada Ave.	UC	2	7,019	Jan-15	1.00%	n/a	918	1,332	1,413	C	48%
48	Harbor Blvd	Quesada Ave.	Peachland Blvd.	UC	2	4,967	Jan-15	1.00%	n/a	918	1,332	1,413	C	34%

CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

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									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
47	Harbor Blvd	Peachland Blvd.	Veterans Blvd.	UC	2	2,483	Jan-15	1.00%	n/a	918	1,332	1,413	C	17%
272	Harborview Road	US-41	Kings Highway	MA	4	11,126	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	32%
50	Harborview Road	Kings Highway	Melbourne St.	MA	4	11,672	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	33%
51	Harborview Road	Melbourne St.	Date St.	MA	2	8,512	Jan-15	1.00%	837	1,350	1,440	n/a	B	54%
102	Harborview Road	Date St.	I-75	MA	2	7,838	Jan-15	1.00%	837	1,350	1,440	n/a	B	50%
101	Harborview Road	I-75	Rio De Janiero Ave.	MA	2	10,170	Jan-15	1.00%	837	1,350	1,440	n/a	C	64%
100	Harborview Road	Rio De Janiero Ave.	Highlands Rd.	MA	2	4,927	Jan-15	1.00%	837	1,350	1,440	n/a	B	31%
211	Harness Road	Brig Circle	C.R. 771	RNC	2	-	Jan-00	1.25%	n/a	918	1,332	1,413	N/A	N/A
252	Henry Street	Golf Course Blvd.	Florida St.	UC	2	1,274	Dec-14	1.00%	n/a	918	1,332	1,413	C	9%
11	Hillsborough Blvd	Veterans Blvd.	Toledo Blade Blvd.	RJC	2	4,842	Feb-15	3.00%	n/a	918	1,332	1,413	C	33%
12	Hillsborough Blvd	Toledo Blade Blvd.	Crandberry Blvd.	RJC	2	6,007	Feb-15	3.00%	n/a	918	1,332	1,413	C	41%
314	I-75	Lee Co. Line	Jones Loop Rd.N	I	4	-	Jan-00	2.00%	4,000	5,500	6,770	7,300	N/A	N/A
319	I-75	Jones Loop Rd. N	U.S. 17	I	4	-	Jan-00	2.00%	4,000	5,500	6,770	7,300	N/A	N/A
315	I-75	U.S. 17	Harborview Rd.	I	6	-	Jan-00	2.00%	6,000	8,320	10,150	11,290	N/A	N/A
316	I-75	U.S. 17	Harborview Rd.	I	6	-	Jan-00	2.00%	6,000	8,320	10,150	11,290	N/A	N/A
317	I-75	Harborview Rd.	Kings Highway	I	4	-	Jan-00	2.00%	4,000	5,500	6,770	7,300	N/A	N/A
318	I-75	Kings Highway	Desoto Co. Line	I	4	-	Jan-00	2.00%	4,000	5,500	6,770	7,300	N/A	N/A
200	Ingraham Blvd	San Cruz Waterway	C.R. 771	RNC	2	2,439	Mar-15	3.00%	n/a	918	1,332	1,413	C	17%
201	Ingraham Blvd	C.R. 771	Antis Dr.	RNC	2	-	Jan-00	3.00%	n/a	918	1,332	1,413	N/A	N/A
216	Jacobs Street	Eleanor Ave.	Chamberlain Blvd.	RJC	2	2,220	Mar-15	1.61%	n/a	918	1,332	1,413	C	15%
217	Jacobs Street	S.R. 776	Eleanor Ave.	RJC	2	1,891	Mar-15	1.00%	n/a	918	1,332	1,413	C	13%
224	Kenilworth Blvd	Ravenswood Blvd.	Yorkshire St.	L	2	1,043	Apr-15	1.00%	n/a	918	1,332	1,413	C	7%
273	Kings Highway	U.S. 41	Harborview Rd.	MA	4	11,179	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	32%
52	Kings Highway	Harborview Rd.	Westchester Blvd.	MA	4	16,017	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	45%
112	Kings Highway	Westchester Blvd.	Veterans Blvd.	MA	4	21,759	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	62%
307	Kings Highway	Veterans Blvd.	Sandhill Blvd.	MA	4	20,473	Jan-15	1.50%	2,556	3,096	3,204	n/a	B	58%
103	Kings Highway	Sandhill Blvd.	DeSoto Co. Line	MA	2	14,968	Jan-15	1.00%	837	1,350	1,440	n/a	D	95%
253	La Villa Road	Cooper St.	Florida St.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
53	Lakeview Blvd	Edgewater Dr.	Springview Ave.	UC	2	2,267	Nov-14	1.00%	n/a	918	1,332	1,413	C	15%
55	Lakeview Blvd	Springview Ave.	Midway Blvd.	UC	2	2,914	Nov-14	1.00%	n/a	918	1,332	1,413	C	20%
54	Lakeview Blvd	Midway Blvd.	Chevy Chase St.	UC	2	7,069	Nov-14	1.00%	n/a	918	1,332	1,413	C	48%
56	Lakeview Blvd	Chevy Chase St.	Cochran Blvd. (a.k.a.Toledo Blade Blvd.)	UC	2	9,552	Nov-14	1.00%	n/a	918	1,332	1,413	C	65%
225	Loveland Blvd	Westchester Blvd.	Midway Blvd.	UC	2	2,001	Jan-15	1.00%	n/a	918	1,332	1,413	C	14%
57	Loveland Blvd	Midway Blvd.	Peachland Blvd.	UC	2	3,132	Nov-14	1.00%	n/a	918	1,332	1,413	C	21%
58	Loveland Blvd	Peachland Blvd.	Veterans Blvd.	UC	2	1,915	Apr-15	2.87%	n/a	918	1,332	1,413	C	13%
311	Manor Road	C.R. 775	S.R. 776	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
198	Marathon Blvd	Terminus	C.R. 771	RNC	2	1,452	Mar-15	1.00%	n/a	918	1,332	1,413	C	10%
199	Marathon Blvd	Gulfstream Blvd.	C.R. 771	RNC	2	2,066	Mar-15	6.40%	n/a	918	1,332	1,413	C	14%
175	Marion Avenue	Florida St.	I-75 Overpass	L	2	2,342	Dec-14	1.00%	n/a	918	1,332	1,413	C	16%

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									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
176	Marion Avenue	Marlympia Way	Florida St.	L	2	2,775	Dec-14	1.00%	n/a	918	1,332	1,413	C	19%
59	Melbourne Street	Harper Ave.	Harborview Rd.	UC	2	2,223	Jan-15	1.00%	n/a	918	1,332	1,413	C	15%
61	Midway Blvd	O'Hara Dr.	Edgewater Dr.	MA	2	4,765	Nov-14	1.00%	837	1,350	1,440	n/a	B	30%
60	Midway Blvd	Edgewater Dr.	Riviera Ln.	MA	2	3,644	Nov-14	1.00%	837	1,350	1,440	n/a	B	23%
67	Midway Blvd	Riviera Ln.	Lakeview Blvd.	MA	2	5,024	Nov-14	1.00%	837	1,350	1,440	n/a	B	32%
66	Midway Blvd	Lakeview Blvd.	U.S. 41	MA	4	10,334	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	29%
62	Midway Blvd	U.S. 41	Elkcam Blvd.	MA	4	14,574	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	41%
64	Midway Blvd	Elkcam Blvd.	Harbor Blvd.	MA	4	13,716	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	39%
63	Midway Blvd	Harbor Blvd	Orlando Blvd.	MA	4	14,110	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	40%
65	Midway Blvd	Orlando Blvd.	Inverness St.	MA	4	12,187	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	35%
68	Midway Blvd	Invenness St.	Kings Highway	MA	4	10,868	Nov-14	1.00%	2,556	3,096	3,204	n/a	B	31%
81	Murdock Circle	Education Way	U.S. 41	L	4	12,242	Apr-15	1.00%	n/a	2,178	2,898	3,060	C	38%
85	Murdock Circle	U.S. 41	Veterans Blvd.	L	4	9,686	Apr-15	1.00%	n/a	2,178	2,898	3,060	C	30%
271	Jones Loop Road N	U.S. 41	Taylor Rd.	MA	4	13,241	Dec-14	1.00%	2,556	3,096	3,204	n/a	B	38%
171	Jones Loop Road N	Taylor Rd.	I-75	MA	4	15,363	Dec-14	1.00%	2,556	3,096	3,204	n/a	B	44%
172	Jones Loop Road N	I-75	Alfred Blvd.	MA	4	2,886	Dec-14	1.00%	2,556	3,096	3,204	n/a	B	8%
117	Beach Road N	Sarasota Co. Line	Gulf Blvd.	UC	2	1,997	Feb-15	1.00%	n/a	918	1,332	1,413	C	14%
254	Notre Dame Blvd	Burnt Store Rd.	Pine Trail Rd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
193	Oceanspray Blvd	Waterford Ave.	S.R. 776	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
210	Oceanspray Blvd	S.R. 776	March Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
241	O'Hara Drive	Collingswood Blvd.	Midway Blvd.	L	2	2,260	Jan-15	1.00%	n/a	918	1,332	1,413	C	15%
242	O'Hara Drive	Flamingo Blvd.	Collingswood Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
71	Olean Blvd	U.S. 41	Easy St.	UC	2	12,039	Nov-14	1.00%	n/a	918	1,332	1,413	D	82%
70	Olean Blvd	Easy St.	Conway Blvd.	UC	2	8,643	Nov-14	1.00%	n/a	918	1,332	1,413	C	59%
69	Olean Blvd	Conway Blvd.	Beacon Dr.	UC	2	7,352	Nov-14	1.98%	n/a	918	1,332	1,413	C	50%
72	Olean Blvd	Beacon Dr.	Kings Highway	UC	2	5,389	Nov-14	2.65%	n/a	918	1,332	1,413	C	37%
73	Orlando Blvd	Midway Blvd.	Quasar Blvd.	UC	2	1,813	Nov-14	3.00%	n/a	918	1,332	1,413	C	12%
227	Paulson Drive	U.S. 41	Prineville St.	L	2	3,878	Apr-15	1.00%	n/a	918	1,332	1,413	C	26%
263	Peachland Blvd	CochranBlvd. (a.k.a.Toledo Blade)	Forrest Nelson Blvd.	UC	2	9,175	Nov-14	1.00%	n/a	918	1,332	1,413	C	63%
75	Peachland Blvd	Forrest Nelson Blvd.	Atwater St.	UC	2	7,575	Nov-14	1.00%	n/a	918	1,332	1,413	C	52%
77	Peachland Blvd	Atwater St.	Harbor Blvd.	UC	2	8,096	Jan-15	1.00%	n/a	918	1,332	1,413	C	55%
76	Peachland Blvd	Harbor Blvd.	Beacon Dr.	UC	2	8,127	Jan-15	1.00%	n/a	918	1,332	1,413	C	56%
78	Peachland Blvd	Beacon Dr.	Loveland Blvd.	UC	2	9,485	Jan-15	1.00%	n/a	918	1,332	1,413	C	65%
111	Peachland Blvd	Loveland Blvd.	Veterans Blvd.	UC	4	9,938	Jan-15	1.00%	n/a	2,178	2,898	3,060	C	31%
238	Pellam Blvd	Wintergarden Ave.	CochranBlvd. (a.k.a.Toledo Blade)	L	2	4,546	Apr-15	1.37%	n/a	918	1,332	1,413	C	31%
239	Pellam Blvd	Edgewater Dr.	Wintergarden Ave.	L	2	1,618	Apr-15	1.00%	n/a	918	1,332	1,413	C	11%
129	Pine Street	Sarasota Co. Line	Second St.	UC	4	10,829	Feb-15	1.00%	n/a	2,178	2,898	3,060	C	32%
130	Pine Street	Second St.	S.R. 776	UC	4	11,724	Feb-15	1.00%	n/a	2,178	2,898	3,060	C	34%
173	Piper Road	Jones Loop Rd.	Golf Course Blvd.	MA	2	4,128	Dec-14	2.44%	837	1,350	1,440	n/a	B	26%

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									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
99	Port Charlotte Blvd	Sunrise Waterway	Edgewater Dr.	L	2	918	Apr-15	1.00%	n/a	918	1,332	1,413	C	6%
228	Prineville Street	Paulson Dr.	Hillsborough Blvd.	L	2	3,680	Apr-15	4.30%	n/a	918	1,332	1,413	C	25%
79	Quesada Avenue	Cochran Boulevard (a.k.a.Toledo Blade)	Forrest Nelson Blvd.	L	2	7,162	Apr-15	1.00%	n/a	918	1,332	1,413	C	49%
82	Quesada Avenue	Forrest Nelson Blvd.	Hinton St.	L	2	5,638	Apr-15	1.00%	n/a	918	1,332	1,413	C	39%
83	Quesada Avenue	Hinton St.	Harbor Blvd.	L	2	3,579	Apr-15	3.00%	n/a	918	1,332	1,413	C	24%
190	Rampart Blvd	Kings Highway	I-75	L	2	11,319	Apr-15	1.00%	n/a	918	1,332	1,413	D	77%
104	Rio De Janeiro Avenue	Harborview Rd.	Rampart Blvd.	RJC	2	7,296	Jan-15	1.00%	n/a	918	1,332	1,413	C	50%
105	Rio De Janeiro Avenue	Rampart Blvd.	Sandhill Blvd.	RJC	2	4,072	Jan-15	1.00%	n/a	918	1,332	1,413	C	28%
174	Rio Villa Drive	Deltona Dr.	U.S. 41	L	2	2,919	Dec-14	1.00%	n/a	918	1,332	1,413	C	20%
106	Riverside Drive	I-75 Overpass	U.S. 17	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
204	Robin Road	C.R. 771	Yellowhammer Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
152	Rotonda Blvd E	Boundary Blvd.	C.R. 771	UC	2	2,917	Mar-15	1.00%	n/a	918	1,332	1,413	C	20%
120	Rotonda Blvd N	Parade Cir.	Rotonda Cir.	RJC	2	2,182	Mar-15	1.26%	n/a	918	1,332	1,413	C	15%
135	Rotonda Blvd W	C.R. 775	Normandy Way	RJC	4	7,146	Mar-15	1.00%	n/a	2,178	2,898	3,060	C	22%
133	Rotonda Blvd W	Normandy Way	Boundary Blvd.	RJC	4	7,214	Mar-15	1.00%	n/a	2,178	2,898	3,060	C	23%
134	Rotonda Blvd W	Boundary Blvd.	Parade Cir.	RJC	4	2,430	Mar-15	1.00%	n/a	2,178	2,898	3,060	C	8%
191	Jones Loop Road S	Taylor Rd.	I-75	RJC	2	2,029	Dec-14	1.00%	n/a	918	1,332	1,413	C	14%
136	San Casa Drive	Worth Ave.	C.R. 775	RJC	2	8,000	Mar-15	1.00%	n/a	918	1,332	1,413	C	55%
137	San Casa Drive	S.R. 776	Worth Ave.	RJC	2	8,881	Feb-15	1.00%	n/a	918	1,332	1,413	C	61%
203	San Domingo Blvd	San Cruz Waterway	CR 771	L	2	-	Jan-00	3.00%	n/a	918	1,332	1,413	N/A	N/A
107	Sandhill Blvd	Kings Highway	Deep Creek Blvd.	UC	2	13,745	Jan-15	1.50%	n/a	918	1,332	1,413	D	94%
108	Sandhill Blvd	Deep Creek Blvd.	Rio De Janeiro Ave.	UC	2	5,372	Jan-15	1.50%	n/a	918	1,332	1,413	C	37%
229	Sheehan Blvd	Midway Blvd.	Alton Rd.	L	2	1,837	Apr-15	3.21%	n/a	918	1,332	1,413	C	13%
235	Sheehan Blvd	Alton Ad.	Peachland Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
148	Shreve Street	Henry St.	Pompano Ter.	L	2	6,141	Jan-15	1.00%	n/a	918	1,332	1,413	C	42%
213	Spinnaker Blvd	Cougar Way	Gulfstream Blvd.	RJC	2	4,420	Mar-15	1.00%	n/a	918	1,332	1,413	C	30%
212	Spinnaker Blvd	Gulfstream Blvd.	S.R. 776	RJC	2	2,253	Mar-15	1.00%	n/a	918	1,332	1,413	C	15%
147	Spinnaker Blvd	S.R. 776	Willmington Blvd.	RJC	2	957	Feb-15	1.00%	n/a	918	1,332	1,413	C	7%
320	SR 31	C.R. 74	DeSoto Co Line	MA	2	-	Jan-00	2.00%	930	1,500	1,600	n/a	N/A	N/A
304	SR 776	Murdock Cir./Enterprise Dr.	U.S. 41	MA	4	19,932	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	51%
84	SR 776	Biscayne Dr.	Murdock Cir/Enterprise Dr.	MA	4	25,062	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	64%
14	SR 776	El Jobean Bridge	Biscayne Dr.	MA	4	26,526	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	68%
13	SR 776	C.R. 771	El Jobean Bridge	MA	4	28,130	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	72%
158	SR 776	Coliseum Blvd.	C.R. 771	MA	4	21,630	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	55%
192	SR 776	Oceanspray Blvd.	Coliseum Blvd.	MA	4	20,691	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	53%
143	SR 776	Sunnybrook Blvd.	Oceanspray Blvd.	MA	4	21,376	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	55%
144	SR 776	Spinnaker Blvd.	Sunnybrook Blvd.	MA	4	22,556	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	58%
141	SR 776	Gulfstream Blvd.	Spinnaker Blvd.	MA	4	26,434	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	68%
142	SR 776	Oriole Blvd.	Gulfstream Blvd.	MA	4	32,731	Feb-15	2.00%	2,840	3,440	3,560	n/a	C	84%

CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

LOS Report ID	Roadway	From	To	Fed. Func. Class.	Lanes	2015 AADT	Date of Last Count	Sugg. Gr. Rate	Level of Service Calculations[1]					
									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
140	SR 776	Pine St.	Oriole Blvd.	MA	4	30,826	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	79%
118	SR 776	Beach Rd.	Pine St.	MA	4	27,570	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	70%
127	SR 776	Sarasota Co Line	Beach Rd.	MA	4	21,315	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	54%
205	St. Paul Drive	Appleton Blvd.	Ingraham Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
206	St. Paul Drive	Ingraham Blvd.	Calument Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
230	Sulstone Drive	Sunnybrook Rd.	Adams St.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
132	Sunnybrook Blvd	Boundary Blvd.	Rotonda Blvd. North	RJC	2	6,833	Mar-15	1.00%	n/a	918	1,332	1,413	C	47%
131	Sunnybrook Blvd	Gulfstream Blvd.	Boundary Blvd.	RJC	2	9,440	Mar-15	1.00%	n/a	918	1,332	1,413	C	64%
146	Sunnybrook Blvd	S.R. 776	Oceanspray Blvd.	RJC	2	6,239	Feb-15	1.00%	n/a	918	1,332	1,413	C	43%
145	Sunnybrook Blvd	Waterford Ave.	S.R. 776	RJC	2	2,138	Feb-15	1.00%	n/a	918	1,332	1,413	C	15%
231	Sunnybrook Road	Highlands Rd.	Broadpoint Dr.	L	2	4,539	Apr-15	1.00%	n/a	918	1,332	1,413	C	31%
177	Taylor Road	U.S. 41 N	Burnt Store Rd.	UC	2	7,028	Dec-14	1.00%	n/a	918	1,332	1,413	C	48%
178	Taylor Road	Burnt Store Rd.	Airport Rd.	RJC	2	9,058	Dec-14	3.00%	n/a	918	1,332	1,413	C	62%
179	Taylor Road	Airport Rd.	Cooper St.	RJC	2	6,092	Dec-14	1.28%	n/a	918	1,332	1,413	C	42%
91	Toledo Blade Blvd	Collingswood Blvd.	S.R. 776	MA	2	5,483	Nov-14	1.00%	837	1,350	1,440	n/a	B	35%
194	Toledo Blade Blvd	S.R. 776	U.S. 41 N	MA	2	6,633	Feb-15	1.00%	837	1,350	1,440	n/a	B	42%
16	Toledo Blade Blvd	U.S. 41 N	Sarasota Co Line	UC	4	13,361	Feb-15	1.00%	2,556	3,096	3,204	n/a	B	38%
186	Tucker's Grade	U.S. 41	I-75	MA	4	9,725	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	28%
180	US Highway 17	I-75	Marlympia Way	PA	6	20,103	Dec-14	2.00%	4,370	5,200	5,360	n/a	B	34%
181	US Highway 17	Constitution Avenue	I-75	PA	6	25,691	Dec-14	2.00%	4,370	5,200	5,360	n/a	B	45%
282	US Highway 17	Washington Loop Rd. S	Constitutional Ave.	PA	4	19,050	Jan-15	2.00%	2,840	3,440	3,560	n/a	B	50%
110	US Highway 17	Peace River Shores Blvd.	Washington Loop Rd. S	PA	4	12,637	Jan-15	2.00%	2,840	3,440	3,560	n/a	B	40%
113	US Highway 17	DeSoto Co Line	Peace River Shores Blvd.	PA	4	8,970	Jan-15	2.00%	2,840	3,440	3,560	n/a	B	29%
187	US Highway 41	Lee County Line	Zemel Rd.	PA	4	18,789	Mar-15	2.00%	2,840	3,440	3,560	n/a	B	48%
313	US Highway 41	Zemel Rd.	Alligator Creek Bridge	PA	4	-	Jan-00	2.00%	2,840	3,440	3,560	n/a	N/A	N/A
183	US Highway 41	Alligator Creek Bridge	Burnt Store Rd.	PA	4	16,495	Jan-15	2.00%	2,840	3,440	3,560	n/a	B	42%
286	US Highway 41	Burnt Store Rd.	Aqui Esta Dr.	PA	4	31,124	Jan-15	2.00%	2,840	3,440	3,560	n/a	B	80%
274	US Highway 41	Kings Highway	Bayshore Rd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
275	US Highway 41	Harborview Rd.	Kings Highway	PA	6	40,145	Nov-14	1.25%	n/a	3,790	4,880	5,150	C	67%
276	US Highway 41	Hancock Ave. (Beaver Ln.)	Harborview Rd./Edgewater Dr.	PA	6	49,284	Nov-14	1.25%	n/a	3,790	4,880	5,150	D	83%
277	US Highway 41	Gardner Dr.	Hancock Ave. (Beaver Ln.)	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
279	US Highway 41	Conway Blvd.	Gardner Dr.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
281	US Highway 41	Easy St.	Conway Blvd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
283	US Highway 41	Harbor Blvd.	Easy St.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
285	US Highway 41	Olean Blvd.	Harbor Blvd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
287	US Highway 41	Port Charlotte Blvd.	Olean Blvd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
289	US Highway 41	W Tarpon Blvd.	Port Charlotte Blvd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
291	US Highway 41	Midway Blvd.	W Tarpon Blvd.	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
293	US Highway 41	Forrest Nelson Blvd.	Midway Blvd.	PA	6	55,672	Nov-14	1.25%	n/a	3,790	4,880	5,150	D	94%

CHARLOTTE COUNTY: ROADWAY LEVEL OF SERVICE DATA (6/2/2015)

LOS Report ID	Roadway	From	To	Fed. Func. Class.	Lanes	2015 AADT	Date of Last Count	Sugg. Gr. Rate	Level of Service Calculations[1]					
									Level of Service Limits (Pk. Hr. Two-way Vol.)				Level of Service	Percent (%) Capacity Used
									B	C	D	E	Current	
295	US Highway 41	Carrousel Mall	Forrest Nelson Blvd.	PA	6	52,461	Nov-14	1.25%	n/a	3,790	4,880	5,150	D	88%
297	US Highway 41	Cochran Blvd. (a.k.a.Toledo Blade)	Carrousel Mall	PA	6	-	Jan-00	1.25%	n/a	3,790	4,880	5,150	N/A	N/A
95	US Highway 41	Murdock Circle	Cochran Blvd. (a.k.a.Toledo Blade)	PA	6	46,681	Feb-15	1.25%	n/a	3,790	4,880	5,150	D	78%
18	US Highway 41	S.R. 776	Murdock Circle	PA	6	34,242	Feb-15	1.25%	n/a	3,790	4,880	5,150	C	58%
19	US Highway 41	Enterprise Dr.	S.R. 776	PA	6	30,272	Feb-15	1.25%	n/a	3,790	4,880	5,150	C	56%
21	US Highway 41	Toledo Blade Blvd.(N) (CR 39)	Enterprise Dr.	PA	4	29,820	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	69%
20	US Highway 41	Flamingo Blvd.	Toledo Blade Blvd. (N)	PA	4	26,799	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	69%
17	US Highway 41	Chamberlain Blvd.	Flamingo Blvd.	PA	4	25,310	Feb-15	2.00%	2,840	3,440	3,560	n/a	B	65%
322	US Highway 41	Sarasota Co. Line	Chamberlain Blvd.	PA	4	31,866	Feb-15	2.00%	2,840	3,440	3,560	n/a	C	81%
264	US 41 Access Rd N		at Fordham Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
265	US 41 Access Rd N		at Elkcam Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
266	US 41 Access Rd N		at Sunrise Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
267	US 41 Access Rd S		at Sunrise Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
268	US 41 Access Rd S		at Elkcam Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
269	US 41 Access Rd S		at Fordham Waterway	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
87	Veterans Blvd	US-41	Murdock Circle	MA	4	18,484	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	52%
278	Veterans Blvd	Murdock Circle	Cochran Blvd. (a.k.a.Toledo Blade)	MA	4	22,002	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	62%
280	Veterans Blvd	Cochran Blvd. (a.k.a.Toledo Blade)	Harbor Blvd.	MA	4	19,657	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	56%
24	Veterans Blvd	Harbor Blvd.	Loveland Blvd.	MA	4	18,206	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	52%
256	Veterans Blvd	Loveland Blvd.	Kings Highway	MA	4	17,160	Jan-15	1.00%	2,556	3,096	3,204	n/a	B	49%
306	Veterans Blvd	Kings Highway	Peachland Blvd.	MA	4	29,780	Apr-15	2.00%	2,556	3,096	3,204	n/a	C	85%
226	Voyageur Drive	Broadpoint Dr.	Terminus	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
114	Washington Loop N	U.S. 17	Mangrove Rd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
115	Washington Loop S	U.S. 17	Rustic Dr.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
98	West Tarpon Blvd	Edgewater Dr.	U.S. 41	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
97	Westchester Blvd	Gardner Dr.	Beacon Dr.	L	2	4,470	Apr-15	1.00%	n/a	918	1,332	1,413	C	31%
96	Westchester Blvd	Beacon Dr.	Kings Highway	L	2	4,253	Apr-15	1.00%	n/a	918	1,332	1,413	C	29%
214	Wilmington Blvd	Coliseum Blvd.	Gondelier Waterway	RJC	2	860	Feb-15	1.00%	n/a	918	1,332	1,413	C	6%
40	Wilmington Blvd	Gondelier Waterway	S.R. 776	RJC	2	2,244	Feb-15	1.00%	n/a	918	1,332	1,413	C	15%
308	Winchester Blvd	S.R. 776	Sarasota Co Line	RJC	2	5,251	Feb-15	1.00%	n/a	918	1,332	1,413	C	36%
243	Wintergarden Blvd	Collingswood Blvd.	Pellam Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
244	Wintergarden Blvd	Flamingo Blvd.	Collingswood Blvd.	L	2	-	Jan-00	1.00%	n/a	918	1,332	1,413	N/A	N/A
305	Zemel Road	Burnt Store Rd.	County Landfill	L	2	1,442	Dec-14	5.00%	n/a	918	1,332	1,413	C	10%
255	Zemel Road	County Landfill	U.S. 41	L	2	2,107	Dec-14	5.00%	n/a	918	1,332	1,413	C	14%

Notes and Assumptions for the LOS Computations:

1. LOS Calculations are based on FDOT Generalized LOS Tables (TABLE 4) with the assumptions listed in the FDOT QUALITY/LEVEL OF SERVICE HANDBOOK

2. For Roadway Segments with Level of Service "N/A", Please call Gary Grossman @ (941) 575-3675 or email at gary.grossman@charlottecountyfl.gov

Appendix E

2018 Opening Year and 2038 Design Year Design Hour Volumes

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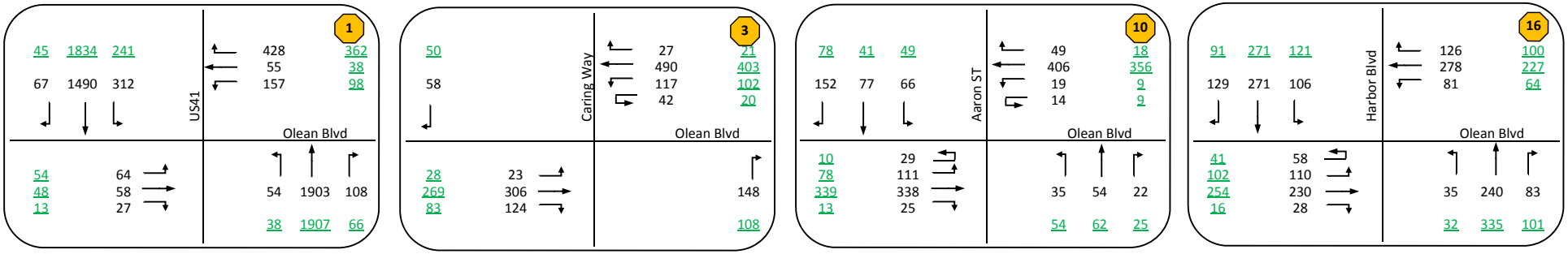
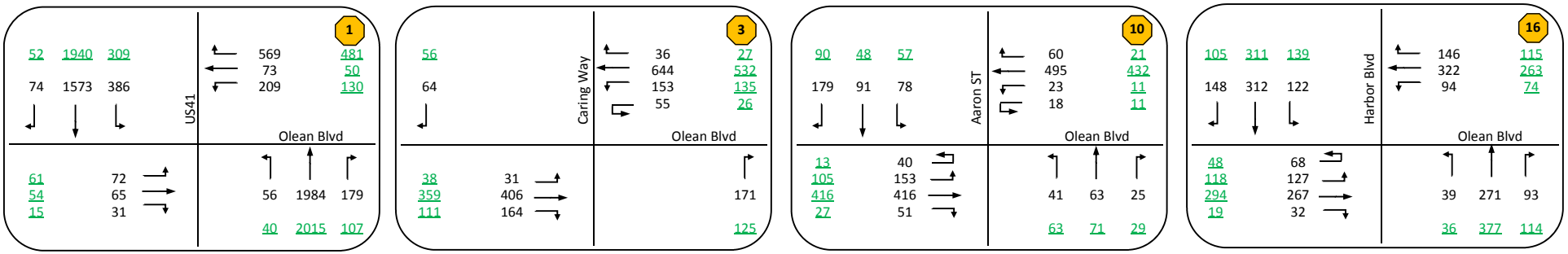
2018



2038



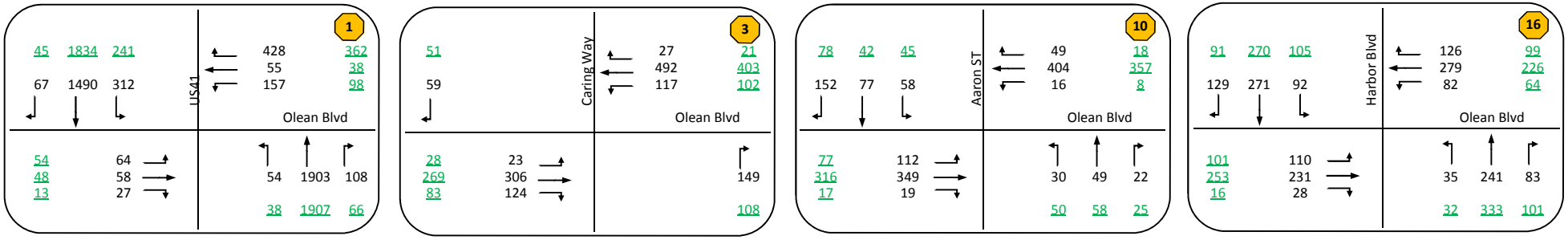
Legend:

00 MD Peak Hour Volumes

00 PM Peak Hour Volumes

Figure X: Future Volume - 4 Lane Divided

2018



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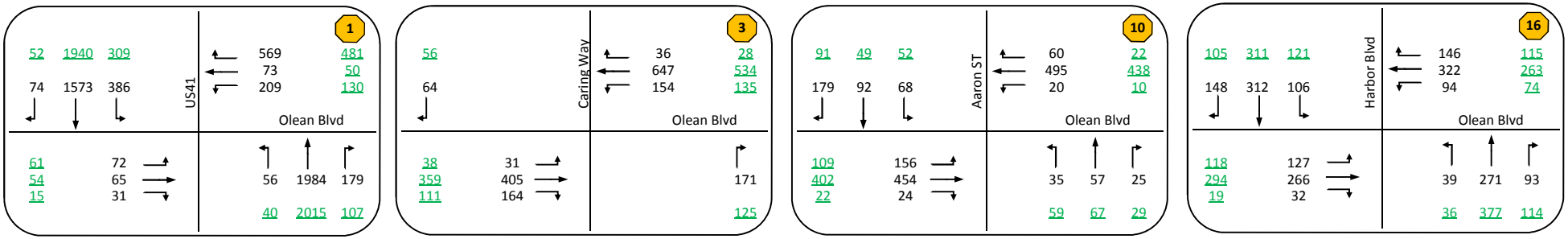
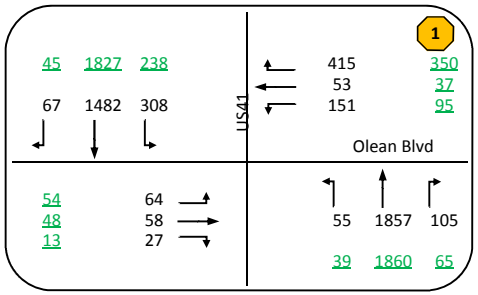


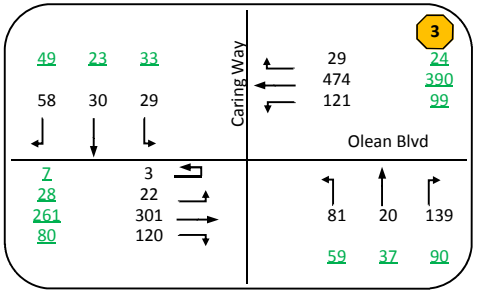
Legend:

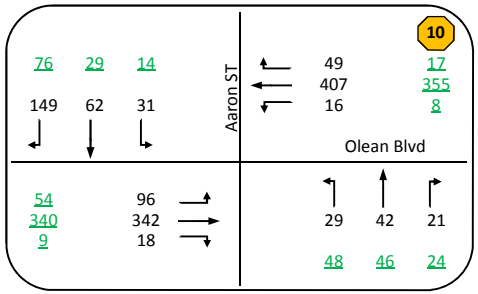
00	MD Peak Hour Volumes
00	PM Peak Hour Volumes

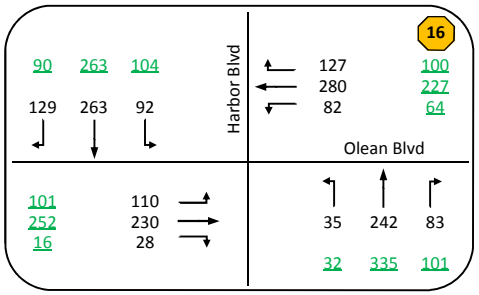
Figure X: Future Volume - 5 Lane Undivided

2018









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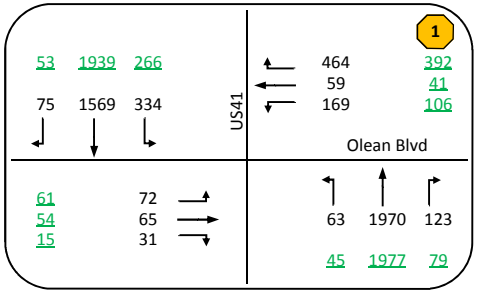

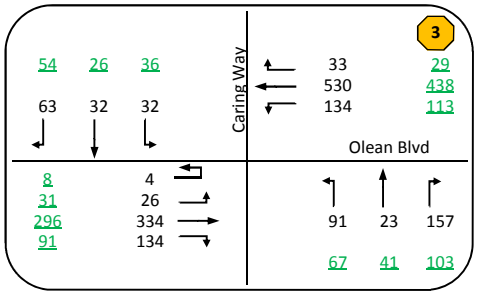

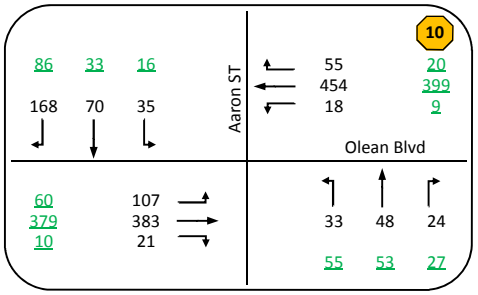

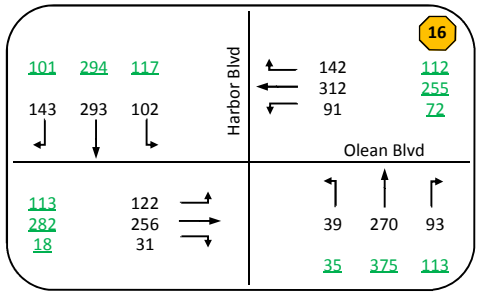

Legend:

00 MD Peak Hour Volumes

00 PM Peak Hour Volumes

Figure X: Future Volume - ALT3 & ALT4 with FDOT Lane Configuration

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Appendix F

Traffic Redistribution Assumptions

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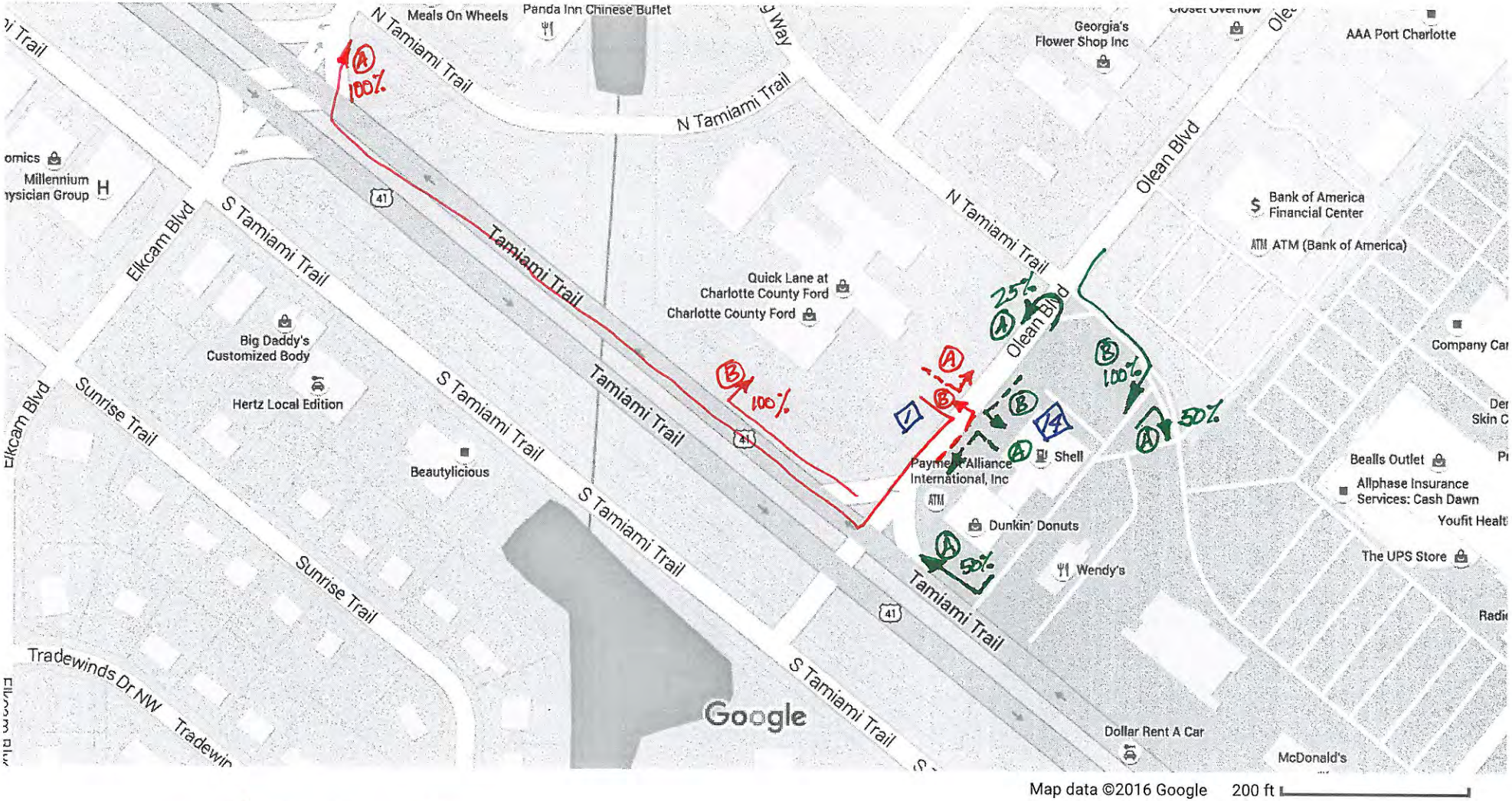
Google Maps Ford / Shell Driveways



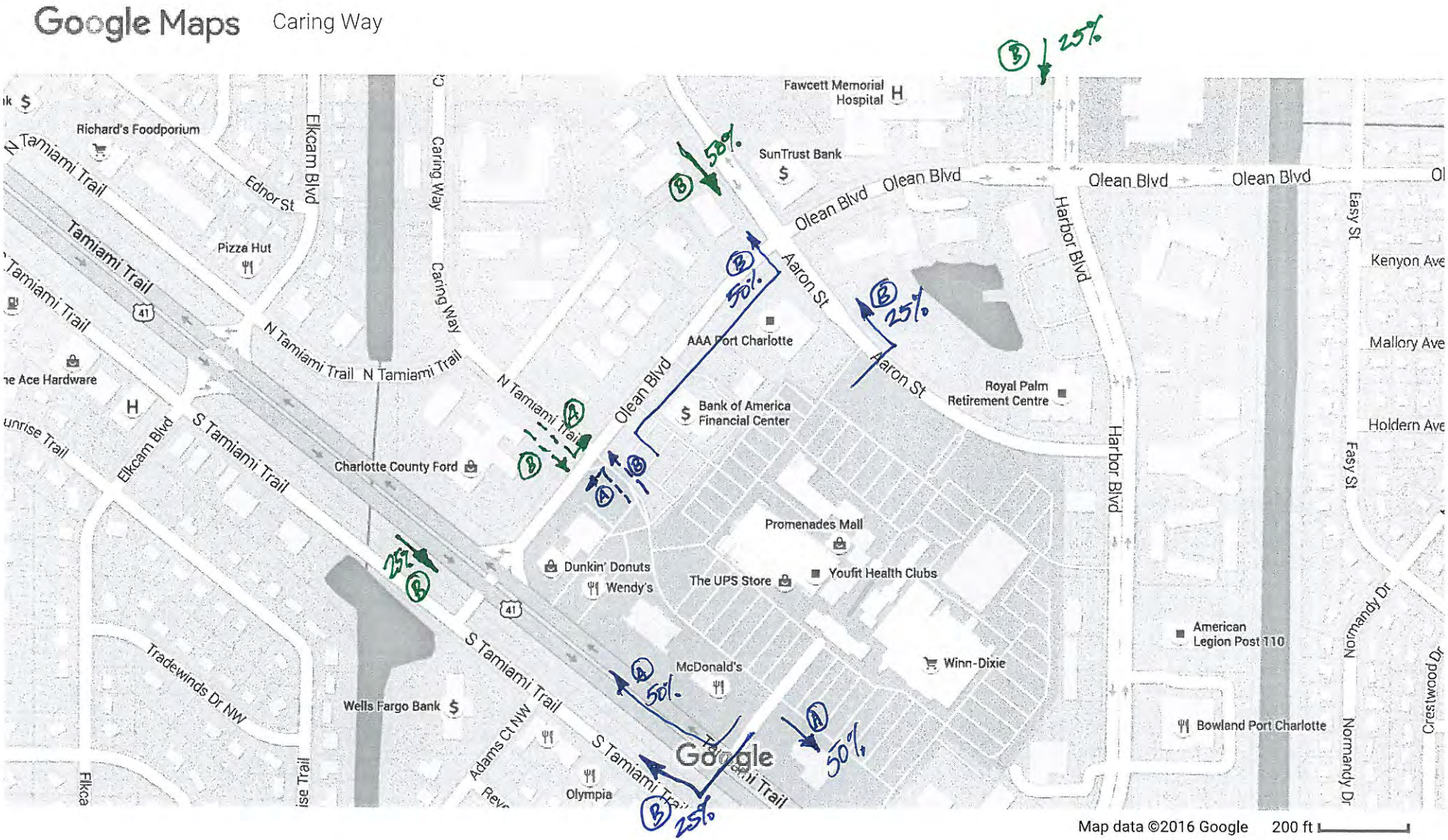
EXISTING ROUTE

EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY



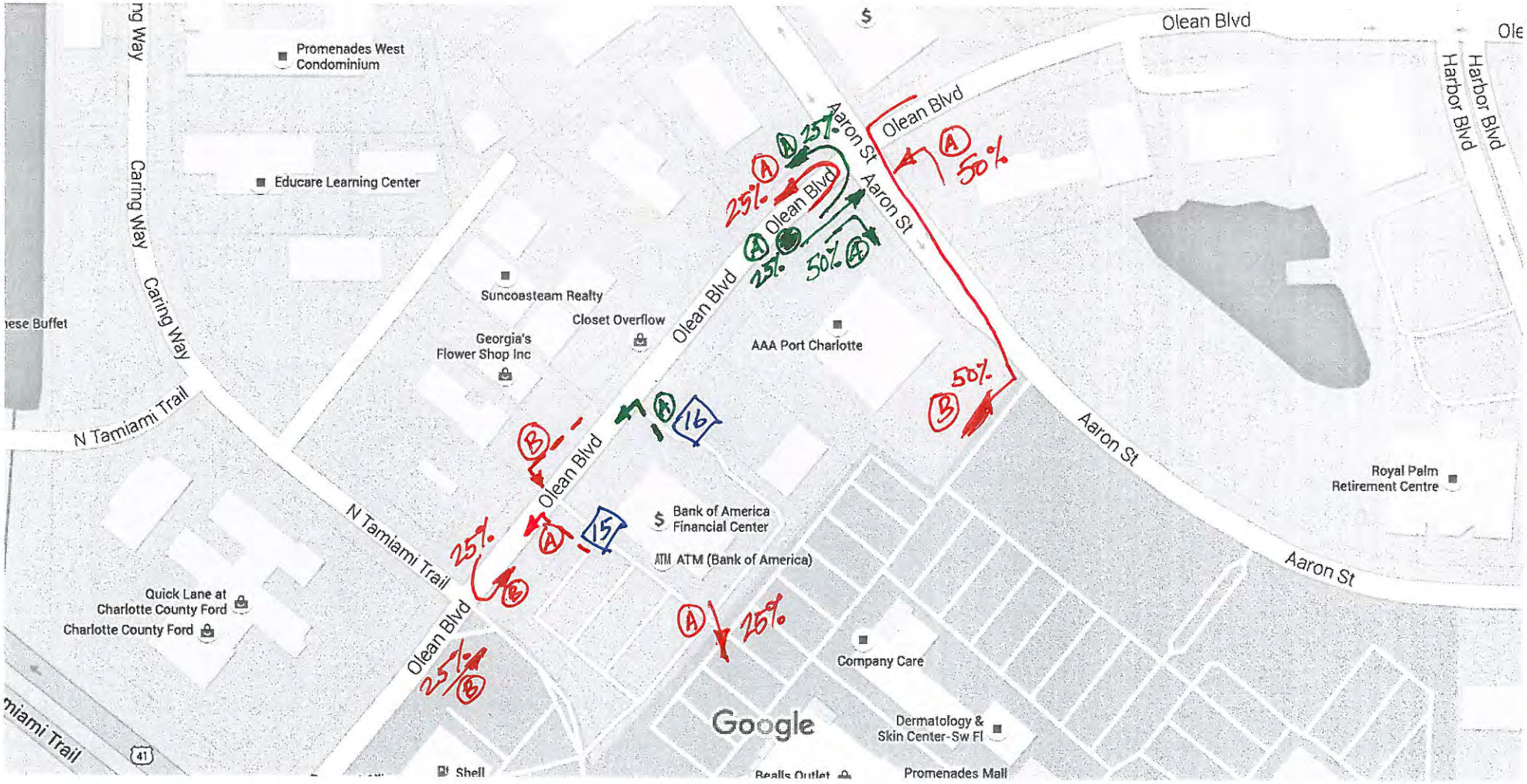
EXISTING ROUTE

EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

Google Maps Driveways: Caring Way to Aaron Street



Map data ©2016 Google 200 ft

EXISTING ROUTE

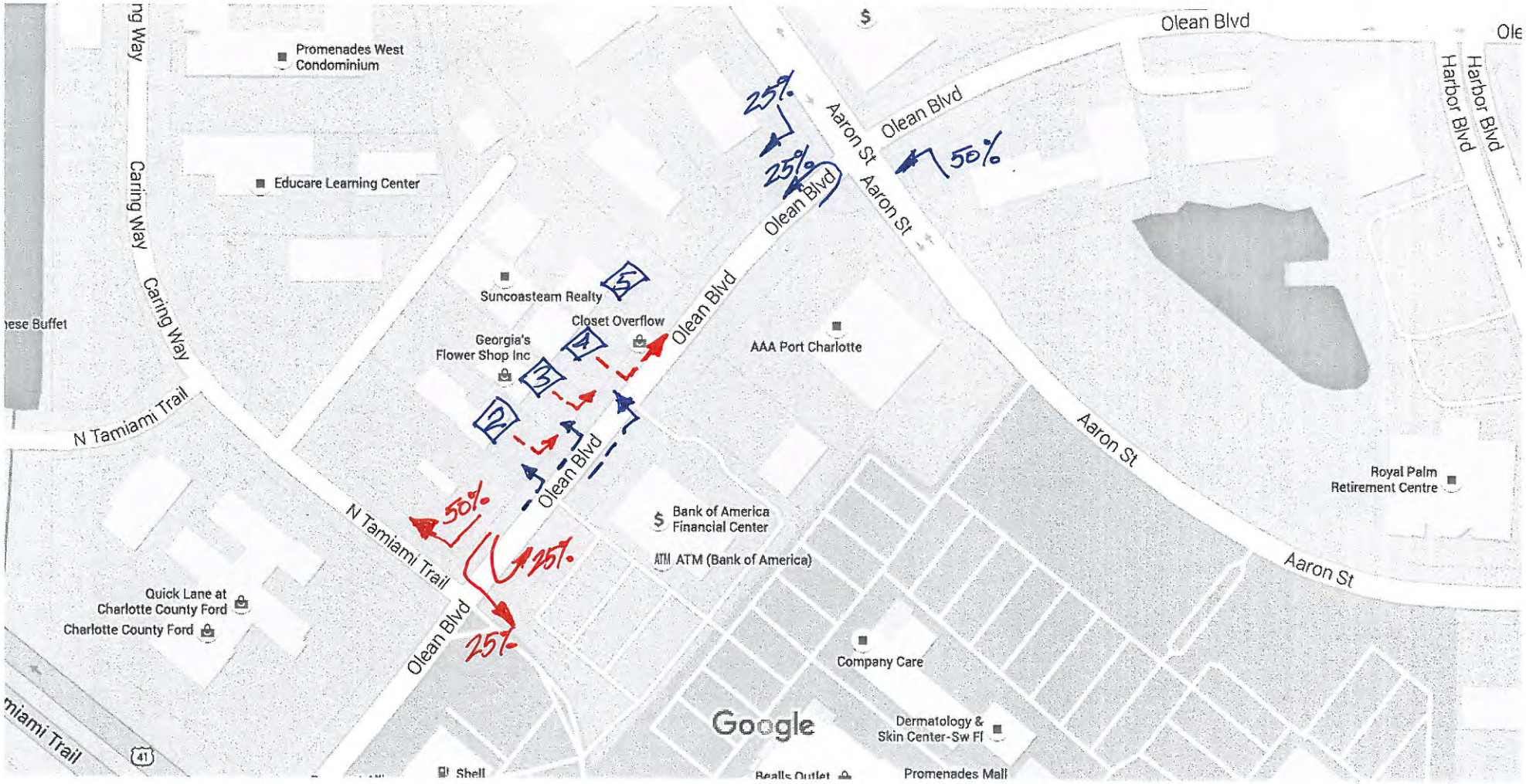
EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY

Google Maps Driveways: Caring Way to Aaron Street



Map data ©2016 Google 200 ft

EXISTING ROUTE

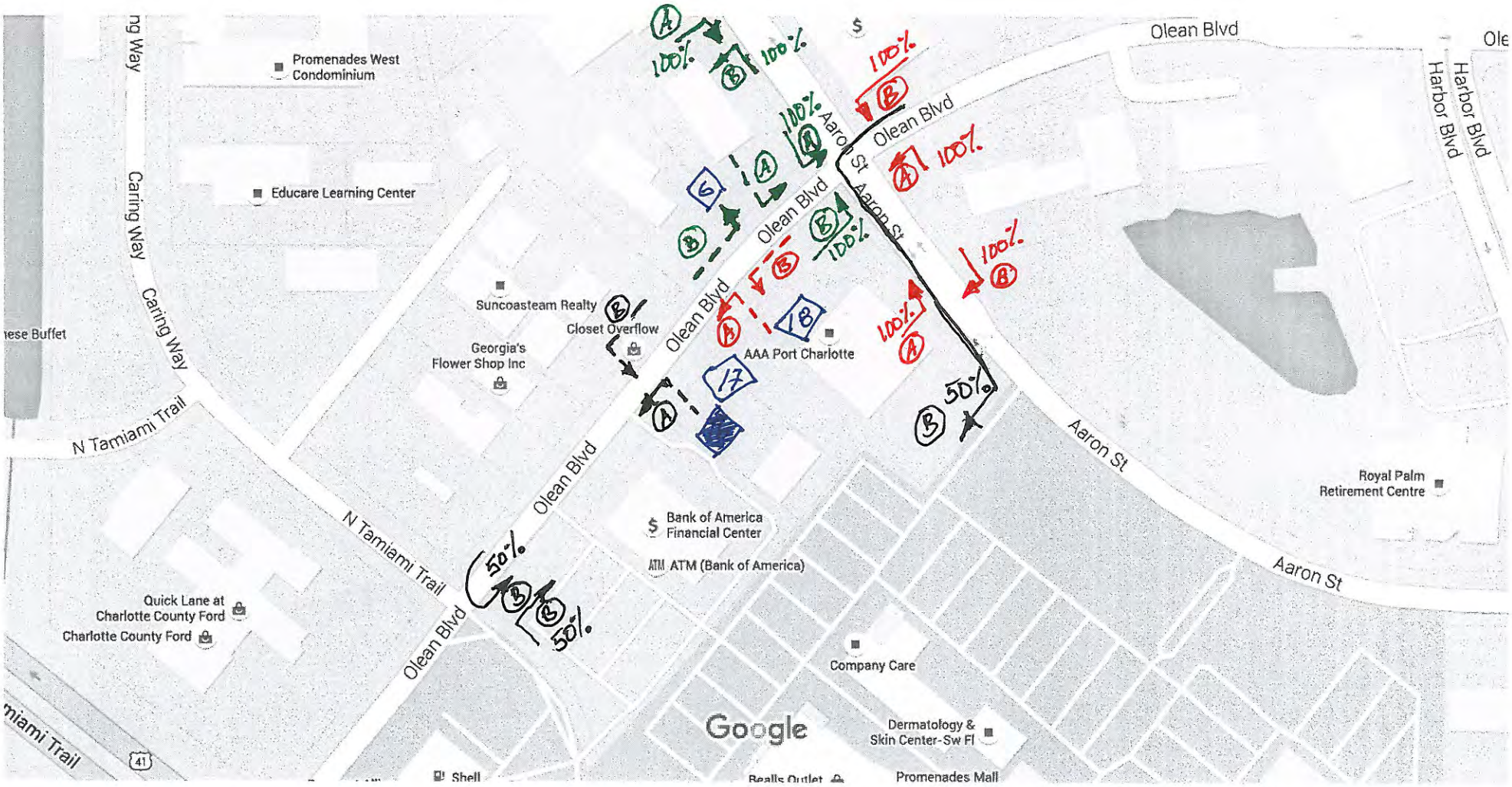
EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY

Google Maps Driveways: Caring Way to Aaron Street



EXISTING ROUTE

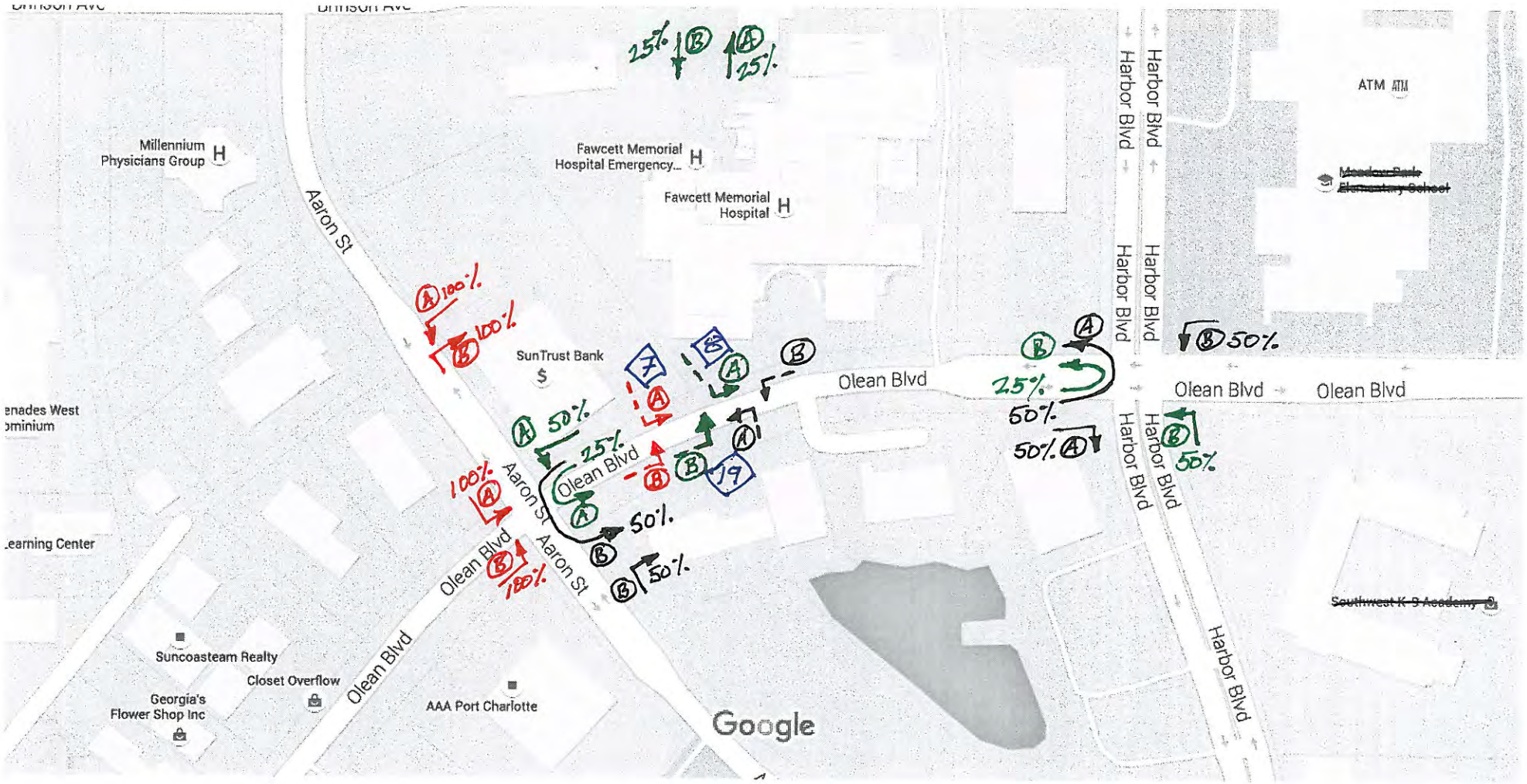
EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY

Google Maps Driveways: Aaron Street to Harbor Boulevard



EXISTING ROUTE

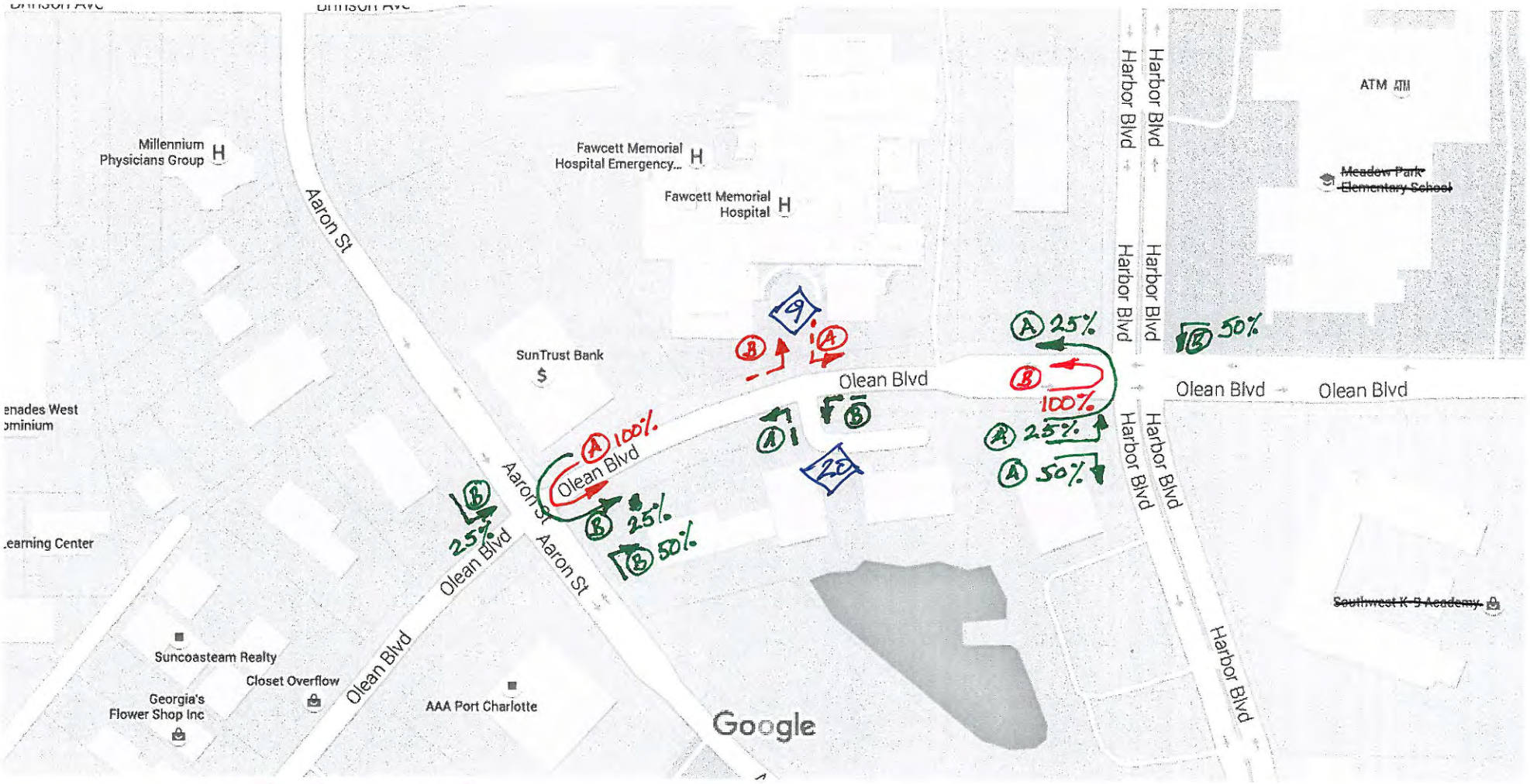
EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY

Google Maps Driveways: Aaron Street to Harbor Boulevard



EXISTING ROUTE

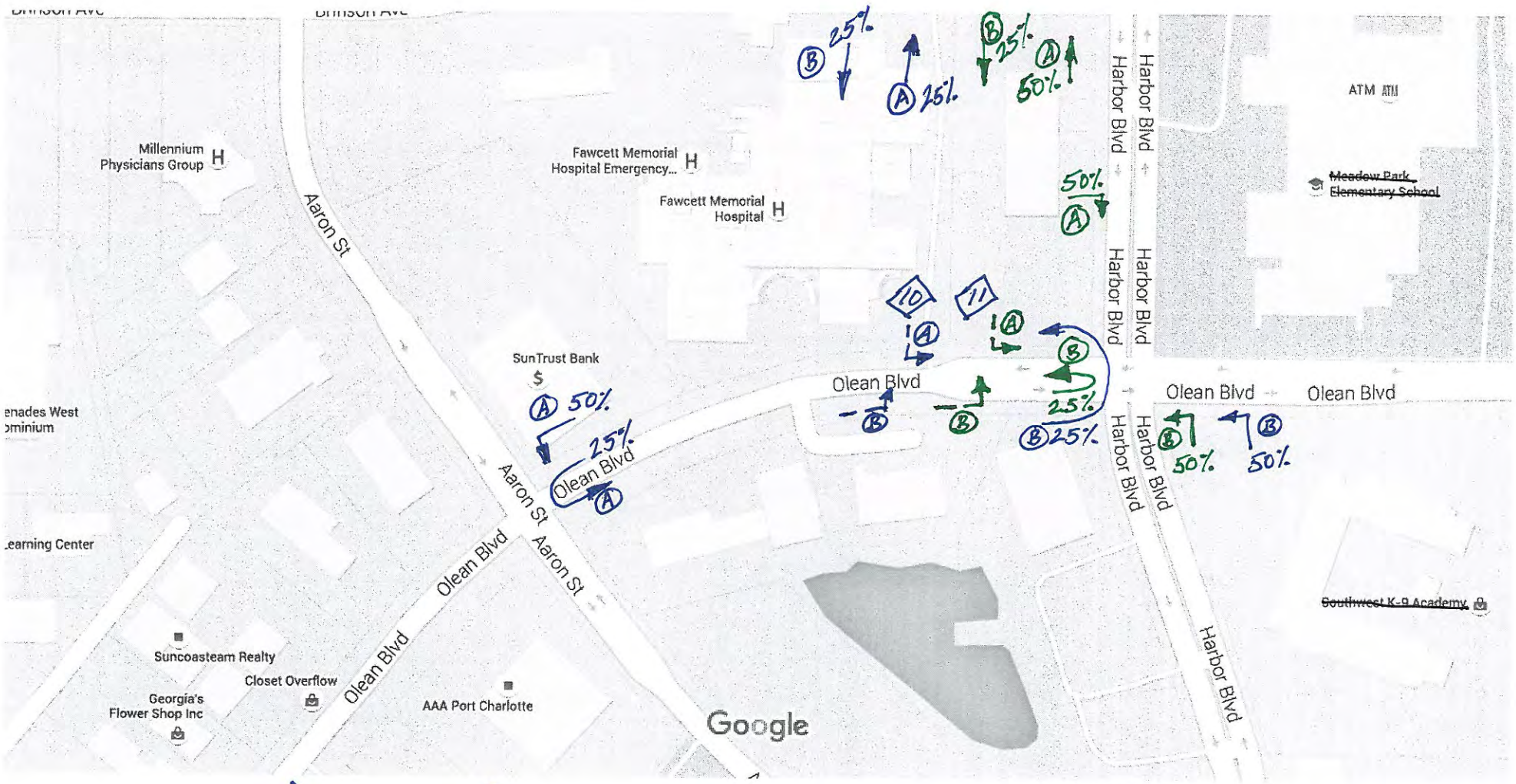
EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAY

Google Maps Driveways: Aaron Street to Harbor Boulevard



EXISTING ROUTE

EXISTING ROUTE

PROPOSED ROUTE

PROPOSED ROUTE

DRIVEWAYS

Appendix G

2018 Opening Year and 2038 Design Year Synchro Worksheets

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Alternative 1: 4-Lane Divided

Synchro Worksheets

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Phasings
3: US 41 & Olean Blvd

1/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	58	27	157	55	428	54	1903	108	312	1490	67
Satd. Flow (prot)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.976		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			87			112			68
Lane Group Flow (vph)	0	133	29	115	116	465	59	2068	117	339	1620	73
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.4	29.1	21.5	21.5	43.3	8.0	86.2	114.5	21.1	99.5	114.0
Actuated g/C Ratio		0.08	0.17	0.13	0.13	0.25	0.05	0.51	0.67	0.12	0.59	0.67
v/c Ratio		0.87	0.08	0.54	0.53	0.60	0.71	0.80	0.11	0.80	0.54	0.07
Control Delay		119.2	0.4	79.0	78.4	32.7	119.7	38.4	1.9	86.7	22.5	1.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		119.2	0.4	79.0	78.4	32.7	119.7	38.4	1.9	86.7	22.5	1.4
LOS		F	A	E	E	C	F	D	A	F	C	A
Approach Delay		97.9			48.0			38.6			32.4	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		150	0	127	128	159	66	716	2	190	397	1
Queue Length 95th (ft)		#293	0	202	203	211	#144	779	24	248	440	12
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		153	363	234	240	839	85	2578	1121	464	2976	1083
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.87	0.08	0.49	0.48	0.55	0.69	0.80	0.10	0.73	0.54	0.07

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 39.3 Intersection LOS: D
Intersection Capacity Utilization 76.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

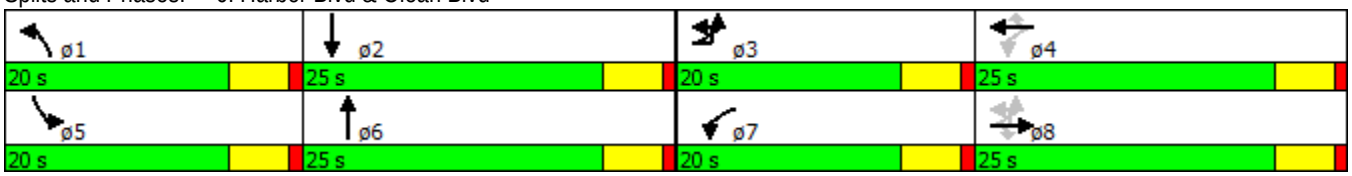
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	58	110	230	28	81	278	126	35	240	83	106	271
Satd. Flow (prot)	0	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3369
Flt Permitted		0.271			0.604			0.950			0.950	
Satd. Flow (perm)	0	505	1863	1583	1125	1863	1583	1770	3405	0	1770	3369
Satd. Flow (RTOR)				145			145		49			81
Lane Group Flow (vph)	0	183	250	30	88	302	137	38	351	0	115	435
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA
Protected Phases	3	3	8		7	4		1	6		5	2
Permitted Phases	8	8		8	4		4					
Total Split (s)	20.0	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)		31.2	22.4	22.4	24.9	16.5	16.5	10.4	20.8		11.8	25.2
Actuated g/C Ratio		0.41	0.29	0.29	0.33	0.22	0.22	0.14	0.27		0.15	0.33
v/c Ratio		0.48	0.46	0.05	0.20	0.75	0.30	0.16	0.36		0.42	0.37
Control Delay		19.4	28.4	0.2	16.0	42.4	6.8	35.9	23.3		38.0	19.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		19.4	28.4	0.2	16.0	42.4	6.8	35.9	23.3		38.0	19.3
LOS		B	C	A	B	D	A	D	C		D	B
Approach Delay			23.0			28.7			24.5			23.2
Approach LOS			C			C			C			C
Queue Length 50th (ft)		56	105	0	25	138	0	17	64		54	76
Queue Length 95th (ft)		107	193	0	56	#272	41	50	119		110	130
Internal Link Dist (ft)			826			803			820			968
Turn Bay Length (ft)		130			280		280					
Base Capacity (vph)		473	560	577	590	507	537	361	963		361	1168
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.39	0.45	0.05	0.15	0.60	0.26	0.11	0.36		0.32	0.37

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 76.2	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd



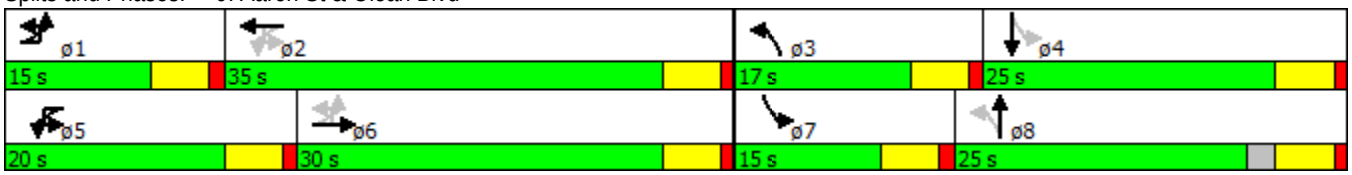
Lane Group	SBR
Lanes, Configurations	
Volume (vph)	129
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Satd. Flow (RTOR)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	29	111	338	25	14	19	406	49	35	54	22	66
Satd. Flow (prot)	0	1770	3504	0	0	1770	3483	0	1770	1783	0	1770
Flt Permitted		0.353				0.519			0.509			0.637
Satd. Flow (perm)	0	658	3504	0	0	967	3483	0	948	1783	0	1187
Satd. Flow (RTOR)			8				15			21		
Lane Group Flow (vph)	0	153	394	0	0	36	494	0	38	83	0	72
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		pm+pt	NA		pm+pt
Protected Phases	1	1	6		5	5	2		3	8		7
Permitted Phases	6	6			2	2			8			4
Total Split (s)	15.0	15.0	30.0		20.0	20.0	35.0		17.0	25.0		15.0
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Act Effct Green (s)		42.8	37.2			37.4	30.2		25.8	20.1		28.4
Actuated g/C Ratio		0.51	0.44			0.44	0.36		0.30	0.24		0.34
v/c Ratio		0.34	0.26			0.07	0.39		0.11	0.19		0.16
Control Delay		14.9	18.7			11.9	21.9		18.3	23.3		18.8
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0		0.0
Total Delay		14.9	18.7			11.9	21.9		18.3	23.3		18.8
LOS		B	B			B	C		B	C		B
Approach Delay			17.6				21.2			21.7		
Approach LOS			B				C			C		
Queue Length 50th (ft)		45	79			9	104		13	27		25
Queue Length 95th (ft)		83	122			25	154		33	67		53
Internal Link Dist (ft)			820				826			956		
Turn Bay Length (ft)		120				150						100
Base Capacity (vph)		465	1541			647	1251		446	481		475
Starvation Cap Reductn		0	0			0	0		0	0		0
Spillback Cap Reductn		0	0			0	0		0	0		0
Storage Cap Reductn		0	0			0	0		0	0		0
Reduced v/c Ratio		0.33	0.26			0.06	0.39		0.09	0.17		0.15

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 84.7	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	77	152
Satd. Flow (prot)	1678	0
Flt Permitted		
Satd. Flow (perm)	1678	0
Satd. Flow (RTOR)	98	
Lane Group Flow (vph)	249	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Total Split (s)	25.0	
Total Lost Time (s)	5.0	
Act Effct Green (s)	23.3	
Actuated g/C Ratio	0.28	
v/c Ratio	0.47	
Control Delay	19.9	
Queue Delay	0.0	
Total Delay	19.9	
LOS	B	
Approach Delay	19.6	
Approach LOS	B	
Queue Length 50th (ft)	70	
Queue Length 95th (ft)	147	
Internal Link Dist (ft)	708	
Turn Bay Length (ft)		
Base Capacity (vph)	532	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.47	

Intersection Summary

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	306	124	42	117	490	27	0	0	148	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	150	-	-	-	-	0	-	-	0
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	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	333	135	46	127	533	29	0	0	161	0	0	63

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	562	0	-	404	333	0	0	995	1291	166	1109	1276	281
Stage 1	-	-	-	-	-	-	-	383	383	-	893	893	-
Stage 2	-	-	-	-	-	-	-	612	908	-	216	383	-
Critical Hdwy	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1005	-	0	796	1223	-	-	199	162	849	164	165	716
Stage 1	-	-	0	-	-	-	-	611	610	-	303	358	-
Stage 2	-	-	0	-	-	-	-	447	352	-	766	610	-
Platoon blocked, %		-				-	-						
Mov Cap-1 Maneuver	1005	-	-	996	996	-	-	178	158	849	130	161	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	178	158	-	130	161	-
Stage 1	-	-	-	-	-	-	-	596	595	-	295	358	-
Stage 2	-	-	-	-	-	-	-	408	352	-	605	595	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.2	10.2	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	849	1005	-	996	-	-	716
HCM Lane V/C Ratio	0.189	0.025	-	0.174	-	-	0.088
HCM Control Delay (s)	10.2	8.7	-	9.4	-	-	10.5
HCM Lane LOS	B	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	0.6	-	-	0.3

Phasings
3: US 41 & Olean Blvd

1/29/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	48	13	98	38	362	38	1907	66	241	1834	45
Satd. Flow (prot)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.978		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			104			112			65
Lane Group Flow (vph)	0	111	14	73	75	393	41	2073	72	262	1993	49
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.0	28.6	18.9	18.9	38.0	7.9	91.9	117.5	18.4	105.1	120.6
Actuated g/C Ratio		0.08	0.17	0.11	0.11	0.22	0.05	0.54	0.69	0.11	0.62	0.71
v/c Ratio		0.74	0.04	0.39	0.39	0.56	0.51	0.75	0.06	0.70	0.63	0.04
Control Delay		103.1	0.2	75.4	75.3	30.9	100.0	33.8	0.4	83.4	22.8	0.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		103.1	0.2	75.4	75.3	30.9	100.0	33.8	0.4	83.4	22.8	0.6
LOS		F	A	E	E	C	F	C	A	F	C	A
Approach Delay		91.6			43.1			33.9			29.2	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		121	0	81	83	125	45	663	0	147	545	0
Queue Length 95th (ft)		#233	0	136	141	163	91	782	4	194	598	6
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		155	355	234	241	852	87	2747	1170	464	3144	1134
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.72	0.04	0.31	0.31	0.46	0.47	0.75	0.06	0.56	0.63	0.04

Intersection Summary

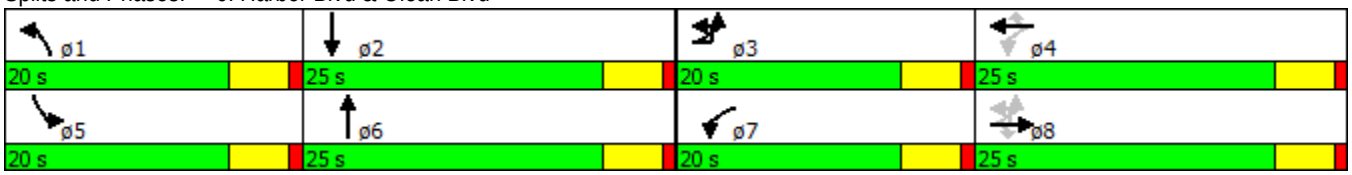
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 34.2 Intersection LOS: C
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	41	102	254	16	64	227	100	32	335	101	121	271
Satd. Flow (prot)	0	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405
Flt Permitted		0.342			0.540			0.950			0.950	
Satd. Flow (perm)	0	637	1863	1583	1006	1863	1583	1770	3415	0	1770	3405
Satd. Flow (RTOR)				145			145		41			47
Lane Group Flow (vph)	0	156	276	17	70	247	109	35	474	0	132	394
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA
Protected Phases	3	3	8		7	4		1	6		5	2
Permitted Phases	8	8		8	4		4					
Total Split (s)	20.0	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)		28.7	20.6	20.6	23.1	15.1	15.1	10.4	20.7		12.0	28.4
Actuated g/C Ratio		0.39	0.28	0.28	0.31	0.20	0.20	0.14	0.28		0.16	0.38
v/c Ratio		0.39	0.53	0.03	0.18	0.65	0.25	0.14	0.48		0.46	0.30
Control Delay		18.5	30.4	0.1	16.3	37.8	4.0	34.8	25.0		37.4	17.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		18.5	30.4	0.1	16.3	37.8	4.0	34.8	25.0		37.4	17.4
LOS		B	C	A	B	D	A	C	C		D	B
Approach Delay			25.1			25.6			25.7			22.4
Approach LOS			C			C			C			C
Queue Length 50th (ft)		48	118	0	20	109	0	15	91		59	48
Queue Length 95th (ft)		92	211	0	47	202	23	46	165		123	123
Internal Link Dist (ft)			826			803			820			968
Turn Bay Length (ft)		130			280		280					
Base Capacity (vph)		497	558	575	558	519	545	369	981		369	1329
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.31	0.49	0.03	0.13	0.48	0.20	0.09	0.48		0.36	0.30

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 74.3	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Harbor Blvd & Olean Blvd



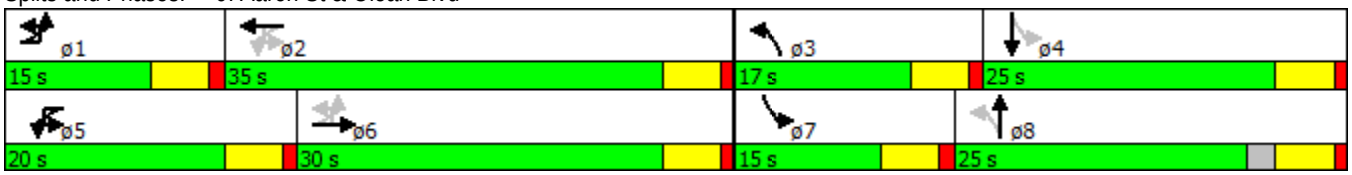
Lane Group	SBR
Lane Configurations	
Volume (vph)	91
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Satd. Flow (RTOR)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	10	78	339	13	9	9	356	18	54	62	25	49
Satd. Flow (prot)	0	1770	3522	0	0	1770	3514	0	1770	1783	0	1770
Flt Permitted		0.429				0.525			0.628			0.696
Satd. Flow (perm)	0	799	3522	0	0	978	3514	0	1170	1783	0	1296
Satd. Flow (RTOR)			4				6			21		
Lane Group Flow (vph)	0	96	382	0	0	20	407	0	59	94	0	53
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		pm+pt	NA		pm+pt
Protected Phases	1	1	6		5	5	2		3	8		7
Permitted Phases	6	6			2	2			8			4
Total Split (s)	15.0	15.0	30.0		20.0	20.0	35.0		17.0	25.0		15.0
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Act Effct Green (s)		39.8	36.3			35.9	30.7		27.5	22.9		26.3
Actuated g/C Ratio		0.49	0.45			0.44	0.38		0.34	0.28		0.32
v/c Ratio		0.20	0.24			0.04	0.31		0.13	0.18		0.11
Control Delay		13.3	16.9			11.6	20.3		18.2	22.5		18.1
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0		0.0
Total Delay		13.3	16.9			11.6	20.3		18.2	22.5		18.1
LOS		B	B			B	C		B	C		B
Approach Delay			16.2				19.9			20.8		
Approach LOS			B				B			C		
Queue Length 50th (ft)		27	58			5	81		20	31		18
Queue Length 95th (ft)		55	115			17	127		46	74		42
Internal Link Dist (ft)			820				826			956		
Turn Bay Length (ft)		120				150						100
Base Capacity (vph)		516	1579			640	1331		517	551		506
Starvation Cap Reductn		0	0			0	0		0	0		0
Spillback Cap Reductn		0	0			0	0		0	0		0
Storage Cap Reductn		0	0			0	0		0	0		0
Reduced v/c Ratio		0.19	0.24			0.03	0.31		0.11	0.17		0.10

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 81.1	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.31	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	41	78
Satd. Flow (prot)	1680	0
Flt Permitted		
Satd. Flow (perm)	1680	0
Satd. Flow (RTOR)	85	
Lane Group Flow (vph)	130	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Total Split (s)	25.0	
Total Lost Time (s)	5.0	
Act Effct Green (s)	20.4	
Actuated g/C Ratio	0.25	
v/c Ratio	0.27	
Control Delay	13.5	
Queue Delay	0.0	
Total Delay	13.5	
LOS	B	
Approach Delay	14.8	
Approach LOS	B	
Queue Length 50th (ft)	19	
Queue Length 95th (ft)	67	
Internal Link Dist (ft)	708	
Turn Bay Length (ft)		
Base Capacity (vph)	486	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.27	

Intersection Summary

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	269	83	20	102	403	21	0	0	108	0	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	150	-	-	-	-	0	-	-	0
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	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	292	90	22	111	438	23	0	0	117	0	0	54

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	461	0	-	331	292	0	0	837	1079	146	922	1068	230
Stage 1	-	-	-	-	-	-	-	353	353	-	715	715	-
Stage 2	-	-	-	-	-	-	-	484	726	-	207	353	-
Critical Hdwy	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1096	-	0	885	1267	-	-	259	217	875	225	220	772
Stage 1	-	-	0	-	-	-	-	637	629	-	388	433	-
Stage 2	-	-	0	-	-	-	-	533	428	-	776	629	-
Platoon blocked, %		-				-	-						
Mov Cap-1 Maneuver	1096	-	-	1148	1148	-	-	236	211	875	191	214	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	236	211	-	191	214	-
Stage 1	-	-	-	-	-	-	-	620	612	-	377	433	-
Stage 2	-	-	-	-	-	-	-	495	428	-	653	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.9	9.8	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	875	1096	-	1148	-	-	772
HCM Lane V/C Ratio	0.134	0.028	-	0.116	-	-	0.07
HCM Control Delay (s)	9.8	8.4	-	8.5	-	-	10
HCM Lane LOS	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	0.4	-	-	0.2

Phasings
3: US 41 & Olean Blvd

1/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	65	31	209	73	569	56	1984	179	386	1573	74
Satd. Flow (prot)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.976		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			75			142			71
Lane Group Flow (vph)	0	149	34	152	154	618	61	2157	195	420	1710	80
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.3	28.0	23.7	23.7	47.3	8.0	83.3	113.8	22.9	98.4	111.8
Actuated g/C Ratio		0.08	0.16	0.14	0.14	0.28	0.05	0.49	0.67	0.13	0.58	0.66
v/c Ratio		1.06	0.10	0.65	0.64	0.75	0.73	0.87	0.18	0.91	0.58	0.08
Control Delay		162.5	0.5	83.2	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		162.5	0.5	83.2	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
LOS		F	A	F	F	D	F	D	A	F	C	A
Approach Delay		132.4			54.5			41.9			36.8	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		~180	0	171	173	246	68	769	19	241	431	2
Queue Length 95th (ft)		#337	0	261	262	310	#151	834	49	#339	475	14
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		141	354	234	240	831	85	2492	1106	464	2942	1064
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		1.06	0.10	0.65	0.64	0.74	0.72	0.87	0.18	0.91	0.58	0.08

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 44.8 Intersection LOS: D
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

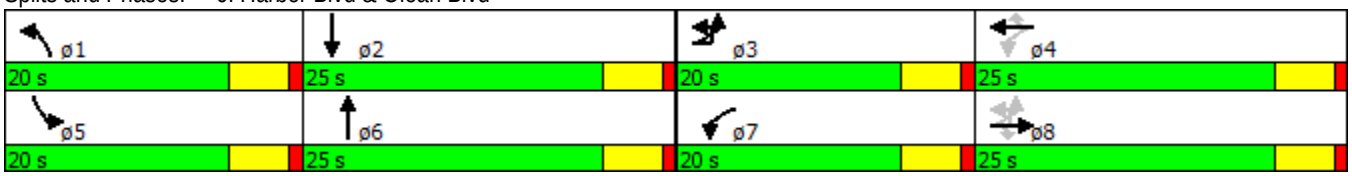
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	68	127	267	32	94	322	146	39	271	93	122	312
Satd. Flow (prot)	0	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3369
Flt Permitted		0.198			0.518			0.950			0.950	
Satd. Flow (perm)	0	369	1863	1583	965	1863	1583	1770	3405	0	1770	3369
Satd. Flow (RTOR)				145			159		49			81
Lane Group Flow (vph)	0	212	290	35	102	350	159	42	396	0	133	500
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA
Protected Phases	3	3	8		7	4		1	6		5	2
Permitted Phases	8	8		8	4		4					
Total Split (s)	20.0	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)		34.0	24.2	24.2	27.1	18.5	18.5	10.1	20.1		12.0	28.6
Actuated g/C Ratio		0.41	0.29	0.29	0.33	0.22	0.22	0.12	0.24		0.15	0.35
v/c Ratio		0.61	0.53	0.06	0.25	0.84	0.33	0.19	0.46		0.52	0.41
Control Delay		23.3	30.3	0.2	16.6	50.3	7.1	37.4	26.1		41.3	20.7
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		23.3	30.3	0.2	16.6	50.3	7.1	37.4	26.1		41.3	20.7
LOS		C	C	A	B	D	A	D	C		D	C
Approach Delay			25.6			33.4			27.2			25.0
Approach LOS			C			C			C			C
Queue Length 50th (ft)		68	128	0	30	171	0	20	81		66	98
Queue Length 95th (ft)		123	227	0	64	#339	49	53	136		125	153
Internal Link Dist (ft)			826			803			820			968
Turn Bay Length (ft)		130			280		280					
Base Capacity (vph)		413	547	567	536	455	507	324	869		324	1221
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.51	0.53	0.06	0.19	0.77	0.31	0.13	0.46		0.41	0.41

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82.3	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd



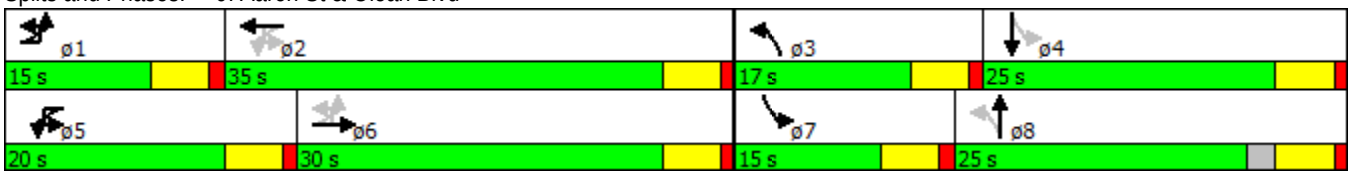
Lane Group	SBR
Lanes, Configurations	
Volume (vph)	148
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Satd. Flow (RTOR)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	40	153	416	51	18	23	495	60	41	63	25	78
Satd. Flow (prot)	0	1770	3483	0	0	1770	3483	0	1770	1783	0	1770
Flt Permitted		0.285				0.465			0.426			0.627
Satd. Flow (perm)	0	531	3483	0	0	866	3483	0	794	1783	0	1168
Satd. Flow (RTOR)			14				15			20		
Lane Group Flow (vph)	0	209	507	0	0	45	603	0	45	95	0	85
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		pm+pt	NA		pm+pt
Protected Phases	1	1	6		5	5	2		3	8		7
Permitted Phases	6	6			2	2			8			4
Total Split (s)	15.0	15.0	30.0		20.0	20.0	35.0		17.0	25.0		15.0
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Act Effct Green (s)		43.2	37.4			37.5	30.2		26.0	20.1		28.7
Actuated g/C Ratio		0.51	0.44			0.44	0.35		0.30	0.24		0.34
v/c Ratio		0.52	0.33			0.10	0.49		0.14	0.22		0.19
Control Delay		17.9	19.3			12.2	23.6		18.8	24.4		19.1
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0		0.0
Total Delay		17.9	19.3			12.2	23.6		18.8	24.4		19.1
LOS		B	B			B	C		B	C		B
Approach Delay			18.9				22.8			22.6		
Approach LOS			B				C			C		
Queue Length 50th (ft)		64	106			12	135		16	34		30
Queue Length 95th (ft)		110	156			30	191		38	76		61
Internal Link Dist (ft)			820				826			956		
Turn Bay Length (ft)		120				150						100
Base Capacity (vph)		414	1534			611	1241		411	477		470
Starvation Cap Reductn		0	0			0	0		0	0		0
Spillback Cap Reductn		0	0			0	0		0	0		0
Storage Cap Reductn		0	0			0	0		0	0		0
Reduced v/c Ratio		0.50	0.33			0.07	0.49		0.11	0.20		0.18

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 85.4	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	91	179
Satd. Flow (prot)	1678	0
Flt Permitted		
Satd. Flow (perm)	1678	0
Satd. Flow (RTOR)	98	
Lane Group Flow (vph)	294	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Total Split (s)	25.0	
Total Lost Time (s)	5.0	
Act Effct Green (s)	23.4	
Actuated g/C Ratio	0.27	
v/c Ratio	0.55	
Control Delay	23.3	
Queue Delay	0.0	
Total Delay	23.3	
LOS	C	
Approach Delay	22.4	
Approach LOS	C	
Queue Length 50th (ft)	96	
Queue Length 95th (ft)	185	
Internal Link Dist (ft)	708	
Turn Bay Length (ft)		
Base Capacity (vph)	531	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.55	

Intersection Summary

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	406	164	55	153	644	36	0	0	171	0	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	150	-	-	-	-	0	-	-	0
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	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	441	178	60	166	700	39	0	0	186	0	0	70

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	739	0	-	508	441	0	0	1311	1700	221	1460	1681	370
Stage 1	-	-	-	-	-	-	-	509	509	-	1172	1172	-
Stage 2	-	-	-	-	-	-	-	802	1191	-	288	509	-
Critical Hdwy	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	863	-	0	684	1115	-	-	116	91	783	90	94	627
Stage 1	-	-	0	-	-	-	-	515	536	-	204	264	-
Stage 2	-	-	0	-	-	-	-	344	259	-	695	536	-
Platoon blocked, %		-				-	-						
Mov Cap-1 Maneuver	863	-	-	867	867	-	-	100	87	783	67	90	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	100	87	-	67	90	-
Stage 1	-	-	-	-	-	-	-	495	515	-	196	264	-
Stage 2	-	-	-	-	-	-	-	306	259	-	509	515	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2.5	11	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	783	863	-	867	-	-	627
HCM Lane V/C Ratio	0.237	0.039	-	0.261	-	-	0.111
HCM Control Delay (s)	11	9.3	-	10.6	-	-	11.5
HCM Lane LOS	B	A	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	1	-	-	0.4

Phasings
3: US 41 & Olean Blvd

1/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	54	15	130	50	481	40	2015	107	309	1940	52
Satd. Flow (prot)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.978		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			91			112			65
Lane Group Flow (vph)	0	125	16	96	99	523	43	2190	116	336	2109	57
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.3	27.7	22.9	22.9	44.8	7.7	85.8	115.5	21.2	102.1	116.8
Actuated g/C Ratio		0.08	0.16	0.13	0.13	0.26	0.05	0.50	0.68	0.12	0.60	0.69
v/c Ratio		0.89	0.05	0.42	0.42	0.65	0.54	0.85	0.10	0.79	0.69	0.05
Control Delay		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
LOS		F	A	E	E	C	F	D	A	F	C	A
Approach Delay		111.7			45.2			40.5			33.0	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		141	0	104	107	187	48	787	1	188	603	0
Queue Length 95th (ft)		#272	0	172	176	243	95	856	24	246	654	8
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		142	343	234	241	842	85	2567	1118	464	3052	1096
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.88	0.05	0.41	0.41	0.62	0.51	0.85	0.10	0.72	0.69	0.05

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 39.6 Intersection LOS: D
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

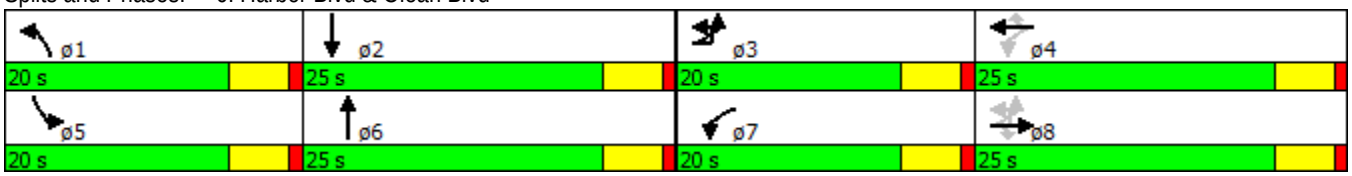
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	48	118	294	19	74	263	115	36	377	114	139	311
Satd. Flow (prot)	0	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405
Flt Permitted		0.272			0.439			0.950			0.950	
Satd. Flow (perm)	0	507	1863	1583	818	1863	1583	1770	3415	0	1770	3405
Satd. Flow (RTOR)				145			145		41			47
Lane Group Flow (vph)	0	180	320	21	80	286	125	39	534	0	151	452
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA
Protected Phases	3	3	8		7	4		1	6		5	2
Permitted Phases	8	8		8	4		4					
Total Split (s)	20.0	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)		31.0	21.9	21.9	24.5	16.3	16.3	10.1	20.2		12.3	29.2
Actuated g/C Ratio		0.39	0.27	0.27	0.31	0.20	0.20	0.13	0.25		0.15	0.37
v/c Ratio		0.49	0.63	0.04	0.23	0.75	0.28	0.17	0.60		0.56	0.36
Control Delay		20.5	33.2	0.2	16.9	43.9	5.7	36.7	28.9		41.2	20.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		20.5	33.2	0.2	16.9	43.9	5.7	36.7	28.9		41.2	20.5
LOS		C	C	A	B	D	A	D	C		D	C
Approach Delay			27.5			29.8			29.4			25.7
Approach LOS			C			C			C			C
Queue Length 50th (ft)		57	145	0	24	134	0	18	115		72	88
Queue Length 95th (ft)		105	248	0	52	#240	34	51	191		140	145
Internal Link Dist (ft)			826			803			820			968
Turn Bay Length (ft)		130			280		280					
Base Capacity (vph)		444	527	552	495	471	508	336	894		336	1272
Starvation Cap Reductn		0	0	0	0	0	0	0	0		0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0		0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0		0	0
Reduced v/c Ratio		0.41	0.61	0.04	0.16	0.61	0.25	0.12	0.60		0.45	0.36

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 79.9	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd



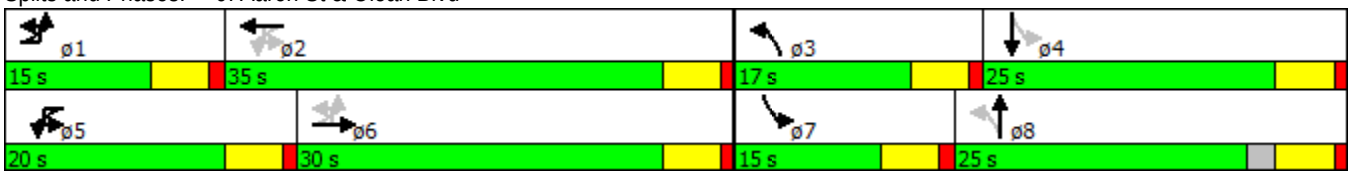
Lane Group	SBR
Lanes, Configurations	
Volume (vph)	105
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Satd. Flow (RTOR)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	13	105	416	27	11	11	432	21	63	71	29	57
Satd. Flow (prot)	0	1770	3507	0	0	1770	3514	0	1770	1781	0	1770
Flt Permitted		0.367				0.477			0.624			0.687
Satd. Flow (perm)	0	684	3507	0	0	889	3514	0	1162	1781	0	1280
Satd. Flow (RTOR)			7				6			21		
Lane Group Flow (vph)	0	128	481	0	0	24	493	0	68	109	0	62
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		pm+pt	NA		pm+pt
Protected Phases	1	1	6		5	5	2		3	8		7
Permitted Phases	6	6			2	2			8			4
Total Split (s)	15.0	15.0	30.0		20.0	20.0	35.0		17.0	25.0		15.0
Total Lost Time (s)		5.0	5.0			5.0	5.0		5.0	5.0		5.0
Act Effct Green (s)		40.5	36.8			36.0	30.7		26.8	20.6		26.5
Actuated g/C Ratio		0.49	0.45			0.44	0.37		0.33	0.25		0.32
v/c Ratio		0.28	0.30			0.05	0.37		0.15	0.23		0.13
Control Delay		14.0	17.4			11.8	21.5		18.7	24.6		18.5
Queue Delay		0.0	0.0			0.0	0.0		0.0	0.0		0.0
Total Delay		14.0	17.4			11.8	21.5		18.7	24.6		18.5
LOS		B	B			B	C		B	C		B
Approach Delay			16.7				21.0			22.3		
Approach LOS			B				C			C		
Queue Length 50th (ft)		36	75			6	104		24	39		21
Queue Length 95th (ft)		71	145			19	156		51	86		48
Internal Link Dist (ft)			820				826			956		
Turn Bay Length (ft)		120				150						100
Base Capacity (vph)		474	1581			612	1320		511	504		498
Starvation Cap Reductn		0	0			0	0		0	0		0
Spillback Cap Reductn		0	0			0	0		0	0		0
Storage Cap Reductn		0	0			0	0		0	0		0
Reduced v/c Ratio		0.27	0.30			0.04	0.37		0.13	0.22		0.12

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 81.9	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	48	90
Satd. Flow (prot)	1680	0
Flt Permitted		
Satd. Flow (perm)	1680	0
Satd. Flow (RTOR)	94	
Lane Group Flow (vph)	150	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Total Split (s)	25.0	
Total Lost Time (s)	5.0	
Act Effct Green (s)	20.5	
Actuated g/C Ratio	0.25	
v/c Ratio	0.31	
Control Delay	14.3	
Queue Delay	0.0	
Total Delay	14.3	
LOS	B	
Approach Delay	15.6	
Approach LOS	B	
Queue Length 50th (ft)	24	
Queue Length 95th (ft)	76	
Internal Link Dist (ft)	708	
Turn Bay Length (ft)		
Base Capacity (vph)	490	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.31	

Intersection Summary

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	359	111	26	135	532	27	0	0	125	0	0	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	-	150	-	-	-	-	0	-	-	0
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	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	390	121	28	147	578	29	0	0	136	0	0	61

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	608	0	-	421	390	0	0	1112	1431	195	1221	1416	304
Stage 1	-	-	-	-	-	-	-	473	473	-	943	943	-
Stage 2	-	-	-	-	-	-	-	639	958	-	278	473	-
Critical Hdwy	4.14	-	-	6.44	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.52	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	966	-	0	777	1165	-	-	163	133	814	136	136	692
Stage 1	-	-	0	-	-	-	-	541	557	-	282	339	-
Stage 2	-	-	0	-	-	-	-	431	334	-	705	557	-
Platoon blocked, %		-				-	-						
Mov Cap-1 Maneuver	966	-	-	1036	1036	-	-	144	127	814	110	130	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	144	127	-	110	130	-
Stage 1	-	-	-	-	-	-	-	518	533	-	270	339	-
Stage 2	-	-	-	-	-	-	-	393	334	-	562	533	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	2.1	10.3	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	814	966	-	1036	-	-	692
HCM Lane V/C Ratio	0.167	0.043	-	0.169	-	-	0.088
HCM Control Delay (s)	10.3	8.9	-	9.2	-	-	10.7
HCM Lane LOS	B	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	0.6	-	-	0.3

Alternative 2: 5-Lane Undivided

Synchro Worksheets

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Phasings
3: US 41 & Olean Blvd

1/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	58	27	157	55	428	54	1903	108	312	1490	67
Satd. Flow (prot)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.976		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			87			112			68
Lane Group Flow (vph)	0	133	29	115	116	465	59	2068	117	339	1620	73
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.4	29.1	21.5	21.5	43.3	8.0	86.2	114.5	21.1	99.5	114.0
Actuated g/C Ratio		0.08	0.17	0.13	0.13	0.25	0.05	0.51	0.67	0.12	0.59	0.67
v/c Ratio		0.87	0.08	0.54	0.53	0.60	0.71	0.80	0.11	0.80	0.54	0.07
Control Delay		119.2	0.4	79.0	78.4	32.7	119.7	38.4	1.9	86.7	22.5	1.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		119.2	0.4	79.0	78.4	32.7	119.7	38.4	1.9	86.7	22.5	1.4
LOS		F	A	E	E	C	F	D	A	F	C	A
Approach Delay		97.9			48.0			38.6			32.4	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		150	0	127	128	159	66	716	2	190	397	1
Queue Length 95th (ft)		#293	0	202	203	211	#144	779	24	248	440	12
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		153	363	234	240	839	85	2578	1121	464	2976	1083
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.87	0.08	0.49	0.48	0.55	0.69	0.80	0.10	0.73	0.54	0.07

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 39.3 Intersection LOS: D
Intersection Capacity Utilization 76.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

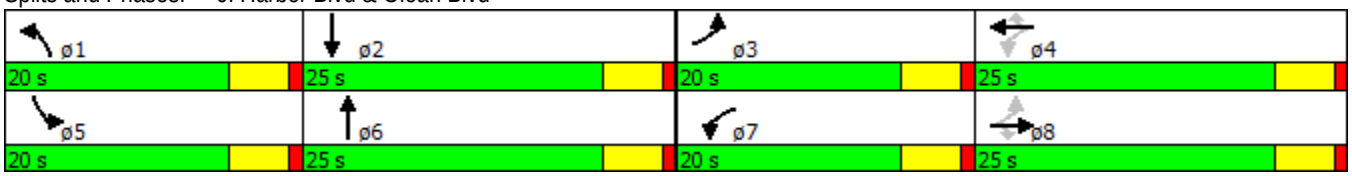
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	231	28	82	279	126	35	241	83	92	271	129
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3369	0
Flt Permitted	0.331			0.475			0.950			0.950		
Satd. Flow (perm)	617	1863	1583	885	1863	1583	1770	3405	0	1770	3369	0
Satd. Flow (RTOR)			145			145		49			81	
Lane Group Flow (vph)	120	251	30	89	303	137	38	352	0	100	435	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	24.2	17.4	17.4	22.8	16.7	16.7	10.8	21.6		11.7	25.4	
Actuated g/C Ratio	0.34	0.24	0.24	0.32	0.23	0.23	0.15	0.30		0.16	0.36	
v/c Ratio	0.33	0.55	0.06	0.23	0.70	0.29	0.14	0.33		0.34	0.35	
Control Delay	17.5	31.4	0.2	16.2	37.3	6.4	33.8	21.7		35.2	18.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.5	31.4	0.2	16.2	37.3	6.4	33.8	21.7		35.2	18.3	
LOS	B	C	A	B	D	A	C	C		D	B	
Approach Delay		24.9			25.8			22.9			21.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	35	105	0	25	132	0	16	61		45	73	
Queue Length 95th (ft)	72	192	0	56	#243	40	48	113		95	124	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130			280		280						
Base Capacity (vph)	511	575	589	555	564	580	402	1066		402	1253	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.23	0.44	0.05	0.16	0.54	0.24	0.09	0.33		0.25	0.35	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.3	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

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

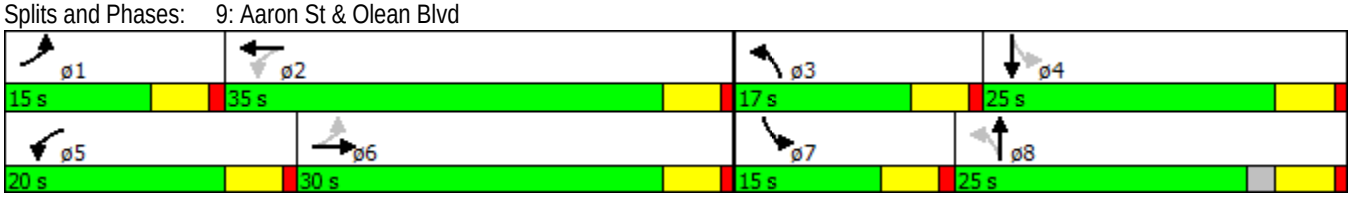
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	349	19	16	404	49	30	49	22	58	77	152
Satd. Flow (prot)	1770	3511	0	1770	3483	0	1770	1775	0	1770	1678	0
Flt Permitted	0.367			0.516			0.514			0.646		
Satd. Flow (perm)	684	3511	0	961	3483	0	957	1775	0	1203	1678	0
Satd. Flow (RTOR)		6			15			23			98	
Lane Group Flow (vph)	122	400	0	17	492	0	33	77	0	63	249	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		15.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.4	36.7		35.9	30.7		25.9	20.5		28.2	23.4	
Actuated g/C Ratio	0.49	0.45		0.44	0.38		0.32	0.25		0.35	0.29	
v/c Ratio	0.27	0.25		0.03	0.37		0.09	0.17		0.13	0.45	
Control Delay	13.3	16.2		11.6	21.0		18.1	21.8		18.4	19.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.3	16.2		11.6	21.0		18.1	21.8		18.4	19.5	
LOS	B	B		B	C		B	C		B	B	
Approach Delay		15.5			20.7			20.7			19.3	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	33	59		4	101		11	23		22	69	
Queue Length 95th (ft)	65	118		15	153		30	61		48	146	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	474	1582		635	1317		467	505		498	551	
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	0.26	0.25		0.03	0.37		0.07	0.15		0.13	0.45	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 81.7	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	306	124	117	492	27	0	0	149	0	0	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	0
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	25	333	135	127	535	29	0	0	162	0	0	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	564	0	-	333	0	0	905	1201	166	1020	1187	282
Stage 1	-	-	-	-	-	-	383	383	-	804	804	-
Stage 2	-	-	-	-	-	-	522	818	-	216	383	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1004	-	0	1223	-	-	232	184	849	191	187	715
Stage 1	-	-	0	-	-	-	611	610	-	343	394	-
Stage 2	-	-	0	-	-	-	506	388	-	766	610	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1004	-	-	1223	-	-	191	161	849	140	163	715
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	161	-	140	163	-
Stage 1	-	-	-	-	-	-	596	595	-	334	353	-
Stage 2	-	-	-	-	-	-	413	348	-	604	595	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.5	10.2	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	849	1004	-	1223	-	-	715
HCM Lane V/C Ratio	0.191	0.025	-	0.104	-	-	0.09
HCM Control Delay (s)	10.2	8.7	-	8.3	-	-	10.5
HCM Lane LOS	B	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	0.3	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	48	13	98	38	362	38	1907	66	241	1834	45
Satd. Flow (prot)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.978		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			104			112			65
Lane Group Flow (vph)	0	111	14	73	75	393	41	2073	72	262	1993	49
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.0	28.6	18.9	18.9	38.0	7.9	91.9	117.5	18.4	105.1	120.6
Actuated g/C Ratio		0.08	0.17	0.11	0.11	0.22	0.05	0.54	0.69	0.11	0.62	0.71
v/c Ratio		0.74	0.04	0.39	0.39	0.56	0.51	0.75	0.06	0.70	0.63	0.04
Control Delay		103.1	0.2	75.4	75.3	30.9	100.0	33.8	0.4	83.4	22.8	0.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		103.1	0.2	75.4	75.3	30.9	100.0	33.8	0.4	83.4	22.8	0.6
LOS		F	A	E	E	C	F	C	A	F	C	A
Approach Delay		91.6			43.1			33.9			29.2	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		121	0	81	83	125	45	663	0	147	545	0
Queue Length 95th (ft)		#233	0	136	141	163	91	782	4	194	598	6
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		155	355	234	241	852	87	2747	1170	464	3144	1134
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.72	0.04	0.31	0.31	0.46	0.47	0.75	0.06	0.56	0.63	0.04

Intersection Summary

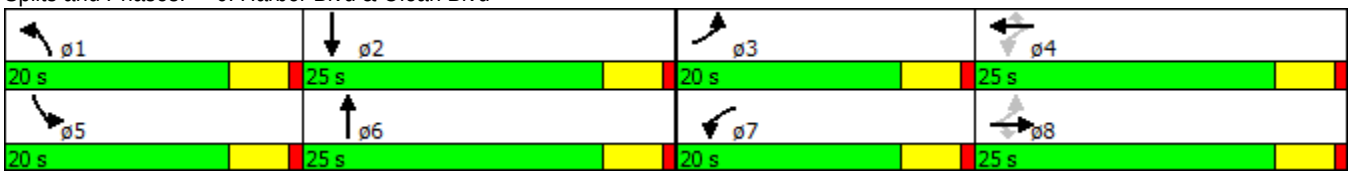
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 34.2 Intersection LOS: C
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	253	16	64	226	99	32	333	101	105	270	91
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.416			0.413			0.950			0.950		
Satd. Flow (perm)	775	1863	1583	769	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			48	
Lane Group Flow (vph)	110	275	17	70	246	108	35	472	0	114	392	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	22.7	16.1	16.1	21.1	15.3	15.3	10.8	21.5		11.9	28.5	
Actuated g/C Ratio	0.32	0.23	0.23	0.30	0.22	0.22	0.15	0.31		0.17	0.41	
v/c Ratio	0.29	0.64	0.04	0.20	0.60	0.24	0.13	0.44		0.38	0.28	
Control Delay	17.4	34.6	0.1	16.6	34.6	3.7	33.2	23.2		34.6	16.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.4	34.6	0.1	16.6	34.6	3.7	33.2	23.2		34.6	16.4	
LOS	B	C	A	B	C	A	C	C		C	B	
Approach Delay		28.4			23.8			23.9			20.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	32	115	0	20	103	0	14	85		49	45	
Queue Length 95th (ft)	68	211	0	47	195	22	45	160		105	118	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130			280		280						
Base Capacity (vph)	532	581	594	528	573	587	408	1080		408	1417	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.21	0.47	0.03	0.13	0.43	0.18	0.09	0.44		0.28	0.28	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

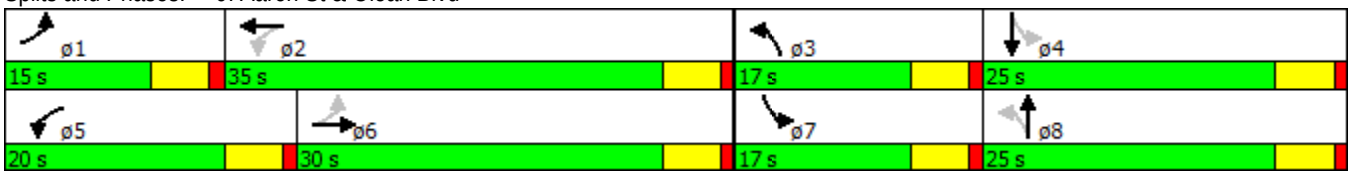
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	316	17	8	357	18	50	58	25	45	42	78
Satd. Flow (prot)	1770	3514	0	1770	3514	0	1770	1779	0	1770	1682	0
Flt Permitted	0.420			0.536			0.669			0.699		
Satd. Flow (perm)	782	3514	0	998	3514	0	1246	1779	0	1302	1682	0
Satd. Flow (RTOR)		6			6			21			85	
Lane Group Flow (vph)	84	361	0	9	408	0	54	90	0	49	131	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.3	38.5		36.0	30.7		24.9	20.6		24.7	20.4	
Actuated g/C Ratio	0.51	0.49		0.46	0.39		0.32	0.26		0.32	0.26	
v/c Ratio	0.17	0.21		0.02	0.30		0.12	0.19		0.11	0.26	
Control Delay	11.7	13.3		11.2	19.2		18.3	22.4		18.2	13.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.7	13.3		11.2	19.2		18.3	22.4		18.2	13.3	
LOS	B	B		B	B		B	C		B	B	
Approach Delay		13.0			19.0			20.9			14.6	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	22	52		2	80		18	29		16	19	
Queue Length 95th (ft)	47	106		10	126		43	71		40	67	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	530	1730		668	1378		512	481		520	501	
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	0.16	0.21		0.01	0.30		0.11	0.19		0.09	0.26	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 78.4	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 44.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	28	269	83	102	403	21	0	0	108	0	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	0
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	30	292	90	111	438	23	0	0	117	0	0	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	461	0	-	292	0	0	794	1036	146	878	1024	230
Stage 1	-	-	-	-	-	-	353	353	-	671	671	-
Stage 2	-	-	-	-	-	-	441	683	-	207	353	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1096	-	0	1267	-	-	279	230	875	242	234	772
Stage 1	-	-	0	-	-	-	637	629	-	412	453	-
Stage 2	-	-	0	-	-	-	565	447	-	776	629	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1096	-	-	1267	-	-	237	204	875	191	208	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	237	204	-	191	208	-
Stage 1	-	-	-	-	-	-	620	612	-	401	413	-
Stage 2	-	-	-	-	-	-	478	408	-	653	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.6	9.8	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	875	1096	-	1267	-	-	772
HCM Lane V/C Ratio	0.134	0.028	-	0.088	-	-	0.072
HCM Control Delay (s)	9.8	8.4	-	8.1	-	-	10
HCM Lane LOS	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	0.3	-	-	0.2

Phasings
3: US 41 & Olean Blvd

1/28/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	65	31	209	73	569	56	1984	179	386	1573	74
Satd. Flow (prot)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.976		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1727	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			75			142			71
Lane Group Flow (vph)	0	149	34	152	154	618	61	2157	195	420	1710	80
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.3	28.0	23.7	23.7	47.3	8.0	83.3	113.8	22.9	98.4	111.8
Actuated g/C Ratio		0.08	0.16	0.14	0.14	0.28	0.05	0.49	0.67	0.13	0.58	0.66
v/c Ratio		1.06	0.10	0.65	0.64	0.75	0.73	0.87	0.18	0.91	0.58	0.08
Control Delay		162.5	0.5	83.2	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		162.5	0.5	83.2	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
LOS		F	A	F	F	D	F	D	A	F	C	A
Approach Delay		132.4			54.5			41.9			36.8	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		~180	0	171	173	246	68	769	19	241	431	2
Queue Length 95th (ft)		#337	0	261	262	310	#151	834	49	#339	475	14
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		141	354	234	240	831	85	2492	1106	464	2942	1064
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		1.06	0.10	0.65	0.64	0.74	0.72	0.87	0.18	0.91	0.58	0.08

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 44.8 Intersection LOS: D
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

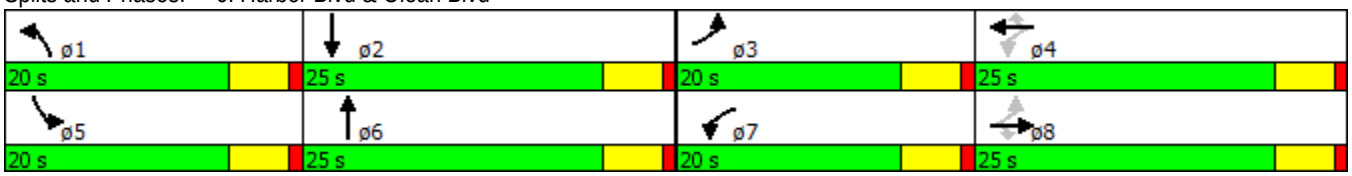
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	127	266	32	94	322	146	39	271	93	106	312	148
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3369	0
Flt Permitted	0.266			0.421			0.950			0.950		
Satd. Flow (perm)	495	1863	1583	784	1863	1583	1770	3405	0	1770	3369	0
Satd. Flow (RTOR)			145			159		49			81	
Lane Group Flow (vph)	138	289	35	102	350	159	42	396	0	115	500	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	26.7	19.3	19.3	25.0	18.5	18.5	10.7	21.5		12.1	25.7	
Actuated g/C Ratio	0.36	0.26	0.26	0.34	0.25	0.25	0.14	0.29		0.16	0.35	
v/c Ratio	0.40	0.59	0.07	0.27	0.75	0.31	0.16	0.39		0.40	0.41	
Control Delay	18.6	32.5	0.2	16.7	40.8	6.9	35.3	23.5		36.9	19.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.6	32.5	0.2	16.7	40.8	6.9	35.3	23.5		36.9	19.8	
LOS	B	C	A	B	D	A	D	C		D	B	
Approach Delay		25.9			28.0			24.6			23.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	41	125	0	30	161	0	19	75		54	93	
Queue Length 95th (ft)	83	228	0	64	#327	48	53	132		108	148	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130			280		280						
Base Capacity (vph)	480	559	576	530	541	573	385	1024		385	1225	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.52	0.06	0.19	0.65	0.28	0.11	0.39		0.30	0.41	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 73.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

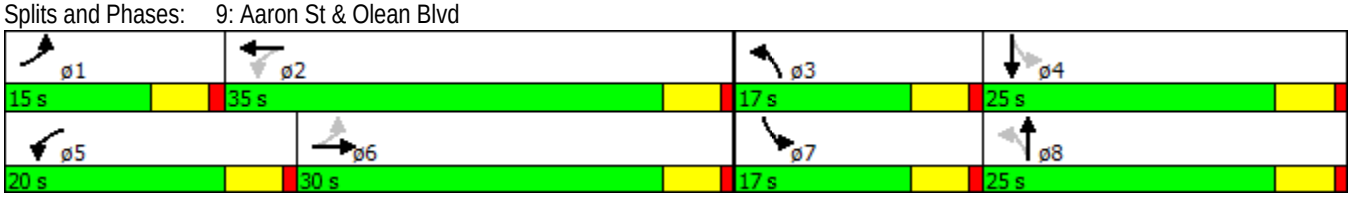
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	156	454	24	20	495	60	35	57	25	68	92	179
Satd. Flow (prot)	1770	3511	0	1770	3483	0	1770	1777	0	1770	1678	0
Flt Permitted	0.290			0.460			0.421			0.631		
Satd. Flow (perm)	540	3511	0	857	3483	0	784	1777	0	1175	1678	0
Satd. Flow (RTOR)		6			15			22			98	
Lane Group Flow (vph)	170	519	0	22	603	0	38	89	0	74	295	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	43.6	39.8		37.2	30.2		25.8	20.1		28.6	23.4	
Actuated g/C Ratio	0.51	0.47		0.44	0.36		0.30	0.24		0.34	0.28	
v/c Ratio	0.42	0.32		0.05	0.48		0.12	0.20		0.16	0.55	
Control Delay	15.2	16.8		11.9	23.4		18.5	23.6		18.8	23.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.2	16.8		11.9	23.4		18.5	23.6		18.8	23.2	
LOS	B	B		B	C		B	C		B	C	
Approach Delay		16.4			23.0			22.1			22.3	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	48	81		6	134		13	30		26	96	
Queue Length 95th (ft)	89	157		18	193		33	71		55	185	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	422	1646		609	1247		411	437		503	533	
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	0.40	0.32		0.04	0.48		0.09	0.20		0.15	0.55	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	405	164	154	647	36	0	0	171	0	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	0
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	34	440	178	167	703	39	0	0	186	0	0	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	742	0	-	440	0	0	1194	1585	220	1346	1566	371
Stage 1	-	-	-	-	-	-	508	508	-	1058	1058	-
Stage 2	-	-	-	-	-	-	686	1077	-	288	508	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	861	-	0	1116	-	-	142	107	784	110	110	626
Stage 1	-	-	0	-	-	-	516	537	-	240	300	-
Stage 2	-	-	0	-	-	-	404	293	-	695	537	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	861	-	-	1116	-	-	108	87	784	72	90	626
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	87	-	72	90	-
Stage 1	-	-	-	-	-	-	496	516	-	231	255	-
Stage 2	-	-	-	-	-	-	305	249	-	509	516	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.6	11	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	784	861	-	1116	-	-	626
HCM Lane V/C Ratio	0.237	0.039	-	0.15	-	-	0.111
HCM Control Delay (s)	11	9.4	-	8.8	-	-	11.5
HCM Lane LOS	B	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	0.5	-	-	0.4

Phasings
3: US 41 & Olean Blvd

1/27/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	54	15	130	50	481	40	2015	107	309	1940	52
Satd. Flow (prot)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974		0.950	0.978		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	1681	1731	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			91			112			65
Lane Group Flow (vph)	0	125	16	96	99	523	43	2190	116	336	2109	57
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7		6.3	6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.3	27.7	22.9	22.9	44.8	7.7	85.8	115.5	21.2	102.1	116.8
Actuated g/C Ratio		0.08	0.16	0.13	0.13	0.26	0.05	0.50	0.68	0.12	0.60	0.69
v/c Ratio		0.89	0.05	0.42	0.42	0.65	0.54	0.85	0.10	0.79	0.69	0.05
Control Delay		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
LOS		F	A	E	E	C	F	D	A	F	C	A
Approach Delay		111.7			45.2			40.5			33.0	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		141	0	104	107	187	48	787	1	188	603	0
Queue Length 95th (ft)		#272	0	172	176	243	95	856	24	246	654	8
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)				250		250	275		200	300		200
Base Capacity (vph)		142	343	234	241	842	85	2567	1118	464	3052	1096
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.88	0.05	0.41	0.41	0.62	0.51	0.85	0.10	0.72	0.69	0.05

Intersection Summary

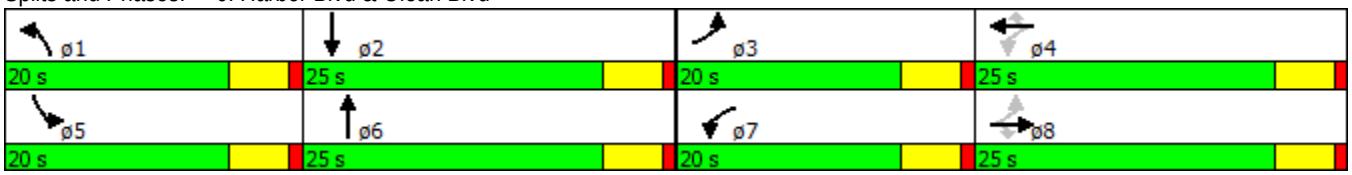
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 39.6 Intersection LOS: D
Intersection Capacity Utilization 78.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	294	19	74	263	115	36	377	114	121	311	105
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.354			0.356			0.950			0.950		
Satd. Flow (perm)	659	1863	1583	663	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			47	
Lane Group Flow (vph)	128	320	21	80	286	125	39	534	0	132	452	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	25.2	18.1	18.1	23.0	17.0	17.0	10.8	21.6		12.4	26.2	
Actuated g/C Ratio	0.35	0.25	0.25	0.32	0.23	0.23	0.15	0.30		0.17	0.36	
v/c Ratio	0.34	0.69	0.04	0.24	0.66	0.26	0.15	0.51		0.44	0.36	
Control Delay	18.0	35.9	0.2	16.9	36.3	5.4	34.8	25.7		36.9	20.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.0	35.9	0.2	16.9	36.3	5.4	34.8	25.7		36.9	20.0	
LOS	B	D	A	B	D	A	C	C		D	B	
Approach Delay		29.4			25.3			26.3			23.8	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	38	142	0	23	127	0	17	109		60	85	
Queue Length 95th (ft)	78	250	0	53	230	33	50	185		121	140	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130			280		280						
Base Capacity (vph)	511	570	585	508	553	572	394	1043		394	1256	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.56	0.04	0.16	0.52	0.22	0.10	0.51		0.34	0.36	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

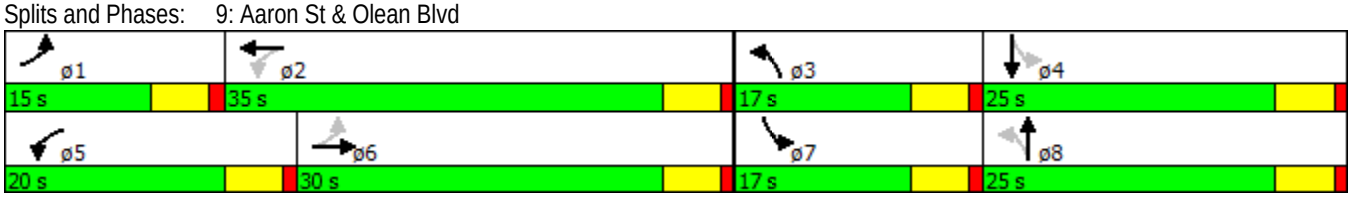
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	109	402	22	10	438	22	59	67	29	52	49	91
Satd. Flow (prot)	1770	3511	0	1770	3514	0	1770	1777	0	1770	1680	0
Flt Permitted	0.358			0.487			0.618			0.689		
Satd. Flow (perm)	667	3511	0	907	3514	0	1151	1777	0	1283	1680	0
Satd. Flow (RTOR)		6			6			22			93	
Lane Group Flow (vph)	118	461	0	11	500	0	64	105	0	57	152	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.7	38.9		35.9	30.7		26.7	20.6		26.4	20.4	
Actuated g/C Ratio	0.50	0.48		0.44	0.38		0.33	0.25		0.32	0.25	
v/c Ratio	0.26	0.28		0.02	0.38		0.15	0.23		0.12	0.31	
Control Delay	13.2	14.7		11.5	21.4		18.6	24.1		18.3	14.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.2	14.7		11.5	21.4		18.6	24.1		18.3	14.6	
LOS	B	B		B	C		B	C		B	B	
Approach Delay		14.4			21.2			22.0			15.6	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	32	70		3	105		22	36		19	26	
Queue Length 95th (ft)	63	137		11	157		49	82		45	78	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	471	1676		618	1324		510	465		536	490	
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	0.25	0.28		0.02	0.38		0.13	0.23		0.11	0.31	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 81.6	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	38	359	111	135	534	28	0	0	125	0	0	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	-	-	0	-	-	0
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	41	390	121	147	580	30	0	0	136	0	0	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	611	0	-	390	0	0	1057	1377	195	1167	1362	305
Stage 1	-	-	-	-	-	-	473	473	-	889	889	-
Stage 2	-	-	-	-	-	-	584	904	-	278	473	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	964	-	0	1165	-	-	179	144	814	149	147	691
Stage 1	-	-	0	-	-	-	541	557	-	304	360	-
Stage 2	-	-	0	-	-	-	465	354	-	705	557	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	964	-	-	1165	-	-	143	120	814	109	123	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	120	-	109	123	-
Stage 1	-	-	-	-	-	-	518	533	-	291	315	-
Stage 2	-	-	-	-	-	-	371	309	-	562	533	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.7	10.3	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	814	964	-	1165	-	-	691
HCM Lane V/C Ratio	0.167	0.043	-	0.126	-	-	0.088
HCM Control Delay (s)	10.3	8.9	-	8.5	-	-	10.7
HCM Lane LOS	B	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	0.4	-	-	0.3

Alternative 3: Roundabout with 2-Lane Eastbound

Synchro Worksheets

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Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	58	27	151	53	415	55	1857	105	308	1482	67
Satd. Flow (prot)	0	1814	1583	0	1796	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974			0.964		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1796	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			94			112			65
Lane Group Flow (vph)	0	133	29	0	222	451	60	2018	114	335	1611	73
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		40.0	40.0		15.0	80.0		30.0	95.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		16.1	31.1		27.3	49.0	8.3	78.8	112.9	21.0	91.7	107.9
Actuated g/C Ratio		0.09	0.18		0.16	0.29	0.05	0.46	0.66	0.12	0.54	0.63
v/c Ratio		0.78	0.08		0.77	0.52	0.69	0.86	0.10	0.79	0.59	0.07
Control Delay		102.3	0.4		85.6	26.6	115.5	46.0	1.8	86.4	28.1	2.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		102.3	0.4		85.6	26.6	115.5	46.0	1.8	86.4	28.1	2.1
LOS		F	A		F	C	F	D	A	F	C	A
Approach Delay		84.0			46.1			45.6			36.8	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		145	0		239	132	67	770	1	187	454	2
Queue Length 95th (ft)		#293	0		329	177	#148	841	23	246	502	17
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		171	381		356	1003	88	2358	1144	464	2741	1028
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.78	0.08		0.62	0.45	0.68	0.86	0.10	0.72	0.59	0.07

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 43.4 Intersection LOS: D
Intersection Capacity Utilization 79.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

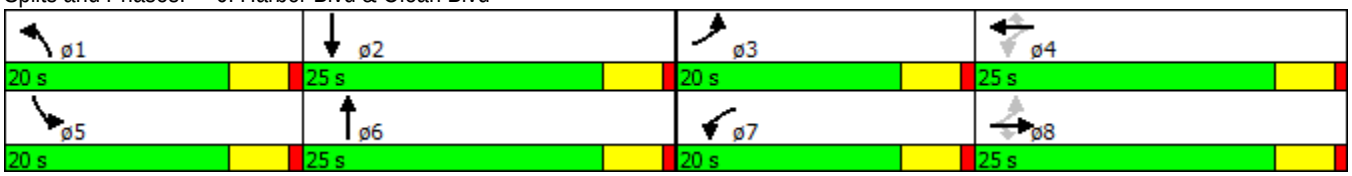
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	230	28	82	280	127	35	242	83	92	263	129
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3366	0
Flt Permitted	0.328			0.482			0.950			0.950		
Satd. Flow (perm)	611	1863	1583	898	1863	1583	1770	3405	0	1770	3366	0
Satd. Flow (RTOR)			145			145		48			86	
Lane Group Flow (vph)	120	250	30	89	304	138	38	353	0	100	426	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	24.2	17.4	17.4	22.8	16.7	16.7	10.8	21.6		11.7	25.4	
Actuated g/C Ratio	0.34	0.24	0.24	0.32	0.23	0.23	0.15	0.30		0.16	0.36	
v/c Ratio	0.33	0.55	0.06	0.23	0.70	0.29	0.14	0.33		0.34	0.34	
Control Delay	17.5	31.3	0.2	16.2	37.4	6.5	33.8	21.8		35.2	17.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.5	31.3	0.2	16.2	37.4	6.5	33.8	21.8		35.2	17.9	
LOS	B	C	A	B	D	A	C	C		D	B	
Approach Delay		24.8			25.8			22.9			21.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	35	104	0	25	133	0	16	62		45	70	
Queue Length 95th (ft)	72	191	0	56	#246	41	48	114		95	120	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	510	575	589	558	564	580	402	1065		402	1255	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.43	0.05	0.16	0.54	0.24	0.09	0.33		0.25	0.34	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 71.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 23.7 Intersection LOS: C
Intersection Capacity Utilization 62.5% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Harbor Blvd & Olean Blvd

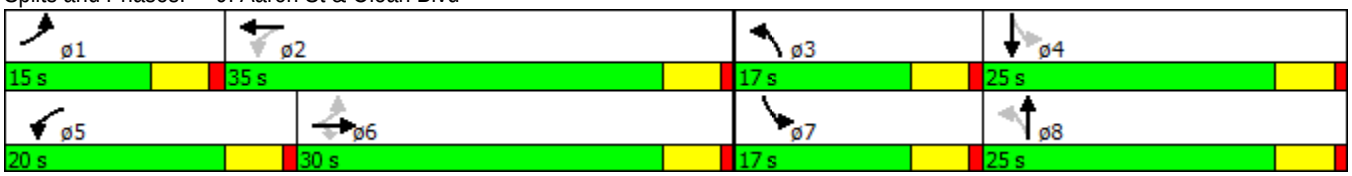


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	342	18	16	407	49	29	42	21	31	62	149
Satd. Flow (prot)	1770	1863	1583	1770	1833	0	1770	1770	0	1770	1665	0
Flt Permitted	0.186			0.443			0.616			0.581		
Satd. Flow (perm)	346	1863	1583	825	1833	0	1147	1770	0	1082	1665	0
Satd. Flow (RTOR)			142		7			23			121	
Lane Group Flow (vph)	104	372	20	17	495	0	32	69	0	34	229	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2			8			4		
Total Split (s)	15.0	30.0	30.0	20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.9	36.2	36.2	35.5	30.1		27.3	20.1		36.9	30.0	
Actuated g/C Ratio	0.45	0.41	0.41	0.40	0.34		0.31	0.23		0.42	0.34	
v/c Ratio	0.35	0.49	0.03	0.04	0.78		0.08	0.16		0.06	0.35	
Control Delay	16.6	22.9	0.1	12.8	37.3		17.6	22.2		16.9	14.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.6	22.9	0.1	12.8	37.3		17.6	22.2		16.9	14.5	
LOS	B	C	A	B	D		B	C		B	B	
Approach Delay		20.7			36.4			20.7			14.8	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	31	132	0	5	252		11	21		11	48	
Queue Length 95th (ft)	60	261	0	16	#427		29	57		30	117	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	319	766	734	544	631		504	421		548	647	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.33	0.49	0.03	0.03	0.78		0.06	0.16		0.06	0.35	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 88	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	484	679	261	128
Demand Flow Rate, veh/h	494	693	266	131
Vehicles Circulating, veh/h	202	139	394	753
Vehicles Exiting, veh/h	682	521	302	79
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.6	15.7	9.1	10.4
Approach LOS	A	C	A	B

Lane	Left	Right	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized					
Lane Util	0.731	0.269	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	361	133	693	266	131
Cap Entry Lane, veh/h	923	923	983	762	532
Entry HV Adj Factor	0.982	0.977	0.979	0.980	0.980
Flow Entry, veh/h	354	130	679	261	128
Cap Entry, veh/h	906	902	963	746	521
V/C Ratio	0.391	0.144	0.705	0.349	0.246
Control Delay, s/veh	8.5	5.4	15.7	9.1	10.4
LOS	A	A	C	A	B
95th %tile Queue, veh	2	1	6	2	1

Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	48	13	95	37	350	39	1860	65	238	1827	45
Satd. Flow (prot)	0	1814	1583	0	1798	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974			0.965		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1798	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			105			112			65
Lane Group Flow (vph)	0	111	14	0	143	380	42	2022	71	259	1986	49
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.7	28.2		19.2	38.0	7.8	92.2	118.1	18.2	105.2	120.4
Actuated g/C Ratio		0.08	0.17		0.11	0.22	0.05	0.54	0.69	0.11	0.62	0.71
v/c Ratio		0.76	0.04		0.71	0.54	0.52	0.73	0.06	0.71	0.63	0.04
Control Delay		106.0	0.2		90.9	30.1	101.3	32.8	0.3	83.9	22.7	0.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		106.0	0.2		90.9	30.1	101.3	32.8	0.3	83.9	22.7	0.6
LOS		F	A		F	C	F	C	A	F	C	A
Approach Delay		94.1			46.8			33.1			29.1	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		121	0		156	117	46	641	0	146	545	0
Queue Length 95th (ft)		#233	0		233	156	93	751	4	192	594	6
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		151	352		250	852	87	2756	1173	464	3147	1132
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.74	0.04		0.57	0.45	0.48	0.73	0.06	0.56	0.63	0.04

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 34.2	Intersection LOS: C
Intersection Capacity Utilization 73.4%	ICU Level of Service D
Analysis Period (min) 15	

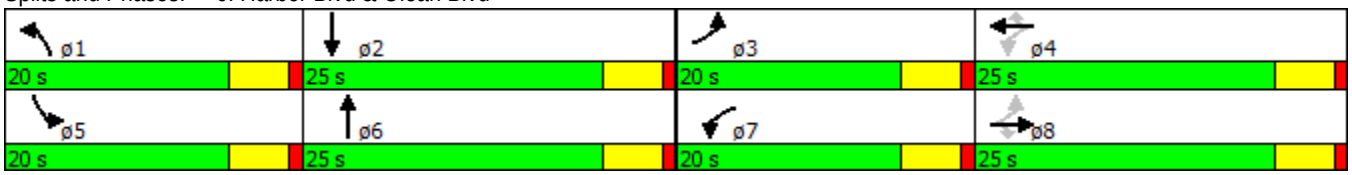
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	252	16	64	227	100	32	335	101	104	263	90
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.414			0.415			0.950			0.950		
Satd. Flow (perm)	771	1863	1583	773	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			48	
Lane Group Flow (vph)	110	274	17	70	247	109	35	474	0	113	384	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	22.7	16.1	16.1	21.1	15.3	15.3	10.8	21.5		11.9	28.5	
Actuated g/C Ratio	0.32	0.23	0.23	0.30	0.22	0.22	0.15	0.31		0.17	0.41	
v/c Ratio	0.29	0.64	0.04	0.20	0.61	0.24	0.13	0.44		0.38	0.27	
Control Delay	17.4	34.4	0.1	16.6	34.6	3.8	33.1	23.2		34.6	16.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.4	34.4	0.1	16.6	34.6	3.8	33.1	23.2		34.6	16.3	
LOS	B	C	A	B	C	A	C	C		C	B	
Approach Delay		28.3			23.8			23.9			20.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	32	115	0	20	104	0	14	86		48	44	
Queue Length 95th (ft)	68	211	0	47	196	23	45	160		104	115	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	532	582	594	529	573	587	408	1080		408	1417	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.21	0.47	0.03	0.13	0.43	0.19	0.09	0.44		0.28	0.27	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

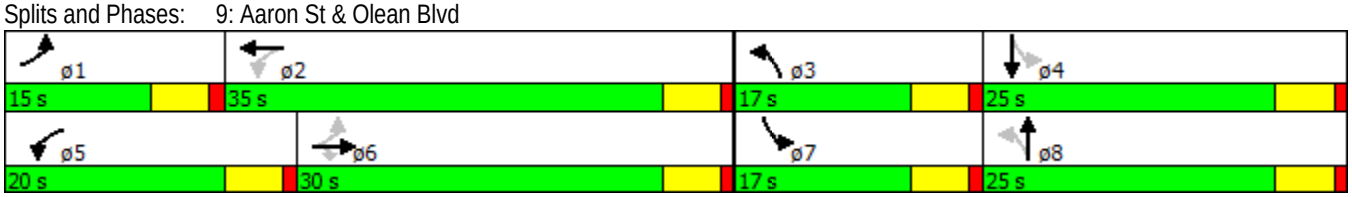
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	340	9	8	355	17	48	46	24	14	29	76
Satd. Flow (prot)	1770	1863	1583	1770	1850	0	1770	1768	0	1770	1662	0
Flt Permitted	0.286			0.465			0.683			0.577		
Satd. Flow (perm)	533	1863	1583	866	1850	0	1272	1768	0	1075	1662	0
Satd. Flow (RTOR)			142		3			26			83	
Lane Group Flow (vph)	59	370	10	9	404	0	52	76	0	15	115	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2			8			4		
Total Split (s)	15.0	30.0	30.0	20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.4	37.7	37.7	35.6	30.1		27.7	20.1		36.6	29.6	
Actuated g/C Ratio	0.45	0.43	0.43	0.41	0.35		0.32	0.23		0.42	0.34	
v/c Ratio	0.17	0.46	0.01	0.02	0.63		0.12	0.18		0.03	0.19	
Control Delay	14.0	20.6	0.0	12.8	29.9		17.4	21.6		16.1	10.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.0	20.6	0.0	12.8	29.9		17.4	21.6		16.1	10.7	
LOS	B	C	A	B	C		B	C		B	B	
Approach Delay		19.3			29.5			19.9			11.3	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	17	131	0	3	189		17	23		5	13	
Queue Length 95th (ft)	38	260	0	11	297		41	60		17	56	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	384	805	764	553	641		537	427		547	619	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.15	0.46	0.01	0.02	0.63		0.10	0.18		0.03	0.19	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 87.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	409	558	202	114
Demand Flow Rate, veh/h	418	569	206	117
Vehicles Circulating, veh/h	172	145	366	615
Vehicles Exiting, veh/h	559	427	224	99
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.0	11.8	7.7	8.4
Approach LOS	A	B	A	A

Lane	Left	Right	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized					
Lane Util	0.787	0.213	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	329	89	569	206	117
Cap Entry Lane, veh/h	951	951	977	784	611
Entry HV Adj Factor	0.979	0.978	0.980	0.982	0.979
Flow Entry, veh/h	322	87	558	202	114
Cap Entry, veh/h	932	930	958	769	598
V/C Ratio	0.346	0.094	0.582	0.263	0.192
Control Delay, s/veh	7.6	4.7	11.8	7.7	8.4
LOS	A	A	B	A	A
95th %tile Queue, veh	2	0	4	1	1

Phasings
3: US 41 & Olean Blvd

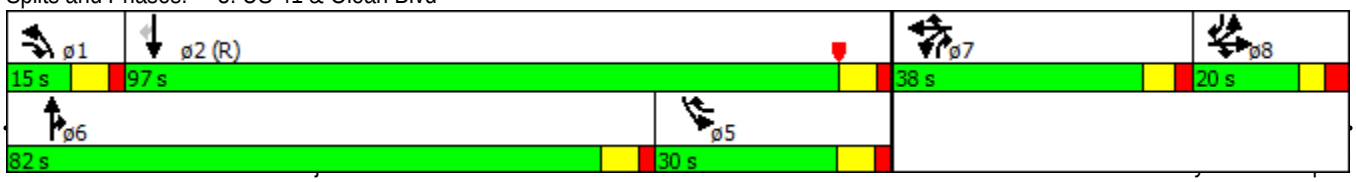
3/3/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	65	31	169	59	464	63	1970	123	334	1569	75
Satd. Flow (prot)	0	1814	1583	0	1796	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974			0.964		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1796	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			111			88			65
Lane Group Flow (vph)	0	149	34	0	248	504	68	2141	134	363	1705	82
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		38.0	38.0		15.0	82.0		30.0	97.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		16.1	31.1		28.5	58.5	8.2	75.5	104.6	23.0	90.5	106.7
Actuated g/C Ratio		0.09	0.18		0.17	0.34	0.05	0.44	0.62	0.14	0.53	0.63
v/c Ratio		0.87	0.09		0.82	0.49	0.80	0.95	0.13	0.78	0.63	0.08
Control Delay		114.4	0.5		89.9	34.8	130.5	55.4	2.7	83.7	29.3	2.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		114.4	0.5		89.9	34.8	130.5	55.4	2.7	83.7	29.3	2.5
LOS		F	A		F	C	F	E	A	F	C	A
Approach Delay		93.2			53.0			54.6			37.5	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		~175	0		265	191	77	835	10	204	481	5
Queue Length 95th (ft)		#337	0		372	252	#171	905	25	265	530	20
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		171	379		334	1082	85	2259	1035	464	2707	1018
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.87	0.09		0.74	0.47	0.80	0.95	0.13	0.78	0.63	0.08

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 48.9 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

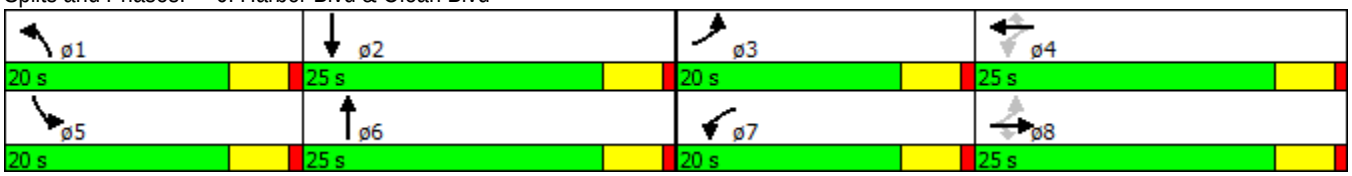


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	256	31	91	312	142	39	270	93	102	293	143
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3366	0
Flt Permitted	0.282			0.436			0.950			0.950		
Satd. Flow (perm)	525	1863	1583	812	1863	1583	1770	3405	0	1770	3366	0
Satd. Flow (RTOR)			145			154		49			85	
Lane Group Flow (vph)	133	278	34	99	339	154	42	394	0	111	473	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	26.1	18.8	18.8	24.5	18.0	18.0	10.8	21.5		12.0	25.6	
Actuated g/C Ratio	0.36	0.26	0.26	0.33	0.25	0.25	0.15	0.29		0.16	0.35	
v/c Ratio	0.38	0.58	0.07	0.26	0.74	0.30	0.16	0.38		0.38	0.38	
Control Delay	18.3	32.1	0.3	16.6	39.9	7.0	35.0	23.2		36.5	19.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.3	32.1	0.3	16.6	39.9	7.0	35.0	23.2		36.5	19.1	
LOS	B	C	A	B	D	A	D	C		D	B	
Approach Delay		25.5			27.4			24.3			22.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	39	119	0	29	153	0	19	74		52	85	
Queue Length 95th (ft)	80	218	0	62	#311	47	52	131		105	137	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	489	564	580	538	547	574	390	1035		390	1233	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.27	0.49	0.06	0.18	0.62	0.27	0.11	0.38		0.28	0.38	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 73.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd

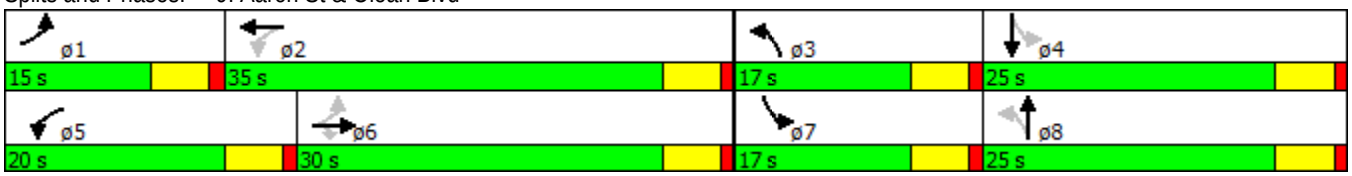


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	383	21	18	454	55	33	48	24	35	70	168
Satd. Flow (prot)	1770	1863	1583	1770	1833	0	1770	1770	0	1770	1665	0
Flt Permitted	0.125			0.392			0.599			0.576		
Satd. Flow (perm)	233	1863	1583	730	1833	0	1116	1770	0	1073	1665	0
Satd. Flow (RTOR)			142		7			25			120	
Lane Group Flow (vph)	116	416	23	20	553	0	36	78	0	38	259	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2			8			4		
Total Split (s)	15.0	30.0	30.0	20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.2	36.4	36.4	35.5	30.1		27.4	20.1		36.9	29.9	
Actuated g/C Ratio	0.46	0.41	0.41	0.40	0.34		0.31	0.23		0.42	0.34	
v/c Ratio	0.45	0.54	0.03	0.05	0.88		0.09	0.18		0.07	0.40	
Control Delay	19.1	24.0	0.1	12.9	45.4		17.8	22.7		17.1	16.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.1	24.0	0.1	12.9	45.4		17.8	22.7		17.1	16.4	
LOS	B	C	A	B	D		B	C		B	B	
Approach Delay		22.0			44.3			21.1			16.5	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	35	153	0	6	296		12	25		13	63	
Queue Length 95th (ft)	66	297	0	17	#507		32	63		33	141	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	281	768	736	517	630		495	422		543	644	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.41	0.54	0.03	0.04	0.88		0.07	0.18		0.07	0.40	

Intersection Summary

Cycle Length: 92
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.2 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	541	758	295	138
Demand Flow Rate, veh/h	552	774	301	141
Vehicles Circulating, veh/h	221	159	439	842
Vehicles Exiting, veh/h	762	580	334	91
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.5	21.3	10.6	12.0
Approach LOS	A	C	B	B

Lane	Left	Right	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized					
Lane Util	0.730	0.270	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	403	149	774	301	141
Cap Entry Lane, veh/h	906	906	964	728	487
Entry HV Adj Factor	0.979	0.980	0.980	0.982	0.981
Flow Entry, veh/h	395	146	758	295	138
Cap Entry, veh/h	887	888	944	715	477
V/C Ratio	0.445	0.164	0.803	0.413	0.290
Control Delay, s/veh	9.5	5.7	21.3	10.6	12.0
LOS	A	A	C	B	B
95th %tile Queue, veh	2	1	9	2	1

Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	54	15	106	41	392	45	1977	79	266	1939	53
Satd. Flow (prot)	0	1814	1583	0	1798	2787	1770	5085	1583	3433	5085	1583
Flt Permitted		0.974			0.965		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1798	2787	1770	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			110			92			112			65
Lane Group Flow (vph)	0	125	16	0	160	426	49	2149	86	289	2108	58
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.4	29.0		20.5	40.7	7.9	88.8	116.2	19.4	103.2	119.0
Actuated g/C Ratio		0.08	0.17		0.12	0.24	0.05	0.52	0.68	0.11	0.61	0.70
v/c Ratio		0.82	0.04		0.74	0.58	0.60	0.81	0.08	0.74	0.68	0.05
Control Delay		111.2	0.2		92.0	32.1	107.8	37.5	0.8	84.2	24.9	1.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		111.2	0.2		92.0	32.1	107.8	37.5	0.8	84.2	24.9	1.0
LOS		F	A		F	C	F	D	A	F	C	A
Approach Delay		98.6			48.5			37.7			31.3	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		138	0		174	143	55	731	0	163	602	0
Queue Length 95th (ft)		#272	0		257	186	#114	829	10	212	654	9
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		154	353		250	843	86	2657	1144	464	3087	1116
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.81	0.05		0.64	0.51	0.57	0.81	0.08	0.62	0.68	0.05

Intersection Summary

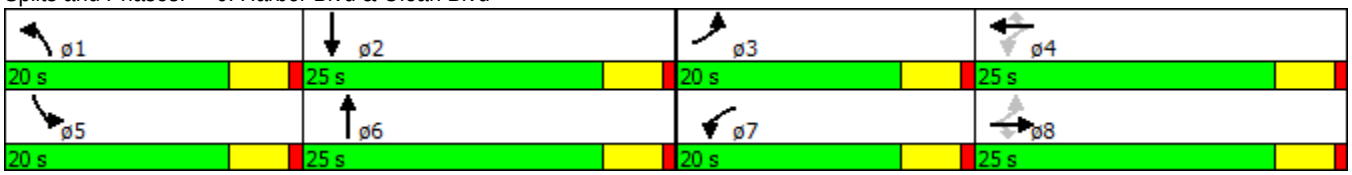
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 37.5 Intersection LOS: D
Intersection Capacity Utilization 77.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	282	18	72	255	112	35	375	113	117	294	101
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.366			0.372			0.950			0.950		
Satd. Flow (perm)	682	1863	1583	693	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			49	
Lane Group Flow (vph)	123	307	20	78	277	122	38	531	0	127	430	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	24.5	17.5	17.5	22.5	16.5	16.5	10.8	21.6		12.3	26.1	
Actuated g/C Ratio	0.34	0.24	0.24	0.31	0.23	0.23	0.15	0.30		0.17	0.36	
v/c Ratio	0.33	0.68	0.04	0.23	0.65	0.26	0.14	0.50		0.42	0.34	
Control Delay	17.8	35.6	0.2	16.8	36.0	5.2	34.4	25.2		36.3	19.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.8	35.6	0.2	16.8	36.0	5.2	34.4	25.2		36.3	19.4	
LOS	B	D	A	B	D	A	C	C		D	B	
Approach Delay		29.2			25.0			25.9			23.3	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	37	134	0	23	122	0	16	106		57	78	
Queue Length 95th (ft)	75	239	0	52	222	31	49	183		116	131	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	517	575	589	515	559	576	399	1054		399	1267	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.53	0.03	0.15	0.50	0.21	0.10	0.50		0.32	0.34	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

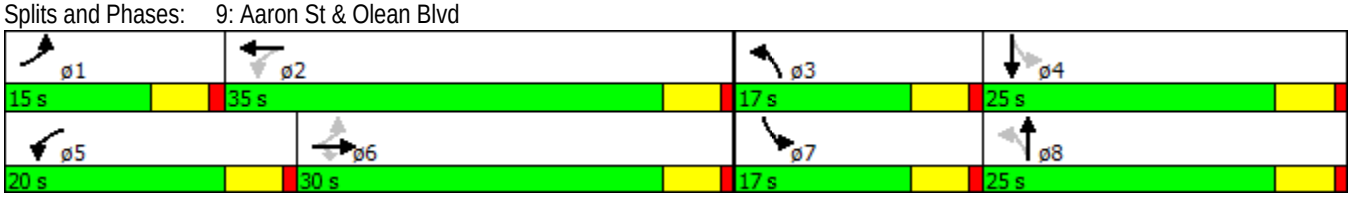
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	379	10	9	399	20	55	53	27	16	33	86
Satd. Flow (prot)	1770	1863	1583	1770	1850	0	1770	1770	0	1770	1662	0
Flt Permitted	0.236			0.420			0.674			0.567		
Satd. Flow (perm)	440	1863	1583	782	1850	0	1255	1770	0	1056	1662	0
Satd. Flow (RTOR)			142		3			25			93	
Lane Group Flow (vph)	65	412	11	10	456	0	60	87	0	17	129	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2			8			4		
Total Split (s)	15.0	30.0	30.0	20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.6	37.8	37.8	35.6	30.1		27.9	20.1		36.4	27.1	
Actuated g/C Ratio	0.45	0.43	0.43	0.41	0.34		0.32	0.23		0.42	0.31	
v/c Ratio	0.21	0.51	0.01	0.03	0.71		0.13	0.20		0.03	0.22	
Control Delay	14.4	21.6	0.0	12.8	33.1		17.6	23.0		16.2	10.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.4	21.6	0.0	12.8	33.1		17.6	23.0		16.2	10.8	
LOS	B	C	A	B	C		B	C		B	B	
Approach Delay		20.1			32.6			20.8			11.4	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	19	151	0	3	222		20	28		6	15	
Queue Length 95th (ft)	41	295	0	11	346		45	69		19	60	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	353	806	766	529	640		532	426		538	579	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.51	0.01	0.02	0.71		0.11	0.20		0.03	0.22	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 87.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	464	631	230	126
Demand Flow Rate, veh/h	473	644	234	129
Vehicles Circulating, veh/h	194	164	412	694
Vehicles Exiting, veh/h	629	482	154	114
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.7	14.6	8.7	9.6
Approach LOS	A	B	A	A

Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized		Free			
Lane Util	1.000		1.000	1.000	1.000
Critical Headway, s	5.193		5.193	5.193	5.193
Entry Flow, veh/h	372	101	644	234	129
Cap Entry Lane, veh/h	931	1938	959	748	564
Entry HV Adj Factor	0.980	0.980	0.981	0.983	0.980
Flow Entry, veh/h	364	99	631	230	126
Cap Entry, veh/h	912	1900	940	736	553
V/C Ratio	0.400	0.052	0.672	0.313	0.229
Control Delay, s/veh	8.6	0.0	14.6	8.7	9.6
LOS	A	A	B	A	A
95th %tile Queue, veh	2	0	5	1	1

Alternative 4: Roundabout

Synchro Worksheets

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Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	58	27	151	53	415	55	1857	105	308	1482	67
Satd. Flow (prot)	0	1814	1583	0	1796	2787	1770	5085	1583	2938	5085	1583
Flt Permitted		0.974			0.964		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1796	2787	1770	5085	1583	2938	5085	1583
Satd. Flow (RTOR)			110			94			112			65
Lane Group Flow (vph)	0	133	29	0	222	451	60	2018	114	335	1611	73
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		40.0	40.0		15.0	80.0		30.0	95.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		16.1	31.1		27.3	50.1	8.3	77.7	111.8	22.1	91.7	107.9
Actuated g/C Ratio		0.09	0.18		0.16	0.29	0.05	0.46	0.66	0.13	0.54	0.63
v/c Ratio		0.78	0.08		0.77	0.51	0.69	0.87	0.11	0.88	0.59	0.07
Control Delay		102.3	0.4		85.6	26.0	115.5	47.4	1.8	95.5	28.1	2.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		102.3	0.4		85.6	26.0	115.5	47.4	1.8	95.5	28.1	2.1
LOS		F	A		F	C	F	D	A	F	C	A
Approach Delay		84.0			45.7			46.9			38.3	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		145	0		239	132	67	772	1	222	454	2
Queue Length 95th (ft)		#293	0		329	177	#148	841	23	#316	502	17
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		171	381		356	1003	88	2323	1134	397	2741	1028
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.78	0.08		0.62	0.45	0.68	0.87	0.10	0.84	0.59	0.07

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 44.5 Intersection LOS: D
Intersection Capacity Utilization 79.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

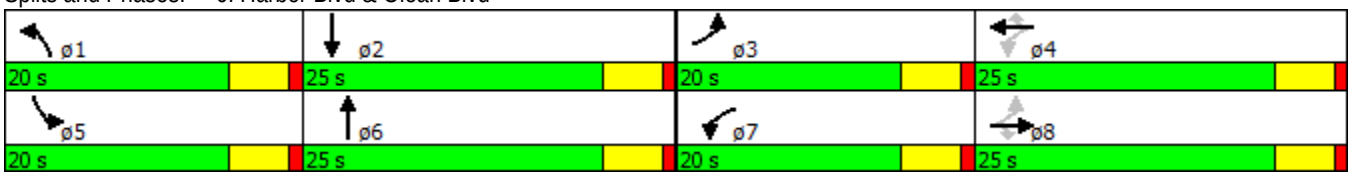
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	230	28	82	280	127	35	242	83	92	263	129
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3366	0
Flt Permitted	0.328			0.482			0.950			0.950		
Satd. Flow (perm)	611	1863	1583	898	1863	1583	1770	3405	0	1770	3366	0
Satd. Flow (RTOR)			145			145		48			86	
Lane Group Flow (vph)	120	250	30	89	304	138	38	353	0	100	426	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	24.2	17.4	17.4	22.8	16.7	16.7	10.8	21.6		11.7	25.4	
Actuated g/C Ratio	0.34	0.24	0.24	0.32	0.23	0.23	0.15	0.30		0.16	0.36	
v/c Ratio	0.33	0.55	0.06	0.23	0.70	0.29	0.14	0.33		0.34	0.34	
Control Delay	17.5	31.3	0.2	16.2	37.4	6.5	33.8	21.8		35.2	17.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.5	31.3	0.2	16.2	37.4	6.5	33.8	21.8		35.2	17.9	
LOS	B	C	A	B	D	A	C	C		D	B	
Approach Delay		24.8			25.8			22.9			21.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	35	104	0	25	133	0	16	62		45	70	
Queue Length 95th (ft)	72	191	0	56	#246	41	48	114		95	120	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	510	575	589	558	564	580	402	1065		402	1255	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.43	0.05	0.16	0.54	0.24	0.09	0.33		0.25	0.34	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd

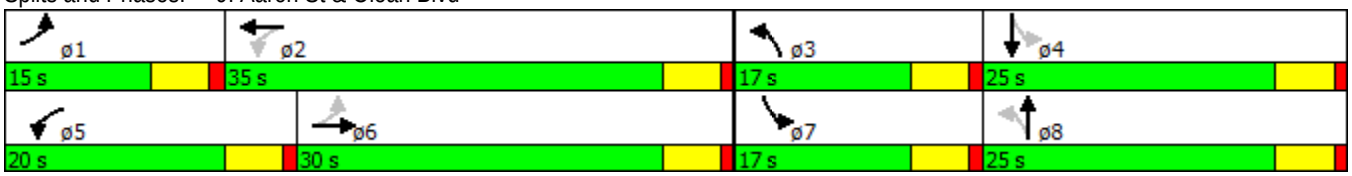


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	342	18	16	407	49	29	42	21	31	62	149
Satd. Flow (prot)	1770	1848	0	1770	1833	0	1770	1770	0	1770	1665	0
Flt Permitted	0.186			0.419			0.616			0.581		
Satd. Flow (perm)	346	1848	0	780	1833	0	1147	1770	0	1082	1665	0
Satd. Flow (RTOR)		3			7			23			121	
Lane Group Flow (vph)	104	392	0	17	495	0	32	69	0	34	229	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.9	36.2		35.5	30.1		27.3	20.1		36.9	30.0	
Actuated g/C Ratio	0.45	0.41		0.40	0.34		0.31	0.23		0.42	0.34	
v/c Ratio	0.35	0.51		0.04	0.78		0.08	0.16		0.06	0.35	
Control Delay	16.6	23.3		12.9	37.3		17.6	22.2		16.9	14.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.6	23.3		12.9	37.3		17.6	22.2		16.9	14.5	
LOS	B	C		B	D		B	C		B	B	
Approach Delay		21.9			36.4			20.7			14.8	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	31	141		5	252		11	21		11	48	
Queue Length 95th (ft)	60	276		16	#427		29	57		30	117	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	319	762		531	631		504	421		548	647	
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	0.33	0.51		0.03	0.78		0.06	0.16		0.06	0.35	

Intersection Summary

Cycle Length: 92
Actuated Cycle Length: 88
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 65.1% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	484	679	261	128
Demand Flow Rate, veh/h	494	693	266	131
Vehicles Circulating, veh/h	202	139	394	753
Vehicles Exiting, veh/h	682	521	169	79
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.2	15.7	9.1	10.4
Approach LOS	A	C	A	B

Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized		Free			
Lane Util	1.000		1.000	1.000	1.000
Critical Headway, s	5.193		5.193	5.193	5.193
Entry Flow, veh/h	361	133	693	266	131
Cap Entry Lane, veh/h	923	1938	983	762	532
Entry HV Adj Factor	0.982	0.980	0.979	0.980	0.980
Flow Entry, veh/h	354	130	679	261	128
Cap Entry, veh/h	906	1900	963	746	521
V/C Ratio	0.391	0.068	0.705	0.349	0.246
Control Delay, s/veh	8.5	0.0	15.7	9.1	10.4
LOS	A	A	C	A	B
95th %tile Queue, veh	2	0	6	2	1

Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	48	13	95	37	350	39	1860	65	238	1827	45
Satd. Flow (prot)	0	1814	1583	0	1798	2787	1770	5085	1583	2938	5085	1583
Flt Permitted		0.974			0.965		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1798	2787	1770	5085	1583	2938	5085	1583
Satd. Flow (RTOR)			110			105			112			65
Lane Group Flow (vph)	0	111	14	0	143	380	42	2022	71	259	1986	49
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		13.7	28.2		19.1	39.5	7.8	90.7	116.6	19.7	105.2	120.4
Actuated g/C Ratio		0.08	0.17		0.11	0.23	0.05	0.53	0.69	0.12	0.62	0.71
v/c Ratio		0.76	0.04		0.71	0.52	0.52	0.75	0.06	0.76	0.63	0.04
Control Delay		106.0	0.2		91.0	29.1	101.3	34.1	0.3	87.5	22.7	0.6
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		106.0	0.2		91.0	29.1	101.3	34.1	0.3	87.5	22.7	0.6
LOS		F	A		F	C	F	C	A	F	C	A
Approach Delay		94.1			46.1			34.3			29.5	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		121	0		156	115	46	659	0	171	545	0
Queue Length 95th (ft)		#233	0		233	156	93	751	4	228	594	6
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		151	352		250	852	87	2711	1160	397	3147	1132
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.74	0.04		0.57	0.45	0.48	0.75	0.06	0.65	0.63	0.04

Intersection Summary

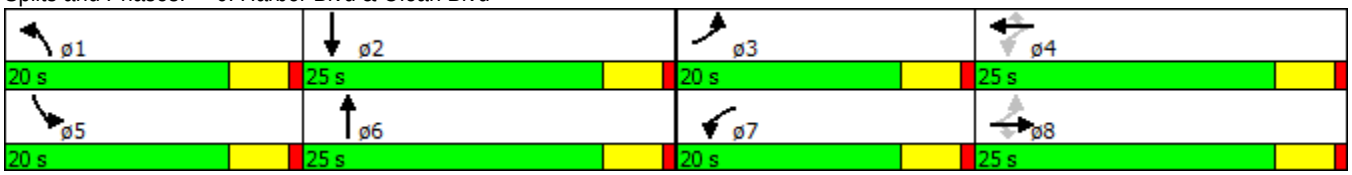
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 34.8 Intersection LOS: C
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	252	16	64	227	100	32	335	101	104	263	90
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.414			0.415			0.950			0.950		
Satd. Flow (perm)	771	1863	1583	773	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			48	
Lane Group Flow (vph)	110	274	17	70	247	109	35	474	0	113	384	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	22.7	16.1	16.1	21.1	15.3	15.3	10.8	21.5		11.9	28.5	
Actuated g/C Ratio	0.32	0.23	0.23	0.30	0.22	0.22	0.15	0.31		0.17	0.41	
v/c Ratio	0.29	0.64	0.04	0.20	0.61	0.24	0.13	0.44		0.38	0.27	
Control Delay	17.4	34.4	0.1	16.6	34.6	3.8	33.1	23.2		34.6	16.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.4	34.4	0.1	16.6	34.6	3.8	33.1	23.2		34.6	16.3	
LOS	B	C	A	B	C	A	C	C		C	B	
Approach Delay		28.3			23.8			23.9			20.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	32	115	0	20	104	0	14	86		48	44	
Queue Length 95th (ft)	68	211	0	47	196	23	45	160		104	115	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	532	582	594	529	573	587	408	1080		408	1417	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.21	0.47	0.03	0.13	0.43	0.19	0.09	0.44		0.28	0.27	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

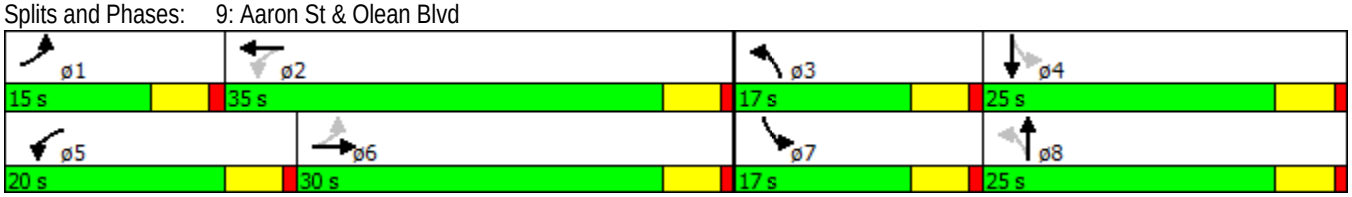
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	340	9	8	355	17	48	46	24	14	29	76
Satd. Flow (prot)	1770	1855	0	1770	1850	0	1770	1768	0	1770	1662	0
Flt Permitted	0.286			0.453			0.683			0.577		
Satd. Flow (perm)	533	1855	0	844	1850	0	1272	1768	0	1075	1662	0
Satd. Flow (RTOR)		1			3			26			83	
Lane Group Flow (vph)	59	380	0	9	404	0	52	76	0	15	115	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.4	37.7		35.6	30.1		27.7	20.1		36.6	29.6	
Actuated g/C Ratio	0.45	0.43		0.41	0.35		0.32	0.23		0.42	0.34	
v/c Ratio	0.17	0.47		0.02	0.63		0.12	0.18		0.03	0.19	
Control Delay	14.0	20.8		12.8	29.9		17.4	21.6		16.1	10.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.0	20.8		12.8	29.9		17.4	21.6		16.1	10.7	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		19.9			29.5			19.9			11.3	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	17	136		3	189		17	23		5	13	
Queue Length 95th (ft)	38	268		11	297		41	60		17	56	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	384	802		547	641		537	427		547	619	
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	0.15	0.47		0.02	0.63		0.10	0.18		0.03	0.19	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 87.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	409	558	202	114
Demand Flow Rate, veh/h	418	569	206	117
Vehicles Circulating, veh/h	172	145	366	615
Vehicles Exiting, veh/h	559	427	135	99
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.0	11.8	7.7	8.4
Approach LOS	A	B	A	A

Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized		Free			
Lane Util	1.000		1.000	1.000	1.000
Critical Headway, s	5.193		5.193	5.193	5.193
Entry Flow, veh/h	329	89	569	206	117
Cap Entry Lane, veh/h	951	1938	977	784	611
Entry HV Adj Factor	0.979	0.980	0.980	0.982	0.979
Flow Entry, veh/h	322	87	558	202	114
Cap Entry, veh/h	932	1900	958	769	598
V/C Ratio	0.346	0.046	0.582	0.263	0.192
Control Delay, s/veh	7.6	0.0	11.8	7.7	8.4
LOS	A	A	B	A	A
95th %tile Queue, veh	2	0	4	1	1

Phasings
3: US 41 & Olean Blvd

3/3/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	65	31	169	59	464	63	1970	123	334	1569	75
Satd. Flow (prot)	0	1814	1583	0	1796	2787	1770	5085	1583	2938	5085	1583
Flt Permitted		0.974			0.964		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1796	2787	1770	5085	1583	2938	5085	1583
Satd. Flow (RTOR)			110			80			112			65
Lane Group Flow (vph)	0	149	34	0	248	504	68	2141	134	363	1705	82
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		38.0	38.0		15.0	82.0		30.0	97.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		16.1	31.1		28.5	51.9	8.2	75.8	111.2	22.7	90.5	106.7
Actuated g/C Ratio		0.09	0.18		0.17	0.31	0.05	0.45	0.65	0.13	0.53	0.63
v/c Ratio		0.87	0.09		0.82	0.56	0.80	0.94	0.12	0.93	0.63	0.08
Control Delay		114.4	0.5		89.9	28.2	130.5	54.8	2.6	102.1	29.3	2.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		114.4	0.5		89.9	28.2	130.5	54.8	2.6	102.1	29.3	2.5
LOS		F	A		F	C	F	D	A	F	C	A
Approach Delay		93.2			48.5			54.0			40.6	
Approach LOS		F			D			D			D	
Queue Length 50th (ft)		~175	0		265	165	77	835	8	244	481	5
Queue Length 95th (ft)		#337	0		372	216	#171	905	33	#357	530	20
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		171	379		334	962	85	2268	1101	397	2707	1018
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.87	0.09		0.74	0.52	0.80	0.94	0.12	0.91	0.63	0.08

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 49.3 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

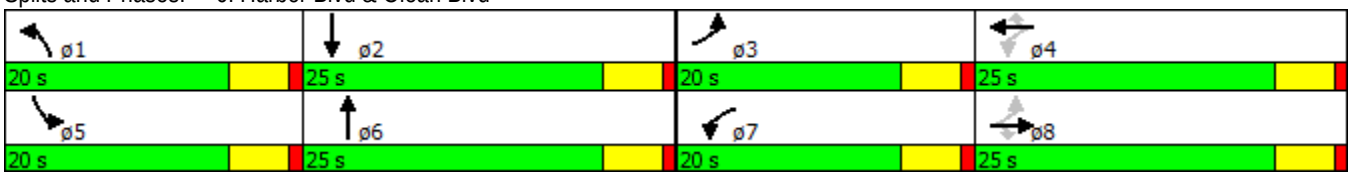
Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	256	31	91	312	142	39	270	93	102	293	143
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3405	0	1770	3366	0
Flt Permitted	0.282			0.436			0.950			0.950		
Satd. Flow (perm)	525	1863	1583	812	1863	1583	1770	3405	0	1770	3366	0
Satd. Flow (RTOR)			145			154		49			85	
Lane Group Flow (vph)	133	278	34	99	339	154	42	394	0	111	473	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	26.1	18.8	18.8	24.5	18.0	18.0	10.8	21.5		12.0	25.6	
Actuated g/C Ratio	0.36	0.26	0.26	0.33	0.25	0.25	0.15	0.29		0.16	0.35	
v/c Ratio	0.38	0.58	0.07	0.26	0.74	0.30	0.16	0.38		0.38	0.38	
Control Delay	18.3	32.1	0.3	16.6	39.9	7.0	35.0	23.2		36.5	19.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.3	32.1	0.3	16.6	39.9	7.0	35.0	23.2		36.5	19.1	
LOS	B	C	A	B	D	A	D	C		D	B	
Approach Delay		25.5			27.4			24.3			22.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	39	119	0	29	153	0	19	74		52	85	
Queue Length 95th (ft)	80	218	0	62	#311	47	52	131		105	137	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	489	564	580	538	547	574	390	1035		390	1233	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.27	0.49	0.06	0.18	0.62	0.27	0.11	0.38		0.28	0.38	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 73.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Harbor Blvd & Olean Blvd

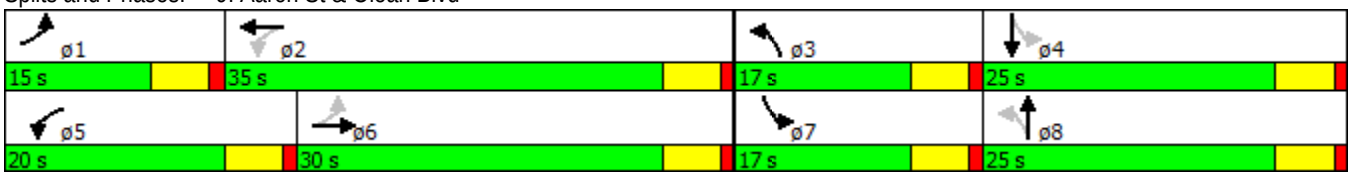


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	383	21	18	454	55	33	48	24	35	70	168
Satd. Flow (prot)	1770	1848	0	1770	1833	0	1770	1770	0	1770	1665	0
Flt Permitted	0.125			0.364			0.599			0.576		
Satd. Flow (perm)	233	1848	0	678	1833	0	1116	1770	0	1073	1665	0
Satd. Flow (RTOR)		3			7			25			120	
Lane Group Flow (vph)	116	439	0	20	553	0	36	78	0	38	259	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	40.2	36.4		35.5	30.1		27.4	20.1		36.9	29.9	
Actuated g/C Ratio	0.46	0.41		0.40	0.34		0.31	0.23		0.42	0.34	
v/c Ratio	0.45	0.57		0.06	0.88		0.09	0.18		0.07	0.40	
Control Delay	19.1	24.7		12.9	45.4		17.8	22.7		17.1	16.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.1	24.7		12.9	45.4		17.8	22.7		17.1	16.4	
LOS	B	C		B	D		B	C		B	B	
Approach Delay		23.5			44.3			21.1			16.5	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	35	163		6	296		12	25		13	63	
Queue Length 95th (ft)	66	317		17	#507		32	63		33	141	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	281	764		501	630		495	422		543	644	
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	0.41	0.57		0.04	0.88		0.07	0.18		0.07	0.40	

Intersection Summary

Cycle Length: 92
Actuated Cycle Length: 88.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.7 Intersection LOS: C
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	541	758	295	138
Demand Flow Rate, veh/h	552	774	301	141
Vehicles Circulating, veh/h	221	159	439	842
Vehicles Exiting, veh/h	762	580	185	91
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.9	21.3	10.6	12.0
Approach LOS	A	C	B	B

Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized		Free			
Lane Util	1.000		1.000	1.000	1.000
Critical Headway, s	5.193		5.193	5.193	5.193
Entry Flow, veh/h	403	149	774	301	141
Cap Entry Lane, veh/h	906	1938	964	728	487
Entry HV Adj Factor	0.979	0.980	0.980	0.982	0.981
Flow Entry, veh/h	395	146	758	295	138
Cap Entry, veh/h	887	1900	944	715	477
V/C Ratio	0.445	0.077	0.803	0.413	0.290
Control Delay, s/veh	9.5	0.0	21.3	10.6	12.0
LOS	A	A	C	B	B
95th %tile Queue, veh	2	0	9	2	1

Phasings
3: US 41 & Olean Blvd

3/2/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	54	15	106	41	392	45	1977	79	266	1939	53
Satd. Flow (prot)	0	1814	1583	0	1798	2787	1770	5085	1583	2938	5085	1583
Flt Permitted		0.974			0.965		0.950			0.950		
Satd. Flow (perm)	0	1814	1583	0	1798	2787	1770	5085	1583	2938	5085	1583
Satd. Flow (RTOR)			110			92			112			65
Lane Group Flow (vph)	0	125	16	0	160	426	49	2149	86	289	2108	58
Turn Type	Split	NA	pt+ov	Split	NA	pt+ov	Prot	NA	pt+ov	Prot	NA	pm+ov
Protected Phases	8	8	1 8	7	7	7 5	1	6	7 6	5	2	8
Permitted Phases												2
Total Split (s)	20.0	20.0		30.0	30.0		15.0	90.0		30.0	105.0	20.0
Total Lost Time (s)		6.7			6.3		6.8	6.8		7.0	6.8	6.7
Act Effct Green (s)		14.4	29.0		20.5	41.9	7.9	87.6	114.9	20.7	103.3	119.1
Actuated g/C Ratio		0.08	0.17		0.12	0.25	0.05	0.52	0.68	0.12	0.61	0.70
v/c Ratio		0.82	0.04		0.74	0.56	0.60	0.82	0.08	0.81	0.68	0.05
Control Delay		111.2	0.2		92.3	31.3	107.8	38.7	0.8	90.1	24.9	1.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		111.2	0.2		92.3	31.3	107.8	38.7	0.8	90.1	24.9	1.0
LOS		F	A		F	C	F	D	A	F	C	A
Approach Delay		98.6			47.9			38.8			32.0	
Approach LOS		F			D			D			C	
Queue Length 50th (ft)		138	0		174	139	55	754	0	190	602	0
Queue Length 95th (ft)		#272	0		257	186	#114	829	10	254	654	9
Internal Link Dist (ft)		114			409			916			1009	
Turn Bay Length (ft)						300	425		200	500		200
Base Capacity (vph)		154	353		250	843	86	2620	1133	397	3088	1117
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.81	0.05		0.64	0.51	0.57	0.82	0.08	0.73	0.68	0.05

Intersection Summary

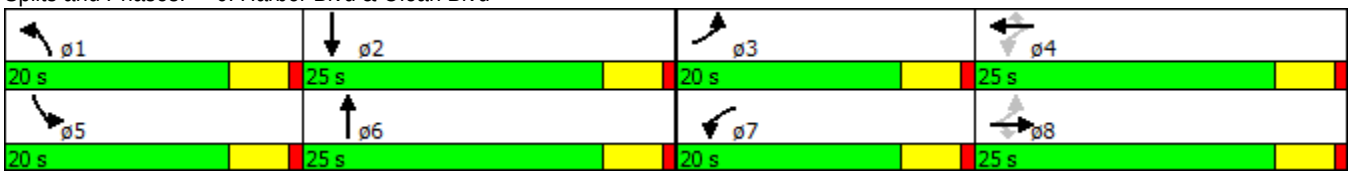
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 110 (65%), Referenced to phase 2:SBT, Start of Yellow
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 38.3 Intersection LOS: D
Intersection Capacity Utilization 77.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: US 41 & Olean Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	282	18	72	255	112	35	375	113	117	294	101
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3415	0	1770	3405	0
Flt Permitted	0.366			0.372			0.950			0.950		
Satd. Flow (perm)	682	1863	1583	693	1863	1583	1770	3415	0	1770	3405	0
Satd. Flow (RTOR)			145			145		41			49	
Lane Group Flow (vph)	123	307	20	78	277	122	38	531	0	127	430	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8		8	4		4						
Total Split (s)	20.0	25.0	25.0	20.0	25.0	25.0	20.0	25.0		20.0	25.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Act Effct Green (s)	24.5	17.5	17.5	22.5	16.5	16.5	10.8	21.6		12.3	26.1	
Actuated g/C Ratio	0.34	0.24	0.24	0.31	0.23	0.23	0.15	0.30		0.17	0.36	
v/c Ratio	0.33	0.68	0.04	0.23	0.65	0.26	0.14	0.50		0.42	0.34	
Control Delay	17.8	35.6	0.2	16.8	36.0	5.2	34.4	25.2		36.3	19.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	17.8	35.6	0.2	16.8	36.0	5.2	34.4	25.2		36.3	19.4	
LOS	B	D	A	B	D	A	C	C		D	B	
Approach Delay		29.2			25.0			25.9			23.3	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	37	134	0	23	122	0	16	106		57	78	
Queue Length 95th (ft)	75	239	0	52	222	31	49	183		116	131	
Internal Link Dist (ft)		826			803			820			968	
Turn Bay Length (ft)	130		150	280		280						
Base Capacity (vph)	517	575	589	515	559	576	399	1054		399	1267	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.53	0.03	0.15	0.50	0.21	0.10	0.50		0.32	0.34	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

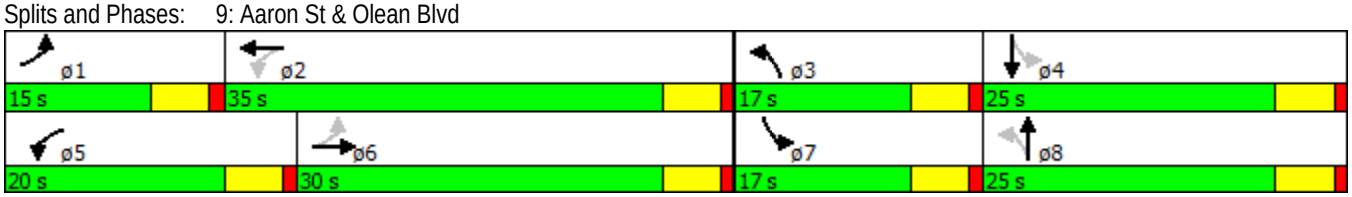
Splits and Phases: 6: Harbor Blvd & Olean Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	379	10	9	399	20	55	53	27	16	33	86
Satd. Flow (prot)	1770	1855	0	1770	1850	0	1770	1770	0	1770	1662	0
Flt Permitted	0.236			0.407			0.674			0.567		
Satd. Flow (perm)	440	1855	0	758	1850	0	1255	1770	0	1056	1662	0
Satd. Flow (RTOR)		1			3			25			93	
Lane Group Flow (vph)	65	423	0	10	456	0	60	87	0	17	129	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2			8			4		
Total Split (s)	15.0	30.0		20.0	35.0		17.0	25.0		17.0	25.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	39.6	37.8		35.6	30.1		27.9	20.1		36.4	27.1	
Actuated g/C Ratio	0.45	0.43		0.41	0.34		0.32	0.23		0.42	0.31	
v/c Ratio	0.21	0.53		0.03	0.71		0.13	0.20		0.03	0.22	
Control Delay	14.4	21.9		12.8	33.1		17.6	23.0		16.2	10.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.4	21.9		12.8	33.1		17.6	23.0		16.2	10.8	
LOS	B	C		B	C		B	C		B	B	
Approach Delay		20.9			32.6			20.8			11.4	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	19	156		3	222		20	28		6	15	
Queue Length 95th (ft)	41	304		11	346		45	69		19	60	
Internal Link Dist (ft)		820			826			956			708	
Turn Bay Length (ft)	120			150						100		
Base Capacity (vph)	353	803		522	640		532	426		538	579	
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	0.18	0.53		0.02	0.71		0.11	0.20		0.03	0.22	

Intersection Summary	
Cycle Length: 92	
Actuated Cycle Length: 87.3	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 50.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Aaron St & Olean Blvd



Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	464	631	230	126
Demand Flow Rate, veh/h	473	644	234	129
Vehicles Circulating, veh/h	194	164	412	694
Vehicles Exiting, veh/h	629	482	154	114
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.7	14.6	8.7	9.6
Approach LOS	A	B	A	A

Lane	Left	Bypass	Left	Left	Left
Designated Moves	LT	R	LTR	LTR	LTR
Assumed Moves	LT	R	LTR	LTR	LTR
RT Channelized		Free			
Lane Util	1.000		1.000	1.000	1.000
Critical Headway, s	5.193		5.193	5.193	5.193
Entry Flow, veh/h	372	101	644	234	129
Cap Entry Lane, veh/h	931	1938	959	748	564
Entry HV Adj Factor	0.980	0.980	0.981	0.983	0.980
Flow Entry, veh/h	364	99	631	230	126
Cap Entry, veh/h	912	1900	940	736	553
V/C Ratio	0.400	0.052	0.672	0.313	0.229
Control Delay, s/veh	8.6	0.0	14.6	8.7	9.6
LOS	A	A	B	A	A
95th %tile Queue, veh	2	0	5	1	1

Appendix H

2038 Design Year LOS and Queue

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Alt1 2038 Midday LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41	Volume	72	65	31	209	73	569	56	1984	179	386	1573	74
	Del		162.5	0.5	83.2	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
	Que 95		#337	0	261	262	310	#151	834	49	#339	475	14
	Que Cap		114		250	409	250	275	916	200	300	1009	200
	App Del	132.4			54.5			41.9			36.8		
	App LOS	F			D			D			D		
	Int Del/LOS	44.8						D					
Aaron ST	Volume[2)]	193	416	51	41	495	60	41	63	25	78	91	179
	Del	17.9	19.3		12.2	23.6		18.8	24.4		19.1	23.3	
	Que 95	110	156		30	191		38	76		61	185	
	Que Cap	120	820		150	826		100	956		100	708	
	App Del	18.9			22.8			22.6			22.4		
	App LOS	B			C			C			C		
	Int Del	21.2						C					
Harbor Blvd	Volume[2)]	195	267	32	94	322	146	39	271	93	122	312	148
	Del	23.3	30.3	0.2	16.6	50.3	7.1	37.4	26.1		41.3	20.7	
	Que 95	123	227		64	#339	49	53	136		125	153	
	Que Cap	130	826		280	803	280	125	820		250	968	
	App Del	25.6			33.4			27.2			25.0		
	App LOS	C			C			C			C		
	Int Del	27.9						C					
Caring Way[1)]	Volume[2)]	31	406	164	208	644	36			171			64
	Del	9.3			10.6					11.0			11.5
	Que 95 (Veh)	0.1			1								
	Que Cap	150			150								
	App Del	0.7			2.5			11.0			11.5		
	App LOS	-			-			B			B		
	Int Del	3.3						-					

1) Unsignalized Intersection

2) EBL or WBL includes EBU or WBU, respectively

95the Percentile volume exceeds capacity, queue may be longer

Alt1 2038 PM LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41	Volume	61	54	15	130	50	481	40	2015	107	309	1940	52
	Del		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
	Que 95		#272	0	172	176	243	95	856	24	246	654	8
	Que Cap		114		250	409	250	275	916	200	300	1009	200
	App Del	111.7			45.2			40.5			33.0		
	App LOS	F			D			D			C		
	Int Del/LOS	39.6						D					
Aaron ST	Volume[2)]	118	416	27	22	432	21	63	71	29	57	48	90
	Del	14	17.4		11.8	21.5		18.7	24.6		18.5	14.3	
	Que 95	71	145		19	156		51	86		48	76	
	Que Cap	120	820		150	826		100	956		100	708	
	App Del	16.7			21.0			22.3			15.6		
	App LOS	B			C			C			B		
	Int Del	18.7						B					
Harbor Blvd	Volume[2)]	166	294	19	74	263	115	36	377	114	139	311	105
	Del	20.5	33.2	0.2	16.9	43.9	5.7	36.7	28.9		41.2	20.5	
	Que 95	57	145	0	24	134	0	18	115		72	88	
	Que Cap	130	826		280	803	280	125	820		250	968	
	App Del	27.5			29.8			29.4			25.7		
	App LOS	C			C			C			C		
	Int Del	28.0						C					
Caring Way[1)]	Volume[2)]	38	359	111	161	532	27			125			56
	Del	8.9			9.2					10.3			10.7
	Que 95 (Veh)												
	Que Cap	150			150								
	App Del	0.9			2.1			10.3			10.7		
	App LOS	-			-			B			B		
	Int Del	2.9						-					

1) Unsignalized Intersection

2) EBL or WBL includes EBU or WBU, respectively

95the Percentile volume exceeds capacity, queue may be longer

Alt2 2038 Midday LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41	Volume	72	65	31	209	73	569	56	1984	179	386	1573	74
	Del		162.5	0.5	8.3	82.3	40.5	121.9	43.1	3.4	96.5	23.8	1.5
	Que 95		#337	0	261	262	310	#151	834	49	#339	475	14
	Que Cap		114		250	409	250	275	916	200	300	1009	200
	App Del	132.4			54.5			41.9			36.8		
	App LOS	F			D			D			D		
	Int Del/LOS	44.8						D					
Aaron ST	Volume	156	454	24	20	495	60	35	57	25	68	92	179
	Del	15.2	16.8		11.9	23.4		18.5	23.6		18.8	23.2	
	Que 95	89	157		18	193		33	71		55	185	
	Que Cap	120	820		150	826		100	956		100	708	
	App Del	16.4			23.0			22.1			22.3		
	App LOS	B			C			C			C		
	Int Del	20.3						C					
Harbor Blvd	Volume	127	266	32	94	322	146	39	271	93	106	312	148
	Del	18.6	32.5	0.2	16.7	40.8	6.9	35.3	23.5		36.9	19.8	
	Que 95	83	228	0	64	#327	48	53	132		108	148	
	Que Cap	130	826		280	803	280	125	820		250	968	
	App Del	25.9			28.0			24.6			23.0		
	App LOS	C			C			C			C		
	Int Del	25.4						C					
Caring Way[1)]	Volume	31	405	164	154	647	36			171			64
	Del	9.4			8.8					11.0			11.5
	Que 95 (Veh)	0.1			0.5					0.9			0.4
	Que Cap	150			150								
	App Del	0.7			1.6			11.0			11.5		
	App LOS	-			-			B			B		
	Int Del	2.8						-					

1) Unsignalized Intersection

95the Percentile volume exceeds capacity, queue may be longer

Alt2 2038 PM LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41	Volume	61	54	15	130	50	481	40	2015	107	309	1940	52
	Del		126.0	0.3	73.5	73.4	34.6	103.5	41.3	1.9	85.7	25.5	1.0
	Que 95		#272	0	172	176	243	95	856	24	246	654	8
	Que Cap		114		250	409	250	275	916	200	300	1009	200
	App Del	111.7			45.2			40.5			33.0		
	App LOS	F			D			D			C		
	Int Del/LOS	39.6						D					
Aaron ST	Volume	109	402	22	10	438	22	59	67	29	52	49	91
	Del	13.2	14.7		11.5	21.4		18.6	24.1		18.3	14.6	
	Que 95	63	137		11	157		49	82		45	78	
	Que Cap	120	820		150	826		100	956		100	708	
	App Del	14.4			21.2			22.0			15.6		
	App LOS	B			C			C			B		
	Int Del	17.8						B					
Harbor Blvd	Volume	118	294	19	74	263	115	36	377	114	121	311	105
	Del	18	35.9	0.2	16.9	36.3	5.4	34.8	25.7		36.9	20.0	
	Que 95	78	250	0	53	230	33	50	185		232	140	
	Que Cap	130	826		280	803	280	125	820		250	968	
	App Del	29.4			25.3			26.3			23.8		
	App LOS	C			C			C			C		
	Int Del	26.1						C					
Caring Way[1)]	Volume	38	359	111	135	534	28			125			56
	Del	8.9			8.5					10.3			10.7
	Que 95 (Veh)	0.1			0.4					0.6			0.3
	Que Cap	150			150								
	App Del	0.9			1.7			10.3			10.7		
	App LOS	-			-			B			B		
	Int Del	2.7						-					

1) Unsignalized Intersection

95the Percentile volume exceeds capacity, queue may be longer

Alt3 2038 Midday LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41 & Olean Blvd	Volume	72	65	31	169	59	464	63	1970	123	334	1569	75
	Del		114.4	0.5		89.9	34.8	130.5	55.4	2.7	83.7	29.3	2.5
	Que 95		#337	0		372	252	#171	905	25	265	530	20
	Que Cap		114	114		300	409	425	916	200	500	1009	200
	App Del	93.2			53.0			54.6			37.5		
	App LOS	F			D			D			D		
	Int Del/LOS	48.9						D					
Aaron St & Olean Blvd	Volume	107	383	21	18	454	55	33	48	24	35	70	168
	Del	19.1	24	0.1	12.9	45.4		17.8	22.7		17.1	16.4	
	Que 95	66	297	0	17	#507		32	63		33	141	
	Que Cap	120	820	820	150	826		100	956		100	708	
	App Del	22			44.3			21.1			16.5		
	App LOS	C			D			C			B		
	Int Del	29.2						C					
Harbor Blvd & Olean Blvd	Volume	122	256	31	91	312	142	39	270	93	102	293	143
	Del	18.3	32.1	0.3	16.6	39.9	7	35	23.2		36.5	19.1	
	Que 95	80	218	0	62	#311	47	52	131		105	137	
	Que Cap	130	826	150	280	803	280	120	820		250	968	
	App Del	25.5			27.4			24.3			22.4		
	App LOS	C			C			C			C		
	Int Del	24.9						C					
Caring Way & Olean Blvd[1)]	Volume	25	301	120	121	474	29	81	20	139	29	30	58
	Del												
	Que 95		2	1		9			2			1	
	Que Cap												
	App Del	8.5			21.3			10.6			12.0		
	App LOS	A			C			B			B		
	Int Del	14.7						B					

1) Roundabout

95the Percentile volume exceeds capacity, queue may be longer

Alt3 2038 PM LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41 & Olean Blvd	Volume	61	54	15	106	41	392	45	1977	79	266	1939	53
	Del		111.2	0.2		92.0	32.1	107.8	37.5	0.8	84.2	24.9	1.0
	Que 95		#272	0		257	186	#114	829	10	212	654	9
	Que Cap		114	114	0	300	409	425	916	200	500	1009	200
	App Del	98.6			48.5			37.7			31.3		
	App LOS	F			D			D			C		
	Int Del/LOS	37.5						D					
Aaron St & Olean Blvd	Volume	60	379	10	9	399	20	55	53	27	16	33	86
	Del	14.4	21.6	0.0	12.8	33.1		17.6	23		16.2	10.8	
	Que 95	41	295	0	11	346		45	69		19	60	
	Que Cap	120	820	820	150	826		100	956		100	708	
	App Del	20.1			32.6			20.8			11.4		
	App LOS	C			C			C			B		
	Int Del	23.9						C					
Harbor Blvd & Olean Blvd	Volume	113	282	18	72	255	112	35	375	113	117	294	101
	Del	17.8	35.6	0.2	16.8	36	5.2	34.4	25.2		36.3	19.4	
	Que 95	75	239	0	52	222	31	49	183		116	131	
	Que Cap	130	826	150	280	803	280	120	820		250	968	
	App Del	29.2			25			25.9			23.3		
	App LOS	C			C			C			C		
	Int Del	25.7						C					
Caring Way & Olean Blvd[1)]	Volume	35	261	80	99	390	24	59	37	90	33	23	49
	Del												
	Que 95		2	0		5			1			1	
	Que Cap												
	App Del	6.7			14.6			8.7			9.6		
	App LOS	A			B			A			A		
	Int Del	10.7						A					

1) Roundabout

95the Percentile volume exceeds capacity, queue may be longer

Alt4 2038 Midday LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41 & Olean Blvd	Volume	72	65	31	169	59	464	63	1970	123	334	1569	75
	Del		114.4	0.5		89.9	28.2	130.5	54.8	2.6	102.1	29.3	2.5
	Que 95		#337	0		372	216	#171	905	33	#357	530	20
	Que Cap		114	114		409	300	425	916	200	500	1009	200
	App Del	93.2			48.5			54.0			40.6		
	App LOS	F			D			D			D		
	Int Del/LOS	49.3						D					
Aaron St & Olean Blvd	Volume	107	383	21	18	454	55	33	48	24	35	70	168
	Del	19.1	24.7		12.9	45.4		17.8	22.7		17.1	16.4	
	Que 95	66	317		17	#507		32	63		33	141	
	Que Cap	120	820		150	826		100	956		100	708	
	App Del	23.5			44.3			21.1			16.5		
	App LOS	C			D			C			B		
	Int Del	29.7						C					
Harbor Blvd & Olean Blvd	Volume	122	256	31	91	312	142	39	270	93	102	293	143
	Del	18.3	32.1	0.3	16.6	39.9	7	35	23.2		36.5	19.1	
	Que 95	80	218	0	62	#311	47	52	131		105	137	
	Que Cap	130	826	150	280	803	280	120	820		250	968	
	App Del	25.5			27.4			24.3			22.4		
	App LOS	C			C			C			C		
	Int Del	24.9						C					
Caring Way & Olean Blvd[1)]	Volume	25	301	120	121	474	29	81	20	139	29	30	58
	Del												
	Que 95		2	0		9			2			1	
	Que Cap												
	App Del	6.9			21.3			10.6			12.0		
	App LOS	A			C			A			A		
	Int Del	14.3						B					

1) Roundabout

95the Percentile volume exceeds capacity, queue may be longer

Alt4 2038 PM LOS & Queue

Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
US 41 & Olean Blvd	Volume	61	54	15	106	41	392	45	1977	79	266	1939	53
	Del		111.2	0.2		92.3	31.3	107.8	38.7	0.8	90.1	24.9	1.0
	Que 95		#272	0		257	186	#114	829	10	254	654	9
	Que Cap		114	114		409	300	425	916	200	500	1009	200
	App Del	98.6			47.9			38.8			32.0		
	App LOS	F			D			D			C		
	Int Del/LOS	38.3						D					
Aaron St & Olean Blvd	Volume	60	379	10	9	399	20	55	53	27	16	33	86
	Del	14.4	21.9		12.8	33.1		17.6	23		16.2	10.8	
	Que 95	41	304		11	346		45	69		19	60	
	Que Cap	120	820		150	826		956	956		100	708	
	App Del	20.9			32.6			20.8			11.4		
	App LOS	C			C			C			B		
	Int Del	24.2						C					
Harbor Blvd & Olean Blvd	Volume	113	282	18	72	255	112	35	375	113	117	294	101
	Del	17.8	35.6	0.2	16.8	36	5.2	34.4	25.2		36.3	19.4	
	Que 95	75	239	0	52	222	31	49	183		116	131	
	Que Cap	130	826	150	280	803	280	120	820		250	968	
	App Del	29.2			25.0			25.9			23.3		
	App LOS	C			C			C			C		
	Int Del	25.7						C					
Caring Way & Olean Blvd[1)]	Volume	35	261	80	99	390	24	59	37	90	33	23	49
	Del												
	Que 95		2	0		5			1			1	
	Que Cap												
	App Del	6.7			14.6			8.7			9.6		
	App LOS	A			B			A			A		
	Int Del	10.7						B					

1) Roundabout

95the Percentile volume exceeds capacity, queue may be longer

Appendix I

Potential Pond Sites

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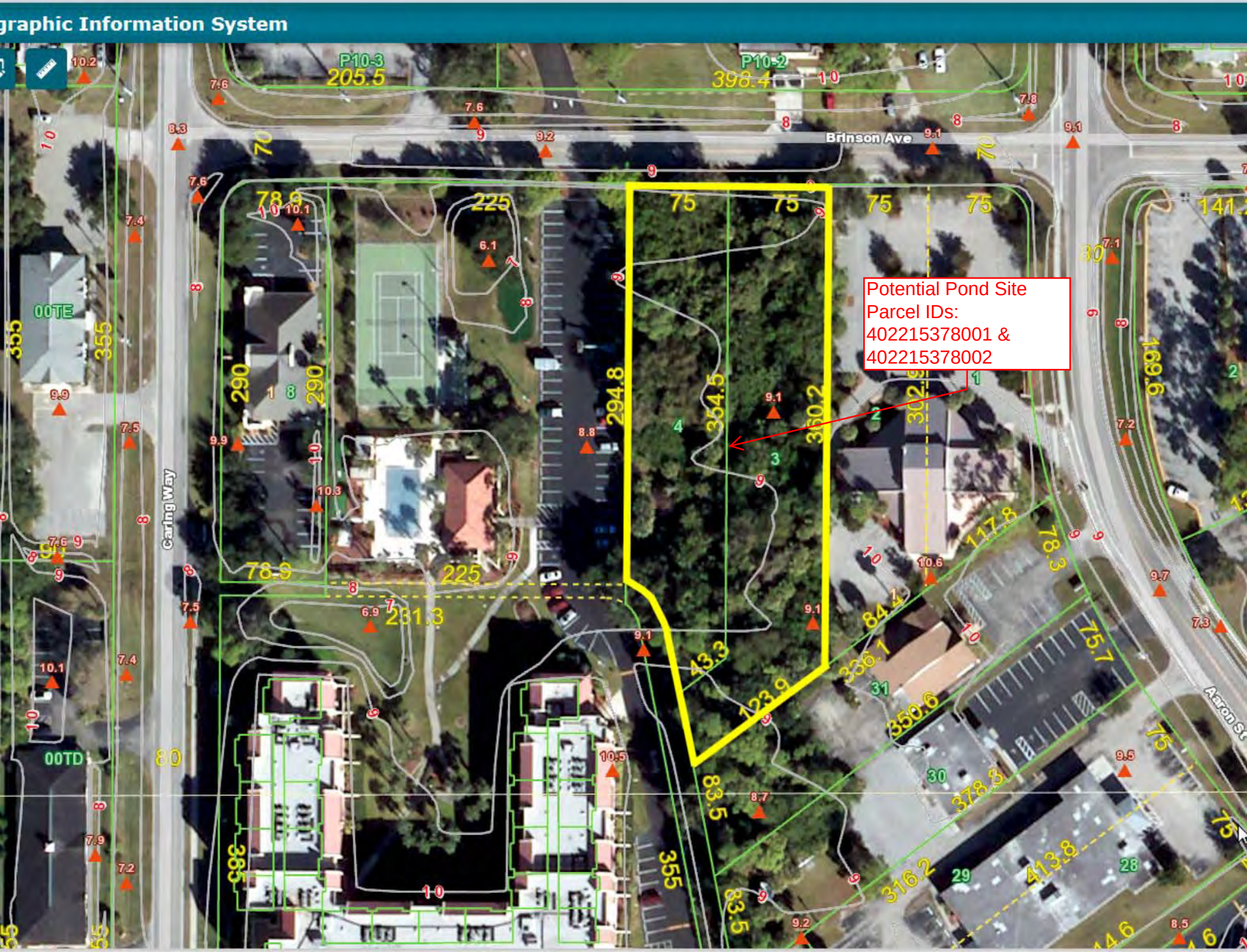
graphic Information System


graphic Information System
Brinson Ave
Caring Way
Aaron St
Potential Pond Site
Parcel IDs:
402215378001 &
402215378002
P10-3
205.5
P10-2
398.4
00TE
00TD