

PROJECT TRAFFIC ANALYSIS REPORT

Florida Department of Transportation

District Seven

McIntosh Road Project Development & Environment (PD&E) Study

South of US 92 to North of I-4

Hillsborough County, Florida

Financial Management Number: 447157-1

ETDM Number: 14469

Date: August 2023

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



Authorized Signature

Rosana Correa-Verdejo, PE, PTOE

Print/Type Name

Project Manager

Title

5401 W Kennedy Boulevard, Suite 300

Address

Tampa, FL 33609

Address



McIntosh Road
South of US 92 to North of I-4
Project Development & Environment (PD&E) Study

Draft
Project Traffic Analysis Report

Work Program Item Segment No. 447157-1
Federal Project No. To Be Determined
ETDM Project No. 14469
Hillsborough County, Florida



Florida Department of Transportation
District 7

August 2023

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

McIntosh Road
South of US 92 to North of I-4
Project Development & Environment (PD&E) Study

Draft
Project Traffic Analysis Report

Work Program Item Segment No. 447157-1
Federal Project No. To Be Determined
ETDM Project No. 14469
Hillsborough County, Florida

Prepared for:



Florida Department of Transportation
District Seven

Prepared by:

JACOBS
5401 West Kennedy Boulevard, Suite 300
Tampa, FL 33609

August 2023

Traffic forecast for the project was developed using:	
☒ Travel Demand Model	☐ Growth Rates
Type of Travel Demand Model Used: ☒ Metropolitan Planning Model ☐ Other Model TBRPM v9.1	Refer to appropriate section of Project Traffic Analysis Report that discusses growth rates
Is the travel demand model based on the latest adopted Long Range Transportation Plan?	
☒ YES	☐ NO
11/05/2019 Date when MPO adopted the latest Long Range Transportation Plan	Explain why?
2015 Base Year of Travel Demand Model	
2045 Horizon Year of Travel Demand Model	
Long Range Transportation Plan documentation is available at (provide web address): https://planhillsborough.org/2045lrtp/	
Traffic Data and Factors	
Standard K = 9.0% D Factor = 57.0% T _{Daily} = 10.0%	Data Collection Year = 2020 Opening Year = 2025 Interim Year = N/A Design Year = 2045
Discuss any changes in land use, economics, population and employment data since the model was built N/A	
Traffic Analysis Assumptions	
Discuss study area, data calibration/validation parameters, analysis tools, analysis periods and MOEs The Design Year Annual Average Daily Traffic (AADT) were developed using a calculated growth rate from the results of the TBRPM v9.1. Existing Year (2020), Opening Year (2025) and Design Year (2045) operations were analyzed using Synchro v11.1 and Highway Capacity Manual (HCM) results were reported. Measures of Effectiveness (MOEs) of delay, queues, and LOS were reported.	

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) District 7 is conducting a Project Development and Environment (PD&E) study along McIntosh Road from south of US 92 to north of Interstate 4 (I-4), in Hillsborough County. The study focuses on widening this section of McIntosh Road from a two-lane undivided facility to a four-lane divided facility and includes pedestrian and bicycle accommodations. The study also evaluates issues related to traffic operations, safety, access management and freight movements. The project will improve congestion and safety along this segment of McIntosh Road and continue to improve system linkage for this area. Operational improvements are also being evaluated for the I-4 interchange.

The PD&E study objectives include: determine proposed typical sections and develop preliminary conceptual design plans for proposed improvements, while minimizing impacts to the environment; consider agency and public comments; and ensure project compliance with all applicable federal and state laws. A Type 2 Categorical Exclusion is the class of action for this study. The proposed improvements include construction of stormwater management facility (SMF) and floodplain compensation (FPC) sites. Right of way (ROW) acquisition is needed for the proposed improvements. The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases (design, right of way acquisition, and construction).

The purpose of this Project Traffic Analysis Report (PTAR) is to provide FDOT District Seven the necessary traffic data and operational analysis to conduct the environmental evaluations needed for the recommended improvements along McIntosh Road study area. The following intersections were evaluated along McIntosh Road:

- Muck Pond Road/Gore Road
- I-4 westbound ramp terminal
- I-4 eastbound ramp terminal
- Newsome Road
- US 92

Design Year evaluations under No-Build conditions show the signalized intersections of I-4 westbound ramp terminal, the I-4 eastbound ramp terminal, and US 92 operating at Level of Service (LOS) F during both peak hours and operating with excessive delays and long vehicle queues. The westbound left turn movement at the unsignalized intersection of Muck Pond Road/Gore Road is also expected to operate at LOS F with excessive delays and queues. The northbound left turn queue at the I-4 westbound ramp terminal intersection is expected to reach the I-4 eastbound ramp terminal intersection and extend further south of the intersection during the AM peak hour. The northbound through movement queue at the I-4 eastbound ramp terminal intersection is expected to impact the US 92 intersection during both AM and PM peak hours.

The following improvements were evaluated under the Build Alternative:

- Widening of McIntosh Road from a two-lane undivided roadway to a four-lane divided roadway from south of US 92 intersection to north of Muck Pond Road/Gore Road intersection.
- Tight Urban Diamond Interchange (TUDI) with the following improvements:
 - At the Muck Pond Road/Gore Road intersection:
 - Adding a southbound left turn lane
 - Adding an eastbound right turn lane
 - Extending the storage length of the westbound left turn lane from 175 feet to 300 feet
 - At the I-4 westbound ramp terminal intersection:
 - Dual northbound left turn lanes extending south to south of the Newsome Road intersection
 - Adding an additional I-4 westbound left turn lane creating dual left turn lanes
 - Adding a southbound to westbound right turn lane
 - At the I-4 eastbound ramp terminal intersection:
 - Adding an additional I-4 eastbound right turn lane to create dual right turn lanes
 - Adding a northbound right turn lane which creates a two-lane eastbound on-ramp. The two lanes merge into one lane before entering I-4 mainline.
- Access management improvements at the Newsome Road intersection.

As shown in **Table E-1**, the Build Alternative improves the intersection delays compared to the No-Build Alternative. **Table E-2** shows the arterial LOS results of the No-Build and Build Alternatives. The widening of McIntosh Road will improve the capacity, operations, and safety along McIntosh Road and improve connectivity between I-4 and US 92.

The unsignalized intersection of Newsome Road will be changed to a right in/right out condition with the Build Alternative. Four northbound through lanes will be approaching the unsignalized intersection and HCM 6th Edition unsignalized analysis allows a maximum of three lanes on the major street. Therefore, an additional analysis was conducted for the unsignalized intersection of Newsome Road, and those results are shown in **Table E-1** under Build Alternative.

Additional access management improvements will be evaluated in the PD&E Study and coordinated with Hillsborough County.

Table E-1 Design Year (2045) Intersection Analysis Summary

Intersection	No-Build (2045) Intersection Results				Build (2045) Intersection Results			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Muck Pond Road/Gore Road*	1533.2	F	1018.5	F	388.9	F	317.0	F
I-4 WB Ramps	193.4	F	84.1	F	15.4	B	18.8	B
I-4 EB Ramps	213.9	F	132.9	F	20.3	C	22.7	C
Newsome Road**	1633.3	F	97.3	F	27.6	D	21.4	C
US 92	67.3	E	67.4	E	57.4	E	51.5	D

*Represents highest movement delay for the unsignalized intersection.

**Additional analysis results shown under Build Alternative

Table E-2 Design Year (2045) Arterial LOS Results

Cross Street along McIntosh Road	No-Build (2045)				Build (2045)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS
Northbound Direction								
US 92	6.7	F	5.4	F	6.0	F	8.2	F
I-4 EB On-ramp	3.4	F	4.6	F	27.8	C	28.4	D
I-4 WB On-ramp	17.9	D	15.2	E	20.2	D	22.1	C
Total	5.4	F	5.4	F	13.8	E	16.7	E
Southbound Direction								
I-4 WB On-ramp	4.7	F	9.6	F	18.3	D	18.2	D
I-4 EB On-ramp	16.0	E	12.9	F	18.4	D	14.8	E
US 92	17.9	D	15.9	E	18.5	D	18.4	D
Total	12.6	F	12.6	F	18.4	D	17.7	D

TABLE OF CONTENTS

SECTION 1	INTRODUCTION	1-1
1.1	PD&E Study Purpose	1-1
1.2	Project Purpose and Need	1-1
1.2.1	Purpose	1-1
1.2.2	Need	1-1
1.2.3	Transportation Demand/Capacity	1-1
1.2.4	Safety	1-2
1.2.5	System Linkage.....	1-2
1.3	Project Description.....	1-2
1.4	Previous Studies	1-2
1.5	Existing Facility and Proposed Improvements	1-4
1.5.1	Existing Facility	1-4
1.5.2	Proposed Improvements.....	1-4
1.6	Report Purpose	1-6
SECTION 2	STUDY METHODOLOGY	2-1
SECTION 3	EXISTING CONDITIONS ANALYSIS	3-1
3.1	Annual average daily traffic volumes.....	3-1
3.2	Traffic factors	3-4
3.3	Turning movement volumes	3-4
3.4	Existing (2020) operational analysis.....	3-4
3.5	Historical Crash Analysis	3-8
SECTION 4	TRAVEL DEMAND FORECASTING	4-1
4.1	Travel demand model validation	4-1
4.2	Project traffic forecast	4-1
4.2.1	Growth Rate Analysis	4-2
SECTION 5	ALTERNATIVES ANALYSIS.....	5-1
5.1	No-Build alternative	5-1
5.1.1	Opening Year 2025 No-Build Analysis.....	5-4
5.1.2	Design Year 2045 No-Build Alternative.....	5-5
5.2	Build Alternative.....	5-8
5.2.1	Opening Year 2025 Build Alternative.....	5-8
5.2.2	Design Year 2045 Build Alternative.....	5-12
5.3	Future conditions Safety analysis.....	5-15
SECTION 6	SUMMARY OF ANALYSIS RESULTS.....	6-1

List of Figures

Figure 1-1	Project Location Map	1-3
Figure 1-2	McIntosh Road - Existing Typical Section	1-5
Figure 1-3	McIntosh Road - Proposed Typical Section	1-5
Figure 3-1	Existing Geometry	3-2
Figure 3-2	Existing Year (2020) AADT Volumes	3-3
Figure 3-3	Existing Year (2020) Turning Movement Volumes	3-5

Figure 4-1	Opening Year (2025) and Design Year (2045) AADTs	4-3
Figure 4-2	Opening Year (2025) Turning Movement Volumes.....	4-4
Figure 4-3	Design Year (2045) Turning Movement Volumes	4-5
Figure 5-1	Opening Year (2025) No-Build Alternative Geometry.....	5-2
Figure 5-2	Design Year (2045) No-Build Alternative Geometry	5-3
Figure 5-3	Build Alternative Geometry.....	5-9

List of Tables

Table 3-1	Existing Year (2020) AADTs.....	3-1
Table 3-2	Traffic Factors	3-4
Table 3-3	Existing Year (2020) Intersection Delay and LOS Results	3-6
Table 3-4	Existing Year (2020) Intersection Vehicle Queues.....	3-7
Table 3-5	Number of crashes	3-8
Table 3-6	Crash Summary.....	3-8
Table 3-7	Crash Type Summary	3-9
Table 3-8	Cause of Crashes.....	3-9
Table 3-9	Lighting Condition	3-10
Table 3-10	Pavement Condition	3-10
Table 4-1	Opening Year (2025) and Design Year (2045) AADTs	4-2
Table 5-1	Opening Year (2025) No-Build Intersection Delay and LOS Results.....	5-4
Table 5-2	Opening Year (2025) No-Build Alternative Intersection Vehicle Queues	5-5
Table 5-3	Design Year (2045) No-Build Intersection Delay and LOS Results.....	5-6
Table 5-4	Design Year (2045) No-Build Alternative Intersection Vehicle Queues	5-7
Table 5-5	Opening Year (2025) Build Intersection Delay and LOS Results.....	5-10
Table 5-6	Opening Year (2025) Build Alternative Intersection Vehicle Queues	5-11
Table 5-7	Design Year (2045) Build Intersection Delay and LOS Results.....	5-13
Table 5-8	Design Year (2045) Build Alternative Intersection Vehicle Queues	5-14
Table 6-1	Design Year (2045) Intersection Analysis Summary	6-2
Table 6-2	Design Year (2045) Arterial LOS	6-2

Appendices

APPENDIX A	Approved PTAR Methodology
APPENDIX B	Traffic Data from Approved I-4 at McIntosh Road Non-IAR
APPENDIX C	Existing (2020) Operational Analysis
APPENDIX D	No-Build Alternative Operational Analysis
APPENDIX E	Build Alternative Operational Analysis
APPENDIX F	CMF 7566

Glossary of Terms

Term	Definition
AADT	Annual Average Daily Traffic
CAR	Crash Analysis Reporting
CMF	Crash Modification Factor
CO	Central Office
D	Directional Factor
DDI	Diverging Diamond Interchange
DHT	Design Hour Trucks
DDHV	Directional Design Hour Volumes
DHV	Design Hour Volumes
ETAT	Environmental Technical Advisory Team
ETDM	Efficient Transportation Decision Making
FDEM	Florida Division of Emergency Management
FDOT	Florida Department of Transportation
FPC	Floodplain Compensation
FTO	Florida Traffic Online
HCM	Highway Capacity Manual
HCS	Highway Capacity Software
K	Design Hour Traffic Factor
LOS	Level of Service
MOCF	Model Output Conversion Factor
mph	Miles per Hour
MVMT	Million Vehicle Miles Traveled
NEPA	National Environmental Policy Act
Non-IAR	Non-Interchange Access Request
OEM	Office of Environmental Management
PD&E	Project Development and Environment
PDO	Property Damage Only
PSWADT	Peak Season Weekday Average Daily Traffic
PTAR	Project Traffic Analysis Report
ROW	Right of Way
SIS	Strategic Intermodal System
SMF	Stormwater Management Facility
SSOGis	State Safety Office Geographic Information System
TBRPM	Tampa Bay Regional Planning Model
TUDI	Tight Urban Diamond Interchange
TMC	Turning Movement Counts
TWSC	Two Way Stop Control
WPI	Work Program Item

SECTION 1 INTRODUCTION

1.1 PD&E STUDY PURPOSE

The objective of the Project Development and Environment (PD&E) study is to assist the Florida Department of Transportation (FDOT) Office of Environmental Management (OEM) in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of McIntosh Road from south of US 92 to north of I-4 and operational improvements at the I-4 interchange, including stormwater management facility (SMF) and floodplain compensation (FPC) sites. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvements, including elements such as proposed typical sections, preliminary horizontal alignments, intersection enhancement alternatives, and interchange operational improvements.

The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases [design, right of way (ROW) acquisition, and construction]. This project was screened through the FDOT's Efficient Transportation Decision Making (ETDM) process as ETDM Project No. 14469. The ETDM Programming Screen Summary Report was published on October 15, 2021, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. A Type 2 Categorical Exclusion is the Class of Action for this PD&E study.

1.2 PROJECT PURPOSE AND NEED

1.2.1 Purpose

The purpose of the project is to address capacity needs as well as to improve safety conditions within the project area.

1.2.2 Need

The project is needed to improve capacity, safety and system linkage.

1.2.3 Transportation Demand/Capacity

McIntosh Road is currently operating at Level of Service (F) based on 2020 Annual Average Daily Traffic (AADT) and is forecasted to continue to operate at LOS F in 2045 without any capacity or operational improvements. The Existing Year (2020) and the Design Year (2045) AADTs for McIntosh Road is 21,000 and 34,500, respectively, exceeding the 17,700 AADT LOS D for two-lane undivided arterials with a 40 miles per hour (mph) posted speed limit when compared to Table 1 of the 2020 FDOT Generalized Tables.

1.2.4 Safety

Between 2015 and 2019 the total number of crashes on McIntosh Road within the project area was 180. The historic average crash rate (4.56 crashes per million vehicle miles traveled or MVMT) for this segment of McIntosh Road is considerably higher than the statewide average (0.69 MVMT) for similar facility types. This high comparative crash rate is likely due to the on- and off-ramps for I-4 which intersect McIntosh Road and the US 92 intersection along the project segment which creates multiple conflict points for vehicles entering and exiting within the area. Rear-end crashes were the predominant crash type, followed by angle crashes, representing 77% of the total number of crashes.

1.2.5 System Linkage

The project is needed to support area connectivity between US 92 and I-4, which are both Florida Division of Emergency Management (FDEM) designated evacuation routes that have high volumes of trucks. US 92 is major east-west facility that spans the entire state and provides relief for I-4, a Strategic Intermodal System (SIS) facility, during major traffic incidents. US 92 is also an important freight route in Hillsborough County.

1.3 PROJECT DESCRIPTION

The project will reconstruct McIntosh Road to widen the roadway to accommodate future capacity and multimodal needs including bike lanes and sidewalks along McIntosh Road from south of US 92 to north of I-4, a distance of approximately 1.25 miles in Hillsborough County, Florida. A project location map is provided as **Figure 1-1**. The project also includes safety and operational improvements at the I-4 interchange and evaluation of SMF and FPC sites.

1.4 PREVIOUS STUDIES

FDOT District Seven conducted an Interstate 4 (I-4) Interchange Needs Evaluation Study in 2018 to evaluate current traffic operations and identify operational deficiencies at the interchanges along I-4 from east of I-75 to the western connection of SR 570 (Polk Parkway). The study's primary goal was to identify problems at the interchanges off-ramps that cause safety and operational issues on the I-4 mainline. Proposed recommendations focused on small scale, cost feasible projects that can be funded through current FDOT programs. The I-4 Interchange Needs Evaluation Study was conducted concurrently with the I-4 Project Development and Environment (PD&E) Study from east of 50th Street to the Polk Parkway (Work Program Item Segment Number 431746-1). The I-4 Interchange Needs Evaluation Study also recommended long-term improvements to accommodate the expected growth in the Dover and Plant City areas in Hillsborough County. The short-term and long-term recommendations for McIntosh Road included:

- Short-term recommendations
 - Extending the northbound left turn storage length at the westbound I-4 ramp termini and the southbound left turn storage length at the eastbound I-4 ramp termini.

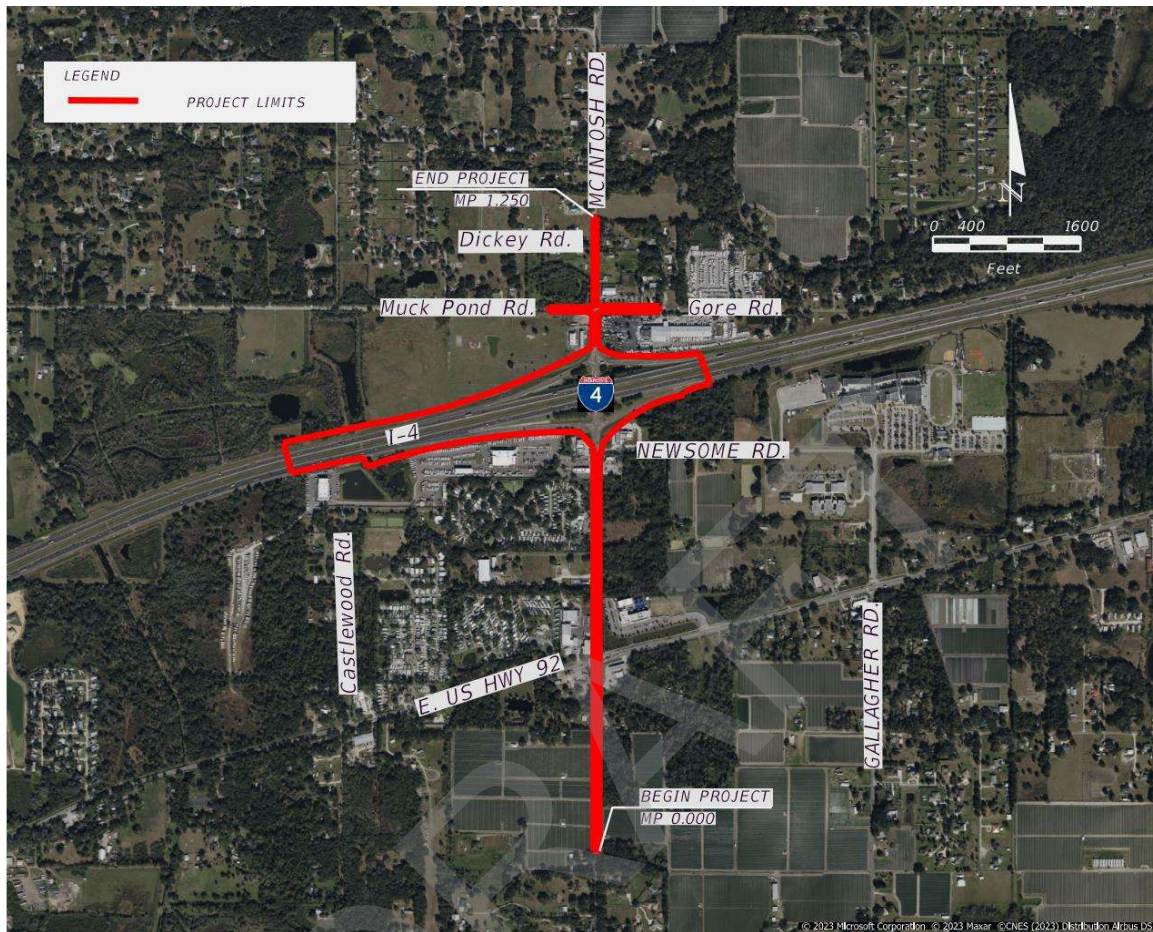


Figure 1-1 Project Location Map

- Long-term recommendations:
 - Widen McIntosh Road from two to four lanes from US 92 to north of I-4
 - Add a second northbound to westbound left turn lane and a second westbound to southbound left-turn lane at the I-4 westbound ramp termini intersection
 - Add a second eastbound to southbound right turn lane at the I-4 eastbound ramp termini intersection

A Non-Interchange Access Request (Non-IAR) was approved in November 2021 by FDOT Central Office (CO) for the I-4 at McIntosh Road interchange which included the short-term recommendations listed in the I-4 Interchange Needs Evaluation Study. The short-term improvements are currently under design and construction is scheduled for Fiscal Year 2024.

A Design Traffic Technical Memorandum was conducted in May 2017 for the US 92 PD&E Study from east of I-4 to east of County Line Road. The PD&E Study recommended the widening of US 92 from two lanes to four lanes with additional intersection improvements from east of I-4 to east of County

Line Road except for the area that currently goes through Downtown Plant City which is currently a two-lane one-way pair section. The recommended additional intersection improvements at US 92 at McIntosh Road included: an additional northbound and southbound through lane at the US 92 intersection, an additional westbound right turn lane, an additional southbound left and right turn lane, and an additional northbound right turn lane.

An interchange evaluation was performed for the I-4 at McIntosh Road interchange on June 2022 to evaluate the interchange operations with a tight urban diamond interchange (TUDI) configuration and a diverging diamond interchange (DDI) configuration. After evaluating concepts, right-of-way, and costs, FDOT decided on the TUDI configuration for the interstate. The TUDI configuration will be included in the Build Alternative evaluation on this Project Traffic Analysis Report (PTAR).

1.5 EXISTING FACILITY AND PROPOSED IMPROVEMENTS

1.5.1 Existing Facility

McIntosh Road is owned and maintained by Hillsborough County, with the exception of the I-4 interchange and limited access right-of-way (ROW) from Muck Pond Road to Newsome Road which is maintained by FDOT. Within the project area, McIntosh Road is currently a two-lane undivided facility functionally classified as an Urban Major Collector and has a posted speed limit of 40 mph along the majority of the project and 45 mph at the southern termini. The existing lane widths vary from 10-feet to 11-feet along the corridor, and there are no paved shoulders with approximately 2-feet to 5-feet unpaved shoulders. The existing McIntosh Road within the project limits has no bicycle lanes, sidewalks or other facilities for pedestrians and bicyclists, with the exception of two small segments of sidewalk on both sides of McIntosh Road north of I-4 and two segments of sidewalk between US 92 intersection and south of I-4. The existing typical section is provided as **Figure 1-2**.

1.5.2 Proposed Improvements

The proposed typical section includes a four-lane divided facility with a 22-foot median and curb and gutter. There will be two 11-foot travel lanes in each direction with 5-feet to 7-feet wide bicycle lanes and a 6-foot wide sidewalk on both sides of the road. The proposed ROW will vary along the corridor but will be a minimum of 106 feet. The proposed typical section is provided below as **Figure 1-3**. Operational improvements are also proposed for the I-4 interchange. The improvements include modifications to the traffic signals (mast arms and traffic signal heads), adding turn lanes, modifying access management, and providing other safety and operational enhancements. No improvements to the I-4 mainline are included as part of this study.

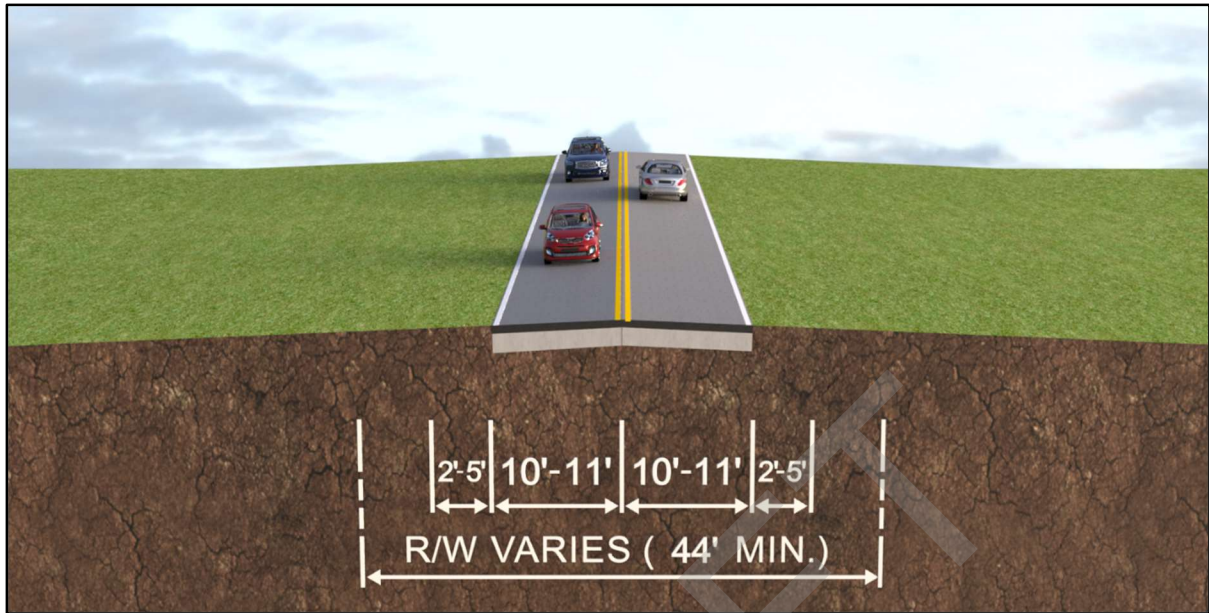


Figure 1-2 McIntosh Road - Existing Typical Section

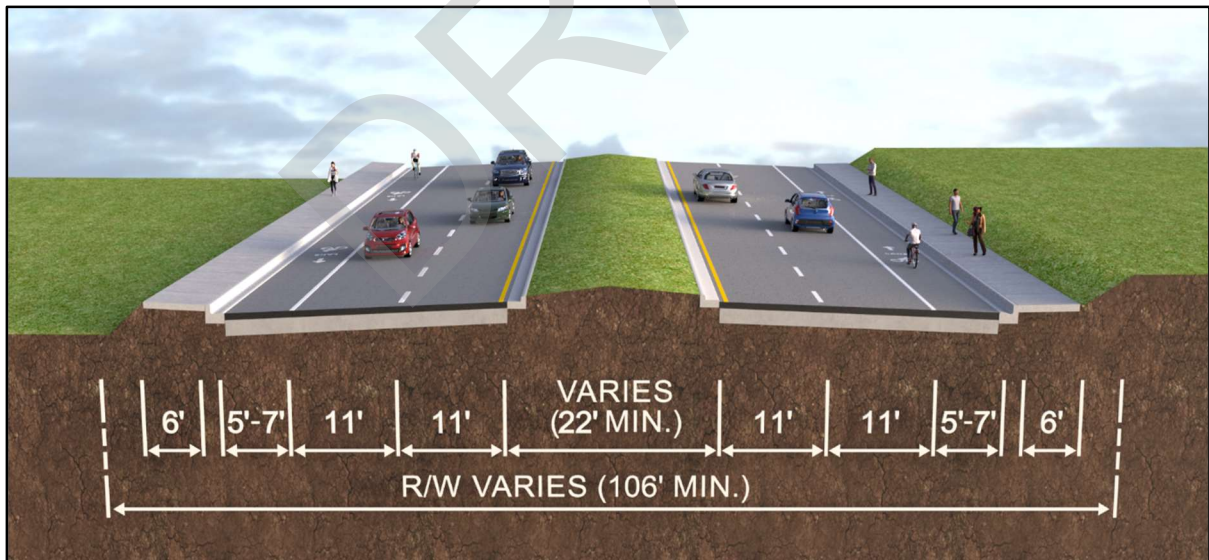


Figure 1-3 McIntosh Road - Proposed Typical Section

1.6 REPORT PURPOSE

The purpose of this PTAR is to provide FDOT District Seven the necessary traffic data and operational analysis to conduct the engineering and environmental evaluations needed for the recommended improvements along the McIntosh Road study area. This PTAR was conducted in accordance with *FDOT PD&E Manual Part 2, Chapter 2* (effective July 1, 2020).

DRAFT

SECTION 2 STUDY METHODOLOGY

The following study methodology was submitted to FDOT District Seven on July 5, 2022, and was approved on July 8, 2022. The approved methodology is included in **Appendix A**.

- Summarize data and improvements at the US 92 at McIntosh Road intersection.
- Traffic data from the I-4 at McIntosh Road Non-IAR was used.
- The years of analysis for this study are:
 - Existing Year – 2020
 - Opening Year – 2025
 - Design Year – 2045
- Evaluation of existing conditions was performed using Synchro 11 and the Highway Capacity Manual (HCM) 6th Edition results were reported.
- The travel demand forecasting procedure from the I-4 at McIntosh Road Non-IAR will be summarized.
- Future conditions traffic analyses were performed for No-Build conditions and Build Alternative using Synchro 11 and HCM 6th Edition results were reported.
- No-Build Alternative Analysis:
 - Opening Year 2025: Includes the interchange improvements identified in the McIntosh Road Non-IAR.
 - Design Year 2045: Includes the interchange improvements identified in the McIntosh Road Non-IAR plus US 92 intersection improvements identified in the US 92 PD&E Study.
- Build Alternative analysis for both Opening Year 2025 and Design Year 2045 includes:
 - TUDI alternative
 - Widening of McIntosh Road from two to four lanes from US 92 to north of I-4
 - US 92 intersection improvements identified in the US 92 PD&E Study
- Crash data from years 2015-2019 was summarized in the study.

SECTION 3 EXISTING CONDITIONS ANALYSIS

The analyzed intersections in the study area are:

- Muck Pond Road/Gore Road (unsignalized)
- I-4 westbound ramp terminal
- I-4 eastbound ramp terminal
- Newsome Road (unsignalized)
- US 92

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

3.1 ANNUAL AVERAGE DAILY TRAFFIC VOLUMES

As mentioned in Section 2.0, the traffic data for this PTAR was taken from the approved I-4 at McIntosh Road Non-IAR dated November 2021. The approved traffic data from the Non-IAR is included in **Appendix B**. The Existing Year (2020) AADT volumes are summarized on **Table 3-1** and shown graphically in **Figure 3-2**. The I-4 at McIntosh Road Non-IAR didn't include the intersection of Newsome Road.

Traffic data for Newsome Road was collected on February 5, 2020, as part of a proposed development on the east side of McIntosh Road between Newsome Road and Independence Academy. No daily counts were collected for Newsome Road, therefore the AADT shown in Table 3-1 is an estimation based on turning movements and traffic factors discussed in Section 3.2.

Table 3-1 Existing Year (2020) AADTs

Location	2020 AADT
I-4 EB Off-ramp	5,100
I-4 EB On-ramp	5,500
I-4 WB Off-ramp	4,100
I-4 WB On-ramp	5,300
McIntosh Road north of Muck Pond Road/Gore Road	5,300
McIntosh Road north of I-4	10,000
McIntosh Road south of I-4	21,000
Muck Pond Road west of McIntosh Road	1,900
Gore Road east of McIntosh Road	3,600
Newsome Road east of McIntosh Road	2,100*
McIntosh Road south of US 92	11,000
US 92 west of McIntosh Road	10,500
US 92 east of McIntosh Road	12,500

*Estimated from turning movement counts and traffic factors

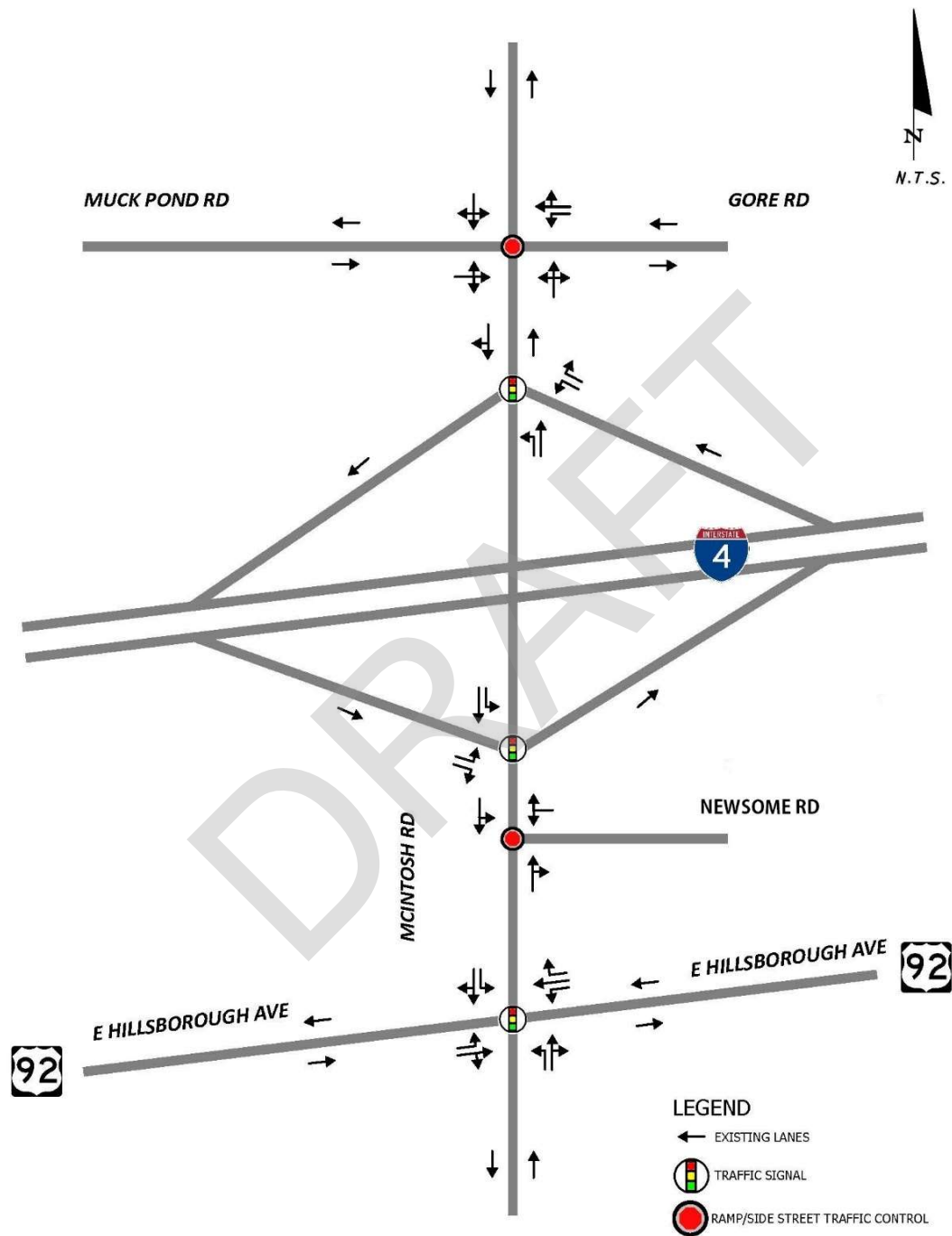


Figure 3-1 Existing Geometry

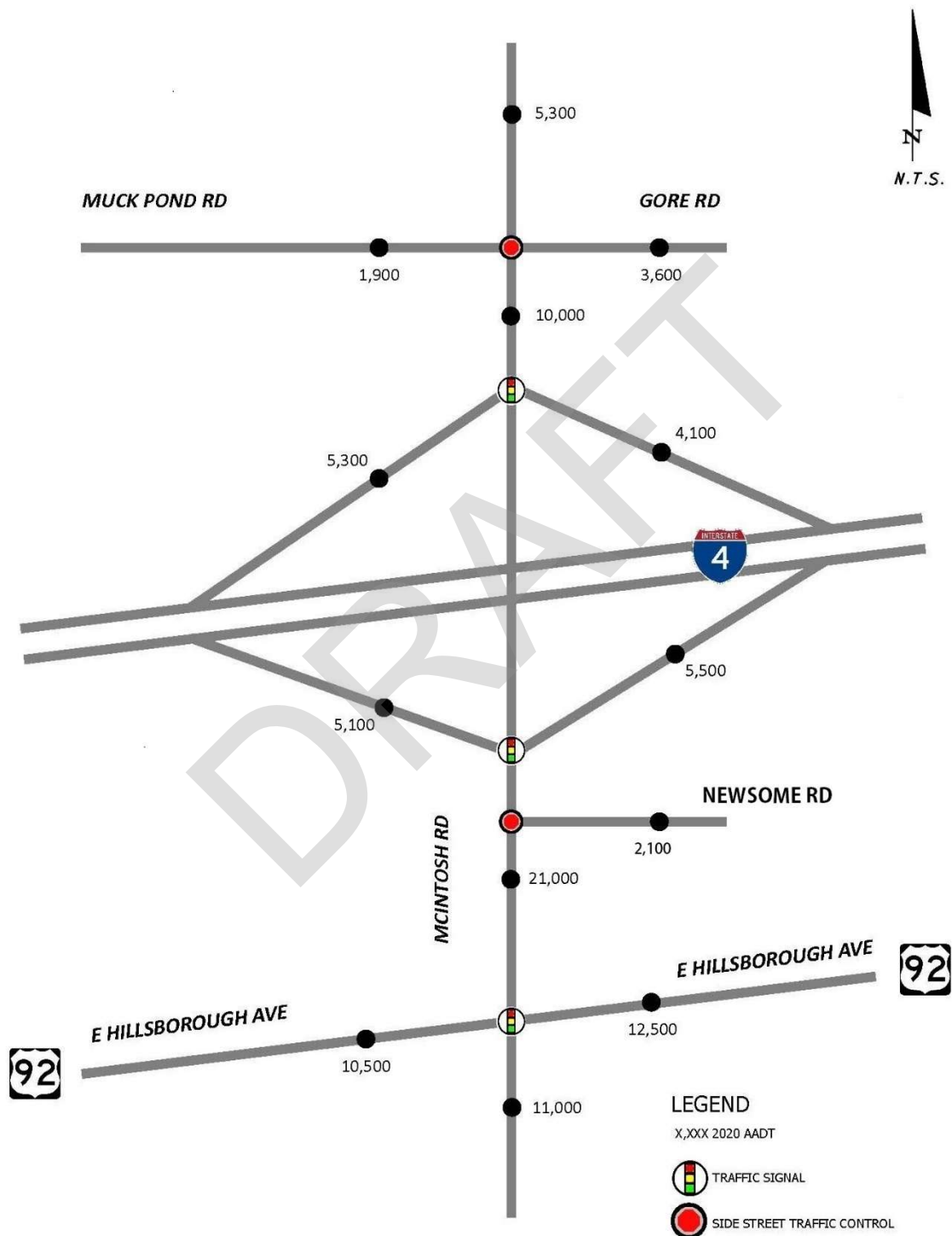


Figure 3-2 Existing Year (2020) AADT Volumes

3.2 TRAFFIC FACTORS

The K and D factors are the percentage of daily traffic volumes occurring during the peak hour and the proportion of traffic traveling in the peak direction, respectively. A Standard K factor of 9.0% and a D factor of 57% were used in this study. A D-factor of 74% was used on McIntosh Road north of Muck Pond Road/Gore Road for the AM peak hour based on the turning movement counts.

Design Hour Trucks (DHT) is the percentage of daily truck traffic during the design hour. A DHT of 5.0% was used in the report based on historical truck percentage at the I-4 ramps. The traffic factors are shown in **Table 3-2** and were taken from the approved I-4 at McIntosh Road Non-IAR.

Table 3-2 Traffic Factors

K Factor (%)	D-Factor (%)	DHT (%)
9.0	57.0	5.0

3.3 TURNING MOVEMENT VOLUMES

The K and D factors were applied to the 2020 AADTs to obtain the directional design hour volumes (DDHVs). The intersection turning volumes were determined by applying turning movement percentages derived from existing turning movement counts (TMCs) to the segment DDHVs. Once the segment DDHVs and intersection turning movements were calculated, the existing design hour traffic volumes were subsequently adjusted and balanced through the system.

The AM and PM turning movement counts collected for Newsome Road were directly applied to network and the turning movements at the northbound approach of the I-4 eastbound ramps intersection and I-4 westbound ramps intersection were adjusted slightly to maintain balance in the network since there is no access or driveways between Newsome Road and the I-4 ramp terminals intersections. The Existing Year 2020 AM and PM peak hours turning movement volumes are shown on **Figure 3-3**.

3.4 EXISTING (2020) OPERATIONAL ANALYSIS

There are three signalized intersections and two unsignalized intersections along McIntosh Road within the study area. An analysis of the existing signalized intersections was performed using existing signal phasing/timing information obtained from Hillsborough County. The intersections operations were analyzed using Synchro v11.1 and the Highway Capacity Manual (HCM), 6th Edition and the results are summarized in **Tables 3-3 and 3-4**. A target LOS of D is established for the study area. The key measures of effectiveness are 95th percentile queue length and delay for overall intersection and individual movements.

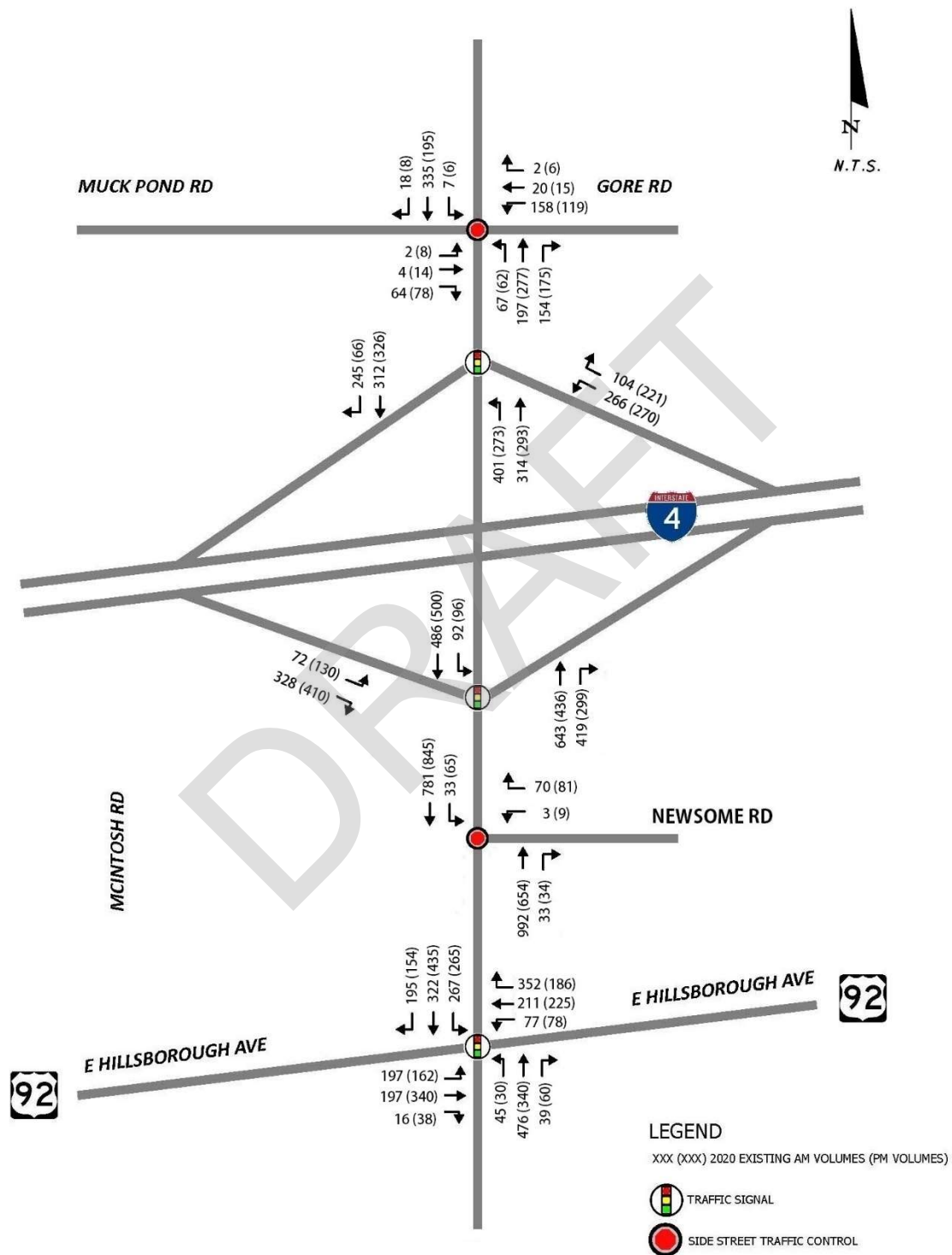


Figure 3-3 Existing Year (2020) Turning Movement Volumes

Table 3-3 Existing Year (2020) Intersection Delay and LOS Results

Approach	Movement	AM Peak Hour			PM Peak Hour		
		Delay (sec)	LOS	Approach LOS	Delay (sec)	LOS	Approach LOS
Intersection: McIntosh Road at Muck Pond Road/Gore Road*							
Eastbound	Left/Thru/Right	12.0	B	B	12.6	B	B
Westbound	Left	54.0	F	E	34.2	D	D
	Thru/Right	18.2	C		15.4	C	
Northbound	Left	8.3	A		7.8	A	
Southbound	Left	8.1	A		8.4	A	
Intersection: McIntosh Road at I-4 WB Ramps**							
Westbound	Left	57.8	E	E	32.8	C	C
Northbound	Left	30.4	C	B	14.5	B	B
	Through	6.5	A		7.2	A	
Southbound	Thru/Right	32.3	C	C	23.1	C	C
Intersection			30.9	C	Intersection	19.5	B
Intersection: McIntosh Road at I-4 EB Ramps**							
Eastbound	Left	71.7	E	E	45.8	D	D
Northbound	Thru/Right	32.9	C	C	16.0	B	B
Southbound	Left	27.4	C	A	12.3	B	A
	Through	2.8	A		4.7	A	
Intersection			25.7	C	Intersection	14.5	B
Intersection: McIntosh Road at Newsome Road*							
Westbound	Left/Right	28.1	D	D	23.1	C	C
Southbound	Left	11.1	B		9.6	A	
Intersection: McIntosh Road at US 92							
Eastbound	Left	39.8	D	D	30.0	C	D
	Thru/Right	42.2	D		48.5	D	
Westbound	Left	39.4	D	D	32.4	C	C
	Through	49.1	D		38.5	D	
	Right	40.6	D		25.9	C	
Northbound	Left	40.0	D	E	35.4	D	D
	Thru/Right	58.9	E		41.4	D	
Southbound	Left	58.2	E	D	35.0	C	C
	Thru/Right	26.4	C		23.8	C	
Intersection			44.2	D	Intersection	34.6	C

*Per HCM 6th Edition: For Two Way Stop Control (TWSC) intersections only minor movements delay and LOS are reported. HCM 6th Edition does not calculate LOS for major street thru movements and approaches or for the intersection as a whole. **HCM 6th Edition does not include unsignalized delay on approach delay and intersection delay calculations.

The northbound right turn movement at the I-4 eastbound ramp terminal intersection and the southbound right turn movement at the I-4 westbound ramp terminal intersection were analyzed as part of the traffic signal to reflect the operations in the field. **Table 3-3** shows the I-4 westbound off-

ramp operating at LOS E during AM peak hour and LOS C during the PM peak hour and the I-4 eastbound off-ramp operating at LOS E during the AM peak hour and LOS D during the PM peak hour.

Table 3-4 shows the vehicle queue results for the intersection movements. The storage length for some of the movements was taken as the distance from the intersection to the nearest upstream access point. The queues that exceed the storage length for that movement are shown in bold and highlighted in yellow in **Table 3-4**.

Table 3-4 Existing Year (2020) Intersection Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95 th Percentile)		PM Peak Hour Queues (95 th Percentile)	
			Veh	Feet**	Veh	Feet**
McIntosh Road at Muck Pond Road/Gore Road	EB Left/Thru/Right	1,000	0.4	10	0.7	18
	WB Left	175	5.0	125	2.7	68
	WB Thru/Right	1,000	0.3	8	0.2	5
	NB Left	480	0.2	5	0.2	5
	SB Left	1,000	0.0	0	0.0	0
McIntosh Road at I-4 WB Ramps	WB Left	1,200	12.8	320	8.1	203
	NB Left	75	10.7	268	4.0	100
	NB Through	600	4.1	103	3.0	75
	SB Thru/Right	480	18.7	468	9.1	228
McIntosh Road at I-4 EB Ramps	EB Left	1,200	4.6	115	5.3	133
	NB Thru/Right	260	30.3	758	13.4	335
	SB Left	70	2.8	70	1.1	28
	SB Through	600	2.5	63	3.5	88
McIntosh Road at Newsome Road	WB Left/Right	1,000	1.4	35	1.4	35
	SB Left	260	0.2	5	0.3	8
McIntosh Road at US 92	EB Left	250	9.6	240	5.8	145
	EB Thru/Right	1,000	10.7	268	16.0	400
	WB Left	450	3.9	98	2.9	73
	WB Through	1,000	11.3	283	9.2	230
	WB Right	500	16.7	418	6.4	160
	NB Left	180	2.4	60	1.2	30
	NB Thru/Right	1,000	27.6	690	15.6	390
	SB Left	150	13.2	330	9.2	230
	SB Thru/Right	2,000	19.3	483	17.3	433

*For ramps, the storage was determined as the length of the ramp or as the storage length when provided. The length of the ramp includes an adjustment for deceleration distance.

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

Table 3-4 shows the northbound left turn queue at the I-4 westbound ramp terminal intersection impacting the northbound through movement. The northbound through queue at the I-4 eastbound ramp extends south of the Newsome Road intersection during both peak hours. The southbound left turn queue impacts the southbound through movement at the US 92 intersection during both peak hours.

It should be noted that the I-4 EB off-ramp right turn lane was constructed after the 2020 traffic counts were collected and that is the reason the analyzed geometry differs from current existing conditions. The I-4 EB off-ramp right turn lane will be included in the Opening and Design Years analyses. The Existing Year (2020) Synchro results and the signal timing information are included in **Appendix C**.

3.5 HISTORICAL CRASH ANALYSIS

A five-year historical crash analysis was performed according with Part 2, Chapter 2 of the FDOT PD&E Manual for years 2015-2019. Crash data for the I-4 ramps was obtained from the FDOT D7 Crash Data Management System, which pulls data from the FDOT Crash Analysis Reporting (CAR) Online, and crash data for McIntosh Road was obtained from FDOT State Safety Office Geographic Information System (SSOGis).

The McIntosh Road influence area for which crash data was analyzed includes the I-4 on/off ramps from/to McIntosh Road. The crash data for McIntosh Road includes 1,000 feet south of the US 92 intersection to 1,000 feet north of the Muck Pond/Gore Road intersection. The crash data for US 92 includes 250 feet east and west of the McIntosh Road intersection. **Table 3-5** provides a summary of the total crashes per year in the study area and the location of the crashes. **Table 3-6** provides a summary of the crash severity along the I-4 ramps, McIntosh Road, and US 92.

Table 3-5 Number of crashes

Year	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
2015	10	27	12	49
2016	13	18	13	44
2017	10	18	9	37
2018	9	13	9	31
2019	8	5	6	19
Total	50	81	49	180

Table 3-6 Crash Summary

Location	Total Number of Crashes	Number of Fatal Crashes	Number of Fatalities	Number of Injury Crashes	Number of Injuries	Number of Property Damage Only (PDO) Crashes
I-4 on/off ramps	50	0	0	19	25	31
McIntosh Road	81	0	0	29	41	52
US 92	49	0	0	15	21	34
Total	180	0	0	63	87	117

As shown in **Tables 3-5 and Table 3-6**, 180 crashes occurred in the McIntosh Road study area, of which 63 were injury crashes, resulting in 87 injuries. 117 of crashes resulted in property damage only (PDO). There were no fatal crashes in the study area for the analyzed years. On average, the crash frequency for the McIntosh Road study area is 36 crashes per year.

Table 3-7 summarizes the types of crashes. The most predominant crash type for the study area is rear end with 85 crashes (47%). At the I-4 on/off ramps the predominant type of crash is rear end with 31 crashes (62%). Along McIntosh Road, the most predominant crash types are angle with 36 crashes (44%) and rear end with 32 crashes (40%). Along US 92 the most predominant crash types are rear end with 22 crashes (45%) and angle with 13 crashes (27%).

Table 3-8 shows the common cause of crashes is operating a motor vehicle in a careless or negligent manner with 74 crashes (41%) followed by failed to yield the right-of-way with 46 crashes (26%).

Table 3-9 shows 123 of the crashes (68%) occurred at daylight, and **Table 3-10** shows 158 of the crashes (88%) occurred on dry pavement.

Table 3-7 Crash Type Summary

Type of Crash	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
Rear End	31	32	22	85
Angle	4	36	13	53
Sideswipe	3	4	2	9
Head-on	0	1	2	3
Hit Fixed Object	4	0	0	4
Hit Non-Fixed Object	1	0	0	1
Single Vehicle	2	0	0	2
Bike	0	0	0	0
Run Off Road	1	0	0	1
Pedestrian	0	0	0	0
Left Turn	4	0	0	4
Unknown/Other	0	8	10	18
Total	50	81	49	180

Table 3-8 Cause of Crashes

Cause of Crash	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
Failed to Keep in Proper Lane	1	1	2	4
Followed too Closely	3	10	3	16
Failed to Yield Right-of-Way	7	29	10	46
No Contributing Action	3	1	3	7
Other Contributing Actions	1	0	2	3

Cause of Crash	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
Improper Turn	0	4	2	6
Operated MV* in Careless or Negligent Manner	29	26	19	74
Drove Too Fast for Conditions	0	1	0	1
Ran off Roadway	0	3	1	4
Over-Correcting/Over-Steering	0	1	1	2
Unknown	4	2	4	10
Improper Passing	0	1	0	1
Swerved or Avoided: Due to Wind, Slippery Surface, MV*, Object, Non-Motorist in Roadway, etc.	0	1	0	1
Operated MV* in Erratic, Reckless or Aggressive Manner	1	0	0	1
Improper Backing	0	0	2	2
Exceeded Posted Speed	1	0	0	1
Total	50	81	49	180

*MV: Motor Vehicle

Table 3-9 Lighting Condition

Lighting Condition	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
Daylight	30	58	35	123
Dark-Lighted	10	10	6	26
Dusk	2	7	3	12
Dark-Not Lighted	0	3	3	6
Dawn	8	3	2	13
Total	50	81	49	180

Table 3-10 Pavement Condition

Pavement Condition	Location			Total
	I-4 on/off ramps	McIntosh Road	US 92	
Dry	45	71	42	158
Wet	5	10	7	22
Total	50	81	49	180

SECTION 4 TRAVEL DEMAND FORECASTING

The travel demand forecast was developed in accordance with the procedures in the 2019 FDOT Project Traffic Forecasting Handbook and documented in the I-4 at McIntosh Road Non-IAR as stated in Section 2.0. The travel demand forecasting is summarized in the following sections.

4.1 TRAVEL DEMAND MODEL VALIDATION

The Tampa Bay Regional Planning Model (TBRPM) Version 9.1 (v9.1) was the adopted travel demand model used for the I-4 at McIntosh Road Non-IAR. The TBRPM v9.1 is a time-of-day based four-step model with Base Year 2015 and Horizon Year (Cost Affordable Year) 2045.

Prior to utilizing the traffic assignment generated by a travel demand model for forecasting, a validation of the model should be performed to ascertain its ability to reasonably replicate travel demand in the study area.

The validation consisted of assessing the reasonableness of the TBRPM v9.1 Base Year 2015 highway assignment output by means of calculating model output-to-count ratios in those links where counts were available. To this end, the 2015 Peak Season Weekday Average Daily Traffic (PSWADT) volumes generated by the model were converted to 2015 AADT by applying the Model Output Conversion Factor (MOCF) obtained from Florida Traffic Online (FTO) Peak Season Factor Category Report. The model AADTs were then compared to 2015 AADTs volumes obtained from the I-4 Interchange Needs Evaluation Study from east of I-75 to the western connection of SR 570 (Polk Parkway) and FDOT's FTO.

The Cost Affordable Year 2045 model network was reviewed for consistency with planned projects in the study area.

The results of the validation revealed that the 2015 Base Year Model either under-assigned or over-assigned traffic on critical non-interstate links within the study area. Since the travel demand model did not reasonably replicate existing travel behavior on the non-interstate links within the study area, it was concluded that the application of off-model methods would be more appropriate to estimate the project future year traffic volumes.

Off-model methods refer to the analysis conducted to determine the growth rate of the corridor since the travel demand model did not reasonably replicate existing travel behavior and the analysis and methodology is explained in **Section 4.2**.

4.2 PROJECT TRAFFIC FORECAST

Design Year 2045 AADTs were developed by applying a growth rate to the Existing Year AADTs. Opening Year 2025 AADTs were then determined through interpolation of Existing Year and Design Year AADTs.

Traffic factors were applied to the future year AADTs to obtain Opening and Design Year segment design hour volumes (DHVs) and DDHVs. Lastly, the AM and PM peak hour intersection turning movement volumes for the future horizon years (i.e., 2025 and 2045) were determined by applying turning movement percentages derived from existing TMCs to the segment DDHVs.

4.2.1 Growth Rate Analysis

A robust analysis was undertaken to determine the appropriate growth rate for the corridor. The growth rate analysis included a detailed assessment of historical traffic growth trends, travel demand model highway assignment growth (TBRPM 2015/2045), and socio-economic growth (TBRPM 2015/2045). A compounded annual growth rate of 2.0% was recommended for the study area.

Table 4-1 and **Figure 4-1** show the projected Opening Year (2025) and Design Year (2045) AADTs. **Figure 4-2** shows the Opening Year (2025) turning movement volumes and **Figure 4-3** shows the Design Year (2045) turning movement volumes.

Table 4-1 Opening Year (2025) and Design Year (2045) AADTs

Location	Year 2020	Opening Year 2025	Opening Year 2025 Rounded	Design Year 2045	Design Year 2045 Rounded
I-4 EB Off-ramp	5,100	5,631	5,600	8,367	8,400
I-4 EB On-ramp	5,500	6,072	6,100	9,023	9,000
I-4 WB Off-ramp	4,100	4,527	4,500	6,726	6,700
I-4 WB On-ramp	5,300	5,852	5,900	8,695	8,700
McIntosh Road north of Muck Pond Road/Gore Road	5,300	5,852	5,900	8,695	8,700
McIntosh Road north of I-4	10,000	11,041	11,000	16,406	16,500
McIntosh Road south of I-4	21,000	23,186	23,000	34,453	34,500
Muck Pond Road west of McIntosh Road	1,900	2,098	2,100	3,117	3,100
Gore Road east of McIntosh Road	3,600	3,975	4,000	5,906	5,900
McIntosh Road south of US 92	11,000	12,145	12,000	18,047	18,000
US 92 west of McIntosh Rd	10,500	12,351	12,500	23,643	23,500
US 92 east of McIntosh Rd	12,500	14,703	14,500	28,146	28,000
Newsome Road	2,100	2,319	2,300	3,445	3,400

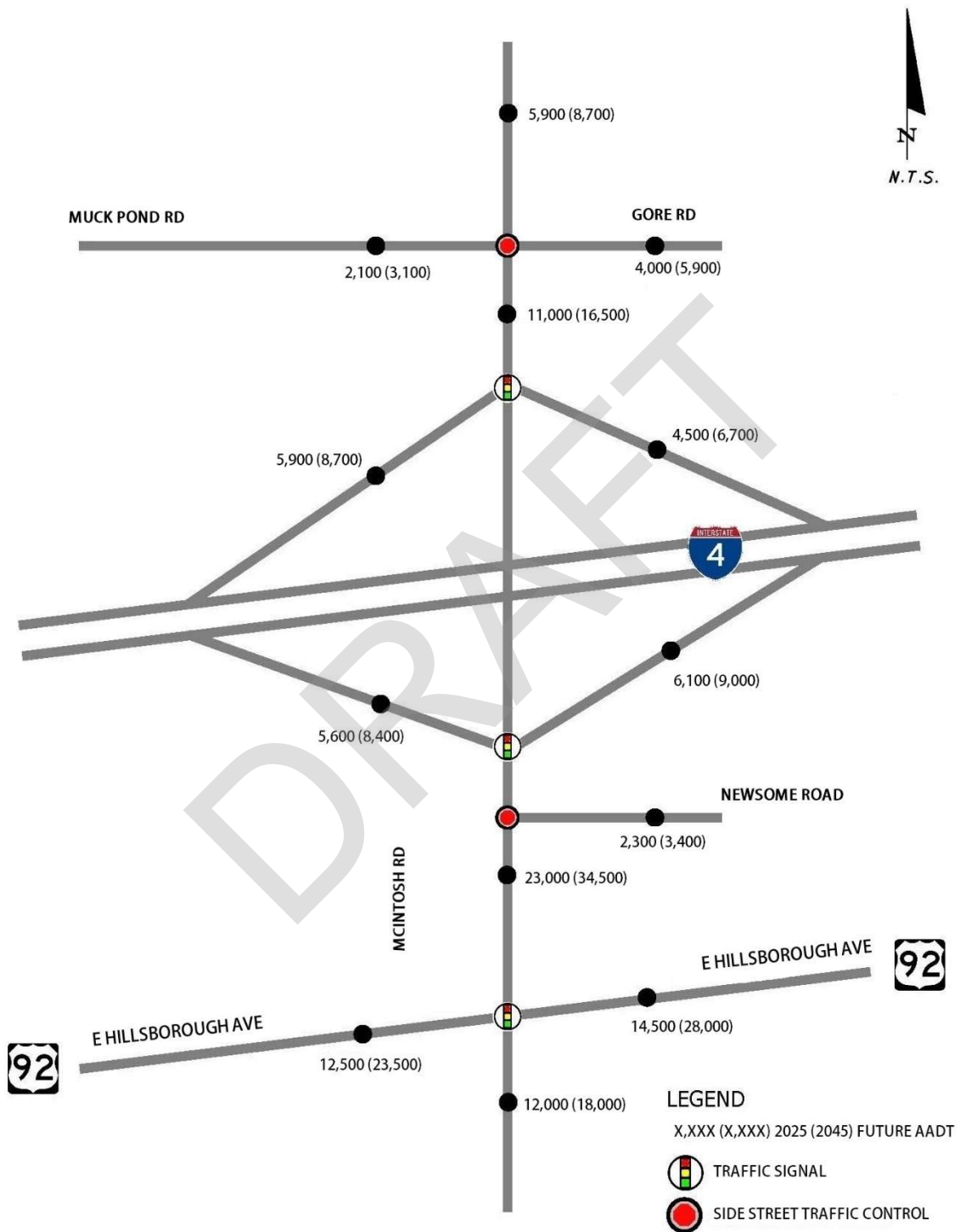


Figure 4-1 Opening Year (2025) and Design Year (2045) AADTs

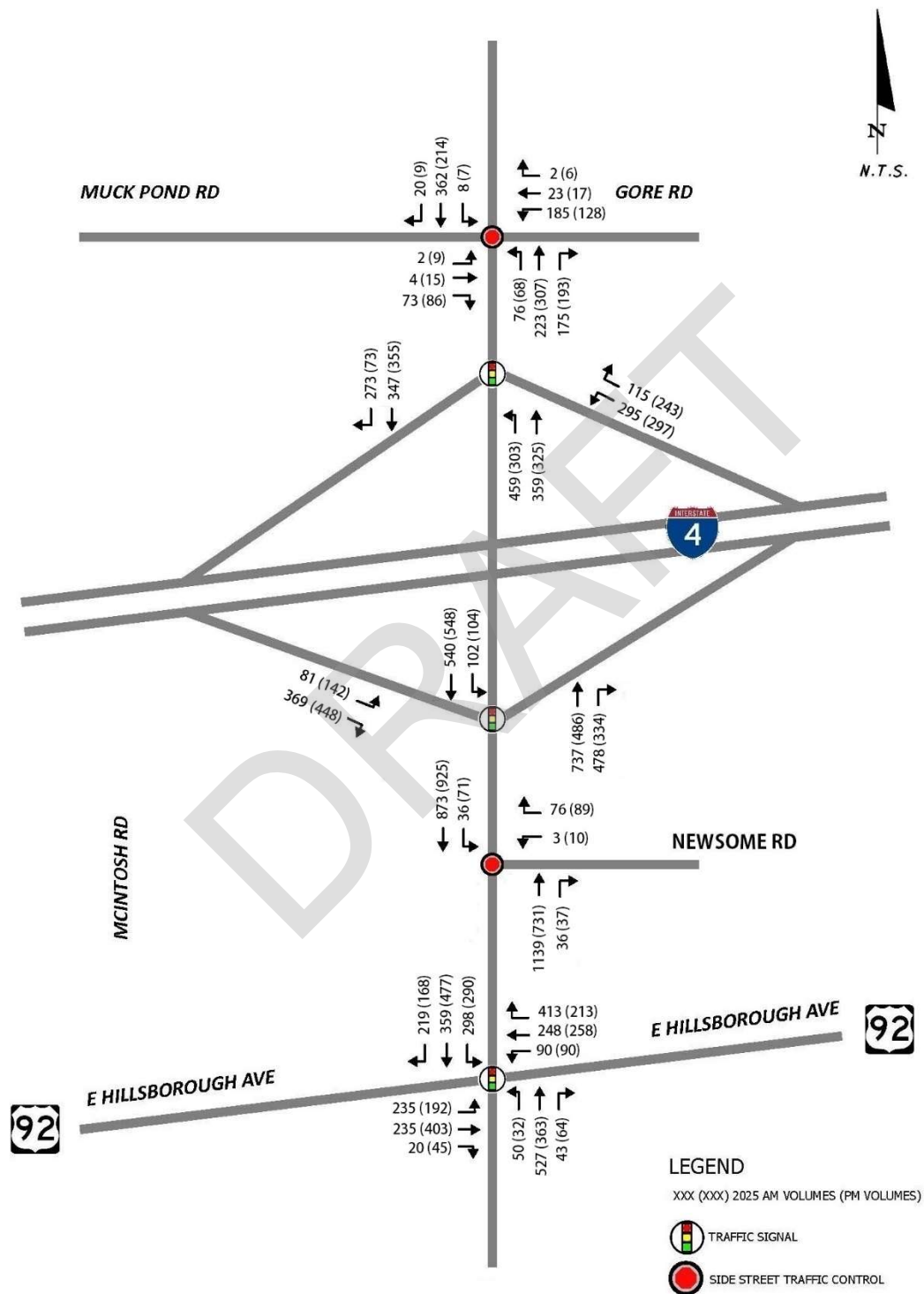


Figure 4-2 Opening Year (2025) Turning Movement Volumes

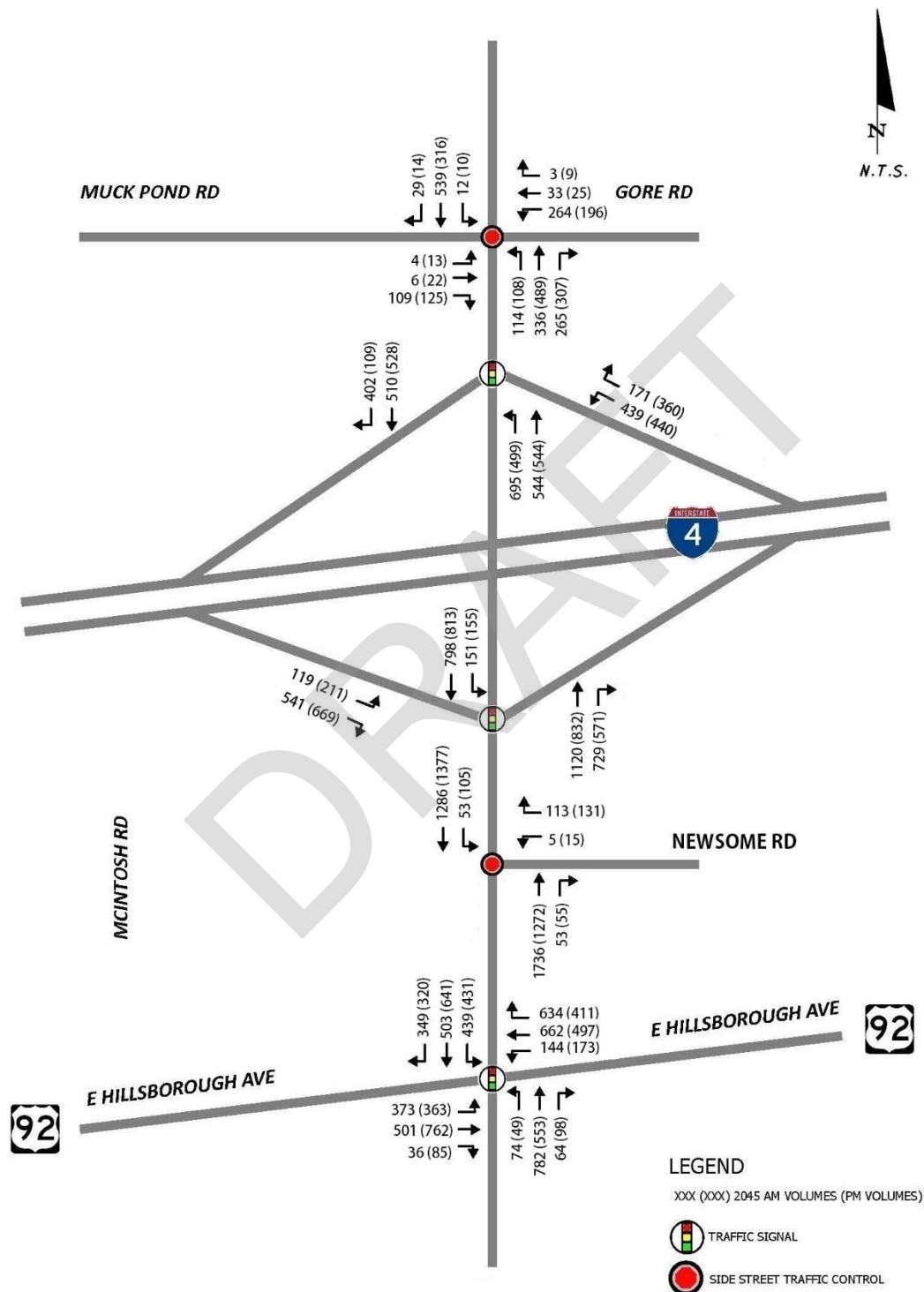


Figure 4-3 Design Year (2045) Turning Movement Volumes

SECTION 5 ALTERNATIVES ANALYSIS

The future traffic analysis was conducted for the following scenarios:

- No-Build Alternative
- Build Alternative

The No-Build Alternative and the Build Alternative were evaluated for Opening Year 2025 and Design Year 2045.

5.1 NO-BUILD ALTERNATIVE

The No-Build Alternative consists of the improvements identified in the I-4 at McIntosh Road Non-IAR that are currently under design and are scheduled for construction in 2024. The No-Build Alternative for Design Year 2045 also includes the improvements identified in the US 92 PD&E Study. The following improvements are included in the No-Build Alternative:

- Opening Year 2025:
 - Extend existing northbound and southbound left turn lanes to provide minimum of 240-ft storage capacity at the I-4 ramp terminal intersections.
 - Widen McIntosh to the outside between ramp terminals.
 - Extend the I-4 westbound off-ramp deceleration lane by 1,500 feet.
- Design Year 2045:
 - All improvements included in Opening Year 2025.
 - At the US 92 intersection:
 - An additional through lane in the eastbound and westbound directions
 - An additional through lane in the northbound and southbound directions
 - An additional westbound right turn lane
 - An additional southbound left turn lane and southbound right turn lane
 - An additional northbound right turn lane
 - Extending the northbound left turn storage length to 400 ft
 - Extending the eastbound left turn storage length to 650 ft

The No-Build Alternative improvements for Opening Year 2025 are shown in **Figure 5-1** and for Design Year 2045 are shown in **Figure 5-2**.

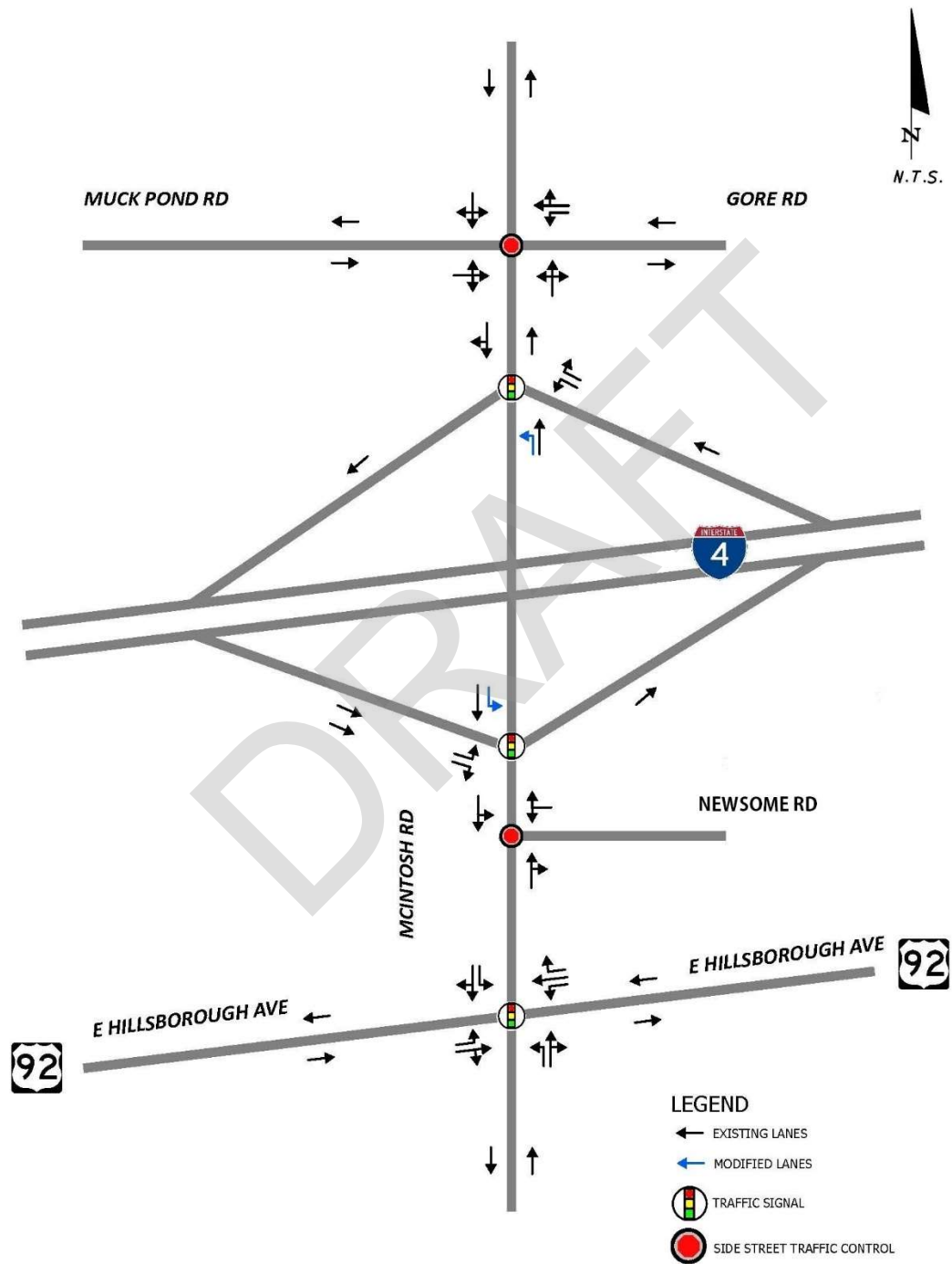


Figure 5-1 Opening Year (2025) No-Build Alternative Geometry

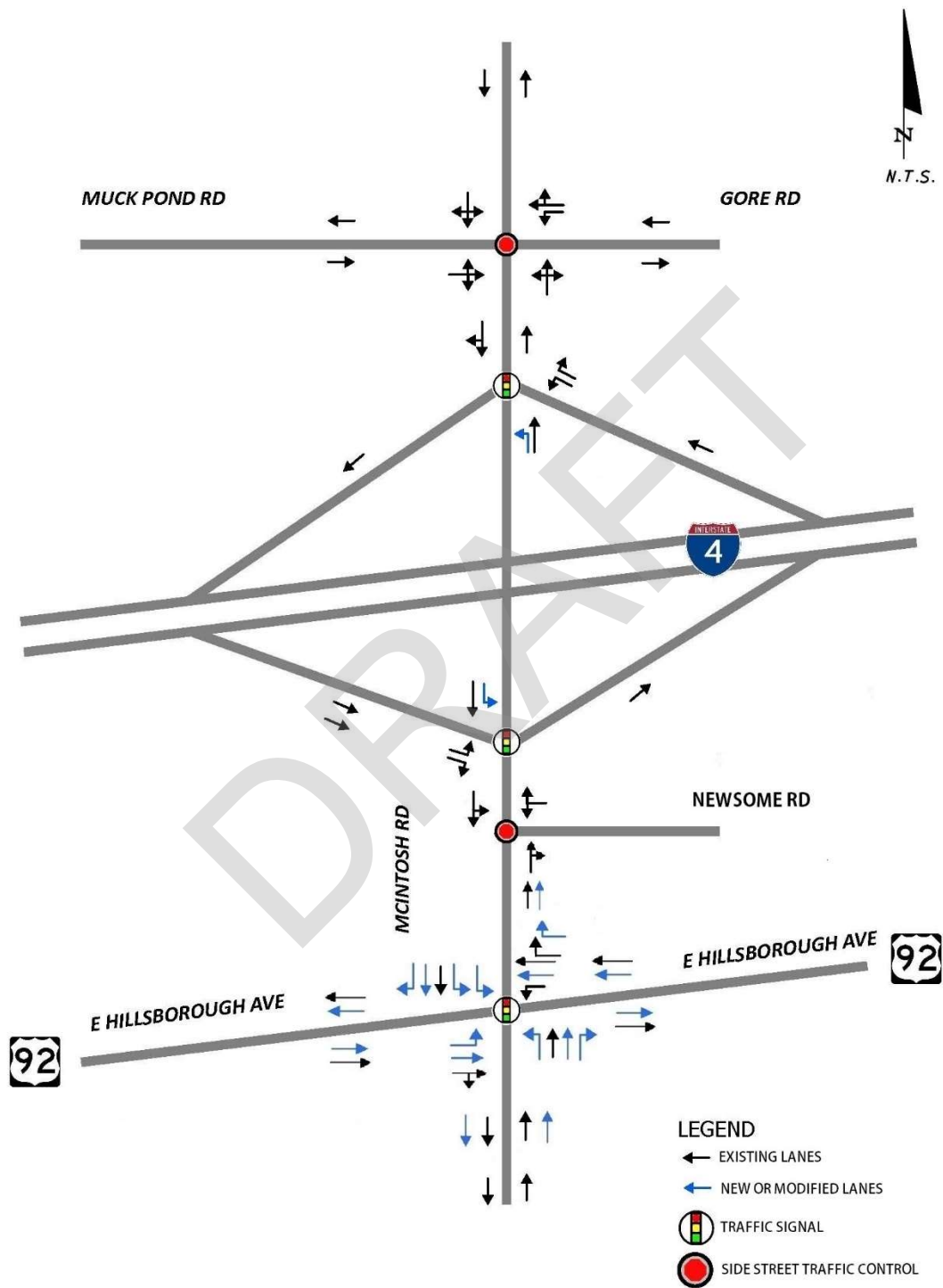


Figure 5-2 Design Year (2045) No-Build Alternative Geometry

5.1.1 Opening Year 2025 No-Build Analysis

The improvements included in **Figure 5-1** and discussed in Section 5.1 are included in the Year 2025 No-Build analysis. **Tables 5-1** and **5-2** summarize the intersections operational analysis results for the Year 2025 No-Build.

Table 5-1 Opening Year (2025) No-Build Intersection Delay and LOS Results

Approach	Movement	AM Peak Hour			PM Peak Hour		
		Delay (sec)	LOS	Approach LOS	Delay (sec)	LOS	Approach LOS
Intersection: McIntosh Road at Muck Pond Road/Gore Road*							
Eastbound	Left/Thru/Right	12.5	B	B	13.6	B	B
Westbound	Left	126.3	F	F	49.2	E	E
	Thru/Right	20.8	C		17.0	C	
Northbound	Left	8.4	A		7.9	A	
Southbound	Left	8.2	A		8.6	A	
Intersection: McIntosh Road at I-4 WB Ramps**							
Westbound	Left	79.7	E	E	35.1	D	D
Northbound	Left	67.0	E	D	18.3	B	B
	Through	7.3	A		7.8	A	
Southbound	Thru/Right	68.2	E	E	24.9	C	C
Intersection		57.2	E		Intersection	21.5	C
Intersection: McIntosh Road at I-4 EB Ramps**							
Eastbound	Left	91.3	F	F	51.0	D	D
Northbound	Thru/Right	50.6	D	D	24.8	C	C
Southbound	Left	65.0	E	B	16.4	B	A
	Through	2.7	A		4.9	A	
Intersection		39.7	D		Intersection	19.8	B
Intersection: McIntosh Road at Newsome Road*							
Westbound	Left/Right	40.7	E	E	31.2	D	D
Southbound	Left	12.1	B		10.0	A	
Intersection: McIntosh Road at US 92							
Eastbound	Left	75.1	E	E	34.8	C	E
	Thru/Right	52.2	D		65.4	E	
Westbound	Left	45.3	D	D	36.2	D	C
	Through	57.6	E		40.7	D	
	Right	47.1	D		27.5	C	
Northbound	Left	50.0	D	F	47.3	D	D
	Thru/Right	84.7	F		52.1	D	
Southbound	Left	118.3	F	E	65.7	E	D
	Thru/Right	31.8	C		32.5	C	
Intersection		63.3	E		Intersection	46.0	D

* Per HCM 6th Edition: For Two Way Stop Control (TWSC) intersections only minor movements delay and LOS are reported. HCM 6th Edition does not calculate LOS for major street thru movements and approaches or for the whole intersection as a whole. **HCM 6th Edition does not include unsignalized delay on approach delay and intersection delay calculations.

Table 5-2 Opening Year (2025) No-Build Alternative Intersection Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95 th Percentile)		PM Peak Hour Queues (95 th Percentile)	
			Veh	Feet**	Veh	Feet**
McIntosh Road at Muck Pond Road/ Gore Road	EB Left/Thru/Right	1,000	0.5	13	0.8	20
	WB Left	175	9.0	225	3.9	98
	WB Thru/Right	1,000	0.3	8	0.2	5
	NB Left	480	0.2	5	0.2	5
	SB Left	1,000	0.0	0	0.0	0
McIntosh Road at I-4 WB Ramps	WB Left	1,200	18.1	453	9.2	230
	NB Left	240	25.8	645	5.2	130
	NB Through	600	6.3	158	3.6	90
	SB Thru/Right	480	33.3	833	10.4	260
McIntosh Road at I-4 EB Ramps	EB Left	1,200	6.5	163	6.4	160
	NB Thru/Right	260	49.5	1,238	18.8	470
	SB Left	240	5.8	145	1.8	45
	SB Through	600	3.6	90	4.2	105
McIntosh Road at Newsome Road	WB Left/Right	1,000	2.2	55	2.1	53
	SB Left	260	0.2	5	0.3	8
McIntosh Road at US 92	EB Left	250	9.3	233	8.1	203
	EB Thru/Right	1,000	15.0	375	23.0	575
	WB Left	450	5.5	138	3.7	93
	WB Through	1,000	15.3	383	11.3	283
	WB Right	500	22.8	570	8.2	205
	NB Left	180	3.3	83	1.7	43
	NB Thru/Right	1,000	39.5	988	19.8	495
	SB Left	150	26.2	655	14.0	350
	SB Thru/Right	2,000	26.0	650	23.8	595

*For ramps, the storage was determined as the length of the ramp or as the storage length when provided.

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

The results on **Tables 5-1 and 5-2** show the I-4 westbound off-ramp left turn movement operating at LOS E with a queue of 18 cars during the AM peak hour. Also, during the AM peak hour, the results show the northbound left turn queue at the I-4 westbound ramp terminal intersection is expected to reach the I-4 eastbound ramp termini intersection. The US 92 intersection operation will continue to worsen and the southbound left turn queue will impact McIntosh Road southbound through movement during both peak hours. The 2025 No-Build Synchro results are included in **Appendix D**.

5.1.2 Design Year 2045 No-Build Alternative

The improvements included in **Figure 5-2** and discussed in Section 5.1 are included in the Year 2045 No-Build Analysis. **Tables 5-3 and 5-4** summarize the intersections operational analysis results for the Year 2045 No-Build Alternative.

Table 5-3 Design Year (2045) No-Build Intersection Delay and LOS Results

Approach	Movement	AM Peak Hour			PM Peak Hour		
		Delay (sec)	LOS	Approach LOS	Delay (sec)	LOS	Approach LOS
Intersection: McIntosh Road at Muck Pond Road/Gore Road*							
Eastbound	Left/Thru/Right	20.5	C	C	31.5	D	D
Westbound	Left	1533.2	F	F	1018.5	F	F
	Thru/Right	48.5	E		34.4	D	
Northbound	Left	9.3	A		8.3	A	
Southbound	Left	8.9	A		9.7	A	
Intersection: McIntosh Road at I-4 WB Ramps**							
Westbound	Left	255.7	F	F	116.4	F	F
Northbound	Left	268.0	F	F	138.9	F	E
	Through	8.9	A		12.8	B	
Southbound	Thru/Right	216.6	F	F	79.8	E	E
Intersection			193.4	F	Intersection	84.1	F
Intersection: McIntosh Road at I-4 EB Ramps**							
Eastbound	Left	91.1	F	F	73.7	E	E
Northbound	Thru/Right	323.2	F	F	220.8	F	F
Southbound	Left	77.2	E	B	66.4	E	B
	Through	5.0	A		9.2	A	
Intersection			213.9	F	Intersection	132.9	F
Intersection: McIntosh Road at Newsome Road*							
Westbound	Left/Right	1633.3	F	F	97.3	F	F
Southbound	Left	19.5	C		14.9	B	
Intersection: McIntosh Road at US 92							
Eastbound	Left	145.0	F	F	108.6	F	E
	Thru/Right	42.0	D		35.4	D	
Westbound	Left	44.2	D	E	34.4	C	E
	Through	81.3	F		92.1	F	
	Right	44.6	D		29.8	C	
Northbound	Left	89.1	F	F	103.2	F	F
	Through	82.0	F		108.0	F	
	Right	47.5	D		57.6	E	
Southbound	Left	90.1	F	D	111.2	F	E
	Through	41.3	D		54.9	D	
	Right	22.1	C		26.7	C	
Intersection			67.3	E	Intersection	67.4	E

*Per HCM 6th Edition: For Two Way Stop Control (TWSC) intersections only minor movements delay and LOS are reported. HCM 6th Edition does not calculate LOS for major street thru movements and approaches or for the whole intersection as a whole. **HCM 6th Edition does not include unsignalized delay on approach delay and intersection delay calculations.

Table 5-4 Design Year (2045) No-Build Alternative Intersection Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95 th Percentile)		PM Peak Hour Queues (95 th Percentile)	
			Veh	Feet**	Veh	Feet**
McIntosh Road at Muck Pond Road/ Gore Road	EB Left/Thru/Right	1,000	1.6	40	3.3	83
	WB Left	175	30.1	753	21.0	525
	WB Thru/Right	1,000	1.3	33	0.8	20
	NB Left	480	0.4	10	0.3	8
	SB Left	1,000	0.0	0	0.0	0
McIntosh Road at I-4 WB Ramps	WB Left	1,200	47.2	1,180	32.8	820
	NB Left	240	74.3	1,858	40.5	1,013
	NB Through	600	12.0	300	14.1	353
	SB Thru/Right	480	90.3	2,258	40.0	1,000
McIntosh Road at I-4 EB Ramps	EB Left	1,200	9.6	240	13.3	333
	NB Thru/Right	260	209.6	5,240	129.5	3,238
	SB Left	240	8.9	223	10.6	265
	SB Through	600	10.4	260	15.5	388
McIntosh Road at Newsome Road	WB Left/Right	1,000	15.0	375	6.6	165
	SB Left	260	0.7	18	0.9	23
McIntosh Road at US 92	EB Left	650	31.9	798	26.9	673
	EB Thru/Right	1,000	13.9	348	18.8	470
	WB Left	450	8.3	208	8.3	208
	WB Through	1,000	22.4	560	33.3	833
	WB Right	500	16.9	423	9.2	230
	NB Left	400	6.4	160	4.6	115
	NB Through	1,000	26.2	655	20.8	520
	NB Right	400	3.9	98	6.5	163
	SB Left	500	16.4	410	17.1	428
	SB Through	2,000	13.0	325	17.9	448
	SB Right	500	13.0	325	12.8	320

*For ramps, the storage was determined as the length of the ramp or as the storage length when provided.

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

The results show the I-4 westbound off-ramp left turn movement will continue to deteriorate by the design year under No-Build conditions and the projected queue extends almost to the available storage. The queue is projected to be 47 vehicles in the morning and 33 vehicles in the afternoon. The northbound left turn queue at the I-4 westbound ramp terminal intersection is expected to reach the I-4 eastbound ramp terminal intersection and extend further south of the intersection during the AM peak hour. The northbound through movement queue at the I-4 eastbound ramp terminal intersection is expected to impact the US 92 intersection during both AM and PM peak hours. The 2045 No-Build Synchro results are included in **Appendix D**.

5.2 BUILD ALTERNATIVE

The Build Alternative consists of the improvements identified in the US 92 PD&E Study for the US 92 intersection as discussed in Section 5.1 plus the following improvements:

- Widening of McIntosh Road from a two-lane undivided roadway to a four-lane divided roadway from south of US 92 intersection to north of Muck Pond Road/Gore Road intersection.
- TUDI with the following improvements:
 - At the Muck Pond Road/Gore Road intersection
 - Adding a southbound left turn lane
 - Adding an eastbound right turn lane
 - Adding a northbound left turn and northbound right turn lane
 - Extending the storage length of the westbound left turn lane from 175 feet to 300 feet.
 - At the I-4 westbound ramp terminal intersection:
 - Dual northbound left turn lanes extending south to south of the Newsome Road intersection.
 - Adding an additional I-4 westbound left turn lane creating dual left turn lanes.
 - Adding a southbound to westbound right turn lane.
 - At the I-4 eastbound ramp terminal intersection:
 - Adding an additional I-4 eastbound right turn lane to create dual right turn lanes.
 - Adding a northbound right turn lane which creates a two-lane eastbound on-ramp. The two lanes merge into one lane before entering I-4 mainline.
- Access management improvements at the Newsome Road intersection.

With the access management improvements, the vehicles making the left from Newsome Road were assumed to make a right turn and make a U-turn movement at Muck Pond Road/Gore Road. Vehicles making a southbound left from McIntosh Road to access Newsome Road to access 7-Eleven and Burger King were assumed to stay in the area and visit Raceway Gas Station and McDonalds on the other side of the road instead. The Build Alternative improvements for Opening Year 2025 and Design Year 2045 are shown in **Figure 5-3**.

5.2.1 Opening Year 2025 Build Alternative

The improvements included in **Figure 5-3** and discussed in Section 5.2 are included in the Year 2025 Build Analysis. **Tables 5-5 and 5-6** summarize the intersections operational analysis results for the Year 2025 Build Alternative.

All the intersections are expected to operate at LOS D or better and none of the intersections movements queues are expected to exceed their storage length. The 2025 Build Synchro results are included in **Appendix E**.

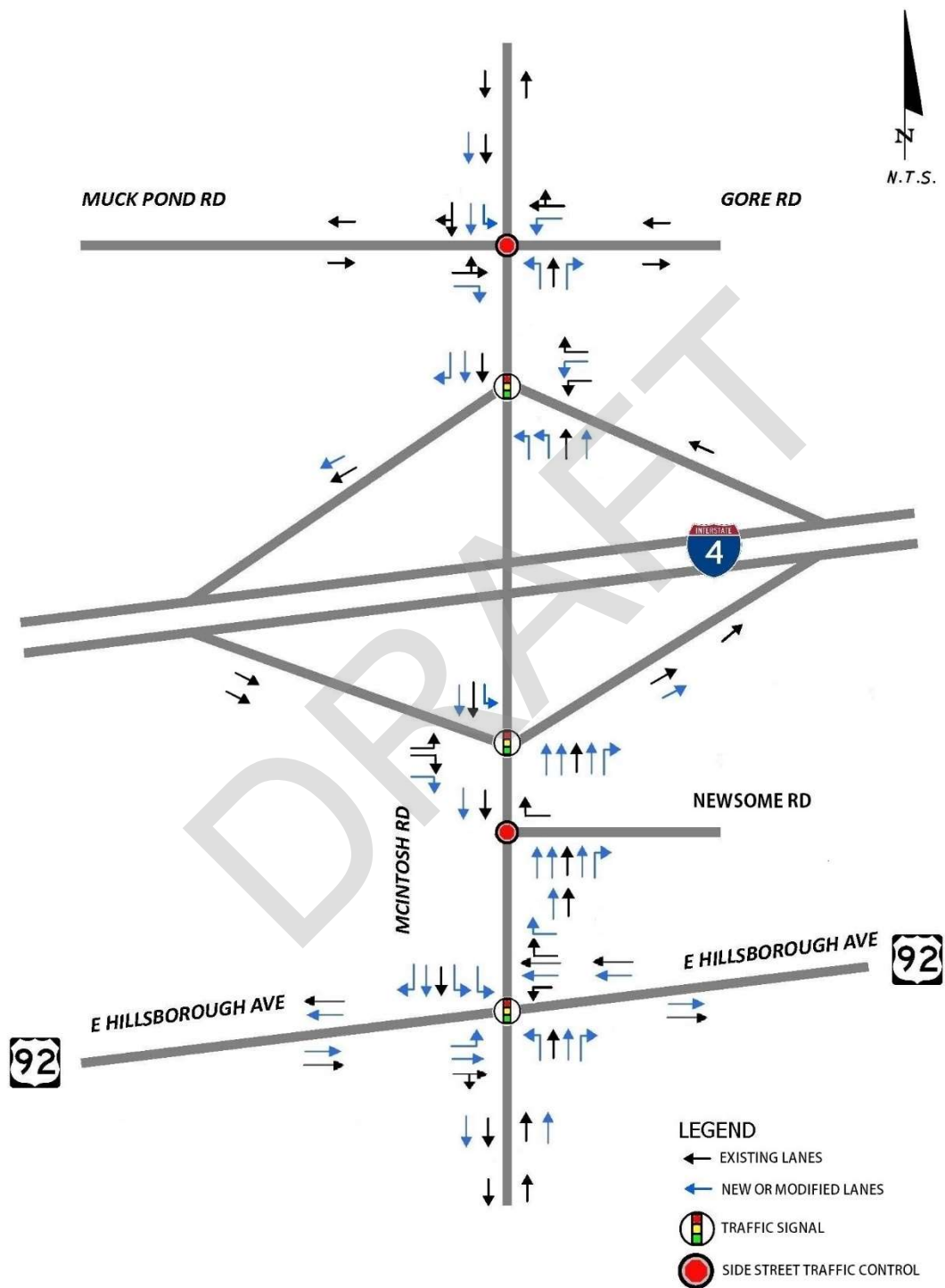


Figure 5-3 Build Alternative Geometry

Table 5-5 Opening Year (2025) Build Intersection Delay and LOS Results

Approach	Movement	AM Peak Hour			PM Peak Hour		
		Delay (sec)	LOS	Approach LOS	Delay (sec)	LOS	Approach LOS
Intersection: McIntosh Road at Muck Pond Road/Gore Road*							
Eastbound	Left/Thru	16.3	C	B	16.8	C	B
	Right	10.0	B		9.4	A	
Westbound	Left	21.4	C	C	18.2	C	C
	Thru/Right	15.3	C		13.6	C	
Northbound	Left	8.6	A		8.3	A	
Southbound	Left	8.3	A		8.6	A	
Intersection: McIntosh Road at I-4 WB Ramps**							
Westbound	Left	35.0	C	C	32.4	C	C
Northbound	Left	6.1	A	A	6.1	A	A
	Through	0.1	A		0.1	A	
Southbound	Through	11.5	B	B	10.5	B	B
Intersection		11.7	B	Intersection	11.8	B	
Intersection: McIntosh Road at I-4 EB Ramps**							
Eastbound	Left	26.6	C	D	25.9	C	C
	Right	39.0	D		35.1	D	
Northbound	Thru	10.9	B	B	12.0	B	B
Southbound	Left	6.9	A	A	8.0	A	A
	Through	0.3	A		0.3	A	
Intersection		13.9	B	Intersection	15.1	B	
Intersection: McIntosh Road at Newsome Road*							
Westbound	Right	15.5	C	C	13.2	B	B
Intersection: McIntosh Road at US 92							
Eastbound	Left	78.7	E	E	72.6	E	E
	Thru/Right	41.5	D		57.1	E	
Westbound	Left	47.7	D	D	53.8	D	D
	Through	55.0	D		63.1	E	
	Right	31.1	C		26.6	C	
Northbound	Left	43.7	D	D	41.6	D	D
	Through	50.1	D		44.8	D	
	Right	41.6	D		41.5	D	
Southbound	Left	22.1	C	B	15.5	B	B
	Through	17.6	B		13.3	B	
	Right	8.4	A		5.9	A	
Intersection		38.4	D	Intersection	37.9	D	

* Per HCM 6th Edition: For Two Way Stop Control (TWSC) intersections only minor movements delay and LOS are reported. HCM 6th Edition does not calculate LOS for major street thru movements and approaches or for the whole intersection as a whole. **HCM 6th Edition does not include unsignalized delay on approach delay and intersection delay calculations.

Table 5-6 Opening Year (2025) Build Alternative Intersection Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95 th Percentile)		PM Peak Hour Queues (95 th Percentile)	
			Veh	Feet**	Veh	Feet**
McIntosh Road at Muck Pond Road/ Gore Road	EB Left/Thru	1,000	0.1	3	0.2	5
	EB Right	300	0.3	8	0.3	8
	WB Left	300	2.5	63	1.4	35
	WB Thru/Right	1,000	0.2	5	0.2	5
	NB Left	480	0.2	5	0.2	5
	SB Left	1,000	0.0	0	0.0	0
McIntosh Road at I-4 WB Ramps	WB Left*	1,250	4.9	123	4.7	118
	NB Left	600	2.0	50	1.3	33
	NB Through	600	0.1	3	0.1	3
	SB Through	480	2.8	70	2.7	68
McIntosh Road at I-4 EB Ramps	EB Left	1,570	2.3	58	4.0	100
	EB Right*	1,325	6.6	165	7.5	188
	NB Through	260	2.8	70	2.0	50
	SB Left	240	1.0	25	1.2	30
	SB Through	600	0.1	3	0.2	5
McIntosh Road at Newsome Road	WB Right	1,000	0.7	18	0.7	18
McIntosh Road at US 92	EB Left	650	15.3	383	12.4	310
	EB Thru/Right	1,000	6.8	170	12.8	320
	WB Left	450	5.1	128	5.5	138
	WB Through	1,000	7.6	190	8.4	210
	WB Right	500	9.1	228	4.4	110
	NB Left	400	2.7	68	1.7	43
	NB Through	1,000	13.8	345	9.5	238
	NB Right	400	2.3	58	3.4	85
	SB Left	500	5.2	130	4.1	103
	SB Through	2,000	5.9	148	6.6	165
	SB Right	500	4.6	115	2.7	68

*Average of both turn lanes.

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

The unsignalized intersection of Newsome Road will be changed to a right in/right out condition with the Build Alternative. Four northbound through lanes will be approaching the unsignalized intersection and HCM 6th Edition unsignalized analysis only allows a maximum of three lanes on the major street. The northbound through movement volume was calculated by adding the northbound left turn movement volume plus the northbound through volume at Newsome Road minus the northbound left turn movement adjusted equally by the number of lanes plus the vehicles making the left from Newsome Road that were assumed to make a right turn and make a U-turn movement at Muck Pond Road/Gore Road. The unsignalized analysis for Newsome Road was conducted using

Highway Capacity Software (HCS) version 7 and those results are shown in **Table 5-5 and Table 5-6**. The HCS results are included in **Appendix E**.

5.2.2 Design Year 2045 Build Alternative

Tables 5-7 and 5-8 summarize the intersections operational analysis results for the Year 2045 Build Alternative.

All the intersections are expected to operate at LOS D or better in Design Year 2045 except for the US 92 intersection during the morning peak hour, which is shown operating at LOS E. The queues from the ramps are not expected to impact the I-4 mainline.

The queue for the westbound left at Muck Pond/Gore Road is expected to exceed the storage length during both peak hours. The queue for the eastbound left at the US 92 intersection is expected to exceed the storage length during the morning peak hour. The 2045 Build Synchro results are included in **Appendix E**.

The unsignalized intersection of Newsome Road will be changed to a right in/right out condition with the Build Alternative. Four northbound through lanes will be approaching the unsignalized intersection and HCM 6th Edition unsignalized analysis only allows a maximum of three lanes on the major street. The northbound through movement volume was calculated by adding the northbound left turn movement volume plus the northbound through volume at Newsome Road minus the northbound left turn movement adjusted equally by the number of lanes plus the vehicles making the left from Newsome Road that were assumed to make a right turn and make a U-turn movement at Muck Pond Road/Gore Road. The unsignalized analysis for Newsome Road was conducted using HCS 7 and those results are shown in **Table 5-5 and Table 5-6**. The HCS results are included in **Appendix E**.

Table 5-7 Design Year (2045) Build Intersection Delay and LOS Results

Approach	Movement	AM Peak Hour			PM Peak Hour		
		Delay (sec)	LOS	Approach LOS	Delay (sec)	LOS	Approach LOS
Intersection: McIntosh Road at Muck Pond Road/Gore Road*							
Eastbound	Left/Thru	24.1	C	B	28.7	D	B
	Right	11.3	B		10.2	B	
Westbound	Left	113.7	F	F	63.8	F	F
	Thru/Right	22.1	C		18.7	C	
Northbound	Left	9.7	A		8.9	A	
Southbound	Left	8.9	A		9.7	A	
Intersection: McIntosh Road at I-4 WB Ramps**							
Westbound	Left	37.8	D	D	32.1	C	C
Northbound	Left	9.3	A	A	26.8	C	B
	Through	0.2	A		0.3	A	
Southbound	Through	20.9	C	C	19.8	B	B
Intersection		15.4		B	Intersection	18.8	B
Intersection: McIntosh Road at I-4 EB Ramps**							
Eastbound	Left	27.3	C	D	24.9	C	D
	Right	47.9	D		51.6	D	
Northbound	Thru/Right	17.3	B	B	18.1	B	B
Southbound	Left	43.8	D	A	37.7	D	A
	Through	0.5	A		0.6	A	
Intersection		20.3		C	Intersection	22.7	C
Intersection: McIntosh Road at Newsome Road*							
Westbound	Right	27.6	D	D	21.4	C	C
Intersection: McIntosh Road at US 92							
Eastbound	Left	113.0	F	E	92.9	F	E
	Thru/Right	39.9	D		51.2	D	
Westbound	Left	44.3	D	D	46.3	D	D
	Through	82.5	F		58.7	E	
	Right	21.6	C		13.6	B	
Northbound	Left	89.2	F	E	94.1	F	D
	Through	59.6	E		53.6	D	
	Right	29.8	C		24.7	C	
Southbound	Left	98.4	F	D	87.6	F	D
	Through	37.4	D		40.1	D	
	Right	17.9	B		18.2	B	
Intersection		57.4		E	Intersection	51.5	D

* Per HCM 6th Edition: For Two Way Stop Control (TWSC) intersections only minor movements delay and LOS are reported. HCM 6th Edition does not calculate LOS for major street thru movements and approaches or for the whole intersection as a whole. **HCM 6th Edition does not include unsignalized delay on approach delay and intersection delay calculations.

Table 5-8 Design Year (2045) Build Alternative Intersection Vehicle Queues

Intersection	Movement	Storage (ft)	AM Peak Hour Queues (95 th Percentile)		PM Peak Hour Queues (95 th Percentile)	
			Veh	Feet**	Veh	Feet**
McIntosh Road at Muck Pond Road/ Gore Road	EB Left/Thru	1,000	0.2	5	0.7	18
	EB Right	300	0.6	15	0.6	15
	WB Left	300	11.3	283	6.6	165
	WB Thru/Right	1,000	0.5	13	0.4	10
	NB Left	480	0.5	13	0.4	10
	SB Left	1,000	0.0	0	0.0	0
McIntosh Road at I-4 WB Ramps	WB Left*	1,250	8.1	203	6.9	173
	NB Left	600	4.1	103	6.1	153
	NB Through	600	0.1	3	0.2	5
	SB Through	480	6.8	170	6.4	160
McIntosh Road at I-4 EB Ramps	EB Left	1,570	3.7	93	5.7	143
	EB Right*	1,350	10.7	268	12.4	310
	NB Through	260	6.6	165	4.6	115
	SB Left	240	5.8	145	5.0	125
	SB Through	600	0.2	5	0.3	8
McIntosh Road at Newsome Road	WB Right	1,000	2.2	55	2.0	50
McIntosh Road at US 92	EB Left	650	28.9	723	24.3	608
	EB Thru/Right	1,000	13.6	340	21.6	540
	WB Left	450	8.3	208	9.2	230
	WB Through	1,000	22.5	563	14.1	353
	WB Right	500	9.3	233	5.2	130
	NB Left	400	6.4	160	4.2	105
	NB Through	1,000	22.8	570	14.9	373
	NB Right	400	3.6	90	5.3	133
	SB Left	500	17.0	425	15.0	375
	SB Through	2,000	12.4	310	15.0	375
	SB Right	500	11.7	293	10.3	258

*Average of both turn lanes.

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

5.3 FUTURE CONDITIONS SAFETY ANALYSIS

The Build Alternative improvements for McIntosh Road include widening McIntosh Road from a two-lane undivided roadway to a four-lane divided roadway, access management, and additional left turn and right turn lanes at the I-4 ramp terminal intersections. A crash modification factor (CMF) of 0.341 was obtained from the CMF Clearinghouse. CMF ID 7566 was used in this PTAR because it includes Florida data. The CMF represents a reduction of 66% in total crashes along McIntosh Road. Therefore, the improvement is expected to reduce 66% of the 81 applicable crashes that occur along McIntosh Road.

The information for CMF 7566 is included in **Appendix F**.

DRAFT

SECTION 6 SUMMARY OF ANALYSIS RESULTS

The Build Alternative for McIntosh Road consists of the following improvements:

- Widening of McIntosh Road from a two-lane undivided roadway to a four-lane divided roadway from south of US 92 intersection to north of Muck Pond Road/Gore Road intersection.
- TUDI with the following improvements:
 - At the Muck Pond Road/Gore Road intersection
 - Adding a southbound left turn lane
 - Adding an eastbound right turn lane
 - Adding a northbound left turn and northbound right turn lane
 - Extending the storage length of the westbound left turn lane from 175 feet to 300 feet.
 - At the I-4 westbound ramp terminal intersection:
 - Dual northbound left turn lanes extending south to south of the Newsome Road intersection.
 - Adding an additional I-4 westbound left turn lane creating dual left turn lanes.
 - Adding a southbound to westbound right turn lane.
 - At the I-4 eastbound ramp terminal intersection:
 - Adding an additional I-4 eastbound right turn lane to create dual right turn lanes.
 - Adding a northbound right turn lane which creates a two-lane eastbound on-ramp. The two lanes merge into one lane before entering I-4 mainline
- Additional access management improvements will be evaluated in the PD&E Study and coordinated with Hillsborough County.

As shown in **Table 6-1**, the Build Alternative improves the intersection delays compared to the No-Build Alternative. **Table 6-2** shows the arterial LOS results of the No-Build and Build Alternatives. The widening of McIntosh Road will improve the capacity, operation, and safety along McIntosh Road and improve connectivity between I-4 and US 92.

Table 6-1 Design Year (2045) Intersection Analysis Summary

Intersection	No-Build (2045) Intersection Results				Build (2045) Intersection Results			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Muck Pond Road/Gore Road*	1533.2	F	1018.5	F	388.9	F	317.0	F
I-4 WB Ramps	193.4	F	84.1	F	15.4	B	18.8	B
I-4 EB Ramps	213.9	F	132.9	F	20.3	C	22.7	C
Newsome Road**	1633.3	F	97.3	F	27.6	D	21.4	C
US 92	67.3	E	67.4	E	57.4	E	51.5	D

*Represents highest movement delay for the unsignalized intersection.

**Additional analysis results shown under Build Alternative

Table 6-2 Design Year (2045) Arterial LOS

Cross Street along McIntosh Road	No-Build (2045)				Build (2045)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS	Arterial Speed (mph)	LOS
Northbound Direction								
US 92	6.7	F	5.4	F	6.0	F	8.2	F
I-4 EB On-ramp	3.4	F	4.6	F	27.8	C	28.4	B
I-4 WB On-ramp	17.9	D	15.2	E	20.2	D	22.1	C
Total	4.6	F	5.4	F	13.8	E	16.7	E
Southbound Direction								
I-4 WB On-ramp	4.7	F	9.6	F	18.3	D	18.2	D
I-4 EB On-ramp	16.0	E	12.9	F	18.4	D	14.8	E
US 92	17.9	D	15.9	E	18.5	D	18.4	D
Total	9.0	F	12.6	F	18.4	D	17.7	D

APPENDICES

APPENDIX A	Approved PTAR Methodology
APPENDIX B	Traffic Data from Approved I-4 at McIntosh Road Non-IAR
APPENDIX C	Existing (2020) Operational Analysis
APPENDIX D	No-Build Alternative Operational Analysis
APPENDIX E	Build Alternative Operational Analysis
APPENDIX F	CMF 7566

DRAFT

APPENDIX A Approved PTAR Methodology

Correa, Rosana X.

From: Maass, Peter <Peter.Maass@dot.state.fl.us>
Sent: Friday, July 8, 2022 1:47 PM
To: Correa, Rosana X.; Winkle, David; Matthew G. Wey, PE
Subject: [EXTERNAL] RE: Branch Forbes Road and McIntosh Road - PTAR Methodology

Rosana,
As discussed this morning, please proceed. Methodology looks good.

Peter Maass, PE, PTOE
District Seven Project Development and Analysis
peter.maass@dot.state.fl.us
813-975-6425

From: Correa, Rosana X. <Rosana.Correa@jacobs.com>
Sent: Tuesday, July 5, 2022 3:00 PM
To: Winkle, David <David.Winkle@dot.state.fl.us>; Maass, Peter <Peter.Maass@dot.state.fl.us>; Matthew G. Wey, PE <mwey@weyeng.com>
Subject: Branch Forbes Road and McIntosh Road - PTAR Methodology

EXTERNAL SENDER: Use caution with links and attachments.

Good afternoon,

Below is the PTARs Methodology discussed at the call earlier today:

- Summarize data/improvements at US-92 intersection per scope
- Data collection
 - Traffic data from the Brach Forbes Rd IOAR and McIntosh Non-IAR will be used.
 - Data will be developed for McIntosh at Newsome Road since this intersection is added to the network
- Analysis Years:
 - Year 2020 (Existing Year)
 - Year 2025 (Opening Year)
 - Year 2045 (Design Year)
- Travel Demand Forecasting
 - Travel demand forecasting procedure from Brach Forbes Rd IOAR and McIntosh Non-IAR will be summarized.
- Synchro version 11 will be used for the operation analysis
- No-Build Analysis:
 - 2025: Will include the interchange improvements identified in the Brach Forbes Rd IOAR and McIntosh Non-IAR
 - 2045: Will include the Will include the interchange improvements identified in the Brach Forbes Rd IAOR and McIntosh Non-IAR plus US 92 intersection improvements.
- Build Analysis: For both Years 2025 and 2045

- Will include the TUDI alternative
- Widening of Branch Forbes and McIntosh Road
- US 92 intersection improvements
- Crash Data:
 - Crash data from 2015 – 2019 will be summarized in each PTAR

Let me know if you have any comments or questions.

Thanks,
Rosana

Rosana Correa, P.E. (FL, PR), PTOE, FITE | Jacobs | 813.676.2041 direct | rosana.correa@jacobs.com | www.jacobs.com

Jacobs Challenging today.
Reinventing tomorrow.

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

APPENDIX B Traffic Data from Approved I-4 at McIntosh Road Non-IAR

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 10 - HILLSBOROUGH

SITE: 2790 - RP, EB SR400/I-4 TO MCINTOSH RD

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	5700 F		0		0	9.00	99.90	8.70
2018	5600 C	E	5600		0	9.00	99.90	10.00
2017	5900 S		0		0	9.00	99.90	8.70
2016	5700 F		0		0	9.00	99.90	8.90
2015	5600 C	E	5600		0	9.00	99.90	8.20
2014	6200 T					9.00	99.90	9.30
2013	6200 S		0		0	9.00	99.90	8.00
2012	6200 F		0		0	9.00	99.90	7.70
2011	6200 C	E	6200		0	9.00	99.90	8.60
2010	5900 F		0		0	9.51	99.99	8.00
2009	6000 C	E	6000		0	9.54	99.99	8.50
2008	6300 C	E	6300		0	9.13	99.99	10.30
2007	6800 C	E	6800		0	9.52	99.99	11.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 10 - HILLSBOROUGH

SITE: 2791 - RP, MCINTOSH RD TO EB SR400/I-4

YEAR	AADT	DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	5000 F		0	0	9.00	99.90	8.70
2018	4900 C	E	4900	0	9.00	99.90	10.00
2017	5100 S		0	0	9.00	99.90	8.70
2016	5000 F		0	0	9.00	99.90	8.90
2015	4900 C	E	4900	0	9.00	99.90	8.20
2014	4800 T				9.00	99.90	9.30
2013	4800 S		0	0	9.00	99.90	8.00
2012	4800 F		0	0	9.00	99.90	7.70
2011	4800 C	E	4800	0	9.00	99.90	8.60
2010	4300 F		0	0	9.51	99.99	8.00
2009	4400 C	E	4400	0	9.54	99.99	8.50
2008	4300 C	E	4300	0	9.13	99.99	10.30
2007	4400 C	E	4400	0	9.52	99.99	11.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 10 - HILLSBOROUGH

SITE: 2788 - RP, WB SR400/I-4 TO MCINTOSH RD

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	4200 F		0		0	9.00	99.90	8.70
2018	4100 C	W	4100		0	9.00	99.90	10.00
2017	4500 S		0		0	9.00	99.90	8.70
2016	4400 F		0		0	9.00	99.90	8.90
2015	4300 C	W	4300		0	9.00	99.90	8.20
2014	4700 T					9.00	99.90	9.30
2013	4700 S		0		0	9.00	99.90	8.00
2012	4700 F		0		0	9.00	99.90	7.70
2011	4700 C	W	4700		0	9.00	99.90	8.60
2010	3900 F		0		0	9.51	99.99	8.00
2009	4000 C	W	4000		0	9.54	99.99	8.50
2008	3800 C	W	3800		0	9.13	99.99	10.30
2007	3900 C	W	3900		0	9.52	99.99	11.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 10 - HILLSBOROUGH

SITE: 2789 - RP, MCINTOSH RD TO WB SR400/I-4

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	5700 F		0		0	9.00	99.90	8.70
2018	5600 C	W	5600		0	9.50	99.90	10.00
2017	5800 S		0		0	9.50	99.90	8.70
2016	5600 F		0		0	9.50	99.90	8.90
2015	5500 C	W	5500		0	9.00	99.90	8.20
2014	5800 T					9.00	99.90	9.30
2013	5800 S		0		0	9.00	99.90	8.00
2012	5800 F		0		0	9.00	99.90	7.70
2011	5800 C	W	5800		0	9.00	99.90	8.60
2010	5600 F		0		0	9.51	99.99	8.00
2009	5700 C	W	5700		0	9.54	99.99	8.50
2008	6300 C	W	6300		0	9.13	99.99	10.30
2007	6300 C	W	6300		0	9.52	99.99	11.60

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2019 HISTORICAL AADT REPORT

COUNTY: 10 - HILLSBOROUGH

SITE: 6001 - SR 600/US 92, W OF GALLAGHER RD

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	12000 F	E	6000	W	6000	9.00	58.90	9.00
2018	11800 C	E	5900	W	5900	9.00	59.70	9.00
2017	12500 F	E	6200	W	6300	9.00	59.60	9.40
2016	12100 C	E	6000	W	6100	9.00	57.00	9.40
2015	10600 S	E	5400	W	5200	9.00	56.80	9.00
2014	10600 F	E	5400	W	5200	9.00	58.60	8.90
2013	10600 C	E	5400	W	5200	9.00	58.20	9.70
2012	10200 C	E	5100	W	5100	9.00	59.00	9.20
2011	10800 C	E	5400	W	5400	9.00	57.20	9.50
2010	9600 F	E	4700	W	4900	9.51	56.00	9.20
2009	9800 C	E	4800	W	5000	9.54	55.72	10.50
2008	10100 F	E	5000	W	5100	9.13	55.29	10.50
2007	10100 C	E	5000	W	5100	9.52	56.79	10.50
2006	9600 C	E	4800	W	4800	9.41	55.29	12.10
2005	9300 C	E	4500	W	4800	9.70	55.90	8.60
2004	9300 C	E	4700	W	4600	8.60	54.00	8.00

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

Station Name: McIntosh Rd North of Muck Pond/Gore Rd
 Description: 72Hr Volume Counts ADR #112
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: McIntosh Rd North of Muck Pond Rd - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :	0												
AM Peak Hour Begins :				AM Peak Volume :				AM Peak Hour Factor :					
PM Peak Hour Begins :				PM Peak Volume :				PM Peak Hour Factor :					

Date: 02/25/2020		Station Name: McIntosh Rd North of Muck Pond Rd - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :	0												
AM Peak Hour Begins :				AM Peak Volume :				AM Peak Hour Factor :					
PM Peak Hour Begins :				PM Peak Volume :				PM Peak Hour Factor :					

Station Name: McIntosh Rd North of Muck Pond/Gore Rd
 Description: 72Hr Volume Counts ADR #112
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020	Station Name: McIntosh Rd North of Muck Pond Rd - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15												
30												
45												
00												
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15												
30												
45												
00												
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :	0											
AM Peak Hour Begins :				AM Peak Volume :				AM Peak Hour Factor :				
PM Peak Hour Begins :				PM Peak Volume :				PM Peak Hour Factor :				

Date: 02/26/2020	Station Name: McIntosh Rd North of Muck Pond Rd - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15												
30												
45												
00												
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15												
30												
45												
00												
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :	0											
AM Peak Hour Begins :				AM Peak Volume :				AM Peak Hour Factor :				
PM Peak Hour Begins :				PM Peak Volume :				PM Peak Hour Factor :				

Station Name: McIntosh Rd North of Muck Pond/Gore Rd
 Description: 72Hr Volume Counts ADR #112
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: McIntosh Rd North of Muck Pond Rd - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :		0											
AM Peak Hour Begins :						AM Peak Volume :				AM Peak Hour Factor :			
PM Peak Hour Begins :						PM Peak Volume :				PM Peak Hour Factor :			

Date: 02/27/2020		Station Name: McIntosh Rd North of Muck Pond Rd - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15													
30													
45													
00													
Hr Total		0	0	0	0	0	0	0	0	0	0	0	0
24 Hour Total :		0											
AM Peak Hour Begins :						AM Peak Volume :				AM Peak Hour Factor :			
PM Peak Hour Begins :						PM Peak Volume :				PM Peak Hour Factor :			

Station Name: Muck Pond Rd West of McIntosh Rd

Description: 72Hr Volume counts ADR #105

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	2	1	0	0	5	5	11	25	14	19	12	11	
30	1	0	2	0	1	5	15	26	26	22	14	16	
45	2	0	0	1	2	1	14	24	17	20	5	5	
00	0	0	1	1	3	13	14	19	19	12	8	10	
Hr Total	5	1	3	2	11	24	54	94	76	73	39	42	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	15	16	18	18	19	31	27	15	5	3	1	1	
30	16	7	9	16	26	34	16	11	6	4	1	2	
45	17	15	12	30	41	31	21	11	8	5	2	3	
00	16	10	10	23	36	22	11	4	10	2	1	0	
Hr Total	64	48	49	87	122	118	75	41	29	14	5	6	
24 Hour Total :			1082										
AM Peak Hour Begins :			7:00	AM Peak Volume :				94	AM Peak Hour Factor :				0.9
PM Peak Hour Begins :			16:30	PM Peak Volume :				142	PM Peak Hour Factor :				0.87

Date: 02/25/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Westbound												
End Time	00	01	02	03	04	05	06	07	08	09	10	11		
15	1	0	1	1	1	1	7	24	25	17	10	7		
30	1	0	0	0	1	0	3	22	16	14	4	9		
45	2	1	0	0	1	5	19	18	17	8	14	20		
00	1	1	1	1	1	6	23	28	27	11	17	17		
Hr Total	5	2	2	2	4	12	52	92	85	50	45	53		
End Time	12	13	14	15	16	17	18	19	20	21	22	23		
15	9	20	13	14	25	33	17	8	11	4	6	5		
30	14	8	20	27	25	23	18	11	14	10	0	0		
45	15	9	16	10	11	16	13	14	10	5	6	0		
00	17	13	15	23	23	22	6	6	8	8	2	1		
Hr Total	55	50	64	74	84	94	54	39	43	27	14	6		
24 Hour Total :			1008											
AM Peak Hour Begins :			7:15		AM Peak Volume :			93		AM Peak Hour Factor :			0.83	
PM Peak Hour Begins :			16:45		PM Peak Volume :			95		PM Peak Hour Factor :			0.72	

Station Name: Muck Pond Rd West of McIntosh Rd

Description: 72Hr Volume counts ADR #105

City: Seffner

County: Hillsborough

Start Date/Time: 02/26/2020 00:00

End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Eastbound												
End Time	00	01	02	03	04	05	06	07	08	09	10	11		
15		2	0	1	0	2	3	16	21	20	21	6	21	
30		1	1	0	2	2	5	7	30	20	12	7	13	
45		0	1	0	2	1	4	21	21	16	11	12	9	
00		0	0	1	2	2	6	17	29	13	7	10	17	
Hr Total		3	2	2	6	7	18	61	101	69	51	35	60	
End Time	12	13	14	15	16	17	18	19	20	21	22	23		
15		17	12	14	26	28	43	28	5	6	6	1	0	
30		12	10	17	23	23	32	10	16	3	6	4	2	
45		17	5	17	17	29	26	20	6	5	4	0	1	
00		10	9	22	27	21	24	11	5	4	2	0	0	
Hr Total		56	36	70	93	101	125	69	32	18	18	5	3	
24 Hour Total :			1041											
AM Peak Hour Begins :			7:00		AM Peak Volume :			101		AM Peak Hour Factor :			0.84	
PM Peak Hour Begins :			16:30		PM Peak Volume :			125		PM Peak Hour Factor :			0.73	

Date: 02/26/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Westbound												
End Time	00	01	02	03	04	05	06	07	08	09	10	11		
15		2	1	1	0	4	0	7	24	17	10	13	11	
30		1	1	0	0	0	4	13	23	20	11	12	18	
45		0	0	1	1	0	2	12	20	17	9	11	20	
00		1	1	0	1	3	3	18	31	13	6	14	6	
Hr Total		4	3	2	2	7	9	50	98	67	36	50	55	
End Time	12	13	14	15	16	17	18	19	20	21	22	23		
15		20	12	16	14	18	16	15	8	10	9	4	2	
30		16	14	11	26	21	21	12	8	12	10	11	1	
45		11	9	16	23	20	13	8	14	7	5	4	2	
00		16	15	15	28	13	12	11	15	7	2	0	2	
Hr Total		63	50	58	91	72	62	46	45	36	26	19	7	
24 Hour Total :		958												
AM Peak Hour Begins :		7:00		AM Peak Volume :				98		AM Peak Hour Factor :				0.79
PM Peak Hour Begins :		15:15		PM Peak Volume :				95		PM Peak Hour Factor :				0.85

Station Name: Muck Pond Rd West of McIntosh Rd

Description: 72Hr Volume counts ADR #105

City: Seffner

County: Hillsborough

Start Date/Time: 02/27/2020 00:00

End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	2	0	1	0	0	2	14	25	18	16	12	11	
30	1	0	1	2	3	5	11	26	22	12	13	15	
45	2	0	0	0	0	5	19	21	12	17	10	16	
00	1	0	0	2	0	5	16	19	16	8	10	10	
Hr Total	6	0	2	4	3	17	60	91	68	53	45	52	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	11	14	15	22	28	62	54	20	7	7	6	1	
30	13	22	16	24	25	39	40	17	4	3	3	1	
45	10	20	15	23	40	37	22	6	4	5	0	1	
00	12	17	18	22	45	47	19	8	6	1	3	1	
Hr Total	46	73	64	91	138	185	135	51	21	16	12	4	
24 Hour Total :		1237											
AM Peak Hour Begins :		7:00		AM Peak Volume :				91		AM Peak Hour Factor :			
PM Peak Hour Begins :		16:30		PM Peak Volume :				186		PM Peak Hour Factor :			
										0.88			
										0.75			

Date: 02/27/2020		Station Name: Muck Pond Rd West Of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	1	0	0	3	3	0	3	28	16	17	8	11	
30	1	0	1	0	0	1	8	26	12	16	11	13	
45	2	1	0	0	1	4	11	23	19	9	8	12	
00	1	0	1	0	2	5	24	19	14	11	8	18	
Hr Total	5	1	2	3	6	10	46	96	61	53	35	54	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	11	16	16	12	27	37	19	11	8	4	9	4	
30	17	9	10	22	18	54	22	8	2	7	11	1	
45	21	8	21	24	23	24	7	12	6	7	9	3	
00	18	18	16	18	12	17	10	9	10	2	1	2	
Hr Total	67	51	63	76	80	132	58	40	26	20	30	10	
24 Hour Total :		1025											
AM Peak Hour Begins :		6:45		AM Peak Volume :				101		AM Peak Hour Factor :			
PM Peak Hour Begins :		17:00		PM Peak Volume :				132		PM Peak Hour Factor :			
										0.9			
										0.61			

Station Name: Gore Rd East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #352
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: Gore Rd East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	5	2	0	2	2	2	2	5	13	28	12	16	23
30	2	1	3	3	1	3	13	32	28	16	19	23	
45	6	3	2	2	3	5	12	24	22	18	21	24	
00	0	4	0	1	1	9	10	29	26	18	29	22	
Hr Total	13	10	5	8	7	19	40	98	104	64	85	92	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	26	32	43	37	50	42	49	37	25	20	14	17	
30	26	32	24	47	44	50	36	25	28	22	10	5	
45	35	20	32	52	54	50	41	35	30	21	5	7	
00	32	32	41	44	56	53	44	28	23	18	6	4	
Hr Total	119	116	140	180	204	195	170	125	106	81	35	33	
24 Hour Total :			2049										
AM Peak Hour Begins :			7:15	AM Peak Volume :				113	AM Peak Hour Factor :				0.88
PM Peak Hour Begins :			16:00	PM Peak Volume :				204	PM Peak Hour Factor :				0.91

Date: 02/25/2020		Station Name: Gore Rd East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	2	1	0	3	3	11	45	71	52	32	36	28	
30	3	3	0	1	5	22	52	50	37	29	30	23	
45	1	1	1	4	9	29	78	80	39	26	24	38	
00	4	0	7	2	8	43	56	59	27	28	31	31	
Hr Total	10	5	8	10	25	105	231	260	155	115	121	120	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	31	37	39	30	30	52	27	22	8	10	3	4	
30	20	25	18	24	20	20	25	17	8	3	2	5	
45	19	25	15	32	27	27	22	13	7	4	4	3	
00	24	19	26	16	30	22	27	9	11	3	1	2	
Hr Total	94	106	98	102	107	121	101	61	34	20	10	14	
24 Hour Total :			2033										
AM Peak Hour Begins :			7:00	AM Peak Volume :				260	AM Peak Hour Factor :				0.81
PM Peak Hour Begins :			16:15	PM Peak Volume :				129	PM Peak Hour Factor :				0.62

Station Name: Gore Rd East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #352
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020	Station Name: Gore Rd East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	3	2	1	2	3	9	11	22	26	19	20
30	4	1	2	1	1	5	6	36	24	18	16	17
45	3	0	2	1	2	3	12	25	21	19	20	24
00	2	1	0	1	3	4	13	35	16	19	18	23
Hr Total	16	5	6	4	8	15	40	107	83	82	73	84
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	18	15	31	40	57	42	40	29	22	33	10	9
30	29	43	34	42	36	43	50	29	29	25	17	9
45	36	28	42	56	30	46	49	30	27	22	5	7
00	34	25	47	45	41	37	29	21	26	11	5	4
Hr Total	117	111	154	183	164	168	168	109	104	91	37	29
24 Hour Total :			1958									
AM Peak Hour Begins :			7:15	AM Peak Volume :			118	AM Peak Hour Factor :			0.82	
PM Peak Hour Begins :			15:15	PM Peak Volume :			200	PM Peak Hour Factor :			0.88	

Date: 02/26/2020	Station Name: Gore Rd East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	0	0	0	4	15	53	53	40	39	33	26
30	0	3	3	1	5	21	41	59	38	27	34	26
45	0	1	1	8	10	33	62	64	31	37	22	12
00	1	3	2	4	12	47	53	55	31	35	26	20
Hr Total	5	7	6	13	31	116	209	231	140	138	115	84
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	27	20	27	25	18	43	28	14	12	5	1	2
30	31	25	23	15	17	25	28	16	8	8	1	2
45	16	31	36	25	23	22	15	11	14	8	6	1
00	19	22	26	23	27	24	15	11	4	4	7	4
Hr Total	93	98	112	88	85	114	86	52	38	25	15	9
24 Hour Total :			1910									
AM Peak Hour Begins :			7:00	AM Peak Volume :			231	AM Peak Hour Factor :			0.9	
PM Peak Hour Begins :			16:30	PM Peak Volume :			118	PM Peak Hour Factor :			0.69	

Station Name: Gore Rd East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #352
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020	Station Name: Gore Rd East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	1	1	0	2	5	6	22	30	13	19	19
30	3	2	2	2	0	2	18	23	22	21	16	25
45	6	4	2	4	3	4	13	27	19	16	22	18
00	4	1	1	5	2	7	8	31	8	9	22	29
Hr Total	20	8	6	11	7	18	45	103	79	59	79	91
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	32	18	30	33	44	58	49	49	25	20	16	10
30	27	37	40	38	35	62	38	31	30	18	8	6
45	24	25	40	51	45	50	31	37	36	22	14	10
00	31	29	44	40	47	51	30	31	24	19	9	4
Hr Total	114	109	154	162	171	221	148	148	115	79	47	30
24 Hour Total :		2024										
AM Peak Hour Begins :		7:15		AM Peak Volume :			111		AM Peak Hour Factor :			0.9
PM Peak Hour Begins :		17:00		PM Peak Volume :			221		PM Peak Hour Factor :			0.89

Date: 02/27/2020	Station Name: Gore Rd East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	3	2	2	7	8	14	57	98	38	24	29	31
30	3	1	0	1	7	14	54	44	43	28	16	28
45	2	1	1	1	10	43	57	65	26	26	29	27
00	1	0	1	3	16	54	68	46	35	23	23	24
Hr Total	9	4	4	12	41	125	236	253	142	101	97	110
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	31	23	20	19	29	45	28	20	15	5	4	1
30	29	24	28	16	31	21	19	17	15	7	5	7
45	24	22	19	27	18	19	28	12	7	4	3	2
00	28	23	20	12	30	25	24	20	5	5	0	0
Hr Total	112	92	87	74	108	110	99	69	42	21	12	10
24 Hour Total :		1970										
AM Peak Hour Begins :		6:15		AM Peak Volume :			277		AM Peak Hour Factor :			0.71
PM Peak Hour Begins :		16:15		PM Peak Volume :			124		PM Peak Hour Factor :			0.69

Station Name: I-4 WB -On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #62

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: I-4 WB -On- Ramp from McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	8	6	6	4	7	39	150	190	128	87	80	75	
30	7	9	5	11	14	62	183	189	132	94	77	92	
45	8	3	7	8	26	91	213	174	110	116	81	78	
00	3	2	11	13	38	105	195	187	95	64	82	95	
Hr Total	26	20	29	36	85	297	741	740	465	361	320	340	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	86	72	90	78	100	83	88	51	45	19	13	10	
30	94	85	74	100	71	91	75	64	24	23	26	14	
45	69	74	82	91	64	48	68	59	38	21	15	13	
00	70	70	90	110	57	62	56	42	22	13	21	9	
Hr Total	319	301	336	379	292	284	287	216	129	76	75	46	
24 Hour Total :			6200										
AM Peak Hour Begins :			6:30	AM Peak Volume :			787	AM Peak Hour Factor :			0.92		
PM Peak Hour Begins :			15:15	PM Peak Volume :			401	PM Peak Hour Factor :			0.91		

Station Name: I-4 WB -On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #62

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: I-4 WB-On- Ramp from McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	13	1	6	4	8	50	156	166	129	90	85	63	
30	3	1	1	11	19	46	151	179	105	84	80	73	
45	0	5	9	10	26	86	204	188	100	88	92	70	
00	6	5	7	10	28	115	176	162	83	75	65	67	
Hr Total	22	12	23	35	81	297	687	695	417	337	322	273	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	74	74	73	97	89	67	56	51	22	24	19	11	
30	62	71	81	82	82	80	65	34	32	19	14	9	
45	78	93	70	79	46	70	53	41	23	19	17	10	
00	70	75	81	81	55	48	48	27	18	18	14	4	
Hr Total	284	313	305	339	272	265	222	153	95	80	64	34	
24 Hour Total :			5627										
AM Peak Hour Begins :			6:30	AM Peak Volume :			725	AM Peak Hour Factor :			0.89		
PM Peak Hour Begins :			14:45	PM Peak Volume :			339	PM Peak Hour Factor :			0.87		

Station Name: I-4 WB-On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #62

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: I-4 WB-On- Ramp from McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	6	5	5	8	13	50	177	163	120	87	79	66	
30	6	7	9	7	21	61	164	172	130	77	72	85	
45	9	7	8	10	29	74	206	198	95	81	73	84	
00	8	4	8	9	32	125	165	140	85	66	67	83	
Hr Total	29	23	30	34	95	310	712	673	430	311	291	318	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	68	65	71	77	101	65	69	48	43	17	31	10	
30	85	73	80	91	83	75	70	57	26	23	10	5	
45	69	75	79	92	69	67	72	69	37	49	20	14	
00	69	76	88	106	68	60	63	29	29	24	19	10	
Hr Total	291	289	318	366	321	267	274	203	135	113	80	39	
24 Hour Total :			5952										
AM Peak Hour Begins :			6:00	AM Peak Volume :			712	AM Peak Hour Factor :			0.86		
PM Peak Hour Begins :			15:15	PM Peak Volume :			390	PM Peak Hour Factor :			0.92		

Station Name: WB I-4 -Off-Ramp To McIntosh Rd

Description: Volume Counts ADR #42

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: WB I-4 -Off- Ramp Volume Counts - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	14	8	5	3	6	12	34	43	34	63	47	37	
30	16	6	11	2	2	26	53	41	52	63	52	36	
45	10	5	6	12	11	36	43	52	59	72	53	43	
00	10	6	9	5	23	33	47	51	59	54	52	46	
Hr Total	50	25	31	22	42	107	177	187	204	252	204	162	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	44	66	78	75	63	150	71	61	48	44	19	15	
30	70	70	80	82	102	118	74	75	63	40	24	14	
45	70	60	79	69	126	116	69	62	52	44	24	13	
00	73	90	91	57	145	91	64	63	42	31	19	10	
Hr Total	257	286	328	283	436	475	278	261	205	159	86	52	
24 Hour Total :			4569										
AM Peak Hour Begins :			8:45	AM Peak Volume :			257	AM Peak Hour Factor :			0.89		
PM Peak Hour Begins :			16:30	PM Peak Volume :			539	PM Peak Hour Factor :			0.9		

Station Name: WB I-4 -Off-Ramp To McIntosh Rd

Description: Volume Counts ADR #42

City: Seffner

County: Hillsborough

Start Date/Time: 02/26/2020 00:00

End Date/Time: 02/26/2020 21:30

Date: 02/26/2020		Station Name: WB I-4 -Off- Ramp Volume Counts - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	10	6	11	4	13	16	32	41	63	55	86	58	
30	8	11	8	8	6	15	47	45	84	48	51	71	
45	5	3	7	9	15	28	42	52	69	52	65	70	
00	6	7	5	3	9	42	43	67	51	68	52	78	
Hr Total	29	27	31	24	43	101	164	205	267	223	254	277	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	67	78	72	78	107	100	70	67	58	41			
30	61	91	74	74	99	105	86	64	47	35			
45	71	82	86	82	81	99	65	49	44				
00	83	90	82	95	101	93	56	67	52				
Hr Total	282	341	314	329	388	397	277	247	201	76			
24 Hour Total :		4497											
AM Peak Hour Begins :		7:45		AM Peak Volume :			283	AM Peak Hour Factor :			0.82		
PM Peak Hour Begins :		16:45		PM Peak Volume :			405	PM Peak Hour Factor :			0.95		

Station Name: Eastbound I-4 -Off- Ramp to McIntosh Rd

Description: 72 Hr Volume Counts ADR #324

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: I-4 -Off- Ramp to McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	19	6	8	5	6	17	58	78	91	90	75	133	
30	14	10	3	4	14	25	70	80	87	65	86	114	
45	9	8	5	8	10	34	78	64	66	66	101	96	
00	6	14	7	5	18	49	76	82	75	57	218	87	
Hr Total	48	38	23	22	48	125	282	304	319	278	480	430	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	87	100	106	133	117	88	88	76	59	58	57	22	
30	71	85	98	146	98	117	89	60	64	48	38	18	
45	92	93	109	111	97	133	74	75	59	58	22	22	
00	82	96	119	116	96	110	97	52	53	57	31	25	
Hr Total	332	374	432	506	408	448	348	263	235	221	148	87	
24 Hour Total :			6199										
AM Peak Hour Begins :			10:30	AM Peak Volume :			566	AM Peak Hour Factor :			0.65		
PM Peak Hour Begins :			14:45	PM Peak Volume :			509	PM Peak Hour Factor :			0.87		

Station Name: Eastbound I-4 -Off- Ramp to McIntosh Rd
 Description: 72 Hr Volume Counts ADR #324
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: I-4 -Off- Ramp to McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	12	7	11	8	10	20	49	75	67	80	67	61	
30	12	8	7	5	5	16	58	86	77	52	57	73	
45	12	7	9	5	21	33	92	70	59	63	76	71	
00	7	10	8	8	12	32	76	87	73	77	53	91	
Hr Total	43	32	35	26	48	101	275	318	276	272	253	296	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	87	82	99	102	65	107	63	81	69	65	36	28	
30	96	101	103	97	83	81	90	74	71	57	36	29	
45	104	122	123	90	84	86	84	71	52	40	28	19	
00	77	84	93	75	77	81	68	74	61	36	22	22	
Hr Total	364	389	418	364	309	355	305	300	253	198	122	98	
24 Hour Total :		5450											
AM Peak Hour Begins :		6:30		AM Peak Volume :				329		AM Peak Hour Factor :			
PM Peak Hour Begins :		14:15		PM Peak Volume :				421		PM Peak Hour Factor :			
										0.89			
										0.86			

Station Name: Eastbound I-4 -Off- Ramp to McIntosh Rd

Description: 72 Hr Volume Counts ADR #324

City: Seffner

County: Hillsborough

Start Date/Time: 02/27/2020 00:00

End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: I-4 -Off- Ramp to McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	20	9	14	7	7	22	50	78	97	68	81	87	
30	9	15	6	5	15	20	64	70	65	83	79	83	
45	13	8	3	7	12	30	69	70	78	70	78	66	
00	13	11	5	7	22	48	80	82	75	76	97	79	
Hr Total	55	43	28	26	56	120	263	300	315	297	335	315	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	76	76	103	87	96	82	82	96	49	39	45	19	
30	74	83	94	100	93	99	75	106	52	59	42	19	
45	79	83	90	97	95	105	69	67	47	51	33	18	
00	86	95	88	99	102	99	76	81	36	56	32	13	
Hr Total	315	337	375	383	386	385	302	350	184	205	152	69	
24 Hour Total :			5596										
AM Peak Hour Begins :			10:30	AM Peak Volume :			345	AM Peak Hour Factor :			0.89		
PM Peak Hour Begins :			15:15	PM Peak Volume :			392	PM Peak Hour Factor :			0.92		

Station Name: I-4 EB -On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #35

City: Seffner

County: Hillsborough

Start Date/Time: 02/25/2020 00:00

End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: I-4 -On- Ramp From McIntosh Rd -Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	12	9	13	13	20	41	67	124	106	88	83	59	
30	10	5	13	13	11	50	101	122	103	90	67	73	
45	11	7	3	14	22	63	101	136	104	79	70	72	
00	10	10	9	16	22	51	101	120	76	64	69	69	
Hr Total	43	31	38	56	75	205	370	502	389	321	289	273	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	100	72	83	90	95	144	101	84	57	35	26	17	
30	79	77	81	100	121	143	105	46	48	42	28	7	
45	70	82	77	100	125	126	96	51	43	40	28	6	
00	88	76	93	109	120	101	77	49	39	22	19	19	
Hr Total	337	307	334	399	461	514	379	230	187	139	101	49	
24 Hour Total :			6029										
AM Peak Hour Begins :			7:00	AM Peak Volume :			502	AM Peak Hour Factor :			0.92		
PM Peak Hour Begins :			16:45	PM Peak Volume :			533	PM Peak Hour Factor :			0.93		

Station Name: I-4 EB -On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #35

City: Seffner

County: Hillsborough

Start Date/Time: 02/26/2020 00:00

End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: I-4 -On- Ramp From McIntosh Rd -Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	13	6	8	10	17	40	61	104	122	84	79	86	
30	9	11	11	14	16	58	91	115	105	71	62	80	
45	3	6	20	11	23	51	78	122	113	86	72	73	
00	5	2	7	16	20	51	112	115	81	95	77	72	
Hr Total	30	25	46	51	76	200	342	456	421	336	290	311	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	84	94	91	100	110	123	92	62	48	42	18	16	
30	80	75	102	80	103	119	86	57	40	37	21	19	
45	80	63	80	97	135	114	70	48	46	33	29	9	
00	84	75	104	104	134	104	79	58	43	23	17	10	
Hr Total	328	307	377	381	482	460	327	225	177	135	85	54	
24 Hour Total :		5922											
AM Peak Hour Begins :		7:15		AM Peak Volume :			474		AM Peak Hour Factor :			0.97	
PM Peak Hour Begins :		16:30		PM Peak Volume :			511		PM Peak Hour Factor :			0.95	

Station Name: I-4 EB -On- Ramp from McIntosh Rd

Description: 72Hr Volume Counts ADR #35

City: Seffner

County: Hillsborough

Start Date/Time: 02/27/2020 00:00

End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: I-4 -On- Ramp From McIntosh Rd -Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	20	10	13	12	21	36	78	104	105	71	73	83	
30	11	11	9	17	20	50	70	134	102	93	82	67	
45	9	6	6	14	25	62	96	113	113	110	91	107	
00	14	5	7	13	17	64	88	115	87	72	72	68	
Hr Total	54	32	35	56	83	212	332	466	407	346	318	325	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	74	98	86	85	127	140	145	105	47	51	39	17	
30	69	88	89	98	107	150	143	87	64	33	27	22	
45	70	94	89	100	135	127	139	64	33	43	32	13	
00	76	88	85	117	148	133	116	46	43	35	16	11	
Hr Total	289	368	349	400	517	550	543	302	187	162	114	63	
24 Hour Total :			6510										
AM Peak Hour Begins :			7:15		AM Peak Volume :			467	AM Peak Hour Factor :			0.87	
PM Peak Hour Begins :			16:30		PM Peak Volume :			573	PM Peak Hour Factor :			0.96	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	18	19	18	27	68	198	270	254	164	167	154	
30	18	12	16	24	25	101	273	275	243	203	143	151	
45	22	11	4	25	42	133	300	284	215	171	151	188	
00	18	13	17	30	47	152	274	243	168	148	132	189	
Hr Total	79	54	56	97	141	454	1045	1072	880	686	593	682	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	195	173	190	178	232	243	209	163	130	76	58	33	
30	180	171	192	217	238	247	192	121	104	98	56	29	
45	160	155	167	251	190	245	147	134	92	78	44	24	
00	193	166	186	262	225	197	166	110	82	65	41	26	
Hr Total	728	665	735	908	885	932	714	528	408	317	199	112	
24 Hour Total :		12970											
AM Peak Hour Begins :		6:30		AM Peak Volume :			1119		AM Peak Hour Factor :			0.93	
PM Peak Hour Begins :		15:30		PM Peak Volume :			983		PM Peak Hour Factor :			0.94	

Date: 02/25/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	28	17	11	8	9	36	103	173	150	141	112	207	
30	26	13	12	6	14	56	124	185	147	129	110	162	
45	21	9	16	14	29	61	157	164	151	144	126	141	
00	12	14	11	17	26	79	140	176	119	106	211	130	
Hr Total	87	53	50	45	78	232	524	698	567	520	559	640	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	143	143	186	182	159	216	207	161	100	85	62	36	
30	145	150	162	210	200	214	155	129	106	79	52	33	
45	139	150	177	173	209	244	151	106	94	83	37	26	
00	155	162	184	168	188	197	138	106	78	62	31	23	
Hr Total	582	605	709	733	756	871	651	502	378	309	182	118	
24 Hour Total :		10449											
AM Peak Hour Begins :		10:45		AM Peak Volume :			721		AM Peak Hour Factor :			0.85	
PM Peak Hour Begins :		17:00		PM Peak Volume :			871		PM Peak Hour Factor :			0.89	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	13	12	18	26	77	213	242	259	157	165	161	
30	14	16	14	24	27	108	230	268	220	175	152	146	
45	10	5	30	18	46	108	255	296	215	174	163	173	
00	18	4	14	27	39	157	279	254	164	170	163	151	
Hr Total	63	38	70	87	138	450	977	1060	858	676	643	631	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	170	180	201	234	277	207	179	124	101	85	45	40	
30	164	203	187	181	226	209	179	108	78	80	38	43	
45	177	169	166	245	184	205	155	114	78	68	47	29	
00	202	160	207	233	199	181	147	105	83	48	41	20	
Hr Total	713	712	761	893	886	802	660	451	340	281	171	132	
24 Hour Total :		12493											
AM Peak Hour Begins :		6:45		AM Peak Volume :			1085		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		15:30		PM Peak Volume :			981		PM Peak Hour Factor :			0.89	

Date: 02/26/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	13	20	16	16	30	93	191	181	135	153	115	
30	20	9	19	9	11	44	111	168	148	117	129	157	
45	14	12	13	21	26	53	144	182	126	139	164	138	
00	13	9	12	18	29	91	156	176	147	132	110	157	
Hr Total	68	43	64	64	82	218	504	717	602	523	556	567	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	148	162	163	160	178	193	141	134	102	75	46	42	
30	142	159	173	174	179	185	152	131	98	77	44	47	
45	171	189	182	178	158	191	139	101	81	57	41	27	
00	163	154	211	177	182	163	114	104	89	56	31	30	
Hr Total	624	664	729	689	697	732	546	470	370	265	162	146	
24 Hour Total :		10102											
AM Peak Hour Begins :		7:00		AM Peak Volume :			717		AM Peak Hour Factor :			0.94	
PM Peak Hour Begins :		16:45		PM Peak Volume :			751		PM Peak Hour Factor :			0.89	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	30	18	19	19	32	61	234	257	248	154	154	157	
30	28	17	22	23	36	107	221	298	217	180	171	183	
45	24	9	12	24	53	135	257	286	230	180	172	207	
00	17	6	19	25	42	172	229	238	190	145	156	176	
Hr Total	99	50	72	91	163	475	941	1079	885	659	653	723	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	143	182	197	162	258	261	233	181	102	90	72	29	
30	195	176	198	220	213	227	218	163	114	83	54	34	
45	163	175	197	241	231	240	189	129	96	116	65	35	
00	168	173	196	258	217	207	167	94	95	84	38	23	
Hr Total	669	706	788	881	919	935	807	567	407	373	229	121	
24 Hour Total :		13292											
AM Peak Hour Begins :		7:00		AM Peak Volume :			1079		AM Peak Hour Factor :			0.91	
PM Peak Hour Begins :		15:15		PM Peak Volume :			977		PM Peak Hour Factor :			0.94	

Date: 02/27/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	38	13	14	15	12	30	119	187	167	158	142	137	
30	29	18	11	10	26	51	111	176	158	150	138	156	
45	12	10	12	13	23	69	135	159	171	171	144	147	
00	17	18	15	15	28	103	159	165	152	119	147	158	
Hr Total	96	59	52	53	89	253	524	687	648	598	571	598	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	148	140	176	163	193	220	177	163	106	70	69	48	
30	166	176	175	177	197	226	175	169	93	77	73	34	
45	149	138	195	175	197	235	170	111	86	97	46	26	
00	160	154	182	166	222	202	144	105	82	69	47	30	
Hr Total	623	608	728	681	809	883	666	548	367	313	235	138	
24 Hour Total :		10827											
AM Peak Hour Begins :		7:00		AM Peak Volume :			687		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		16:45		PM Peak Volume :			903		PM Peak Hour Factor :			0.96	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	18	19	18	27	68	198	270	254	164	167	154	
30	18	12	16	24	25	101	273	275	243	203	143	151	
45	22	11	4	25	42	133	300	284	215	171	151	188	
00	18	13	17	30	47	152	274	243	168	148	132	189	
Hr Total	79	54	56	97	141	454	1045	1072	880	686	593	682	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	195	173	190	178	232	243	209	163	130	76	58	33	
30	180	171	192	217	238	247	192	121	104	98	56	29	
45	160	155	167	251	190	245	147	134	92	78	44	24	
00	193	166	186	262	225	197	166	110	82	65	41	26	
Hr Total	728	665	735	908	885	932	714	528	408	317	199	112	
24 Hour Total :		12970											
AM Peak Hour Begins :		6:30		AM Peak Volume :			1119		AM Peak Hour Factor :			0.93	
PM Peak Hour Begins :		15:30		PM Peak Volume :			983		PM Peak Hour Factor :			0.94	

Date: 02/25/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	28	17	11	8	9	36	103	173	150	141	112	207	
30	26	13	12	6	14	56	124	185	147	129	110	162	
45	21	9	16	14	29	61	157	164	151	144	126	141	
00	12	14	11	17	26	79	140	176	119	106	211	130	
Hr Total	87	53	50	45	78	232	524	698	567	520	559	640	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	143	143	186	182	159	216	207	161	100	85	62	36	
30	145	150	162	210	200	214	155	129	106	79	52	33	
45	139	150	177	173	209	244	151	106	94	83	37	26	
00	155	162	184	168	188	197	138	106	78	62	31	23	
Hr Total	582	605	709	733	756	871	651	502	378	309	182	118	
24 Hour Total :		10449											
AM Peak Hour Begins :		10:45		AM Peak Volume :			721		AM Peak Hour Factor :			0.85	
PM Peak Hour Begins :		17:00		PM Peak Volume :			871		PM Peak Hour Factor :			0.89	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	13	12	18	26	77	213	242	259	157	165	161	
30	14	16	14	24	27	108	230	268	220	175	152	146	
45	10	5	30	18	46	108	255	296	215	174	163	173	
00	18	4	14	27	39	157	279	254	164	170	163	151	
Hr Total	63	38	70	87	138	450	977	1060	858	676	643	631	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	170	180	201	234	277	207	179	124	101	85	45	40	
30	164	203	187	181	226	209	179	108	78	80	38	43	
45	177	169	166	245	184	205	155	114	78	68	47	29	
00	202	160	207	233	199	181	147	105	83	48	41	20	
Hr Total	713	712	761	893	886	802	660	451	340	281	171	132	
24 Hour Total :		12493											
AM Peak Hour Begins :		6:45		AM Peak Volume :			1085		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		15:30		PM Peak Volume :			981		PM Peak Hour Factor :			0.89	

Date: 02/26/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	21	13	20	16	16	30	93	191	181	135	153	115	
30	20	9	19	9	11	44	111	168	148	117	129	157	
45	14	12	13	21	26	53	144	182	126	139	164	138	
00	13	9	12	18	29	91	156	176	147	132	110	157	
Hr Total	68	43	64	64	82	218	504	717	602	523	556	567	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	148	162	163	160	178	193	141	134	102	75	46	42	
30	142	159	173	174	179	185	152	131	98	77	44	47	
45	171	189	182	178	158	191	139	101	81	57	41	27	
00	163	154	211	177	182	163	114	104	89	56	31	30	
Hr Total	624	664	729	689	697	732	546	470	370	265	162	146	
24 Hour Total :		10102											
AM Peak Hour Begins :		7:00		AM Peak Volume :			717		AM Peak Hour Factor :			0.94	
PM Peak Hour Begins :		16:45		PM Peak Volume :			751		PM Peak Hour Factor :			0.89	

Station Name: McIntosh Rd South of I-4
 Description: 72Hr Volume Counts ADR #49
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: McIntosh Rd south of I-4 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	30	18	19	19	32	61	234	257	248	154	154	157	
30	28	17	22	23	36	107	221	298	217	180	171	183	
45	24	9	12	24	53	135	257	286	230	180	172	207	
00	17	6	19	25	42	172	229	238	190	145	156	176	
Hr Total	99	50	72	91	163	475	941	1079	885	659	653	723	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	143	182	197	162	258	261	233	181	102	90	72	29	
30	195	176	198	220	213	227	218	163	114	83	54	34	
45	163	175	197	241	231	240	189	129	96	116	65	35	
00	168	173	196	258	217	207	167	94	95	84	38	23	
Hr Total	669	706	788	881	919	935	807	567	407	373	229	121	
24 Hour Total :		13292											
AM Peak Hour Begins :		7:00		AM Peak Volume :			1079		AM Peak Hour Factor :			0.91	
PM Peak Hour Begins :		15:15		PM Peak Volume :			977		PM Peak Hour Factor :			0.94	

Date: 02/27/2020		Station Name: McIntosh Rd south of I-4 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	38	13	14	15	12	30	119	187	167	158	142	137	
30	29	18	11	10	26	51	111	176	158	150	138	156	
45	12	10	12	13	23	69	135	159	171	171	144	147	
00	17	18	15	15	28	103	159	165	152	119	147	158	
Hr Total	96	59	52	53	89	253	524	687	648	598	571	598	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	148	140	176	163	193	220	177	163	106	70	69	48	
30	166	176	175	177	197	226	175	169	93	77	73	34	
45	149	138	195	175	197	235	170	111	86	97	46	26	
00	160	154	182	166	222	202	144	105	82	69	47	30	
Hr Total	623	608	728	681	809	883	666	548	367	313	235	138	
24 Hour Total :		10827											
AM Peak Hour Begins :		7:00		AM Peak Volume :			687		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		16:45		PM Peak Volume :			903		PM Peak Hour Factor :			0.96	

Station Name: McIntosh Rd South of US 92
 Description: 72Hr Volume Counts ADR #224
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: McIntosh Rd South of US 92 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	10	13	8	8	11	31	82	153	106	72	76	67	
30	12	4	6	11	9	42	115	147	122	75	69	69	
45	5	5	2	13	17	60	146	162	91	94	69	83	
00	5	4	3	9	24	76	128	134	72	81	81	71	
Hr Total	32	26	19	41	61	209	471	596	391	322	295	290	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	96	79	83	84	86	115	112	76	51	47	24	18	
30	75	66	94	108	113	132	100	41	74	39	16	15	
45	71	85	104	117	99	125	90	51	41	40	14	12	
00	105	83	100	106	109	129	74	69	51	33	25	11	
Hr Total	347	313	381	415	407	501	376	237	217	159	79	56	
24 Hour Total :			6241										
AM Peak Hour Begins :			7:00		AM Peak Volume :			596		AM Peak Hour Factor :			0.92
PM Peak Hour Begins :			17:00		PM Peak Volume :			501		PM Peak Hour Factor :			0.95

Date: 02/25/2020		Station Name: McIntosh Rd South of US 92 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	12	9	1	3	5	9	55	95	99	61	72	86	
30	15	2	4	2	8	17	57	98	98	64	62	69	
45	9	3	7	7	15	28	65	130	85	73	64	68	
00	2	1	6	0	15	32	87	120	72	75	74	92	
Hr Total	38	15	18	12	43	86	264	443	354	273	272	315	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	71	81	96	110	128	157	123	85	72	45	30	17	
30	98	76	94	104	126	145	133	100	66	50	22	23	
45	83	98	97	122	130	148	84	80	61	46	24	13	
00	86	68	104	122	116	125	96	73	52	34	15	11	
Hr Total	338	323	391	458	500	575	436	338	251	175	91	64	
24 Hour Total :			6073										
AM Peak Hour Begins :			7:15	AM Peak Volume :				447	AM Peak Hour Factor :				0.86
PM Peak Hour Begins :			17:00	PM Peak Volume :				575	PM Peak Hour Factor :				0.92

Station Name: McIntosh Rd South of US 92
 Description: 72Hr Volume Counts ADR #224
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020	Station Name: McIntosh Rd South of US 92 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	6	8	3	10	31	89	132	122	91	81	59
30	4	7	5	13	11	42	117	141	124	97	69	71
45	4	4	9	9	19	52	130	152	87	86	69	92
00	9	5	10	5	17	70	131	131	78	68	83	83
Hr Total	26	22	32	30	57	195	467	556	411	342	302	305
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	94	75	84	123	99	82	67	62	48	47	22	18
30	68	90	82	118	88	113	85	58	48	43	23	13
45	82	90	81	114	80	115	80	60	43	49	18	16
00	67	81	103	96	95	106	62	41	47	28	26	10
Hr Total	311	336	350	451	362	416	294	221	186	167	89	57
24 Hour Total :			5985									
AM Peak Hour Begins :			6:45	AM Peak Volume :			556	AM Peak Hour Factor :			0.91	
PM Peak Hour Begins :			14:45	PM Peak Volume :			458	PM Peak Hour Factor :			0.93	

Date: 02/26/2020	Station Name: McIntosh Rd South of US 92 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	11	7	8	7	9	12	36	73	107	77	83	59
30	16	6	11	7	8	16	53	75	100	91	74	79
45	10	3	5	4	9	27	72	102	89	55	80	76
00	7	6	5	6	27	40	90	121	92	79	71	81
Hr Total	44	22	29	24	53	95	251	371	388	302	308	295
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	87	93	71	114	115	143	92	68	71	53	22	16
30	85	79	107	109	139	135	84	79	57	38	17	25
45	84	94	105	142	111	113	89	64	53	31	27	18
00	82	110	119	157	93	101	74	53	48	26	17	18
Hr Total	338	376	402	522	458	492	339	264	229	148	83	77
24 Hour Total :			5910									
AM Peak Hour Begins :			7:30	AM Peak Volume :			430	AM Peak Hour Factor :			0.89	
PM Peak Hour Begins :			15:30	PM Peak Volume :			553	PM Peak Hour Factor :			0.88	

Station Name: McIntosh Rd South of US 92
 Description: 72Hr Volume Counts ADR #224
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: McIntosh Rd South of US 92 - Northbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	12	7	8	6	19	16	103	156	132	78	70	75	
30	12	3	7	9	16	40	104	161	117	92	81	86	
45	6	5	5	11	13	56	127	129	79	94	84	90	
00	12	3	9	8	15	80	114	145	85	72	48	80	
Hr Total	42	18	29	34	63	192	448	591	413	336	283	331	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	97	84	84	90	100	129	113	72	38	51	45	11	
30	73	87	97	110	99	124	110	81	54	36	23	13	
45	61	82	107	102	116	110	75	67	44	51	22	14	
00	78	75	104	96	108	111	79	60	38	34	15	6	
Hr Total	309	328	392	398	423	474	377	280	174	172	105	44	
24 Hour Total :		6256											
AM Peak Hour Begins :		7:00		AM Peak Volume :			591		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		16:30		PM Peak Volume :			477		PM Peak Hour Factor :			0.92	

Date: 02/27/2020		Station Name: McIntosh Rd South of US 92 - Southbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	19	5	4	9	6	9	46	74	85	86	69	63	
30	16	5	6	7	10	17	54	88	108	81	79	86	
45	5	2	4	6	9	31	66	115	81	94	68	69	
00	11	6	9	5	19	44	99	114	71	75	65	73	
Hr Total	51	18	23	27	44	101	265	391	345	336	281	291	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	75	77	85	87	131	138	133	68	48	42	45	31	
30	110	77	102	100	119	148	120	97	61	43	41	13	
45	76	77	101	140	126	134	107	79	54	62	30	19	
00	72	87	126	132	114	129	83	69	53	46	28	12	
Hr Total	333	318	414	459	490	549	443	313	216	193	144	75	
24 Hour Total :		6120											
AM Peak Hour Begins :		7:30		AM Peak Volume :			422		AM Peak Hour Factor :			0.92	
PM Peak Hour Begins :		17:00		PM Peak Volume :			549		PM Peak Hour Factor :			0.93	

Station Name: US 92 East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #233
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: US 92 East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	8	14	7	4	6	20	44	134	146	80	77	171	
30	7	0	7	1	6	15	62	129	122	69	52	156	
45	9	2	1	4	9	31	65	139	96	80	77	83	
00	7	7	5	4	5	32	91	183	72	77	128	64	
Hr Total	31	23	20	13	26	98	262	585	436	306	334	474	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	76	100	115	111	154	174	179	109	60	47	23	14	
30	104	88	98	149	151	179	140	84	68	36	21	6	
45	79	80	107	172	173	194	142	59	51	33	16	11	
00	89	90	100	146	160	210	126	62	42	26	18	12	
Hr Total	348	358	420	578	638	757	587	314	221	142	78	43	
24 Hour Total :		7092											
AM Peak Hour Begins :		7:15		AM Peak Volume :				597		AM Peak Hour Factor :			
PM Peak Hour Begins :		17:15		PM Peak Volume :				762		PM Peak Hour Factor :			

Date: 02/25/2020		Station Name: US 92 East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	6	5	3	3	4	26	121	235	176	86	102	92	
30	5	1	2	6	12	44	109	206	178	89	75	118	
45	4	2	3	9	19	56	174	183	108	84	90	148	
00	8	4	2	7	27	70	165	182	90	78	90	100	
Hr Total	23	12	10	25	62	196	569	806	552	337	357	458	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	117	84	143	127	162	120	103	104	56	36	21	11	
30	123	85	101	123	128	127	84	82	39	33	14	10	
45	101	75	99	177	86	124	80	80	26	28	10	9	
00	76	131	125	226	106	114	108	90	33	28	18	8	
Hr Total	417	375	468	653	482	485	375	356	154	125	63	38	
24 Hour Total :		7398											
AM Peak Hour Begins :		7:00		AM Peak Volume :				806		AM Peak Hour Factor :			
PM Peak Hour Begins :		15:30		PM Peak Volume :				693		PM Peak Hour Factor :			

Station Name: US 92 East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #233
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020	Station Name: US 92 East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	6	6	7	4	7	21	39	151	150	70	77	112
30	7	4	6	5	4	17	50	137	134	79	65	102
45	8	3	5	2	7	29	83	127	70	73	66	103
00	3	4	3	5	6	31	114	152	64	76	71	96
Hr Total	24	17	21	16	24	98	286	567	418	298	279	413
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	91	83	97	125	151	150	137	75	58	37	17	16
30	95	90	92	172	126	154	104	76	50	43	23	4
45	75	98	119	146	157	175	113	53	41	33	14	10
00	88	98	134	170	156	146	72	49	39	17	12	11
Hr Total	349	369	442	613	590	625	426	253	188	130	66	41
24 Hour Total :			6553									
AM Peak Hour Begins :			7:00			AM Peak Volume :		567		AM Peak Hour Factor :		0.93
PM Peak Hour Begins :			15:15			PM Peak Volume :		639		PM Peak Hour Factor :		0.91

Date: 02/26/2020	Station Name: US 92 East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	3	3	2	8	26	109	210	138	84	82	76
30	2	7	4	5	8	47	125	221	131	79	96	101
45	2	4	6	9	13	62	167	190	115	88	80	97
00	6	1	6	7	23	86	170	169	81	66	72	93
Hr Total	17	15	19	23	52	221	571	790	465	317	330	367
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	96	90	153	140	179	105	97	45	35	32	11	13
30	99	97	91	112	94	99	69	45	34	31	11	11
45	96	91	131	158	77	90	69	51	31	16	8	8
00	88	121	136	184	101	78	44	32	27	15	11	4
Hr Total	379	399	511	594	451	372	279	173	127	94	41	36
24 Hour Total :			6643									
AM Peak Hour Begins :			6:45			AM Peak Volume :		791		AM Peak Hour Factor :		0.89
PM Peak Hour Begins :			15:15			PM Peak Volume :		633		PM Peak Hour Factor :		0.86

Station Name: US 92 East of McIntosh Rd
 Description: 72Hr Volume Counts ADR #233
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: US 92 East of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	11	6	4	1	2	17	43	130	182	80	73	87	
30	11	2	8	1	8	23	62	145	142	80	76	80	
45	6	9	1	5	3	26	65	128	91	94	70	67	
00	7	2	5	5	8	35	96	174	83	76	57	92	
Hr Total	35	19	18	12	21	101	266	577	498	330	276	326	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	82	93	104	120	165	190	189	133	57	68	24	16	
30	94	120	98	146	150	192	155	126	66	48	26	16	
45	89	104	128	152	145	182	149	69	47	39	18	6	
00	104	125	109	156	194	183	123	51	45	32	22	14	
Hr Total	369	442	439	574	654	747	616	379	215	187	90	52	
24 Hour Total :			7243										
AM Peak Hour Begins :			7:15	AM Peak Volume :			629	AM Peak Hour Factor :			0.86		
PM Peak Hour Begins :			16:45	PM Peak Volume :			758	PM Peak Hour Factor :			0.98		

Date: 02/27/2020		Station Name: US 92 East of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	6	3	2	6	7	29	118	221	149	93	81	71	
30	8	4	3	5	15	46	130	216	138	80	75	91	
45	8	4	2	4	14	65	149	179	143	72	86	85	
00	4	3	8	6	28	90	139	161	88	71	75	73	
Hr Total	26	14	15	21	64	230	536	777	518	316	317	320	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	90	77	136	113	99	76	117	109	70	41	34	14	
30	91	68	100	141	111	109	85	63	39	56	25	18	
45	80	90	116	206	102	107	76	61	43	55	20	14	
00	81	117	110	183	119	111	61	43	37	41	12	10	
Hr Total	342	352	462	643	431	403	339	276	189	193	91	56	
24 Hour Total :			6931										
AM Peak Hour Begins :			7:00	AM Peak Volume :			777	AM Peak Hour Factor :			0.88		
PM Peak Hour Begins :			15:00	PM Peak Volume :			643	PM Peak Hour Factor :			0.78		

Station Name: US 92 West of McIntosh Rd
 Description: 72Hr Volume Counts ADR #75
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/25/2020 00:00
 End Date/Time: 02/26/2020 00:00

Date: 02/25/2020		Station Name: US 92 West of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	6	11	4	9	8	25	56	110	112	72	77	94	
30	5	5	11	7	11	19	64	152	94	78	69	101	
45	4	4	4	3	16	47	76	109	103	79	59	85	
00	5	11	1	8	5	44	65	142	68	72	58	68	
Hr Total	20	31	20	27	40	135	261	513	377	301	263	348	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	56	78	92	102	154	185	128	128	72	36	20	8	
30	88	81	90	107	138	154	131	73	49	35	18	8	
45	92	74	86	123	158	162	126	59	53	26	20	12	
00	77	79	84	139	176	178	128	59	45	22	14	9	
Hr Total	313	312	352	471	626	679	513	319	219	119	72	37	
24 Hour Total :			6368										
AM Peak Hour Begins :			7:15	AM Peak Volume :				515	AM Peak Hour Factor :				0.85
PM Peak Hour Begins :			17:00	PM Peak Volume :				679	PM Peak Hour Factor :				0.92

Date: 02/25/2020		Station Name: US 92 West of McIntosh Rd - Westbound										
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	11	7	4	2	6	17	58	104	118	65	76	84
30	8	2	3	4	2	25	68	150	89	93	73	84
45	6	6	6	8	13	28	85	119	112	80	71	106
00	11	3	6	8	20	39	89	125	79	65	68	83
Hr Total	36	18	19	22	41	109	300	498	398	303	288	357
End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	99	84	104	91	109	102	108	75	47	32	15	14
30	88	76	69	78	109	122	80	63	48	37	18	13
45	92	82	89	119	74	90	59	64	45	23	24	14
00	66	81	96	116	80	91	65	62	38	26	18	9
Hr Total	345	323	358	404	372	405	312	264	178	118	75	50
24 Hour Total :			5593									
AM Peak Hour Begins :			7:15	AM Peak Volume :			512	AM Peak Hour Factor :			0.85	
PM Peak Hour Begins :			15:30	PM Peak Volume :			453	PM Peak Hour Factor :			0.93	

Station Name: US 92 West of McIntosh Rd
 Description: 72Hr Volume Counts ADR #75
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/26/2020 00:00
 End Date/Time: 02/27/2020 00:00

Date: 02/26/2020		Station Name: US 92 West of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	7	4	6	8	6	25	32	130	110	67	57	114	
30	13	3	7	9	7	34	44	137	98	80	60	116	
45	4	3	4	3	19	39	81	113	69	79	57	81	
00	0	4	1	8	13	41	85	119	81	88	78	86	
Hr Total	24	14	18	28	45	139	242	499	358	314	252	397	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	76	100	93	120	162	151	133	63	64	29	12	16	
30	75	62	93	117	113	164	111	68	50	26	17	5	
45	91	85	90	172	163	146	125	56	28	21	16	11	
00	99	101	124	122	148	171	89	51	40	20	18	11	
Hr Total	341	348	400	531	586	632	458	238	182	96	63	43	
24 Hour Total :		6248											
AM Peak Hour Begins :		7:00		AM Peak Volume :				499		AM Peak Hour Factor :			0.91
PM Peak Hour Begins :		17:00		PM Peak Volume :				632		PM Peak Hour Factor :			0.92

Date: 02/26/2020		Station Name: US 92 West of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	14	9	5	5	8	14	70	105	95	57	81	65	
30	8	7	6	3	7	24	85	145	107	85	54	79	
45	2	4	3	6	11	31	94	133	88	76	97	83	
00	5	2	3	5	15	47	81	115	85	72	66	87	
Hr Total	29	22	17	19	41	116	330	498	375	290	298	314	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	90	82	96	95	117	89	77	48	42	41	18	12	
30	77	89	74	87	93	96	88	49	41	24	12	20	
45	66	91	86	104	64	106	72	46	27	41	19	17	
00	91	82	101	129	88	82	53	45	33	22	16	11	
Hr Total	324	344	357	415	362	373	290	188	143	128	65	60	
24 Hour Total :		5398											
AM Peak Hour Begins :		7:00		AM Peak Volume :				498		AM Peak Hour Factor :			0.86
PM Peak Hour Begins :		15:30		PM Peak Volume :				443		PM Peak Hour Factor :			0.86

Station Name: US 92 West of McIntosh Rd
 Description: 72Hr Volume Counts ADR #75
 City: Seffner
 County: Hillsborough
 Start Date/Time: 02/27/2020 00:00
 End Date/Time: 02/28/2020 00:00

Date: 02/27/2020		Station Name: US 92 West of McIntosh Rd - Eastbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	8	4	5	2	4	21	48	119	123	59	62	78	
30	6	5	6	8	16	30	52	128	111	62	48	76	
45	6	3	4	5	14	42	65	132	96	83	71	70	
00	7	3	6	4	15	38	80	117	72	77	55	80	
Hr Total	27	15	21	19	49	131	245	496	402	281	236	304	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	69	85	101	107	159	177	182	141	52	64	31	12	
30	67	106	108	123	128	174	178	100	46	52	25	14	
45	93	108	98	129	146	184	166	72	48	28	18	16	
00	86	112	98	138	196	193	126	62	50	27	19	8	
Hr Total	315	411	405	497	629	728	652	375	196	171	93	50	
24 Hour Total :			6748										
AM Peak Hour Begins :			7:15	AM Peak Volume :			500	AM Peak Hour Factor :			0.95		
PM Peak Hour Begins :			17:30	PM Peak Volume :			737	PM Peak Hour Factor :			0.94		

Date: 02/27/2020		Station Name: US 92 West of McIntosh Rd - Westbound											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	11	6	3	4	4	20	81	103	102	81	74	88	
30	7	6	2	2	13	27	88	131	110	62	77	72	
45	8	3	3	6	8	25	95	122	93	82	81	74	
00	5	4	5	8	16	46	112	108	96	44	76	61	
Hr Total	31	19	13	20	41	118	376	464	401	269	308	295	
End Time	12	13	14	15	16	17	18	19	20	21	22	23	
15	72	62	89	66	86	93	94	71	56	35	46	23	
30	84	65	69	108	89	90	91	72	49	45	30	20	
45	79	74	94	129	93	107	84	43	46	37	24	22	
00	78	80	79	96	91	72	58	44	38	25	15	11	
Hr Total	313	281	331	399	359	362	327	230	189	142	115	76	
24 Hour Total :			5479										
AM Peak Hour Begins :			6:45	AM Peak Volume :			468	AM Peak Hour Factor :			0.89		
PM Peak Hour Begins :			15:15	PM Peak Volume :			419	PM Peak Hour Factor :			0.81		

TURNING MOVEMENT COUNT: McIntosh Rd @ Muck Pond Rd
 EAST/WEST ST: Muck Pond Rd
 DATE: 2/25/2020
 ALL VEHICLES

TIME: 6am-9am 3pm-6pm
 NORTH/SOUTH ST: McIntosh Rd
 COUNTED BY: Video Cam2

START TIME	NORTHBOUND						SOUTHBOUND						NS TOTAL	EASTBOUND						WESTBOUND						EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU		RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL						
6:00	6	21	4	0	31	0	47	1	0	48	79	0	1	11	0	12	47	0	0	0	47	59	138				
6:15	2	36	12	0	50	1	50	1	0	52	102	0	0	14	0	14	49	1	0	0	50	64	166				
6:30	12	36	12	0	60	0	67	3	0	70	130	2	0	14	0	16	61	3	3	0	67	83	213				
6:45	13	38	11	0	62	0	80	2	0	82	144	1	1	13	0	15	49	7	2	0	58	73	217				
Total	33	131	39	0	203	1	244	7	0	252	455	3	2	52	0	57	206	11	5	0	222	279	734				
7:00	14	21	13	0	48	1	82	7	0	90	138	0	0	22	0	22	62	5	1	0	68	90	228				
7:15	9	39	25	3	76	5	124	4	0	133	209	2	0	27	0	29	50	9	0	0	59	88	297				
7:30	11	33	35	1	80	2	107	2	0	111	191	0	3	22	0	25	56	7	0	0	63	88	279				
7:45	9	30	26	0	65	0	98	8	0	106	171	1	2	12	0	15	71	9	1	0	81	96	267				
Total	43	123	99	4	269	8	411	21	0	440	709	3	5	83	0	91	239	30	2	0	271	362	1,071				
8:00	13	28	26	0	67	3	60	3	0	66	133	1	1	13	0	15	45	10	1	0	56	71	204				
8:15	10	44	24	2	80	1	59	0	0	60	140	1	3	21	0	25	30	4	0	0	34	59	199				
8:30	14	46	25	1	86	0	47	0	0	47	133	1	1	12	0	14	30	2	4	0	36	50	183				
8:45	16	28	22	1	67	1	57	2	0	60	127	1	1	16	0	18	30	4	1	0	35	53	180				
Total	53	146	97	4	300	5	223	5	0	233	533	4	6	62	0	72	135	20	6	0	161	233	766				
15:00	12	45	28	4	89	0	36	1	0	37	126	1	6	13	0	20	27	4	5	0	36	56	182				
15:15	25	53	40	0	118	2	53	1	0	56	174	1	2	15	0	18	34	2	2	0	38	56	230				
15:30	8	57	52	1	118	0	52	0	0	52	170	4	1	20	0	25	29	2	2	0	33	58	228				
15:45	22	55	37	2	116	1	39	0	0	40	156	0	9	18	0	27	20	2	1	0	23	50	206				
Total	67	210	157	7	441	3	180	2	0	185	626	6	18	66	0	90	110	10	10	0	130	220	846				
16:00	21	60	47	0	128	2	47	3	0	52	180	0	3	13	1	17	26	2	2	0	30	47	227				
16:15	18	70	37	0	125	0	64	2	0	66	191	5	6	16	0	27	24	3	1	0	28	55	246				
16:30	9	87	52	0	148	4	66	3	0	73	221	4	5	35	1	45	27	2	0	0	29	74	295				
16:45	17	94	46	0	157	1	57	2	0	60	217	1	9	26	0	36	28	4	2	0	34	70	287				
Total	65	311	182	0	558	7	234	10	0	251	809	10	23	90	2	125	105	11	5	0	121	246	1,055				
17:00	24	80	48	8	160	3	76	3	0	82	242	2	3	24	0	29	33	8	3	0	44	73	315				
17:15	20	71	40	1	132	1	51	1	0	53	185	5	4	29	0	38	45	3	1	0	49	87	272				
17:30	10	83	52	1	146	1	79	2	0	82	228	2	3	23	0	28	24	2	3	0	29	57	285				
17:45	10	68	33	5	116	1	65	3	0	69	185	2	8	13	0	23	20	9	0	0	29	52	237				
Total	64	302	173	15	554	6	271	9	0	286	840	11	18	89	0	118	122	22	7	0	151	269	1,109				

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A

CITY: Seffner

COUNTY: Hillsborough

INTR ROUTE: Muck Pond Rd

STATE ROUTE: McIntosh Rd

OBSERVER: Video Cam2

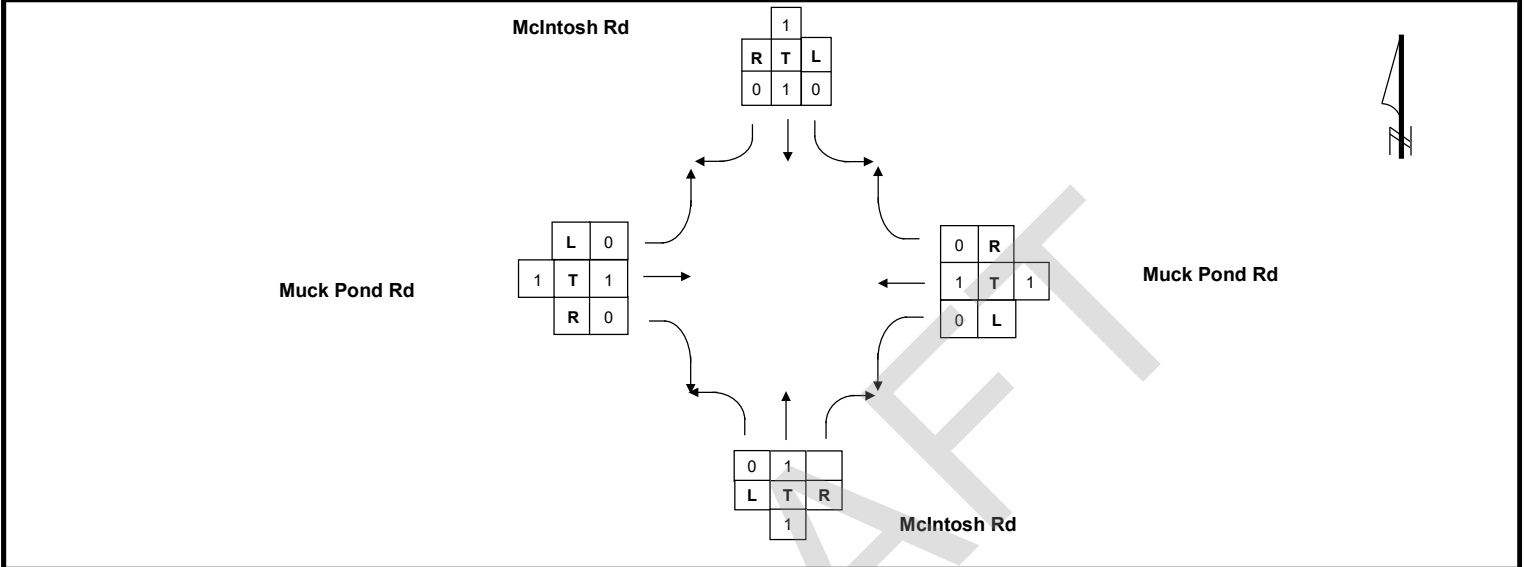
DATE: 02/25/20

WEATHER: Sunny - Clear

ROAD CONDITION: Good - Dry

REMARKS:

FORM COMPLETED BY: TM DATE: 3/23/2020



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
6 - 7	33	131	39	0	203	1	244	7	0	252	455	3	2	52	0	57	206	11	5	0	222	279
7 - 8	43	123	99	4	269	8	411	21	0	440	709	3	5	83	0	91	239	30	2	0	271	362
8 - 9	53	146	97	4	300	5	223	5	0	233	533	4	6	62	0	72	135	20	6	0	161	233
3 - 4	67	210	157	7	441	3	180	2	0	185	626	6	18	66	0	90	110	10	10	0	130	220
4 - 5	65	311	182	0	558	7	234	10	0	251	809	10	23	90	2	125	105	11	5	0	121	246
5 - 6	64	302	173	15	554	6	271	9	0	286	840	11	18	89	0	118	122	22	7	0	151	269
TOTAL	292	1,092	708	30	2,122	29	1,319	47	0	1,395	3,517	39	70	390	2	501	711	93	30	0	834	1,335

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
INTER. ROUTE: Muck Pond Rd
OBSERVER: Video Cam2

CITY: Seffner
STATE ROUTE: McIntosh Rd
DATE: 02/25/20

COUNTY: Hillsborough

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 01/00/00

McIntosh Rd

6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			1	1	2	4
0	0	0			0	0	0	0
0	0	0			1	1	2	4

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	1	0	0	1	2
0	0	0	0	0	0	0
1	0	0	0	0	1	2
0	0	0	0	0	0	0
0	0	0	0	0	0	0
1	0	1	0	0	2	4

Muck Pond Rd

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

McIntosh Rd

TURNING MOVEMENT COUNT: McIntosh Rd @ WB I-4 OFF Ramps
 EAST/WEST ST: WB I-4 OFF Ramps
 DATE: 2/25/2020
 ALL VEHICLES

TIME: 6am-9am / 3pm-6pm
 NORTH/SOUTH ST: McIntosh Rd
 COUNTED BY: Video Cam2

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
6:00	100	24	0	0	124	0	54	62	0	116	240	0	0	0	0	0	18	0	6	0	24	24	264
6:15	121	42	0	0	163	0	51	71	0	122	285	0	0	0	0	0	43	0	10	0	53	53	338
6:30	117	47	0	0	164	0	63	94	0	157	321	0	0	0	0	0	27	0	11	0	38	38	359
6:45	125	55	0	0	180	0	66	85	0	151	331	0	0	0	0	0	32	0	9	0	41	41	372
Total	463	168	0	0	631	0	234	312	0	546	1,177	0	0	0	0	0	120	0	36	0	156	156	1,333
7:00	121	34	0	0	155	0	92	71	0	163	318	0	0	0	0	0	28	0	13	0	41	41	359
7:15	91	67	0	0	158	0	128	100	0	228	386	0	0	0	0	0	31	0	9	0	40	40	426
7:30	102	64	0	0	166	0	118	77	0	195	361	0	0	0	0	0	26	0	19	0	45	45	406
7:45	94	54	0	0	148	0	93	97	0	190	338	0	0	0	0	0	46	0	10	0	56	56	394
Total	408	219	0	0	627	0	431	345	0	776	1,403	0	0	0	0	0	131	0	51	0	182	182	1,585
8:00	87	65	0	0	152	0	99	40	0	139	291	0	0	0	0	0	25	0	8	0	33	33	324
8:15	88	64	0	0	152	0	87	41	0	128	280	0	0	0	0	0	32	0	14	0	46	46	326
8:30	68	70	0	0	138	0	57	37	0	94	232	0	0	0	0	0	40	0	15	0	55	55	287
8:45	55	52	0	0	107	0	78	38	0	116	223	0	0	0	0	0	38	0	17	0	55	55	278
Total	298	251	0	0	549	0	321	156	0	477	1,026	0	0	0	0	0	135	0	54	0	189	189	1,215
15:00	57	70	0	0	127	0	47	29	0	76	203	0	0	0	0	0	56	0	17	0	73	73	276
15:15	60	90	0	0	150	0	85	32	0	117	267	0	0	0	0	0	53	0	26	0	79	79	346
15:30	52	113	0	0	165	0	78	28	0	106	271	0	0	0	0	0	53	0	11	0	64	64	335
15:45	87	112	0	0	199	0	64	19	0	83	282	0	0	0	0	0	41	0	14	0	55	55	337
Total	256	385	0	0	641	0	274	108	0	382	1,023	0	0	0	0	0	203	0	68	0	271	271	1,294
16:00	75	111	0	0	186	0	75	15	0	90	276	0	0	0	0	0	46	0	14	0	60	60	336
16:15	60	89	0	0	149	0	95	16	0	111	260	0	0	0	0	0	47	0	41	0	88	88	348
16:30	45	96	0	0	141	0	119	18	0	137	278	0	0	0	0	0	69	0	62	0	131	131	409
16:45	28	103	0	0	131	0	115	20	0	135	266	0	0	0	0	0	70	0	64	0	134	134	400
Total	208	399	0	0	607	0	404	69	0	473	1,080	0	0	0	0	0	232	0	181	0	413	413	1,493
17:00	55	113	0	0	168	0	128	19	0	147	315	0	0	0	0	0	68	0	62	0	130	130	445
17:15	70	93	0	0	163	0	116	23	0	139	302	0	0	0	0	0	79	0	48	0	127	127	429
17:30	36	120	0	0	156	0	115	16	0	131	287	0	0	0	0	0	84	0	30	0	114	114	401
17:45	44	87	0	0	131	0	106	18	0	124	255	0	0	0	0	0	45	0	35	0	80	80	335
Total	205	413	0	0	618	0	465	76	0	541	1,159	0	0	0	0	0	276	0	175	0	451	451	1,610

FLORIDA DEPARTMENT OF TRANSPORTATION

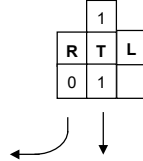
SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Seffner COUNTY: Hillsborough
 INTR ROUTE: I-4 OFF Ramps STATE ROUTE: McIntosh Rd
 OBSERVER: Video Cam2 DATE: 02/25/20
 WEATHER: Sunny - Clear ROAD CONDITION: Good - Dry
 REMARKS:

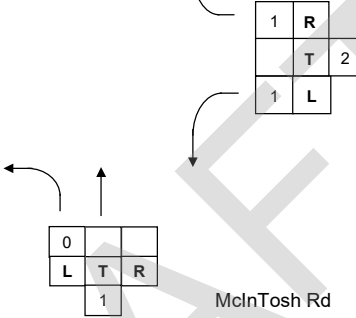
FORM COMPLETED BY: TM

DATE: 03/23/20

McIntosh Rd



I-4 OFF Ramps



McIntosh Rd

TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
6 - 7	463	168	0	0	631	0	234	312	0	546	1,177	0	0	0	0	0	120	0	36	0	156	156
7 - 8	408	219	0	0	627	0	431	345	0	776	1,403	0	0	0	0	0	131	0	51	0	182	182
8 - 9	298	251	0	0	549	0	321	156	0	477	1,026	0	0	0	0	0	135	0	54	0	189	189
3 - 4	256	385	0	0	641	0	274	108	0	382	1,023	0	0	0	0	0	203	0	68	0	271	271
4 - 5	208	399	0	0	607	0	404	69	0	473	1,080	0	0	0	0	0	232	0	181	0	413	413
5 - 6	205	413	0	0	618	0	465	76	0	541	1,159	0	0	0	0	0	276	0	175	0	451	451
TOTAL	1,375	1,667	0	0	3,042	0	1,895	754	0	2,649	5,691	0	0	0	0	0	977	0	529	0	1,506	1,506

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
INTER. ROUTE: I-4 OFF Ramps
OBSERVER: Video Cam2

CITY: Seffner
STATE ROUTE: McIntosh Rd
DATE: 02/25/20

COUNTY: Hillsborough

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 03/23/20

McIntosh Rd



6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

I-4 WB Off Ramp

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

McIntosh Rd

TURNING MOVEMENT COUNT: McIntosh Rd @ EB I-4 OFF Ramp
 EAST/WEST ST: EB I-4 OFF Ramp
 DATE: 2/25/2020
 ALL VEHICLES

TIME: 6am-9am / 3pm-6pm
 NORTH/SOUTH ST: McIntosh Rd
 COUNTED BY: Video Cam2

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
6:00	0	110	42	0	152	13	50	0	0	63	215	10	0	50	0	60	0	0	0	0	0	60	275
6:15	0	166	68	0	234	13	76	0	0	89	323	9	0	52	0	61	0	0	0	0	0	61	384
6:30	0	164	72	0	236	12	73	0	0	85	321	10	0	47	0	57	0	0	0	0	0	57	378
6:45	0	165	87	0	252	17	79	0	0	96	348	20	0	89	0	109	0	0	0	0	0	109	457
Total	0	605	269	0	874	55	278	0	0	333	1,207	49	0	238	0	287	0	0	0	0	0	287	1,494
7:00	0	163	97	0	260	22	98	0	0	120	380	10	0	53	0	63	0	0	0	0	0	63	443
7:15	0	147	98	0	245	17	126	0	0	143	388	21	0	66	0	87	0	0	0	0	0	87	475
7:30	0	151	90	0	241	30	114	0	0	144	385	11	0	64	0	75	0	0	0	0	0	75	460
7:45	0	138	103	0	241	16	114	0	0	130	371	16	0	75	0	91	0	0	0	0	0	91	462
Total	0	599	388	0	987	85	452	0	0	537	1,524	58	0	258	0	316	0	0	0	0	0	316	1,840
8:00	0	143	77	0	220	18	89	0	0	107	327	15	0	61	0	76	0	0	0	0	0	76	403
8:15	0	147	71	0	218	26	90	0	0	116	334	21	0	70	0	91	0	0	0	0	0	91	425
8:30	0	125	91	0	216	12	79	0	0	91	307	24	0	61	0	85	0	0	0	0	0	85	392
8:45	0	98	63	0	161	12	95	0	0	107	268	14	0	55	0	69	0	0	0	0	0	69	337
Total	0	513	302	0	815	68	353	0	0	421	1,236	74	0	247	0	321	0	0	0	0	0	321	1,557
15:00	0	92	77	0	169	12	96	0	0	108	277	38	0	105	0	143	0	0	0	0	0	143	420
15:15	0	116	73	0	189	25	109	0	0	134	323	45	0	111	0	156	0	0	0	0	0	156	479
15:30	0	130	80	0	210	19	127	0	0	146	356	46	0	106	0	152	0	0	0	0	0	152	508
15:45	0	171	85	0	256	16	91	0	2	109	365	37	0	93	0	130	0	0	0	0	0	130	495
Total	0	509	315	0	824	72	423	0	2	497	1,321	166	0	415	0	581	0	0	0	0	0	581	1,902
16:00	0	161	70	0	231	24	95	0	0	119	350	49	0	67	0	116	0	0	0	0	0	116	466
16:15	0	133	88	0	221	24	122	0	0	146	367	24	0	100	0	124	0	0	0	0	0	124	491
16:30	0	115	77	0	192	34	141	0	0	175	367	32	0	61	0	93	0	0	0	0	0	93	460
16:45	0	92	98	0	190	33	126	0	0	159	349	43	0	64	0	107	0	0	0	0	0	107	456
Total	0	501	333	0	834	115	484	0	0	599	1,433	148	0	292	0	440	0	0	0	0	0	440	1,873
17:00	0	133	103	0	236	39	160	0	0	199	435	28	0	64	0	92	0	0	0	0	0	92	527
17:15	0	128	108	0	236	37	175	0	0	212	448	30	0	55	0	85	0	0	0	0	0	85	533
17:30	0	123	95	0	218	22	170	0	0	192	410	38	0	133	0	171	0	0	0	0	0	171	581
17:45	0	114	82	0	196	17	121	0	1	139	335	27	0	130	0	157	0	0	0	0	0	157	492
Total	0	498	388	0	886	115	626	0	1	742	1,628	123	0	382	0	505	0	0	0	0	0	505	2,133

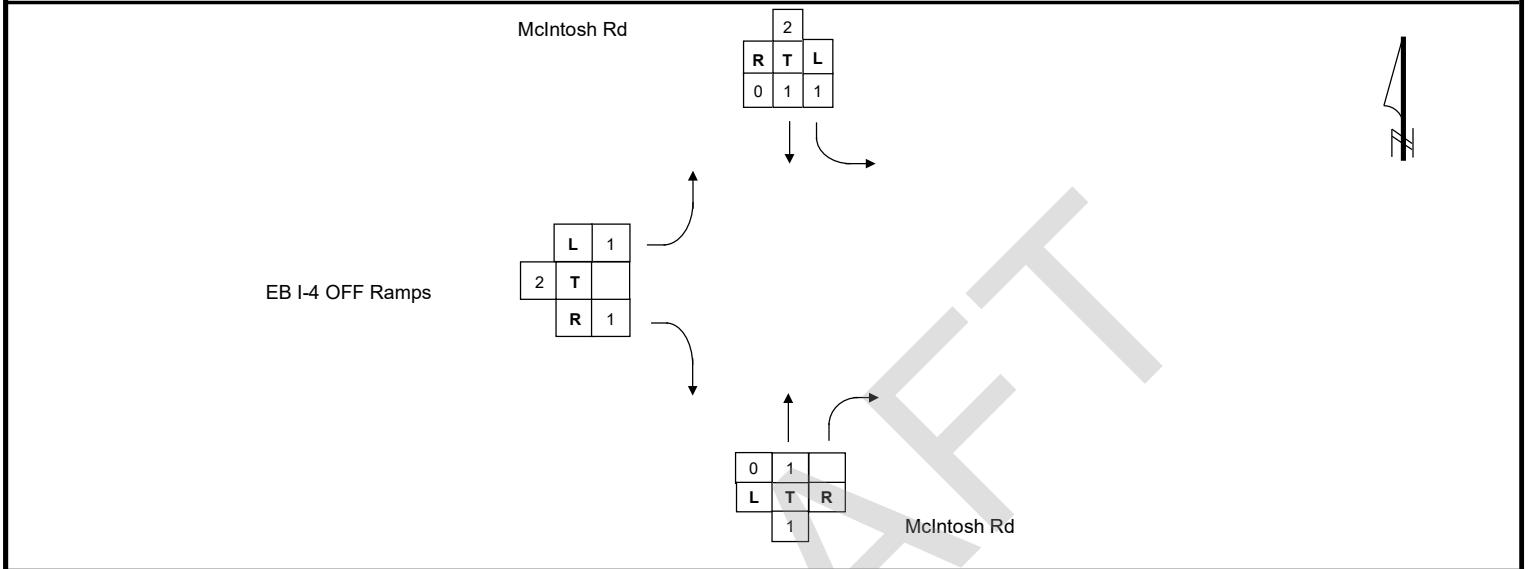
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Seffner COUNTY: Hillsborough
 INTR ROUTE: EB I-4 OFF Ramp STATE ROUTE: McIntosh Rd
 OBSERVER: Video Cam2 DATE: 02/25/20
 WEATHER: Sunny - Clear ROAD CONDITION: Good - Dry
 REMARKS:

FORM COMPLETED BY: TM

DATE: 03/24/20



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
6 - 7	0	605	269	0	874	55	278	0	0	333	1,207	49	0	238	0	287	0	0	0	0	0	287
7 - 8	0	599	388	0	987	85	452	0	0	537	1,524	58	0	258	0	316	0	0	0	0	0	316
8 - 9	0	513	302	0	815	68	353	0	0	421	1,236	74	0	247	0	321	0	0	0	0	0	321
3 - 4	0	509	315	0	824	72	423	0	2	497	1,321	166	0	415	0	581	0	0	0	0	0	581
4 - 5	0	501	333	0	834	115	484	0	0	599	1,433	148	0	292	0	440	0	0	0	0	0	440
5 - 6	0	498	388	0	886	115	626	0	1	742	1,628	123	0	382	0	505	0	0	0	0	0	505
TOTAL	0	2,620	1,726	0	4,346	455	2,338	0	3	2,796	7,142	569	0	1,594	0	2,163	0	0	0	0	0	2,163

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
INTER. ROUTE: EB I-4 OFF Ramp
OBSERVER: Video Cam2

CITY: Seffner
STATE ROUTE: McIntosh Rd
DATE: 02/25/20

COUNTY: Hillsborough

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 03/24/20

McIntosh Rd



6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

EB I-4 OFF Ramps

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

McIntosh Rd

TURNING MOVEMENT COUNT: McIntosh Rd @ US 92
 EAST/WEST ST: US 92
 DATE: 2/25/2020
 ALL VEHICLES

TIME: 6am-9am / 3pm-6pm
 NORTH/SOUTH ST: McIntosh Rd
 COUNTED BY: Video Cam2

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
6:00	2	78	4	0	84	18	44	18	0	80	164	27	19	0	0	46	7	31	60	0	98	144	308
6:15	7	97	8	0	112	23	52	21	0	96	208	37	24	3	0	64	2	45	74	0	121	185	393
6:30	8	138	5	0	151	38	56	23	0	117	268	33	33	2	0	68	10	59	82	0	151	219	487
6:45	10	111	15	0	136	44	74	22	0	140	276	31	35	2	0	68	24	63	71	0	158	226	502
Total	27	424	32	0	483	123	226	84	0	433	916	128	111	7	0	246	43	198	287	0	528	774	1,690
7:00	13	91	29	0	133	75	63	22	0	160	293	43	75	0	0	118	27	73	104	0	204	322	615
7:15	15	99	40	0	154	53	51	26	0	130	284	47	77	3	0	127	38	109	112	0	259	386	670
7:30	11	106	29	0	146	85	65	26	0	176	322	32	81	3	0	116	58	99	107	0	264	380	702
7:45	14	102	35	2	153	68	59	35	0	162	315	55	68	6	0	129	45	70	105	0	220	349	664
Total	53	398	133	2	586	281	238	109	0	628	1,214	177	301	12	0	490	168	351	428	0	947	1,437	2,651
8:00	12	58	29	0	99	58	58	22	0	138	237	44	77	7	0	128	42	103	125	0	270	398	635
8:15	10	88	21	1	120	64	75	15	0	154	274	37	66	5	0	108	19	73	93	0	185	293	567
8:30	3	84	12	0	99	48	54	35	0	137	236	37	57	4	0	98	26	84	52	0	162	260	496
8:45	4	57	4	0	65	28	63	25	0	116	181	37	40	3	0	80	9	41	42	0	92	172	353
Total	29	287	66	1	383	198	250	97	0	545	928	155	240	19	0	414	96	301	312	0	709	1,123	2,051
15:00	4	72	12	0	88	49	84	34	0	167	255	25	67	10	0	102	28	60	54	2	144	246	501
15:15	5	79	19	0	103	51	68	27	0	146	249	34	60	10	0	104	26	49	76	0	151	255	504
15:30	10	78	23	0	111	77	88	19	0	184	295	32	78	2	0	112	47	75	79	0	201	313	608
15:45	1	80	17	0	98	60	67	28	0	155	253	27	90	6	0	123	36	104	98	0	238	361	614
Total	20	309	71	0	400	237	307	108	0	652	1,052	118	295	28	0	441	137	288	307	2	734	1,175	2,227
16:00	4	78	17	0	99	45	78	20	0	143	242	46	103	9	0	158	42	90	86	0	218	376	618
16:15	5	86	13	0	104	63	90	28	0	181	285	46	85	10	0	141	31	82	64	0	177	318	603
16:30	9	80	20	0	109	62	104	22	0	188	297	56	97	12	1	166	13	51	50	0	114	280	577
16:45	2	94	13	0	109	61	99	27	0	187	296	44	104	12	0	160	23	48	36	0	107	267	563
Total	20	338	63	0	421	231	371	97	0	699	1,120	192	389	43	1	625	109	271	236	0	616	1,241	2,361
17:00	10	96	14	0	120	60	135	31	0	226	346	63	103	22	0	188	26	63	58	0	147	335	681
17:15	6	112	14	0	132	64	120	52	0	236	368	46	88	6	0	140	23	80	55	0	158	298	666
17:30	11	96	18	0	125	71	111	24	0	206	331	50	111	13	0	174	26	65	47	0	138	312	643
17:45	8	86	26	0	120	65	89	15	0	169	289	45	124	9	0	178	17	71	45	0	133	311	600
Total	35	390	72	0	497	260	455	122	0	837	1,334	204	426	50	0	680	92	279	205	0	576	1,256	2,590

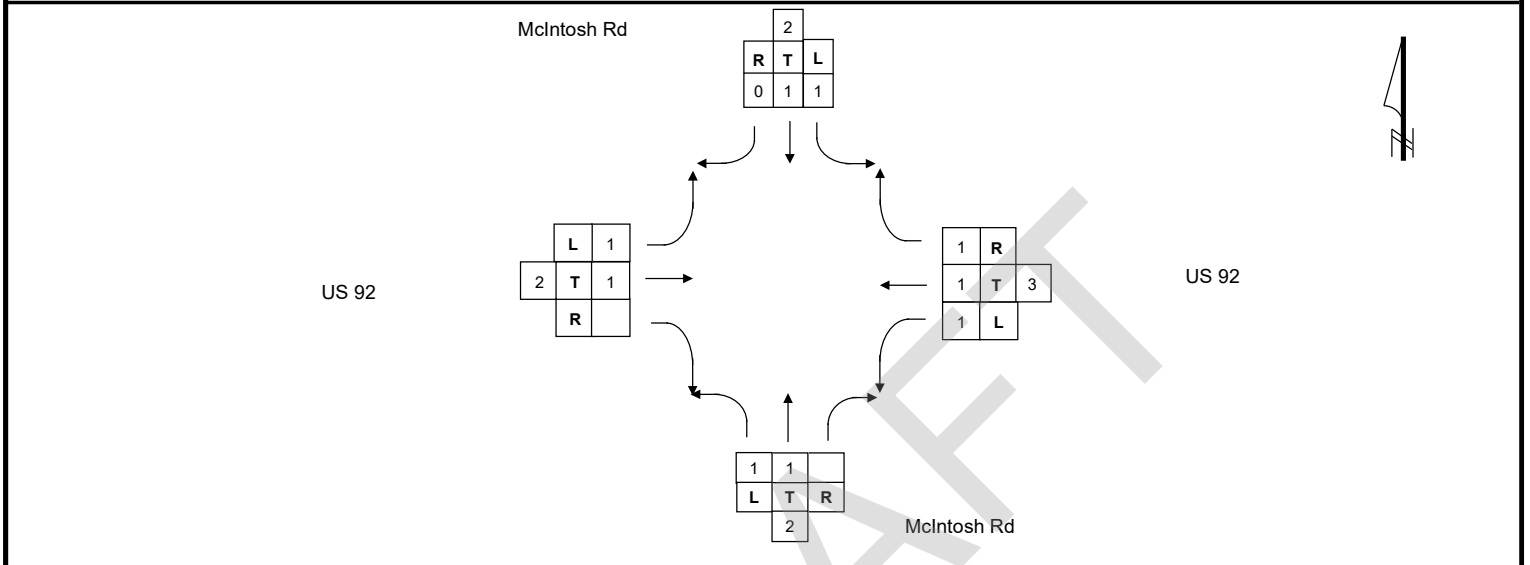
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Seffner COUNTY: Hillsborough
 INTR ROUTE: US 92 STATE ROUTE: McIntosh Rd
 OBSERVER: Video Cam2 DATE: 02/25/20
 WEATHER: Sunny - Clear ROAD CONDITION: Good - Dry
 REMARKS:

FORM COMPLETED BY: TM

DATE: 03/24/20



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
6 - 7	27	424	32	0	483	123	226	84	0	433	916	128	111	7	0	246	43	198	287	0	528	774
7 - 8	53	398	133	2	586	281	238	109	0	628	1,214	177	301	12	0	490	168	351	428	0	947	1,437
8 - 9	29	287	66	1	383	198	250	97	0	545	928	155	240	19	0	414	96	301	312	0	709	1,123
3 - 4	20	309	71	0	400	237	307	108	0	652	1,052	118	295	28	0	441	137	288	307	2	734	1,175
4 - 5	20	338	63	0	421	231	371	97	0	699	1,120	192	389	43	1	625	109	271	236	0	616	1,241
5 - 6	35	390	72	0	497	260	455	122	0	837	1,334	204	426	50	0	680	92	279	205	0	576	1,256
TOTAL	157	1,722	405	3	2,287	1,207	1,621	533	0	3,361	5,648	846	1,651	152	1	2,650	602	1,490	1,488	2	3,582	6,232

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
INTER. ROUTE: US 92
OBSERVER: Video Cam2

CITY: Seffner
STATE ROUTE: McIntosh Rd
DATE: 02/25/20

COUNTY: Hillsborough

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 03/24/20

McIntosh Rd



6-7	7-8	8-9			3-4	4-5	5-6	Total
0	7	0			0	0	0	7
0	0	0			0	0	0	0
0	2	0			0	0	0	2
0	1	0			0	0	0	1
0	10	0			0	0	0	10

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

6-7	7-8	8-9	3-4	4-5	5-6	Total
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

US 92

6-7	7-8	8-9			3-4	4-5	5-6	Total
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0
0	0	0			0	0	0	0

McIntosh Rd

2019 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: DISTRICT

COUNTY: 10 - HILLSBOROUGH

WEEK	DATES	1000 HILLSBOROUGH - COUNTY WID	1001 HILLSBOROUGH RURAL	1002 HILLSBOROUGH URBAN	1003 I75, MANATEE-US301
1	01/01/2019 - 01/05/2019	0.93	0.93	0.97	0.95
2	01/06/2019 - 01/12/2019	0.94	0.93	0.97	0.95
3	01/13/2019 - 01/19/2019	0.94	0.93	0.97	0.94
4	01/20/2019 - 01/26/2019	0.94	0.93	0.97	0.94
5	01/27/2019 - 02/02/2019	0.94	0.93	0.97	0.95
6	02/03/2019 - 02/09/2019	0.94	0.93	0.97	0.95
7	02/10/2019 - 02/16/2019	0.94	0.93	0.97	0.95
8	02/17/2019 - 02/23/2019	0.94	0.93	0.97	0.95
9	02/24/2019 - 03/02/2019	0.94	0.93	0.97	0.95
10	03/03/2019 - 03/09/2019	0.94	0.93	0.97	0.95
11	03/10/2019 - 03/16/2019	0.94	0.93	0.97	0.95
12	03/17/2019 - 03/23/2019	0.94	0.93	0.97	0.95
13	03/24/2019 - 03/30/2019	0.94	0.93	0.97	0.95
14	03/31/2019 - 04/06/2019	0.93	0.92	0.97	0.95
15	04/07/2019 - 04/13/2019	0.93	0.92	0.97	0.95
16	04/14/2019 - 04/20/2019	0.93	0.92	0.97	0.95
17	04/21/2019 - 04/27/2019	0.93	0.92	0.97	0.94
18	04/28/2019 - 05/04/2019	0.93	0.92	0.97	0.94
19	05/05/2019 - 05/11/2019	0.93	0.92	0.97	0.93
20	05/12/2019 - 05/18/2019	0.93	0.92	0.97	0.92
21	05/19/2019 - 05/25/2019	0.93	0.92	0.97	0.93
22	05/26/2019 - 06/01/2019	0.93	0.92	0.97	0.94
23	06/02/2019 - 06/08/2019	0.93	0.92	0.97	0.94
24	06/09/2019 - 06/15/2019	0.93	0.92	0.97	0.95
25	06/16/2019 - 06/22/2019	0.93	0.92	0.97	0.95
26	06/23/2019 - 06/29/2019	0.93	0.92	0.97	0.95
27	06/30/2019 - 07/06/2019	0.93	0.92	0.97	0.95
28	07/07/2019 - 07/13/2019	0.93	0.92	0.97	0.95
29	07/14/2019 - 07/20/2019	0.93	0.92	0.97	0.95
30	07/21/2019 - 07/27/2019	0.93	0.92	0.97	0.95
31	07/28/2019 - 08/03/2019	0.93	0.93	0.97	0.95
32	08/04/2019 - 08/10/2019	0.93	0.93	0.97	0.95
33	08/11/2019 - 08/17/2019	0.93	0.93	0.97	0.95
34	08/18/2019 - 08/24/2019	0.93	0.93	0.97	0.95
35	08/25/2019 - 08/31/2019	0.94	0.93	0.97	0.95
36	09/01/2019 - 09/07/2019	0.94	0.92	0.97	0.95
37	09/08/2019 - 09/14/2019	0.95	0.92	0.97	0.95
38	09/15/2019 - 09/21/2019	0.95	0.92	0.97	0.95
39	09/22/2019 - 09/28/2019	0.95	0.92	0.97	0.95
40	09/29/2019 - 10/05/2019	0.95	0.93	0.97	0.95
41	10/06/2019 - 10/12/2019	0.95	0.93	0.97	0.94
42	10/13/2019 - 10/19/2019	0.95	0.93	0.97	0.94
43	10/20/2019 - 10/26/2019	0.95	0.93	0.97	0.94
44	10/27/2019 - 11/02/2019	0.94	0.93	0.97	0.95
45	11/03/2019 - 11/09/2019	0.94	0.93	0.97	0.95
46	11/10/2019 - 11/16/2019	0.93	0.93	0.97	0.95
47	11/17/2019 - 11/23/2019	0.93	0.93	0.97	0.95
48	11/24/2019 - 11/30/2019	0.93	0.93	0.97	0.95
49	12/01/2019 - 12/07/2019	0.93	0.93	0.97	0.95
50	12/08/2019 - 12/14/2019	0.93	0.93	0.97	0.95
51	12/15/2019 - 12/21/2019	0.93	0.93	0.97	0.95
52	12/22/2019 - 12/28/2019	0.94	0.93	0.97	0.95
53	12/29/2019 - 12/31/2019	0.94	0.93	0.97	0.94

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 1000 HILLSBOROUGH COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.96 PSCF
1	01/01/2019 - 01/05/2019	1.03	1.07
2	01/06/2019 - 01/12/2019	1.03	1.07
3	01/13/2019 - 01/19/2019	1.03	1.07
4	01/20/2019 - 01/26/2019	1.01	1.05
5	01/27/2019 - 02/02/2019	0.99	1.03
* 6	02/03/2019 - 02/09/2019	0.97	1.01
* 7	02/10/2019 - 02/16/2019	0.95	0.99
* 8	02/17/2019 - 02/23/2019	0.95	0.99
* 9	02/24/2019 - 03/02/2019	0.95	0.99
*10	03/03/2019 - 03/09/2019	0.95	0.99
*11	03/10/2019 - 03/16/2019	0.95	0.99
*12	03/17/2019 - 03/23/2019	0.95	0.99
*13	03/24/2019 - 03/30/2019	0.96	1.00
*14	03/31/2019 - 04/06/2019	0.96	1.00
*15	04/07/2019 - 04/13/2019	0.97	1.01
*16	04/14/2019 - 04/20/2019	0.97	1.01
*17	04/21/2019 - 04/27/2019	0.98	1.02
*18	04/28/2019 - 05/04/2019	0.99	1.03
19	05/05/2019 - 05/11/2019	0.99	1.03
20	05/12/2019 - 05/18/2019	1.00	1.04
21	05/19/2019 - 05/25/2019	1.01	1.05
22	05/26/2019 - 06/01/2019	1.01	1.05
23	06/02/2019 - 06/08/2019	1.02	1.06
24	06/09/2019 - 06/15/2019	1.03	1.07
25	06/16/2019 - 06/22/2019	1.04	1.08
26	06/23/2019 - 06/29/2019	1.05	1.09
27	06/30/2019 - 07/06/2019	1.06	1.10
28	07/07/2019 - 07/13/2019	1.07	1.11
29	07/14/2019 - 07/20/2019	1.08	1.13
30	07/21/2019 - 07/27/2019	1.06	1.10
31	07/28/2019 - 08/03/2019	1.05	1.09
32	08/04/2019 - 08/10/2019	1.03	1.07
33	08/11/2019 - 08/17/2019	1.02	1.06
34	08/18/2019 - 08/24/2019	1.02	1.06
35	08/25/2019 - 08/31/2019	1.02	1.06
36	09/01/2019 - 09/07/2019	1.01	1.05
37	09/08/2019 - 09/14/2019	1.01	1.05
38	09/15/2019 - 09/21/2019	1.01	1.05
39	09/22/2019 - 09/28/2019	1.00	1.04
40	09/29/2019 - 10/05/2019	1.00	1.04
41	10/06/2019 - 10/12/2019	0.99	1.03
42	10/13/2019 - 10/19/2019	0.99	1.03
43	10/20/2019 - 10/26/2019	0.99	1.03
44	10/27/2019 - 11/02/2019	1.00	1.04
45	11/03/2019 - 11/09/2019	1.01	1.05
46	11/10/2019 - 11/16/2019	1.01	1.05
47	11/17/2019 - 11/23/2019	1.02	1.06
48	11/24/2019 - 11/30/2019	1.02	1.06
49	12/01/2019 - 12/07/2019	1.02	1.06
50	12/08/2019 - 12/14/2019	1.03	1.07
51	12/15/2019 - 12/21/2019	1.03	1.07
52	12/22/2019 - 12/28/2019	1.03	1.07
53	12/29/2019 - 12/31/2019	1.03	1.07

* PEAK SEASON

14-FEB-2020 15:39:30

830UPD

7_1000_PKSEASON.TXT

DRAFT

APPENDIX C Existing (2020) Operational Analysis

HCM 6th TWSC

6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	10.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	4	64	158	20	2	67	197	154	7	335	18
Future Vol, veh/h	2	4	64	158	20	2	67	197	154	7	335	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	4	68	168	21	2	71	210	164	7	356	19
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	826	896	366	850	823	292	375	0	0	374	0	0
Stage 1	380	380	-	434	434	-	-	-	-	-	-	-
Stage 2	446	516	-	416	389	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	288	277	673	277	305	740	1167	-	-	1168	-	-
Stage 1	636	609	-	595	576	-	-	-	-	-	-	-
Stage 2	586	529	-	608	603	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	253	253	673	230	279	740	1167	-	-	1168	-	-
Mov Cap-2 Maneuver	253	253	-	230	279	-	-	-	-	-	-	-
Stage 1	586	604	-	548	530	-	-	-	-	-	-	-
Stage 2	517	487	-	538	598	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12		49.6		1.3		0.2					
HCM LOS	B		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1167	-	-	589	230	296	1168	-	-			
HCM Lane V/C Ratio	0.061	-	-	0.126	0.731	0.079	0.006	-	-			
HCM Control Delay (s)	8.3	0	-	12	54	18.2	8.1	0	-			
HCM Lane LOS	A	A	-	B	F	C	A	A	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.4	5	0.3	0	-	-			

HCM 6th Signalized Intersection Summary

3: McIntosh Rd & I-4 WB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↱	↰	↱			↱	
Traffic Volume (veh/h)	0	0	0	266	0	104	401	314	0	0	312	245
Future Volume (veh/h)	0	0	0	266	0	104	401	314	0	0	312	245
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				283	0	0	427	334	0	0	332	261
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				343	0		501	1236	0	0	384	302
Arrive On Green				0.20	0.00	0.00	0.21	0.68	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	947	745
Grp Volume(v), veh/h				283	0	0	427	334	0	0	0	593
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1692
Q Serve(g_s), s				15.4	0.0	0.0	14.9	7.1	0.0	0.0	0.0	31.7
Cycle Q Clear(g_c), s				15.4	0.0	0.0	14.9	7.1	0.0	0.0	0.0	31.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.44
Lane Grp Cap(c), veh/h				343	0		501	1236	0	0	0	685
V/C Ratio(X)				0.83	0.00		0.85	0.27	0.00	0.00	0.00	0.87
Avail Cap(c_a), veh/h				441	0		1022	2247	0	0	0	1115
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				38.0	0.0	0.0	21.9	6.3	0.0	0.0	0.0	26.9
Incr Delay (d2), s/veh				19.8	0.0	0.0	8.5	0.2	0.0	0.0	0.0	5.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				12.8	0.0	0.0	10.7	4.1	0.0	0.0	0.0	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				57.8	0.0	0.0	30.4	6.5	0.0	0.0	0.0	32.3
LnGrp LOS				E	A		C	A	A	A	A	C
Approach Vol, veh/h					283			761			593	
Approach Delay, s/veh					57.8			19.9			32.3	
Approach LOS					E			B			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.8	46.4		25.5		73.2						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	50.0	65.0		25.0		121.4						
Max Q Clear Time (g_c+I1), s	16.9	33.7		17.4		9.1						
Green Ext Time (p_c), s	3.6	6.3		2.1		3.1						
Intersection Summary												
HCM 6th Ctrl Delay				30.9								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	0	328	0	0	0	0	643	419	92	486	0
Future Volume (veh/h)	72	0	328	0	0	0	0	643	419	92	486	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	77	0	0				0	684	446	98	517	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	112	0					0	706	460	193	1464	0
Arrive On Green	0.06	0.00	0.00				0.00	0.68	0.68	0.05	0.80	0.00
Sat Flow, veh/h	1739	0	1547				0	1032	673	1739	1826	0
Grp Volume(v), veh/h	77	0	0				0	0	1130	98	517	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1705	1739	1826	0
Q Serve(g_s), s	4.1	0.0	0.0				0.0	0.0	58.1	1.4	7.3	0.0
Cycle Q Clear(g_c), s	4.1	0.0	0.0				0.0	0.0	58.1	1.4	7.3	0.0
Prop In Lane	1.00		1.00				0.00		0.39	1.00		0.00
Lane Grp Cap(c), veh/h	112	0					0	0	1166	193	1464	0
V/C Ratio(X)	0.68	0.00					0.00	0.00	0.97	0.51	0.35	0.00
Avail Cap(c_a), veh/h	465	0					0	0	1184	293	1588	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.8	0.0	0.0				0.0	0.0	13.8	25.3	2.6	0.0
Incr Delay (d2), s/veh	28.8	0.0	0.0				0.0	0.0	19.1	2.1	0.2	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
%ile BackOfQ(95%),veh/ln	4.6	0.0	0.0				0.0	0.0	30.3	2.8	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	0.0	0.0				0.0	0.0	32.9	27.4	2.8	0.0
LnGrp LOS	E	A					A	A	C	C	A	A
Approach Vol, veh/h	77						1130			615		
Approach Delay, s/veh	71.7						32.9			6.7		
Approach LOS	E						C			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	81.4			11.0			70.4			12.2		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	81.4			10.0			65.0			25.0		
Max Q Clear Time (g_c+I1), s	9.3			3.4			60.1			6.1		
Green Ext Time (p_c), s	5.4			0.1			3.9			0.8		
Intersection Summary												
HCM 6th Ctrl Delay			25.7									
HCM 6th LOS			C									
Notes												

HCM 6th TWSC 15: McIntosh Rd & Newsome Rd

Intersection

Int Delay, s/veh 1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	3	70	992	33	33	781
Future Vol, veh/h	3	70	992	33	33	781
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	74	1055	35	35	831

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1974	1073	0
Stage 1	1073	-	-
Stage 2	901	-	-
Critical Hdwy	6.45	6.25	-
Critical Hdwy Stg 1	5.45	-	-
Critical Hdwy Stg 2	5.45	-	-
Follow-up Hdwy	3.545	3.345	-
Pot Cap-1 Maneuver	67	264	-
Stage 1	324	-	-
Stage 2	392	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	60	264	-
Mov Cap-2 Maneuver	60	-	-
Stage 1	324	-	-
Stage 2	352	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.1	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	232	629
HCM Lane V/C Ratio	-	-	0.335	0.056
HCM Control Delay (s)	-	-	28.1	11.1
HCM Lane LOS	-	-	D	B
HCM 95th %tile Q(veh)	-	-	1.4	0.2

HCM 6th Signalized Intersection Summary

12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	197	16	77	211	352	45	476	39	267	322	195
Future Volume (veh/h)	197	197	16	77	211	352	45	476	39	267	322	195
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	210	210	17	82	224	374	48	506	41	284	343	207
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	330	480	39	343	425	557	283	559	45	309	544	329
Arrive On Green	0.10	0.29	0.29	0.05	0.23	0.23	0.34	0.34	0.34	0.13	0.51	0.51
Sat Flow, veh/h	1739	1667	135	1739	1826	1547	837	1667	135	1739	1066	644
Grp Volume(v), veh/h	210	0	227	82	224	374	48	0	547	284	0	550
Grp Sat Flow(s),veh/h/ln	1739	0	1802	1739	1826	1547	837	0	1802	1739	0	1710
Q Serve(g_s), s	12.8	0.0	14.7	5.1	15.4	29.2	6.3	0.0	41.5	15.7	0.0	33.3
Cycle Q Clear(g_c), s	12.8	0.0	14.7	5.1	15.4	29.2	14.5	0.0	41.5	15.7	0.0	33.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.07	1.00		0.38
Lane Grp Cap(c), veh/h	330	0	519	343	425	557	283	0	604	309	0	873
V/C Ratio(X)	0.64	0.00	0.44	0.24	0.53	0.67	0.17	0.00	0.91	0.92	0.00	0.63
Avail Cap(c_a), veh/h	333	0	566	441	573	682	353	0	754	392	0	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	41.6	39.1	48.1	38.7	39.6	0.0	45.5	35.2	0.0	25.3
Incr Delay (d2), s/veh	3.9	0.0	0.6	0.4	1.0	1.9	0.4	0.0	13.5	22.9	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.6	0.0	10.7	3.9	11.3	16.7	2.4	0.0	27.6	13.2	0.0	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	42.2	39.4	49.1	40.6	40.0	0.0	58.9	58.2	0.0	26.4
LnGrp LOS	D	A	D	D	D	D	D	A	E	E	A	C
Approach Vol, veh/h	437			680			595			834		
Approach Delay, s/veh	41.0			43.3			57.4			37.2		
Approach LOS	D			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	22.0	40.9	25.1	55.4	14.1	48.8	80.5					
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5	7.3					
Max Green Setting (Gmax), s	* 15	* 45	25.0	60.0	* 15	* 45	91.9					
Max Q Clear Time (g_c+I1), s	14.8	31.2	17.7	43.5	7.1	16.7	35.3					
Green Ext Time (p_c), s	0.0	2.1	0.5	4.5	0.1	1.2	6.1					
Intersection Summary												
HCM 6th Ctrl Delay	44.2											
HCM 6th LOS	D											
Notes												

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	14	78	119	15	6	62	277	175	6	195	8
Future Vol, veh/h	8	14	78	119	15	6	62	277	175	6	195	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	9	15	83	127	16	6	66	295	186	6	207	9
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	755	837	212	793	748	388	216	0	0	481	0	0
Stage 1	224	224	-	520	520	-	-	-	-	-	-	-
Stage 2	531	613	-	273	228	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	321	299	821	303	337	654	1336	-	-	1066	-	-
Stage 1	772	713	-	534	527	-	-	-	-	-	-	-
Stage 2	526	479	-	726	710	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	288	277	821	246	312	654	1336	-	-	1066	-	-
Mov Cap-2 Maneuver	288	277	-	246	312	-	-	-	-	-	-	-
Stage 1	719	709	-	497	491	-	-	-	-	-	-	-
Stage 2	469	446	-	635	706	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12.6		31.4			0.9			0.2			
HCM LOS	B		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1336	-	-	577 246 367	1066	-	-					
HCM Lane V/C Ratio	0.049	-	-	0.184 0.515 0.061	0.006	-	-					
HCM Control Delay (s)	7.8	0	-	12.6 34.2 15.4	8.4	0	-					
HCM Lane LOS	A	A	-	B D C	A A	-	-					
HCM 95th %tile Q(veh)	0.2	-	-	0.7 2.7 0.2	0	-	-					

HCM 6th Signalized Intersection Summary

3: McIntosh Rd & I-4 WB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↱	↰	↱			↱	
Traffic Volume (veh/h)	0	0	0	270	0	221	273	293	0	0	326	66
Future Volume (veh/h)	0	0	0	270	0	221	273	293	0	0	326	66
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				287	0	0	290	312	0	0	347	70
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				403	0		491	1048	0	0	455	92
Arrive On Green				0.23	0.00	0.00	0.17	0.57	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	1475	298
Grp Volume(v), veh/h				287	0	0	290	312	0	0	0	417
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1772
Q Serve(g_s), s				9.7	0.0	0.0	6.3	5.6	0.0	0.0	0.0	13.6
Cycle Q Clear(g_c), s				9.7	0.0	0.0	6.3	5.6	0.0	0.0	0.0	13.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				403	0		491	1048	0	0	0	546
V/C Ratio(X)				0.71	0.00		0.59	0.30	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h				681	0		1566	3474	0	0	0	1805
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				22.6	0.0	0.0	12.1	7.0	0.0	0.0	0.0	20.0
Incr Delay (d2), s/veh				10.3	0.0	0.0	2.4	0.2	0.0	0.0	0.0	3.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				8.1	0.0	0.0	4.0	3.0	0.0	0.0	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.8	0.0	0.0	14.5	7.2	0.0	0.0	0.0	23.1
LnGrp LOS				C	A		B	A	A	A	A	C
Approach Vol, veh/h					287			602			417	
Approach Delay, s/veh					32.8			10.7			23.1	
Approach LOS					C			B			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.0	26.1		20.8		43.0						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	50.0	65.0		25.0		121.4						
Max Q Clear Time (g_c+I1), s	8.3	15.6		11.7		7.6						
Green Ext Time (p_c), s	2.3	4.1		3.2		2.9						
Intersection Summary												
HCM 6th Ctrl Delay				19.5								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	0	410	0	0	0	0	436	299	96	500	0
Future Volume (veh/h)	130	0	410	0	0	0	0	436	299	96	500	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	138	0	0				0	464	318	102	532	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	205	0					0	556	381	323	1285	0
Arrive On Green	0.12	0.00	0.00				0.00	0.55	0.55	0.06	0.70	0.00
Sat Flow, veh/h	1739	0	1547				0	1010	692	1739	1826	0
Grp Volume(v), veh/h	138	0	0				0	0	782	102	532	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1701	1739	1826	0
Q Serve(g_s), s	5.3	0.0	0.0				0.0	0.0	26.8	1.6	8.5	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0				0.0	0.0	26.8	1.6	8.5	0.0
Prop In Lane	1.00		1.00				0.00		0.41	1.00		0.00
Lane Grp Cap(c), veh/h	205	0					0	0	937	323	1285	0
V/C Ratio(X)	0.67	0.00					0.00	0.00	0.83	0.32	0.41	0.00
Avail Cap(c_a), veh/h	620	0					0	0	1578	465	2120	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.6	0.0	0.0				0.0	0.0	13.1	11.8	4.3	0.0
Incr Delay (d2), s/veh	16.2	0.0	0.0				0.0	0.0	2.9	0.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.3	0.0	0.0				0.0	0.0	13.4	1.1	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	0.0				0.0	0.0	16.0	12.3	4.7	0.0
LnGrp LOS	D	A					A	A	B	B	A	A
Approach Vol, veh/h	138						782			634		
Approach Delay, s/veh	45.8						16.0			5.9		
Approach LOS	D						B			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	55.7			10.7			45.0			14.4		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	81.4			10.0			65.0			25.0		
Max Q Clear Time (g_c+I1), s	10.5			3.6			28.8			7.3		
Green Ext Time (p_c), s	5.6			0.1			9.8			1.6		
Intersection Summary												
HCM 6th Ctrl Delay	14.5											
HCM 6th LOS	B											
Notes												

HCM 6th TWSC
15: McIntosh Rd

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	81	654	34	65	845
Future Vol, veh/h	9	81	654	34	65	845
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	10	86	696	36	69	899
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1751	714	0	0	732	0
Stage 1	714	-	-	-	-	-
Stage 2	1037	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.15	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.245	-
Pot Cap-1 Maneuver	92	426	-	-	859	-
Stage 1	480	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	77	426	-	-	859	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	480	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	23.1	0		0.7		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	293	859	-	
HCM Lane V/C Ratio	-	-	0.327	0.08	-	
HCM Control Delay (s)	-	-	23.1	9.6	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1.4	0.3	-	

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	340	38	78	225	186	30	340	60	265	435	154
Future Volume (veh/h)	162	340	38	78	225	186	30	340	60	265	435	154
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	172	362	40	83	239	198	32	362	64	282	463	164
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	319	407	45	195	380	525	218	425	75	350	619	219
Arrive On Green	0.10	0.25	0.25	0.05	0.21	0.21	0.28	0.28	0.28	0.13	0.48	0.48
Sat Flow, veh/h	1739	1615	178	1739	1826	1547	780	1511	267	1739	1288	456
Grp Volume(v), veh/h	172	0	402	83	239	198	32	0	426	282	0	627
Grp Sat Flow(s),veh/h/ln	1739	0	1794	1739	1826	1547	780	0	1778	1739	0	1744
Q Serve(g_s), s	7.8	0.0	22.0	3.8	12.1	9.9	3.5	0.0	23.1	11.2	0.0	29.7
Cycle Q Clear(g_c), s	7.8	0.0	22.0	3.8	12.1	9.9	13.0	0.0	23.1	11.2	0.0	29.7
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	319	0	452	195	380	525	218	0	501	350	0	838
V/C Ratio(X)	0.54	0.00	0.89	0.43	0.63	0.38	0.15	0.00	0.85	0.80	0.00	0.75
Avail Cap(c_a), veh/h	324	0	616	276	627	734	343	0	785	379	0	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	36.7	30.9	36.7	25.5	35.0	0.0	34.6	23.7	0.0	21.5
Incr Delay (d2), s/veh	1.7	0.0	11.8	1.5	1.7	0.4	0.4	0.0	6.8	11.3	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	0.0	16.0	2.9	9.2	6.4	1.2	0.0	15.6	9.2	0.0	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	48.5	32.4	38.5	25.9	35.4	0.0	41.4	35.0	0.0	23.8
LnGrp LOS	C	A	D	C	D	C	D	A	D	C	A	C
Approach Vol, veh/h	574			520			458			909		
Approach Delay, s/veh	43.0			32.7			41.0			27.3		
Approach LOS	D			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	16.9	28.7	20.2	36.0	12.5	33.2	56.2					
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5	7.3					
Max Green Setting (Gmax), s	* 10	* 35	15.0	45.0	* 10	* 35	66.9					
Max Q Clear Time (g_c+I1), s	9.8	14.1	13.2	25.1	5.8	24.0	31.7					
Green Ext Time (p_c), s	0.0	1.8	0.2	3.6	0.1	1.7	6.8					
Intersection Summary												
HCM 6th Ctrl Delay			34.6									
HCM 6th LOS			C									
Notes												

Hillsborough County

Timing Sheet

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

Phase [1.1.1]

	1 (NL)	2 (ST)	3	4 (WT)	5	6 (NT)	7	8	9	10	11	12	13	14	15	16
Walk																
Ped Clearance																
Min Green	5	15		7		15										
Passage	5	4		8		4										
Max1	50	65		25		65										
Max2																
Yellow	4.4	4.4	6	4	6	4.4	6	6	9	9	9	9	9	9	9	9
Red	2	2		2		2										
Red Revert	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Added Initial																
Max Initial																
Time Before Reduce				9												
Cars Before Reduce																
Time To Reduce				9												
Reduce By																
Min Gap				4												
Dynamic Max Limit	100	130		50		130										
Dynamic Max Step	5	10		10		10										
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1 (NL)	2 (ST)	3	4 (WT)	5	6 (NT)	7	8	9	10	11	12	13	14	15	16
Enable	ON	ON		ON		ON										
Auto Entry				ON												
Non Act1																
Non Act2																
Lock Call																
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON				ON										
Sim Gap Enable		ON				ON										
Guar Passage																
Cond Service																
Add Init Cal																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1			5	5	50		4.4	2	1	
2			15	4	65		4.4	2	2	
3							6			
4			7	8	25		4	2	4	
5							6			
6			15	4	65		4.4	2	6	
7							6			
8							6			

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1			5	6	50		4.4	2	1	
2			15	4	65		4.4	2	2	
3							6			
4			7	8	25		4	2	4	
5							6			
6			15	6	65		4.4	2	6	
7							6			
8							6			

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

Unit Parameters [1.2.1]

Max Seek Dwell Time		
Max Seek Track Time		
Max Cycle Time		
Cycle Fault Action	ALARM	
TS2 Det Faults	OFF	
SDLC Retry Time		
Diamond Mode	4PH	
Phase Mode	OSEO	
Feature Profile		
Tone Disable	OFF	
Console Timeout	30	
Red Revert	3	
Backup Time		
Auto Ped Clear	OFF	
Startup Flash		

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
1351		900	OFF					

Port Parameters [6.2]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ON	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases						Modifier Phases						Type	Green	Yellow	Red
Overlap 1													NORMAL		3.5	1.5
Overlap 2													NORMAL		3.5	1.5
Overlap 3													NORMAL		3.5	1.5
Overlap 4													NORMAL		3.5	1.5
Overlap 5													NORMAL		3.5	1.5
Overlap 6													NORMAL		3.5	1.5
Overlap 7													NORMAL		3.5	1.5
Overlap 8													NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

[illegible]

Detector, Vehicle Parameters 1-16 [5.1]

[illegible]

Detector, Vehicle Parameters 17-32 [5.1]

[illegible]

Hillsborough County

Timing Sheet

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)**Detector Alternate Program 1, Vehicle Parameters [5.5.1]**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase																
Switch Phase																
Delay Time																

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2		4		6																		
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED								
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2_V14	ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]**MMU-to-Controller Channel Map**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device										Detector								MMU	Diag
Term/Fac	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8			
BIU#																			
Present																			
Peer to Peer																			

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2		3	4	7	8	
Ring 2	5	6						
Ring 3								
Ring 4								

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON				
Override Higher	ON	ON				
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green	5	5				
Min Walk						
Ped Clear						
Track Green						
Min Dwell	5	5	10	10	10	10
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Auto Flash Parameter

Alarms, Parameters [1.6.7]

Alarms, Phases/Overlaps [1.4.2]

[illegible]

Hillsborough County

Timing Sheet

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable	ON	ON	ON	ON	ON	ON
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MIN	MIN	MIN	MIN
Extend Dwell	1	1				
Pattern						
Output Mode						
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes, + [2.1]

Modes

Force-Off	FIXED
Maximum	MAX INH
Correct	SHRT/LNG
Operational	

Modes+

Closed Loop Active	ON	OFF
Coord NTCIP Yield Sign	+	
Yield Value	0	
Coord Easy Float	OFF	
Latch Sec Poff	OFF	
Auto Reset	ON	
External	OFF	
Stop In Walk	ON	
Recycle	NO RECYCLE	
Leave After	TIMED	
Leave Before	TIMED	
Mode	FRC	

Coordination, Pattern 1-16 [2.1]

[illegible]

Coordination, Pattern 17-32 [2.1]

[illegible]

Hillsborough County

Timing Sheet

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

Coordination, Splits [2.7.1]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Hillsborough County

Timing Sheet

10/10/2018 9:17:09 AM

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Coord-Ph																
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

DRAFT

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

TB Coor, Advanced Scheduler [4.3]

[illegible]

TB Coor, Day Plan [4.4]

[illegible][illegible][illegible][illegible][illegible][illegible]

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

[illegible][illegible][illegible][illegible][illegible][illegible]

Station : 1351 - I-4 WB Ramp & McIntosh Rd (F209) (Standard File)

TB Coor, Action Table [4.5]

[illegible]

Hillsborough County

Timing Sheet

1/24/2020 3:59:20 PM

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

Phase [1.1.1]

	1	2 (ST)	3	4	5 (SL)	6 (NT)	7	8 (ET)	9	10	11	12	13	14	15	16
Walk																
Ped Clearance																
Min Green		15			5	15		7								
Passage		4			3	4		8								
Max1		65			10	65		25								
Max2																
Yellow	6	4.4	6	6	4.4	4.4	6	4.1	9	9	9	9	9	9	9	9
Red		2			2	2		2								
Red Revert	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1	2 (ST)	3	4	5 (SL)	6 (NT)	7	8 (ET)	9	10	11	12	13	14	15	16
Enable		ON			ON	ON		ON								
Auto Entry																
Non Act1																
Non Act2																
Lock Call																
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON				ON										
Sim Gap Enable		ON			ON	ON										
Guar Passage																
Cond Service																
Add Init Cal																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1							6			
2			15	4	65		4.4	2	2	
3							6			
4							6			
5			5	3	10		4.4	2	5	
6			15	6	65		4.4	2	6	
7							6			
8			7	8	25		4.1	2	8	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1							6			
2			15	6	65		4.4	2	2	
3							6			
4							6			
5			5	6	10		4.4	2	5	
6			15	6	65		4.4	2	6	
7							6			
8			7	8	25		4.1	2	8	

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

Unit Parameters [1.2.1]

Max Seek Dwell Time		
Max Seek Track Time		
Max Cycle Time		
Cycle Fault Action	ALARM	
TS2 Det Faults	OFF	
SDLC Retry Time		
Diamond Mode	4PH	
Phase Mode	OSEO	
Feature Profile		
Tone Disable	OFF	
Console Timeout	30	
Red Revert	3	
Backup Time		
Auto Ped Clear	OFF	
Startup Flash		

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
1352		900	OFF					

Port Parameters [6.2]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ON	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases						Modifier Phases						Type	Green	Yellow	Red
Overlap 1													NORMAL		3.5	1.5
Overlap 2													NORMAL		3.5	1.5
Overlap 3													NORMAL		3.5	1.5
Overlap 4													NORMAL		3.5	1.5
Overlap 5													NORMAL		3.5	1.5
Overlap 6													NORMAL		3.5	1.5
Overlap 7													NORMAL		3.5	1.5
Overlap 8													NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

[illegible]

Detector, Vehicle Parameters 1-16 [5.1]

[illegible]

Detector, Vehicle Parameters 17-32 [5.1]

[illegible]

Hillsborough County

Timing Sheet

1/24/2020 3:59:20 PM

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)**Detector Alternate Program 1, Vehicle Parameters [5.5.1]**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		(SBT1)			(SBL1)	(NBT1)		(EBT1)								
Call Phase																
Switch Phase																
Delay Time																

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	2				5	6		8																
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED								
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT	TX2_V14	ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]**MMU-to-Controller Channel Map**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac								Detector								MMU Diag	
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
Present																		
Peer to Peer																		

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2		3	4	7	8	
Ring 2	5	6						
Ring 3								
Ring 4								

Hillsborough County

Timing Sheet

1/24/2020 3:59:20 PM

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	ON
12	ON
13	ON
14	ON
15	ON
16	ON
17	
18	
19	
20	
21	
22	ON
23	ON
24	
25	
26	ON
27	
28	
29	ON
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	ON
12	ON
13	ON
14	ON
15	ON
16	ON
17	
18	
19	
20	
21	
22	ON
23	ON
24	
25	
26	ON
27	
28	
29	ON
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON				
Override Higher	ON	ON				
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green	5	5				
Min Walk						
Ped Clear						
Track Green						
Min Dwell	5	5	10	10	10	10
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
		VOT MON	TEST A

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
ON	ON

Alarms, Phases/Overlaps [1.4.2]

[illegible]

Hillsborough County

Timing Sheet

1/24/2020 3:59:20 PM

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MIN	MIN	MIN	MIN
Extend Dwell	1	1				
Pattern						
Output Mode						
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes, + [2.1]

Modes

Modes+

Force-Off	FIXED
Maximum	MAX INH
Correct	SHRT/LNG
Operational	

Closed Loop Active	ON	OFF
Coord NTCIP Yield Sign	+	
Yield Value	0	
Coord Easy Float	OFF	
Latch Sec Poff	OFF	
Auto Reset	ON	
External	OFF	
Stop In Walk	ON	
Recycle	NO RECYCLE	
Leave After	TIMED	
Leave Before	TIMED	
Mode	FRC	

Coordination, Pattern 1-16 [2.1]

[illegible]

Coordination, Pattern 17-32 [2.1]

[illegible]

Hillsborough County

Timing Sheet

1/24/2020 3:59:20 PM

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

Coordination, Splits [2.7.1]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Coord-Ph

[illegible][illegible][illegible][illegible]

TB Coor, Advanced Scheduler [4.3]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

[illegible][illegible][illegible][illegible][illegible][illegible]

Station : 1352 - I-4 EB Ramp & McIntosh Rd (F210) (Standard File)

TB Coor, Action Table [4.5]

[illegible]

Hillsborough County

Timing Sheet

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

Phase [1.1.1]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		27		17		26		16								
Min Green	5	15	5	7	5	15		7								
Passage	3	3	3	4	3	3		4								
Max1	15	55	20	50	15	55		50								
Max2																
Yellow	4.8	4.8	4.4	4.8	4.8	4.8	9	4.8	9	9	9	9	9	9	9	9
Red	2.4	2.7	2.5	2.5	2.4	2.7		2.5								
Red Revert	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Auto Exit		ON				ON										
Rest In Walk																

Phase Option [1.1.2]

	1 (EL)	2 (WT)	3 (SL)	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Enable	ON	ON	ON	ON	ON	ON		ON								
Auto Entry				ON				ON								
Non Act1																
Non Act2																
Lock Call																
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON		ON								
Guar Passage																
Cond Service																
Add Init Cal																

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases	From	To	From	To	From	To	From	To	Assigned Ph
1										
2										
3										
4										
5										
6										
7										
8										

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1			5	6	15		4.8	2.4	1	
2	7	27	15	3	55		4.8	2.7	2	
3			5	6	20		4.4	2.5	3	
4	7	17	7	6	50		4.8	2.5	4	
5			5	3	15		4.8	2.4	5	
6	7	26	15	6	55		4.8	2.7	6	
7							9			
8	7	16	7	6	50		4.8	2.5	8	

Alternate Phase Program 2, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1			5	3	15		4.8	2.4	1	
2	7	27	15	6	55		4.8	2.7	2	
3			5	6	20		4.4	2.5	3	
4	7	17	7	6	50		4.8	2.5	4	
5			5	6	15		4.8	2.4	5	
6	7	26	15	3	55		4.8	2.7	6	
7							9			
8	7	16	7	6	50		4.8	2.5	8	

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

Unit Parameters [1.2.1]

Max Seek Dwell Time		OFF
Max Seek Track Time		
Max Cycle Time		
Cycle Fault Action	ALARM	
TS2 Det Faults	ON	
SDLC Retry Time		
Diamond Mode	4PH	
Phase Mode	STD8	
Feature Profile		
Tone Disable	OFF	
Console Timeout	30	
Red Revert	3	
Backup Time		
Auto Ped Clear	ON	
Startup Flash		

Comm, General Comm Parameters [6.1]

Station ID	Master Station ID	Fallback time	Allow Pencil	Port	System-Up	Sys-Down	PC/Print	Aux 232
1365		900	OFF					

Port Parameters [6.2]

[illegible]

Overlap General Parameters [1.5.1]

Conflict Lock	Lock Inhibit	Program Card	Use Parent	Canadian Fast Flash
OFF	OFF	OFF	ON	OFF

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases					Modifier Phases					Type	Green	Yellow	Red
Overlap 1	2	3									NORMAL		3.5	1.5
Overlap 2											NORMAL		3.5	1.5
Overlap 3											NORMAL		3.5	1.5
Overlap 4											NORMAL		3.5	1.5
Overlap 5											NORMAL		3.5	1.5
Overlap 6											NORMAL		3.5	1.5
Overlap 7											NORMAL		3.5	1.5
Overlap 8											NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

[illegible]

Detector, Vehicle Parameters 1-16 [5.1]

	1 (EBT1)	2 (EBL1)	3 (SBT1)	4 (SBL1)	5 (WBR1)	6 (WBT1)	7 (WBL1)	8 (NBT1)	9 (NBL1)	10	11	12	13	14	15	16
Call Phase	6	1	8	3	2	2	5	4	4							
Switch Phase		6		8			2									
Delay Time			5					5								

Detector, Vehicle Parameters 17-32 [5.1]

[illegible]

Hillsborough County

Timing Sheet

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)**Detector Alternate Program 1, Vehicle Parameters [5.5.1]**

	1 (EBT1)	2 (EBL1)	3 (SBT1)	4 (SBL1)	5 (WBR1)	6 (WBT1)	7 (WBL1)	8 (NBT1)	9 (NBL1)	10	11	12	13	14	15	16
Call Phase																
Switch Phase																
Delay Time																

Channels/SDLC, Assign to Phases [1.3.1]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6		8	1				2	4	6	8								
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED								
Flash	RED	YEL	RED	RED	RED	YEL	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Flash 1-2 Hertz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Alt Cye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

Channel/SDLC, Parameters [1.3.3]

TOD Dim Enable	Extra Maps Enable	D Connector Enable	Single BIU Map	IO Mode	Preempt or Ext Output
OFF	DEFAULT		ON	AUTO	EXT

Channel/SDLC, MMU Map [1.3.5]**MMU-to-Controller Channel Map**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Channel/SDLC, Permissive [1.3.4]

Channel	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1		1									1	1			
2		1		1				1			1	1			
3	1							1	1						
4	1		1					1	1						
5				1				1							
6		1		1				1							
7															
8	1		1					1							
9	1	1													
10															
11															
12															
13		1													
14	1														
15															

Channel/SDLC, Permissive [1.3.7]

SDLC Device	Term/Fac		Detector												MMU Diag	
BIU#	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Present	ON	ON							ON						ON	
Peer to Peer																

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Hillsborough County

Timing Sheet

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

Alarms, Enable Events [1.6.1]

Event#	Event Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	
18	
19	
20	
21	
22	ON
23	ON
24	
25	
26	ON
27	
28	
29	ON
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Alarms, Enable Alarms [1.6.4]

Alarm#	Alarm Enable
1	ON
2	ON
3	ON
4	ON
5	ON
6	ON
7	
8	
9	
10	
11	
12	ON
13	ON
14	ON
15	ON
16	ON
17	
18	
19	
20	
21	
22	ON
23	ON
24	
25	
26	ON
27	
28	
29	ON
30	
31	
32	
33	
34	
35	
36	
37	ON
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON				
Override Higher						
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green	5	5	5	5	5	5
Min Walk						
Ped Clear			99	99	99	99
Track Green						
Min Dwell	5	5	10	10	10	10
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell P1						
Dwell P2						
Dwell P3						
Dwell P4						
Dwell P5						
Dwell P6						
Dwell P7						
Dwell P8						
Dwell P9						
Dwell P10						
Dwell P11						
Dwell P12						
Dwell Ped1						
Dwell Ped2						
Dwell Ped3						
Dwell Ped4						
Dwell Ped5						
Dwell Ped6						
Dwell Ped7						
Dwell Ped8						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Alarms, Parameters [1.4.1]

Auto Flash Parameter

Yellow	Red	Mode	Source
		VOT MON	TEST A

Alarms, Parameters [1.6.7]

Preempt Event Enabled	Pattern Event Enabled
ON	ON

Alarms, Phases/Overlaps [1.4.2]

[illegible]

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable						
Type	RAIL	RAIL	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Max2						
Return Max/Min	MAX	MAX	MIN	MIN	MIN	MIN
Extend Dwell	1	1				
Pattern						
Output Mode						
Track Over 1						
Track Over 2						
Track Over 3						
Track Over 4						
Track Over 5						
Track Over 6						
Track Over 7						
Track Over 8						
Track Over 9						
Track Over 10						
Track Over 11						
Track Over 12						
Dwell Over 1						
Dwell Over 2						
Dwell Over 3						
Dwell Over 4						
Dwell Over 5						
Dwell Over 6						
Dwell Over 7						
Dwell Over 8						
Dwell Over 9						
Dwell Over 10						
Dwell Over 11						
Dwell Over 12						
Ped Clear						
Yellow						
Red						
Return Min/Max						
Delay Inh						
Exit Time						
All Red B4						

Coordination, Modes, + [2.1]

Modes

Force-Off	FIXED
Maximum	MAX INH
Correct	SHRT/LNG
Operational	

Modes+

Closed Loop Active	ON	OFF
Coord NTCIP Yield Sign	+	
Yield Value	0	
Coord Easy Float	OFF	
Latch Sec Off	OFF	
Auto Reset	ON	
External	OFF	
Stop In Walk	ON	
Recycle	NO RECYCLE	
Leave After	TIMED	
Leave Before	TIMED	
Mode	FRC	

Coordination, Pattern 1-16 [2.1]

[illegible]

Coordination, Pattern 17-32 [2.1]

[illegible]

Hillsborough County

Timing Sheet

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

Coordination, Splits [2.7.1]

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Hillsborough County

Timing Sheet

7/17/2019 2:14:44 PM

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Coord-Ph																
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	OMT	OMT	OMT	OMT	OMT	OMT	OMT	OMT
Coord-Ph																

DRAFT

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

TB Coor, Advanced Scheduler [4.3]

[illegible]

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	8	9	15	15	17	17								
Minute		30			10	55		45								
Action	99	10	8	99	11	99	12	99								

[illegible][illegible][illegible]

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour		6	8	9	14	15	17	17								
Minute		30			10	55		45								
Action	99	10	8	99	11	99	12	99								

[illegible]

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

[illegible][illegible][illegible][illegible][illegible][illegible]

Station : 1365 - Hillsborough Ave(US92) & McIntosh Rd (E069) (Standard File)

TB Coor, Action Table [4.5]

[illegible]

APPENDIX D No-Build Alternative Operational Analysis

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	22.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	2	4	73	185	23	2	76	223	175	8	362	20
Future Vol, veh/h	2	4	73	185	23	2	76	223	175	8	362	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	4	78	197	24	2	81	237	186	9	385	21
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	919	999	396	947	916	330	406	0	0	423	0	0
Stage 1	414	414	-	492	492	-	-	-	-	-	-	-
Stage 2	505	585	-	455	424	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	249	241	647	238	269	705	1137	-	-	1120	-	-
Stage 1	610	588	-	553	543	-	-	-	-	-	-	-
Stage 2	544	493	-	579	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	211	216	647	~ 190	241	705	1137	-	-	1120	-	-
Mov Cap-2 Maneuver	211	216	-	~ 190	241	-	-	-	-	-	-	-
Stage 1	551	582	-	500	491	-	-	-	-	-	-	-
Stage 2	466	446	-	501	576	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.5		113.7		1.3		0.2					
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1137	-	-	561 190 254	1120	-	-					
HCM Lane V/C Ratio	0.071	-	-	0.15 1.036 0.105	0.008	-	-					
HCM Control Delay (s)	8.4	0	-	12.5 126.3 20.8	8.2	0	-					
HCM Lane LOS	A	A	-	B F C	A A	-	-					
HCM 95th %tile Q(veh)	0.2	-	-	0.5 9 0.3	0	-	-					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

HCM 6th Signalized Intersection Summary3: McIntosh Rd & I-4 WB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↱	↰	↱			↱	
Traffic Volume (veh/h)	0	0	0	295	0	115	459	359	0	0	347	273
Future Volume (veh/h)	0	0	0	295	0	115	459	359	0	0	347	273
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				314	0	0	488	382	0	0	369	290
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				346	0		512	1285	0	0	376	295
Arrive On Green				0.20	0.00	0.00	0.26	0.70	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	947	745
Grp Volume(v), veh/h				314	0	0	488	382	0	0	0	659
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1692
Q Serve(g_s), s				22.5	0.0	0.0	30.3	10.0	0.0	0.0	0.0	49.1
Cycle Q Clear(g_c), s				22.5	0.0	0.0	30.3	10.0	0.0	0.0	0.0	49.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.44
Lane Grp Cap(c), veh/h				346	0		512	1285	0	0	0	671
V/C Ratio(X)				0.91	0.00		0.95	0.30	0.00	0.00	0.00	0.98
Avail Cap(c_a), veh/h				368	0		523	1297	0	0	0	671
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				49.9	0.0	0.0	38.8	7.1	0.0	0.0	0.0	38.0
Incr Delay (d2), s/veh				29.7	0.0	0.0	28.2	0.2	0.0	0.0	0.0	30.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.1	0.0	0.0	25.8	6.3	0.0	0.0	0.0	33.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				79.7	0.0	0.0	67.0	7.3	0.0	0.0	0.0	68.2
LnGrp LOS				E	A		E	A	A	A	A	E
Approach Vol, veh/h					314			870				659
Approach Delay, s/veh					79.7			40.8				68.2
Approach LOS					E			D				E
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	39.2	57.0		31.4		96.2						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	33.6	50.6		27.0		90.6						
Max Q Clear Time (g_c+l1), s	32.3	51.1		24.5		12.0						
Green Ext Time (p_c), s	0.5	0.0		0.9		3.7						
Intersection Summary												
HCM 6th Ctrl Delay				57.2								
HCM 6th LOS				E								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	0	369	0	0	0	0	737	478	102	540	0
Future Volume (veh/h)	81	0	369	0	0	0	0	737	478	102	540	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	86	0	0				0	784	509	109	574	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	114	0					0	758	492	135	1515	0
Arrive On Green	0.07	0.00	0.00				0.00	0.73	0.73	0.04	0.83	0.00
Sat Flow, veh/h	1739	0	1547				0	1034	671	1739	1826	0
Grp Volume(v), veh/h	86	0	0				0	0	1293	109	574	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1705	1739	1826	0
Q Serve(g_s), s	5.8	0.0	0.0				0.0	0.0	87.6	3.2	9.3	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0				0.0	0.0	87.6	3.2	9.3	0.0
Prop In Lane	1.00		1.00				0.00		0.39	1.00		0.00
Lane Grp Cap(c), veh/h	114	0					0	0	1250	135	1515	0
V/C Ratio(X)	0.75	0.00					0.00	0.00	1.03	0.81	0.38	0.00
Avail Cap(c_a), veh/h	246	0					0	0	1250	156	1538	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.9	0.0	0.0				0.0	0.0	15.9	41.7	2.5	0.0
Incr Delay (d2), s/veh	36.4	0.0	0.0				0.0	0.0	34.6	23.3	0.2	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
%ile BackOfQ(95%),veh/ln	6.5	0.0	0.0				0.0	0.0	49.5	5.8	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.3	0.0	0.0				0.0	0.0	50.6	65.0	2.7	0.0
LnGrp LOS	F	A					A	A	F	E	A	A
Approach Vol, veh/h	86						1293			683		
Approach Delay, s/veh	91.3						50.6			12.7		
Approach LOS	F						D			B		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	105.5			11.5			94.0			13.9		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	100.6			6.6			87.6			16.9		
Max Q Clear Time (g_c+I1), s	11.3			5.2			89.6			7.8		
Green Ext Time (p_c), s	6.3			0.0			0.0			0.5		
Intersection Summary												
HCM 6th Ctrl Delay	39.7											
HCM 6th LOS	D											
Notes												

HCM 6th TWSC
16: McIntosh Rd & Newsome Rd

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	76	1139	36	36	873
Future Vol, veh/h	3	76	1139	36	36	873
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	81	1212	38	38	929

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2236	1231	0
Stage 1	1231	-	-
Stage 2	1005	-	-
Critical Hdwy	6.45	6.25	-
Critical Hdwy Stg 1	5.45	-	-
Critical Hdwy Stg 2	5.45	-	-
Follow-up Hdwy	3.545	3.345	-
Pot Cap-1 Maneuver	46	213	-
Stage 1	272	-	-
Stage 2	349	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	39	213	-
Mov Cap-2 Maneuver	39	-	-
Stage 1	272	-	-
Stage 2	299	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.7	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	182	547
HCM Lane V/C Ratio	-	-	0.462	0.07
HCM Control Delay (s)	-	-	40.7	12.1
HCM Lane LOS	-	-	E	B
HCM 95th %tile Q(veh)	-	-	2.2	0.2

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

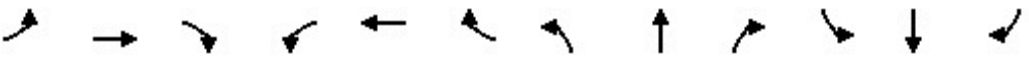
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	235	20	90	248	413	50	527	43	298	359	219
Future Volume (veh/h)	235	235	20	90	248	413	50	527	43	298	359	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	250	250	21	96	264	439	53	561	46	317	382	233
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	286	479	40	308	463	617	253	576	47	305	564	344
Arrive On Green	0.09	0.29	0.29	0.05	0.25	0.25	0.35	0.35	0.35	0.15	0.53	0.53
Sat Flow, veh/h	1739	1661	140	1739	1826	1547	788	1665	137	1739	1062	648
Grp Volume(v), veh/h	250	0	271	96	264	439	53	0	607	317	0	615
Grp Sat Flow(s),veh/h/ln	1739	0	1801	1739	1826	1547	788	0	1801	1739	0	1709
Q Serve(g_s), s	15.0	0.0	21.7	7.0	21.7	41.0	9.1	0.0	57.2	25.0	0.0	45.3
Cycle Q Clear(g_c), s	15.0	0.0	21.7	7.0	21.7	41.0	22.5	0.0	57.2	25.0	0.0	45.3
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.08	1.00		0.38
Lane Grp Cap(c), veh/h	286	0	520	308	463	617	253	0	624	305	0	908
V/C Ratio(X)	0.87	0.00	0.52	0.31	0.57	0.71	0.21	0.00	0.97	1.04	0.00	0.68
Avail Cap(c_a), veh/h	286	0	520	369	477	629	255	0	628	305	0	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	0.0	51.3	44.7	56.1	43.4	49.4	0.0	55.5	56.6	0.0	29.5
Incr Delay (d2), s/veh	24.5	0.0	0.9	0.6	1.5	3.7	0.6	0.0	29.2	61.8	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.3	0.0	15.0	5.5	15.3	22.8	3.3	0.0	39.5	26.2	0.0	26.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	0.0	52.2	45.3	57.6	47.1	50.0	0.0	84.7	118.3	0.0	31.8
LnGrp LOS	E	A	D	D	E	D	D	A	F	F	A	C
Approach Vol, veh/h		521			799			660			932	
Approach Delay, s/veh		63.2			50.4			81.9			61.2	
Approach LOS		E			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	22.2	51.2	31.9	66.9	16.2	57.2		98.8				
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5		7.3				
Max Green Setting (Gmax), s	* 15	* 45	25.0	60.0	* 15	* 45		91.9				
Max Q Clear Time (g_c+I1), s	17.0	43.0	27.0	59.2	9.0	23.7		47.3				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.1	1.3		7.0				
Intersection Summary												
HCM 6th Ctrl Delay			63.3									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th TWSC

6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Traffic Vol, veh/h	9	15	86	128	17	6	68	307	193	7	214	9
Future Vol, veh/h	9	15	86	128	17	6	68	307	193	7	214	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	10	16	91	136	18	6	72	327	205	7	228	10
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	833	923	233	875	826	430	238	0	0	532	0	0
Stage 1	247	247	-	574	574	-	-	-	-	-	-	-
Stage 2	586	676	-	301	252	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	285	267	799	267	304	619	1311	-	-	1020	-	-
Stage 1	750	696	-	499	498	-	-	-	-	-	-	-
Stage 2	491	448	-	702	693	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	250	244	799	210	277	619	1311	-	-	1020	-	-
Mov Cap-2 Maneuver	250	244	-	210	277	-	-	-	-	-	-	-
Stage 1	689	690	-	459	458	-	-	-	-	-	-	-
Stage 2	429	412	-	602	687	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.6		44.3		0.9		0.3					
HCM LOS	B		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1311	-	-	536	210	324	1020	-	-			
HCM Lane V/C Ratio	0.055	-	-	0.218	0.648	0.076	0.007	-	-			
HCM Control Delay (s)	7.9	0	-	13.6	49.2	17	8.6	0	-			
HCM Lane LOS	A	A	-	B	E	C	A	A	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.8	3.9	0.2	0	-	-			

HCM 6th Signalized Intersection Summary3: McIntosh Rd & I-4 WB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↱	↰	↱			↱	
Traffic Volume (veh/h)	0	0	0	297	0	243	303	325	0	0	355	73
Future Volume (veh/h)	0	0	0	297	0	243	303	325	0	0	355	73
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				316	0	0	322	346	0	0	378	78
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				420	0		456	1043	0	0	467	96
Arrive On Green				0.24	0.00	0.00	0.16	0.57	0.00	0.00	0.32	0.32
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	1468	303
Grp Volume(v), veh/h				316	0	0	322	346	0	0	0	456
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1771
Q Serve(g_s), s				11.2	0.0	0.0	7.4	6.6	0.0	0.0	0.0	15.6
Cycle Q Clear(g_c), s				11.2	0.0	0.0	7.4	6.6	0.0	0.0	0.0	15.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				420	0		456	1043	0	0	0	563
V/C Ratio(X)				0.75	0.00		0.71	0.33	0.00	0.00	0.00	0.81
Avail Cap(c_a), veh/h				604	0		567	1506	0	0	0	899
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				23.3	0.0	0.0	13.3	7.5	0.0	0.0	0.0	20.7
Incr Delay (d2), s/veh				11.8	0.0	0.0	4.9	0.3	0.0	0.0	0.0	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.2	0.0	0.0	5.2	3.6	0.0	0.0	0.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.1	0.0	0.0	18.3	7.8	0.0	0.0	0.0	24.9
LnGrp LOS				D	A		B	A	A	A	A	C
Approach Vol, veh/h					316			668			456	
Approach Delay, s/veh					35.1			12.8			24.9	
Approach LOS					D			B			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.8	27.4		22.0		44.2						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	14.6	33.6		23.0		54.6						
Max Q Clear Time (g_c+I1), s	9.4	17.6		13.2		8.6						
Green Ext Time (p_c), s	1.0	3.4		2.9		3.2						
Intersection Summary												
HCM 6th Ctrl Delay				21.5								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	0	448	0	0	0	0	486	334	104	548	0
Future Volume (veh/h)	142	0	448	0	0	0	0	486	334	104	548	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	151	0	0				0	517	355	111	583	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	209	0					0	571	392	270	1301	0
Arrive On Green	0.12	0.00	0.00				0.00	0.57	0.57	0.06	0.71	0.00
Sat Flow, veh/h	1739	0	1547				0	1009	693	1739	1826	0
Grp Volume(v), veh/h	151	0	0				0	0	872	111	583	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1701	1739	1826	0
Q Serve(g_s), s	6.2	0.0	0.0				0.0	0.0	34.1	1.8	10.1	0.0
Cycle Q Clear(g_c), s	6.2	0.0	0.0				0.0	0.0	34.1	1.8	10.1	0.0
Prop In Lane	1.00		1.00				0.00		0.41	1.00		0.00
Lane Grp Cap(c), veh/h	209	0					0	0	964	270	1301	0
V/C Ratio(X)	0.72	0.00					0.00	0.00	0.90	0.41	0.45	0.00
Avail Cap(c_a), veh/h	417	0					0	0	1084	295	1457	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	0.0	0.0				0.0	0.0	14.4	15.4	4.5	0.0
Incr Delay (d2), s/veh	19.4	0.0	0.0				0.0	0.0	10.4	1.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0				0.0	0.0	18.8	1.8	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	0.0	0.0				0.0	0.0	24.8	16.4	4.9	0.0
LnGrp LOS	D	A					A	A	C	B	A	A
Approach Vol, veh/h	151						872			694		
Approach Delay, s/veh	51.0						24.8			6.7		
Approach LOS	D						C			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	59.6			10.9			48.7			15.1		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	59.6			5.6			47.6			17.9		
Max Q Clear Time (g_c+I1), s	12.1			3.8			36.1			8.2		
Green Ext Time (p_c), s	6.3			0.0			6.3			1.1		
Intersection Summary												
HCM 6th Ctrl Delay	19.8											
HCM 6th LOS	B											
Notes												

HCM 6th TWSC
16: McIntosh Rd & Newsome Rd

Intersection

Int Delay, s/veh 2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	89	731	37	71	925
Future Vol, veh/h	10	89	731	37	71	925
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	11	95	778	39	76	984

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1934	798	0
Stage 1	798	-	-
Stage 2	1136	-	-
Critical Hdwy	6.45	6.25	-
Critical Hdwy Stg 1	5.45	-	-
Critical Hdwy Stg 2	5.45	-	-
Follow-up Hdwy	3.545	3.345	-
Pot Cap-1 Maneuver	71	381	-
Stage 1	438	-	-
Stage 2	302	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	56	381	-
Mov Cap-2 Maneuver	56	-	-
Stage 1	438	-	-
Stage 2	239	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.2	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	240	798
HCM Lane V/C Ratio	-	-	0.439	0.095
HCM Control Delay (s)	-	-	31.2	10
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	2.1	0.3

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	403	45	90	258	213	32	363	64	290	477	168
Future Volume (veh/h)	192	403	45	90	258	213	32	363	64	290	477	168
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	204	429	48	96	274	227	34	386	68	309	507	179
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	320	457	51	179	452	581	160	437	77	324	612	216
Arrive On Green	0.09	0.28	0.28	0.06	0.25	0.25	0.29	0.29	0.29	0.13	0.48	0.48
Sat Flow, veh/h	1739	1613	180	1739	1826	1547	738	1512	266	1739	1289	455
Grp Volume(v), veh/h	204	0	477	96	274	227	34	0	454	309	0	686
Grp Sat Flow(s),veh/h/ln	1739	0	1793	1739	1826	1547	738	0	1778	1739	0	1744
Q Serve(g_s), s	10.4	0.0	30.7	4.8	15.7	12.7	4.9	0.0	28.8	14.5	0.0	40.2
Cycle Q Clear(g_c), s	10.4	0.0	30.7	4.8	15.7	12.7	23.2	0.0	28.8	14.5	0.0	40.2
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	320	0	508	179	452	581	160	0	514	324	0	828
V/C Ratio(X)	0.64	0.00	0.94	0.54	0.61	0.39	0.21	0.00	0.88	0.95	0.00	0.83
Avail Cap(c_a), veh/h	320	0	539	241	549	663	226	0	673	324	0	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	0.0	41.4	33.7	39.4	27.0	46.4	0.0	40.1	28.2	0.0	26.8
Incr Delay (d2), s/veh	4.2	0.0	24.0	2.5	1.3	0.4	0.9	0.0	12.0	37.5	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.0	23.0	3.7	11.3	8.2	1.7	0.0	19.8	14.0	0.0	23.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	65.4	36.2	40.7	27.5	47.3	0.0	52.1	65.7	0.0	32.5
LnGrp LOS	C	A	E	D	D	C	D	A	D	E	A	C
Approach Vol, veh/h	681			597			488			995		
Approach Delay, s/veh	56.2			34.9			51.7			42.8		
Approach LOS	E			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	8					
Phs Duration (G+Y+Rc), s	18.0	36.7	22.0	41.4	13.8	41.0	63.4					
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5	7.3					
Max Green Setting (Gmax), s	* 11	* 36	15.1	44.7	* 11	* 36	66.7					
Max Q Clear Time (g_c+I1), s	12.4	17.7	16.5	30.8	6.8	32.7	42.2					
Green Ext Time (p_c), s	0.0	2.0	0.0	3.3	0.1	0.8	7.0					
Intersection Summary												
HCM 6th Ctrl Delay			46.0									
HCM 6th LOS			D									
Notes												

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	239.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	6	109	264	33	3	114	336	265	12	539	29
Future Vol, veh/h	4	6	109	264	33	3	114	336	265	12	539	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	4	6	116	281	35	3	121	357	282	13	573	31
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1374	1496	589	1416	1370	498	604	0	0	639	0	0
Stage 1	615	615	-	740	740	-	-	-	-	-	-	-
Stage 2	759	881	-	676	630	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	121	121	503	~ 113	144	566	959	-	-	931	-	-
Stage 1	473	478	-	404	419	-	-	-	-	-	-	-
Stage 2	394	360	-	438	470	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	76	94	503	~ 68	112	566	959	-	-	931	-	-
Mov Cap-2 Maneuver	76	94	-	~ 68	112	-	-	-	-	-	-	-
Stage 1	376	468	-	321	333	-	-	-	-	-	-	-
Stage 2	278	286	-	325	460	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.5		\$ 1355		1.5		0.2					
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	959	-	-	357 68 120	931	-	-					
HCM Lane V/C Ratio	0.126	-	-	0.355 4.13 0.319	0.014	-	-					
HCM Control Delay (s)	9.3	0	-	20.5 1533.2 48.5	8.9	0	-					
HCM Lane LOS	A	A	-	C F E	A	A	-					
HCM 95th %tile Q(veh)	0.4	-	-	1.6 30.1 1.3	0	-	-					
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

HCM 6th Signalized Intersection Summary 3: McIntosh Rd & I-4 WB On-Ramp/I-4 WB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰		↱	↰	↱			↱	
Traffic Volume (veh/h)	0	0	0	439	0	171	695	544	0	0	510	402
Future Volume (veh/h)	0	0	0	439	0	171	695	544	0	0	510	402
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				467	0	0	739	579	0	0	543	428
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				337	0		508	1331	0	0	400	315
Arrive On Green				0.19	0.00	0.00	0.27	0.73	0.00	0.00	0.42	0.42
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	946	746
Grp Volume(v), veh/h				467	0	0	739	579	0	0	0	971
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1692
Q Serve(g_s), s				31.0	0.0	0.0	42.6	20.2	0.0	0.0	0.0	67.6
Cycle Q Clear(g_c), s				31.0	0.0	0.0	42.6	20.2	0.0	0.0	0.0	67.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.44
Lane Grp Cap(c), veh/h				337	0		508	1331	0	0	0	715
V/C Ratio(X)				1.39	0.00		1.45	0.44	0.00	0.00	0.00	1.36
Avail Cap(c_a), veh/h				337	0		508	1331	0	0	0	715
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				64.5	0.0	0.0	52.6	8.6	0.0	0.0	0.0	46.2
Incr Delay (d2), s/veh				191.2	0.0	0.0	215.4	0.3	0.0	0.0	0.0	170.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				47.2	0.0	0.0	74.3	12.0	0.0	0.0	0.0	90.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				255.7	0.0	0.0	268.0	8.9	0.0	0.0	0.0	216.6
LnGrp LOS				F	A		F	A	A	A	A	F
Approach Vol, veh/h					467			1318			971	
Approach Delay, s/veh					255.7			154.2			216.6	
Approach LOS					F			F			F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	49.0	74.0		37.0		123.0						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	42.6	67.6		31.0		116.6						
Max Q Clear Time (g_c+l1), s	44.6	69.6		33.0		22.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.4						
Intersection Summary												
HCM 6th Ctrl Delay				193.4								
HCM 6th LOS				F								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 9: McIntosh Rd & I-4 EB Off-Ramp/I-4 EB On-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	0	541	0	0	0	0	1120	729	151	798	0
Future Volume (veh/h)	119	0	541	0	0	0	0	1120	729	151	798	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	127	0	0				0	1191	776	161	849	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	164	0					0	717	467	185	1491	0
Arrive On Green	0.09	0.00	0.00				0.00	0.69	0.69	0.08	0.82	0.00
Sat Flow, veh/h	1739	0	1547				0	1032	673	1739	1826	0
Grp Volume(v), veh/h	127	0	0				0	0	1967	161	849	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1705	1739	1826	0
Q Serve(g_s), s	10.0	0.0	0.0				0.0	0.0	97.6	8.7	22.4	0.0
Cycle Q Clear(g_c), s	10.0	0.0	0.0				0.0	0.0	97.6	8.7	22.4	0.0
Prop In Lane	1.00		1.00				0.00		0.39	1.00		0.00
Lane Grp Cap(c), veh/h	164	0					0	0	1184	185	1491	0
V/C Ratio(X)	0.77	0.00					0.00	0.00	1.66	0.87	0.57	0.00
Avail Cap(c_a), veh/h	357	0					0	0	1184	232	1540	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	0.0	0.0				0.0	0.0	21.5	52.9	4.4	0.0
Incr Delay (d2), s/veh	29.0	0.0	0.0				0.0	0.0	301.7	24.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.6	0.0	0.0				0.0	0.0	209.6	8.9	10.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.1	0.0	0.0				0.0	0.0	323.2	77.2	5.0	0.0
LnGrp LOS	F	A					A	A	F	E	A	A
Approach Vol, veh/h	127						1967			1010		
Approach Delay, s/veh	91.1						323.2			16.5		
Approach LOS	F						F			B		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	121.2			17.2			104.0			19.4		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	118.6			14.6			97.6			28.9		
Max Q Clear Time (g_c+I1), s	24.4			10.7			99.6			12.0		
Green Ext Time (p_c), s	12.2			0.1			0.0			1.4		
Intersection Summary												
HCM 6th Ctrl Delay	213.9											
HCM 6th LOS	F											
Notes												

HCM 6th TWSC
16: McIntosh Rd & Newsome Rd

Intersection						
Int Delay, s/veh	59.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	5	113	1736	53	53	1286
Future Vol, veh/h	5	113	1736	53	53	1286
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	5	120	1847	56	56	1368
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3355	1875	0	0	1903	0
Stage 1	1875	-	-	-	-	-
Stage 2	1480	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.15	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.245	-
Pot Cap-1 Maneuver	9	~ 88	-	-	305	-
Stage 1	130	-	-	-	-	-
Stage 2	205	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 2	~ 88	-	-	305	-
Mov Cap-2 Maneuver	~ 2	-	-	-	-	-
Stage 1	130	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, \$	1633.3		0		0.8	
HCM LOS	F					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBL	SBT
Capacity (veh/h)	-		31		305	-
HCM Lane V/C Ratio	-		4.049		0.185	-
HCM Control Delay (s)	-		\$ 1633.3		19.5	0
HCM Lane LOS	-		F		C	A
HCM 95th %tile Q(veh)	-		15		0.7	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	501	36	144	662	634	74	782	64	439	503	349
Future Volume (veh/h)	373	501	36	144	662	634	74	782	64	439	503	349
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	397	533	38	153	704	674	79	832	68	467	535	371
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	357	1120	80	359	749	995	98	862	384	504	1186	847
Arrive On Green	0.21	0.34	0.34	0.08	0.22	0.22	0.06	0.25	0.25	0.15	0.34	0.34
Sat Flow, veh/h	1739	3285	234	1739	3469	2723	1739	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	397	281	290	153	704	674	79	832	68	467	535	371
Grp Sat Flow(s),veh/h/ln	1739	1735	1784	1739	1735	1362	1739	1735	1547	1687	1735	1547
Q Serve(g_s), s	32.8	20.3	20.4	10.9	31.9	33.3	7.2	37.9	5.5	21.8	19.2	22.8
Cycle Q Clear(g_c), s	32.8	20.3	20.4	10.9	31.9	33.3	7.2	37.9	5.5	21.8	19.2	22.8
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	357	592	608	359	749	995	98	862	384	504	1186	847
V/C Ratio(X)	1.11	0.47	0.48	0.43	0.94	0.68	0.81	0.97	0.18	0.93	0.45	0.44
Avail Cap(c_a), veh/h	357	592	608	359	749	995	164	862	384	509	1186	847
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.5	41.4	41.4	43.4	61.6	42.8	74.6	59.4	47.2	67.1	40.9	21.6
Incr Delay (d2), s/veh	81.5	0.6	0.6	0.8	19.7	1.9	14.5	22.6	0.3	23.0	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	31.9	13.5	13.9	8.3	22.4	16.9	6.4	26.2	3.9	16.4	13.0	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.0	42.0	42.0	44.2	81.3	44.6	89.1	82.0	47.5	90.1	41.3	22.1
LnGrp LOS	F	D	D	D	F	D	F	F	D	F	D	C
Approach Vol, veh/h	968			1531			979			1373		
Approach Delay, s/veh	84.2			61.4			80.1			52.7		
Approach LOS	F			E			F			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.0	42.0	30.8	47.0	20.0	62.0	15.9	61.9				
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5	6.9	7.3				
Max Green Setting (Gmax), s	* 33	* 35	24.1	39.7	* 13	* 55	15.1	47.7				
Max Q Clear Time (g_c+I1), s	34.8	35.3	23.8	39.9	12.9	22.4	9.2	24.8				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	3.3	0.1	7.1				
Intersection Summary												
HCM 6th Ctrl Delay			67.3									
HCM 6th LOS			E									
Notes												

Arterial Level of Service

Arterial Level of Service: NB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
US 92	II	45	21.2	83.7	104.9	0.19	6.7	F
I-4 EB On-Ramp	II	40	40.6	410.6	451.2	0.43	3.4	F
I-4 WB Off-Ramp	II	40	13.3	9.9	23.2	0.12	17.9	D
Total	II		75.1	504.2	579.3	0.74	4.6	F

Arterial Level of Service: SB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-4 WB On-Ramp	II	40	29.2	189.6	218.8	0.29	4.7	F
I-4 EB Off-Ramp	II	40	13.3	12.7	26.0	0.12	16.0	E
US 92	II	40	40.6	45.6	86.2	0.43	17.9	D
Total	II		83.1	247.9	331.0	0.83	9.0	F

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection												
Int Delay, s/veh	126.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	22	125	196	25	9	108	489	307	10	316	14
Future Vol, veh/h	13	22	125	196	25	9	108	489	307	10	316	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	14	23	133	209	27	10	115	520	327	11	336	15
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1298	1443	344	1358	1287	684	351	0	0	847	0	0
Stage 1	366	366	-	914	914	-	-	-	-	-	-	-
Stage 2	932	1077	-	444	373	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.15	6.55	6.25	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.545	4.045	3.345	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	137	130	692	~ 124	162	444	1191	-	-	777	-	-
Stage 1	647	617	-	323	348	-	-	-	-	-	-	-
Stage 2	316	292	-	587	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	95	103	692	~ 70	128	444	1191	-	-	777	-	-
Mov Cap-2 Maneuver	95	103	-	~ 70	128	-	-	-	-	-	-	-
Stage 1	520	606	-	260	280	-	-	-	-	-	-	-
Stage 2	225	235	-	448	602	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	31.5		\$ 873			1			0.3			
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1191	-	-	301 70 158	777	-	-					
HCM Lane V/C Ratio	0.096	-	-	0.565 2.979 0.229	0.014	-	-					
HCM Control Delay (s)	8.3	0	-	31.5 1018.5 34.4	9.7	0	-					
HCM Lane LOS	A	A	-	D F D	A	A	-					
HCM 95th %tile Q(veh)	0.3	-	-	3.3 21 0.8	0	-	-					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

HCM 6th Signalized Intersection Summary 3: McIntosh Rd & I-4 WB On-Ramp/I-4 WB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	440	0	360	499	544	0	0	528	109
Future Volume (veh/h)	0	0	0	440	0	360	499	544	0	0	528	109
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				468	0	0	531	579	0	0	562	116
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				441	0		462	1212	0	0	564	116
Arrive On Green				0.25	0.00	0.00	0.24	0.66	0.00	0.00	0.38	0.38
Sat Flow, veh/h				1739	0	1547	1739	1826	0	0	1468	303
Grp Volume(v), veh/h				468	0	0	531	579	0	0	0	678
Grp Sat Flow(s),veh/h/ln				1739	0	1547	1739	1826	0	0	0	1771
Q Serve(g_s), s				38.0	0.0	0.0	35.6	23.4	0.0	0.0	0.0	57.3
Cycle Q Clear(g_c), s				38.0	0.0	0.0	35.6	23.4	0.0	0.0	0.0	57.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				441	0		462	1212	0	0	0	680
V/C Ratio(X)				1.06	0.00		1.15	0.48	0.00	0.00	0.00	1.00
Avail Cap(c_a), veh/h				441	0		462	1212	0	0	0	680
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				56.0	0.0	0.0	49.4	12.4	0.0	0.0	0.0	46.1
Incr Delay (d2), s/veh				60.4	0.0	0.0	89.5	0.4	0.0	0.0	0.0	33.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				32.8	0.0	0.0	40.5	14.1	0.0	0.0	0.0	40.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				116.4	0.0	0.0	138.9	12.8	0.0	0.0	0.0	79.8
LnGrp LOS				F	A		F	B	A	A	A	E
Approach Vol, veh/h					468			1110			678	
Approach Delay, s/veh					116.4			73.1			79.8	
Approach LOS					F			E			E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	42.0	64.0		44.0		106.0						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	35.6	57.6		38.0		99.6						
Max Q Clear Time (g_c+I1), s	37.6	59.3		40.0		25.4						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.3						
Intersection Summary												
HCM 6th Ctrl Delay				84.1								
HCM 6th LOS				F								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 9: McIntosh Rd & I-4 EB Off-Ramp/I-4 EB On-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	0	669	0	0	0	0	832	571	155	813	0
Future Volume (veh/h)	211	0	669	0	0	0	0	832	571	155	813	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	224	0	0				0	885	607	165	865	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	280	0					0	622	427	191	1357	0
Arrive On Green	0.16	0.00	0.00				0.00	0.62	0.62	0.08	0.74	0.00
Sat Flow, veh/h	1739	0	1547				0	1009	692	1739	1826	0
Grp Volume(v), veh/h	224	0	0				0	0	1492	165	865	0
Grp Sat Flow(s),veh/h/ln	1739	0	1547				0	0	1701	1739	1826	0
Q Serve(g_s), s	16.2	0.0	0.0				0.0	0.0	80.6	8.1	30.2	0.0
Cycle Q Clear(g_c), s	16.2	0.0	0.0				0.0	0.0	80.6	8.1	30.2	0.0
Prop In Lane	1.00		1.00				0.00		0.41	1.00		0.00
Lane Grp Cap(c), veh/h	280	0					0	0	1049	191	1357	0
V/C Ratio(X)	0.80	0.00					0.00	0.00	1.42	0.87	0.64	0.00
Avail Cap(c_a), veh/h	477	0					0	0	1049	249	1419	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.8	0.0	0.0				0.0	0.0	25.1	45.3	8.2	0.0
Incr Delay (d2), s/veh	20.9	0.0	0.0				0.0	0.0	195.8	21.1	1.1	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
%ile BackOfQ(95%),veh/ln	13.3	0.0	0.0				0.0	0.0	129.5	10.6	15.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	0.0	0.0				0.0	0.0	220.8	66.4	9.2	0.0
LnGrp LOS	E	A					A	A	F	E	A	A
Approach Vol, veh/h	224						1492			1030		
Approach Delay, s/veh	73.7						220.8			18.4		
Approach LOS	E						F			B		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	103.6			16.6			87.0			27.1		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	101.6			14.6			80.6			35.9		
Max Q Clear Time (g_c+I1), s	32.2			10.1			82.6			18.2		
Green Ext Time (p_c), s	12.5			0.2			0.0			2.8		
Intersection Summary												
HCM 6th Ctrl Delay	132.9											
HCM 6th LOS	F											
Notes												

HCM 6th TWSC
16: McIntosh Rd & Newsome Rd

Intersection						
Int Delay, s/veh	5.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	131	1272	55	105	1377
Future Vol, veh/h	15	131	1272	55	105	1377
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	16	139	1353	59	112	1465
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3072	1383	0	0	1412	0
Stage 1	1383	-	-	-	-	-
Stage 2	1689	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.15	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.245	-
Pot Cap-1 Maneuver	~ 13	173	-	-	474	-
Stage 1	229	-	-	-	-	-
Stage 2	162	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	0	173	-	-	474	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	229	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	97.3		0		1.1	
HCM LOS	F					
Minor Lane/Major Mvmt			NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)			-	- 173	474	-
HCM Lane V/C Ratio			-	- 0.898	0.236	-
HCM Control Delay (s)			-	- 97.3	14.9	0
HCM Lane LOS			-	- F	B	A
HCM 95th %tile Q(veh)			-	- 6.6	0.9	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	762	85	173	497	411	49	553	98	431	641	320
Future Volume (veh/h)	363	762	85	173	497	411	49	553	98	431	641	320
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	386	811	90	184	529	437	52	588	104	459	682	340
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	380	1324	147	334	530	1155	66	571	255	452	904	742
Arrive On Green	0.22	0.42	0.42	0.09	0.29	0.29	0.04	0.16	0.16	0.13	0.26	0.26
Sat Flow, veh/h	1739	3148	349	1739	1826	2723	1739	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	386	447	454	184	529	437	52	588	104	459	682	340
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1739	1826	1362	1739	1735	1547	1687	1735	1547
Q Serve(g_s), s	32.8	30.2	30.2	11.0	43.4	16.5	4.4	24.7	9.0	20.1	27.1	22.0
Cycle Q Clear(g_c), s	32.8	30.2	30.2	11.0	43.4	16.5	4.4	24.7	9.0	20.1	27.1	22.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	729	741	334	530	1155	66	571	255	452	904	742
V/C Ratio(X)	1.02	0.61	0.61	0.55	1.00	0.38	0.79	1.03	0.41	1.02	0.75	0.46
Avail Cap(c_a), veh/h	380	729	741	387	530	1155	82	571	255	452	904	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	33.9	33.9	33.0	53.2	29.6	71.5	62.6	56.1	64.9	51.0	26.1
Incr Delay (d2), s/veh	50.0	1.5	1.5	1.4	38.8	0.2	31.6	45.4	1.5	46.2	3.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	26.9	18.6	18.8	8.3	33.3	9.2	4.6	20.8	6.5	17.1	17.9	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.6	35.4	35.4	34.4	92.1	29.8	103.2	108.0	57.6	111.2	54.9	26.7
LnGrp LOS	F	D	D	C	F	C	F	F	E	F	D	C
Approach Vol, veh/h		1287			1150			744			1481	
Approach Delay, s/veh		57.4			59.2			100.6			65.9	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.0	51.0	27.0	32.0	20.4	70.6	12.6	46.4				
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5	6.9	7.3				
Max Green Setting (Gmax), s	* 33	* 44	20.1	24.7	* 18	* 59	7.1	37.7				
Max Q Clear Time (g_c+I1), s	34.8	45.4	22.1	26.7	13.0	32.2	6.4	29.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	5.6	0.0	4.6				
Intersection Summary												
HCM 6th Ctrl Delay			67.4									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Arterial Level of Service

Arterial Level of Service: NB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
US 92	II	45	21.2	107.8	129.0	0.19	5.4	F
I-4 EB On-Ramp	II	40	40.6	297.5	338.1	0.43	4.6	F
I-4 WB Off-Ramp	II	40	13.3	14.1	27.4	0.12	15.2	E
Total	II		75.1	419.4	494.5	0.74	5.4	F

Arterial Level of Service: SB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-4 WB On-Ramp	II	40	29.2	77.7	106.9	0.29	9.6	F
I-4 EB Off-Ramp	II	40	13.3	19.0	32.3	0.12	12.9	F
US 92	II	40	40.6	56.3	96.9	0.43	15.9	E
Total	II		83.1	153.0	236.1	0.83	12.6	F

APPENDIX E Build Alternative Operational Analysis

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection													
Int Delay, s/veh	5.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕			↘	↕	↗	↖	↕↗	
Traffic Vol, veh/h	2	4	73	185	23	2	3	76	223	175	8	362	20
Future Vol, veh/h	2	4	73	185	23	2	3	76	223	175	8	362	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	300	300	-	-	-	0	-	0	200	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	4	78	197	24	2	3	81	237	186	9	385	21
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	919	1005	203	612	829	237	406	406	0	0	423	0	0
Stage 1	414	414	-	399	405	-	-	-	-	-	-	-	-
Stage 2	505	591	-	213	424	-	-	-	-	-	-	-	-
Critical Hdwy	7.375	6.575	6.975	7.375	6.575	6.275	6.975	4.175	-	-	4.175	-	-
Critical Hdwy Stg 1	6.575	5.575	-	6.175	5.575	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.175	5.575	-	6.575	5.575	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475	3.1475	2.2475	-	-	2.2475	-	-
Pot Cap-1 Maneuver	235	237	796	386	301	793	619	1132	-	-	1116	-	-
Stage 1	580	586	-	619	591	-	-	-	-	-	-	-	-
Stage 2	542	487	-	762	580	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	208	217	796	323	276	793	1090	1090	-	-	1116	-	-
Mov Cap-2 Maneuver	322	325	-	413	361	-	-	-	-	-	-	-	-
Stage 1	535	581	-	571	545	-	-	-	-	-	-	-	-
Stage 2	476	450	-	677	575	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB						
HCM Control Delay, s	10.5		20.7		1.4		0.2						
HCM LOS	B		C										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1090	-	-	324	796	413	377	1116	-	-			
HCM Lane V/C Ratio	0.077	-	-	0.02	0.098	0.477	0.071	0.008	-	-			
HCM Control Delay (s)	8.6	-	-	16.3	10	21.4	15.3	8.3	-	-			
HCM Lane LOS	A	-	-	C	B	C	C	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	2.5	0.2	0	-	-			

HCM 6th Signalized Intersection Summary3: McIntosh Rd & I-4 WB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	295	0	115	459	362	0	0	350	273
Future Volume (veh/h)	0	0	0	295	0	115	459	362	0	0	350	273
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				314	0	0	488	385	0	0	372	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				483	0		1385	2358	0	0	1621	
Arrive On Green				0.14	0.00	0.00	0.20	1.00	0.00	0.00	0.47	0.00
Sat Flow, veh/h				3374	0	1547	3374	3561	0	0	3561	1547
Grp Volume(v), veh/h				314	0	0	488	385	0	0	372	0
Grp Sat Flow(s),veh/h/ln				1687	0	1547	1687	1735	0	0	1735	1547
Q Serve(g_s), s				6.2	0.0	0.0	4.6	0.0	0.0	0.0	4.5	0.0
Cycle Q Clear(g_c), s				6.2	0.0	0.0	4.6	0.0	0.0	0.0	4.5	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				483	0		1385	2358	0	0	1621	
V/C Ratio(X)				0.65	0.00		0.35	0.16	0.00	0.00	0.23	
Avail Cap(c_a), veh/h				675	0		1585	2358	0	0	1621	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				28.3	0.0	0.0	5.8	0.0	0.0	0.0	11.1	0.0
Incr Delay (d2), s/veh				6.6	0.0	0.0	0.3	0.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.9	0.0	0.0	2.0	0.1	0.0	0.0	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.0	0.0	0.0	6.1	0.1	0.0	0.0	11.5	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					314			873			372	
Approach Delay, s/veh					35.0			3.5			11.5	
Approach LOS					C			A			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.9	39.1		16.0		54.0						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	12.6	24.6		14.0		43.6						
Max Q Clear Time (g_c+I1), s	6.6	6.5		8.2		2.0						
Green Ext Time (p_c), s	1.8	2.9		1.9		3.7						
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

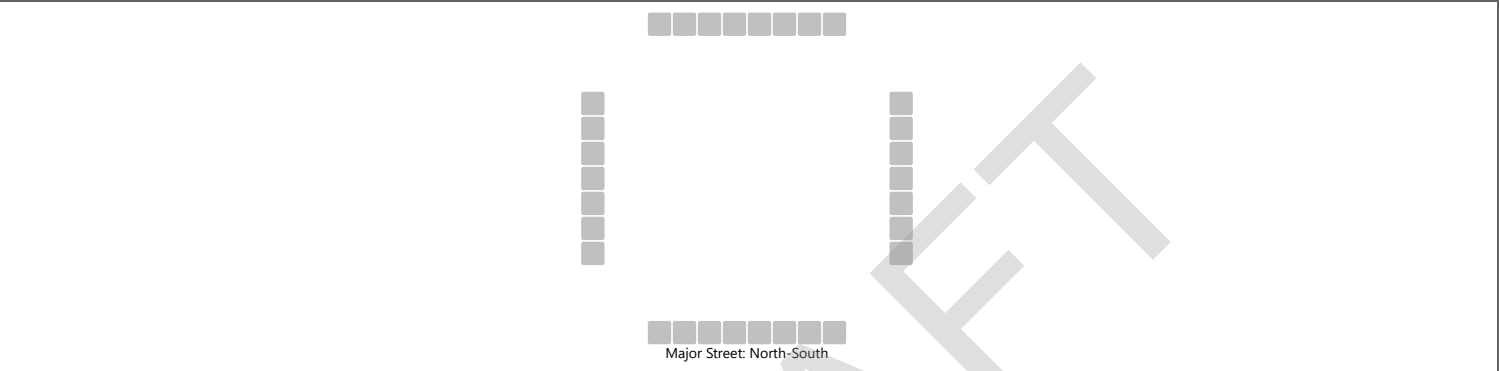
9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	0	369	0	0	0	0	740	478	102	543	0
Future Volume (veh/h)	81	0	369	0	0	0	0	740	478	102	543	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	86	0	393				0	787	0	109	578	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	319	0	500				0	3037		487	2212	0
Arrive On Green	0.18	0.00	0.18				0.00	0.48	0.00	0.13	1.00	0.00
Sat Flow, veh/h	1739	0	2723				0	6537	1547	1739	3561	0
Grp Volume(v), veh/h	86	0	393				0	787	0	109	578	0
Grp Sat Flow(s),veh/h/ln	1739	0	1362				0	1570	1547	1739	1735	0
Q Serve(g_s), s	3.0	0.0	9.6				0.0	5.2	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	9.6				0.0	5.2	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	319	0	500				0	3037		487	2212	0
V/C Ratio(X)	0.27	0.00	0.79				0.00	0.26		0.22	0.26	0.00
Avail Cap(c_a), veh/h	345	0	541				0	3037		542	2212	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	24.5	0.0	27.3				0.0	10.7	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	11.8				0.0	0.2	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	6.6				0.0	2.8	0.0	1.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	39.0				0.0	10.9	0.0	6.9	0.3	0.0
LnGrp LOS	C	A	D				A	B		A	A	A
Approach Vol, veh/h	479						787			687		
Approach Delay, s/veh	36.8						10.9			1.3		
Approach LOS	D						B			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	51.0			10.8			40.2			19.0		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	43.6			6.6			30.6			13.9		
Max Q Clear Time (g_c+I1), s	2.0			4.0			7.2			11.6		
Green Ext Time (p_c), s	6.0			0.1			7.4			1.2		
Intersection Summary												
HCM 6th Ctrl Delay	13.9											
HCM 6th LOS	B											
Notes												

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	McIntosh Rd at Newsome Rd
Agency/Co.	Jacobs	Jurisdiction	Hillsborough County
Date Performed	1/30/2023	East/West Street	Newsome Road
Analysis Year	2025	North/South Street	McIntosh Road
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	McIntosh Road PTAR - Build Alternative		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	3	1	0	0	2	0
Configuration								R			T	R			T	
Volume (veh/h)								79			971	36			876	
Percent Heavy Vehicles (%)								5								
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized					No				No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)								7.1								
Critical Headway (sec)								7.20								
Base Follow-Up Headway (sec)								3.9								
Follow-Up Headway (sec)								3.95								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								84								
Capacity, c (veh/h)								425								
v/c Ratio								0.20								
95% Queue Length, Q ₉₅ (veh)								0.7								
Control Delay (s/veh)								15.5								
Level of Service (LOS)								C								
Approach Delay (s/veh)					15.5											
Approach LOS					C											

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	235	20	90	248	413	50	527	43	298	359	219
Future Volume (veh/h)	235	235	20	90	248	413	50	527	43	298	359	219
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	250	250	21	96	264	439	53	561	46	317	382	233
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	276	855	71	302	534	1068	243	842	376	1056	1840	1066
Arrive On Green	0.16	0.26	0.26	0.05	0.15	0.15	0.24	0.24	0.24	0.24	0.53	0.53
Sat Flow, veh/h	1739	3242	270	1739	3469	2723	788	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	250	133	138	96	264	439	53	561	46	317	382	233
Grp Sat Flow(s),veh/h/ln	1739	1735	1777	1739	1735	1362	788	1735	1547	1687	1735	1547
Q Serve(g_s), s	19.8	8.6	8.7	6.5	9.8	16.4	7.6	20.4	3.2	7.3	8.1	7.7
Cycle Q Clear(g_c), s	19.8	8.6	8.7	6.5	9.8	16.4	7.6	20.4	3.2	7.3	8.1	7.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	458	469	302	534	1068	243	842	376	1056	1840	1066
V/C Ratio(X)	0.91	0.29	0.29	0.32	0.49	0.41	0.22	0.67	0.12	0.30	0.21	0.22
Avail Cap(c_a), veh/h	370	750	768	302	929	1378	243	842	376	1056	1840	1066
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	41.1	41.1	47.1	54.2	30.8	43.0	47.9	41.4	21.9	17.3	8.0
Incr Delay (d2), s/veh	20.8	0.3	0.3	0.6	0.7	0.3	0.6	2.3	0.2	0.2	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.3	6.6	6.8	5.1	7.6	9.1	2.7	13.8	2.3	5.2	5.9	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.7	41.4	41.5	47.7	55.0	31.1	43.7	50.1	41.6	22.1	17.6	8.4
LnGrp LOS	E	D	D	D	D	C	D	D	D	C	B	A
Approach Vol, veh/h		521			799			660			932	
Approach Delay, s/veh		59.3			41.0			49.0			16.8	
Approach LOS		E			D			D			B	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	29.4	29.0	40.3	41.3	14.0	44.4		81.6				
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5		7.3				
Max Green Setting (Gmax), s	* 30	* 38	14.1	29.7	* 6.8	* 61		50.7				
Max Q Clear Time (g_c+I1), s	21.8	18.4	9.3	22.4	8.5	10.7		10.1				
Green Ext Time (p_c), s	0.4	3.2	0.5	2.9	0.0	1.5		5.2				
Intersection Summary												
HCM 6th Ctrl Delay			38.4									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection													
Int Delay, s/veh	4.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕			↖	↕	↗	↖	↕↗	
Traffic Vol, veh/h	9	15	86	128	17	6	10	68	307	193	7	214	9
Future Vol, veh/h	9	15	86	128	17	6	10	68	307	193	7	214	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	300	300	-	-	-	0	-	0	200	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	10	16	91	136	18	6	11	72	327	205	7	228	10
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	833	945	119	607	745	327	237	238	0	0	532	0	0
Stage 1	247	247	-	471	493	-	-	-	-	-	-	-	-
Stage 2	586	698	-	136	252	-	-	-	-	-	-	-	-
Critical Hdwy	7.375	6.575	6.975	7.375	6.575	6.275	6.975	4.175	-	-	4.175	-	-
Critical Hdwy Stg 1	6.575	5.575	-	6.175	5.575	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.175	5.575	-	6.575	5.575	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475	3.1475	2.2475	-	-	2.2475	-	-
Pot Cap-1 Maneuver	270	257	902	389	337	705	800	1308	-	-	1016	-	-
Stage 1	728	695	-	565	540	-	-	-	-	-	-	-	-
Stage 2	489	436	-	846	691	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	243	237	902	317	311	705	1185	1185	-	-	1016	-	-
Mov Cap-2 Maneuver	340	325	-	407	389	-	-	-	-	-	-	-	-
Stage 1	677	690	-	525	502	-	-	-	-	-	-	-	-
Stage 2	434	405	-	737	686	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB						
HCM Control Delay, s	11		17.5		1.1		0.3						
HCM LOS	B		C										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1185	-	-	330	902	407	441	1016	-	-			
HCM Lane V/C Ratio	0.07	-	-	0.077	0.101	0.335	0.055	0.007	-	-			
HCM Control Delay (s)	8.3	-	-	16.8	9.4	18.2	13.6	8.6	-	-			
HCM Lane LOS	A	-	-	C	A	C	B	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.3	1.4	0.2	0	-	-			

HCM 6th Signalized Intersection Summary3: McIntosh Rd & I-4 WB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔		↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	297	0	243	303	335	0	0	365	73
Future Volume (veh/h)	0	0	0	297	0	243	303	335	0	0	365	73
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				316	0	0	322	356	0	0	388	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				529	0		1293	2310	0	0	1701	
Arrive On Green				0.16	0.00	0.00	0.17	1.00	0.00	0.00	0.49	0.00
Sat Flow, veh/h				3374	0	1547	3374	3561	0	0	3561	1547
Grp Volume(v), veh/h				316	0	0	322	356	0	0	388	0
Grp Sat Flow(s),veh/h/ln				1687	0	1547	1687	1735	0	0	1735	1547
Q Serve(g_s), s				6.1	0.0	0.0	3.0	0.0	0.0	0.0	4.5	0.0
Cycle Q Clear(g_c), s				6.1	0.0	0.0	3.0	0.0	0.0	0.0	4.5	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				529	0		1293	2310	0	0	1701	
V/C Ratio(X)				0.60	0.00		0.25	0.15	0.00	0.00	0.23	
Avail Cap(c_a), veh/h				867	0		1472	2310	0	0	1701	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.98	0.98	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				27.4	0.0	0.0	5.9	0.0	0.0	0.0	10.2	0.0
Incr Delay (d2), s/veh				4.9	0.0	0.0	0.2	0.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				4.7	0.0	0.0	1.3	0.1	0.0	0.0	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.4	0.0	0.0	6.1	0.1	0.0	0.0	10.5	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					316			678			388	
Approach Delay, s/veh					32.4			3.0			10.5	
Approach LOS					C			A			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.3	40.7		17.0		53.0						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	9.6	23.6		18.0		39.6						
Max Q Clear Time (g_c+I1), s	5.0	6.5		8.1		2.0						
Green Ext Time (p_c), s	0.9	2.9		2.9		3.4						
Intersection Summary												
HCM 6th Ctrl Delay				11.8								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

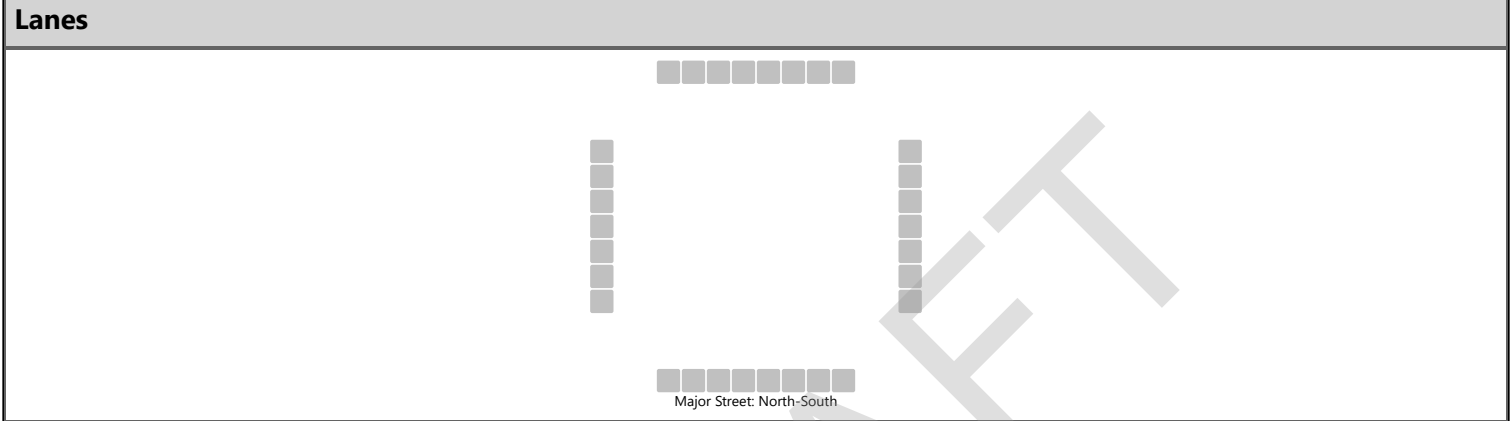
HCM 6th Signalized Intersection Summary

9: McIntosh Rd & I-4 EB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	0	448	0	0	0	0	496	334	104	558	0
Future Volume (veh/h)	142	0	448	0	0	0	0	496	334	104	558	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	151	0	477				0	528	0	111	594	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	390	0	611				0	2778		547	2071	0
Arrive On Green	0.22	0.00	0.22				0.00	0.44	0.00	0.13	1.00	0.00
Sat Flow, veh/h	1739	0	2723				0	6537	1547	1739	3561	0
Grp Volume(v), veh/h	151	0	477				0	528	0	111	594	0
Grp Sat Flow(s),veh/h/ln	1739	0	1362				0	1570	1547	1739	1735	0
Q Serve(g_s), s	5.2	0.0	11.5				0.0	3.6	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	11.5				0.0	3.6	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	390	0	611				0	2778		547	2071	0
V/C Ratio(X)	0.39	0.00	0.78				0.00	0.19		0.20	0.29	0.00
Avail Cap(c_a), veh/h	420	0	658				0	2778		626	2071	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.94	0.94	0.00
Uniform Delay (d), s/veh	23.1	0.0	25.5				0.0	11.9	0.0	7.8	0.0	0.0
Incr Delay (d2), s/veh	2.9	0.0	9.5				0.0	0.2	0.0	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	0.0	7.5				0.0	2.0	0.0	1.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	35.1				0.0	12.0	0.0	8.0	0.3	0.0
LnGrp LOS	C	A	D				A	B		A	A	A
Approach Vol, veh/h	628						528			705		
Approach Delay, s/veh	32.9						12.0			1.5		
Approach LOS	C						B			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	48.2			10.8			37.4			21.8		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	40.6			7.6			26.6			16.9		
Max Q Clear Time (g_c+I1), s	2.0			4.2			5.6			13.5		
Green Ext Time (p_c), s	6.1			0.1			4.6			2.2		
Intersection Summary												
HCM 6th Ctrl Delay	15.1											
HCM 6th LOS	B											
Notes												

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	McIntosh Rd at Newsome Rd
Agency/Co.	Jacobs	Jurisdiction	Hillsbrough County
Date Performed	1/30/2023	East/West Street	Newsome Road
Analysis Year	2025	North/South Street	McIntosh Road
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.94
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	McIntosh Road PTAR- Build Alternative		



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	3	1	0	0	2	0
Configuration								R			T	R			T	
Volume (veh/h)								99			665	37			935	
Percent Heavy Vehicles (%)								5								
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized					No				No							
Median Type Storage	Undivided															

Critical and Follow-up Headways																
Base Critical Headway (sec)								7.1								
Critical Headway (sec)								7.20								
Base Follow-Up Headway (sec)								3.9								
Follow-Up Headway (sec)								3.95								

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)								105								
Capacity, c (veh/h)								542								
v/c Ratio								0.19								
95% Queue Length, Q ₉₅ (veh)								0.7								
Control Delay (s/veh)								13.2								
Level of Service (LOS)								B								
Approach Delay (s/veh)					13.2											
Approach LOS					B											

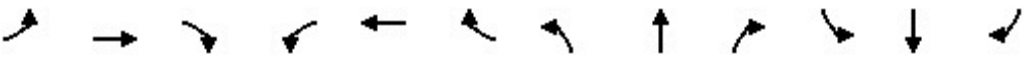
HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	403	45	90	258	213	32	363	64	290	477	168
Future Volume (veh/h)	192	403	45	90	258	213	32	363	64	290	477	168
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	204	429	48	96	274	227	34	386	68	309	507	179
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	230	583	65	198	376	1119	236	868	387	1401	2088	1137
Arrive On Green	0.13	0.19	0.19	0.06	0.11	0.11	0.25	0.25	0.25	0.30	0.60	0.60
Sat Flow, veh/h	1739	3147	350	1739	3469	2723	738	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	204	236	241	96	274	227	34	386	68	309	507	179
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1739	1735	1362	738	1735	1547	1687	1735	1547
Q Serve(g_s), s	16.1	17.9	18.1	6.8	10.7	7.5	5.1	13.1	4.8	6.1	9.5	4.9
Cycle Q Clear(g_c), s	16.1	17.9	18.1	6.8	10.7	7.5	5.1	13.1	4.8	6.1	9.5	4.9
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	321	326	198	376	1119	236	868	387	1401	2088	1137
V/C Ratio(X)	0.89	0.73	0.74	0.48	0.73	0.20	0.14	0.44	0.18	0.22	0.24	0.16
Avail Cap(c_a), veh/h	383	737	749	198	904	1534	236	868	387	1401	2088	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	53.8	53.9	52.0	60.4	26.5	41.3	44.3	41.2	15.4	13.0	5.6
Incr Delay (d2), s/veh	12.9	3.2	3.3	1.8	2.7	0.1	0.4	0.5	0.3	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.4	12.6	12.8	5.5	8.4	4.4	1.7	9.5	3.4	4.1	6.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.6	57.0	57.1	53.8	63.1	26.6	41.6	44.8	41.5	15.5	13.3	5.9
LnGrp LOS	E	E	E	D	E	C	D	D	D	B	B	A
Approach Vol, veh/h		681			597			488			995	
Approach Delay, s/veh		61.7			47.7			44.1			12.6	
Approach LOS		E			D			D			B	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	25.8	22.7	49.2	42.3	15.0	33.4		91.6				
Change Period (Y+Rc), s	* 7.2	* 7.5	6.9	7.3	* 7.2	* 7.5		7.3				
Max Green Setting (Gmax), s	* 31	* 37	16.1	27.7	* 7.8	* 60		50.7				
Max Q Clear Time (g_c+I1), s	18.1	12.7	8.1	15.1	8.8	20.1		11.5				
Green Ext Time (p_c), s	0.4	2.5	0.7	3.0	0.0	2.7		6.3				
Intersection Summary												
HCM 6th Ctrl Delay			37.9									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection													
Int Delay, s/veh	19.5												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕			↖	↕	↗	↖	↕↗	
Traffic Vol, veh/h	4	6	109	264	33	3	5	114	336	265	12	539	29
Future Vol, veh/h	4	6	109	264	33	3	5	114	336	265	12	539	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	300	300	-	-	-	0	-	0	200	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	4	6	116	281	35	3	5	121	357	282	13	573	31
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	1374	1506	302	915	1239	357	604	604	0	0	639	0	0
Stage 1	615	615	-	599	609	-	-	-	-	-	-	-	-
Stage 2	759	891	-	316	630	-	-	-	-	-	-	-	-
Critical Hdwy	7.375	6.575	6.975	7.375	6.575	6.275	6.975	4.175	-	-	4.175	-	-
Critical Hdwy Stg 1	6.575	5.575	-	6.175	5.575	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.175	5.575	-	6.575	5.575	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475	3.1475	2.2475	-	-	2.2475	-	-
Pot Cap-1 Maneuver	111	118	687	~ 236	172	678	457	954	-	-	926	-	-
Stage 1	440	475	-	481	478	-	-	-	-	-	-	-	-
Stage 2	392	354	-	663	468	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-	-	-	-
Mov Cap-1 Maneuver	87	100	687	~ 169	146	678	898	898	-	-	926	-	-
Mov Cap-2 Maneuver	190	206	-	~ 265	234	-	-	-	-	-	-	-	-
Stage 1	378	468	-	413	411	-	-	-	-	-	-	-	-
Stage 2	306	304	-	536	461	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB						
HCM Control Delay, s	12.4		102.7		1.6		0.2						
HCM LOS	B		F										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	898	-	-	199	687	265	248	926	-	-			
HCM Lane V/C Ratio	0.141	-	-	0.053	0.169	1.06	0.154	0.014	-	-			
HCM Control Delay (s)	9.7	-	-	24.1	11.3	113.7	22.1	8.9	-	-			
HCM Lane LOS	A	-	-	C	B	F	C	A	-	-			
HCM 95th %tile Q(veh)	0.5	-	-	0.2	0.6	11.3	0.5	0	-	-			
Notes													
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon							

HCM 6th Signalized Intersection Summary3: McIntosh Rd & I-4 WB On-Ramp/I-4 WB Off-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔		↔	↔	↔			↔	↔
Traffic Volume (veh/h)	0	0	0	439	0	171	695	549	0	0	515	402
Future Volume (veh/h)	0	0	0	439	0	171	695	549	0	0	515	402
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				467	0	0	739	584	0	0	548	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				638	0		1305	2276	0	0	1235	
Arrive On Green				0.19	0.00	0.00	0.37	1.00	0.00	0.00	0.36	0.00
Sat Flow, veh/h				3374	0	1547	3374	3561	0	0	3561	1547
Grp Volume(v), veh/h				467	0	0	739	584	0	0	548	0
Grp Sat Flow(s),veh/h/ln				1687	0	1547	1687	1735	0	0	1735	1547
Q Serve(g_s), s				10.4	0.0	0.0	8.9	0.0	0.0	0.0	9.7	0.0
Cycle Q Clear(g_c), s				10.4	0.0	0.0	8.9	0.0	0.0	0.0	9.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				638	0		1305	2276	0	0	1235	
V/C Ratio(X)				0.73	0.00		0.57	0.26	0.00	0.00	0.44	
Avail Cap(c_a), veh/h				759	0		1305	2276	0	0	1235	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				30.5	0.0	0.0	7.7	0.0	0.0	0.0	19.7	0.0
Incr Delay (d2), s/veh				7.3	0.0	0.0	1.6	0.2	0.0	0.0	1.2	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
%ile BackOfQ(95%),veh/ln				8.1	0.0	0.0	4.1	0.1	0.0	0.0	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.8	0.0	0.0	9.3	0.2	0.0	0.0	20.9	0.0
LnGrp LOS				D	A		A	A	A	A	C	
Approach Vol, veh/h					467			1323			548	
Approach Delay, s/veh					37.8			5.3			20.9	
Approach LOS					D			A			C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	34.9		21.1		58.9						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	17.6	25.6		18.0		49.6						
Max Q Clear Time (g_c+I1), s	10.9	11.7		12.4		2.0						
Green Ext Time (p_c), s	3.0	3.9		2.7		6.2						
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 9: McIntosh Rd & I-4 EB Off-Ramp/I-4 EB On-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	0	541	0	0	0	0	1125	729	151	803	0
Future Volume (veh/h)	119	0	541	0	0	0	0	1125	729	151	803	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	127	0	576				0	1197	0	161	854	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	408	0	639				0	2624		194	2113	0
Arrive On Green	0.23	0.00	0.23				0.00	0.42	0.00	0.22	1.00	0.00
Sat Flow, veh/h	1739	0	2723				0	6537	1547	1739	3561	0
Grp Volume(v), veh/h	127	0	576				0	1197	0	161	854	0
Grp Sat Flow(s),veh/h/ln	1739	0	1362				0	1570	1547	1739	1735	0
Q Serve(g_s), s	4.8	0.0	16.4				0.0	11.0	0.0	7.1	0.0	0.0
Cycle Q Clear(g_c), s	4.8	0.0	16.4				0.0	11.0	0.0	7.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	408	0	639				0	2624		194	2113	0
V/C Ratio(X)	0.31	0.00	0.90				0.00	0.46		0.83	0.40	0.00
Avail Cap(c_a), veh/h	411	0	643				0	2624		252	2113	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	25.3	0.0	29.7				0.0	16.8	0.0	30.4	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	18.2				0.0	0.6	0.0	13.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	0.0	10.7				0.0	6.6	0.0	5.8	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	47.9				0.0	17.3	0.0	43.8	0.5	0.0
LnGrp LOS	C	A	D				A	B		D	A	A
Approach Vol, veh/h	703						1197			1015		
Approach Delay, s/veh	44.2						17.3			7.3		
Approach LOS	D						B			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	55.1			15.3			39.8			24.9		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	48.6			11.6			30.6			18.9		
Max Q Clear Time (g_c+I1), s	2.0			9.1			13.0			18.4		
Green Ext Time (p_c), s	10.1			0.1			9.9			0.4		
Intersection Summary												
HCM 6th Ctrl Delay	20.3											
HCM 6th LOS	C											
Notes												

HCS7 Two-Way Stop-Control Report

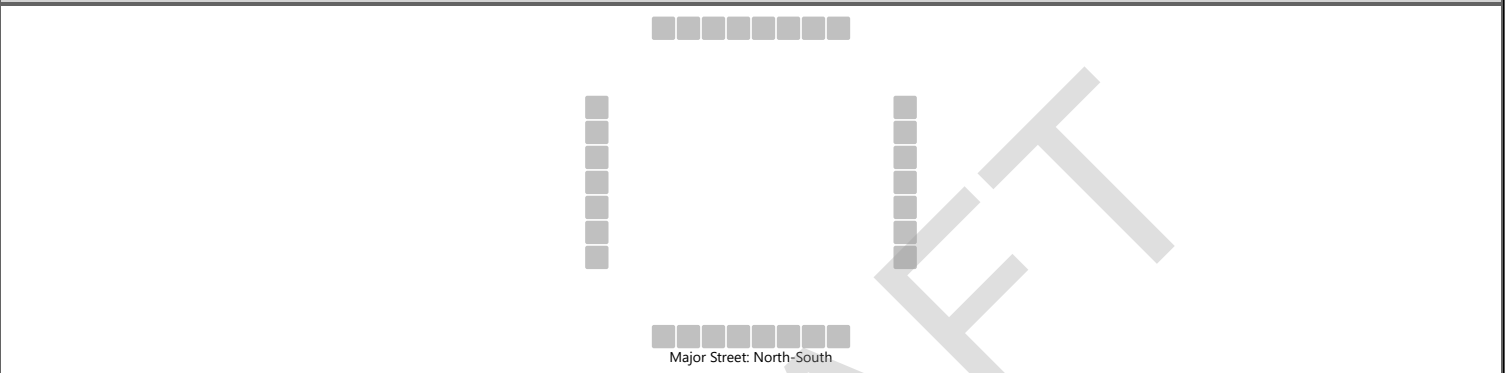
General Information

Analyst	RC
Agency/Co.	Jacobs
Date Performed	1/30/2023
Analysis Year	2045
Time Analyzed	AM Peak Hour
Intersection Orientation	North-South
Project Description	McIntosh Road PTAR - Build Alternative

Site Information

Intersection	McIntosh Rd at Newsome Rd
Jurisdiction	Hillsborough County
East/West Street	Newsome Road
North/South Street	McIntosh Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	3	1	0	0	2	0
Configuration								R			T	R			T	
Volume (veh/h)								118			1479	53			1291	
Percent Heavy Vehicles (%)								5								
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized					No				No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)								7.1								
Critical Headway (sec)								7.20								
Base Follow-Up Headway (sec)								3.9								
Follow-Up Headway (sec)								3.95								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								126								
Capacity, c (veh/h)								282								
v/c Ratio								0.44								
95% Queue Length, Q ₉₅ (veh)								2.2								
Control Delay (s/veh)								27.6								
Level of Service (LOS)								D								
Approach Delay (s/veh)					27.6											
Approach LOS					D											

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	501	36	144	662	634	74	782	64	439	503	349
Future Volume (veh/h)	373	501	36	144	662	634	74	782	64	439	503	349
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	397	533	38	153	704	674	79	832	68	467	535	371
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	389	1176	84	361	745	978	98	1001	446	487	1316	933
Arrive On Green	0.22	0.36	0.36	0.08	0.21	0.21	0.06	0.29	0.29	0.14	0.38	0.38
Sat Flow, veh/h	1739	3285	234	1739	3469	2723	1739	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	397	281	290	153	704	674	79	832	68	467	535	371
Grp Sat Flow(s),veh/h/ln	1739	1735	1784	1739	1735	1362	1739	1735	1547	1687	1735	1547
Q Serve(g_s), s	35.8	19.9	19.9	10.9	32.0	14.1	7.2	35.9	4.4	22.0	18.1	20.0
Cycle Q Clear(g_c), s	35.8	19.9	19.9	10.9	32.0	14.1	7.2	35.9	4.4	22.0	18.1	20.0
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	389	621	638	361	745	978	98	1001	446	487	1316	933
V/C Ratio(X)	1.02	0.45	0.45	0.42	0.95	0.69	0.81	0.83	0.15	0.96	0.41	0.40
Avail Cap(c_a), veh/h	389	621	638	371	748	980	164	1001	446	487	1316	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	39.4	39.4	43.6	61.9	19.5	74.7	53.3	29.6	68.0	36.5	16.6
Incr Delay (d2), s/veh	50.9	0.5	0.5	0.8	20.6	2.1	14.5	6.3	0.2	30.5	0.9	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	28.9	13.2	13.6	8.3	22.5	9.3	6.4	22.8	3.6	17.0	12.4	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.0	39.9	39.9	44.3	82.5	21.6	89.2	59.6	29.8	98.4	37.4	17.9
LnGrp LOS	F	D	D	D	F	C	F	E	C	F	D	B
Approach Vol, veh/h		968			1531			979			1373	
Approach Delay, s/veh		69.9			51.9			59.9			52.9	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	43.0	41.9	30.4	53.7	20.1	64.8	15.9	68.2				
Change Period (Y+Rc), s	* 7.2	* 7.5	7.3	* 7.3	* 7.2	* 7.5	6.9	7.3				
Max Green Setting (Gmax), s	* 36	* 35	23.1	* 38	* 14	* 57	15.1	45.7				
Max Q Clear Time (g_c+I1), s	37.8	34.0	24.0	37.9	12.9	21.9	9.2	22.0				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	3.3	0.1	7.2				
Intersection Summary												
HCM 6th Ctrl Delay			57.4									
HCM 6th LOS			E									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Arterial Level of Service

Arterial Level of Service: NB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
US 92	II	45	21.2	95.3	116.5	0.19	6.0	F
I-4 EB On-Ramp	II	40	40.6	14.7	55.3	0.43	27.8	C
I-4 WB Off-Ramp	II	40	13.3	7.3	20.6	0.12	20.2	D
Total	II		75.1	117.3	192.4	0.74	13.8	E

Arterial Level of Service: SB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-4 WB On-Ramp	II	40	29.2	27.2	56.4	0.29	18.3	D
I-4 EB Off-Ramp	II	40	13.3	9.3	22.6	0.12	18.4	D
US 92	II	40	40.6	42.4	83.0	0.43	18.5	D
Total	II		83.1	78.9	162.0	0.83	18.4	D

HCM 6th TWSC
6: McIntosh Rd & Muck Pond Rd/Gore Rd

Intersection													
Int Delay, s/veh	10.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↖			↗	↕	↗	↖	↕↖	
Traffic Vol, veh/h	13	22	125	196	25	9	15	108	489	307	10	316	14
Future Vol, veh/h	13	22	125	196	25	9	15	108	489	307	10	316	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	-	-	300	300	-	-	-	0	-	0	200	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	14	23	133	209	27	10	16	115	520	327	11	336	15
Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	1298	1475	176	952	1155	520	351	351	0	0	847	0	0
Stage 1	366	366	-	750	782	-	-	-	-	-	-	-	-
Stage 2	932	1109	-	202	373	-	-	-	-	-	-	-	-
Critical Hdwy	7.375	6.575	6.975	7.375	6.575	6.275	6.975	4.175	-	-	4.175	-	-
Critical Hdwy Stg 1	6.575	5.575	-	6.175	5.575	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.175	5.575	-	6.575	5.575	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475	3.1475	2.2475	-	-	2.2475	-	-
Pot Cap-1 Maneuver	126	123	829	222	193	548	673	1187	-	-	772	-	-
Stage 1	619	616	-	397	398	-	-	-	-	-	-	-	-
Stage 2	314	279	-	774	611	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-		-	-
Mov Cap-1 Maneuver	102	106	829	~ 151	167	548	1049	1049	-	-	772	-	-
Mov Cap-2 Maneuver	188	189	-	251	256	-	-	-	-	-	-	-	-
Stage 1	542	607	-	347	348	-	-	-	-	-	-	-	-
Stage 2	249	244	-	616	602	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB						
HCM Control Delay, s	14.2		57.1		1.2		0.3						
HCM LOS	B		F										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1049	-	-	189	829	251	298	772	-	-			
HCM Lane V/C Ratio	0.125	-	-	0.197	0.16	0.831	0.121	0.014	-	-			
HCM Control Delay (s)	8.9	-	-	28.7	10.2	63.8	18.7	9.7	-	-			
HCM Lane LOS	A	-	-	D	B	F	C	A	-	-			
HCM 95th %tile Q(veh)	0.4	-	-	0.7	0.6	6.6	0.4	0	-	-			
Notes													
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon							

HCM 6th Signalized Intersection Summary 3: McIntosh Rd & I-4 WB On-Ramp/I-4 WB Off-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰↱		↰	↰↱	↰↱			↰↱	↰
Traffic Volume (veh/h)	0	0	0	440	0	360	499	559	0	0	543	109
Future Volume (veh/h)	0	0	0	440	0	360	499	559	0	0	543	109
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1826	0	1826	1826	1826	0	0	1826	1826
Adj Flow Rate, veh/h				468	0	0	531	595	0	0	578	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				5	0	5	5	5	0	0	5	5
Cap, veh/h				670	0		652	2166	0	0	1178	
Arrive On Green				0.20	0.00	0.00	0.39	1.00	0.00	0.00	0.34	0.00
Sat Flow, veh/h				3374	0	1547	3374	3561	0	0	3561	1547
Grp Volume(v), veh/h				468	0	0	531	595	0	0	578	0
Grp Sat Flow(s),veh/h/ln				1687	0	1547	1687	1735	0	0	1735	1547
Q Serve(g_s), s				9.0	0.0	0.0	9.9	0.0	0.0	0.0	9.2	0.0
Cycle Q Clear(g_c), s				9.0	0.0	0.0	9.9	0.0	0.0	0.0	9.2	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				670	0		652	2166	0	0	1178	
V/C Ratio(X)				0.70	0.00		0.81	0.27	0.00	0.00	0.49	
Avail Cap(c_a), veh/h				819	0		800	2166	0	0	1178	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				26.1	0.0	0.0	20.4	0.0	0.0	0.0	18.3	0.0
Incr Delay (d2), s/veh				6.0	0.0	0.0	6.4	0.3	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				6.9	0.0	0.0	6.1	0.2	0.0	0.0	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.1	0.0	0.0	26.8	0.3	0.0	0.0	19.8	0.0
LnGrp LOS				C	A		C	A	A	A	B	
Approach Vol, veh/h					468			1126			578	
Approach Delay, s/veh					32.1			12.8			19.8	
Approach LOS					C			B			B	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.9	30.2		19.9		50.1						
Change Period (Y+Rc), s	6.4	6.4		6.0		6.4						
Max Green Setting (Gmax), s	16.6	17.6		17.0		40.6						
Max Q Clear Time (g_c+l1), s	11.9	11.2		11.0		2.0						
Green Ext Time (p_c), s	1.7	2.4		2.9		6.2						
Intersection Summary												
HCM 6th Ctrl Delay				18.8								
HCM 6th LOS				B								
Notes												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 9: McIntosh Rd & I-4 EB Off-Ramp/I-4 EB On-Ramp

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			 					  			 	
Traffic Volume (veh/h)	211	0	669	0	0	0	0	847	571	155	828	0
Future Volume (veh/h)	211	0	669	0	0	0	0	847	571	155	828	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1826	1826	1826	1826	0
Adj Flow Rate, veh/h	224	0	712				0	901	0	165	881	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	0	5				0	5	5	5	5	0
Cap, veh/h	470	0	735				0	2166		200	1913	0
Arrive On Green	0.27	0.00	0.27				0.00	0.34	0.00	0.23	1.00	0.00
Sat Flow, veh/h	1739	0	2723				0	6537	1547	1739	3561	0
Grp Volume(v), veh/h	224	0	712				0	901	0	165	881	0
Grp Sat Flow(s),veh/h/ln	1739	0	1362				0	1570	1547	1739	1735	0
Q Serve(g_s), s	7.6	0.0	18.1				0.0	7.7	0.0	6.3	0.0	0.0
Cycle Q Clear(g_c), s	7.6	0.0	18.1				0.0	7.7	0.0	6.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	470	0	735				0	2166		200	1913	0
V/C Ratio(X)	0.48	0.00	0.97				0.00	0.42		0.82	0.46	0.00
Avail Cap(c_a), veh/h	470	0	735				0	2166		263	1913	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	21.4	0.0	25.3				0.0	17.5	0.0	26.3	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	26.3				0.0	0.6	0.0	11.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	12.4				0.0	4.6	0.0	5.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	0.0	51.6				0.0	18.1	0.0	37.7	0.6	0.0
LnGrp LOS	C	A	D				A	B		D	A	A
Approach Vol, veh/h	936						901			1046		
Approach Delay, s/veh	45.2						18.1			6.5		
Approach LOS	D						B			A		
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	45.0			14.5			30.5			25.0		
Change Period (Y+Rc), s	6.4			6.4			6.4			6.1		
Max Green Setting (Gmax), s	38.6			10.6			21.6			18.9		
Max Q Clear Time (g_c+I1), s	2.0			8.3			9.7			20.1		
Green Ext Time (p_c), s	10.0			0.1			5.8			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	22.7											
HCM 6th LOS	C											
Notes												

HCS7 Two-Way Stop-Control Report

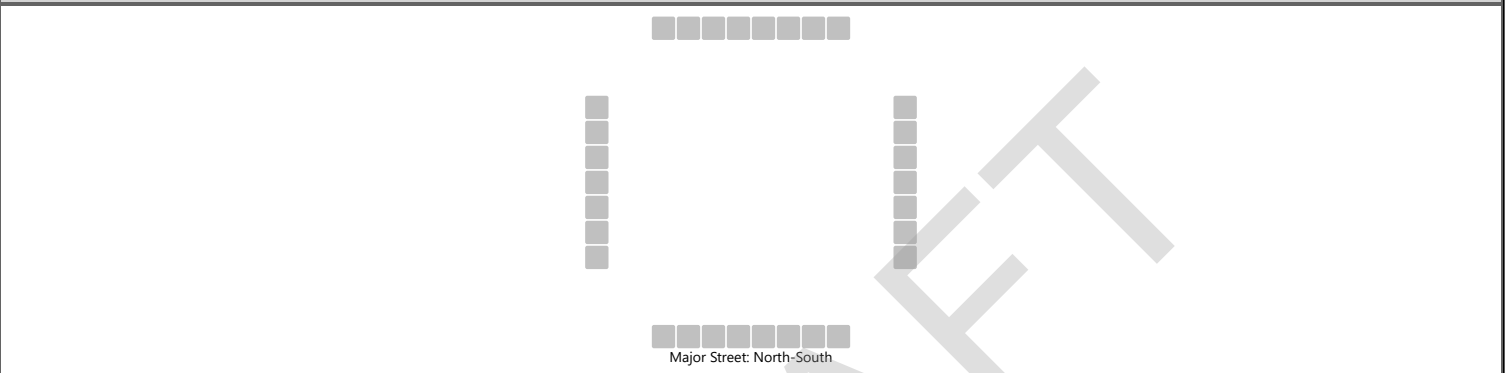
General Information

Analyst	RC
Agency/Co.	Jacobs
Date Performed	1/30/2023
Analysis Year	2045
Time Analyzed	PM Peak Hour
Intersection Orientation	North-South
Project Description	McIntosh Road PTAR - Build Alternative

Site Information

Intersection	McIntosh Rd at Newsome Rd
Jurisdiction	Hillsborough County
East/West Street	Newsome Road
North/South Street	McIntosh Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	3	1	0	0	2	0
Configuration								R			T	R			T	
Volume (veh/h)								146			1136	55			1392	
Percent Heavy Vehicles (%)								5								
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized					No				No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)								7.1								
Critical Headway (sec)								7.20								
Base Follow-Up Headway (sec)								3.9								
Follow-Up Headway (sec)								3.95								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								155								
Capacity, c (veh/h)								372								
v/c Ratio								0.42								
95% Queue Length, Q ₉₅ (veh)								2.0								
Control Delay (s/veh)								21.4								
Level of Service (LOS)								C								
Approach Delay (s/veh)					21.4											
Approach LOS					C											

HCM 6th Signalized Intersection Summary 12: McIntosh Rd & US 92

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	762	85	173	497	411	49	553	98	431	641	320
Future Volume (veh/h)	363	762	85	173	497	411	49	553	98	431	641	320
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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	386	811	90	184	529	437	52	588	104	459	682	340
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, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	395	998	111	272	655	906	66	802	358	484	1177	877
Arrive On Green	0.23	0.32	0.32	0.10	0.19	0.19	0.04	0.23	0.23	0.14	0.34	0.34
Sat Flow, veh/h	1739	3148	349	1739	3469	2723	1739	3469	1547	3374	3469	1547
Grp Volume(v), veh/h	386	447	454	184	529	437	52	588	104	459	682	340
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1739	1735	1362	1739	1735	1547	1687	1735	1547
Q Serve(g_s), s	30.9	33.2	33.2	11.8	20.4	7.5	4.2	22.0	5.7	18.9	22.6	17.1
Cycle Q Clear(g_c), s	30.9	33.2	33.2	11.8	20.4	7.5	4.2	22.0	5.7	18.9	22.6	17.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	550	559	272	655	906	66	802	358	484	1177	877
V/C Ratio(X)	0.98	0.81	0.81	0.68	0.81	0.48	0.78	0.73	0.29	0.95	0.58	0.39
Avail Cap(c_a), veh/h	395	626	636	296	855	1062	88	802	358	484	1177	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	44.0	44.0	40.9	54.3	13.2	66.8	49.8	24.1	59.4	38.0	16.9
Incr Delay (d2), s/veh	39.1	7.2	7.1	5.4	4.4	0.4	27.4	3.8	0.6	28.1	2.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	24.3	21.3	21.6	9.2	14.1	5.2	4.2	14.9	5.3	15.0	15.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.9	51.2	51.1	46.3	58.7	13.6	94.1	53.6	24.7	87.6	40.1	18.2
LnGrp LOS	F	D	D	D	E	B	F	D	C	F	D	B
Approach Vol, veh/h		1287			1150			744			1481	
Approach Delay, s/veh		63.7			39.6			52.4			49.8	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.0	34.0	27.4	39.6	21.1	51.9	12.2	54.8				
Change Period (Y+Rc), s	* 7.2	* 7.5	7.3	* 7.3	* 7.2	* 7.5	6.9	7.3				
Max Green Setting (Gmax), s	* 32	* 35	20.1	* 25	* 16	* 51	7.1	37.7				
Max Q Clear Time (g_c+I1), s	32.9	22.4	20.9	24.0	13.8	35.2	6.2	24.6				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.4	0.1	4.7	0.0	6.2				
Intersection Summary												
HCM 6th Ctrl Delay			51.5									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Arterial Level of Service

Arterial Level of Service: NB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
US 92	II	45	21.2	64.6	85.8	0.19	8.2	F
I-4 EB On-Ramp	II	40	40.6	13.7	54.3	0.43	28.4	B
I-4 WB Off-Ramp	II	40	13.3	5.5	18.8	0.12	22.1	C
Total	II		75.1	83.8	158.9	0.74	16.7	E

Arterial Level of Service: SB McIntosh Rd

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-4 WB On-Ramp	II	40	29.2	27.5	56.7	0.29	18.2	D
I-4 EB Off-Ramp	II	40	13.3	14.7	28.0	0.12	14.8	E
US 92	II	40	40.6	43.0	83.6	0.43	18.4	D
Total	II		83.1	85.2	168.3	0.83	17.7	D

APPENDIX F CMF 7566



CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF DETAILS

CMF ID: 7566

CONVERT 2 LANE ROADWAY TO 4 LANE DIVIDED ROADWAY

DESCRIPTION: CONVERSION OF URBAN AND RURAL TWO-LANE ROADWAYS TO FOUR-LANE DIVIDED ROADWAYS

PRIOR CONDITION: 2 LANE ROADWAY

CATEGORY: ROADWAY

STUDY: [EVALUATION OF THE SAFETY EFFECTIVENESS OF THE CONVERSION OF TWO-LANE ROADWAYS TO FOUR-LANE DIVIDED ROADWAYS: BAYESIAN VS. EMPIRICAL BAYES, AHMED ET AL., 2015](#)Star Quality Rating: [\[VIEW SCORE DETAILS\]](#)

Rating Points Total: 120

Crash Modification Factor (CMF)

Value: 0.341

Adjusted Standard Error:

Unadjusted Standard Error: 0.091

Crash Reduction Factor (CRF)

Value: 65.88 *(This value indicates a decrease in crashes)*

Adjusted Standard Error:

Unadjusted Standard Error: 9.05

Applicability

Crash Type: All

Crash Severity: All

Roadway Types: Not specified

Street Type:

Minimum Number of Lanes: 2

Maximum Number of Lanes: 2

Number of Lanes Direction:

Number of Lanes Comment:

Crash Weather: Not specified

Road Division Type: Undivided

Minimum Speed Limit:

Maximum Speed Limit:

Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	18544 Annual Average Daily Traffic (AADT)
Time of Day:	All
	<i>If countermeasure is intersection-based</i>
Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	
Average Major Road Volume :	
Average Minor Road Volume :	

Development Details

Date Range of Data Used:	2002 to 2012
Municipality:	
State:	FL
Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (crashes):	69 crashes before, 30 crashes after
Sample Size (sites):	41 sites before, 41 sites after
Sample Size (miles):	8.578 miles before, 8.578 miles after

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-01-2015
Comments:	

[VIEW THE FULL STUDY DETAILS](#)
[EXPORT DETAIL PAGE AS A PDF](#)

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

For more information, contact Karen Scurry at karen.scurry@dot.gov

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.