

# *TRANSPORTATION ANALYSIS*

## *HILLSBOROUGH/ROME DEVELOPMENT*

*Prepared For*

*GILBANE DEVELOPMENT COMPANY*

*Prepared By*



*LINCKS & ASSOCIATES, INC.*

*Engineers - Planners*

*Tampa, Florida*

TRANSPORTATION ANALYSIS

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Prepared By

LINCKS & ASSOCIATES, INC.

5023 West Laurel Street

Tampa, Florida 33607

813-289-0039

State of Florida Authorization No. EB0004638

November, 2023

Project No. 23145

Steven J. Henry, P.E.  
P.E. No. 51555

\_\_\_\_\_  
Date



## TABLE OF CONTENTS

	<u>Page</u>
Introduction .....	1
Estimated Project Average Daily Traffic.....	1
Project Peak Hour Traffic.....	4
Project Trip Distribution .....	4
Adjacent Roadways .....	4
Study Area .....	6
Buildout .....	6
Background Traffic.....	6
Intersection Analysis .....	7
Proportionate Share .....	15
Appendix	

## LIST OF TABLES

1	Estimated Project Trip Ends.....	3
2	Estimated Intersection Level of Service (Signalized) AM Peak Hour .....	12
3	Estimated Intersection Level of Service (Signalized) PM Peak Hour .....	13
4	Intersection Proportionate Share Determination .....	16

## LIST OF FIGURES

1	Project Location .....	2
2	Project Traffic.....	5
3	Existing Traffic.....	8
4	Peak Season Traffic.....	9
5	2026 Background Traffic.....	10
6	2026 Background Plus Project Traffic.....	11



## INTRODUCTION

The purpose of this report is to provide a Transportation Analysis in conjunction with the rezoning of the property located south of Hillsborough Avenue and east of Rome Avenue in the City of Tampa, Florida, as shown in Figure 1.

The property currently contains the approximate 38,328 square foot Crosswind Church. In conjunction with the development of the property the existing Church Facilities are to be razed and the new Church building is proposed to be built on the southern portion of the property. With the redevelopment, the property is proposed to be developed for the following land uses:

- Multi-Family – 270 Dwelling Units
- Retail – 2,500 Square Feet
- Relocated Church – 16,000 Square Feet

This analysis was conducted in conformance with the approved Traffic Methodology Statement dated October 23, 2023. A copy of the Traffic Methodology Statement is included in the Appendix of this report.

## ESTIMATED PROJECT AVERAGE DAILY TRAFFIC

The trip rates utilized in this report were obtained from the latest computerized version of "OTISS" which utilizes the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11<sup>th</sup> Edition, 2021, as its data base. Table 1 provides the trip generation for the





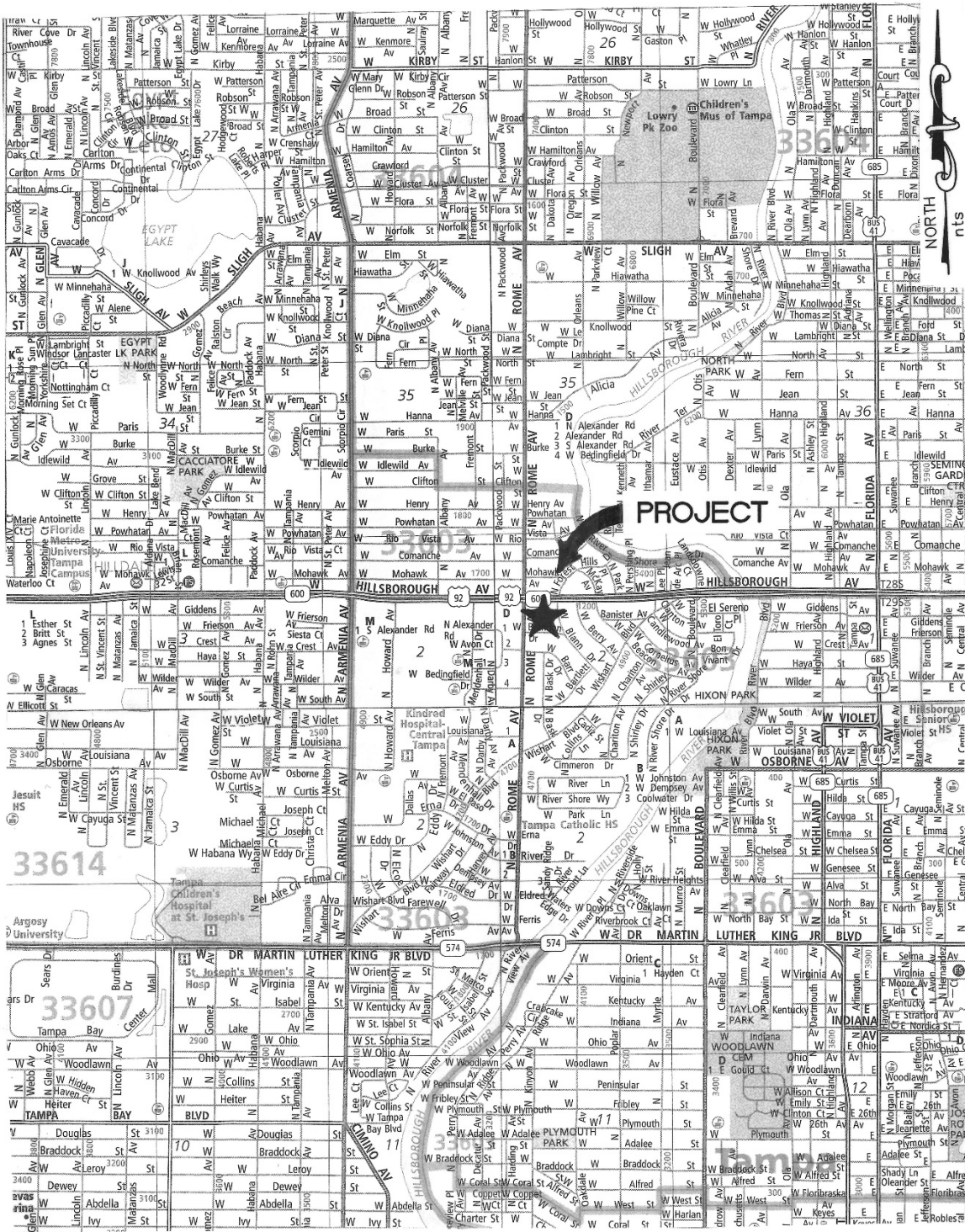


FIGURE 1  
PROJECT LOCATION



TABLE 1

ESTIMATED PROJECT TRIP ENDS (1)

Scenario	Land Use	ITE LUC	Size	Daily Trip Ends	AM Peak Hour Trip Ends		PM Peak Hour Trip Ends			
					In	Out	In	Out	Total	Total
Existing	Church	560	38,328 SF	291	7	5	12	8	11	19
Proposed	Multi-Family	221	270 DU's	1,226	25	82	107	65	41	106
	Retail	822	2,500 SF	136	4	2	6	15	14	29
	Church	560	16,000 SF	122	3	2	5	4	4	8
	Sub-Total			1,484	32	86	118	84	59	143
	Difference			1,193	25	81	106	76	48	124

(1) Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition, 2021.



existing and proposed land uses. Based on these trip rates, the net increase in traffic due to the proposed land uses would be approximately 1,193 daily trip ends.

### PROJECT PEAK HOUR TRAFFIC

Again, based on the ITE Trip Generation Manual, 11<sup>th</sup> Edition, the proposed land uses would result in a net increase of approximately 106 trip ends during the AM peak hour with 25 inbound and 81 outbound, as shown in Table 1.

During the PM peak hour, the proposed land uses would result in a net increase of approximately 124 trip ends with 76 inbound and 48 outbound, as shown in Table 1.

### PROJECT TRIP DISTRIBUTION

The distribution of the project traffic was estimated based on existing traffic and development in the vicinity of the project. Figure 2 illustrates the assignment of the AM and PM peak hour project trip ends on the adjacent transportation network.

### ADJACENT ROADWAYS

As stated previously, the project is located south of Hillsborough Avenue and east of Rome Avenue in the City of Tampa, Florida. Hillsborough Avenue is a four (4) lane divided roadway and Rome Avenue is a two (2) lane undivided roadway in the vicinity of the project.

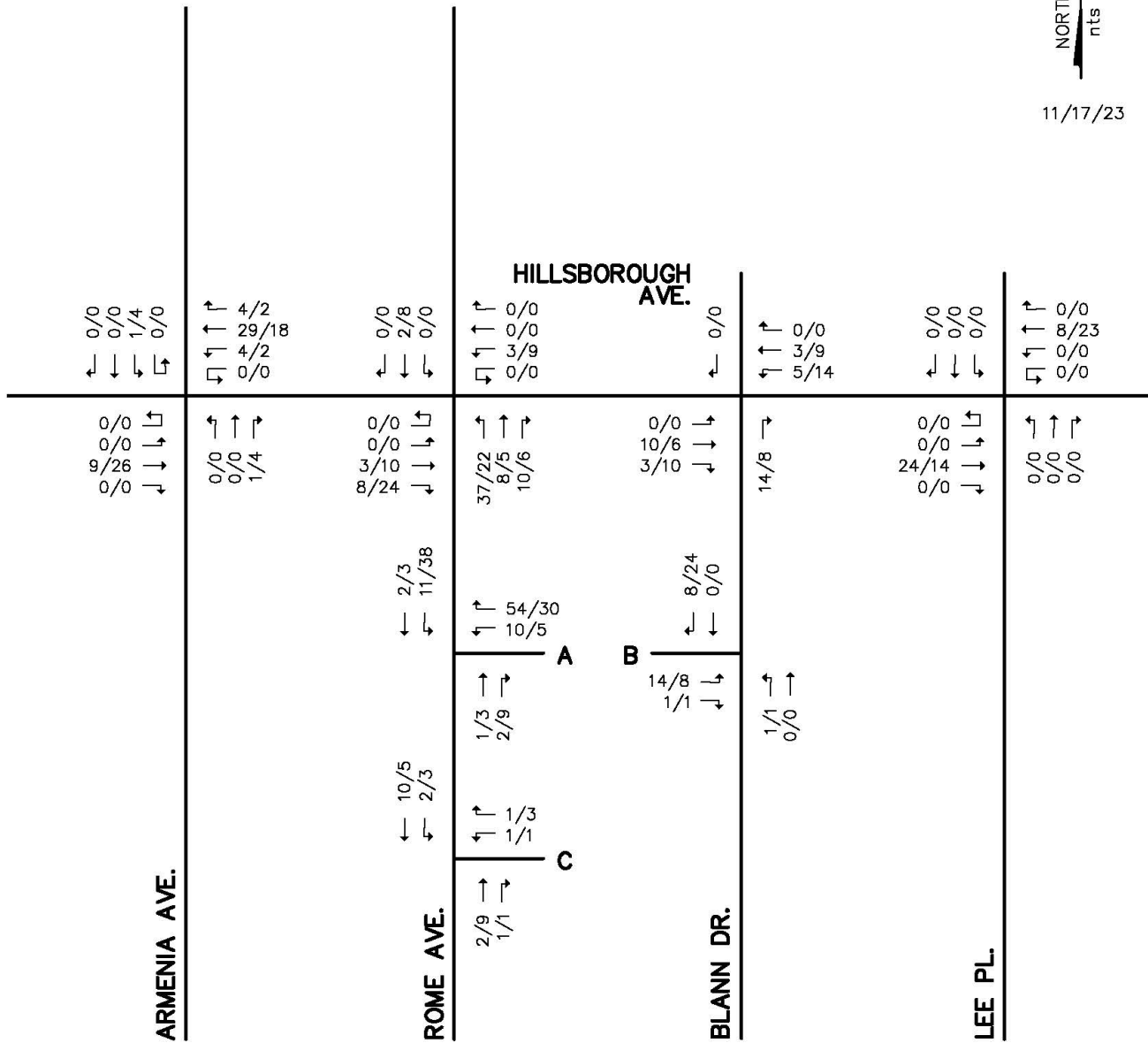


**LEGEND**

13/40 = AM/PM PEAK HOUR TRAFFIC



11/17/23



**FIGURE 2  
PROJECT TRAFFIC**



According to the City of Tampa, Hillsborough County and FDOT Capital Improvement Programs, there are no other capacity adding improvements budgeted in the vicinity of the project.

## STUDY AREA

Based on the Traffic Methodology Statement dated October 23, 2023 included in the Appendix of this report, the study network includes the following intersections:

- Hillsborough Avenue and Armenia Avenue
- Hillsborough Avenue and Rome Avenue
- Hillsborough Avenue and Lee Place

## BUILDOUT

Buildout of the project is anticipated to be 2026.

## BACKGROUND TRAFFIC

The 2026 background traffic utilized in this analysis was calculated as follows:

- 1) AM (7:00 to 9:00) peak hour and PM (4:00 to 6:00) peak hour turning movement counts were conducted at the intersections within the study network, which are as follows:

- Hillsborough Avenue and Armenia Avenue



- Hillsborough Avenue and Rome Avenue
- Hillsborough Avenue and Lee Place

Figure 3 illustrates the existing traffic.

- 2) The existing counts were adjusted to the peak season based on the FDOT Peak Season Adjustment Factors for Hillsborough County.

Figure 4 illustrates the peak season traffic.

- 3) The peak season traffic was increased by an annual growth rate of 2.5% per year to the buildout year of 2026.

Figure 5 illustrates the 2026 background traffic and Figure 6 illustrates the 2026 background plus project traffic for the AM and PM peak hours.

## INTERSECTION ANALYSIS

A capacity analysis was conducted for the AM and PM peak hours at the following intersections:

- Hillsborough Avenue and Armenia Avenue
- Hillsborough Avenue and Rome Avenue
- Hillsborough Avenue and Lee Place

These calculations were performed utilizing the SYNCHRO software. Tables 2 and 3 summarize the results of the analysis and are described in the following paragraphs:

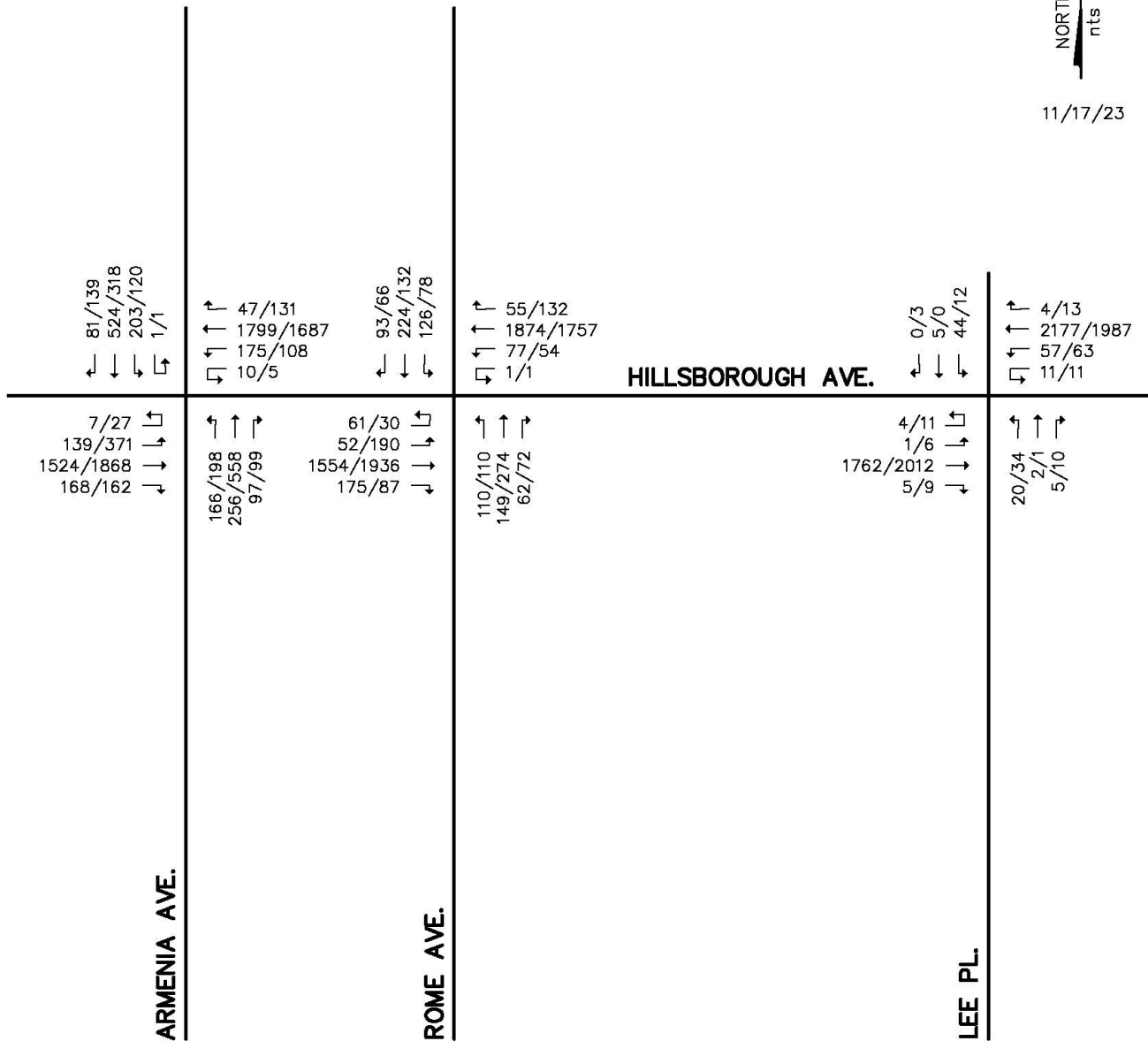


**LEGEND**

13/40 = AM/PM PEAK HOUR TRAFFIC



11/17/23



**FIGURE 3  
EXISTING TRAFFIC**

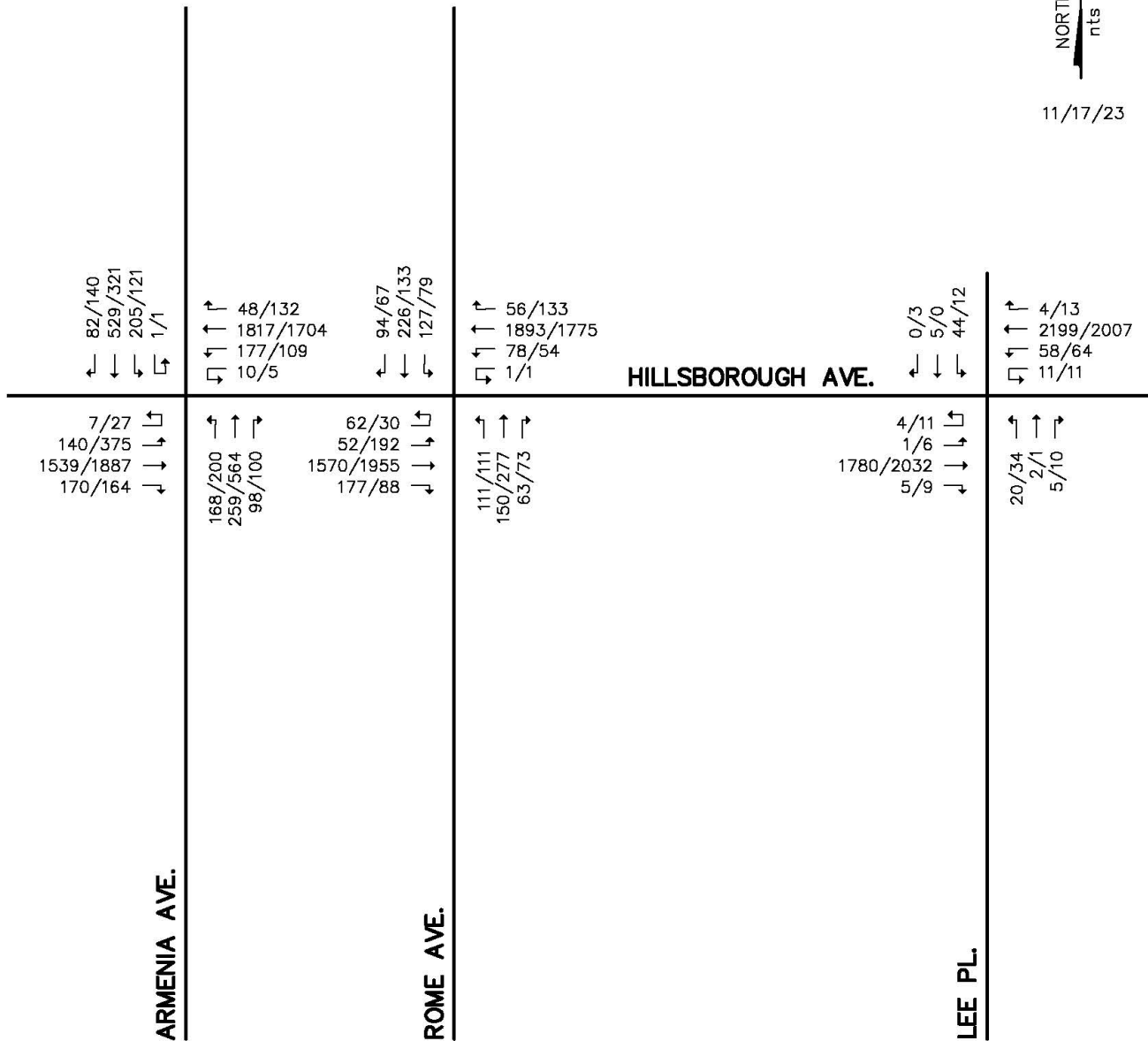


**LEGEND**

13/40 = AM/PM PEAK HOUR TRAFFIC



11/17/23



**FIGURE 4**  
**PEAK SEASON TRAFFIC**



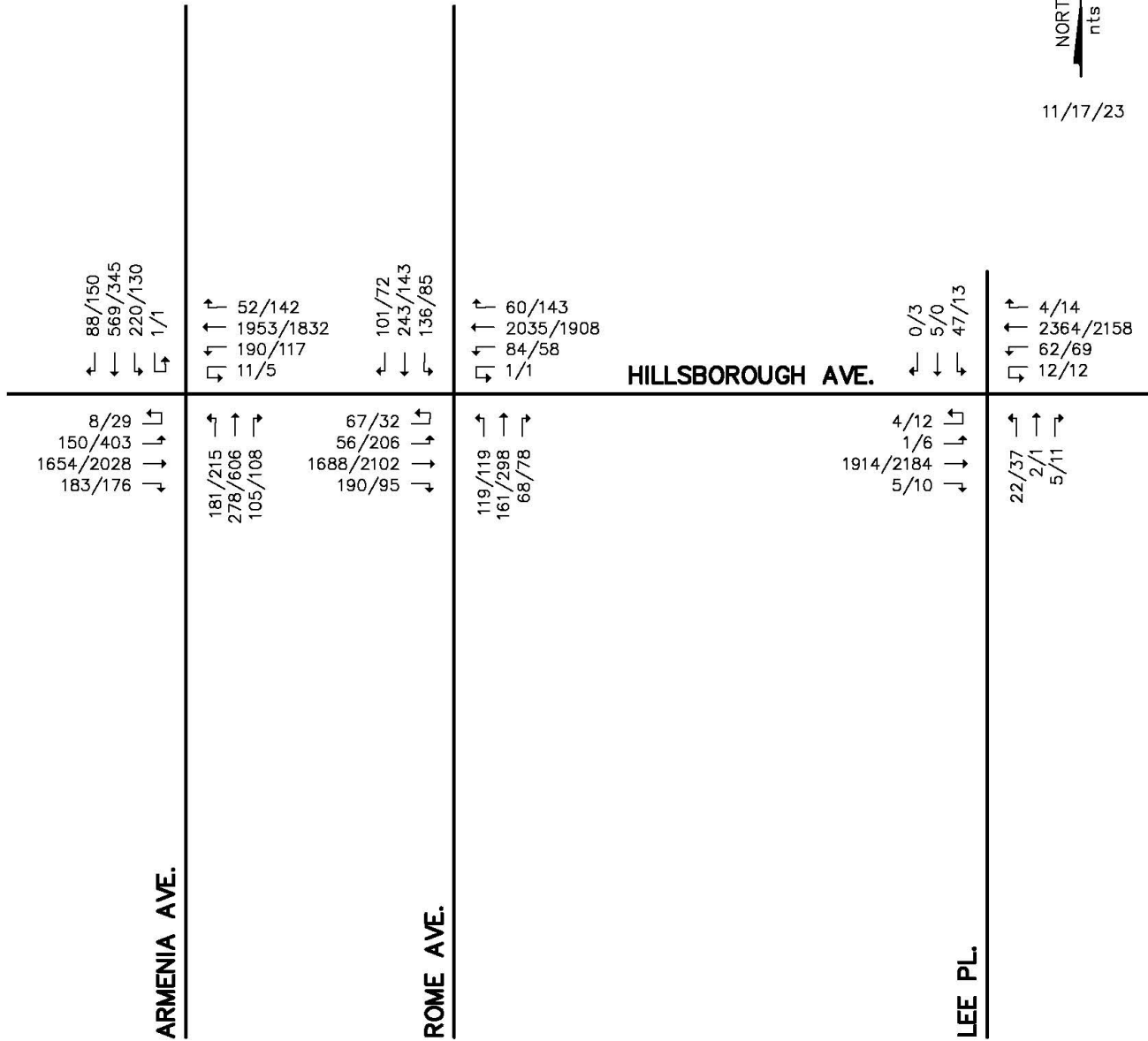


**LEGEND**

13/40 = AM/PM PEAK HOUR TRAFFIC



11/17/23



**FIGURE 5**  
**2026 BACKGROUND TRAFFIC**

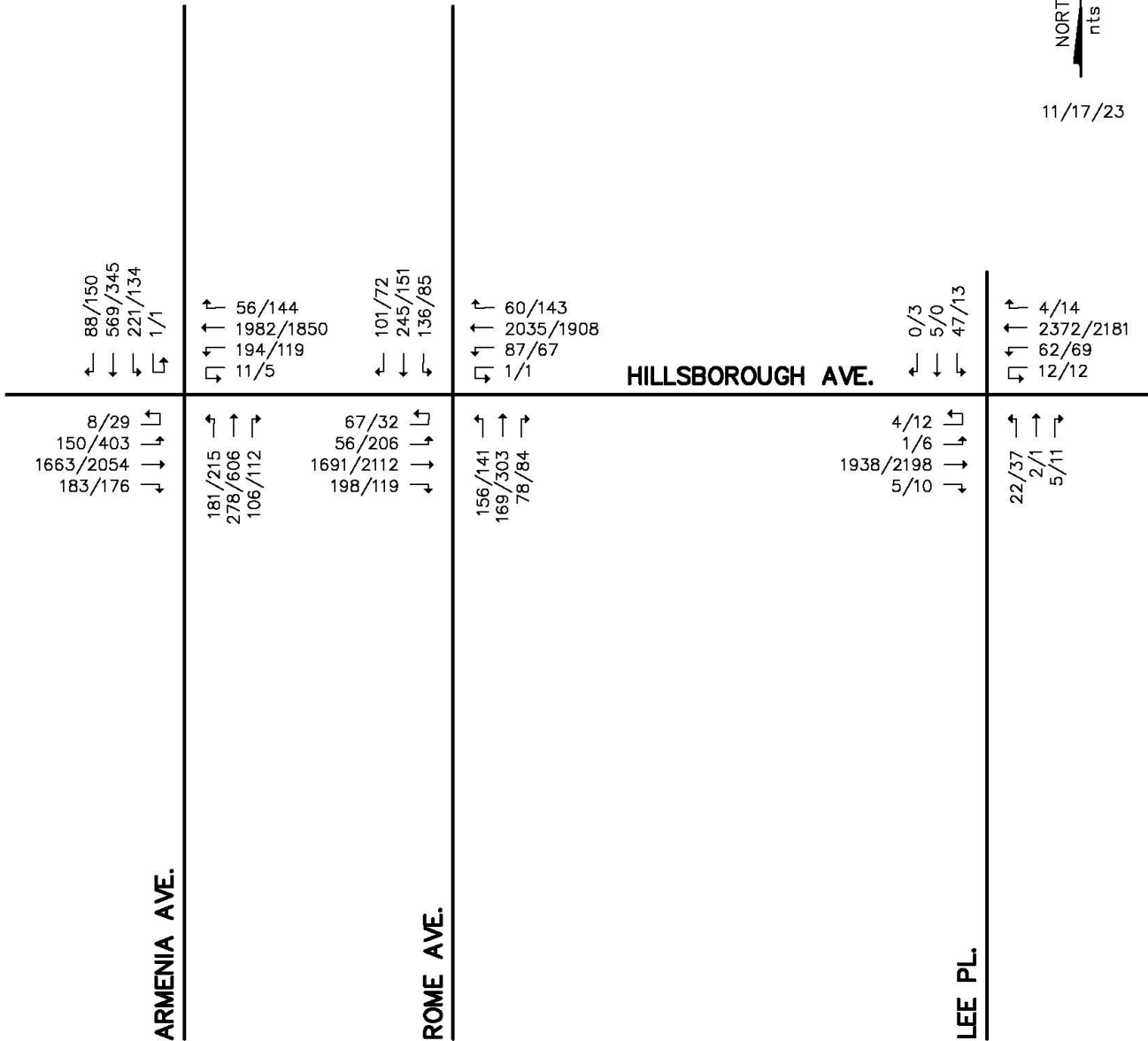


**LEGEND**

13/40 = AM/PM PEAK HOUR TRAFFIC



11/17/23



**FIGURE 6**  
2026 BACKGROUND PLUS  
PROJECT TRAFFIC



TABLE 2  
 ESTIMATED INTERSECTION  
 LEVEL OF SERVICE (SIGNALIZED)

Intersection	AM Peak Hour Background Traffic Existing Geometry		Required Improvements	AM Peak Hour Background Traffic With Improvements		AM Peak Hour Background Plus Project Traffic Background Improvements	
	Delay	LOS		Delay	LOS	Delay	LOS
Hillsborough Ave and Armenia Ave	74.3	E	EBR, WBR Signal Timings Modification	64.6	E	64.9	E
Hillsborough Ave and Rome Ave	46.9	D	NBL Signal Timings Modification	49.1	D	50.8	D
Hillsborough Ave and Lee Place	5.1	A	NBL Signal Timings Modification	5.2	A	5.2	A



TABLE 3  
 ESTIMATED INTERSECTION  
 LEVEL OF SERVICE (SIGNALIZED)

Intersection	PM Peak Hour Background Traffic Existing Geometry		Required Improvements	PM Peak Hour Background Traffic With Improvements		PM Peak Hour Background Plus Project Traffic Background Improvements	
	Delay	LOS		Delay	LOS	Delay	LOS
Hillsborough Ave and Armenia Ave	52.3	D	EBR, WBR Signal Timings Modification	49.1	D	49.4	D
Hillsborough Ave and Rome Ave	19.3	B	NBL Signal Timings Modification	21.0	C	22.0	C
Hillsborough Ave and Lee Place	4.5	A	NBL Signal Timings Modification	4.5	A	4.5	A



### Hillsborough Avenue and Armenia Avenue

Based on signalized intersection analysis, the intersection may operate at a Level of Service E and D during the AM and PM peak hours, respectively, with the 2026 background traffic and existing geometry, as shown in Tables 2 and 3. In an attempt to achieve the adopted level of service within the intersection, an eastbound right turn lane, a westbound right turn lane and minor signal modifications are recommended. With the addition of the project traffic, the intersection should continue to operate at Level of Service E and D during AM and PM peak hours, respectively. It should be noted that the V/C ratio for all movements are less than 1.0.

### Hillsborough Avenue and Rome Avenue

Based on signalized intersection analysis, the intersection should operate at a Level of Service D and B during both AM and PM peak hours, with the 2026 background traffic and existing geometry, as shown in Tables 2 and 3. In an attempt to achieve the adopted level of service within the intersection, an northbound left turn lane and minor signal modifications are recommended. With the addition of the project traffic, the intersection should operate at Level of Service D and C during the AM and PM peak hours, respectively. It should be noted that the V/C ratio for all movements are less than 1.0.

### Hillsborough Avenue and Lee Place

Based on signalized intersection analysis, the intersection should operate at a Level of Service A during both AM and PM peak hours, with the 2026 background traffic and existing geometry, as shown in Tables 2 and 3. In an attempt to achieve the adopted Level of Service for all movements, a northbound left turn lane and minor signal modifications



are recommended. With the addition of the project traffic, the intersection should operate at Level of Service A during both AM and PM peak hours. It should be noted that the V/C ratio for all movements are less than 1.0.

### PROPORTIONATE SHARE

As identified in the previous section, improvements are required at the following intersections:

- Hillsborough Avenue and Armenia Avenue
- Hillsborough Avenue and Rome Avenue
- Hillsborough Avenue and Lee Place

Therefore, the following methodology was utilized to determine the project's proportionate share cost of the required improvements identified in the previous section of this report.

1. The following formula was utilized to determine the proportionate share of the required improvements.

$$\text{Proportionate Share} = (\text{New Project Traffic}/\text{LOS D Capacity}) \times (\text{Roadway Cost})$$

2. The latest FDOT roadway cost data was utilized for the required improvements.
3. The right-of-way cost was determined to be 125% of the cost for improvements.

Table 4 summarizes the proportionate share cost for this project which totals \$78,987.



TABLE 4

INTERSECTION PROPORTIONATE SHARE DETERMINATION

<u>Intersection</u>	<u>Improvement</u>	<u>Length</u>	<u>Improvement Cost (1)</u>	<u>ROW Cost (2)</u>	<u>Total Cost</u>	<u>Percentage of LOS D Capacity Consumed by Project Traffic (3)</u>	<u>Proportionate Share</u>
Hillsborough Ave and Armenia Ave	Add EB Right Turn Lane Add WB Right Turn Lane	540' 565'	\$1,395,734 \$1,460,352	\$1,744,668 \$1,825,440	\$3,140,402 \$3,285,792	1.00% 1.00%	\$31,404 \$32,858
Hillsborough Ave and Rome Ave	Add NB Left Turn Lane	345'	\$385,416	\$481,770	\$867,186	1.35%	\$11,707
Hillsborough Ave and Lee Place	Add NB Left Turn Lane	245'	\$273,701	\$342,126	\$615,827	0.49%	\$3,018
						Total	\$78,987

(1) Source: FDOT Roadway Cost Per Centerline Mile, Revised August, 2023.

Hillsborough Ave and Armenia Ave

EBR =  $540(a) / 300 \times \$775,408 = \$1,395,734$

WBR =  $565(a) / 300 \times \$775,408 = \$1,460,352$

Hillsborough Ave and Rome Ave

NBL =  $345(a) / 300 \times \$335,144 = \$385,416$

Hillsborough Ave and Lee Place

NBL =  $245(a) / 300 \times \$335,144 = \$273,701$

(a) Based on queue storage length plus deceleration length

(2) ROW costs 125% of construction costs.

(3) % LOS D Consumed-See Table A1 in the Appendix.



APPENDIX





METHODOLOGY STATEMENT





**LINCKS & ASSOCIATES, INC.**

October 23, 2023

Ms. Melanie Calloway  
City of Tampa  
1400 North Boulevard  
Tampa, FL 33607

Re: Hillsborough / Rome Development  
Lincks Project No. 23145

Dear Ms. Calloway,

The purpose of this letter is to establish the methodology to be utilized for the Transportation Analysis for the proposed development located south of Hillsborough Avenue and east of Rome Avenue in the City of Tampa, Florida, as shown in Figure 1.

The property currently contains the approximate 38,328 square foot Crosswind Church. The property is proposed to be rezoned to allow the following land uses:

- Multi-Family – 270 Dwelling Units
- Retail – 2,500 Square Feet
- Relocated Church – 16,000 Square Feet

#### Trip Generation

The trip rates to be utilized in the analysis will be obtained from the latest computerized version of "OTISS" which utilizes the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11<sup>th</sup> Edition, 2021, as its data base. Table 1 provides the trip generation for the existing and proposed land uses.

#### Distribution

The distribution will be based on the existing development patterns in the vicinity of the project.

#### Study Network

The study network is proposed to include the following intersections:

- Hillsborough Avenue and Armenia Avenue
- Hillsborough Avenue and Rome Avenue
- Hillsborough Avenue and Lee Place

5023 West Laurel Street  
Tampa, FL 33607  
813 289 0039 Telephone  
8133 287 0674 Telefax  
[www.Lincks.com](http://www.Lincks.com) Website

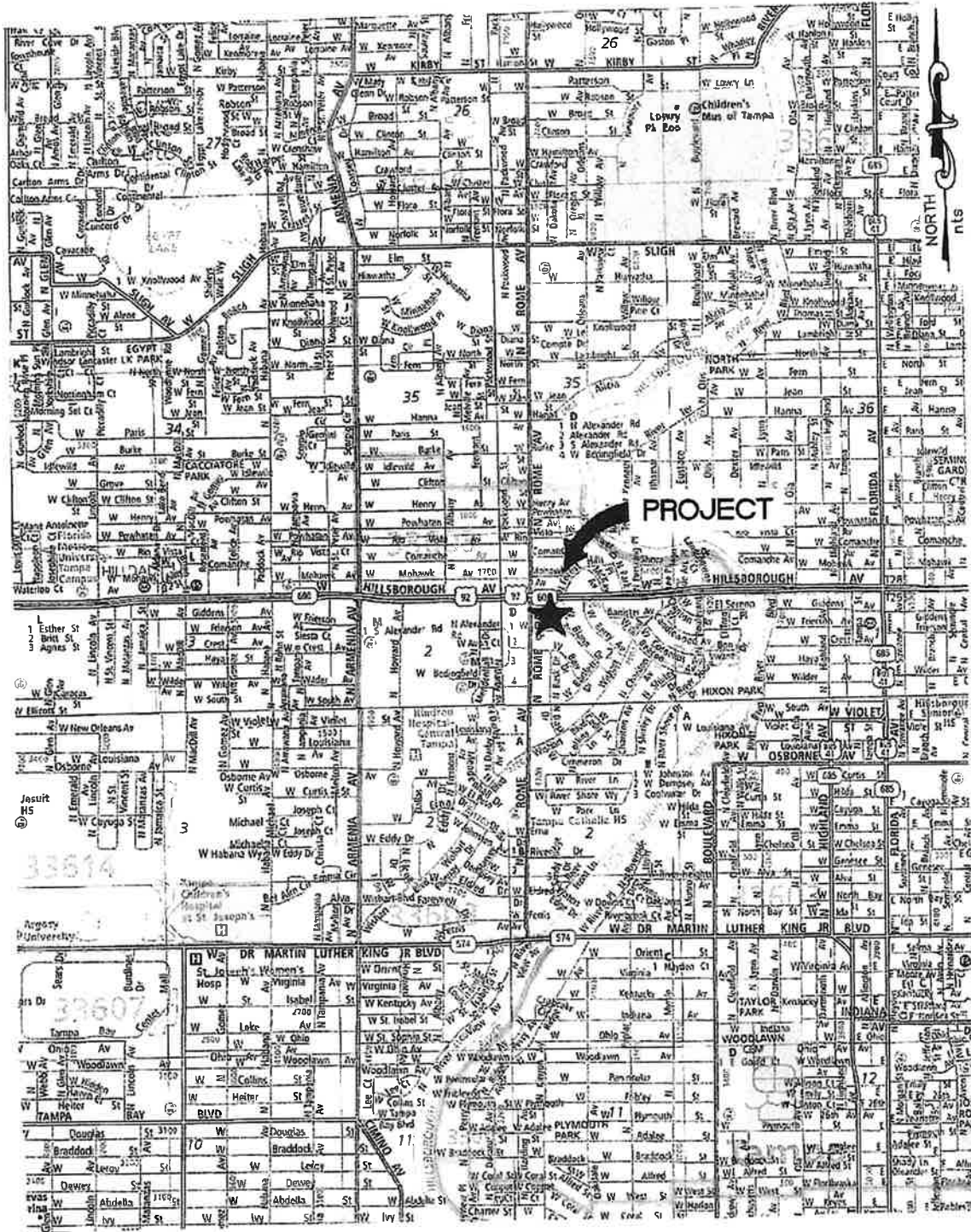


FIGURE 1  
PROJECT LOCATION

TABLE 1  
 ESTIMATED PROJECT TRIP ENDS (1)

Scenario	Land Use	ITE LUC	Size	Daily Trip Ends	AM Peak Hour Trip Ends			PM Peak Hour Trip Ends		
					In	Out	Total	In	Out	Total
Existing	Church	560	38,328 SF	291	7	5	12	8	11	19
Proposed	Multi-Family	221	270 DU's	1,226	25	82	107	65	41	106
	Retail	822	2,500 SF	136	4	2	6	15	14	29
	Church	560	16,000 SF	122	3	2	5	4	4	8
	Sub-total			1484	32	86	118	84	59	143
	Difference			1193	25	81	106	76	48	124

(1) Source: ITE Trip Generation Manual, 11<sup>th</sup> Edition, 2021.

### Buildout

Buildout of the project is anticipated to be 2026.

### Background Traffic

The 2026 background traffic to be utilized in this analysis will be calculated as follows:

- 1) Lincks & Associates, Inc. will conduct AM (7:00 to 9:00) and PM (4:00 to 6:00) peak hour turning movement counts at the intersections within the study network. The intersections to be included are as follows:
  - Hillsborough Avenue and Armenia Avenue
  - Hillsborough Avenue and Rome Avenue
  - Hillsborough Avenue and Lee Place
- 2) The existing counts will be adjusted to the peak season based on the 2022 FDOT Peak Season Adjustment Factors for Hillsborough County.
- 3) The peak season traffic will be increased by an annual growth rate of 2.5% per year to the buildout year of 2026.

### Signal Timings

The existing signal timings will be utilized for the intersection analysis.

### Analysis Scenario

Intersection capacity analysis shall be conducted based on the SYNCHRO program for Signalized intersections and HCS for Unsignalized intersections.

- 1) 2026 background plus project traffic with budgeted geometry and signal timings. If the intersection and all movements within the intersection operate at or above the adopted level of service, then no additional analysis is required.
- 2) 2026 background plus project traffic with the improvements required to allow all movements within the intersection to operate at the adopted level of service.

### Proportionate Share

The proportionate share for any improvements will be determined.

Ms. Melanie Calloway  
October 23, 2023  
Page 5

Please indicate your acceptance of the proposed methodology for the project by signing on the line provided below.

Sincerely,

LINCKS & ASSOCIATES, INC.

I concur:

Steven J. Henry, P.E.  
President

SJH/JAW

\_\_\_\_\_  
Melanie Calloway

\_\_\_\_\_  
Date

Enclosures

APPENDIX



EXISTING USE







October 20, 2023



**Bob Henriquez, CFA**

Hillsborough County Property Appraiser  
 This map is for assessment purposes only.  
 it is not a survey.

2021 Aerials

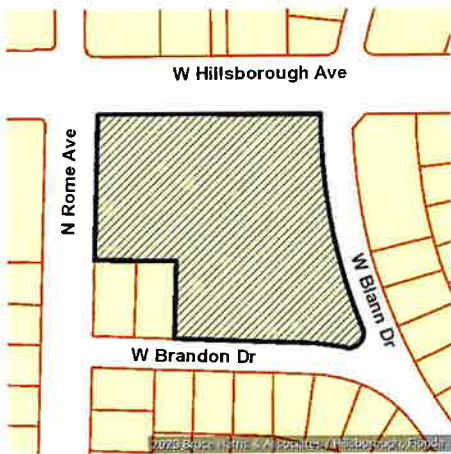




**Bob Henriquez**  
**Hillsborough County Property Appraiser**

<https://www.hcpafl.org/>  
 15th Floor County Ctr.  
 601 E. Kennedy Blvd, Tampa, Florida 33602-4932  
 Ph: (813) 272-6100

**Folio: 105630-0000**



Owner Information	
<b>Owner Name</b>	BETHEL TEMPLE ASSEMBLY OF GOD INC
<b>Mailing Address</b>	1510 W HILLSBOROUGH AVE TAMPA, FL 33603-1208
<b>Site Address</b>	1510 W HILLSBOROUGH AVE, TAMPA
<b>PIN</b>	A-02-29-18-3HF-000019-A0000.0
<b>Folio</b>	105630-0000
<b>Prior PIN</b>	
<b>Prior Folio</b>	000000-0000
<b>Tax District</b>	TA - TAMPA
<b>Property Use</b>	7100 CHURCHES
<b>Plat Book/Page</b>	29/32
<b>Neighborhood</b>	206002.00   Wellswood Area
<b>Subdivision</b>	3HF   WELLSWOOD SECTION C

Value Summary				
Taxing District	Market Value	Assessed Value	Exemptions	Taxable Value
County	\$6,022,907	\$4,852,174	\$4,852,174	\$0
Public Schools	\$6,022,907	\$6,022,907	\$6,022,907	\$0
Municipal	\$6,022,907	\$4,852,174	\$4,852,174	\$0
Other Districts	\$6,022,907	\$4,852,174	\$4,852,174	\$0

Note: This section shows Market Value, Assessed Value, Exemptions, and Taxable Value for taxing districts. Because of changes in Florida Law, it is possible to have different assessed and taxable values on the same property. For example, the additional \$25,000 Homestead Exemption and the non-homestead CAP do not apply to public schools, and the Low Income Senior Exemption only applies to countywide and certain municipal millages.

Sales Information							
Book / Page	Instrument	Month	Year	Type Inst	Qualified or Unqualified	Vacant or Improved	Price
10050 / 0406	2000041949	02	2000	WD	Unqualified	Improved	\$205,000
9611 / 1828	99133710	04	1999	WD	Qualified	Improved	\$205,000
5318 / 0971	88013209	01	1988	AD	Unqualified	Improved	\$100
4170 / 0270		08	1983	WD	Unqualified	Improved	\$90,000
3280 / 0109		09	1977		Qualified	Improved	\$70,000
2931 / 0342		01	1974		Qualified		\$20,800
2635 / 0064		01	1973		Qualified		\$22,500
2564 / 0665		01	1972		Qualified		\$18,500
2329 / 0321		01	1971		Qualified		\$14,000
2125 / 0735		01	1970		Qualified		\$0

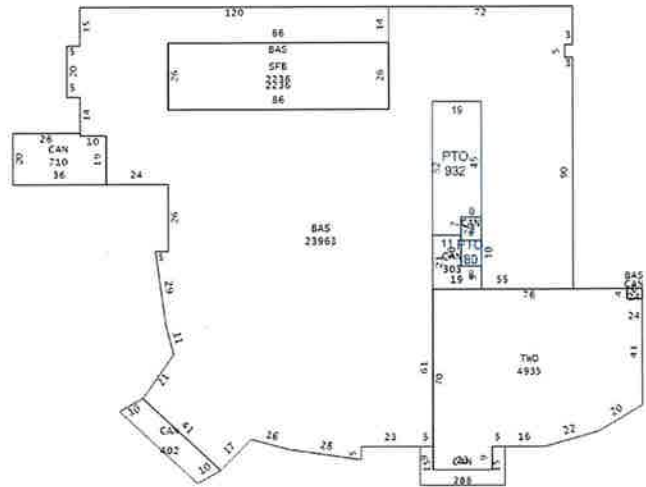
## Building Information

### Building 1

**Type** 91 | CHURCH  
**Year Built** 1978

### Building 1 Construction Details

Element Class	Code	Construction Detail
	C	Masonry or Concrete Frame
Exterior Wall	8	Brick
Exterior Wall	5	Concrete Block
Roof Structure	4	Truss (Wood/Metal)
Roof Cover	3	Asphalt/Comp. Shingle
Roof Cover	12	Rubber or Plastic
Interior Walls	5	Drywall
Interior Flooring	8	Carpet
Interior Flooring	4	Vinyl
Heat/AC	2	Central
Plumbing	3	Typical
Condition	3	Average
Stories	1.0	
Units	1.0	
Wall Height	18.00	



### Building 1 subarea

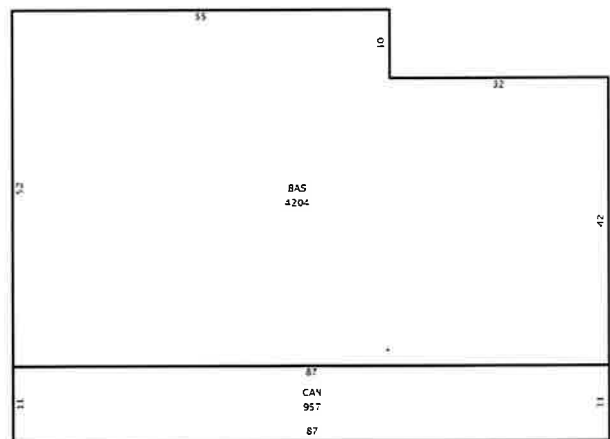
Area Type	Gross Area	Heated Area	Depreciated Value
BAS	23,962	23,962	\$2,255,208
BAS	2,236	2,236	\$210,443
SFB	2,236	2,236	\$168,374
CAN	710		\$20,047
CAN	402		\$11,388
CAN	288		\$8,094
TWO	9,870	9,870	\$928,925
BAS	24	24	\$2,259
CAN	24		\$659
CAN	303		\$8,565
CAN	72		\$2,071
PTO	932		\$4,423
PTO	80		\$376
<b>Totals</b>	<b>41,139</b>	<b>38,328</b>	<b>\$3,620,832</b>

### Building 3

**Type** 92 | EDU/RELIG MISC  
**Year Built** 1967

### Building 3 Construction Details

Element Class	Code	Construction Detail
	C	Masonry or Concrete Frame
Exterior Wall	5	Concrete Block
Exterior Wall	8	Brick
Roof Structure	9	Rigid Frame/Barjoist
Roof Cover	12	Rubber or Plastic
Interior Walls	5	Drywall
Interior Flooring	8	Carpet
Heat/AC	2	Central
Plumbing	3	Typical
Condition	3	Average
Stories	1.0	
Units	1.0	
Wall Height	10.00	



**Building 3 subarea**

Area Type	Gross Area	Heated Area	Depreciated Value
BAS	4,204	4,204	\$136,336
CAN	957		\$9,307
<b>Totals</b>	<b>5,161</b>	<b>4,204</b>	<b>\$145,643</b>

**Extra Features**

OB/XF Code	Description	Building	Year On Roll	Length	Width	Units	Value
0060	CONCRETE PAVEMENT	1	1978	0	0	4,020.00	\$9,535
0020	ASPHALT PAVING	1	2002	0	0	83,300.00	\$139,944
0270	FENCE CL8	0	2005	0	0	548.00	\$6,795

**Land Information**

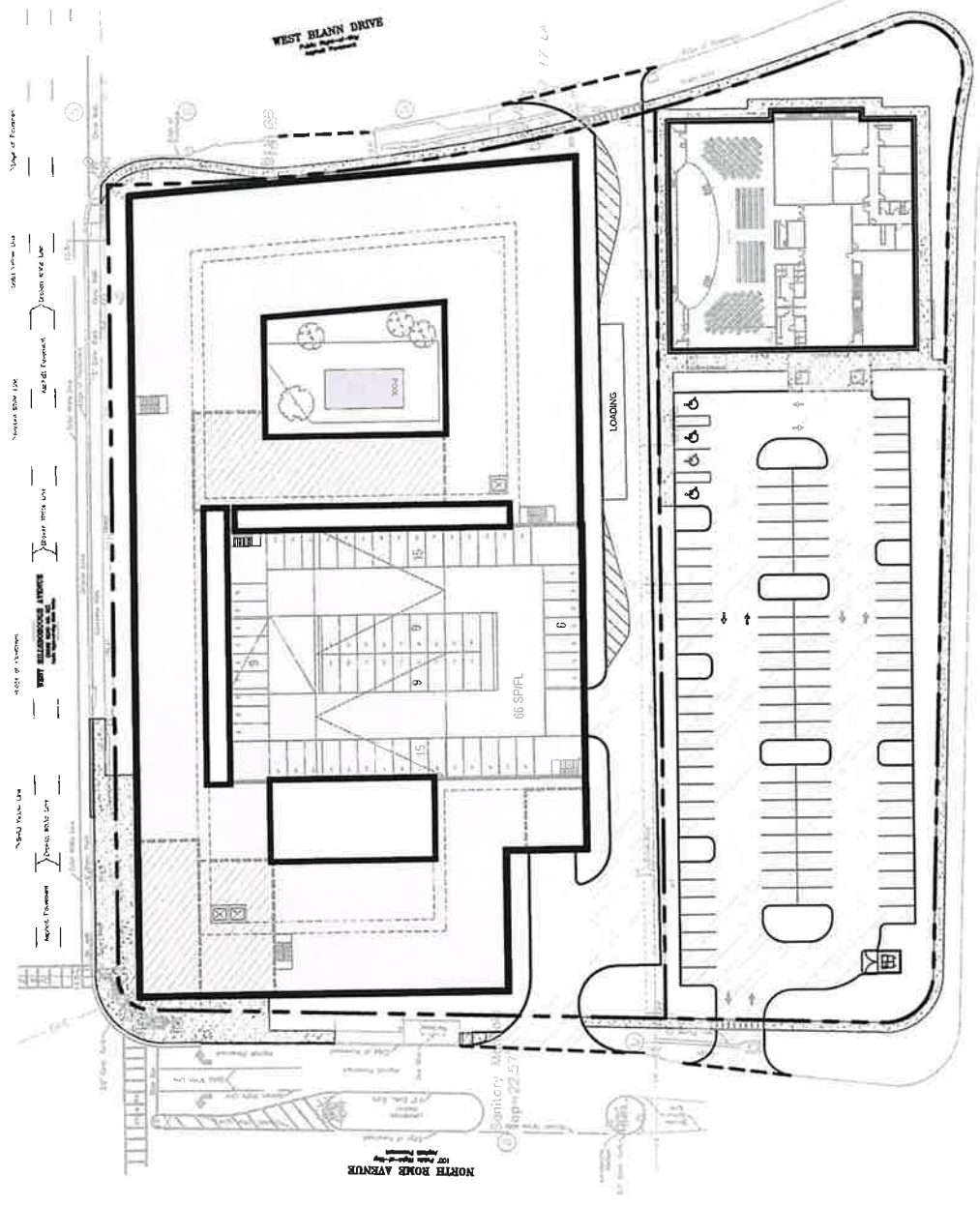
Use Code	Description	Zone	Front	Depth	Land Type	Total Land Units	Land Value
TLHQ	TL Class 8	CG	0.0	0.0	SF   SQUARE FEET	43,560.00	\$598,950
TF3C	Hillsborough 7	CG	0.0	0.0	SF   SQUARE FEET	131,685.00	\$1,501,209

**Legal Description**

WELLSWOOD SECTION C LOTS A AND B AND LOTS 3,4,5,AND 6 BLOCK 19

SITE PLAN





**GILBANE HILLSBOROUGH AVE**

**SITE PLAN EXHIBIT**

11/20/2023

**Kimley»Horn**

ITE – TRIP GENERATION MANUAL, 11<sup>TH</sup> EDITION



### PERIOD SETTING

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Existing      **No :**  
**Date:** 10/20/2023      **City:**  
**State/Province:**      **Zip/Postal Code:**  
**Country:**      **Client Name:**  
**Analyst's Name:**      **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	38.33	Weekday	Average 7.6	146 <sup>(0)</sup> 50%	145 <sup>(0)</sup> 50%	291 <sup>(0)</sup>

(0) indicates small sample size, use carefully.

### TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
560 - Church	0 %	146	0 %	145

### EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
560 - Church	291	0	0	291

### ITE DEVIATION DETAILS

**Weekday**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.



## SUMMARY

<b>Total Entering</b>	146
<b>Total Exiting</b>	145
<b>Total Entering Reduction</b>	0
<b>Total Exiting Reduction</b>	0
<b>Total Entering Internal Capture Reduction</b>	0
<b>Total Exiting Internal Capture Reduction</b>	0
<b>Total Entering Pass-by Reduction</b>	0
<b>Total Exiting Pass-by Reduction</b>	0
<b>Total Entering Non-Pass-by Trips</b>	146
<b>Total Exiting Non-Pass-by Trips</b>	145

**PERIOD SETTING**

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Existing      **No :**  
**Date:** 10/20/2023      **City:**  
**State/Province:**      **Zip/Postal Code:**  
**Country:**      **Client Name:**  
**Analyst's Name:**      **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	38.33	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.32	7 58%	5 42%	12

**TRAFFIC REDUCTIONS**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
560 - Church	0 %	7	0 %	5

**EXTERNAL TRIPS**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
560 - Church	12	0	0	12

**ITE DEVIATION DETAILS**

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

**Landuse**      No deviations from ITE.

**Methods**      No deviations from ITE.

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.**

External Trips 560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

**SUMMARY**

<b>Total Entering</b>	<b>7</b>
<b>Total Exiting</b>	<b>5</b>
<b>Total Entering Reduction</b>	<b>0</b>
<b>Total Exiting Reduction</b>	<b>0</b>
<b>Total Entering Internal Capture Reduction</b>	<b>0</b>
<b>Total Exiting Internal Capture Reduction</b>	<b>0</b>
<b>Total Entering Pass-by Reduction</b>	<b>0</b>
<b>Total Exiting Pass-by Reduction</b>	<b>0</b>
<b>Total Entering Non-Pass-by Trips</b>	<b>7</b>
<b>Total Exiting Non-Pass-by Trips</b>	<b>5</b>

**PERIOD SETTING**

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Existing      **No :**  
**Date:** 10/20/2023      **City:**  
**State/Province:**      **Zip/Postal Code:**  
**Country:**      **Client Name:**  
**Analyst's Name:**      **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	38.33	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.49	8 42%	11 58%	19

**TRAFFIC REDUCTIONS**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
560 - Church	0 %	8	0 %	11

**EXTERNAL TRIPS**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
560 - Church	19	0	0	19

**ITE DEVIATION DETAILS**

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Landuse      No deviations from ITE.

Methods      No deviations from ITE.

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

External Trips 560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

**SUMMARY**

<b>Total Entering</b>	<b>8</b>
<b>Total Exiting</b>	<b>11</b>
<b>Total Entering Reduction</b>	<b>0</b>
<b>Total Exiting Reduction</b>	<b>0</b>
<b>Total Entering Internal Capture Reduction</b>	<b>0</b>
<b>Total Exiting Internal Capture Reduction</b>	<b>0</b>
<b>Total Entering Pass-by Reduction</b>	<b>0</b>
<b>Total Exiting Pass-by Reduction</b>	<b>0</b>
<b>Total Entering Non-Pass-by Trips</b>	<b>8</b>
<b>Total Exiting Non-Pass-by Trips</b>	<b>11</b>

## PERIOD SETTING

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Proposed      **No :**  
**Date:** 10/20/2023      **City:**  
**State/Province:**      **Zip/Postal Code:**  
**Country:**      **Client Name:**  
**Analyst's Name:**      **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	270	Weekday	Average 4.54	613 50%	613 50%	1226
822 - Strip Retail Plaza (&lt;40k) (General Urban/Suburban)	1000 Sq. Ft. GLA	2.5 <sup>(0)</sup>	Weekday	Average 54.45	68 <sup>(1)</sup> 50%	68 <sup>(1)</sup> 50%	136 <sup>(1)</sup>
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	16	Weekday	Average 7.6	61 <sup>(1)</sup> 50%	61 <sup>(1)</sup> 50%	122 <sup>(1)</sup>

(0) indicates size out of range.

(1) indicates small sample size, use carefully.

## TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	613	0 %	613
822 - Strip Retail Plaza (&lt;40k)	0 %	68	0 %	68
560 - Church	0 %	61	0 %	61

## INTERNAL TRIPS

### 221 - Multifamily Housing (Mid-Rise)

**Exit** 613      Demand Exit: 0 % (0)

**Entry** 613      Demand Entry: 0 % (0)

Balanced:  
0

Balanced:  
0

### 822 - Strip Retail Plaza (&lt;40k)

**Demand Entry:** 0 % (0)      **Entry** 68

**Demand Exit:** 0 % (0)      **Exit** 68

### 221 - Multifamily Housing (Mid-Rise)

**Exit** 613      Demand Exit: 0 % (0)

**Entry** 613      Demand Entry: 0 % (0)

Balanced:  
0

Balanced:

### 560 - Church

**Demand Entry:** 0 % (0)      **Entry** 61

**Demand Exit:** 0 % (0)      **Exit** 61

**822 - Strip Retail Plaza (&lt;40k)**

**560 - Church**

<b>Exit</b> 68	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	<b>Entry</b> 61
<b>Entry</b> 68	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	<b>Exit</b> 61

**221 - Multifamily Housing (Mid-Rise)**

	Total Trips	Internal Trips			External Trips
		822 - Strip Retail Plaza (&lt;40k)	560 - Church	Total	
<b>Entry</b>	613 (100%)	0 (0%)	0 (0%)	0 (0%)	613 (100%)
<b>Exit</b>	613 (100%)	0 (0%)	0 (0%)	0 (0%)	613 (100%)
<b>Total</b>	1226 (100%)	0 (0%)	0 (0%)	0 (0%)	1226 (100%)

**822 - Strip Retail Plaza (&lt;40k)**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	560 - Church	Total	
<b>Entry</b>	68 (100%)	0 (0%)	0 (0%)	0 (0%)	68 (100%)
<b>Exit</b>	68 (100%)	0 (0%)	0 (0%)	0 (0%)	68 (100%)
<b>Total</b>	136 (100%)	0 (0%)	0 (0%)	0 (0%)	136 (100%)

**560 - Church**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	822 - Strip Retail Plaza (&lt;40k)	Total	
<b>Entry</b>	61 (100%)	0 (0%)	0 (0%)	0 (0%)	61 (100%)
<b>Exit</b>	61 (100%)	0 (0%)	0 (0%)	0 (0%)	61 (100%)
<b>Total</b>	122 (100%)	0 (0%)	0 (0%)	0 (0%)	122 (100%)

**EXTERNAL TRIPS**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	1226	0	0	1226
822 - Strip Retail Plaza (&lt;40k)	136	0	0	136
560 - Church	122	0	0	122

**ITE DEVIATION DETAILS**

**Weekday**

Landuse No deviations from ITE.

**Weekday**

Methods No deviations from ITE.

External Trips 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

822 - Strip Retail Plaza (<40k) (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

**SUMMARY**

<b>Total Entering</b>	742
<b>Total Exiting</b>	742
<b>Total Entering Reduction</b>	0
<b>Total Exiting Reduction</b>	0
<b>Total Entering Internal Capture Reduction</b>	0
<b>Total Exiting Internal Capture Reduction</b>	0
<b>Total Entering Pass-by Reduction</b>	0
<b>Total Exiting Pass-by Reduction</b>	0
<b>Total Entering Non-Pass-by Trips</b>	742
<b>Total Exiting Non-Pass-by Trips</b>	742



**PERIOD SETTING**

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Proposed      **No :**  
**Date:** 10/20/2023      **City:**  
**State/Province:**      **Zip/Postal Code:**  
**Country:**      **Client Name:**  
**Analyst's Name:**      **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.44 (X)+-11.61	25 23%	82 77%	107
822 - Strip Retail Plaza (&lt;40k) (General Urban/Suburban)	1000 Sq. Ft. GLA	2.5 <sup>(0)</sup>	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 2.36	4 <sup>(1)</sup> 67%	2 <sup>(1)</sup> 33%	6 <sup>(1)</sup>
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	16	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.32	3 60%	2 40%	5

(0) indicates size out of range.  
 (1) indicates small sample size, use carefully.

**TRAFFIC REDUCTIONS**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	25	0 %	82
822 - Strip Retail Plaza (&lt;40k)	0 %	4	0 %	2
560 - Church	0 %	3	0 %	2

**INTERNAL TRIPS**

<b>221 - Multifamily Housing (Mid-Rise)</b>				<b>822 - Strip Retail Plaza (&amp;lt;40k)</b>
<b>Exit</b> 82	<b>Demand Exit:</b> 0 % (0)	<b>Balanced:</b> 0	<b>Demand Entry:</b> 0 % (0)	<b>Entry</b> 4

Entry 25 Demand Entry: 0 % (0)      Balanced: 0      Demand Exit: 0 % (0)      Exit 2

**221 - Multifamily Housing (Mid-Rise)**

**560 - Church**

Exit 82 Demand Exit: 0 % (0)      Balanced: 0      Demand Entry: 0 % (0)      Entry 3

Entry 25 Demand Entry: 0 % (0)      Balanced: 0      Demand Exit: 0 % (0)      Exit 2

**822 - Strip Retail Plaza (&lt;40k)**

**560 - Church**

Exit 2 Demand Exit: 0 % (0)      Balanced: 0      Demand Entry: 0 % (0)      Entry 3

Entry 4 Demand Entry: 0 % (0)      Balanced: 0      Demand Exit: 0 % (0)      Exit 2

**221 - Multifamily Housing (Mid-Rise)**

	Total Trips	Internal Trips			External Trips
		822 - Strip Retail Plaza (&lt;40k)	560 - Church	Total	
Entry	25 (100%)	0 (0%)	0 (0%)	0 (0%)	25 (100%)
Exit	82 (100%)	0 (0%)	0 (0%)	0 (0%)	82 (100%)
<b>Total</b>	<b>107 (100%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>107 (100%)</b>

**822 - Strip Retail Plaza (&lt;40k)**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	560 - Church	Total	
Entry	4 (100%)	0 (0%)	0 (0%)	0 (0%)	4 (100%)
Exit	2 (100%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
<b>Total</b>	<b>6 (100%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>6 (100%)</b>

**560 - Church**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	822 - Strip Retail Plaza (&lt;40k)	Total	
Entry	3 (100%)	0 (0%)	0 (0%)	0 (0%)	3 (100%)
Exit	2 (100%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
<b>Total</b>	<b>5 (100%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>	<b>5 (100%)</b>

**EXTERNAL TRIPS**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	107	0	0	107
822 - Strip Retail Plaza (&lt;40k)	6	0	0	6
560 - Church	5	0	0	5

## ITE DEVIATION DETAILS

### Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

822 - Strip Retail Plaza (&lt;40k) (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

## SUMMARY

<b>Total Entering</b>	32
<b>Total Exiting</b>	86
<b>Total Entering Reduction</b>	0
<b>Total Exiting Reduction</b>	0
<b>Total Entering Internal Capture Reduction</b>	0
<b>Total Exiting Internal Capture Reduction</b>	0
<b>Total Entering Pass-by Reduction</b>	0
<b>Total Exiting Pass-by Reduction</b>	0
<b>Total Entering Non-Pass-by Trips</b>	32
<b>Total Exiting Non-Pass-by Trips</b>	86

**PERIOD SETTING**

**Analysis Name :** New Analysis  
**Project Name :** Hillsborough - Rome - Proposed **No :**  
**Date:** 10/20/2023 **City:**  
**State/Province:** **Zip/Postal Code:**  
**Country:** **Client Name:**  
**Analyst's Name:** **Edition:** Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	270	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) $T = 0.39(X) + 0.34$	65 61%	41 39%	106
822 - Strip Retail Plaza (&lt;40k) (General Urban/Suburban)	1000 Sq. Ft. GLA	2.5	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) $\ln(T) = 0.71\ln(X) + 2.72$	15 52%	14 48%	29
560 - Church (General Urban/Suburban)	1000 Sq. Ft. GFA	16	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.49	4 50%	4 50%	8

**TRAFFIC REDUCTIONS**

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	65	0 %	41
822 - Strip Retail Plaza (&lt;40k)	0 %	15	0 %	14
560 - Church	0 %	4	0 %	4

**INTERNAL TRIPS**

221 - Multifamily Housing (Mid-Rise)				822 - Strip Retail Plaza (&lt;40k)					
<b>Exit</b>	41	<b>Demand Exit:</b>	0 % (0)	<b>Balanced:</b>	0	<b>Demand Entry:</b>	0 % (0)	<b>Entry</b>	15
<b>Entry</b>	65	<b>Demand Entry:</b>	0 % (0)	<b>Balanced:</b>	0	<b>Demand Exit:</b>	0 % (0)	<b>Exit</b>	14
<b>221 - Multifamily Housing (Mid-Rise)</b>				<b>560 - Church</b>					

<b>Exit</b> 41	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	<b>Entry</b> 4
<b>Entry</b> 65	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	<b>Exit</b> 4
<b>822 - Strip Retail Plaza (&amp;lt;40k)</b>			<b>560 - Church</b>	
<b>Exit</b> 14	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	<b>Entry</b> 4
<b>Entry</b> 15	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	<b>Exit</b> 4

**221 - Multifamily Housing (Mid-Rise)**

	Total Trips	Internal Trips			External Trips
		822 - Strip Retail Plaza (&lt;40k)	560 - Church	Total	
<b>Entry</b>	65 (100%)	0 (0%)	0 (0%)	0 (0%)	65 (100%)
<b>Exit</b>	41 (100%)	0 (0%)	0 (0%)	0 (0%)	41 (100%)
<b>Total</b>	106 (100%)	0 (0%)	0 (0%)	0 (0%)	106 (100%)

**822 - Strip Retail Plaza (&lt;40k)**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	560 - Church	Total	
<b>Entry</b>	15 (100%)	0 (0%)	0 (0%)	0 (0%)	15 (100%)
<b>Exit</b>	14 (100%)	0 (0%)	0 (0%)	0 (0%)	14 (100%)
<b>Total</b>	29 (100%)	0 (0%)	0 (0%)	0 (0%)	29 (100%)

**560 - Church**

	Total Trips	Internal Trips			External Trips
		221 - Multifamily Housing (Mid-Rise)	822 - Strip Retail Plaza (&lt;40k)	Total	
<b>Entry</b>	4 (100%)	0 (0%)	0 (0%)	0 (0%)	4 (100%)
<b>Exit</b>	4 (100%)	0 (0%)	0 (0%)	0 (0%)	4 (100%)
<b>Total</b>	8 (100%)	0 (0%)	0 (0%)	0 (0%)	8 (100%)

**EXTERNAL TRIPS**

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	106	0	0	106
822 - Strip Retail Plaza (&lt;40k)	29	0	0	29
560 - Church	8	0	0	8

**ITE DEVIATION DETAILS**

**Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.**

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

822 - Strip Retail Plaza (&lt;40k) (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

560 - Church (General Urban/Suburban)  
ITE does not recommend a particular pass-by% for this case.

**SUMMARY**

<b>Total Entering</b>	<b>84</b>
<b>Total Exiting</b>	<b>59</b>
<b>Total Entering Reduction</b>	<b>0</b>
<b>Total Exiting Reduction</b>	<b>0</b>
<b>Total Entering Internal Capture Reduction</b>	<b>0</b>
<b>Total Exiting Internal Capture Reduction</b>	<b>0</b>
<b>Total Entering Pass-by Reduction</b>	<b>0</b>
<b>Total Exiting Pass-by Reduction</b>	<b>0</b>
<b>Total Entering Non-Pass-by Trips</b>	<b>84</b>
<b>Total Exiting Non-Pass-by Trips</b>	<b>59</b>

TURNING MOVEMENT COUNTS





National Data & Surveying Services

Site Code: 23-120441-001

Date: 10/24/2023

Weather: Sunny

City: Tampa

County: Hillsborough

Count Times: 07:00 - 09:00

16:00 - 18:00

Control: Signalized

SIGNAL TIMING

PHASES	1	2	3
NL/SL	00:23	00:21	00:23
NT/ST	00:49	00:51	00:49
WL/WT	00:21	00:21	00:21
ET/WT	01:19	01:19	01:19
EL/ET	00:28	00:28	00:28

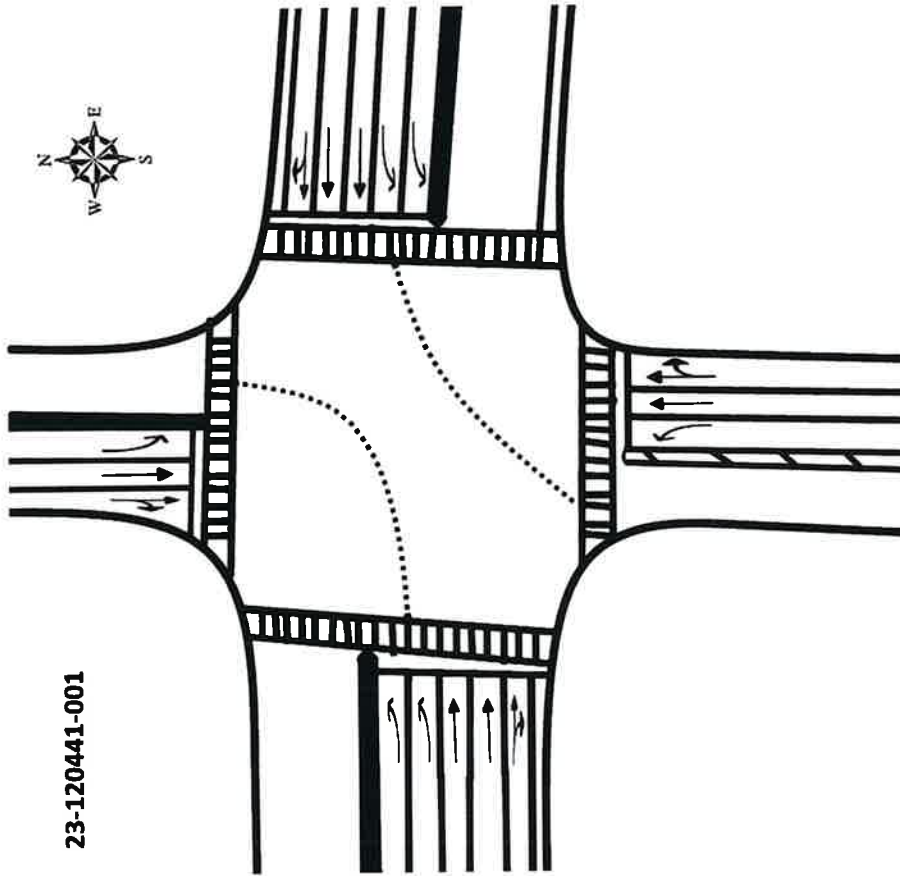


N/S Street: N Armenia Ave

Speed: 40 MPH



23-120441-001



E/W Street: W Hillsborough Ave/US 92/SR 600

Speed: 45 MPH



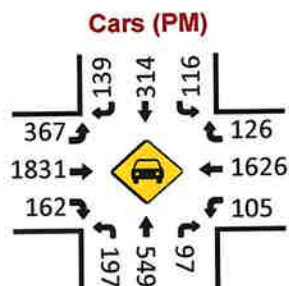
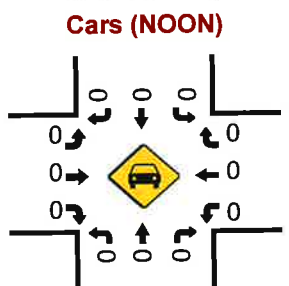
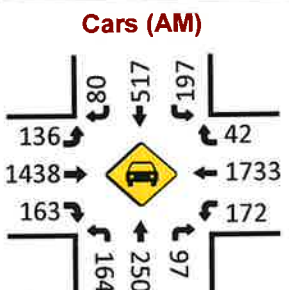
# N Armenia Ave & W Hillsborough Ave/US 92/SR 600

## Peak Hour Turning Movement Count

ID: 23-120441-001  
City: Tampa

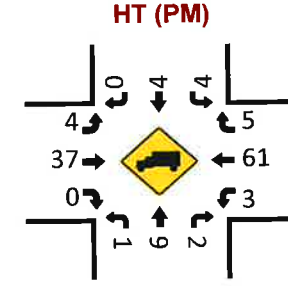
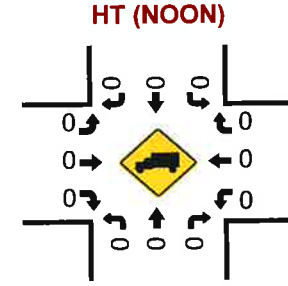
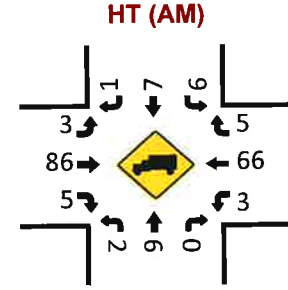
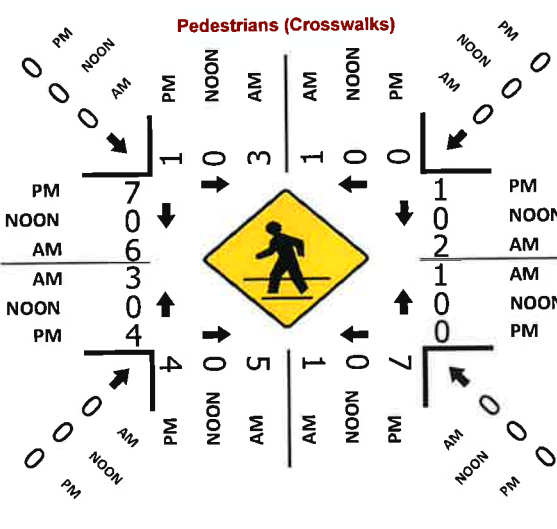
Day: Tuesday  
Date: 10/24/2023

PEAK HOURS	N Armenia Ave				COUNT PERIODS																																															
	AM	NOON	PM	AM																																																
07:15 AM - 08:15 AM	81	524	203	1	7:00 AM - 09:00 AM																																															
NONE	0	0	0	0	NONE																																															
04:45 PM - 05:45 PM	139	318	120	1	4:00 PM - 06:00 PM																																															
	<table border="1"> <tr> <td colspan="5">SOUTHBOUND</td> </tr> <tr> <td>AM</td> <td>81</td> <td>524</td> <td>203</td> <td>1</td> <td>443</td> <td>AM</td> </tr> <tr> <td>NOON</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>NOON</td> </tr> <tr> <td>PM</td> <td>139</td> <td>318</td> <td>120</td> <td>1</td> <td>1061</td> <td>PM</td> </tr> </table>				SOUTHBOUND					AM	81	524	203	1	443	AM	NOON	0	0	0	0	0	NOON	PM	139	318	120	1	1061	PM																						
SOUTHBOUND																																																				
AM	81	524	203	1	443	AM																																														
NOON	0	0	0	0	0	NOON																																														
PM	139	318	120	1	1061	PM																																														
	<table border="1"> <tr> <td colspan="5">CONTROL</td> </tr> <tr> <td colspan="5">Signalized</td> </tr> <tr> <td>TEV</td> <td>5197</td> <td>0</td> <td>5792</td> <td></td> </tr> <tr> <td>PHF</td> <td>0.96</td> <td></td> <td>0.98</td> <td></td> </tr> </table>				CONTROL					Signalized					TEV	5197	0	5792		PHF	0.96		0.98																													
CONTROL																																																				
Signalized																																																				
TEV	5197	0	5792																																																	
PHF	0.96		0.98																																																	
	<table border="1"> <tr> <td colspan="3">EASTBOUND</td> <td colspan="3">WESTBOUND</td> </tr> <tr> <td>AM</td> <td>NOON</td> <td>PM</td> <td>PM</td> <td>NOON</td> <td>AM</td> </tr> <tr> <td>2053</td> <td>0</td> <td>2051</td> <td>131</td> <td>0</td> <td>47</td> </tr> <tr> <td>7</td> <td>0</td> <td>27</td> <td>1687</td> <td>0</td> <td>1799</td> </tr> <tr> <td>139</td> <td>0</td> <td>371</td> <td>108</td> <td>0</td> <td>175</td> </tr> <tr> <td>1524</td> <td>0</td> <td>1868</td> <td>5</td> <td>0</td> <td>10</td> </tr> <tr> <td>168</td> <td>0</td> <td>162</td> <td>2092</td> <td>0</td> <td>1834</td> </tr> <tr> <td>AM</td> <td>NOON</td> <td>PM</td> <td>PM</td> <td>NOON</td> <td>AM</td> </tr> </table>				EASTBOUND			WESTBOUND			AM	NOON	PM	PM	NOON	AM	2053	0	2051	131	0	47	7	0	27	1687	0	1799	139	0	371	108	0	175	1524	0	1868	5	0	10	168	0	162	2092	0	1834	AM	NOON	PM	PM	NOON	AM
EASTBOUND			WESTBOUND																																																	
AM	NOON	PM	PM	NOON	AM																																															
2053	0	2051	131	0	47																																															
7	0	27	1687	0	1799																																															
139	0	371	108	0	175																																															
1524	0	1868	5	0	10																																															
168	0	162	2092	0	1834																																															
AM	NOON	PM	PM	NOON	AM																																															



**NORTHBOUND**

PEAK HOURS	AM	NOON	PM	AM
PM	588	0	198	558
NOON	0	0	0	0
AM	867	0	166	256



# National Data & Surveying Services

## Intersection Turning Movement Count

Location: N Armenia Ave & W Hillsborough Ave/US 92/SR 600  
 City: Tampa  
 Control: Signalized

Project ID: 23-120441-001  
 Date: 10/24/2023

### Data - Total

NS/EW Streets:	N Armenia Ave										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600																								
	NORTHBOUND					SOUTHBOUND					SR					SU					ER					EU					WR					WU									
<b>AM</b>																																													
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	22	36	13	0	0	31	64	13	0	0	0	27	37	0	0	0	42	379	22	0	1	11	416	11	1	0	35	396	12	2	1	11	416	11	1	1	11	416	11	1	1	11	416	11	1
7:30 AM	48	22	22	0	0	58	122	24	0	0	0	42	379	22	0	0	31	374	48	5	0	45	462	10	3	0	35	396	12	2	0	35	396	12	2	0	35	396	12	2	0	35	396	12	2
7:45 AM	39	62	31	0	0	70	138	26	0	0	0	31	374	48	5	0	49	508	8	5	0	45	462	10	3	0	49	508	8	5	0	49	508	8	5	0	49	508	8	5	0	49	508	8	5
8:00 AM	39	74	29	0	0	36	126	17	0	0	0	29	389	43	0	0	46	433	17	0	0	46	433	17	0	0	46	433	17	0	0	46	433	17	0	0	46	433	17	0					
8:15 AM	40	72	15	0	0	39	138	14	0	0	0	37	382	55	2	0	35	312	38	1	0	35	312	38	1	0	35	312	38	1	0	35	312	38	1	0	35	312	38	1					
8:30 AM	40	71	21	0	0	35	142	27	0	0	0	31	357	35	4	0	31	357	35	4	0	31	357	35	4	0	31	357	35	4	0	31	357	35	4	0	31	357	35	4					
8:45 AM	26	44	13	0	0	21	121	19	0	0	0	25	359	51	4	0	25	359	51	4	0	25	359	51	4	0	25	359	51	4	0	25	359	51	4	0	25	359	51	4					
<b>TOTAL VOLUMES :</b>	286	453	168	0	0	327	967	161	2	2	257	2924	329	17	17	286	3520	110	18	18	286	3520	110	18	18	286	3520	110	18	18	286	3520	110	18	18	286	3520	110	18						
<b>APPROACH %'s :</b>	31.53%	49.94%	18.52%	0.00%	0.00%	22.44%	66.37%	11.05%	0.14%	0.14%	7.29%	82.90%	9.33%	0.48%	0.48%	7.27%	89.48%	2.80%	0.46%	0.46%	7.27%	89.48%	2.80%	0.46%	0.46%	7.27%	89.48%	2.80%	0.46%	0.46%	7.27%	89.48%	2.80%	0.46%											
<b>PEAK HR :</b>	166	256	97	0	0	203	524	81	1	1	139	1524	168	7	7	175	1799	47	10	10	175	1799	47	10	10	175	1799	47	10	10	175	1799	47	10											
<b>PEAK HR VOL :</b>	0.865	0.865	0.782	0.000	0.000	0.725	0.949	0.779	0.250	0.250	0.827	0.979	0.764	0.350	0.350	0.893	0.885	0.691	0.500	0.500	0.893	0.885	0.691	0.500	0.500	0.893	0.885	0.691	0.500																
<b>PEAK HR FACTOR :</b>	0.914					0.864					0.965					0.891																													
<b>PM</b>																																													
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
4:15 PM	47	80	36	0	0	27	72	46	1	1	83	453	38	7	7	30	407	32	2	2	30	407	32	2	2	30	407	32	2	2	30	407	32	2											
4:30 PM	55	86	22	0	0	23	74	29	0	0	100	480	33	8	8	26	360	37	3	3	26	360	37	3	3	26	360	37	3	3	26	360	37	3											
4:45 PM	43	146	30	0	0	28	92	36	1	1	58	476	48	6	6	23	424	29	2	2	23	424	29	2	2	23	424	29	2	2	23	424	29	2											
5:00 PM	57	128	15	0	0	34	68	34	0	0	99	498	23	6	6	28	406	21	0	0	28	406	21	0	0	28	406	21	0	0	28	406	21	0											
5:15 PM	47	152	25	0	0	23	99	30	0	0	93	442	38	5	5	24	432	46	1	1	24	432	46	1	1	24	432	46	1	1	24	432	46	1											
5:30 PM	57	130	20	0	0	36	65	30	0	0	101	464	66	10	10	30	404	30	3	3	30	404	30	3	3	30	404	30	3	3	30	404	30	3											
5:45 PM	37	148	39	0	0	27	86	45	1	1	78	464	35	6	6	26	445	34	3	3	26	445	34	3	3	26	445	34	3	3	26	445	34	3											
	63	122	20	0	0	30	78	22	0	0	81	494	34	8	8	24	412	27	0	0	24	412	27	0	0	24	412	27	0	0	24	412	27	0											
<b>TOTAL VOLUMES :</b>	406	992	207	0	0	228	634	272	3	3	693	3771	315	56	56	211	3290	256	12	12	211	3290	256	12	12	211	3290	256	12																
<b>APPROACH %'s :</b>	25.30%	61.81%	12.90%	0.00%	0.00%	20.05%	55.76%	23.92%	0.26%	0.26%	14.33%	77.99%	6.51%	1.16%	1.16%	5.60%	87.29%	6.79%	0.32%	0.32%	5.60%	87.29%	6.79%	0.32%	0.32%	5.60%	87.29%	6.79%	0.32%																
<b>PEAK HR :</b>	198	558	99	0	0	120	318	139	1	1	371	1868	162	27	27	108	1687	131	5	5	108	1687	131	5	5	108	1687	131	5																
<b>PEAK HR VOL :</b>	0.868	0.918	0.635	0.000	0.000	0.833	0.803	0.772	0.250	0.250	0.918	0.938	0.614	0.675	0.675	0.900	0.948	0.712	0.417	0.417	0.900	0.948	0.712	0.417	0.417	0.900	0.948	0.712	0.417																
<b>PEAK HR FACTOR :</b>	0.954					0.909					0.947					0.950																													



# National Data & Surveying Services

## Intersection Turning Movement Count

Location: N Armenia Ave & W Hillsborough Ave/US 92/SR 600  
 City: Tampa  
 Control: Signalized  
 Project ID: 23-120441-001  
 Date: 10/24/2023

### Data - HT

NS/EW Streets:	N Armenia Ave								W Hillsborough Ave/US 92/SR 600								W Hillsborough Ave/US 92/SR 600							
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				WESTBOUND							
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL							
<b>AM</b>																								
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42						
7:15 AM	1	3	0	0	2	2	0	0	0	21	0	0	0	15	0	0	0	41						
7:30 AM	0	0	0	0	1	0	0	0	0	15	1	0	0	19	2	0	0	37						
7:45 AM	1	2	0	0	3	3	1	0	1	22	1	0	0	16	2	0	0	49						
8:00 AM	0	1	0	0	3	2	0	0	2	27	3	0	2	22	1	0	0	63						
8:15 AM	0	3	0	0	2	4	2	0	0	17	1	0	0	34	0	0	0	63						
8:30 AM	2	3	1	0	1	2	0	0	0	24	2	0	1	25	1	0	0	62						
8:45 AM	2	3	0	0	1	4	0	0	0	23	3	0	0	17	3	0	0	56						
<b>TOTAL VOLUMES :</b>	8	15	1	0	12	19	3	0	3	171	11	0	4	157	9	0	413							
<b>APPROACH %'s :</b>	33.33%	62.50%	4.17%	0.00%	35.29%	55.88%	8.82%	0.00%	1.62%	92.43%	5.95%	0.00%	2.35%	92.35%	5.29%	0.00%								
<b>PEAK HR :</b>	6	0	0	0	6	7	1	0	3	86	5	0	3	66	5	0	190							
<b>PEAK HR VOL :</b>	0.500	0.500	0.000	0.000	0.500	0.583	0.250	0.000	0.375	0.796	0.417	0.000	0.375	0.750	0.625	0.000	0.754							
<b>PEAK HR FACTOR :</b>	0.500																							
	0.740																							
<b>PM</b>																								
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37						
4:15 PM	0	0	0	0	0	1	0	0	0	18	0	0	1	15	1	0	0	36						
4:30 PM	2	0	0	0	1	1	1	0	1	22	0	0	0	19	2	0	0	38						
4:45 PM	1	0	0	0	2	2	3	0	2	6	0	0	0	16	0	0	0	43						
5:00 PM	0	3	0	0	0	3	0	0	1	13	0	0	1	19	2	0	0	26						
5:15 PM	0	1	1	0	1	0	0	0	1	8	0	0	0	12	2	0	0	23						
5:30 PM	0	2	0	0	2	0	0	0	1	3	0	0	0	14	1	0	0	31						
5:45 PM	0	2	0	0	1	1	0	0	2	10	0	0	0	15	0	0	0	284						
<b>TOTAL VOLUMES :</b>	3	14	2	0	7	9	4	0	9	93	0	0	5	129	9	0	284							
<b>APPROACH %'s :</b>	15.79%	73.68%	10.53%	0.00%	35.00%	45.00%	20.00%	0.00%	8.82%	91.18%	0.00%	0.00%	3.50%	90.21%	6.29%	0.00%								
<b>PEAK HR :</b>	9	2	0	0	4	4	0	0	4	37	0	0	3	61	5	0	130							
<b>PEAK HR VOL :</b>	0.250	0.750	0.500	0.000	0.500	0.333	0.000	0.000	1.000	0.712	0.000	0.000	0.375	0.803	0.625	0.000	0.756							
<b>PEAK HR FACTOR :</b>	0.600																							
	0.784																							





# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Armenia Ave & W Hillsborough Ave/US 92/SR 600      **Project ID:** 23-120441-001  
**City:** Tampa      **Date:** 10/24/2023

### Data - Pedestrians (Crosswalks)

NS/EW Streets:	N Armenia Ave		N Armenia Ave		W Hillsborough Ave/US 92/SR 600		W Hillsborough Ave/US 92/SR 600		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	1	0	0	0	0	1	0	2
7:15 AM	1	0	4	0	1	0	0	3	9
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	2	0	1	1	0	1	0	2	7
8:00 AM	0	1	0	0	0	1	3	1	6
8:15 AM	0	0	4	0	0	0	0	4	8
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	2	1	0	0	1	1	6
<b>TOTAL VOLUMES :</b>	3	3	11	2	1	2	5	11	38
<b>APPROACH %'s :</b>	50.00%	50.00%	84.62%	15.38%	33.33%	66.67%	31.25%	68.75%	
<b>PEAK HR :</b>	<b>07:15 AM - 08:15 AM</b>								<b>TOTAL</b>
<b>PEAK HR VOL :</b>	3	1	5	1	1	2	3	6	22
<b>PEAK HR FACTOR :</b>	0.375	0.250	0.313	0.250	0.250	0.500	0.250	0.500	0.611
	0.500		0.375		0.750		0.563		

NS/EW Streets:	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	1	0	0	1	2	0	0	4
4:15 PM	0	0	3	2	0	0	0	13	18
4:30 PM	1	0	1	1	0	2	1	0	6
4:45 PM	0	0	0	4	0	0	0	1	5
5:00 PM	0	0	0	1	0	0	2	3	6
5:15 PM	0	0	4	1	0	0	1	2	8
5:30 PM	1	0	0	1	0	1	1	1	5
5:45 PM	1	1	0	1	1	0	0	0	4
<b>TOTAL VOLUMES :</b>	3	2	8	11	2	5	5	20	56
<b>APPROACH %'s :</b>	60.00%	40.00%	42.11%	57.89%	28.57%	71.43%	20.00%	80.00%	
<b>PEAK HR :</b>	<b>04:45 PM - 05:45 PM</b>								<b>TOTAL</b>
<b>PEAK HR VOL :</b>	1	0	4	7	0	1	4	7	24
<b>PEAK HR FACTOR :</b>	0.250	0	0.250	0.438	0	0.250	0.500	0.583	0.750
	0.250		0.550		0.250		0.550		

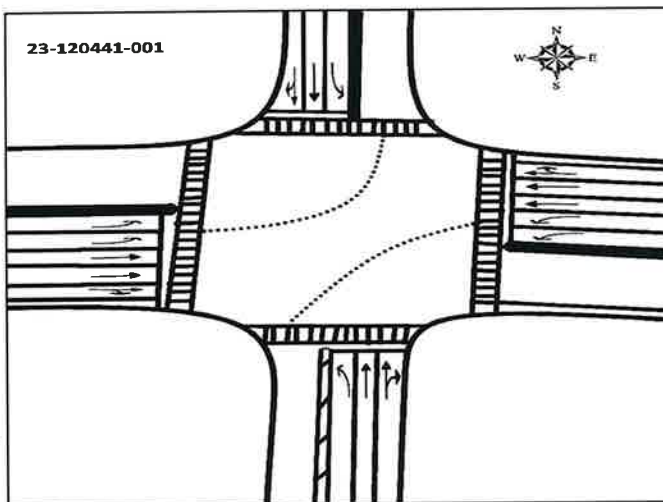
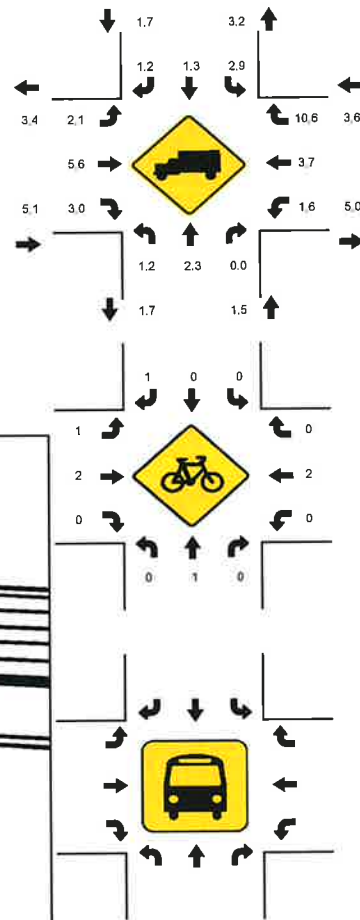
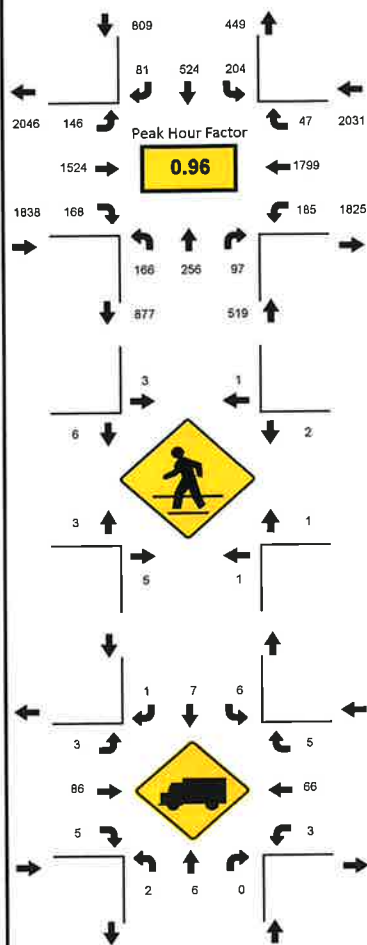
LOCATION: N Armenia Ave & W Hillsborough Ave/US 92/SR 600  
 CITY/STATE: Tampa, FL

PROJECT ID: 23-120441-001  
 DATE: Tue, Oct 24, 2023

Peak-Hour: 07:15 AM - 08:15 AM  
 Peak 15-Minute: 07:45 AM - 08:00 AM



National Data & Surveying Services



15-Min Count Period Beginning At	N Armenia Ave Northbound					N Armenia Ave Southbound					W Hillsborough Ave/US 92/SR 600 Eastbound					W Hillsborough Ave/US 92/SR 600 Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	22	36	13	0		31	64	13	0		27	372	37	1		11	416	11	1		1055	4962
7:15 AM	48	48	22	0		58	122	24	0		42	379	22	0		35	396	12	2		1210	5197
7:30 AM	39	62	31	0		70	138	26	0		31	374	48	5		45	462	10	3		1344	5178
7:45 AM	39	74	29	0		36	126	17	1		29	389	43	0		49	508	8	5		1353	5088
8:00 AM	40	72	15	0		39	138	14	0		37	382	55	2		46	433	17	0		1290	4863
8:15 AM	40	71	21	0		35	142	27	0		35	312	38	1		28	422	18	1		1191	3573
8:30 AM	32	46	24	0		37	116	21	1		31	357	35	4		36	496	16	2		1254	2382
8:45 AM	26	44	13	0		21	121	19	0		25	359	51	4		36	387	18	4		1128	1128
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	192	296	124	0		280	552	104	4		168	1556	220	20		196	2032	68	20		5832	
Heavy Trucks	4	12	0	0		12	12	4	0		8	108	12	0		8	88	8	0		276	
Pedestrians		16					8					16					4				44	
Bicycles	0	4	0	0		0	0	4	0		4	4	0	0		0	4	0	0		20	
Buses																						
Stopped Buses																						







National Data & Surveying Services

Site Code: 23-120441-002

Date: 10/24/2023

Weather: Sunny

City: Tampa

County: Hillsborough

Count Times: 07:00 - 09:00

16:00 - 18:00

Control: Signalized

SIGNAL TIMING

PHASES	1	2	3
NT/ST	00:57	00:58	00:55
EL/ET	00:43	00:44	00:39
ET/WT	01:22	01:21	01:27
WL/WT	00:18	00:18	00:18

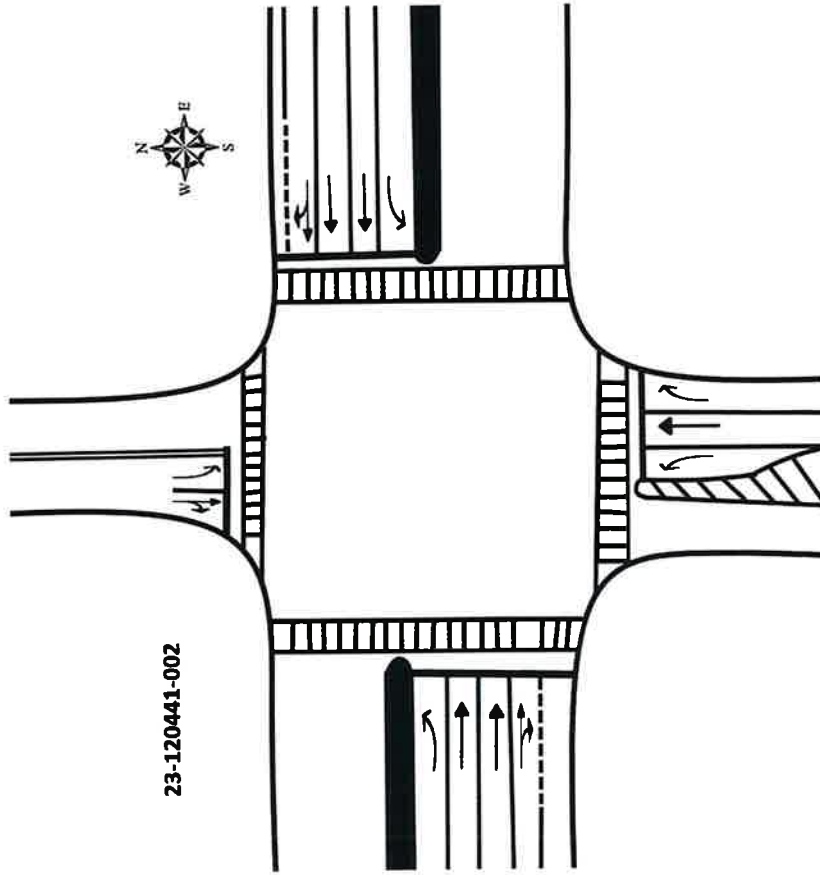


N/S Street: N Rome Ave

Speed: 30 MPH

E/W Street: W Hillsborough Ave/US 92/SR 600

Speed: 45 MPH

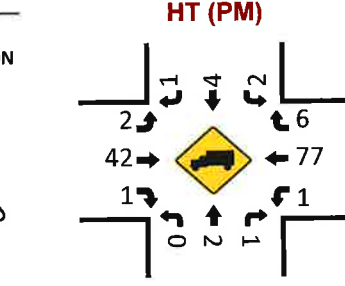
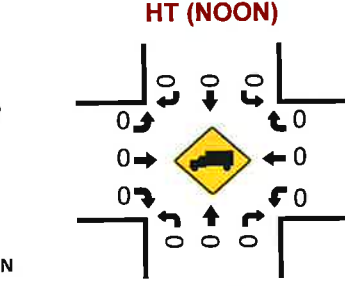
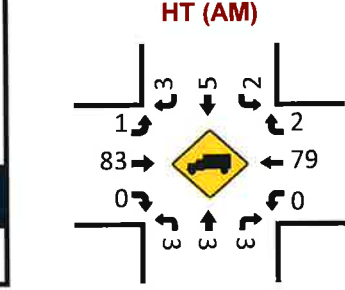
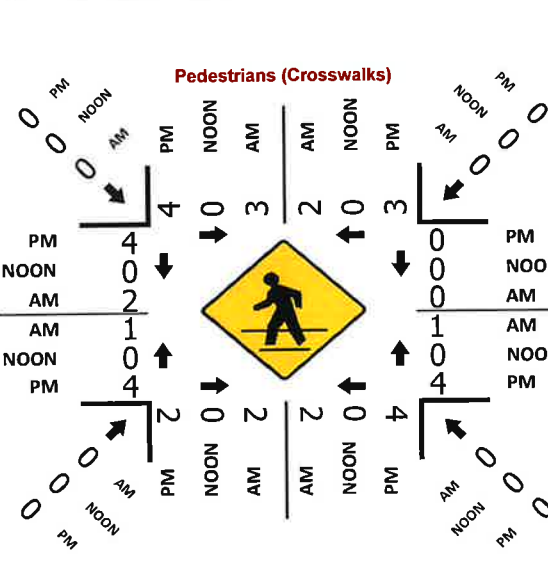
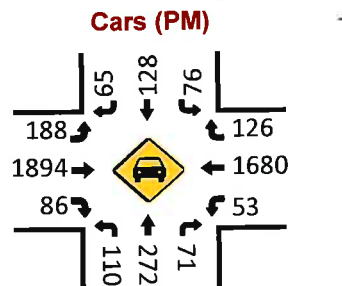
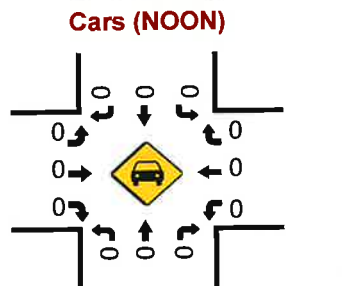
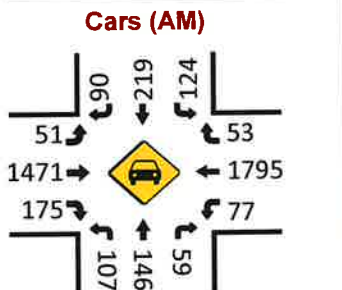
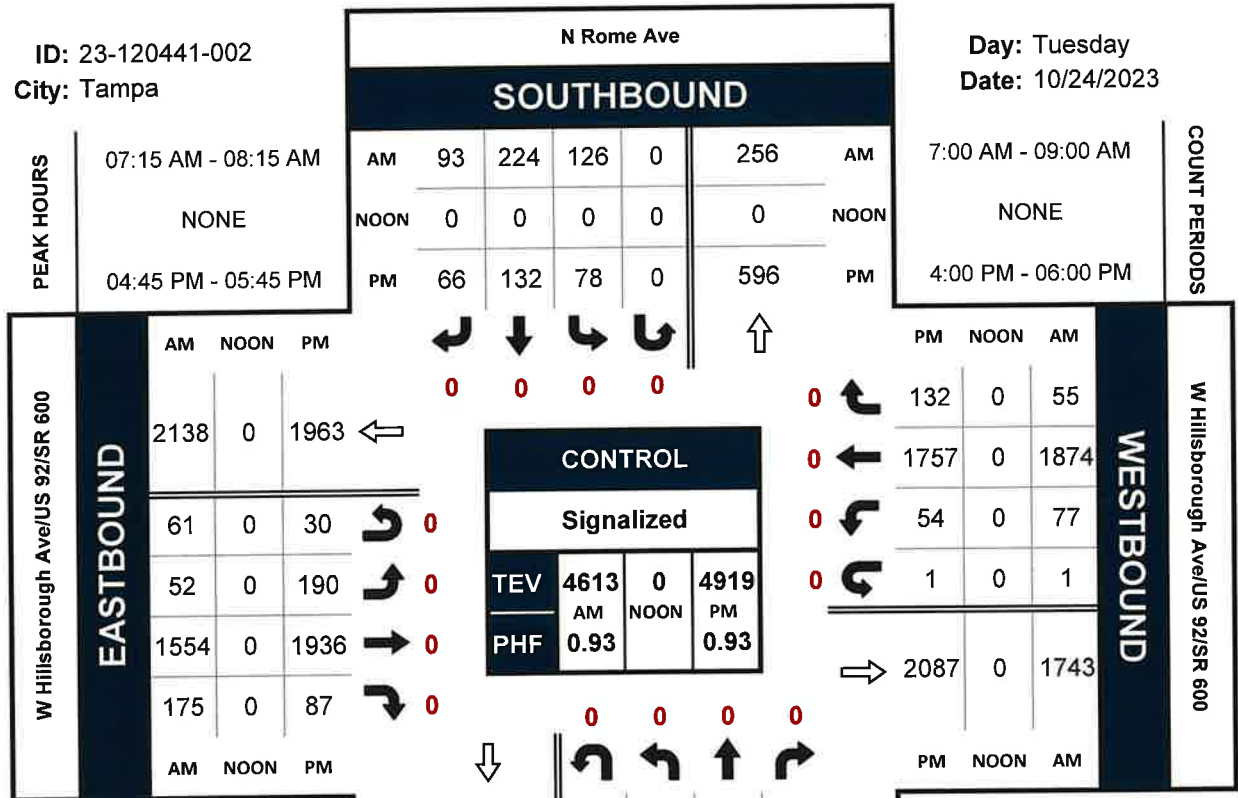


# N Rome Ave & W Hillsborough Ave/US 92/SR 600

## Peak Hour Turning Movement Count

ID: 23-120441-002  
City: Tampa

Day: Tuesday  
Date: 10/24/2023



# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Rome Ave & W Hillsborough Ave/US 92/SR 600  
**City:** Tampa  
**Control:** Signalized

**Project ID:** 23-120441-002  
**Date:** 10/24/2023

### Data - Total

NS/EW Streets:	N Rome Ave										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600										
	NORTHBOUND					SOUTHBOUND					SU					EASTBOUND					EU					WESTBOUND					
AM	NL	NT	NR	NU	0	SL	ST	SR	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	WL	WT	WR	WU	0	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	923
7:15 AM	19	20	18	0	22	43	21	0	0	0	4	315	21	12	12	6	415	7	0	0	6	415	7	0	0	13	503	13	0	0	1157
7:30 AM	30	46	17	0	20	49	19	0	0	0	11	396	25	18	18	14	411	64	18	1	25	511	14	1	1	20	423	11	0	0	1239
7:45 AM	33	37	17	0	40	77	20	0	0	0	11	351	57	11	11	19	437	17	0	0	19	437	17	0	0	11	1108	11	0	0	1109
8:00 AM	34	29	17	0	40	43	25	0	0	0	16	396	29	7	7	10	490	11	1	1	11	490	11	1	1	8	404	15	0	0	1060
8:15 AM	15	17	12	0	34	46	23	0	0	0	10	372	11	7	7	14	353	15	5	0	5	353	15	5	0	9	377	13	0	0	970
8:30 AM	19	23	17	0	32	40	25	0	0	0	14	353	15	5	5	16	337	11	7	0	7	337	11	7	0	0	0	0	0	0	921
8:45 AM	21	20	11	0	29	49	21	0	0	0	16	337	11	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL VOLUMES :</b>	184	229	120	0	243	402	183	0	0	0	96	2931	233	92	92	111	3560	101	2	2	2	9487	101	2	2	2	9487	101	2	2	8487
<b>APPROACH %'s :</b>	34.52%	42.96%	22.51%	0.00%	29.35%	48.55%	22.10%	0.00%	0.00%	0.00%	2.86%	87.44%	6.95%	2.74%	2.74%	2.94%	94.33%	2.68%	0.05%	0.05%	2.94%	94.33%	2.68%	0.05%	0.05%	2.94%	94.33%	2.68%	0.05%	0.05%	0.05%
<b>PEAK HR :</b>	110	149	62	0	126	224	93	0	0	0	52	1554	175	61	61	77	1874	55	1	1	1	1874	55	1	1	0.911	0.911	0.809	0.250	0.250	4613
<b>PEAK HR VOL :</b>	0.809	0.810	0.912	0.000	0.788	0.727	0.802	0.000	0.000	0.000	0.813	0.945	0.684	0.610	0.610	0.770	0.917	0.809	0.250	0.250	0.770	0.917	0.809	0.250	0.250	0.911	0.911	0.809	0.250	0.250	0.931
<b>PEAK HR FACTOR :</b>	0.863										0.808										0.908										
PM	NL	NT	NR	NU	0	SL	ST	SR	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	WL	WT	WR	WU	0	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1102
4:15 PM	45	74	15	0	22	26	13	0	0	0	37	437	24	12	12	22	355	20	0	0	22	355	20	0	0	15	480	24	0	0	1237
4:30 PM	20	57	20	0	15	31	12	0	0	0	25	505	28	11	11	22	389	39	1	1	22	389	39	1	1	13	1141	39	1	1	1141
4:45 PM	25	87	16	0	18	28	16	0	0	0	41	422	19	9	9	12	483	38	0	0	12	483	38	0	0	12	1317	38	0	0	1317
5:00 PM	26	74	16	0	21	33	11	0	0	0	53	415	25	4	4	15	400	30	0	0	15	400	30	0	0	14	1123	30	0	0	1123
5:15 PM	28	72	22	0	15	24	11	0	0	0	45	525	16	7	7	14	466	39	0	0	14	466	39	0	0	13	1284	39	0	0	1284
5:30 PM	32	77	14	0	29	38	28	0	0	0	51	444	25	10	10	17	408	25	1	1	17	408	25	1	1	17	1195	25	1	1	1195
5:45 PM	27	62	20	0	20	32	9	0	0	0	32	499	34	7	7	17	464	36	0	0	17	464	36	0	0	0	1259	36	0	0	1259
<b>TOTAL VOLUMES :</b>	227	554	143	0	153	249	116	0	0	0	332	3799	192	65	65	130	3445	251	2	2	2	9658	251	2	2	2	9658	251	2	2	9658
<b>APPROACH %'s :</b>	24.57%	59.96%	15.48%	0.00%	29.54%	48.07%	22.39%	0.00%	0.00%	0.00%	7.57%	86.58%	4.38%	1.48%	1.48%	3.40%	89.99%	6.56%	0.05%	0.05%	3.40%	89.99%	6.56%	0.05%	0.05%	3.40%	89.99%	6.56%	0.05%	0.05%	0.05%
<b>PEAK HR :</b>	110	274	72	0	78	132	66	0	0	0	190	1936	87	30	30	54	1757	132	1	1	1	1757	132	1	1	0.909	0.909	0.846	0.250	0.250	4919
<b>PEAK HR VOL :</b>	0.859	0.890	0.818	0.000	0.672	0.868	0.589	0.000	0.000	0.000	0.896	0.877	0.870	0.750	0.750	0.900	0.909	0.846	0.250	0.250	0.900	0.909	0.846	0.250	0.250	0.912	0.912	0.846	0.250	0.250	0.934
<b>PEAK HR FACTOR :</b>	0.927										0.726										0.912										

# National Data & Surveying Services

## Intersection Turning Movement Count

Location: N Rome Ave & W Hillsborough Ave/US 92/SR 600  
 City: Tampa  
 Control: Signalized

Project ID: 23-120441-002  
 Date: 10/24/2023

### Data - Cars

NS/EW Streets	N Rome Ave										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600									
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND				
AM	NL	NT	NR	NU	0	SL	ST	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0
7:00 AM	17	20	16	0	0	21	41	21	0	0	4	297	20	11	0	5	403	6	0	0	5	403	6	0	0	5	403	6	0	0
7:15 AM	12	36	10	0	0	25	54	29	0	0	11	371	25	25	0	13	488	12	0	0	13	488	12	0	0	13	488	12	0	0
7:30 AM	30	45	15	0	0	20	48	18	0	0	13	393	64	18	0	25	487	14	1	0	25	487	14	1	0	25	487	14	1	0
7:45 AM	32	36	17	0	0	39	75	19	0	0	11	336	57	11	0	20	406	10	0	0	20	406	10	0	0	20	406	10	0	0
8:00 AM	33	29	17	0	0	40	42	24	0	0	16	371	29	7	0	19	414	17	0	0	19	414	17	0	0	19	414	17	0	0
8:15 AM	14	16	11	0	0	33	45	23	0	0	10	348	11	6	0	8	456	8	1	0	8	456	8	1	0	8	456	8	1	0
8:30 AM	15	23	14	0	0	31	36	25	0	0	14	328	15	4	0	8	384	14	0	0	8	384	14	0	0	8	384	14	0	0
8:45 AM	19	18	11	0	0	27	47	21	0	0	14	317	10	7	0	9	359	12	0	0	9	359	12	0	0	9	359	12	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	0	SL	ST	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0
APPROACH %'s :	172	223	111	0	0	236	388	180	0	0	93	2761	231	89	0	107	3397	93	2	0	107	3397	93	2	0	107	3397	93	2	0
PEAK HR VOL :	107	146	59	0	0	124	219	90	0	0	51	1471	175	61	0	77	1795	53	1	0	77	1795	53	1	0	77	1795	53	1	0
PEAK HR FACTOR :	0.811	0.811	0.868	0.000	0.000	0.775	0.730	0.776	0.000	0.000	0.797	0.936	0.684	0.610	0.914	0.770	0.920	0.779	0.250	0.914	0.770	0.920	0.779	0.250	0.914	0.770	0.920	0.779	0.250	0.914

NS/EW Streets	N Rome Ave										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600									
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND				
PM	NL	NT	NR	NU	0	SL	ST	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0
4:00 PM	45	73	15	0	0	21	26	12	0	0	37	418	24	12	0	21	345	20	0	0	21	345	20	0	0	21	345	20	0	0
4:15 PM	19	55	20	0	0	14	30	12	0	0	25	483	27	5	0	15	451	24	0	0	15	451	24	0	0	15	451	24	0	0
4:30 PM	24	87	16	0	0	18	27	16	0	0	47	410	19	11	0	22	374	38	1	0	22	374	38	1	0	22	374	38	1	0
4:45 PM	24	51	19	0	0	13	36	16	0	0	39	539	21	9	0	12	459	36	0	0	12	459	36	0	0	12	459	36	0	0
5:00 PM	26	74	16	0	0	21	32	11	0	0	53	398	24	4	0	14	382	28	0	0	14	382	28	0	0	14	382	28	0	0
5:15 PM	28	71	22	0	0	14	23	11	0	0	45	517	16	7	0	14	448	38	0	0	14	448	38	0	0	14	448	38	0	0
5:30 PM	32	76	14	0	0	28	37	27	0	0	51	440	25	10	0	13	391	24	1	0	13	391	24	1	0	13	391	24	1	0
5:45 PM	27	61	20	0	0	20	31	9	0	0	31	488	34	7	0	16	450	35	0	0	16	450	35	0	0	16	450	35	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	0	SL	ST	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0
APPROACH %'s :	225	548	142	0	0	149	242	114	0	0	328	3693	190	65	0	127	3300	243	2	0	127	3300	243	2	0	127	3300	243	2	0
PEAK HR VOL :	110	272	71	0	0	76	128	65	0	0	188	1894	86	30	0	53	1680	126	1	0	53	1680	126	1	0	53	1680	126	1	0
PEAK HR FACTOR :	0.859	0.895	0.807	0.000	0.000	0.679	0.865	0.602	0.000	0.000	0.887	0.878	0.860	0.750	0.904	0.946	0.915	0.829	0.250	0.917	0.946	0.915	0.829	0.250	0.917	0.946	0.915	0.829	0.250	0.917

# National Data & Surveying Services

## Intersection Turning Movement Count

Location: N Rome Ave & W Hillsborough Ave/US 92/SR 600  
 City: Tampa  
 Control: Signalized

Project ID: 23-120441-002  
 Date: 10/24/2023

### Data - HT

NS/EW Streets:	N Rome Ave										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600														
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND									
	NL	NT	NR	NU	SL	ST	SR	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WL	WT	WR	WU	WL	WT	WR	WU	WL	WT	WR	WU	TOTAL					
<b>AM</b>																																			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
7:15 AM	2	0	2	0	1	2	0	0	0	0	0	18	1	0	12	1	0	1	15	1	0	0	0	25	0	0	0	15	1	0	0	0	0	0	46
7:30 AM	0	1	1	0	0	1	1	0	0	0	0	25	0	0	0	0	0	0	24	0	0	0	0	18	0	0	0	24	0	0	0	0	0	0	48
7:45 AM	1	1	0	0	1	2	1	1	0	0	0	15	0	0	0	1	0	0	17	1	0	0	0	15	1	0	0	17	1	0	0	0	0	0	39
8:00 AM	1	0	0	0	0	1	1	1	0	0	0	25	0	0	23	0	0	0	23	0	0	0	0	23	0	0	0	23	0	0	0	0	0	0	51
8:15 AM	1	1	1	0	1	1	1	0	0	0	0	24	0	1	34	3	0	0	34	3	0	0	0	24	0	0	0	34	3	0	0	0	0	0	70
8:30 AM	4	0	3	0	1	4	0	0	0	0	0	25	0	1	20	1	0	0	20	1	0	0	0	20	1	0	0	20	1	0	0	0	0	0	59
8:45 AM	2	2	0	0	2	2	2	0	0	2	2	20	1	0	18	1	0	0	18	1	0	0	0	18	1	0	0	18	1	0	0	0	0	0	50
<b>TOTAL VOLUMES :</b>	12	6	9	0	7	14	3	3	0	3	170	2	3	4	163	8	0	4	163	8	0	0	163	8	8	0	0	163	8	0	404				
<b>APPROACH %'s :</b>	44.44%	22.22%	33.33%	0.00%	29.17%	58.33%	12.50%	12.50%	0.00%	1.69%	95.51%	1.12%	1.69%	2.29%	93.14%	4.57%	0.00%	2.29%	93.14%	4.57%	0.00%	0.00%	93.14%	4.57%	4.57%	0.00%	0.00%	93.14%	4.57%	0.00%	0.00%				
<b>PEAK HR :</b>	3	3	3	0	2	5	3	3	0	1	83	0	0	0	79	2	0	0	79	2	0	0	83	0	2	0	0	83	2	0	184				
<b>PEAK HR VOL :</b>	0.750	0.750	0.375	0.000	0.500	0.625	0.750	0.750	0.000	0.250	0.830	0.000	0.000	0.000	0.823	0.500	0.000	0.000	0.823	0.500	0.000	0.000	0.823	0.500	0.500	0.000	0.000	0.823	0.500	0.000	0.902				
<b>PEAK HR FACTOR :</b>	0.750																																		
	0.844																																		
<b>PM</b>																																			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
4:15 PM	1	2	0	0	1	1	0	0	0	0	19	1	0	0	10	0	0	0	29	0	0	0	0	29	0	0	0	29	0	0	0	0	0	0	57
4:30 PM	1	0	0	0	0	0	0	0	0	0	12	0	0	0	15	1	0	0	15	1	0	0	0	15	1	0	0	15	1	0	0	0	0	0	31
4:45 PM	0	0	1	0	0	1	0	0	0	2	13	0	0	0	24	2	0	0	24	2	0	0	0	24	2	0	0	24	2	0	0	0	0	0	43
5:00 PM	0	0	0	0	0	1	0	0	0	0	17	1	0	0	18	2	0	0	18	2	0	0	0	18	2	0	0	18	2	0	0	0	0	0	40
5:15 PM	0	1	0	0	1	1	1	0	0	0	8	0	0	0	18	1	0	0	18	1	0	0	0	18	1	0	0	18	1	0	0	0	0	0	30
5:30 PM	0	1	0	0	1	1	1	1	0	0	4	0	0	0	17	1	0	0	17	1	0	0	0	17	1	0	0	17	1	0	0	0	0	0	26
5:45 PM	0	1	0	0	0	1	0	0	0	1	11	0	0	0	14	1	0	0	14	1	0	0	0	14	1	0	0	14	1	0	0	0	0	0	30
<b>TOTAL VOLUMES :</b>	2	6	1	0	4	7	2	2	0	4	106	2	0	3	145	8	0	3	145	8	0	0	145	8	8	0	0	145	8	0	290				
<b>APPROACH %'s :</b>	22.22%	66.67%	11.11%	0.00%	30.77%	53.85%	15.38%	15.38%	0.00%	3.57%	94.64%	1.79%	0.00%	1.92%	92.95%	5.13%	0.00%	1.92%	92.95%	5.13%	0.00%	0.00%	92.95%	5.13%	5.13%	0.00%	0.00%	92.95%	5.13%	0.00%	0.00%				
<b>PEAK HR :</b>	0	2	1	0	2	4	1	1	0	2	42	1	0	1	77	6	0	1	77	6	0	0	42	1	6	0	0	42	6	0	139				
<b>PEAK HR VOL :</b>	0.000	0.500	0.250	0.000	0.500	1.000	0.250	0.250	0.000	0.250	0.618	0.250	0.000	0.250	0.802	0.750	0.000	0.250	0.802	0.750	0.000	0.000	0.802	0.750	0.750	0.000	0.000	0.802	0.750	0.000	0.808				
<b>PEAK HR FACTOR :</b>	0.750																																		
	0.583																																		





# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Rome Ave & W Hillsborough Ave/US 92/SR 600  
**City:** Tampa  
**Project ID:** 23-120441-002  
**Date:** 10/24/2023

### Data - Pedestrians (Crosswalks)

NS/EW Streets:	N Rome Ave		N Rome Ave		W Hillsborough Ave/US 92/SR 600		W Hillsborough Ave/US 92/SR 600		TOTAL
	NORTH LEG	WB	SOUTH LEG	WB	EAST LEG	NB	WEST LEG	SB	
<b>AM</b>									
7:00 AM	0	1	2	0	0	0	1	0	4
7:15 AM	0	1	0	2	0	0	1	0	4
7:30 AM	2	0	0	0	0	0	0	1	3
7:45 AM	1	0	0	0	1	0	0	1	3
8:00 AM	0	1	2	0	0	0	0	0	3
8:15 AM	0	1	0	1	0	0	0	2	4
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
<b>TOTAL VOLUMES :</b>	3	4	4	3	1	0	2	4	21
<b>APPROACH %'s :</b>	42.86%	57.14%	57.14%	42.86%	100.00%	0.00%	33.33%	66.67%	
<b>PEAK HR :</b>	<b>07:15 AM - 08:15 AM</b>								
<b>PEAK HR VOL :</b>	3	2	2	2	1	0	1	2	13
<b>PEAK HR FACTOR :</b>	0.375	0.500	0.250	0.250	0.250	0.250	0.250	0.500	0.813
	0.625		0.500		0.250		0.750		

NS/EW Streets:	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
<b>PM</b>									
4:00 PM	0	1	2	1	0	0	2	1	7
4:15 PM	0	1	1	0	0	0	2	0	4
4:30 PM	0	0	2	1	0	0	1	2	6
4:45 PM	0	1	2	0	1	0	1	1	6
5:00 PM	0	0	0	3	0	0	0	2	5
5:15 PM	4	1	0	0	0	0	3	1	9
5:30 PM	0	1	0	1	3	0	0	0	5
5:45 PM	0	0	0	2	0	0	3	0	5
<b>TOTAL VOLUMES :</b>	4	5	7	8	4	0	12	7	47
<b>APPROACH %'s :</b>	44.44%	55.56%	46.67%	53.33%	100.00%	0.00%	63.16%	36.84%	
<b>PEAK HR :</b>	<b>04:45 PM - 05:45 PM</b>								
<b>PEAK HR VOL :</b>	4	3	2	4	4	0	4	4	25
<b>PEAK HR FACTOR :</b>	0.250	0.750	0.250	0.333	0.333	0.333	0.333	0.500	0.694
	0.350		0.500		0.333		0.500		









National Data & Surveying Services

Site Code: 23-120441-003

Date: 10/24/2023

Weather: Sunny

City: Tampa

County: Hillsborough

Count Times: 07:00 - 09:00

16:00 - 18:00

Control: Signalized

SIGNAL TIMING

PHASES	1	2	3
NT/ST	00:19	00:20	00:19
WL/WT	00:21	00:13	00:17
ET/WT	02:26	02:34	02:43
EL/ET	00:13	00:14	-

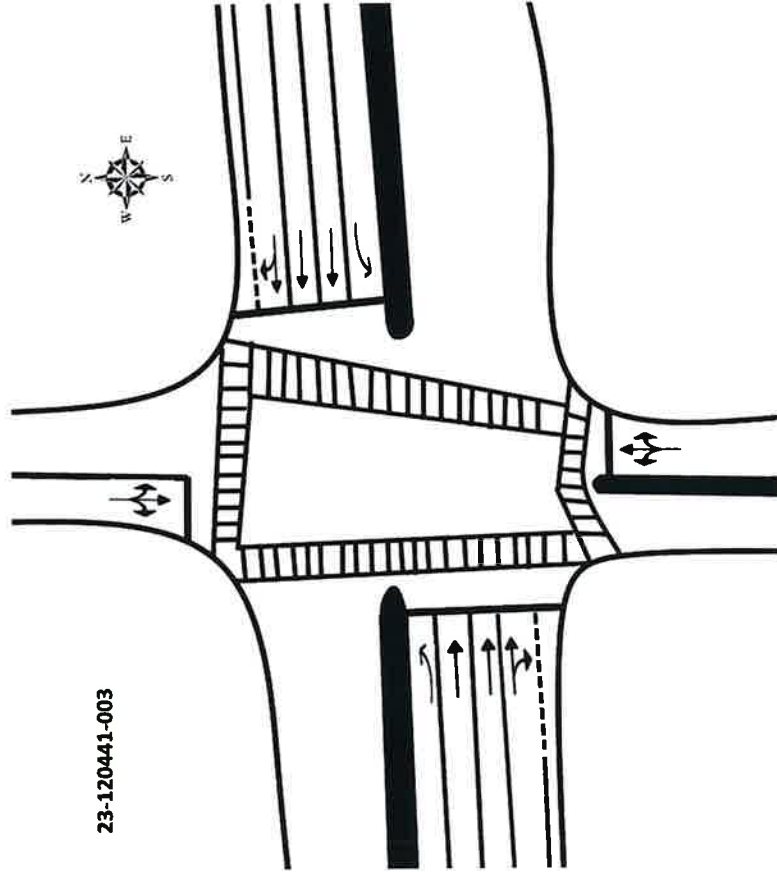


N/S Street: N Lee Pl

Speed: 25 MPH

E/W Street: W Hillsborough Ave/US 92/SR 600

Speed: 45 MPH



# N Lee Pl & W Hillsborough Ave/US 92/SR 600

## Peak Hour Turning Movement Count

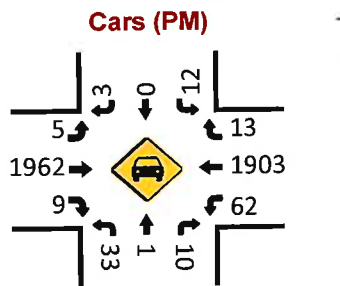
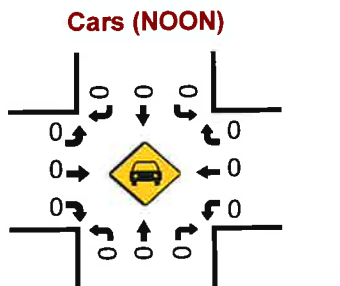
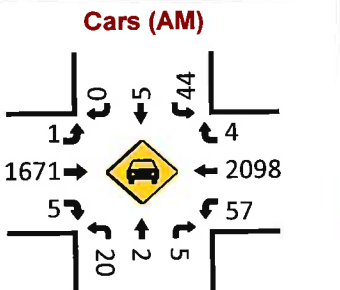
ID: 23-120441-003  
City: Tampa

Day: Tuesday  
Date: 10/24/2023

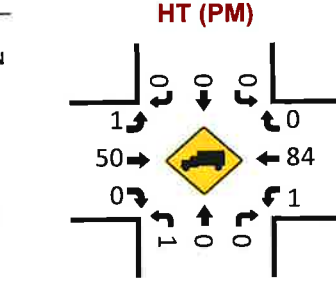
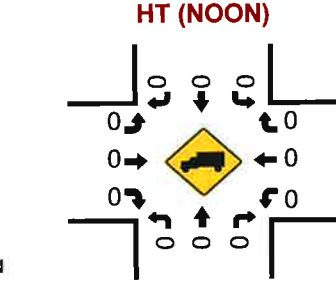
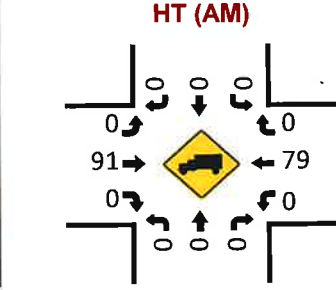
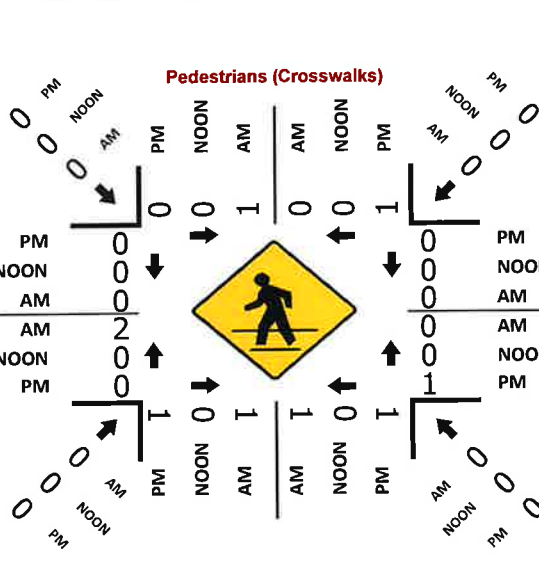
PEAK HOURS	N Lee Pl					COUNT PERIODS	
	SOUTHBOUND						
07:15 AM - 08:15 AM	AM	0	5	44	0	7	7:00 AM - 09:00 AM
NONE	NOON	0	0	0	0	0	NONE
04:30 PM - 05:30 PM	PM	3	0	12	0	20	4:00 PM - 06:00 PM

W Hillsborough Ave/US 92/SR 600	EASTBOUND			CONTROL	WESTBOUND		
	AM	NOON	PM		PM	NOON	AM
2201	0	2035		TEV	4097	0	4172
4	0	11		PHF	0.94	0.96	
1762	0	2012					
5	0	9					
	AM	NOON	PM				



N Lee Pl	NORTHBOUND				
	PM	72	0	34	1
NOON	0	0	0	0	0
AM	67	0	20	2	5



# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Lee Pl & W Hillsborough Ave/US 92/SR 600  
**City:** Tampa  
**Control:** Signalized  
**Project ID:** 23-120441-003  
**Date:** 10/24/2023

### Data - Total

NS/EW Streets	N Lee Pl										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600														
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND									
	NL	NT	NR	NU	0	SL	ST	SR	SU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0	EL	ET	ER	EU	0	WL	WT	WR	WU	0					
<b>AM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	7	0	0	0	0	2	0	0	0	0	0	355	1	0	0	5	481	0	1	1	5	481	0	1	1	5	481	0	1	1	5	481	0	1	1
7:15 AM	5	0	2	0	0	3	0	0	0	0	1	414	0	1	1	9	576	2	3	3	9	576	2	3	3	9	576	2	3	3	9	576	2	3	3
7:30 AM	8	0	0	0	0	10	2	0	0	0	0	504	1	1	1	17	544	1	3	3	17	544	1	3	3	17	544	1	3	3	17	544	1	3	3
7:45 AM	7	0	1	0	0	21	1	0	0	0	0	411	4	1	1	22	503	1	5	5	22	503	1	5	5	22	503	1	5	5	22	503	1	5	5
8:00 AM	0	2	2	0	0	10	2	0	0	0	0	433	0	1	1	9	554	0	0	0	9	554	0	0	0	9	554	0	0	0	9	554	0	0	0
8:15 AM	2	0	2	0	0	9	0	0	0	0	0	453	3	2	2	9	510	2	3	3	9	510	2	3	3	9	510	2	3	3	9	510	2	3	3
8:30 AM	7	0	0	0	0	4	0	0	0	0	0	425	1	0	0	6	457	1	2	2	6	457	1	2	2	6	457	1	2	2	6	457	1	2	2
8:45 AM	5	0	0	0	0	3	0	2	0	0	0	344	3	2	2	5	481	2	5	5	5	481	2	5	5	5	481	2	5	5	5	481	2	5	5
<b>TOTAL VOLUMES :</b>	41	2	7	0	0	62	5	2	0	0	1	3339	13	8	8	82	4106	9	22	22	82	4106	9	22	22	82	4106	9	22	22	82	4106	9	22	22
<b>APPROACH %'s :</b>	82.00%	4.00%	14.00%	0.00%	0.00%	89.86%	7.25%	2.90%	0.00%	0.00%	0.03%	99.35%	0.39%	0.24%	0.24%	1.94%	97.32%	0.21%	0.52%	0.52%	1.94%	97.32%	0.21%	0.52%	0.52%	1.94%	97.32%	0.21%	0.52%	0.52%	1.94%	97.32%	0.21%	0.52%	0.52%
<b>PEAK HR :</b>	2	2	5	0	0	44	5	0	0	0	1	1762	5	4	4	57	2177	4	11	11	57	2177	4	11	11	57	2177	4	11	11	57	2177	4	11	11
<b>PEAK HR VOL :</b>	0.625	0.250	0.625	0.000	0.000	0.524	0.625	0.000	0.000	0.000	0.250	0.874	0.313	1.000	1.000	0.648	0.945	0.500	0.550	0.550	0.648	0.945	0.500	0.550	0.550	0.648	0.945	0.500	0.550	0.550	0.648	0.945	0.500	0.550	0.550
<b>PEAK HR FACTOR :</b>	0.844					0.557					0.875					0.953					0.984														
<b>PM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	3	0	4	0	0	3	1	0	0	0	0	480	3	3	3	15	446	2	6	6	15	446	2	6	6	15	446	2	6	6	15	446	2	6	6
4:15 PM	5	0	2	0	0	3	0	0	0	0	1	516	6	1	1	8	488	3	3	3	8	488	3	3	3	8	488	3	3	3	8	488	3	3	3
4:30 PM	6	0	3	0	0	1	0	1	0	0	1	476	0	3	3	11	497	6	4	4	11	497	6	4	4	11	497	6	4	4	11	497	6	4	4
4:45 PM	7	0	0	0	0	6	0	1	0	0	1	547	3	0	0	11	512	3	1	1	11	512	3	1	1	11	512	3	1	1	11	512	3	1	1
5:00 PM	6	1	4	0	0	1	0	0	0	0	2	459	2	6	6	29	487	2	3	3	29	487	2	3	3	29	487	2	3	3	29	487	2	3	3
5:15 PM	15	0	3	0	0	4	0	1	0	0	2	530	4	2	2	12	491	2	3	3	12	491	2	3	3	12	491	2	3	3	12	491	2	3	3
5:30 PM	12	3	8	0	0	1	3	1	0	0	2	467	7	3	3	18	478	4	0	0	18	478	4	0	0	18	478	4	0	0	18	478	4	0	0
5:45 PM	9	1	2	0	0	4	0	0	0	0	1	514	3	1	1	14	488	1	3	3	14	488	1	3	3	14	488	1	3	3	14	488	1	3	3
<b>TOTAL VOLUMES :</b>	63	5	26	0	0	23	4	4	0	0	10	3989	28	19	19	118	3887	23	23	23	118	3887	23	23	23	118	3887	23	23	23	118	3887	23	23	23
<b>APPROACH %'s :</b>	67.02%	5.32%	27.66%	0.00%	0.00%	74.19%	12.90%	12.90%	0.00%	0.00%	0.25%	98.59%	0.69%	0.47%	0.47%	2.91%	95.95%	0.57%	0.57%	0.57%	2.91%	95.95%	0.57%	0.57%	0.57%	2.91%	95.95%	0.57%	0.57%	0.57%	2.91%	95.95%	0.57%	0.57%	0.57%
<b>PEAK HR :</b>	34	1	10	0	0	12	0	3	0	0	6	2012	9	11	11	63	1987	13	11	11	63	1987	13	11	11	63	1987	13	11	11	63	1987	13	11	11
<b>PEAK HR VOL :</b>	0.567	0.250	0.625	0.000	0.000	0.500	0.000	0.750	0.000	0.000	0.750	0.920	0.563	0.458	0.458	0.543	0.970	0.542	0.688	0.688	0.543	0.970	0.542	0.688	0.688	0.543	0.970	0.542	0.688	0.688	0.543	0.970	0.542	0.688	0.688
<b>PEAK HR FACTOR :</b>	0.625					0.536					0.925					0.984																			

# National Data & Surveying Services Intersection Turning Movement Count

Location: N Lee Pl & W Hillsborough Ave/US 92/SR 600  
 City: Tampa  
 Control: Signalized

Project ID: 23-120441-003  
 Date: 10/24/2023

## Data - Cars

NS/EW Streets:	N Lee Pl					N Lee Pl					W Hillsborough Ave/US 92/SR 600					W Hillsborough Ave/US 92/SR 600						
	NORTHBOUND		SOUTHBOUND		NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	WESTBOUND		TOTAL		
<b>AM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL
7:00 AM	7	0	0	0	0	2	0	0	0	0	3	0	0	1	5	459	0	5	0	0	1	804
7:15 AM	5	0	2	0	0	3	0	0	0	0	10	2	0	1	9	560	2	9	2	2	3	971
7:30 AM	8	0	0	0	0	10	2	0	0	0	21	1	0	1	17	521	1	17	1	1	3	1048
7:45 AM	7	0	1	0	0	7	1	0	0	0	394	4	0	4	22	487	1	22	1	5	5	944
8:00 AM	0	2	2	0	0	10	2	0	0	0	408	0	0	1	9	530	0	9	0	0	0	964
8:15 AM	2	0	2	0	0	9	0	0	0	0	424	3	2	2	8	474	2	8	2	3	3	929
8:30 AM	6	0	0	0	0	4	0	0	0	0	396	1	0	0	6	434	1	6	1	2	2	850
8:45 AM	5	0	0	0	0	3	0	2	0	0	327	3	2	0	5	458	2	5	2	5	5	812
<b>TOTAL VOLUMES :</b>	40	2	7	0	0	62	5	2	0	0	1	13	8	0	81	3923	9	81	9	22	22	7322
<b>APPROACH %'s :</b>	81.63%	4.08%	14.29%	0.00%	0.00%	89.86%	7.25%	2.90%	0.00%	0.00%	0.03%	99.31%	0.41%	0.25%	2.01%	97.22%	0.22%	2.01%	97.22%	0.22%	0.55%	
<b>PEAK HR :</b>	07:15 AM - 08:15 AM																					
<b>PEAK HR VOL :</b>	20	2	5	0	0	44	5	0	0	0	1	1671	5	4	57	2098	4	57	2098	4	11	3927
<b>PEAK HR FACTOR :</b>	0.625	0.250	0.625	0.000	0.000	0.524	0.625	0.000	0.000	0.000	0.250	0.863	0.313	1.000	0.648	0.937	0.500	0.648	0.937	0.500	0.550	0.937
	0.844					0.557					0.865					0.945						
<b>PM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL
4:00 PM	3	0	4	0	0	3	1	0	0	0	0	462	3	3	14	433	2	14	433	2	6	934
4:15 PM	4	0	2	0	0	3	0	0	0	0	1	493	6	1	8	459	3	8	459	3	3	983
4:30 PM	6	0	3	0	0	1	0	1	0	0	1	466	0	3	11	475	6	11	475	6	4	977
4:45 PM	7	0	0	0	0	6	0	1	0	0	1	535	3	0	10	491	3	10	491	3	1	1058
5:00 PM	5	1	4	0	0	1	0	0	0	0	1	440	2	6	29	467	2	29	467	2	3	961
5:15 PM	15	0	3	0	0	4	0	1	0	0	2	521	4	2	12	470	2	12	470	2	3	1039
5:30 PM	12	3	8	0	0	1	3	1	0	0	2	459	7	3	18	461	4	18	461	4	0	982
5:45 PM	9	1	2	0	0	4	0	0	0	0	1	505	3	1	13	473	1	13	473	1	3	1016
<b>TOTAL VOLUMES :</b>	61	5	26	0	0	23	4	4	0	0	9	3881	28	19	115	3729	23	115	3729	23	23	7950
<b>APPROACH %'s :</b>	66.30%	5.43%	28.26%	0.00%	0.00%	74.19%	12.90%	12.90%	0.00%	0.00%	0.23%	98.58%	0.71%	0.48%	2.96%	95.86%	0.59%	2.96%	95.86%	0.59%	0.59%	
<b>PEAK HR :</b>	04:30 PM - 05:30 PM																					
<b>PEAK HR VOL :</b>	33	1	10	0	0	12	0	3	0	0	5	1962	9	11	62	1903	13	62	1903	13	11	4035
<b>PEAK HR FACTOR :</b>	0.550	0.250	0.625	0.000	0.000	0.500	0.000	0.750	0.000	0.000	0.625	0.917	0.563	0.458	0.534	0.969	0.542	0.534	0.969	0.542	0.688	0.953
	0.611					0.536					0.922					0.985						



# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Lee Pl & W Hillsborough Ave/US 92/SR 600  
**City:** Tampa  
**Control:** Signalized

**Project ID:** 23-120441-003  
**Date:** 10/24/2023

### Data - HT

NS/EW Streets:	N Lee Pl										W Hillsborough Ave/US 92/SR 600										W Hillsborough Ave/US 92/SR 600																					
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					EASTBOUND					WESTBOUND																
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TL	TR	TU	EL	ET	ER	EU	WL	WT	WR	WU	TL	TR	TU	EL	ET	ER	EU	WL	WT	WR	WU				
<b>AM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL VOLUMES :</b>	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>APPROACH %'s :</b>	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%					
<b>PEAK HR :</b>	0	0	0	0	0	0	0	0	0	0	0	91	0	0	0	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<b>PEAK HR VOL :</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.784	0.000	0.000	0.000	0.000	0.823	0.000	0.000	0.000	0.000	0.823	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000						
<b>PEAK HR FACTOR :</b>												0.784					0.823					0.823																				
<b>PM</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
4:15 PM	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	0	0	0	0	0	0	0	0	0	0	0	0					
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
5:00 PM	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	0	0	0	0	0	0	0	0	0	0	0	0					
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<b>TOTAL VOLUMES :</b>	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<b>APPROACH %'s :</b>	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%					
<b>PEAK HR :</b>	1	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
<b>PEAK HR VOL :</b>	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.658	0.000	0.000	0.000	0.250	0.955	0.000	0.000	0.000	0.250	0.955	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000						
<b>PEAK HR FACTOR :</b>												0.638					0.956					0.956																				



# National Data & Surveying Services

## Intersection Turning Movement Count

**Location:** N Lee Pl & W Hillsborough Ave/US 92/SR 600  
**City:** Tampa

**Project ID:** 23-120441-003  
**Date:** 10/24/2023

### Data - Pedestrians (Crosswalks)

NS/EW Streets:	N Lee Pl		N Lee Pl		W Hillsborough Ave/US 92/SR 600		W Hillsborough Ave/US 92/SR 600		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
<b>AM</b>	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
7:00 AM	0	1	1	0	2	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	1
7:45 AM	1	0	0	0	0	0	2	0	3
8:00 AM	0	0	0	1	0	0	0	0	1
8:15 AM	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
<b>TOTAL VOLUMES :</b>	2	1	2	1	2	0	2	0	10
<b>APPROACH %'s :</b>	66.67%	33.33%	66.67%	33.33%	100.00%	0.00%	100.00%	0.00%	
<b>PEAK HR :</b>	07:15 AM - 08:15 AM								TOTAL
<b>PEAK HR VOL :</b>	1	0	1	1	0	0	2	0	5
<b>PEAK HR FACTOR :</b>	0.250	0.250	0.250	0.500	0.250	0.250	0.250	0.250	0.417

NS/EW Streets:	N Lee Pl		N Lee Pl		W Hillsborough Ave/US 92/SR 600		W Hillsborough Ave/US 92/SR 600		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
<b>PM</b>	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
4:00 PM	0	0	2	0	0	0	0	0	2
4:15 PM	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	0	2
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	1	1
5:45 PM	0	0	0	1	0	0	0	0	1
<b>TOTAL VOLUMES :</b>	0	1	4	2	1	0	0	1	9
<b>APPROACH %'s :</b>	0.00%	100.00%	66.67%	33.33%	100.00%	0.00%	0.00%	100.00%	
<b>PEAK HR :</b>	04:30 PM - 05:30 PM								TOTAL
<b>PEAK HR VOL :</b>	0	1	1	1	1	0	0	0	4
<b>PEAK HR FACTOR :</b>	0.250	0.250	0.250	0.500	0.250	0.250	0.250	0.250	0.500







FDOT PEAK SEASON ADJUSTMENT FACTORS



2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 1000 HILLSBOROUGH COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.97 PSCF
1	01/01/2022 - 01/01/2022	1.00	1.03
2	01/02/2022 - 01/08/2022	1.02	1.05
3	01/09/2022 - 01/15/2022	1.05	1.08
4	01/16/2022 - 01/22/2022	1.03	1.06
5	01/23/2022 - 01/29/2022	1.01	1.04
6	01/30/2022 - 02/05/2022	1.00	1.03
* 7	02/06/2022 - 02/12/2022	0.98	1.01
* 8	02/13/2022 - 02/19/2022	0.96	0.99
* 9	02/20/2022 - 02/26/2022	0.96	0.99
*10	02/27/2022 - 03/05/2022	0.95	0.98
*11	03/06/2022 - 03/12/2022	0.95	0.98
*12	03/13/2022 - 03/19/2022	0.95	0.98
*13	03/20/2022 - 03/26/2022	0.95	0.98
*14	03/27/2022 - 04/02/2022	0.96	0.99
*15	04/03/2022 - 04/09/2022	0.97	1.00
*16	04/10/2022 - 04/16/2022	0.98	1.01
*17	04/17/2022 - 04/23/2022	0.98	1.01
*18	04/24/2022 - 04/30/2022	0.98	1.01
*19	05/01/2022 - 05/07/2022	0.99	1.02
20	05/08/2022 - 05/14/2022	0.99	1.02
21	05/15/2022 - 05/21/2022	0.99	1.02
22	05/22/2022 - 05/28/2022	1.00	1.03
23	05/29/2022 - 06/04/2022	1.01	1.04
24	06/05/2022 - 06/11/2022	1.02	1.05
25	06/12/2022 - 06/18/2022	1.04	1.07
26	06/19/2022 - 06/25/2022	1.04	1.07
27	06/26/2022 - 07/02/2022	1.04	1.07
28	07/03/2022 - 07/09/2022	1.04	1.07
29	07/10/2022 - 07/16/2022	1.05	1.08
30	07/17/2022 - 07/23/2022	1.04	1.07
31	07/24/2022 - 07/30/2022	1.03	1.06
32	07/31/2022 - 08/06/2022	1.02	1.05
33	08/07/2022 - 08/13/2022	1.01	1.04
34	08/14/2022 - 08/20/2022	1.00	1.03
35	08/21/2022 - 08/27/2022	1.02	1.05
36	08/28/2022 - 09/03/2022	1.04	1.07
37	09/04/2022 - 09/10/2022	1.06	1.09
38	09/11/2022 - 09/17/2022	1.08	1.11
39	09/18/2022 - 09/24/2022	1.05	1.08
40	09/25/2022 - 10/01/2022	1.02	1.05
41	10/02/2022 - 10/08/2022	0.99	1.02
42	10/09/2022 - 10/15/2022	0.96	0.99
43	10/16/2022 - 10/22/2022	0.97	1.00
44	10/23/2022 - 10/29/2022	0.98	1.01
45	10/30/2022 - 11/05/2022	0.99	1.02
46	11/06/2022 - 11/12/2022	1.01	1.04
47	11/13/2022 - 11/19/2022	1.02	1.05
48	11/20/2022 - 11/26/2022	1.01	1.04
49	11/27/2022 - 12/03/2022	1.01	1.04
50	12/04/2022 - 12/10/2022	1.00	1.03
51	12/11/2022 - 12/17/2022	1.00	1.03
52	12/18/2022 - 12/24/2022	1.02	1.05
53	12/25/2022 - 12/31/2022	1.05	1.08

\* PEAK SEASON

23-FEB-2023 09:11:23

830UPD

7\_1000\_PKSEASON.TXT

SIGNAL TIMING SHEETS





# Timingsheet and Controller Operation - Phases 1 - 8

SECID: 609    Timing Date: 4/5/2022    Phasing Date: 7/2/2010    Shop Number: 1514    Drop:    Last Date Sent: 11/7/2019    Ver. B

Major Street: HILLSBOROUGH  
 Minor Street: ARMENIA

Orientation: East / West    Controller Type: EOS  
 Orientation: North / South    Computer System: I

Controller Phase Number		Controller Timings (seconds)							
		1	2	3	4	5	6	7	8
Direction	EBLT	WB	SB LT	NB	WBLT	EB	NB LT	SB	
Minimum Green	5	15	5	10	5	15	5	10	
Vehicle Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Yellow Cir/Alt Cir	4.9	4.9	4.4	4.4	4.9	4.9	4.4	4.4	
Red Cir/Alt Red Cir	2	2	2	2	2	2	2	2	
Max Green I	25	80	20	40	15	90	20	40	
Max Green II	30	115	25	55	25	110	25	55	
Walk		7		7		7		7	
Walk - XGuard									
FDW		28		34		26		35	
FDW - XGuard									
Detector Memory	ON	---	---	---	ON	---	---	---	
Phase Recall	---	MAX	---	---	---	MAX	---	---	
Ped Recall	---	ON	---	---	---	ON	---	---	
Flash Operation	RED	YEL	---	RED	RED	YEL	---	RED	

RXR Preempt: No    FDOT SOP: 10 MOD Fire Preempt: No    Backup Protection: N Bridge Preempt: No    LPI Location(Y/N): Yes Transit Preempt: False    LPI Date: 4/5/2022 Crossing Guard Times AM: Crossing Guard Times PM: Free Time Primary: Free Time Secondary: Flash Source- (C)omputer or (F)ield: Flash Times Primary: Flash Times Secondary CNA Ø's <b>Ø2,Ø6</b>	<b>Controller Operation</b>
--	-----------------------------

		Phase Ring Assignments							
Seq		1	2	3	4	5	6	7	8
Seq 1	R 1:	1	2	1	3	4			
	R 2:	5	6	1	7	8			
Seq 2	R 1:	2	1	1	3	4			
	R 2:	5	6	1	7	8			
Seq 5	R 1:	1	2	1	3	4			
	R 2:	6	5	1	7	8			
	R 1:								
	R 2:								

Cabinet Load Switch Assignments															
LS1:	Ø1	LS2:	Ø2	LS3:	Ø3	LS4:	Ø4	LS5:	Ø5	LS6:	Ø6	LS7:	Ø7	LS8:	Ø8
LS9:	LS10:	LS11:	LS12:	LS13:	P2	LS14:	P4	LS15:	P6	LS16:	P8				

**Comments**

\*FDOT Timing Project 2014 - Lead/Lag by input and TOD.\*  
 Albeck Gerken, Inc. timings in effect - 10/20/2014  
 New cabinet & EOS controller installation 4/5/22  
 Added 3 sec LPI 4/5/22.

Submitted By: TJM    Date: 4/5/22    Review By: JMC    Date: 04/05/2022 Approved By: NHA    Date: 4/7/2022  
 Implemented By: RSC    Date: 4-8-22    Notes:







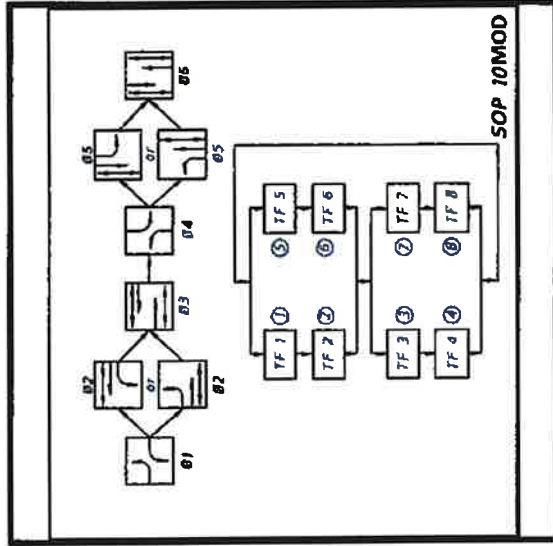
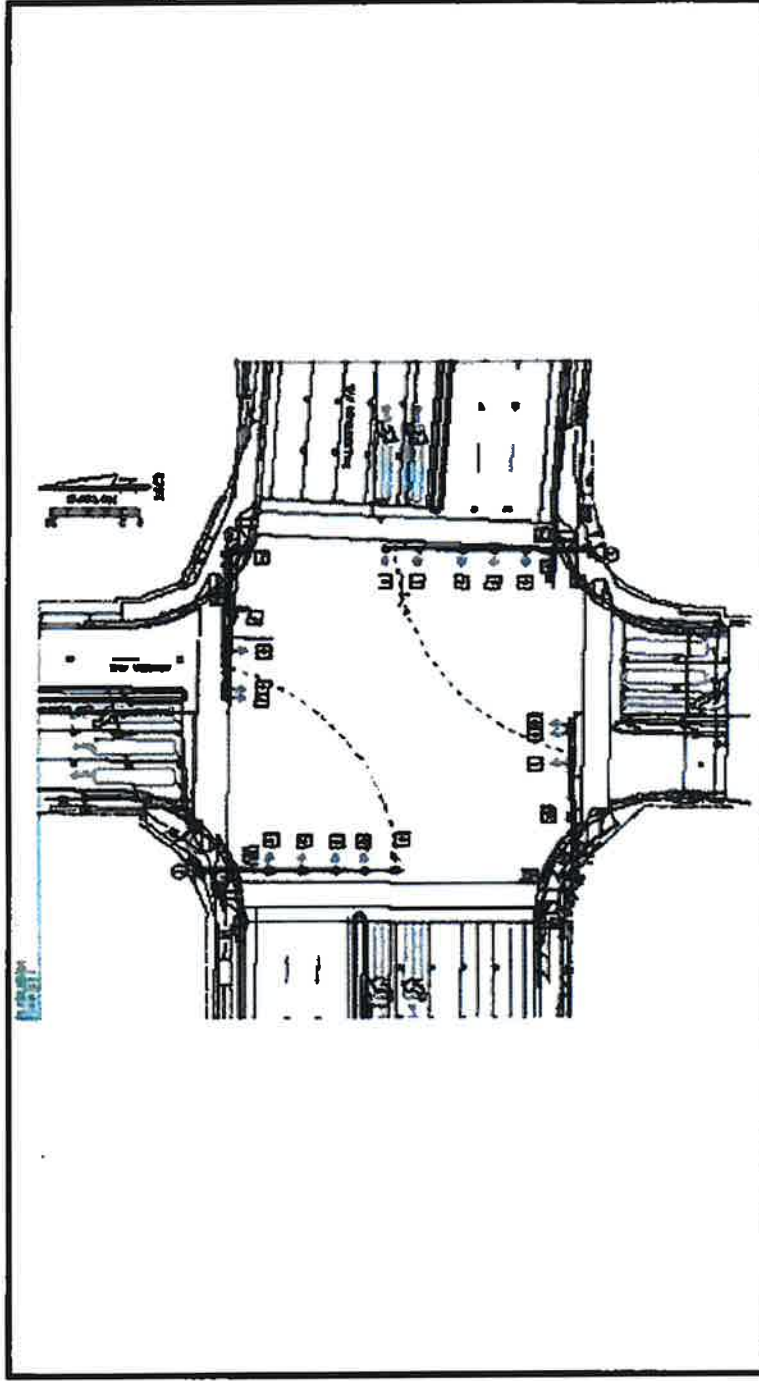




# Plan, SOP and Signal Heads Page

Print Date: 4/5/2022

Section Id 609 Controller Type EOS  
 Major Street HILLSBOROUGH  
 Minor Street ARMENIA  
 Coord Date 5/21/2021 FDOT SOP: 10 MOD



Ped 1 Selector 1ped-wlk-fdw-count PED Signal 1: P2, P4, P6, P8		Sig 1 Selector 3-section-ball-vertical Signal Head 1: 2, 4, 6, 8	Sig 2 Selector 3-section-gb-rl-vert Signal Head 2: 1, 5	Sig 3 Selector 5-section-doghouse Signal Head 3: 3/8, 7/4	Sig 4 Selector Signal Head 4:	Sig 5 Selector Signal Head 5:	Sig 6 Selector Signal Head 6:	Sig 7 Selector Signal Head 7:	Sig 8 Selector Signal Head 8:
Ped 2 Selector PED Signal 2:		Sig 9 Selector Signal Head 9:	Sig 10 Selector Signal Head 10:	Sig 11 Selector Signal Head 11:	Sig 12 Selector Signal Head 12:	Sig 13 Selector Signal Head 13:	Sig 14 Selector Signal Head 14:	Sig 15 Selector Signal Head 15:	Sig 16 Selector Signal Head 16:



# Timingsheet and Controller Operation - Phases 1 - 8

SECID: 611 Timing Date: 4/6/2022 Phasing Date: 7/2/2010 Shop Number: 1809 Drop: Ver. B

Major Street **HILLSBOROUGH**  
Minor Street **ROME**

Orientation: East / West  
Controller Type **Cobalt - EOS**  
Computer System **Cent**  
Last Date Sent **11/7/2014**

		Controller Timings (seconds)							
Controller Phase Number		1	2	4	5	6	8		
Direction		EBLT	WB	NB	WBLT	EB	SB		
Minimum Green		5	15	10	5	15	10		
Vehicle Extension		3.0	3.0	4.0	3.0	3.0	4.0		
Yellow Clr/Alt Clr		4.8	4.8	3.7	4.8	4.8	3.7		
Red Clr/Alt Red Clr		2	2	2.6	2	2	2.6		
Max Green I		25	80	65	15	95	65		
Max Green II		35	130	65	20	140	65		
Walk			7	7		7	7		
Walk - XGuard									
FDW			16	28		18	28		
FDW - XGuard									
Detector Memory		---	---	---	---	---	---		
Phase Recall		---	MAX	---	---	MAX	---		
Ped Recall		---	ON	---	---	ON	---		
Flash Operation		RED	YEL	RED	RED	YEL	RED		

**Controller Operation**

RXR Preempt: No      FDOT SOP: 7 MOD  
 Fire Preempt: No      Backup Protection: N  
 Bridge Preempt: No      LPI Location(Y/N): Y  
 Transit Preempt: False      LPI Date: 5/21/2021  
 Crossing Guard Times AM:  
 Crossing Guard Times PM:  
 Free Time Primary:  
 Free Time Secondary:  
 Flash Source- (C)omputer or (F)ield:  
 Flash Times Primary:  
 Flash Times Secondary  
 CNA Ø's      **Ø2, Ø6**

		Phase Ring Assignments							
Seq 1		R 1:	1	2	4				
Seq 2		R 1:	2	1	4				
Seq 5		R 1:	1	2	4				
		R 2:	5	6	8				
		R 2:	5	6	8				
		R 2:	6	5	8				
		R 1:							
		R 2:							

**Cabinet Load Switch Assignments**

LS1: Ø1	LS2: Ø2	LS3:	LS4: Ø4	LS5: Ø5	LS6: Ø6	LS7:	LS8: Ø8
LS9:	LS10:	LS11:	LS12:	LS13: P2	LS14: P4	LS15: P6	LS16: P8

\*FDOT Timing Project 2014 - Lead/Lag by input and TOD.\*  
 Albeck Gerken, Inc. timings in effect - 5/21/2021  
 New cabinet & EOS controller 4/2022  
*CF 3 sec 2/4/6/8*

## Comments

Submitted By: *TM* Date: 4/6/22 Review By: *JMC* Date: 04/06/2022 Approved By: *NAA* Date: 4/8/2022  
 Implemented By: *ME* Date: *4/13* Notes:





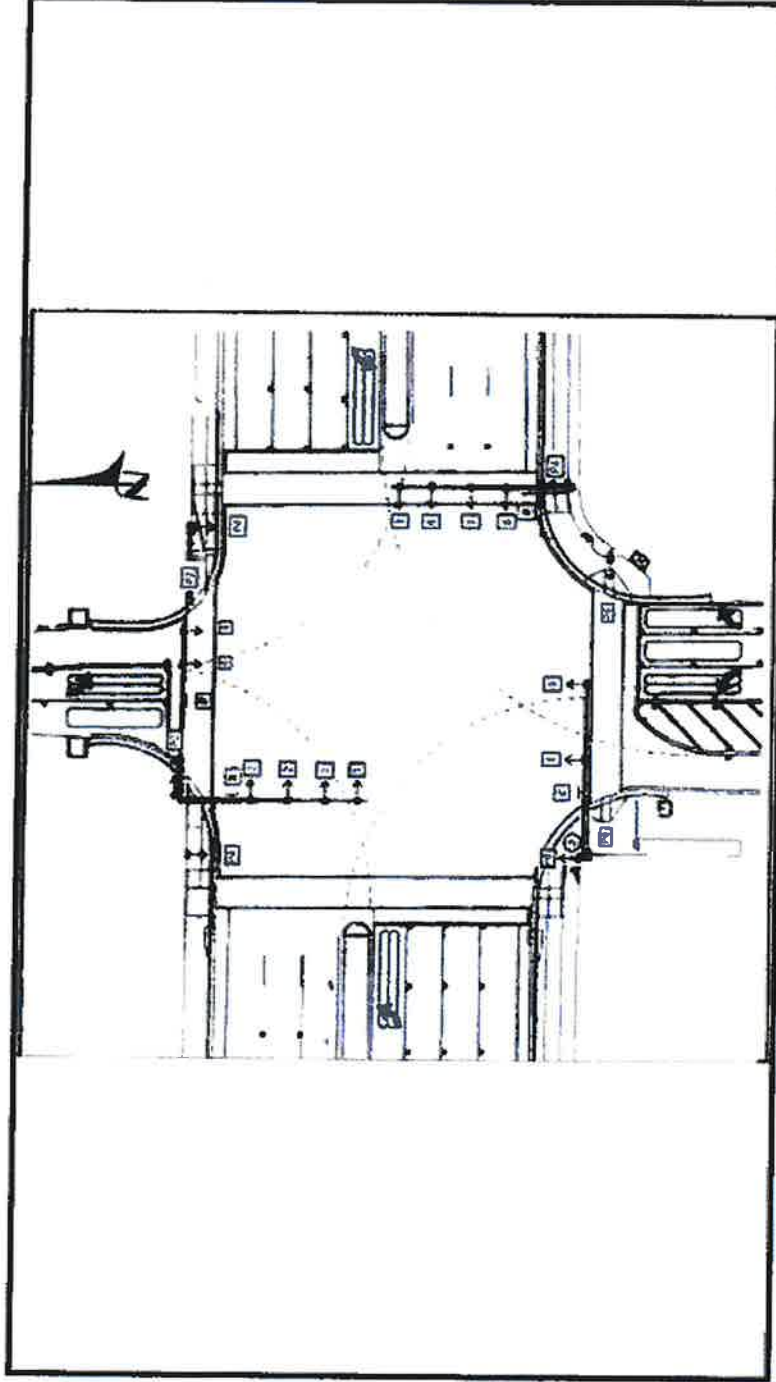
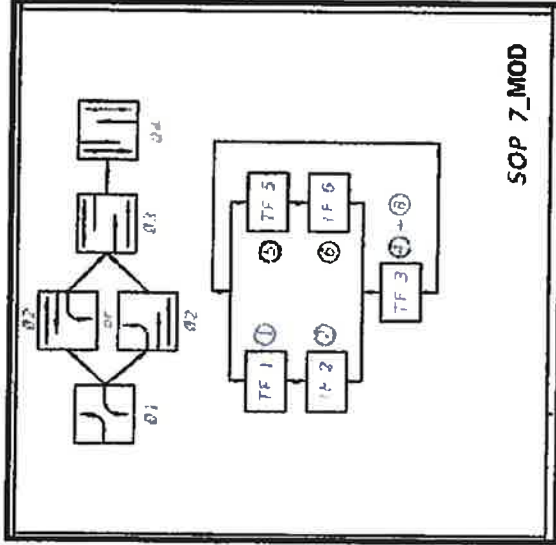




# Plan, SOP and Signal Heads Page

Print Date: 4/6/2022

Section Id 611 Controller Type Cobalt - EOS  
 Major Street HILLSBOROUGH  
 Minor Street ROME  
 Coord Date 5/21/2021 FDOT SOP: 7 MOD



Ped 1 Selector 1ped wlk-fdw-count PED Signal 1: P2,P4,P6,P8	Sig 1 Selector 3-section-ball-vertica Signal Head 1: 2,4,6,8	Sig 2 Selector 3-section-g-y-r-vert Signal Head 2: 1,5	Sig 3 Selector Signal Head 3:	Sig 4 Selector Signal Head 4	Sig 5 Selector Signal Head 5:	Sig 6 Selector Signal Head 6:	Sig 7 Selector Signal Head 7:	Sig 8 Selector Signal Head 8:
Ped 2 Selector PED Signal 2:	Sig 9 Selector Signal Head 9:	Sig 10 Selector Signal Head 10:	Sig 11 Selector Signal Head 11:	Sig 12 Selector Signal Head 12:	Sig 13 Selector Signal Head 13:	Sig 14 Selector SIGNAL HEAD 14	Sig 15 Selector SIGNAL HEAD 15	Sig 16 Selector SIGNAL HEAD 16

Submitted By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Location Details			
Signal ID:	0612	Date:	May 21, 2021
Major Street:	Hillsborough Ave	Orientation:	E-W
Minor Street:	Lee Pl	Orientation:	N-S

**Controller Timings (seconds)**

Movement # (Controller Phase Ø)	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Notes
Direction	EBLT	WB		NB	WBLT	EB		SB									
Turn Type	FYA				FYA												
Min Green	5	15		10	5	15		10									
Ext	2.0	3.0		3.0	2.0	3.0		3.0									
Yellow	4.9	4.9		3.4	4.9	4.9		3.4									
All Red	2.0	2.0		3.2	2.0	2.0		3.2									
Max I	20	80		20	20	80		20									
Max II	35	150		50	35	150		50									
Walk		7		7		7		7									
Flashing Don't Walk		18		39		13		41									
Detector Memory				ON				ON									
Det. Switching to:																	
Recall		MAX PED				MAX PED											
CNA		ON				ON											

**Coordination Timings (seconds)**

Pattern	C-S-O	Cycle Length	Splits																Offset	Seq	Coord Ø
			Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16			
1		210	18	157 MxP		35	23	152 MxP		35								40	2	2, 6	
2		180	20	125 MxP		35	23	122 MxP		35								115	2	2, 6	
3		180	20	125 MxP		35	23	122 MxP		35								115	2	2, 6	
4		180	20	125 MxP		35	23	122 MxP		35								115	2	2, 6	
5		200	15	150 MxP		35	28	137 MxP		35								73	2	2, 6	
6		150	16	91 MxP		43	23	84 MxP		43								112	2	2, 6	
7		150	21	100 MxP		29	21	100 MxP		29								47	1	2, 6	
8		150	19	88 MxP		43	23	84 MxP		43								7	2	2, 6	
9		210	17	162 MxP		31	25	154 MxP		31								188	5	2, 6	
10		150	16	94 MxP		40	22	88 MxP		40								94	2	2, 6	

Offset Reference Point	Phase Mode
Beginning of First Green	--

Notes:

- 1) Use 'Max I' during FREE Operation.
- 2) Max recall Ø2 and Ø6 during coordination.
- 3) Leading Pedestrian Interval (LPI) Ø2, Ø4, Ø6, Ø8 = 3.0 sec
- 4) Mainstreet FYA's omitted by Time of Day.
- 5) Detector Red Lock enabled for left turn detectors.

	SEQ 1				SEQ 2			
Ring - 1	1	2	4		Ring - 1	2	1	4
Ring - 2	5	6	8		Ring - 2	5	6	8

	SEQ 5			
Ring - 1	1	2	4	
Ring - 2	6	5	8	



INTERSECTION ANALYSIS


























HCM 6th Signalized Intersection Summary  
1: Armenia Ave & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1654	183	201	1953	52	181	278	105	221	569	88
Future Volume (veh/h)	158	1654	183	201	1953	52	181	278	105	221	569	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1856	1870	1841	1737	1885	1870	1885	1856	1885	1885
Adj Flow Rate, veh/h	165	1723	172	209	2034	49	189	290	98	230	593	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	6	3	2	4	11	1	2	1	3	1	1
Cap, veh/h	183	2360	235	216	2654	64	214	468	155	313	635	89
Arrive On Green	0.05	0.52	0.52	0.02	0.17	0.17	0.09	0.18	0.18	0.12	0.20	0.20
Sat Flow, veh/h	3456	4570	455	3456	5048	121	1795	2623	868	1767	3156	441
Grp Volume(v), veh/h	165	1241	654	209	1349	734	189	195	193	230	336	340
Grp Sat Flow(s),veh/h/ln	1728	1648	1729	1728	1675	1819	1795	1777	1714	1767	1791	1806
Q Serve(g_s), s	10.0	61.4	61.8	12.7	80.6	80.8	18.0	21.2	22.0	22.1	38.7	38.9
Cycle Q Clear(g_c), s	10.0	61.4	61.8	12.7	80.6	80.8	18.0	21.2	22.0	22.1	38.7	38.9
Prop In Lane	1.00		0.26	1.00		0.07	1.00		0.51	1.00		0.24
Lane Grp Cap(c), veh/h	183	1702	893	216	1762	956	214	317	306	313	361	364
V/C Ratio(X)	0.90	0.73	0.73	0.97	0.77	0.77	0.88	0.61	0.63	0.74	0.93	0.94
Avail Cap(c_a), veh/h	183	1702	893	216	1762	956	214	317	306	356	380	384
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.9	39.4	39.5	102.6	74.5	74.5	65.5	79.6	79.9	61.3	82.4	82.5
Incr Delay (d2), s/veh	40.5	2.8	5.3	31.5	1.4	2.5	32.0	3.5	4.2	6.7	28.8	29.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	25.2	27.2	6.9	36.9	40.5	10.2	10.0	10.1	10.5	20.8	21.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	139.4	42.2	44.8	134.1	75.8	77.0	97.5	83.1	84.1	68.0	111.2	111.9
LnGrp LOS	F	D	D	F	E	E	F	F	F	E	F	F
Approach Vol, veh/h		2060			2292			577			906	
Approach Delay, s/veh		50.8			81.5			88.1			100.5	
Approach LOS		D			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	117.3	30.8	43.9	20.0	115.3	26.0	48.7				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	11.1	108.1	29.6	34.6	13.1	106.1	19.6	44.6				
Max Q Clear Time (g_c+I1), s	12.0	82.8	24.1	24.0	14.7	63.8	20.0	40.9				
Green Ext Time (p_c), s	0.0	16.3	0.3	1.5	0.0	19.1	0.0	1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			74.3									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary  
 1: Armenia Ave & Hillsborough Ave

























11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	432	2028	176	122	1832	142	215	606	108	131	345	150
Future Volume (veh/h)	432	2028	176	122	1832	142	215	606	108	131	345	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1856	1841	1841	1885	1870	1870	1856	1885	1885
Adj Flow Rate, veh/h	441	2069	162	124	1869	131	219	618	99	134	352	138
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	2	1	3	4	4	1	2	2	3	1	1
Cap, veh/h	420	2590	201	157	2212	155	257	666	107	170	486	187
Arrive On Green	0.12	0.54	0.54	0.09	0.92	0.92	0.09	0.22	0.22	0.07	0.19	0.19
Sat Flow, veh/h	3483	4831	376	3428	4795	335	1795	3068	491	1767	2526	974
Grp Volume(v), veh/h	441	1453	778	124	1304	696	219	357	360	134	248	242
Grp Sat Flow(s),veh/h/ln	1742	1702	1803	1714	1675	1780	1795	1777	1782	1767	1791	1710
Q Serve(g_s), s	24.1	69.1	70.4	7.1	27.2	27.8	18.6	39.4	39.6	12.1	25.9	26.7
Cycle Q Clear(g_c), s	24.1	69.1	70.4	7.1	27.2	27.8	18.6	39.4	39.6	12.1	25.9	26.7
Prop In Lane	1.00		0.21	1.00		0.19	1.00		0.28	1.00		0.57
Lane Grp Cap(c), veh/h	420	1825	966	157	1545	821	257	386	387	170	344	329
V/C Ratio(X)	1.05	0.80	0.80	0.79	0.84	0.85	0.85	0.93	0.93	0.79	0.72	0.74
Avail Cap(c_a), veh/h	420	1825	966	207	1545	821	257	414	415	170	373	356
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	87.9	37.6	37.9	89.9	5.2	5.2	61.7	76.7	76.8	62.7	75.7	76.0
Incr Delay (d2), s/veh	57.9	3.7	7.1	6.4	2.6	4.9	23.1	25.8	26.4	21.3	6.1	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	29.1	32.3	3.2	3.2	3.9	10.7	20.7	20.9	6.5	12.5	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.8	41.3	45.0	96.3	7.8	10.1	84.8	102.5	103.1	84.0	81.8	83.2
LnGrp LOS	F	D	D	F	A	B	F	F	F	F	F	F
Approach Vol, veh/h		2672			2124			936			624	
Approach Delay, s/veh		59.6			13.8			98.6			82.8	
Approach LOS		E			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	99.2	20.0	49.8	16.1	114.1	25.0	44.8				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	24.1	89.1	13.6	46.6	12.1	101.1	18.6	41.6				
Max Q Clear Time (g_c+I1), s	26.1	29.8	14.1	41.6	9.1	72.4	20.6	28.7				
Green Ext Time (p_c), s	0.0	23.6	0.0	1.9	0.1	19.2	0.0	2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			52.3									
HCM 6th LOS			D									



HCM 6th Signalized Intersection Summary  
 1: Armenia Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1654	183	201	1953	52	181	278	105	221	569	88
Future Volume (veh/h)	158	1654	183	201	1953	52	181	278	105	221	569	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1856	1870	1841	1737	1885	1870	1885	1856	1885	1885
Adj Flow Rate, veh/h	165	1723	134	209	2034	37	189	290	76	230	593	64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	6	3	2	4	11	1	2	1	3	1	1
Cap, veh/h	196	2558	814	232	2652	777	215	481	124	316	637	69
Arrive On Green	0.06	0.52	0.52	0.04	0.35	0.35	0.09	0.17	0.17	0.12	0.20	0.20
Sat Flow, veh/h	3456	4944	1572	3456	5025	1472	1795	2797	720	1767	3262	351
Grp Volume(v), veh/h	165	1723	134	209	2034	37	189	182	184	230	325	332
Grp Sat Flow(s),veh/h/ln	1728	1648	1572	1728	1675	1472	1795	1777	1741	1767	1791	1822
Q Serve(g_s), s	9.9	54.2	9.4	12.6	75.4	3.5	18.2	19.9	20.5	22.3	37.5	37.6
Cycle Q Clear(g_c), s	9.9	54.2	9.4	12.6	75.4	3.5	18.2	19.9	20.5	22.3	37.5	37.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.19
Lane Grp Cap(c), veh/h	196	2558	814	232	2652	777	215	305	299	316	350	356
V/C Ratio(X)	0.84	0.67	0.16	0.90	0.77	0.05	0.88	0.60	0.61	0.73	0.93	0.93
Avail Cap(c_a), veh/h	199	2558	814	232	2652	777	215	305	299	358	372	378
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.34	0.34	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.1	37.5	26.7	99.6	56.4	33.2	66.4	80.3	80.5	62.0	83.0	83.1
Incr Delay (d2), s/veh	25.9	1.4	0.4	15.1	0.8	0.0	31.7	3.2	3.7	6.4	28.5	28.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	22.0	3.7	6.3	33.0	1.3	10.2	9.4	9.5	10.6	20.1	20.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.9	39.0	27.2	114.7	57.2	33.2	98.1	83.4	84.2	68.4	111.6	112.0
LnGrp LOS	F	D	C	F	E	C	F	F	F	E	F	F
Approach Vol, veh/h		2022			2280			555			887	
Approach Delay, s/veh		45.1			62.1			88.7			100.5	
Approach LOS		D			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.8	117.7	31.0	42.5	21.0	115.6	26.0	47.4				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	12.1	108.1	29.6	33.6	14.1	106.1	19.6	43.6				
Max Q Clear Time (g_c+I1), s	11.9	77.4	24.3	22.5	14.6	56.2	20.2	39.6				
Green Ext Time (p_c), s	0.0	19.0	0.3	1.5	0.0	19.5	0.0	1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			64.6									
HCM 6th LOS			E									

HCM 6th Signalized Intersection Summary  
 1: Armenia Ave & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	432	2028	176	122	1832	142	215	606	108	131	345	150
Future Volume (veh/h)	432	2028	176	122	1832	142	215	606	108	131	345	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1856	1841	1841	1885	1870	1870	1856	1885	1885
Adj Flow Rate, veh/h	441	2069	126	124	1869	101	219	618	99	134	352	138
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	2	1	3	4	4	1	2	2	3	1	1
Cap, veh/h	472	2757	863	158	2265	703	252	653	104	166	475	183
Arrive On Green	0.14	0.54	0.54	0.09	0.90	0.90	0.09	0.21	0.21	0.07	0.19	0.19
Sat Flow, veh/h	3483	5106	1598	3428	5025	1560	1795	3068	491	1767	2526	974
Grp Volume(v), veh/h	441	2069	126	124	1869	101	219	357	360	134	248	242
Grp Sat Flow(s),veh/h/ln	1742	1702	1598	1714	1675	1560	1795	1777	1782	1767	1791	1710
Q Serve(g_s), s	25.1	62.7	7.9	7.1	28.6	1.5	18.6	39.6	39.8	12.2	26.1	26.8
Cycle Q Clear(g_c), s	25.1	62.7	7.9	7.1	28.6	1.5	18.6	39.6	39.8	12.2	26.1	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.57
Lane Grp Cap(c), veh/h	472	2757	863	158	2265	703	252	378	379	166	336	321
V/C Ratio(X)	0.94	0.75	0.15	0.78	0.83	0.14	0.87	0.94	0.95	0.81	0.74	0.75
Avail Cap(c_a), veh/h	472	2757	863	259	2265	703	252	387	388	166	346	330
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	85.6	35.6	23.0	89.8	6.8	5.5	62.6	77.6	77.6	63.3	76.5	76.8
Incr Delay (d2), s/veh	26.1	1.9	0.4	3.4	1.4	0.2	26.0	31.5	32.2	24.4	7.8	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	26.0	3.1	3.1	3.5	0.5	10.9	21.4	21.6	6.6	12.7	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.7	37.5	23.3	93.2	8.3	5.6	88.6	109.1	109.8	87.8	84.4	86.1
LnGrp LOS	F	D	C	F	A	A	F	F	F	F	F	F
Approach Vol, veh/h		2636			2094			936			624	
Approach Delay, s/veh		49.2			13.2			104.6			85.8	
Approach LOS		D			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	97.1	20.0	49.0	16.1	114.9	25.0	44.0				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	27.1	89.1	13.6	43.6	15.1	101.1	18.6	38.6				
Max Q Clear Time (g_c+I1), s	27.1	30.6	14.2	41.8	9.1	64.7	20.6	28.8				
Green Ext Time (p_c), s	0.0	23.2	0.0	0.8	0.2	22.0	0.0	1.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.1									
HCM 6th LOS			D									



HCM 6th Signalized Intersection Summary  
 1: Armenia Ave & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1663	183	205	1982	56	181	278	106	222	569	88
Future Volume (veh/h)	158	1663	183	205	1982	56	181	278	106	222	569	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1856	1870	1841	1737	1885	1870	1885	1856	1885	1885
Adj Flow Rate, veh/h	165	1732	134	214	2065	40	189	290	77	231	593	64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	6	3	2	4	11	1	2	1	3	1	1
Cap, veh/h	196	2558	814	232	2652	777	215	478	125	316	637	69
Arrive On Green	0.06	0.52	0.52	0.04	0.35	0.35	0.09	0.17	0.17	0.12	0.20	0.20
Sat Flow, veh/h	3456	4944	1572	3456	5025	1472	1795	2789	728	1767	3262	351
Grp Volume(v), veh/h	165	1732	134	214	2065	40	189	183	184	231	325	332
Grp Sat Flow(s),veh/h/ln	1728	1648	1572	1728	1675	1472	1795	1777	1739	1767	1791	1822
Q Serve(g_s), s	9.9	54.6	9.4	13.0	77.0	3.8	18.2	20.0	20.6	22.4	37.5	37.6
Cycle Q Clear(g_c), s	9.9	54.6	9.4	13.0	77.0	3.8	18.2	20.0	20.6	22.4	37.5	37.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	1.00		0.19
Lane Grp Cap(c), veh/h	196	2558	814	232	2652	777	215	304	298	316	350	356
V/C Ratio(X)	0.84	0.68	0.16	0.92	0.78	0.05	0.88	0.60	0.62	0.73	0.93	0.93
Avail Cap(c_a), veh/h	199	2558	814	232	2652	777	215	304	298	357	372	378
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.32	0.32	0.32	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	98.1	37.6	26.7	99.7	56.9	33.3	66.4	80.4	80.6	62.0	83.0	83.1
Incr Delay (d2), s/veh	25.9	1.5	0.4	17.3	0.8	0.0	31.7	3.3	3.8	6.6	28.5	28.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	22.2	3.7	6.5	33.7	1.4	10.2	9.5	9.6	10.7	20.1	20.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	123.9	39.1	27.2	117.0	57.7	33.3	98.1	83.6	84.5	68.6	111.6	112.0
LnGrp LOS	F	D	C	F	E	C	F	F	F	E	F	F
Approach Vol, veh/h		2031			2319			556			888	
Approach Delay, s/veh		45.2			62.7			88.8			100.5	
Approach LOS		D			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.8	117.7	31.1	42.4	21.0	115.6	26.0	47.4				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	12.1	108.1	29.6	33.6	14.1	106.1	19.6	43.6				
Max Q Clear Time (g_c+I1), s	11.9	79.0	24.4	22.6	15.0	56.6	20.2	39.6				
Green Ext Time (p_c), s	0.0	18.7	0.3	1.5	0.0	19.6	0.0	1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			64.9									
HCM 6th LOS			E									

# HCM 6th Signalized Intersection Summary

1: Armenia Ave & Hillsborough Ave

























11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	432	2054	176	124	1850	144	215	606	112	135	345	150
Future Volume (veh/h)	432	2054	176	124	1850	144	215	606	112	135	345	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1856	1841	1841	1885	1870	1870	1856	1885	1885
Adj Flow Rate, veh/h	441	2096	126	127	1888	102	219	618	102	138	352	138
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	2	1	3	4	4	1	2	2	3	1	1
Cap, veh/h	472	2750	860	161	2262	702	253	652	107	166	476	184
Arrive On Green	0.14	0.54	0.54	0.09	0.90	0.90	0.09	0.21	0.21	0.07	0.19	0.19
Sat Flow, veh/h	3483	5106	1598	3428	5025	1560	1795	3054	503	1767	2526	974
Grp Volume(v), veh/h	441	2096	126	127	1888	102	219	359	361	138	248	242
Grp Sat Flow(s),veh/h/ln	1742	1702	1598	1714	1675	1560	1795	1777	1780	1767	1791	1710
Q Serve(g_s), s	25.1	64.3	7.9	7.2	30.2	1.5	18.6	39.8	40.0	12.6	26.1	26.8
Cycle Q Clear(g_c), s	25.1	64.3	7.9	7.2	30.2	1.5	18.6	39.8	40.0	12.6	26.1	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.57
Lane Grp Cap(c), veh/h	472	2750	860	161	2262	702	253	379	380	166	338	322
V/C Ratio(X)	0.94	0.76	0.15	0.79	0.83	0.15	0.87	0.95	0.95	0.83	0.73	0.75
Avail Cap(c_a), veh/h	472	2750	860	259	2262	702	253	387	388	166	346	330
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.37	0.37	0.37	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	85.6	36.1	23.1	89.6	7.0	5.6	62.5	77.5	77.6	63.4	76.4	76.7
Incr Delay (d2), s/veh	26.1	2.1	0.4	3.2	1.5	0.2	25.5	32.0	32.6	28.6	7.7	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	26.7	3.1	3.2	3.6	0.5	10.9	21.5	21.7	7.0	12.7	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.7	38.2	23.5	92.9	8.5	5.7	88.0	109.5	110.2	92.0	84.1	85.8
LnGrp LOS	F	D	C	F	A	A	F	F	F	F	F	F
Approach Vol, veh/h		2663			2117			939			628	
Approach Delay, s/veh		49.7			13.4			104.7			86.5	
Approach LOS		D			B			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	96.9	20.0	49.1	16.3	114.6	25.0	44.1				
Change Period (Y+Rc), s	6.9	6.9	6.4	6.4	6.9	6.9	6.4	6.4				
Max Green Setting (Gmax), s	27.1	89.1	13.6	43.6	15.1	101.1	18.6	38.6				
Max Q Clear Time (g_c+I1), s	27.1	32.2	14.6	42.0	9.2	66.3	20.6	28.8				
Green Ext Time (p_c), s	0.0	23.5	0.0	0.7	0.2	21.8	0.0	1.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.4									
HCM 6th LOS			D									



HCM 6th Signalized Intersection Summary  
2: Rome Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1688	190	85	2035	60	119	161	68	136	243	101
Future Volume (veh/h)	123	1688	190	85	2035	60	119	161	68	136	243	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1841	1856	1870	1826	1870	1870	1856
Adj Flow Rate, veh/h	132	1815	184	91	2188	59	128	173	51	146	261	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	5	1	1	4	4	3	2	5	2	2	3
Cap, veh/h	149	2634	266	96	2730	73	134	523	433	273	362	136
Arrive On Green	0.03	0.19	0.19	0.11	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1795	4601	464	1795	5031	135	1014	1870	1547	1157	1296	487
Grp Volume(v), veh/h	132	1309	690	91	1455	792	128	173	51	146	0	359
Grp Sat Flow(s),veh/h/ln	1795	1662	1742	1795	1675	1816	1014	1870	1547	1157	0	1783
Q Serve(g_s), s	15.4	77.1	77.7	10.6	0.0	0.0	20.5	15.4	5.2	24.1	0.0	38.2
Cycle Q Clear(g_c), s	15.4	77.1	77.7	10.6	0.0	0.0	58.7	15.4	5.2	39.5	0.0	38.2
Prop In Lane	1.00		0.27	1.00		0.07	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	149	1902	997	96	1818	986	134	523	433	273	0	498
V/C Ratio(X)	0.89	0.69	0.69	0.95	0.80	0.80	0.96	0.33	0.12	0.54	0.00	0.72
Avail Cap(c_a), veh/h	164	1902	997	96	1818	986	134	523	433	273	0	498
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.54	0.54	0.78	0.78	0.78	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	101.1	67.7	67.9	93.5	0.0	0.0	97.0	60.1	56.4	75.7	0.0	68.2
Incr Delay (d2), s/veh	23.9	1.1	2.2	65.7	3.0	5.5	65.0	0.4	0.1	2.0	0.0	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	35.0	37.2	6.4	0.8	1.5	9.5	7.5	2.1	7.4	0.0	18.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	125.0	68.8	70.1	159.2	3.0	5.5	162.0	60.4	56.5	77.8	0.0	73.3
LnGrp LOS	F	E	E	F	A	A	F	E	E	E	A	E
Approach Vol, veh/h		2131			2338			352			505	
Approach Delay, s/veh		72.7			9.9			96.8			74.6	
Approach LOS		E			A			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.2	120.8		65.0	18.0	127.0		65.0				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		* 6.3				
Max Green Setting (Gmax), s	19.2	112.2		* 59	11.2	120.2		* 59				
Max Q Clear Time (g_c+I1), s	17.4	2.0		60.7	12.6	79.7		41.5				
Green Ext Time (p_c), s	0.0	35.4		0.0	0.0	20.4		2.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			46.9									
HCM 6th LOS			D									
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
 2: Rome Ave & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	2102	95	59	1908	143	119	298	78	85	143	72
Future Volume (veh/h)	238	2102	95	59	1908	143	119	298	78	85	143	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1870	1841	1841	1885	1885	1885	1856	1856	1870
Adj Flow Rate, veh/h	256	2260	91	63	2052	138	128	320	75	91	154	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	2	1	2	4	4	1	1	1	3	3	2
Cap, veh/h	270	3032	121	78	2382	159	207	480	407	137	309	139
Arrive On Green	0.30	1.00	1.00	0.09	0.99	0.99	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1795	5036	202	1781	4811	322	1167	1885	1598	981	1214	544
Grp Volume(v), veh/h	256	1524	827	63	1425	765	128	320	75	91	0	223
Grp Sat Flow(s),veh/h/ln	1795	1702	1834	1781	1675	1783	1167	1885	1598	981	0	1758
Q Serve(g_s), s	27.9	0.0	0.0	6.9	5.6	5.9	21.0	30.5	7.3	18.3	0.0	21.7
Cycle Q Clear(g_c), s	27.9	0.0	0.0	6.9	5.6	5.9	42.7	30.5	7.3	48.8	0.0	21.7
Prop In Lane	1.00		0.11	1.00		0.18	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	270	2050	1104	78	1659	883	207	480	407	137	0	448
V/C Ratio(X)	0.95	0.74	0.75	0.81	0.86	0.87	0.62	0.67	0.18	0.67	0.00	0.50
Avail Cap(c_a), veh/h	298	2050	1104	118	1659	883	211	487	413	140	0	454
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.1	0.0	0.0	90.5	0.5	0.5	81.8	66.9	58.3	88.8	0.0	63.6
Incr Delay (d2), s/veh	19.8	1.0	1.9	18.6	5.1	9.5	5.2	3.4	0.2	11.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	0.3	0.6	3.5	1.5	2.7	6.7	15.3	3.1	5.1	0.0	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.9	1.0	1.9	109.1	5.6	10.0	87.0	70.2	58.5	99.8	0.0	64.4
LnGrp LOS	F	A	A	F	A	A	F	E	E	F	A	E
Approach Vol, veh/h		2607			2253			523			314	
Approach Delay, s/veh		9.9			10.0			72.7			74.7	
Approach LOS		A			A			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.9	105.8		57.3	15.5	127.2		57.3				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8		* 6.3				
Max Green Setting (Gmax), s	33.2	95.2		* 52	13.2	115.2		* 52				
Max Q Clear Time (g_c+I1), s	29.9	7.9		44.7	8.9	2.0		50.8				
Green Ext Time (p_c), s	0.2	31.8		1.6	0.0	40.0		0.2				

Intersection Summary												
HCM 6th Ctrl Delay	19.3											
HCM 6th LOS	B											

Notes

























\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



# HCM 6th Signalized Intersection Summary

























## 2: Rome Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1688	190	85	2035	60	119	161	68	136	243	101
Future Volume (veh/h)	123	1688	190	85	2035	60	119	161	68	136	243	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1841	1856	1870	1826	1870	1870	1856
Adj Flow Rate, veh/h	132	1815	184	91	2188	59	128	173	50	146	261	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	5	1	1	4	4	3	2	5	2	2	3
Cap, veh/h	149	2566	259	107	2688	72	163	352	291	281	273	102
Arrive On Green	0.03	0.18	0.18	0.12	1.00	1.00	0.05	0.19	0.19	0.07	0.21	0.21
Sat Flow, veh/h	1795	4601	464	1795	5031	135	3428	1870	1547	1781	1296	487
Grp Volume(v), veh/h	132	1309	690	91	1455	792	128	173	50	146	0	359
Grp Sat Flow(s),veh/h/ln	1795	1662	1742	1795	1675	1816	1714	1870	1547	1781	0	1783
Q Serve(g_s), s	15.4	77.6	78.1	10.4	0.0	0.0	7.8	17.4	5.7	13.9	0.0	41.8
Cycle Q Clear(g_c), s	15.4	77.6	78.1	10.4	0.0	0.0	7.8	17.4	5.7	13.9	0.0	41.8
Prop In Lane	1.00		0.27	1.00		0.07	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	149	1854	972	107	1790	970	163	352	291	281	0	375
V/C Ratio(X)	0.89	0.71	0.71	0.85	0.81	0.82	0.79	0.49	0.17	0.52	0.00	0.96
Avail Cap(c_a), veh/h	156	1854	972	173	1790	970	305	443	366	281	0	388
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.78	0.78	0.78	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	101.1	69.5	69.8	91.6	0.0	0.0	99.0	76.3	71.5	63.5	0.0	81.9
Incr Delay (d2), s/veh	29.7	1.5	2.9	15.9	3.3	6.0	8.1	1.1	0.3	1.7	0.0	34.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	35.3	37.7	5.1	0.8	1.6	3.7	8.6	2.3	6.5	0.0	22.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.8	71.0	72.6	107.6	3.3	6.0	107.0	77.3	71.8	65.2	0.0	115.9
LnGrp LOS	F	E	E	F	A	A	F	E	E	E	A	F
Approach Vol, veh/h		2131			2338			351			505	
Approach Delay, s/veh		75.3			8.3			87.4			101.3	
Approach LOS		E			A			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.2	119.0	21.0	45.8	19.3	123.9	16.3	50.5				
Change Period (Y+Rc), s	6.8	6.8	* 6.3	* 6.3	6.8	6.8	* 6.3	* 6.3				
Max Green Setting (Gmax), s	18.2	101.2	* 15	* 50	20.2	99.2	* 19	* 46				
Max Q Clear Time (g_c+1), s	17.4	2.0	15.9	19.4	12.4	80.1	9.8	43.8				
Green Ext Time (p_c), s	0.0	34.7	0.0	1.2	0.1	12.9	0.2	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			49.1									
HCM 6th LOS			D									
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
2: Rome Ave & Hillsborough Ave

























11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	2102	95	59	1908	143	119	298	78	85	143	72
Future Volume (veh/h)	238	2102	95	59	1908	143	119	298	78	85	143	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1870	1841	1841	1885	1885	1885	1856	1856	1870
Adj Flow Rate, veh/h	256	2260	91	63	2052	138	128	320	58	91	154	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	2	1	2	4	4	1	1	1	3	3	2
Cap, veh/h	271	3124	125	78	2468	165	162	446	378	116	192	86
Arrive On Green	0.30	1.00	1.00	0.09	1.00	1.00	0.05	0.24	0.24	0.16	0.16	0.16
Sat Flow, veh/h	1795	5036	202	1781	4811	322	3483	1885	1598	997	1214	544
Grp Volume(v), veh/h	256	1524	827	63	1425	765	128	320	58	91	0	223
Grp Sat Flow(s),veh/h/ln	1795	1702	1834	1781	1675	1783	1742	1885	1598	997	0	1758
Q Serve(g_s), s	27.9	0.0	0.0	6.9	0.0	0.0	7.3	31.2	5.8	16.1	0.0	24.5
Cycle Q Clear(g_c), s	27.9	0.0	0.0	6.9	0.0	0.0	7.3	31.2	5.8	31.7	0.0	24.5
Prop In Lane	1.00		0.11	1.00		0.18	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	271	2112	1138	78	1719	915	162	446	378	116	0	279
V/C Ratio(X)	0.94	0.72	0.73	0.81	0.83	0.84	0.79	0.72	0.15	0.78	0.00	0.80
Avail Cap(c_a), veh/h	316	2112	1138	135	1719	915	186	459	389	116	0	279
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.0	0.0	0.0	90.5	0.0	0.0	94.4	70.2	60.5	92.9	0.0	81.1
Incr Delay (d2), s/veh	22.0	1.1	2.2	15.1	4.0	7.6	17.8	5.2	0.2	28.5	0.0	15.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	0.3	0.7	3.4	1.0	1.9	3.7	15.9	2.4	5.7	0.0	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.0	1.1	2.2	105.6	4.0	7.6	112.2	75.4	60.7	121.4	0.0	96.3
LnGrp LOS	F	A	A	F	A	A	F	E	E	F	A	F
Approach Vol, veh/h		2607			2253			506				314
Approach Delay, s/veh		10.3			8.1			83.0				103.6
Approach LOS		B			A			F				F
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	109.4		53.6	15.5	130.9	15.6	38.0				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8	* 6.3	* 6.3				
Max Green Setting (Gmax), s	35.2	96.2		* 49	15.2	116.2	* 11	* 32				
Max Q Clear Time (g_c+I1), s	29.9	2.0		33.2	8.9	2.0	9.3	33.7				
Green Ext Time (p_c), s	0.3	32.4		1.8	0.0	40.1	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

























HCM 6th Signalized Intersection Summary  
 2: Rome Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1691	198	88	2035	60	156	169	78	136	245	101
Future Volume (veh/h)	123	1691	198	88	2035	60	156	169	78	136	245	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1841	1856	1870	1826	1870	1870	1856
Adj Flow Rate, veh/h	132	1818	191	95	2188	59	168	182	59	146	263	98
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	5	1	1	4	4	3	2	5	2	2	3
Cap, veh/h	149	2488	260	111	2625	71	203	375	311	289	275	102
Arrive On Green	0.03	0.18	0.18	0.12	1.00	1.00	0.06	0.20	0.20	0.07	0.21	0.21
Sat Flow, veh/h	1795	4584	479	1795	5031	135	3428	1870	1547	1781	1299	484
Grp Volume(v), veh/h	132	1316	693	95	1455	792	168	182	59	146	0	361
Grp Sat Flow(s),veh/h/ln	1795	1662	1740	1795	1675	1816	1714	1870	1547	1781	0	1783
Q Serve(g_s), s	15.4	78.5	79.1	10.9	0.0	0.0	10.2	18.1	6.7	13.7	0.0	42.0
Cycle Q Clear(g_c), s	15.4	78.5	79.1	10.9	0.0	0.0	10.2	18.1	6.7	13.7	0.0	42.0
Prop In Lane	1.00		0.28	1.00		0.07	1.00		1.00	1.00		0.27
Lane Grp Cap(c), veh/h	149	1804	944	111	1748	948	203	375	311	289	0	377
V/C Ratio(X)	0.89	0.73	0.73	0.86	0.83	0.84	0.83	0.48	0.19	0.50	0.00	0.96
Avail Cap(c_a), veh/h	156	1804	944	173	1748	948	305	443	366	289	0	388
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	0.78	0.78	0.78	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	101.1	71.6	71.9	91.2	0.0	0.0	97.7	74.3	69.7	61.7	0.0	81.9
Incr Delay (d2), s/veh	29.4	1.7	3.3	17.7	3.8	6.9	11.0	1.0	0.3	1.4	0.0	34.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	35.8	38.1	5.3	0.9	1.8	4.9	8.9	2.7	6.4	0.0	23.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.5	73.3	75.1	108.9	3.8	6.9	108.7	75.3	70.0	63.1	0.0	116.1
LnGrp LOS	F	E	E	F	A	A	F	E	E	E	A	F
Approach Vol, veh/h		2141			2342			409			507	
Approach Delay, s/veh		77.4			9.1			88.2			100.9	
Approach LOS		E			A			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.2	116.3	21.0	48.4	19.7	120.8	18.7	50.7				
Change Period (Y+Rc), s	6.8	6.8	* 6.3	* 6.3	6.8	6.8	* 6.3	* 6.3				
Max Green Setting (Gmax), s	18.2	101.2	* 15	* 50	20.2	99.2	* 19	* 46				
Max Q Clear Time (g_c+I1), s	17.4	2.0	15.7	20.1	12.9	81.1	12.2	44.0				
Green Ext Time (p_c), s	0.0	34.7	0.0	1.2	0.1	12.5	0.3	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			50.8									
HCM 6th LOS			D									
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
 2: Rome Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	2112	119	68	1908	143	141	303	84	85	151	72
Future Volume (veh/h)	238	2112	119	68	1908	143	141	303	84	85	151	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1870	1885	1870	1841	1841	1885	1885	1885	1856	1856	1870
Adj Flow Rate, veh/h	256	2271	115	73	2052	138	152	326	62	91	162	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	2	1	2	4	4	1	1	1	3	3	2
Cap, veh/h	271	3026	152	88	2436	163	185	458	389	120	196	83
Arrive On Green	0.30	1.00	1.00	0.10	1.00	1.00	0.05	0.24	0.24	0.16	0.16	0.16
Sat Flow, veh/h	1795	4979	250	1781	4811	322	3483	1885	1598	988	1235	526
Grp Volume(v), veh/h	256	1548	838	73	1425	765	152	326	62	91	0	231
Grp Sat Flow(s),veh/h/ln	1795	1702	1825	1781	1675	1783	1742	1885	1598	988	0	1761
Q Serve(g_s), s	27.9	0.0	0.0	8.0	0.0	0.0	8.6	31.6	6.1	17.0	0.0	25.4
Cycle Q Clear(g_c), s	27.9	0.0	0.0	8.0	0.0	0.0	8.6	31.6	6.1	31.7	0.0	25.4
Prop In Lane	1.00		0.14	1.00		0.18	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	271	2069	1109	88	1696	903	185	458	389	120	0	279
V/C Ratio(X)	0.94	0.75	0.76	0.83	0.84	0.85	0.82	0.71	0.16	0.76	0.00	0.83
Avail Cap(c_a), veh/h	316	2069	1109	135	1696	903	186	459	389	120	0	279
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	69.0	0.0	0.0	89.2	0.0	0.0	93.7	69.2	59.6	92.2	0.0	81.5
Incr Delay (d2), s/veh	21.4	1.3	2.5	18.1	4.4	8.2	24.2	5.1	0.2	24.0	0.0	18.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.4	0.8	4.0	1.0	2.1	4.6	16.1	2.5	5.6	0.0	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.4	1.3	2.5	107.4	4.4	8.2	118.0	74.3	59.8	116.2	0.0	99.8
LnGrp LOS	F	A	A	F	A	A	F	E	E	F	A	F
Approach Vol, veh/h		2642			2263			540			322	
Approach Delay, s/veh		10.3			9.0			84.9			104.4	
Approach LOS		B			A			F			F	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	108.1		54.9	16.7	128.3	16.9	38.0				
Change Period (Y+Rc), s	6.8	6.8		* 6.3	6.8	6.8	* 6.3	* 6.3				
Max Green Setting (Gmax), s	35.2	96.2		* 49	15.2	116.2	* 11	* 32				
Max Q Clear Time (g_c+I1), s	29.9	2.0		33.6	10.0	2.0	10.6	33.7				
Green Ext Time (p_c), s	0.3	32.4		1.9	0.1	41.8	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				22.0								
HCM 6th LOS				C								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



HCM 6th Signalized Intersection Summary  
 3: Lee PI & Hillsborough Ave

11/17/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑		↖	↑↑↑			↕			↕	
Traffic Volume (veh/h)	5	1914	5	74	2364	4	22	2	5	47	5	0
Future Volume (veh/h)	5	1914	5	74	2364	4	22	2	5	47	5	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	5	2036	5	79	2515	4	23	2	5	50	5	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	5	1	1	4	1	1	1	1	1	1	1
Cap, veh/h	137	4272	10	250	4402	7	87	9	13	100	7	0
Arrive On Green	0.01	1.00	1.00	0.02	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.00
Sat Flow, veh/h	1795	5134	13	1795	5181	8	1207	198	281	1430	143	0
Grp Volume(v), veh/h	5	1318	723	79	1626	893	30	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1795	1662	1824	1795	1675	1839	1687	0	0	1573	0	0
Q Serve(g_s), s	0.1	0.0	0.0	1.4	29.8	29.8	0.0	0.0	0.0	3.6	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.4	29.8	29.8	3.4	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.00	0.77		0.17	0.91		0.00
Lane Grp Cap(c), veh/h	137	2765	1517	250	2846	1563	110	0	0	107	0	0
V/C Ratio(X)	0.04	0.48	0.48	0.32	0.57	0.57	0.27	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	221	2765	1517	345	2846	1563	240	0	0	235	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.4	0.0	0.0	2.3	4.6	4.6	96.9	0.0	0.0	98.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.7	0.7	0.8	1.5	1.3	0.0	0.0	3.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.3	0.4	8.6	9.7	1.6	0.0	0.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.5	0.4	0.7	3.0	5.5	6.1	98.2	0.0	0.0	102.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	A	F	A	A
Approach Vol, veh/h		2046			2598			30				55
Approach Delay, s/veh		0.5			5.6			98.2				102.2
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	185.3		16.5	11.9	181.6		16.5				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	11.1	150.1		* 28	16.1	145.1		* 28				
Max Q Clear Time (g_c+1), s	2.1	31.8		5.4	3.4	2.0		9.0				
Green Ext Time (p_c), s	0.0	48.5		0.1	0.1	28.2		0.2				

Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary  
 3: Lee PI & Hillsborough Ave





















11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	2184	10	81	2158	14	37	1	11	13	0	3
Future Volume (veh/h)	18	2184	10	81	2158	14	37	1	11	13	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1870	1885	1885	1841	1885	1856	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	19	2275	10	84	2248	15	39	1	11	14	0	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	2	1	1	4	1	3	1	1	1	1	1
Cap, veh/h	177	4326	19	216	4289	29	86	4	16	93	3	14
Arrive On Green	0.03	1.00	1.00	0.02	0.83	0.83	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1725	5247	23	1795	5150	34	1116	89	331	1231	66	278
Grp Volume(v), veh/h	19	1476	809	84	1462	801	51	0	0	17	0	0
Grp Sat Flow(s),veh/h/ln	1725	1702	1866	1795	1675	1835	1536	0	0	1575	0	0
Q Serve(g_s), s	0.4	0.0	0.0	1.5	25.9	25.9	4.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.5	25.9	25.9	6.4	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	0.76		0.22	0.82		0.18
Lane Grp Cap(c), veh/h	177	2806	1538	216	2790	1528	107	0	0	110	0	0
V/C Ratio(X)	0.11	0.53	0.53	0.39	0.52	0.52	0.48	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	219	2806	1538	360	2790	1528	243	0	0	244	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	0.0	0.0	2.4	5.0	5.0	93.4	0.0	0.0	91.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.8	1.1	0.7	1.3	3.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.3	0.5	7.7	8.7	2.7	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	0.4	0.8	3.5	5.7	6.3	96.6	0.0	0.0	92.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	A	F	A	A
Approach Vol, veh/h		2304			2347			51				17
Approach Delay, s/veh		0.6			5.8			96.6				92.0
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	173.5		16.4	11.9	171.8		16.4				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	8.1	143.1		* 28	21.1	130.1		* 28				
Max Q Clear Time (g_c+1), s	2.4	27.9		8.4	3.5	2.0		4.0				
Green Ext Time (p_c), s	0.0	36.2		0.2	0.2	37.7		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				4.5								
HCM 6th LOS				A								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



HCM 6th Signalized Intersection Summary  
 3: Lee PI & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1914	5	74	2364	4	22	2	5	47	5	0
Future Volume (veh/h)	5	1914	5	74	2364	4	22	2	5	47	5	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	5	2036	5	79	2515	4	23	2	5	50	5	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	5	1	1	4	1	1	1	1	1	1	1
Cap, veh/h	136	4250	10	249	4379	7	120	25	62	96	6	0
Arrive On Green	0.01	1.00	1.00	0.02	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.00
Sat Flow, veh/h	1795	5134	13	1795	5181	8	1422	477	1193	1218	123	0
Grp Volume(v), veh/h	5	1318	723	79	1626	893	23	0	7	55	0	0
Grp Sat Flow(s),veh/h/ln	1795	1662	1824	1795	1675	1839	1422	0	1670	1341	0	0
Q Serve(g_s), s	0.1	0.0	0.0	1.4	30.6	30.7	0.0	0.0	0.8	7.9	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.4	30.6	30.7	2.7	0.0	0.8	8.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.00	1.00		0.71	0.91		0.00
Lane Grp Cap(c), veh/h	136	2751	1509	249	2832	1555	120	0	86	102	0	0
V/C Ratio(X)	0.04	0.48	0.48	0.32	0.57	0.57	0.19	0.00	0.08	0.54	0.00	0.00
Avail Cap(c_a), veh/h	194	2751	1509	319	2832	1555	273	0	266	258	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	0.0	0.0	2.4	4.9	4.9	95.7	0.0	94.8	99.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.6	0.7	0.9	1.6	0.8	0.0	0.4	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.3	0.5	9.0	10.1	1.2	0.0	0.4	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	0.3	0.6	3.2	5.7	6.4	96.5	0.0	95.2	103.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	F	F	A	A
Approach Vol, veh/h		2046			2598			30				55
Approach Delay, s/veh		0.4			5.9			96.2				103.4
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	184.4		17.4	11.9	180.7		17.4				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	8.1	148.1		* 33	13.1	143.1		* 33				
Max Q Clear Time (g_c+H1), s	2.1	32.7		4.7	3.4	2.0		10.7				
Green Ext Time (p_c), s	0.0	48.1		0.1	0.1	28.2		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				5.2								
HCM 6th LOS				A								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
 3: Lee PI & Hillsborough Ave

11/17/2023





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	2184	10	81	2158	14	37	1	11	13	0	3
Future Volume (veh/h)	18	2184	10	81	2158	14	37	1	11	13	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1870	1885	1885	1841	1885	1856	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	19	2275	10	84	2248	15	39	1	11	14	0	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	2	1	1	4	1	3	1	1	1	1	1
Cap, veh/h	177	4326	19	216	4289	29	110	7	72	82	3	11
Arrive On Green	0.03	1.00	1.00	0.02	0.83	0.83	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1725	5247	23	1795	5150	34	1403	135	1483	1015	66	232
Grp Volume(v), veh/h	19	1476	809	84	1462	801	39	0	12	17	0	0
Grp Sat Flow(s),veh/h/ln	1725	1702	1866	1795	1675	1835	1403	0	1618	1313	0	0
Q Serve(g_s), s	0.4	0.0	0.0	1.5	25.9	25.9	1.4	0.0	1.4	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.5	25.9	25.9	4.6	0.0	1.4	3.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	1.00		0.92	0.82		0.18
Lane Grp Cap(c), veh/h	177	2806	1538	216	2790	1528	110	0	79	97	0	0
V/C Ratio(X)	0.11	0.53	0.53	0.39	0.52	0.52	0.35	0.00	0.15	0.18	0.00	0.00
Avail Cap(c_a), veh/h	219	2806	1538	360	2790	1528	255	0	246	246	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	0.0	0.0	2.4	5.0	5.0	92.5	0.0	91.1	92.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.8	1.1	0.7	1.3	1.9	0.0	0.9	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.3	0.5	7.7	8.7	2.1	0.0	0.6	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	0.4	0.8	3.5	5.7	6.3	94.5	0.0	92.0	93.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	F	F	A	A
Approach Vol, veh/h		2304			2347			51				17
Approach Delay, s/veh		0.6			5.8			93.9				93.0
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	173.5		16.4	11.9	171.8		16.4				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	8.1	141.1		* 30	21.1	128.1		* 30				
Max Q Clear Time (g_c+I1), s	2.4	27.9		6.6	3.5	2.0		5.2				
Green Ext Time (p_c), s	0.0	36.1		0.1	0.2	37.6		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				4.5								
HCM 6th LOS				A								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



# HCM 6th Signalized Intersection Summary

3: Lee PI & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1938	5	74	2372	4	22	2	5	47	5	0
Future Volume (veh/h)	5	1938	5	74	2372	4	22	2	5	47	5	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1826	1885	1885	1841	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	5	2062	5	79	2523	4	23	2	5	50	5	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	5	1	1	4	1	1	1	1	1	1	1
Cap, veh/h	135	4250	10	245	4379	7	120	25	62	96	6	0
Arrive On Green	0.01	1.00	1.00	0.02	0.85	0.85	0.05	0.05	0.05	0.05	0.05	0.00
Sat Flow, veh/h	1795	5134	12	1795	5181	8	1422	477	1193	1218	123	0
Grp Volume(v), veh/h	5	1335	732	79	1631	896	23	0	7	55	0	0
Grp Sat Flow(s),veh/h/ln	1795	1662	1824	1795	1675	1839	1422	0	1670	1341	0	0
Q Serve(g_s), s	0.1	0.0	0.0	1.4	30.8	30.9	0.0	0.0	0.8	7.9	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.4	30.8	30.9	2.7	0.0	0.8	8.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.00	1.00		0.71	0.91		0.00
Lane Grp Cap(c), veh/h	135	2751	1509	245	2832	1555	120	0	86	102	0	0
V/C Ratio(X)	0.04	0.49	0.49	0.32	0.58	0.58	0.19	0.00	0.08	0.54	0.00	0.00
Avail Cap(c_a), veh/h	193	2751	1509	314	2832	1555	273	0	266	258	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.54	0.54	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	0.0	0.0	2.4	4.9	4.9	95.7	0.0	94.8	99.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.6	0.8	0.9	1.6	0.8	0.0	0.4	4.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.3	0.5	9.0	10.2	1.2	0.0	0.4	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.8	0.3	0.6	3.2	5.8	6.5	96.5	0.0	95.2	103.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	F	F	A	A
Approach Vol, veh/h		2072			2606			30				55
Approach Delay, s/veh		0.4			5.9			96.2				103.4
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	184.4		17.4	11.9	180.7		17.4				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	8.1	148.1		* 33	13.1	143.1		* 33				
Max Q Clear Time (g_c+I1), s	2.1	32.9		4.7	3.4	2.0		10.7				
Green Ext Time (p_c), s	0.0	48.5		0.1	0.1	29.1		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				5.2								
HCM 6th LOS				A								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary  
 3: Lee PI & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	2198	10	81	2181	14	37	1	11	13	0	3
Future Volume (veh/h)	18	2198	10	81	2181	14	37	1	11	13	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1870	1885	1885	1841	1885	1856	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	19	2290	10	84	2272	15	39	1	11	14	0	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	6	2	1	1	4	1	3	1	1	1	1	1
Cap, veh/h	174	4326	19	214	4290	28	110	7	72	82	3	11
Arrive On Green	0.03	1.00	1.00	0.02	0.83	0.83	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1725	5247	23	1795	5151	34	1403	135	1483	1015	66	232
Grp Volume(v), veh/h	19	1485	815	84	1477	810	39	0	12	17	0	0
Grp Sat Flow(s),veh/h/ln	1725	1702	1866	1795	1675	1835	1403	0	1618	1313	0	0
Q Serve(g_s), s	0.4	0.0	0.0	1.5	26.4	26.4	1.4	0.0	1.4	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.5	26.4	26.4	4.6	0.0	1.4	3.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	1.00		0.92	0.82		0.18
Lane Grp Cap(c), veh/h	174	2806	1538	214	2790	1528	110	0	79	97	0	0
V/C Ratio(X)	0.11	0.53	0.53	0.39	0.53	0.53	0.35	0.00	0.15	0.18	0.00	0.00
Avail Cap(c_a), veh/h	216	2806	1538	358	2790	1528	255	0	246	246	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.55	0.55	0.55	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	0.0	0.0	2.4	5.0	5.0	92.5	0.0	91.1	92.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.7	1.2	0.7	1.3	1.9	0.0	0.9	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.3	0.5	7.9	8.9	2.1	0.0	0.6	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.4	0.4	0.7	3.6	5.7	6.3	94.5	0.0	92.0	93.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	F	F	A	A
Approach Vol, veh/h		2319			2371			51				17
Approach Delay, s/veh		0.5			5.9			93.9				93.0
Approach LOS		A			A			F				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	173.5		16.4	11.9	171.8		16.4				
Change Period (Y+Rc), s	6.9	6.9		* 6.6	6.9	6.9		* 6.6				
Max Green Setting (Gmax), s	8.1	141.1		* 30	21.1	128.1		* 30				
Max Q Clear Time (g_c+1), s	2.4	28.4		6.6	3.5	2.0		5.2				
Green Ext Time (p_c), s	0.0	37.1		0.1	0.2	38.3		0.0				

Intersection Summary												
HCM 6th Ctrl Delay				4.5								
HCM 6th LOS				A								

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

PERCENT CONSUMED CALCULATIONS





TABLE A-1  
PROPORTIONATE SHARE CALCULATION

<u>Intersection</u>	<u>Time Period</u>	<u>Critical Movement</u>	<u>LOS E Lane Group Capacity</u>	<u>LOS D Lane Group Capacity (1)</u>	<u>New Project Trips</u>	
Hillsborough Ave and Armenia Ave	AM	WB Left	235	208	4	
		WB Thru	2,581	2,284	29	
		NB Left	202	179	0	
		SB Through/Right	717	<u>635</u>	<u>0</u>	
					3,306	33
				% Consumed	1.00%	
	PM	EB Left	466	412	0	
		EB Through	2,639	2,336	26	
		WB Through	2,232	1,975	18	
		NB Left	239	212	0	
NB Through/Right		750	<u>664</u>	<u>4</u>		
				5,599	48	
			% Consumed	0.86%		
Hillsborough Ave and Rome Ave	AM	EB Left	152	135	0	
		WB Thru/Right	2,468	2,184	0	
		NB Left	250	221	37	
		SB Through/Right	389	<u>344</u>	<u>2</u>	
					2,884	39
				% Consumed	1.35%	
	PM	EB Left	286	253	0	
		WB Through/Right	2,509	2,220	0	
		NB Through	435	385	5	
		SB Left	96	<u>85</u>	<u>0</u>	
				2,943	5	
			% Consumed	0.17%		
Hillsborough Ave and Lee Place	AM	WB Left	174	154	0	
		WB Thru/Right	4,139	3,663	8	
		SB Left/Through/ Right	93	<u>82</u>	<u>0</u>	
					3,899	8
					% Consumed	0.21%
	PM	EB Thru/Right	4,078	3,609	14	
		WB Left	166	147	0	
		WB Thru/Right	4,136	3,660	23	
		NB Left	68	<u>60</u>	<u>0</u>	
					7,476	37
			% Consumed	0.49%		

(1) Adjusted by 0.885



HCM Signalized Intersection Capacity Analysis  
 1: Armenia Ave & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	1663	183	205	1982	56	181	278	106	222	569	88
Future Volume (vph)	158	1663	183	205	1982	56	181	278	106	222	569	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9	6.9	6.9	6.9	6.9	6.4	6.4		6.4	6.4	
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	4893	1568	3433	4988	1455	1787	3402		1752	3502	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.11	1.00		0.24	1.00	
Satd. Flow (perm)	3433	4893	1568	3433	4988	1455	204	3402		451	3502	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	165	1732	191	214	2065	58	189	290	110	231	593	92
RTOR Reduction (vph)	0	0	59	0	0	28	0	18	0	0	6	0
Lane Group Flow (vph)	165	1732	132	214	2065	30	189	382	0	231	679	0
Heavy Vehicles (%)	2%	6%	3%	2%	4%	11%	1%	2%	1%	3%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2	4			8		
Actuated Green, G (s)	12.1	106.4	106.4	14.4	108.7	108.7	56.5	36.9		68.7	43.0	
Effective Green, g (s)	12.1	106.4	106.4	14.4	108.7	108.7	56.5	36.9		68.7	43.0	
Actuated g/C Ratio	0.06	0.51	0.51	0.07	0.52	0.52	0.27	0.18		0.33	0.20	
Clearance Time (s)	6.9	6.9	6.9	6.9	6.9	6.9	6.4	6.4		6.4	6.4	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	197	2479	794	235	2581	753	202	597		306	717	
v/s Ratio Prot	0.05	0.35		c0.06	c0.41		c0.09	0.11		0.09	c0.19	
v/s Ratio Perm			0.08			0.02	0.16			0.15		
v/c Ratio	0.84	0.70	0.17	0.91	0.80	0.04	0.94	0.64		0.75	0.95	
Uniform Delay, d <sub>1</sub>	98.0	39.6	27.9	97.2	41.7	24.9	65.3	80.4		56.4	82.4	
Progression Factor	1.00	1.00	1.00	0.79	1.55	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d <sub>2</sub>	25.4	1.7	0.5	19.6	1.2	0.0	45.0	2.3		10.1	21.5	
Delay (s)	123.4	41.2	28.4	96.7	66.0	25.0	110.3	82.6		66.5	103.9	
Level of Service	F	D	C	F	E	C	F	F		E	F	
Approach Delay (s)		46.5			67.8			91.5			94.4	
Approach LOS		D			E			F			F	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			66.8			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			210.0			Sum of lost time (s)			26.6			
Intersection Capacity Utilization			93.5%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
 1: Armenia Ave & Hillsborough Ave

11/17/2023























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	432	2054	176	124	1850	144	215	606	112	135	345	150	
Future Volume (vph)	432	2054	176	124	1850	144	215	606	112	135	345	150	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	6.9	6.9	6.9	6.9	6.9	6.9	6.4	6.4		6.4	6.4		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	1.00	0.95		1.00	0.95		
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95		
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	3467	5085	1599	3400	4988	1553	1787	3457		1752	3412		
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.18	1.00		0.10	1.00		
Satd. Flow (perm)	3467	5085	1599	3400	4988	1553	340	3457		192	3412		
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Adj. Flow (vph)	441	2096	180	127	1888	147	219	618	114	138	352	153	
RTOR Reduction (vph)	0	0	44	0	0	71	0	8	0	0	24	0	
Lane Group Flow (vph)	441	2096	136	127	1888	76	219	724	0	138	481	0	
Heavy Vehicles (%)	1%	2%	1%	3%	4%	4%	1%	2%	2%	3%	1%	1%	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA		pm+pt	NA		
Protected Phases	1	6		5	2		7	4		3	8		
Permitted Phases			6			2	4			8			
Actuated Green, G (s)	26.9	103.8	103.8	12.6	89.5	89.5	62.0	43.4		52.0	38.4		
Effective Green, g (s)	26.9	103.8	103.8	12.6	89.5	89.5	62.0	43.4		52.0	38.4		
Actuated g/C Ratio	0.13	0.52	0.52	0.06	0.45	0.45	0.31	0.22		0.26	0.19		
Clearance Time (s)	6.9	6.9	6.9	6.9	6.9	6.9	6.4	6.4		6.4	6.4		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	466	2639	829	214	2232	694	239	750		156	655		
v/s Ratio Prot	c0.13	c0.41		0.04	c0.38		c0.08	c0.21		0.06	0.14		
v/s Ratio Perm			0.09			0.05	0.20			0.17			
v/c Ratio	0.95	0.79	0.16	0.59	0.85	0.11	0.92	0.97		0.88	0.73		
Uniform Delay, d1	85.8	39.4	25.3	91.2	49.1	32.1	57.5	77.6		62.3	76.0		
Progression Factor	1.00	1.00	1.00	0.69	1.51	4.42	1.00	1.00		1.00	1.00		
Incremental Delay, d2	28.3	2.6	0.4	2.0	2.0	0.1	36.1	24.4		40.3	4.3		
Delay (s)	114.2	41.9	25.7	64.8	76.2	142.1	93.5	102.0		102.5	80.3		
Level of Service	F	D	C	E	E	F	F	F		F	F		
Approach Delay (s)		52.6			80.0			100.1			85.0		
Approach LOS		D			E			F			F		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			71.9					HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			0.92										
Actuated Cycle Length (s)			200.0					Sum of lost time (s)			26.6		
Intersection Capacity Utilization			98.0%					ICU Level of Service			F		
Analysis Period (min)			15										
c Critical Lane Group													



# HCM Signalized Intersection Capacity Analysis

## 2: Rome Ave & Hillsborough Ave

























11/17/2023

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	123	1691	198	88	2035	60	156	169	78	136	245	101	
Future Volume (vph)	123	1691	198	88	2035	60	156	169	78	136	245	101	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	6.8	6.8		6.8	6.8		6.3	6.3	6.3	6.3	6.3		
Lane Util. Factor	1.00	0.91		1.00	0.91		0.97	1.00	1.00	1.00	1.00		
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	0.96		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1787	4882		1787	4966		3400	1863	1538	1770	1776		
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.49	1.00		
Satd. Flow (perm)	1787	4882		1787	4966		3400	1863	1538	916	1776		
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	132	1818	213	95	2188	65	168	182	84	146	263	109	
RTOR Reduction (vph)	0	6	0	0	2	0	0	0	65	0	7	0	
Lane Group Flow (vph)	132	2025	0	95	2251	0	168	182	19	146	365	0	
Heavy Vehicles (%)	1%	5%	1%	1%	4%	4%	3%	2%	5%	2%	2%	3%	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	pm+pt	NA		
Protected Phases	1	6		5	2		7	4		3	8		
Permitted Phases									4	8			
Actuated Green, G (s)	17.9	106.3		16.0	104.4		15.5	47.2	47.2	60.3	46.0		
Effective Green, g (s)	17.9	106.3		16.0	104.4		15.5	47.2	47.2	60.3	46.0		
Actuated g/C Ratio	0.09	0.51		0.08	0.50		0.07	0.22	0.22	0.29	0.22		
Clearance Time (s)	6.8	6.8		6.8	6.8		6.3	6.3	6.3	6.3	6.3		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	152	2471		136	2468		250	418	345	321	389		
v/s Ratio Prot	c0.07	0.41		0.05	c0.45		c0.05	0.10		0.03	c0.21		
v/s Ratio Perm									0.01	0.10			
v/c Ratio	0.87	0.82		0.70	0.91		0.67	0.44	0.05	0.45	0.94		
Uniform Delay, d1	94.9	43.7		94.6	48.6		94.8	69.9	63.9	58.5	80.6		
Progression Factor	0.92	0.99		1.15	0.90		1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	29.8	2.4		12.0	5.4		6.9	0.7	0.1	1.0	30.0		
Delay (s)	117.2	45.6		120.4	49.1		101.7	70.7	64.0	59.5	110.6		
Level of Service	F	D		F	D		F	E	E	E	F		
Approach Delay (s)		50.0			52.0			81.4			96.2		
Approach LOS		D			D			F			F		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			57.7									HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			0.89										
Actuated Cycle Length (s)			210.0									Sum of lost time (s)	26.2
Intersection Capacity Utilization			92.8%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

# HCM Signalized Intersection Capacity Analysis

## 2: Rome Ave & Hillsborough Ave

11/17/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	2112	119	68	1908	143	141	303	84	85	151	72
Future Volume (vph)	238	2112	119	68	1908	143	141	303	84	85	151	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8		6.3	6.3	6.3	6.3	6.3	
Lane Util. Factor	1.00	0.91		1.00	0.91		0.97	1.00	1.00	1.00	1.00	
Flt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	5047		1770	4935		3467	1881	1599	1752	1761	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.36	1.00	
Satd. Flow (perm)	1787	5047		1770	4935		3467	1881	1599	660	1761	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	256	2271	128	73	2052	154	152	326	90	91	162	77
RTOR Reduction (vph)	0	3	0	0	4	0	0	0	69	0	9	0
Lane Group Flow (vph)	256	2396	0	73	2202	0	152	326	21	91	230	0
Heavy Vehicles (%)	1%	2%	1%	2%	4%	4%	1%	1%	1%	3%	3%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases									4	8		
Actuated Green, G (s)	32.1	121.0		12.8	101.7		10.7	46.3	46.3	29.3	29.3	
Effective Green, g (s)	32.1	121.0		12.8	101.7		10.7	46.3	46.3	29.3	29.3	
Actuated g/C Ratio	0.16	0.60		0.06	0.51		0.05	0.23	0.23	0.15	0.15	
Clearance Time (s)	6.8	6.8		6.8	6.8		6.3	6.3	6.3	6.3	6.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	286	3053		113	2509		185	435	370	96	257	
v/s Ratio Prot	c0.14	0.47		0.04	c0.45		0.04	c0.17			0.13	
v/s Ratio Perm									0.01	c0.14		
v/c Ratio	0.90	0.78		0.65	0.88		0.82	0.75	0.06	0.95	0.90	
Uniform Delay, d1	82.3	29.7		91.4	43.6		93.7	71.5	59.8	84.6	83.9	
Progression Factor	1.45	0.24		1.06	0.89		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	21.0	1.5		10.4	4.1		24.5	6.9	0.1	74.1	30.3	
Delay (s)	140.2	8.7		107.4	43.1		118.2	78.4	59.9	158.7	114.2	
Level of Service	F	A		F	D		F	E	E	F	F	
Approach Delay (s)		21.4			45.1			86.1			126.5	
Approach LOS		C			D			F			F	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			42.9				HCM 2000 Level of Service				D	
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			200.0				Sum of lost time (s)			26.2		
Intersection Capacity Utilization			99.3%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												



# HCM Signalized Intersection Capacity Analysis

## 3: Lee PI & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1938	5	74	2372	4	22	2	5	47	5	0
Future Volume (vph)	5	1938	5	74	2372	4	22	2	5	47	5	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9		6.9	6.9		6.6	6.6			6.6	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00			1.00	
Fr't	1.00	1.00		1.00	1.00		1.00	0.89			1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1787	4939		1787	4987		1787	1680			1799	
Flt Permitted	0.05	1.00		0.07	1.00		0.78	1.00			0.74	
Satd. Flow (perm)	85	4939		138	4987		1473	1680			1393	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	5	2062	5	79	2523	4	23	2	5	50	5	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	5	2067	0	79	2527	0	23	2	0	0	55	0
Heavy Vehicles (%)	1%	5%	1%	1%	4%	1%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	169.6	168.4		181.4	174.3		14.1	14.1			14.1	
Effective Green, g (s)	169.6	168.4		181.4	174.3		14.1	14.1			14.1	
Actuated g/C Ratio	0.81	0.80		0.86	0.83		0.07	0.07			0.07	
Clearance Time (s)	6.9	6.9		6.9	6.9		6.6	6.6			6.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	78	3960		174	4139		98	112			93	
v/s Ratio Prot	0.00	0.42		c0.02	c0.51			0.00				
v/s Ratio Perm	0.05			0.37			0.02				c0.04	
v/c Ratio	0.06	0.52		0.45	0.61		0.23	0.02			0.59	
Uniform Delay, d1	5.5	7.1		5.9	6.2		92.8	91.5			95.2	
Progression Factor	0.23	0.12		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	0.3		1.9	0.7		1.2	0.1			9.7	
Delay (s)	1.5	1.2		7.8	6.8		94.1	91.6			104.8	
Level of Service	A	A		A	A		F	F			F	
Approach Delay (s)		1.2			6.9			93.5			104.8	
Approach LOS		A			A			F			F	
<b>Intersection Summary</b>												
HCM 2000 Control Delay		6.1					HCM 2000 Level of Service				A	
HCM 2000 Volume to Capacity ratio		0.62										
Actuated Cycle Length (s)		210.0					Sum of lost time (s)			20.4		
Intersection Capacity Utilization		76.6%					ICU Level of Service			D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
 3: Lee PI & Hillsborough Ave

11/17/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	2198	10	81	2181	14	37	1	11	13	0	3
Future Volume (vph)	18	2198	10	81	2181	14	37	1	11	13	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.9	6.9		6.9	6.9		6.6	6.6			6.6	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00			1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.86			0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.96	
Satd. Flow (prot)	1703	5082		1787	4984		1752	1623			1764	
Flt Permitted	0.06	1.00		0.05	1.00		0.75	1.00			0.76	
Satd. Flow (perm)	111	5082		103	4984		1377	1623			1387	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	19	2290	10	84	2272	15	39	1	11	14	0	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	10	0	0	16	0
Lane Group Flow (vph)	19	2300	0	84	2287	0	39	2	0	0	1	0
Heavy Vehicles (%)	6%	2%	1%	1%	4%	1%	3%	1%	1%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4				8
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	164.1	160.5		175.1	166.0		10.0	10.0			10.0	
Effective Green, g (s)	164.1	160.5		175.1	166.0		10.0	10.0			10.0	
Actuated g/C Ratio	0.82	0.80		0.88	0.83		0.05	0.05			0.05	
Clearance Time (s)	6.9	6.9		6.9	6.9		6.6	6.6			6.6	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	119	4078		166	4136		68	81			69	
v/s Ratio Prot	0.00	c0.45		c0.02	c0.46			0.00				
v/s Ratio Perm	0.13			0.42			c0.03				0.00	
v/c Ratio	0.16	0.56		0.51	0.55		0.57	0.02			0.01	
Uniform Delay, d1	4.1	7.1		9.7	5.3		92.9	90.3			90.3	
Progression Factor	0.13	0.08		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.4		2.4	0.5		11.2	0.1			0.1	
Delay (s)	0.9	0.9		12.1	5.9		104.1	90.4			90.4	
Level of Service	A	A		B	A		F	F			F	
Approach Delay (s)		0.9			6.1			100.9			90.4	
Approach LOS		A			A			F			F	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			4.9			HCM 2000 Level of Service			A			
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			200.0			Sum of lost time (s)		20.4				
Intersection Capacity Utilization			72.5%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												



# Queuing and Blocking Report

11/17/2023

## Intersection: 1: Armenia Ave & Hillsborough Ave

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	208	458	606	545	512	250	205	355	770	800	844	102
Average Queue (ft)	106	208	401	363	316	126	98	213	495	534	563	28
95th Queue (ft)	209	406	672	608	558	290	192	426	919	937	959	148
Link Distance (ft)			1273	1273	1273				2570	2570	2570	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	360	360				200	255	255				200
Storage Blk Time (%)		0	14		19			0	21			28
Queuing Penalty (veh)		0	22		34			2	44			16

## Intersection: 1: Armenia Ave & Hillsborough Ave

Movement	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR
Maximum Queue (ft)	209	399	342	289	591	539
Average Queue (ft)	171	244	218	238	452	398
95th Queue (ft)	240	431	347	353	642	561
Link Distance (ft)		1293	1293		974	974
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	160			240		
Storage Blk Time (%)	36	17		15	45	
Queuing Penalty (veh)	51	30		44	100	

Queuing and Blocking Report

11/17/2023

Intersection: 1: Armenia Ave & Hillsborough Ave

Movement	EB	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	WB
Directions Served	L	L	T	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	410	459	857	839	698	250	136	354	759	793	807	250
Average Queue (ft)	378	427	637	567	428	125	52	122	513	548	569	141
95th Queue (ft)	441	505	1123	1002	718	303	118	318	826	846	877	328
Link Distance (ft)			1273	1273	1273				2570	2570	2570	
Upstream Blk Time (%)			1	0								
Queuing Penalty (veh)			0	0								
Storage Bay Dist (ft)	360	360				200	255	255				200
Storage Blk Time (%)	21	42	15		26				33			43
Queuing Penalty (veh)	142	289	63		46				41			62

Intersection: 1: Armenia Ave & Hillsborough Ave

Movement	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR
Maximum Queue (ft)	210	747	736	289	441	448
Average Queue (ft)	192	625	581	231	275	276
95th Queue (ft)	237	814	763	326	486	459
Link Distance (ft)		1293	1293		974	974
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	160			240		
Storage Blk Time (%)	47	56		33	11	
Queuing Penalty (veh)	143	121		56	15	

Queuing and Blocking Report

11/17/2023

Intersection: 2: Rome Ave & Hillsborough Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	L	L	T	R
Maximum Queue (ft)	368	526	554	582	248	484	480	481	142	169	238	66
Average Queue (ft)	154	306	341	363	139	367	370	382	85	127	143	40
95th Queue (ft)	344	603	641	687	268	556	552	537	167	186	250	74
Link Distance (ft)		2570	2570	2570		1918	1918	1918				1381
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	435				245				100	100		260
Storage Blk Time (%)		3			1	26			8	46	30	
Queuing Penalty (veh)		3			8	23			20	112	70	

Intersection: 2: Rome Ave & Hillsborough Ave

Movement	SB	SB
Directions Served	L	TR
Maximum Queue (ft)	109	733
Average Queue (ft)	83	604
95th Queue (ft)	134	959
Link Distance (ft)		935
Upstream Blk Time (%)		10
Queuing Penalty (veh)		0
Storage Bay Dist (ft)	60	
Storage Blk Time (%)	37	63
Queuing Penalty (veh)	126	86

Intersection: 2: Rome Ave & Hillsborough Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	TR	L	T	T	TR	L	L	T	R
Maximum Queue (ft)	314	258	277	308	218	378	418	437	25	89	1346	310
Average Queue (ft)	218	145	172	191	88	257	284	296	3	82	895	110
95th Queue (ft)	299	285	311	332	216	398	445	474	20	91	1508	344
Link Distance (ft)		2570	2570	2570		1918	1918	1918				1381
Upstream Blk Time (%)												16
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	435				245				40	40		260
Storage Blk Time (%)						11			0	91		31
Queuing Penalty (veh)						7			0	352		70

Intersection: 2: Rome Ave & Hillsborough Ave

Movement	SB	SB
Directions Served	L	TR
Maximum Queue (ft)	109	498
Average Queue (ft)	79	369
95th Queue (ft)	133	602
Link Distance (ft)		935
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	60	
Storage Blk Time (%)	32	74
Queuing Penalty (veh)	72	63

Intersection: 3: Lee Pl & Hillsborough Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	LTR
Maximum Queue (ft)	25	47	36	58	76	109	125	101	65	38	70
Average Queue (ft)	4	9	6	11	45	59	56	46	26	11	49
95th Queue (ft)	19	39	29	46	82	128	135	116	67	39	81
Link Distance (ft)		1918	1918	1918		2494	2494	2494		542	372
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200				375				200		
Storage Blk Time (%)											
Queuing Penalty (veh)											



# Queuing and Blocking Report

11/17/2023

## Intersection: 3: Lee Pl & Hillsborough Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	LTR
Maximum Queue (ft)	30	77	94	79	91	120	152	128	94	37	42
Average Queue (ft)	16	20	23	38	52	70	76	63	43	12	17
95th Queue (ft)	36	65	82	84	98	139	156	137	89	38	44
Link Distance (ft)		1918	1918	1918		2494	2494	2494		542	372
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200					375					200
Storage Blk Time (%)											
Queuing Penalty (veh)											

FDOT ROADWAY COSTS



## Roadway Cost Per Centerline Mile Revised August 2023

	Construction Cost From LRE	MOT *	Mobilization *	Subtotal	Scope Contingency (25%)	Total Construction Cost	PE Design (15%)	CEI (15%)	Total Project Cost **
<b>Rural Arterial</b>									
New Construction (2-Lane Roadway) with 5' Paved Shoulders	\$7,952,180	\$795,218	\$874,740	\$9,622,138	\$2,405,534	\$12,027,672	\$1,804,151	\$1,804,151	\$15,635,974
New Construction (4-Lane Roadway) with 5' Paved Shoulders	\$12,976,186	\$1,297,619	\$1,427,380	\$15,701,185	\$3,925,286	\$19,626,481	\$2,943,972	\$2,943,972	\$25,514,426
New Construction (6-Lane Roadway) with 5' Paved Shoulders	\$16,565,915	\$1,656,592	\$1,822,251	\$20,044,757	\$5,011,189	\$25,055,947	\$3,758,392	\$3,758,392	\$32,572,731
Milling and Resurfacing (4-Lane Roadway) with 5' Paved Shoulders	\$1,953,521	\$195,352	\$214,887	\$2,363,760	\$590,940	\$2,954,701	\$443,205	\$443,205	\$3,841,111
Milling and Resurfacing (6-Lane Roadway) with 5' Paved Shoulders	\$2,768,817	\$276,882	\$304,570	\$3,350,268	\$837,567	\$4,187,835	\$628,175	\$628,175	\$5,444,186
Add Lanes (2 to 4 Lanes) with 5' Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$9,356,824	\$935,682	\$1,029,251	\$11,321,757	\$2,830,439	\$14,152,196	\$2,122,829	\$2,122,829	\$18,397,855
Add Lanes (4 to 6 Lanes) with 5' Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$9,768,149	\$976,815	\$1,074,486	\$11,819,461	\$2,954,865	\$14,774,326	\$2,216,149	\$2,216,149	\$19,206,623
Add Lanes (4 to 8 Lanes) with 5' Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$13,673,462	\$1,367,346	\$1,504,081	\$16,544,889	\$4,136,222	\$20,681,111	\$3,102,167	\$3,102,167	\$26,885,444
Add Lanes (6 to 8 Lanes) with 5' Paved Shoulders (Includes milling and resurfacing of existing pavement)	\$12,316,312	\$1,231,631	\$1,354,794	\$14,902,738	\$3,725,684	\$18,628,422	\$2,794,263	\$2,794,263	\$24,216,949
Add 1 Through Lane on Inside (To Existing) with 5' Paved Shoulders	\$2,467,321	\$246,732	\$271,405	\$2,985,458	\$746,364	\$3,731,822	\$559,773	\$559,773	\$4,851,369
Add 1 Through Lane on Outside (To Existing) with 5' Paved Shoulders	\$3,738,718	\$373,872	\$411,259	\$4,523,849	\$1,130,962	\$5,654,811	\$848,222	\$848,222	\$7,351,254
Add 300' Exclusive Left Turn Lane	\$116,112	\$17,417	\$20,029	\$153,558	\$38,389	\$191,947	\$28,792	\$28,792	\$249,531
Add 300' Exclusive Right Turn Lane	\$301,916	\$45,287	\$52,081	\$399,284	\$99,821	\$499,105	\$74,866	\$74,866	\$648,836
<b>Urban Arterial</b>									
New Construction (2-Lane Roadway) with 5' Sidewalk, and Curb & Gutter	\$12,384,197	\$1,238,420	\$1,362,282	\$14,984,879	\$3,746,220	\$18,731,098	\$2,809,665	\$2,809,665	\$24,350,428
New Construction (4-Lane Roadway) with 5' Sidewalk, and Curb & Gutter	\$17,308,028	\$1,730,803	\$1,903,893	\$20,942,714	\$5,235,678	\$26,178,392	\$3,926,759	\$3,926,759	\$34,031,910
New Construction (6-Lane Roadway) with 5' Sidewalk, and Curb & Gutter	\$21,044,989	\$2,104,499	\$2,314,949	\$25,464,437	\$6,366,109	\$31,830,546	\$4,774,582	\$4,774,582	\$41,379,710
Milling and Resurfacing (4-Lane Roadway) with 5' Sidewalk, and Curb & Gutter	\$2,047,760	\$204,776	\$225,254	\$2,477,790	\$619,447	\$3,097,237	\$464,586	\$464,586	\$4,026,408
Milling and Resurfacing (6-Lane Roadway) with 5' Sidewalk, and Curb & Gutter	\$2,899,664	\$289,966	\$318,963	\$3,508,593	\$877,148	\$4,385,741	\$657,861	\$657,861	\$5,701,464
Add Lanes (2 to 4 Lanes) with 5' Sidewalk, and Curb & Gutter (Includes milling and resurfacing existing pavement)	\$12,120,747	\$1,212,075	\$1,333,282	\$14,666,104	\$3,666,526	\$18,332,630	\$2,749,895	\$2,749,895	\$23,832,419
Add Lanes (4 to 6 Lanes) with 5' Sidewalk, and Curb & Gutter (Includes milling and resurfacing existing pavement)	\$13,102,423	\$1,310,242	\$1,441,267	\$15,853,932	\$3,983,483	\$19,817,415	\$2,972,612	\$2,972,612	\$25,762,640
Add Lanes (4 to 8 Lanes) with 5' Sidewalk, and Curb & Gutter (Includes milling and resurfacing existing pavement)	\$18,056,515	\$1,805,651	\$1,986,217	\$21,848,383	\$5,462,096	\$27,310,478	\$4,096,572	\$4,096,572	\$35,503,622
Add Lanes (6 to 8 Lanes) with 5' Sidewalk, and Curb & Gutter (Includes milling and resurfacing existing pavement)	\$15,304,417	\$1,530,442	\$1,683,486	\$18,518,345	\$4,629,586	\$23,147,931	\$3,472,190	\$3,472,190	\$30,092,310
Add 1 Through Lane on Inside (To Existing) with 5' Sidewalk, and Curb & Gutter	\$2,249,957	\$224,996	\$247,495	\$2,722,449	\$680,612	\$3,403,061	\$510,459	\$510,459	\$4,423,979
Add 1 Through Lane on Outside (To Existing) with 5' Sidewalk, and Curb & Gutter	\$6,415,889	\$641,589	\$705,748	\$7,763,226	\$1,940,806	\$9,704,032	\$1,455,605	\$1,455,605	\$12,615,241
Add 300' Exclusive Left Turn Lane	\$155,949	\$23,392	\$26,901	\$206,242	\$51,561	\$257,803	\$38,670	\$38,670	\$335,144
Add 300' Exclusive Right Turn Lane	\$360,812	\$54,122	\$62,240	\$477,174	\$119,294	\$596,468	\$89,470	\$89,470	\$775,408

\*\* Total cost shown is derived from a standard typical section. Costs will need to be adjusted to account for signals, bridges, or any additional item not deemed typical.

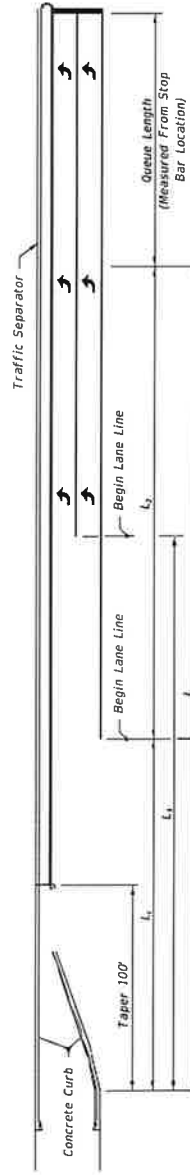
Note:

1. Estimates were derived from FDOT LRE system
2. These figures exclude costs for intersections/interchanges, improvements to cross streets, bridges over 20', right-of-way, landscaping, ITS, and traffic signals.
3. The figures are based on market costs for Hillsborough County.
4. Costs shown are present day costs.
5. The costs developed for this report are not project-specific and should be used for preliminary estimating purposes only.

FDOT DESIGN MANUAL  
EXHIBIT 212-1

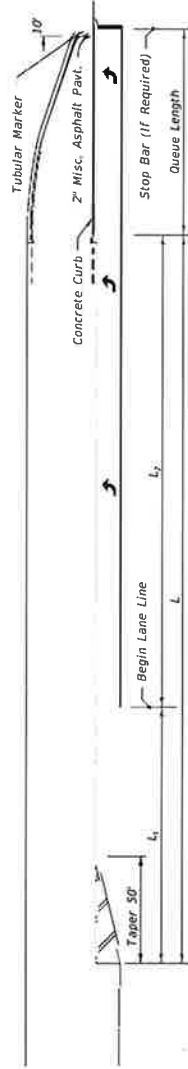


# MEDIAN TURN LANES MINIMUM DECELERATION LENGTHS



Brakes Applied After Turning  
Vehicle Clears Through Lane;  
Entry Speed:  
10 mph Below Design Speed  
For Urban Condition  
Average Running Speed For  
Rural Condition

## DOUBLE LEFT TURN



Brakes Applied After Turning  
Vehicle Clears Through Lane  
Entry Speed:  
10 mph Below Design Speed  
For Urban Condition  
Average Running Speed For  
Rural Condition

## SINGLE LEFT TURN

Design Speed (mph)	MEDIAN TURN LANES					
	URBAN CONDITIONS			RURAL CONDITIONS		
	Clearance Distance $L_1$ (ft.)	Brake To Stop Distance $L_2$ (ft.)	Total Decel. Distance $L$ (ft.)	Clearance Distance $L_1$ (ft.)	Brake To Stop Distance $L_2$ (ft.)	Total Decel. Distance $L$ (ft.)
35	70	75	145	110	110	220
40	80	75	155	120	110	230
45	85	100	185	135	110	245
50	40/44	105	135	240	160	400
55	48	125	173	185	185	370
60	52	145	197	225	260	485
65	55	170	225	290	290	580

NOT TO SCALE

EXHIBIT 212-1  
01/01/2023