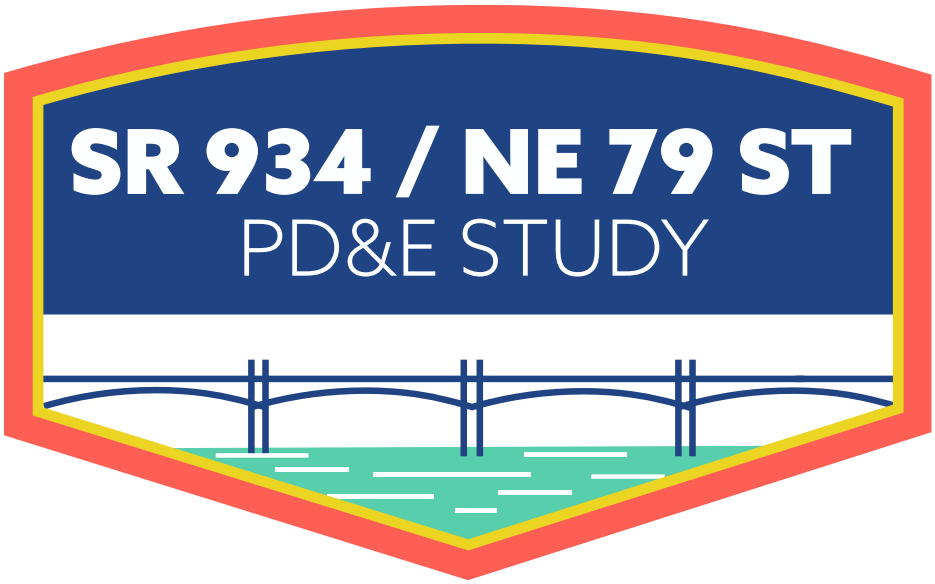

Project Traffic Analysis Report

April 2024

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ACRONYMS AND ABBREVIATIONS

FDEM	Florida Division of Emergency Management
FDOT	Florida Department of Transportation
FM	Financial Management
MP	Milepost
NBI	National Bridge Inventory
PD&E	Project Development and Environment
SR	State Road

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1 Introduction

The Florida Department of Transportation (FDOT) District Six (D6) is preparing a Project Development and Environment (PD&E) Study to evaluate the replacement of four bridges (two bridge pairs) located along NE 79th Street between Pelican Harbor Drive and Adventure Avenue in the incorporated municipalities of the City of Miami and North Bay Village within Miami-Dade County. The NE 79th Street corridor is also designated as State Road (SR) 934, NE 79th Street Causeway, and John F. Kennedy Causeway within the project limits in Miami-Dade County. NE 79th Street is an east-west regional thoroughfare that has a western terminus at Florida's Turnpike (SR 821) and an eastern terminus at SR A1A. The project corridor carries traffic from the City of Miami to the barrier islands of North Bay Village and Miami Beach.

1.1 Project Background

Based on the most recent bridge inspections performed in October 2020, which included routine inspections, all four bridges are structurally deficient. The National Bridge Inventory (NBI) structural conditions ratings for the bridge decks and superstructures are poor (NBI rating of 4). The bridges west of North Bay Island, Bridge No. 870083 (westbound) and Bridge No. 870549 (eastbound), were built in 1971 and 1973, respectively, and have an overall sufficiency rating of 48.7 and health indexes of 96.44 and 82.36, respectively. The bridges east of North Bay Island, Bridge No. 870084 (westbound) and Bridge No. 870550 (eastbound), were built in 1971 and have an overall sufficiency rating of 48.7 and health indexes of 98.14 and 98.77, respectively. None of the bridges are navigable.

In 2015, NE 79th Street was milled and resurfaced from east of North Bayshore Drive to Bay Drive West as part of Financial Management (FM) No. 431180-1-52-01 and included repairs to the bridges. The bridge abutment approaches and bridge decks west of North Bay Island (Bridge Nos. 870083 and 870549) were paved with new asphalt concrete overlay, and all bridge joints were rehabilitated. The eastern bridge decks and approaches (Bridge Nos. 870084 and 870550) were also repaved, and new bicycle and pedestrian safety railings were installed on the outside travel lanes.

To address impacts related to Hurricane Irma, an emergency roadway embankment stabilization safety project was performed in 2019 along a 0.25-mile-long segment of NE 79th Street from east of Pelican Harbor Park to just west of the western bridges (FM No. 443966-1-52-01). The project included the placement of bedding stone and rubble riprap behind the existing endwall along the south side of NE 79th Street. The roadway shoulder was severely eroded during Hurricane Irma, and the repairs rehabilitated the slope to the original design specifications.

The City of North Bay Village published a visioning Master Plan, NBV100 Report, in April 2020. This Master Plan includes transforming NE 79th Street within the municipal limits of North Bay Village to a Complete Streets design that would reduce the number of existing travel lanes from six to four. Potential improvements include repurposing the outside travel lanes on NE 79th

Street to on-street parking, with designated buffer space separating the bicycle lane from the proposed adjacent parking lane. The outside travel lanes on the project's eastern bridges (Bridge Nos. 870084 and 870550) are proposed as 10-foot-wide bicycle lanes. The Master Plan states that, since NE 79th Street is an emergency evacuation route, all six lanes (three lanes westbound and three lanes eastbound) would be available for emergency evacuation. The Master Plan notes that several meetings took place with FDOT District Six regional leadership during the plan development.

1.2 Project Description

This project involves the potential replacement of four prestressed concrete slab (Sonovoid) bridges (two bridge pairs) connecting three islands within the Cities of Miami and North Bay Village in Miami-Dade County. The bridges are part of SR 934/NE 79th Street (John F. Kennedy Causeway), a roadway classified as "Urban Principal Arterial - Other", which connects mainland Miami to Miami Beach and North Bay Village. The SR 934/NE 79th Street eastbound and westbound Road IDs are 87080000 and 87080801, respectively. The specific limits of the project extend from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue), as shown in **Figure 1.1**. The western bridge pair, comprised of Bridge Identification (ID) Numbers 870083 (westbound) and 870549 (eastbound), is located just west of North Bay Island/Harbor Island. The eastern bridge pair, comprised of Bridge ID Numbers 870084 (westbound) and 870550 (eastbound), is located between North Bay Island/Harbor Island and Treasure Island. The project is approximately 0.8 mile in length.

The existing western bridge pair consists of six lanes, including four 11-foot-wide travel lanes to the inside and two 13.5-foot-wide travel lanes to the outside, and a raised median connecting the two bridge structures. The outside travel lanes include shared-use markings to accommodate bicycles. In addition, a 5-foot-wide raised sidewalk is present on each side of the bridge pair to the outside. The existing eastern bridge pair consists of six 10-foot-wide travel lanes with a raised median connecting the two bridge structures, as well as a 5.5-foot-wide dedicated bicycle lane and a sidewalk varying between 5 and 6 feet in width (separated by guardrail) on each side of the bridge pair to the outside. The bridge approaches are generally consistent with the typical section of the bridges, except for east of the western bridge pair which includes dedicated bicycle lanes. Crossing over the Biscayne Bay, the bridges have a maximum vertical clearance of 6.78 feet at Mean Low Water and a minimum vertical clearance of 4.78 feet at Mean High Water. Biscayne Bay at the bridge crossings is not deemed a navigable waterway by the United States Coast Guard.

In addition to bridge replacement improvements, the Build Alternative will extend the westbound and eastbound bike lanes westwardly, create safety improvements for pedestrians, such as pedestrian and bicycle railings on both bridges within the project area, and close a directional median opening on SR 934/NE 79th Street west of the WSVN Driveway.

The conceptual planned improvements for SR 934/NE 79th Street include a set of intersection-specific countermeasures that are intended to reduce crashes. These intersection countermeasures include Backplates with retroreflective borders; High Visibility Crosswalks; and Left Turn Flashing Yellow Arrow signal indicators. High Visibility Crosswalks and Left Turn

Flashing Yellow Arrows address pedestrian and left-turn crashes at each intersection. The project team will coordinate with Miami-Dade County Traffic Signals and Signs Division during the design phase for the implementation of the Flashing Yellow Arrow operations.

1.2.1. Logical Termini

The project's western study limits fall within the City of Miami, while the eastern study limits fall within the City of North Bay Village. Outside the project limits, NE 79th Street is expected to remain as a six-lane urban principal arterial. Therefore, to align with the existing configuration and accommodate additional lanes being dropped or added at the intersections, the logical termini for this project involves NE 79th Street from west of Pelican Harbor Drive (western terminus) to east of Adventure Avenue (eastern terminus). These logical termini also allow for full inclusion of the intersection footprints.

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SR 934/NE 79TH STREET PD&E STUDY

PROJECT STUDY AREA

FIGURE 1.1

1.3 Purpose and Need

1.3.1. Purpose

The purpose of this project is to evaluate bridge replacement alternatives to address the structural deficiencies of four existing bridges (two bridge pairs) along NE 79th Street. Additionally, a project goal is to maintain emergency evacuation capabilities.

1.3.2. Need

The project is needed to address substandard structural elements and to maintain evacuation and emergency response times.

1.3.2.1 Bridge Deficiencies

The existing bridges were constructed in the early 1970s and have been determined to be Structurally Deficient given the condition of each bridge's superstructure (beams), which is referred to as "Sonovoid" design. Due to the structure type, the number of structural deficiencies, and the low clearance from the water, the bridge superstructures cannot properly be repaired.

Based on FDOT Bridge Inspection Reports prepared in October 2020, each of the four bridges received a Sufficiency Rating of 48.7 (on a scale of 0-100). The Sufficiency Rating is essentially an overall rating of a bridge's fitness to remain in service. A Sufficiency Rating below 50.0 may qualify a bridge for replacement funds.

As part of the inspection process, several structural components were evaluated and assigned a rank or condition based on the NBI system. The ranks/conditions were based on a scale of zero (0) through nine (9). A rank of zero (0) generally means that the bridge is out of service, beyond corrective action, and in need of replacement; a rank of nine (9) means the bridge is in excellent condition and no deficiencies have been identified. The ranks/conditions for the structural components examined in the reports are as follows:

Bridge ID Numbers 870083 (westbound) and 870549 (eastbound)

- Deck: 4 (Poor)
- Superstructure: 4 (Poor)
- Substructure: 6 (Satisfactory)

Bridge ID Numbers 870084 (westbound) and 870550 (eastbound)

- Deck: 4 (Poor)
- Superstructure: 4 (Poor)
- Substructure: 7 (Good)

1.3.2.2 Safety

Serving as part of the emergency evacuation route network designated by the Florida Division of Emergency Management (FDEM) and Miami-Dade County, NE 79th Street (including the bridges) plays a critical role in facilitating traffic between the beaches and the mainland of Miami during emergency evacuation periods. The project area is located in Storm Surge Planning Zone B, which is at risk for storm surge for Category 2 and higher storms. There is a need for the bridges to continue meeting emergency evacuation requirements.

2 Traffic Analysis Methodology

The transportation analysis of SR 934/NE 79th Street from Pelican Harbor Drive to Adventure Avenue has been prepared consistent with the Traffic Analysis Methodology memorandum dated September 22, 2022. This approved methodology is included in **Appendix A**.

The analysis follows the procedures and guidance from the FDOT PD&E Manual dated July 2023, Traffic Analysis Handbook (2021), Project Traffic Forecasting Handbook (2019), FDOT Safety Analysis Guidebook for PD&E Studies (Safety Analysis Guidebook) (2019), Highway Safety Manual (HSM) First Edition with 2014 Supplement, and the FDOT Manual on Intersection Control Evaluation (ICE) dated January 2023. Analytical tools, such as Synchro 11 and Highway Capacity Manual 6th Edition (HCM 6), were employed to evaluate the traffic operational characteristics of the arterial corridor and intersections during the AM and PM peak hours.

2.1 Study Area

The study corridor of SR 934/NE 79th Street is approximately 0.8 miles in length and includes four study intersections. The intersections are:

- SR 934/NE 79th Street at Pelican Harbor Drive (signalized)
- SR 934/NE 79th Street at Harbor Island Drive (signalized)
- SR 934/NE 79th Street at WSVN Driveway (unsignalized)
- SR 934/NE 79th Street at Adventure Avenue (signalized)

2.2 Traffic Volume Data

A series of traffic volume data was collected for the SR 934/NE 79th Street PD&E Study in October 2022, and is provided in the Traffic Forecasting memorandum dated April 4, 2024. The Traffic Forecasting memorandum was approved by FDOT in March 2023 and revised in October 2023 based on FDOT feedback regarding U-turns and rounding convention and again in April 2024 to address model growth rates and provide supporting TAZ data. The revised Traffic Forecasting memorandum is included in **Appendix B**.

Hourly traffic volume data was collected during a 72-hour period from Tuesday, October 4, 2022, through Thursday, October 6, 2022. This data was collected at all signalized intersection approaches. Further, AM and PM peak hour turning movement counts were collected at the four study intersections on Tuesday, October 4, 2022, and on Thursday, October 6, 2022. These intersection turning movement counts include pedestrian and bicyclist activity at each intersection. Finally, vehicle classification data was gathered on SR 934/NE 79th Street between Pelican Harbor Drive and Harbor Island Drive from Tuesday, October 4, 2022, through Thursday, October 6, 2022.

2.3 Analysis Years and Periods

The SR 934/NE 79th Street corridor and intersections have been analyzed given an existing year of 2022, with an Opening Year of 2030 and a design year of 2050. The Opening Year is consistent with FDOT D6 intentions with construction funded for fiscal year 2028.

Based on existing traffic volume data collected, a system-wide AM peak hour for a typical weekday was identified to be between 8:00 am and 9:00 am. Similarly, a system-wide PM peak hour was noted to be between 5:00 pm and 6:00 pm.

3 Existing Conditions

SR 934/NE 79th Street between Pelican Harbor Drive and Adventure Avenue is a 6-lane divided east-west arterial that links the barrier island with the mainland of the Florida peninsula. It also represents the primary surface street facility for North Bay Village.

The Village includes three islands that are linked by two bridge pairs. Residential, multi-story condominiums are the primary land use in the area, although retail uses are situated near the eastern border of the Village. It is noted that the Pelican Harbor marina and public boat launch is located at Pelican Harbor Drive (western terminus of the study).

3.1 Existing Geometry

SR 934/NE 79th Street between Pelican Harbor Drive and Adventure Avenue consists of three travel lanes in each direction generally separated by a raised median. At each study intersection the presence of left- and right-turn lanes was verified via field reviews. The intersection lane geometry is graphically depicted in **Figure 3.1**.

3.2 Existing Roadway Characteristics

The corridor is classified as Urban Principal Arterial – Other and is designated with a context classification of C5 – Urban Center. Such facilities are characterized by a mix of uses set within small blocks with a well-connected roadway network. They are typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town, or city.

Between Pelican Harbor Drive and Adventure Avenue, SR 934/NE 79th Street has an access management designation of Access Class 5. Access Class 5 roadways are controlled access facilities where adjacent land has been extensively developed and where the probability of major land use change is not high. These roadways are distinguished by existing or planned restrictive medians. For facilities with a posted speed limit less than 45 miles per hour (mph), the minimum spacing standard for full median opening and signalized intersection is 1,320 feet, while the minimum spacing for a directional median opening should be 660 feet. Driveway connections along Access Class 5 roadways should be at least 245 feet apart, per Florida Administrative Code (F.A.C.) Rule Chapter: 14-97.

The current posted speed limit on SR 934/NE 79th Street immediately west and east of Pelican Harbor Drive is 35 mph. East of Pelican Harbor Drive, the posted speed limit on SR 934/NE 79th Street is reduced to 30 mph and remains at that speed to the eastern terminus of the study area.

SR 934/NE 79TH STREET PD&E STUDY

EXISTING LANE CONFIGURATION

FIGURE 3.1

3.2.1. Transit Facilities

Currently, Miami-Dade Transit operates two bus routes that travel along SR 934/NE 79th Street within the study area. They are Route 79 and 112 Route L. In addition, the City of North Bay Village operates the North Bay Village Shuttle, which serves local destinations within the city.

Route 79 is a limited-stop weekday morning and afternoon service. It travels from Northside Metrorail station to Collins Avenue in Miami Beach. 112 Route L is a transit service with stops between Hialeah and Lincoln Road in Miami Beach. It is a local bus service that operates every day of the week.

Far and near side bus stops accommodating eastbound and westbound riders, respectively, are located on the east side of the Pelican Harbor Drive intersection. Benches are provided for these bus stops, but they are not covered to protect would-be riders from the elements.

A bus stop is also located on westbound SR 934/NE 79th Street just east of Harbor Island Drive, while a bus stop is present on eastbound SR 934/NE 79th Street just west of Harbor Island Drive. Finally, bus stops are present on eastbound and westbound SR 934/NE 79th Street just west of Adventure Avenue. Each of these bus stops includes benches and covered shelters.

3.3 Existing Traffic Volumes

Traffic volume data was collected in October 2022 and documented in the Traffic Forecasting memorandum. The Traffic Forecasting memorandum was approved by FDOT in March 2023 and revised in April 2024 based on FDOT feedback and is included in **Appendix B**.

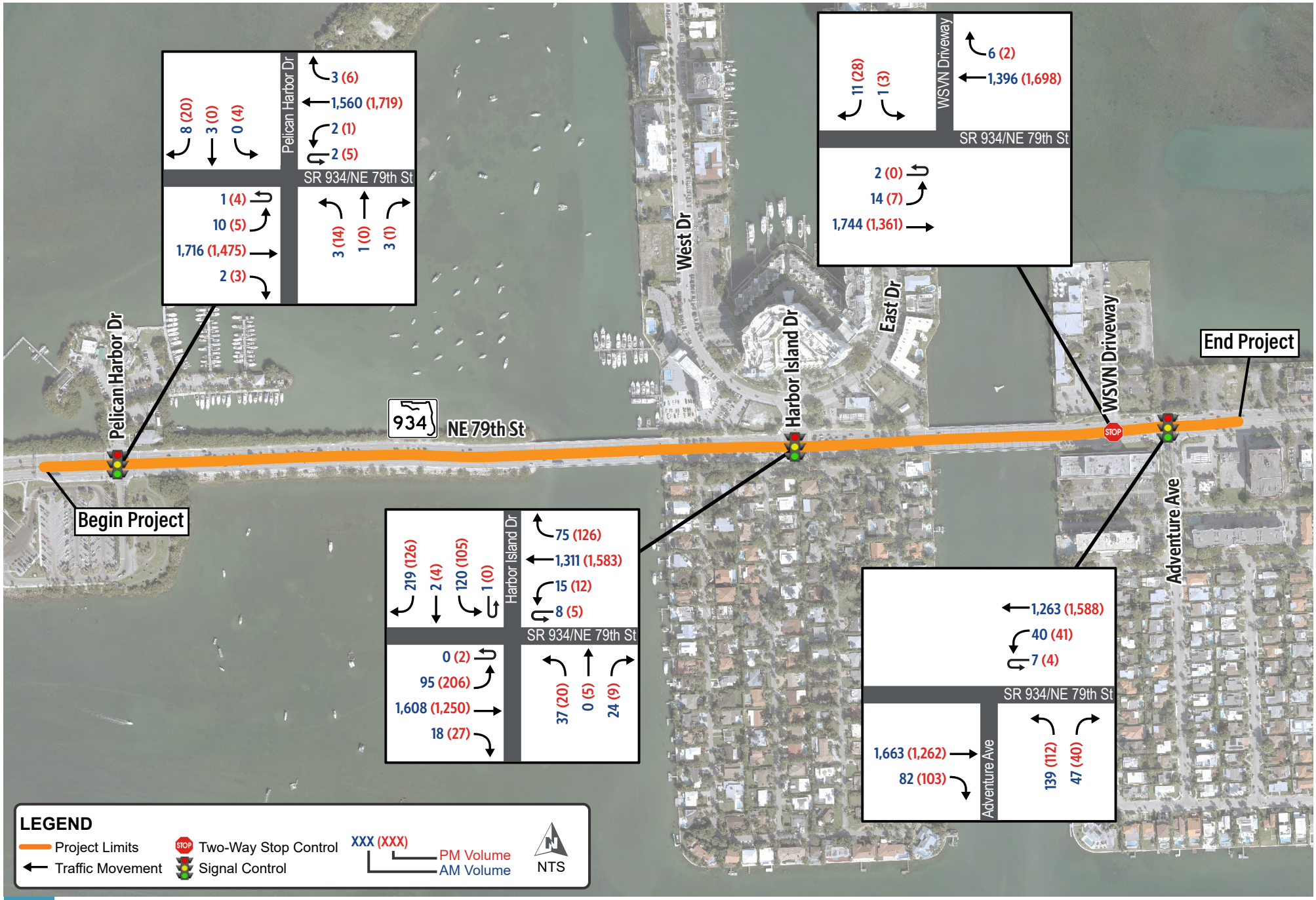
As depicted in **Figure 3.2**, existing year (2022) Annual Average Daily Traffic (AADT) volumes along SR 934/NE 79th Street are between 38,500 vehicles per day and 42,000 vehicles per day. Daily volumes on the minor cross streets are varied. Volumes on Pelican Harbor Drive north and south of SR 934/NE 79th Street are less than 1,000 vehicles per day. At Harbor Island Drive north of SR 934/NE 79th Street, the recorded daily volume was 7,200 vehicles per day, while south of the corridor it was only 1,200 vehicles per day. Finally, near the eastern terminus of the study area, the daily traffic volume on the WSVN driveway was approximately 600 vehicles per day, while daily volumes on Adventure Avenue south of SR 934/NE 79th Street was 3,400 vehicles per day.

Existing year (2022) peak hour turning movement counts were collected at each of the four study intersections. Based on the collected data, a system-wide AM and PM peak hour was determined to be 8:00 AM to 9:00 AM and 5:00 PM to 6:00 PM, respectively. **Figure 3.3** graphically depicts the approved peak hour turning movement data at each intersection. **Figure 3.4** shows the existing year (2022) peak hour pedestrian and bicycle volumes on crosswalks at each intersection.

SR 934/NE 79TH STREET PD&E STUDY

EXISTING YEAR (2022) AADT VOLUMES

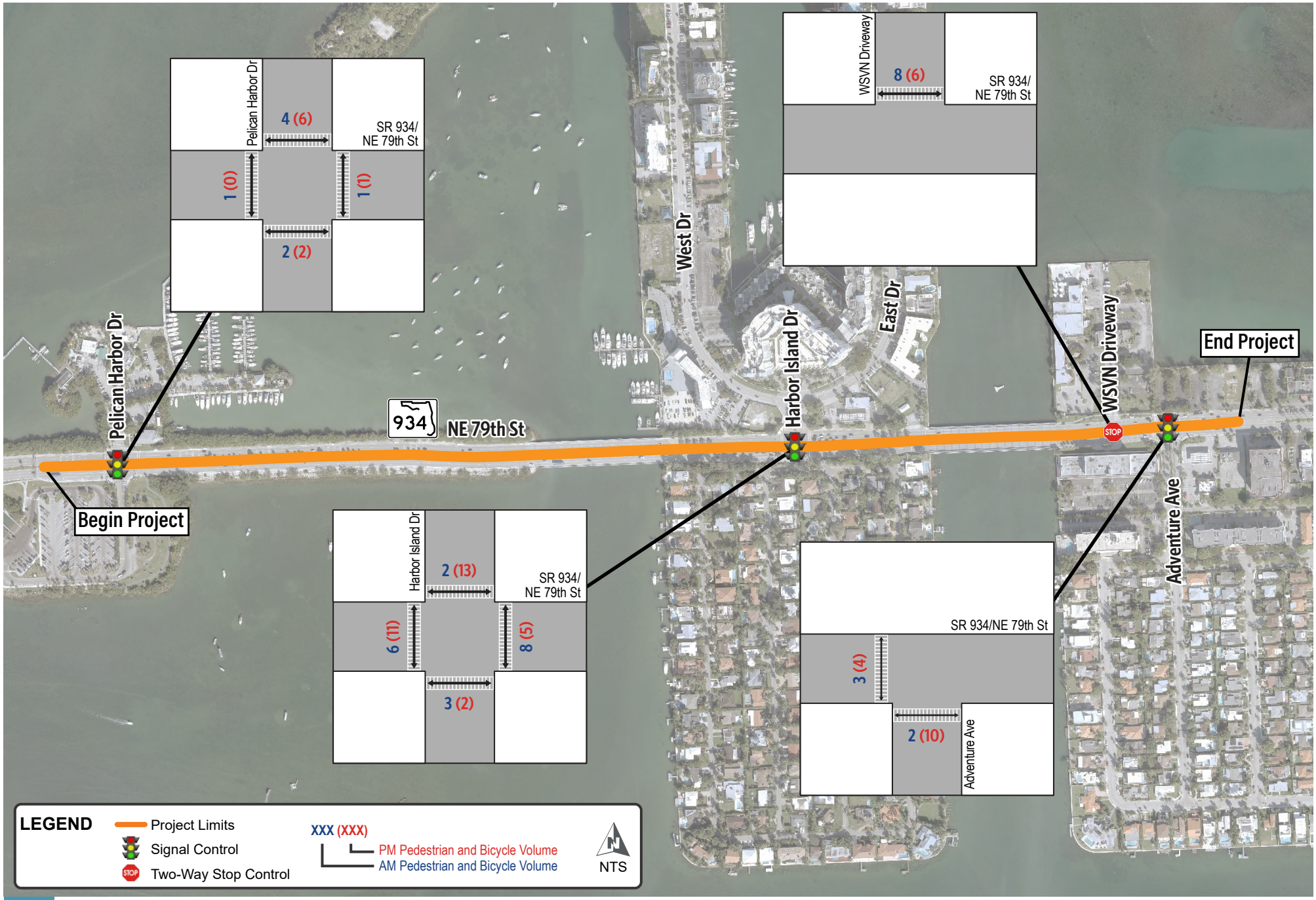
FIGURE 3.2



SR 934/NE 79TH STREET PD&E STUDY

EXISTING YEAR (2022) INTERSECTION TURNING MOVEMENT VOLUMES

FIGURE 3.3



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SR 934/NE 79TH STREET PD&E STUDY

EXISTING YEAR (2022) PEDESTRIAN AND BICYCLE VOLUMES ON CROSSWALKS

FIGURE 3.4

3.4 Existing Traffic Operations

Existing conditions analysis was performed to evaluate the traffic operations of the SR 934/NE 79th Street corridor and the four noted study intersections. As described in the approved Traffic Analysis Methodology, dated September 22, 2022, Synchro 11 and Highway Capacity Manual (HCM) 6th Edition methodologies were utilized for the analysis. Key measures of effectiveness for the intersection analyses include target level of service (LOS), vehicular delay, volume-to-capacity ratios, and 95th percentile queue lengths. The 95th percentile queue lengths were estimated based on Synchro 11 methodology. For the arterial analysis, the measures of effectiveness are target LOS and travel speed. Arterial LOS and travel speed was calculated using Synchro 11 methodologies.

The existing conditions traffic operations analysis accounted for the existing pedestrian and bicycle activity counted in the crosswalks and included conflicting volumes and number of calls for pedestrian phasing. For analysis purposes, no right-turn-on-red (RTOR) was assumed for existing conditions at all study area intersections. This is consistent with HCM 6 guidelines to not include RTOR unless counted in the field, as well as the recommendation to not include RTOR for future conditions. Traffic operations analyses are based on current signal timings as obtained from the Traffic Signals and Signs Division of the Miami-Dade County Department of Transportation and Public Works (DTPW). The existing signal timings are included in **Appendix C**. Traffic analysis factors, such as peak hour factors and peak hour truck percentages, are based on approved values documented in the Traffic Analysis Methodology, dated September 22, 2022, and the Traffic Forecasting memorandum dated April 4, 2024.

3.4.1. Intersection Level of Service Analysis

Detailed intersection traffic operations analyses of existing AM and PM peak hour conditions have been conducted. Analyses are prepared consistent with Synchro 11 and HCM 6 methodologies, where appropriate, and intersection capacity analysis worksheets are included in **Appendix D**. Due to the limitations of HCM 6 in analyzing non-standard signal phasing, i.e. split phasing, HCM 2000 methodologies were used for the SR 934/NE 79th Street at Harbor Island Drive intersection. **Tables 3.1** through **3.12** summarize the findings of the intersection capacity analyses, including calculated queue lengths by movement for each intersection. These queue lengths were validated based on field reviews observing current AM and PM peak hour operating conditions on October 4, 2023. Although the field observations occurred a year after traffic volume data was collected, schools were in session for both time periods and seasonal travel patterns were similar.

3.4.1.1 Pelican Harbor Drive Intersection

Results of the intersection capacity analysis indicate that the intersection of SR 934/NE 79th Street at Pelican Harbor Drive presently operates at LOS A during both the AM and PM peak hours. Overall intersection delays are 4.1 and 4.8 seconds per vehicle, respectively. All individual intersection turn movements operate at LOS D or better during both peak periods, and all movements function with a volume-to-capacity ratio below 0.46. Queue lengths are contained within each movement's turn lane storage bay during both peak periods, and no spillback into adjacent lanes occurs.

Table 3.1 Pelican Harbor Drive - Existing AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- AM PEAK HOUR						
			Volume	Movement			Overall Intersection		
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS	
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	11	2.6	A	0.04	4.1	A	
		TH	1,716	3.7	A	0.46			
		RT	2	2.1	A	0.00			
	WB	LT/UT	4	2.9	A	0.01			
		TH	1,560	3.8	A	0.40			
		RT	3	4.1	A	0.40			
	NB	LT	3	52.3	D	0.03			
		TH	1	0.0	A	0.00			
		RT	3	51.9	D	0.07			
	SB	LT	0	0.0	A	0.00			
		TH	3	0.0	A	0.00			
		RT	8	53.2	D	0.22			

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.2 Pelican Harbor Drive - Existing PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- PM PEAK HOUR						
			Volume	Movement			Overall Intersection		
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS	
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	9	3.3	A	0.02	4.8	A	
		TH	1,475	3.9	A	0.38			
		RT	3	2.5	A	0.00			
	WB	LT/UT	6	3.1	A	0.00			
		TH	1,719	4.4	A	0.44			
		RT	6	4.7	A	0.44			
	NB	LT	14	51.6	D	0.13			
		TH	0	0.0	A	0.00			
		RT	1	49.5	D	0.01			
	SB	LT	4	49.7	D	0.03			
		TH	0	0.0	A	0.00			
		RT	20	51.2	D	0.25			

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.3 Pelican Harbor Drive - Existing AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			AM	PM
			Existing (2022)	Existing (2022)
SR 934/NE 79th Street at Pelican Harbor Drive	EBL/U	200	11	9
	EBT		421	325
	EBR	200	0	0
	WBL/U	200	6	7
	WBT/R		364	411
	NBL	250	9	24
	NBT/R		9	0
	SBL	50	0	11
	SBT/R		16	0

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

3.4.1.2 Harbor Island Drive Intersection

As summarized in **Table 3.4** and **Table 3.5**, results of the intersection capacity analysis indicate that the intersection of SR 934/NE 79th Street at Harbor Island Drive operates at LOS C during the existing AM and PM peak periods. Overall intersection delays are approximately 24.6 and 33.5 seconds per vehicle, respectively. All individual intersection turn movements operate at LOS E or better during both peak periods and all movements function with a volume-to-capacity ratio below 0.79. Because of the split phased operation employed for the minor street at this intersection, which is a non-standard NEMA phasing configuration not supported under the HCM 6 methodology, the capacity analysis was based on HCM 2000 methodology.

Queue lengths during the AM peak hour are generally stored within the turn lane storage bays along SR 934/NE 79th Street without affecting the arterial roadway's operations. However, during the existing PM peak hour the eastbound left-turn movement has a 95th percentile queue length of approximately 441 feet, which exceeds the turn lane storage of 180 feet by about 261 feet (or ten vehicle lengths). The westbound right-turn movement during the existing PM peak hour has a 95th percentile queue length of approximately 140 feet, which exceeds the turn lane storage of 120 feet by 20 feet (or approximately one vehicle length). Also, it is noted that the eastbound and westbound through movements have a 95th percentile queue length of 454 and 640 feet, respectively. These through movement queues are likely to block access to the adjacent turn lanes, resulting in shorter queues than what is being reported in Synchro.

The northbound left turn has a 95th percentile queue length of 67 feet during the AM peak hour and 45 feet during the PM peak hour, which exceeds the turn lane storage of 25 feet. The southbound left turn has a 95th percentile queue length of 106 feet during the AM peak hour and 98 feet during the PM peak hour, which exceeds the turn lane storage of 65 feet. During the existing AM and PM peak hour the southbound right-turn movement has a 95th percentile

queue length of 159 feet and 104 feet, respectively, which exceeds the turn lane storage of 65 feet.

The field observation verified that the northbound and southbound queues do not negatively affect the operation of SR 934/NE 79th Street. Southbound queues exceeding storage capacity are accommodated by the capacity of the adjacent stop-controlled intersection (East Drive/West Drive and Harbor Island Drive Intersection). Vehicles were observed waiting at East Drive and West Drive until they could find storage space at Harbor Island Drive. A comparable situation was noted for the northbound queues, which are accommodated by the North Bay Island driveway capacity.

Table 3.4 Harbor Island Drive - Existing AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- AM PEAK HOUR						
			Volume	Movement			Overall Intersection		
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	95	11.9	B	0.32	24.6	C
		TH	1,608	17.4	B	0.56		
		RT	18	7.4	A	0.02		
	WB	LT/UT	23	13.4	B	0.17		
		TH	1,311	22.1	C	0.51		
		RT	75	11.4	B	0.08		
	NB	LT	37	66.5	E	0.28		
		TH	0	66.0	E	0.22		
		RT	24	66.0	E	0.22		
	SB	LT/UT	121	66.0	E	0.43		
		TH	2	66.1	E	0.44		
		RT	219	70.1	E	0.79		

Notes:

1) Existing Conditions LOS and delay results based on HCM 2000 methodologies.

2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.5 Harbor Island Drive - Existing PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- PM PEAK HOUR						
			Volume	Movement			Overall Intersection		
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS	
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	208	42.6	D	0.62	33.5	C	
		TH	1,250	17.3	B	0.44			
		RT	27	8.3	A	0.03			
	WB	LT/UT	17	21.0	C	0.09			
		TH	1,583	43.4	D	0.77			
		RT	126	20.1	C	0.16			
	NB	LT	20	65.6	E	0.17			
		TH	5	65.0	E	0.12			
		RT	9	65.0	E	0.12			
	SB	LT/UT	105	62.4	E	0.32			
		TH	4	62.4	E	0.31			
		RT	126	42.3	D	0.30			

Notes:

1) Existing Conditions LOS and delay results based on HCM 2000 methodologies.
2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.6 Harbor Island Drive - Existing AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			AM	PM
			Existing (2022)	Existing (2022)
SR 934/NE 79th Street at Harbor Island Drive	EBL/U	180	91	**#441**
	EBT		640	454
	EBR	125	13	18
	WBL/U	180	17	m24
	WBT		535	684
	WBR	120	77	**140**
	NBL	25	**67**	**45**
	NBT/R		50	34
	SBL/U	65	**106**	**98**
	SBT		107	96
	SBR	65	**159**	**104**

Notes:

1) **RED** = 95th percentile queue length exceeds available storage.
2) 95th percentile queue length based on Synchro 11 methodology.
3) m = volume for 95th percentile queue is metered by upstream signal.
4) # = 95th percentile volume exceeds capacity, queue may be longer.

3.4.1.3 WSVN Driveway Intersection

This intersection is unsignalized and operates under two-way stop-control. Results of the intersection capacity analysis are summarized in **Table 3.7** and **Table 3.8.** The results indicate that the southbound shared left-turn and right-turn movement at the WSVN Driveway operates at LOS C and LOS D during the existing AM and PM peak hours, respectively. Individual movement delays range between 20.7 seconds per vehicle and 30.8 seconds per vehicle. It is noted that the peak hour volumes present on the minor street are relatively low, and the corresponding volume-to-capacity ratios range between 0.05 and 0.20. This signifies that adequate capacity is provided for the minor street turn movements operating under stop control.

The eastbound left-turn movement on SR 934/NE 79th Street presently operates at LOS C with 20.7 seconds of delay during the AM peak hour, and LOS D with 30.1 seconds of delay during the PM peak hour. Adequate gaps in the oncoming traffic stream are produced by the signalized intersection at Adventure Avenue, which permits the eastbound left-turn movement to safely complete the turn during peak periods.

Since eastbound and westbound through movements operate under free flow conditions, no through movement queues are directly formed as a result of this intersection's operations. However, the eastbound left-turn movement must await adequately sized gaps in the opposing traffic flow. Such traffic flow characteristics result in modest queues that are often one vehicle length (25 feet) or less during the peak period. Such a queue is accommodated by the current turn lane storage bay, but the existing condition is substandard.

Table 3.7 WSVN Driveway - Existing AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	16	20.7	C	0.07	0.2	A
		TH	1,744	0.0	A	0.00		
	WB	TH	1,396	0.0	A	0.00		
		RT	6	0.0	A	0.00		
	SB	LT/RT	12	21.6	C	0.05		

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

Table 3.8 WSVN Driveway - Existing PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	7	30.1	D	0.05	0.4	A
		TH	1,361	0.0	A	0.00		
	WB	TH	1,698	0.0	A	0.00		
		RT	2	0.0	A	0.00		
	SB	LT/RT	31	30.8	D	0.20		

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

Table 3.9 WSVN Driveway - Existing AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			AM	PM
			Existing (2022)	Existing (2022)
SR 934/NE 79th Street at WSVN Driveway	EBL/U	70	5	5
	EBT		0	0
	WBT		0	0
	WBR		0	0
	SBL/R		5	18

Notes:

1) 95th percentile queue length based on HCM 6 methodology.

3.4.1.4 Adventure Avenue Intersection

As summarized in **Table 3.10** and **Table 3.11**, results of the capacity analysis indicate that the intersection of SR 934/NE 79th Street at Adventure Avenue operates at LOS A during the existing AM and PM peak periods. Overall intersection delays are approximately 6.2 and 5.7 seconds per vehicle, respectively. All individual intersection turn movements operate at LOS E or better during both peak periods and all movements function with a volume-to-capacity ratio below 0.85.

Existing queue lengths on SR 934/NE 79th Street at Adventure Avenue are accommodated by the current turn lane storage bays. The westbound left-turn queue is approximately 30 feet during both the AM and PM peak hours, and drivers typically are able to clear the signalized intersection within a single cycle.

Table 3.10 Adventure Avenue - Existing AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	1,663	0.7	A	0.48	6.2	A
		RT	82	1.2	A	0.48		
	WB	LT/UT	47	3.9	A	0.15		
		TH	1,263	3.8	A	0.32		
	NB	LT	139	75.0	E	0.85		
		RT	47	64.2	E	0.33		

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.11 Adventure Avenue - Existing PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Existing Conditions (2022) -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	1,262	0.4	A	0.38	5.7	A
		RT	103	0.8	A	0.38		
	WB	LT/UT	45	3.4	A	0.12		
		TH	1,588	3.8	A	0.41		
	NB	LT	112	76.1	E	0.82		
		RT	40	66.0	E	0.33		

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing splits were provided by Miami-Dade County.

Table 3.12 Adventure Avenue - Existing AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			AM	PM
			Existing (2022)	Existing (2022)
SR 934/NE 79th Street at Adventure Avenue	EBT		519	603
	EBR		0	0
	WBL/U	150	30	30
	WBT		220	315
	NBL		188	158
	NBR	400	36	33

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

3.4.2. Arterial Level of Service Analysis

A corridor analysis was performed along SR 934/NE 79th Street from Pelican Harbor Drive to Adventure Avenue. Roadway segments were defined between the three signalized intersections of the study area, and analysis was performed using Synchro 11 software. The arterial roadway segment analysis results are summarized in **Table 3.13** and **Table 3.14** for the existing AM and PM peak hours. **Appendix E** includes the arterial analysis worksheets for the existing conditions assessment.

Arterial analysis results show that eastbound SR 934/NE 79th Street currently operates at LOS C during the AM and PM peak hours. Overall corridor speeds in the eastbound direction are estimated to be 21.1 and 20.5 mph in the AM and PM peak hours, respectively. Each of the three roadway segments is operating at LOS D or better during both peak periods. Westbound SR 934/NE 79th Street is operating at LOS C during the AM and PM peak hours . Travel speeds for westbound traffic are approximately 22.2 mph and 19.8 mph in the AM and PM peak hours, respectively.

Table 3.13 Arterial Travel Time & LOS Summary – Existing AM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Existing Conditions (2022) -- AM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	6.5	31.9	22.6	C
		Harbor Island Drive	30	64.8	20.3	85.1	21.6	C
		Adventure Avenue	30	35.7	16.2	51.9	19.5	C
		Total		**125.9**	**43.0**	**168.9**	**21.1**	**C**
	WB	Adventure Avenue	30	32.5	6.0	38.5	24.0	C
		Harbor Island Drive	30	35.7	24.9	60.6	16.7	D
		Pelican Harbor Drive	30	64.8	6.1	70.9	25.9	B
		Total		**133.0**	**37.0**	**170.0**	**22.2**	**C**

Table 3.14 Arterial Travel Time & LOS Summary – Existing PM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Existing Conditions (2022) -- PM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	6.3	31.7	22.7	C
		Harbor Island Drive	30	64.8	19.7	84.5	21.7	C
		Adventure Avenue	30	35.7	22.5	58.2	17.4	D
		Total		**125.9**	**48.5**	**174.4**	**20.5**	**C**
	WB	Adventure Avenue	30	32.5	6.4	38.9	23.7	C
		Harbor Island Drive	30	35.7	43.5	79.2	12.8	E
		Pelican Harbor Drive	30	64.8	7.0	71.8	25.6	B
		Total		**133.0**	**56.9**	**189.9**	**19.8**	**C**

3.5 Existing Conditions Safety Analysis

Existing crash analysis was performed and documented as a part of the Project Traffic Analysis Report. A brief synopsis of the existing safety analysis findings are provided below. For a more detailed summary, the Existing Safety Analysis memorandum, dated April 2024, is included in **Appendix F**.

Crash data for the five-year period from January 1, 2018, through December 31, 2022, was gathered from the Signal Four Analytics database. The three signalized study intersections and corresponding roadway segments were evaluated. In addition to the five-year crash summaries, the analysis utilized crash rates, statewide average crash rates and High Crash Location lists to identify high crash locations.

As documented in the Existing Safety Analysis memorandum, no intersection or roadway segment has been identified as a high crash location by FDOT.

Based on the crash data obtained from Signal Four Analytics for the five-year period, a total of 170 crashes were identified within the study area. There were 45 crashes reported in 2018, 45 crashes in 2019, 13 crashes in 2020, 33 crashes in 2021 and 34 crashes in 2022. The low crash frequency identified in 2020 can likely be attributed to the effects of the Covid-19 Pandemic.

There were 139 reported crashes involving property damage only; 30 crashes involving injuries; and one (1) fatal crash (which occurred in 2022) was reported during the five-year period. Rear-end crashes were the most reported crash type accounting for 92 crashes (54.1% of all crashes). Sideswipe crashes were the second highest crash type accounting for 37 crashes (21.8% of all crashes). Most of the crashes (71.8%) occurred during the daytime.

Based on the crash data for the five-year period, 71.8% of all reported incidents (122) occurred during daylight, while only a small percentage of crashes happened during dawn and dusk conditions (1.8% (3) and 1.2% (2), respectively). Dark condition was associated with 25.3% of the total crashes (43). In terms of weather conditions, there were 148 reported crashes during the clear weather condition while cloudy and rain conditions accounted for 5.3% (9) and 7.6% (13) of the total crashes, respectively. Distracted driving was reported in 8.2% (14) of total crashes.

The sole fatal crash within the study area occurred in 2022. It was a single vehicle crash where the vehicle left the roadway between Pelican Harbor Drive and Harbor Island Drive and crashed into the rocks and water.

3.5.1. Pelican Harbor Drive Intersection

At the intersection of SR 934/NE 79th Street and Pelican Harbor Drive, a total of 47 crashes were reported between 2018 and 2022. Rear-end was the most reported crash type, accounting for 25 crashes (53.2% of all crashes). Additionally, there were nine (9) sideswipe crashes reported at the intersection. Per the Highway Safety Manual (HSM), possible contributing factors for the high number of reported rear-end crashes include inappropriate approach speeds, poor visibility of signals, and unexpected stops on approach.

Property damage only were reported for 39 crashes, while eight (8) crashes involved injuries. No fatal crashes occurred at the intersection during the 5-year analysis period. One (1) pedestrian and two (2) bicycle crashes were recorded during the five-year period. Based on analysis contained within the Existing Safety analysis memorandum and a review of available FDOT information, this intersection is not listed on the FDOT D6 Five-Year High Crash Location list.

3.5.2. Harbor Island Drive Intersection

There was a total of 60 crashes reported at the intersection of SR 934/NE 79th Street and Harbor Island Drive/North Bay Island between 2018 and 2022. Rear-end crashes were the most reported crash type, accounting for 31 crashes (51.7% of all crashes). There also were 17 sideswipe crashes reported at the intersection. Possible contributing factors for the high number of reported sideswipe crashes include unexpected stops on an intersection approach, excessive speeds, and narrow lanes.

Of the total number of crashes at the intersection, 54 involved property damage only, and six (6) crashes involved injuries. No fatal crashes were reported at this location between 2018 and 2022. The intersection of SR 934/NE 79th Street and Harbor Island Drive is not listed on the FDOT-D6 Five-Year High Crash Location list.

3.5.3. Adventure Avenue Intersection

A total of 21 crashes were reported at the intersection of SR 934/NE 79th Street and Adventure Avenue during the five-year period from 2018 to 2022. Rear-end was the most reported crash type, accounting for 11 crashes (52.4% of all crashes). Additionally, there were four (4) sideswipe crashes reported at the intersection. One (1) bicycle crash was recorded during the five-year period.

Property damage only crashes accounted for 16 crashes, while there were five (5) injury crashes. No fatal crashes were reported at the Adventure Avenue intersection between 2018 and 2022. This intersection is not listed on the D6 Five-Year High Crash Location list.

3.5.4. Roadway Segment between Pelican Harbor Drive and Harbor Island Drive

On SR 934/NE 79th Street between Pelican Harbor Drive and Harbor Island Drive/North Bay Island, a total of 34 crashes were reported during the five-year period between 2018 and 2022. Within this segment, rear-end crashes were the most reported crash type, accounting for 21 crashes (61.8% of all crashes). There also were four (4) non-collision crashes reported within the segment. The non collision crashes were due to the drivers losing control and striking the barriers.

Property damage only crashes were reported in 24 crashes, while nine (9) crashes involved injuries. There was one (1) fatal crash reported within this roadway segment during the five-year study period. Based on analysis contained within the Existing Safety analysis memorandum and a review of available FDOT information, this roadway segment of SR 934/NE 79th Street is not identified on the D6 Five-Year High Crash Location list.

3.5.5. Roadway Segment between Harbor Island Drive and Adventure Avenue

SR 934/NE 79th Street between Harbor Island Drive/North Bay Island and Adventure Avenue experienced 8 crashes between 2018 and 2022. Rear-end was the most reported crash type, accounting for four (4) crashes.

Of the total number of reported crashes, six (6) crashes involved property damage only, while two (2) were injury crashes. No fatal crashes were reported within this segment of SR 934/NE 79th Street between 2018 and 2022. Based on current data, the segment is not listed on the D6 Five-Year High Crash Location list.

4 Future Conditions

Future year conditions are based on a No Build Alternative and Build Alternatives. The No-Build Alternative assumes that no improvements would be implemented within the project corridor. It serves as a baseline for comparison against the other four Build alternatives. The Build alternatives are potential improvements to the four bridges that exist along SR 934/NE 79th Street within the study area. These four Build alternatives are:

- Alternative 1A: Minor Rehabilitation Alternative -- the bridges' current deficiencies per the latest bridge inspection reports are remediated.
- Alternative 1B: Major Rehabilitation Alternative -- the bridges' superstructures are replaced while their substructures remain as existing.
- Alternative 2A: Replacement Alternative (low-profile) -- the four existing bridges are removed and replaced with two bridge structures that have similar profiles to the existing bridges.
- Alternative 2B: Replacement Alternative (raised profile) -- the four existing bridges are removed and replaced with two bridge structures. The Proposed Profile is raised approximately 6 feet so the proposed bridges meet the FDOT minimum vertical clearance requirement.

The traffic forecast analysis confirms the need to maintain the existing 6-lane section on SR 934/NE 79th Street, therefore the opening year and design year analysis does not include any roadway capacity improvements. Intersection analysis was performed to identify the need for improvements, including turn bay storage lengths and signal phasing modifications. Because there are no capacity improvements proposed under any of the Build alternatives, the roadway and intersection conditions under the No-Build and Build alternatives are the same.

4.1 Future Travel Demand Forecast

A revised technical Traffic Forecasting Memorandum was prepared on April 4, 2024, on behalf of the SR 934/NE 79th Street PD&E Study. The memorandum documents the data, factors, existing traffic volumes, transportation model subarea validation efforts, and resultant Opening Year and Design Year daily and intersection peak hour turning movement volumes. The Traffic Forecasting Memorandum is included in **Appendix B**.

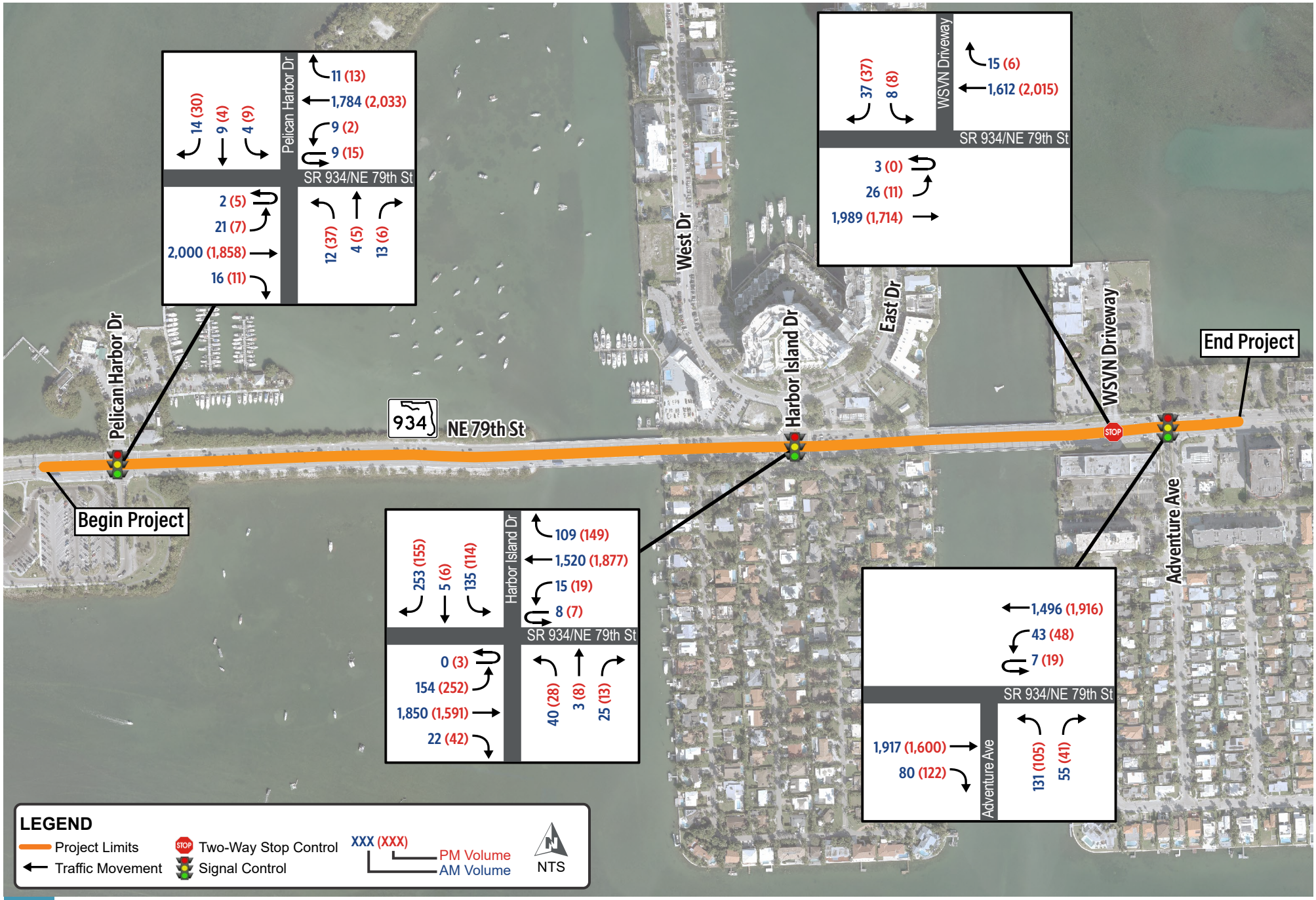
Based on the analysis, the agreed upon annual growth rate for SR 934/NE 79th Street from west of Pelican Harbor Drive to east of Adventure Avenue is 0.56 percent. This represents an average of the validated SERPM model growth rates along the corridor's segments and is consistent with the lower growth projected for the TAZs east of the causeway compared to the mainland. Future Design Year (2050) AADTs along SR 934/NE 79th Street are projected to be between 44,500 vehicles per day and 48,500 vehicles per day. **Figure 4.1** graphically depicts the Opening Year and Design Year AADTs within the study area. **Figures 4.2** and **4.3** graphically depict the AM and PM peak hour intersection turning movement volumes for 2030 and 2050 conditions, respectively.

HDR FDOT

SR 934/NE 79TH STREET PD&E STUDY

FUTURE YEARS (2030 AND 2050) AADT VOLUMES

FIGURE 4.1

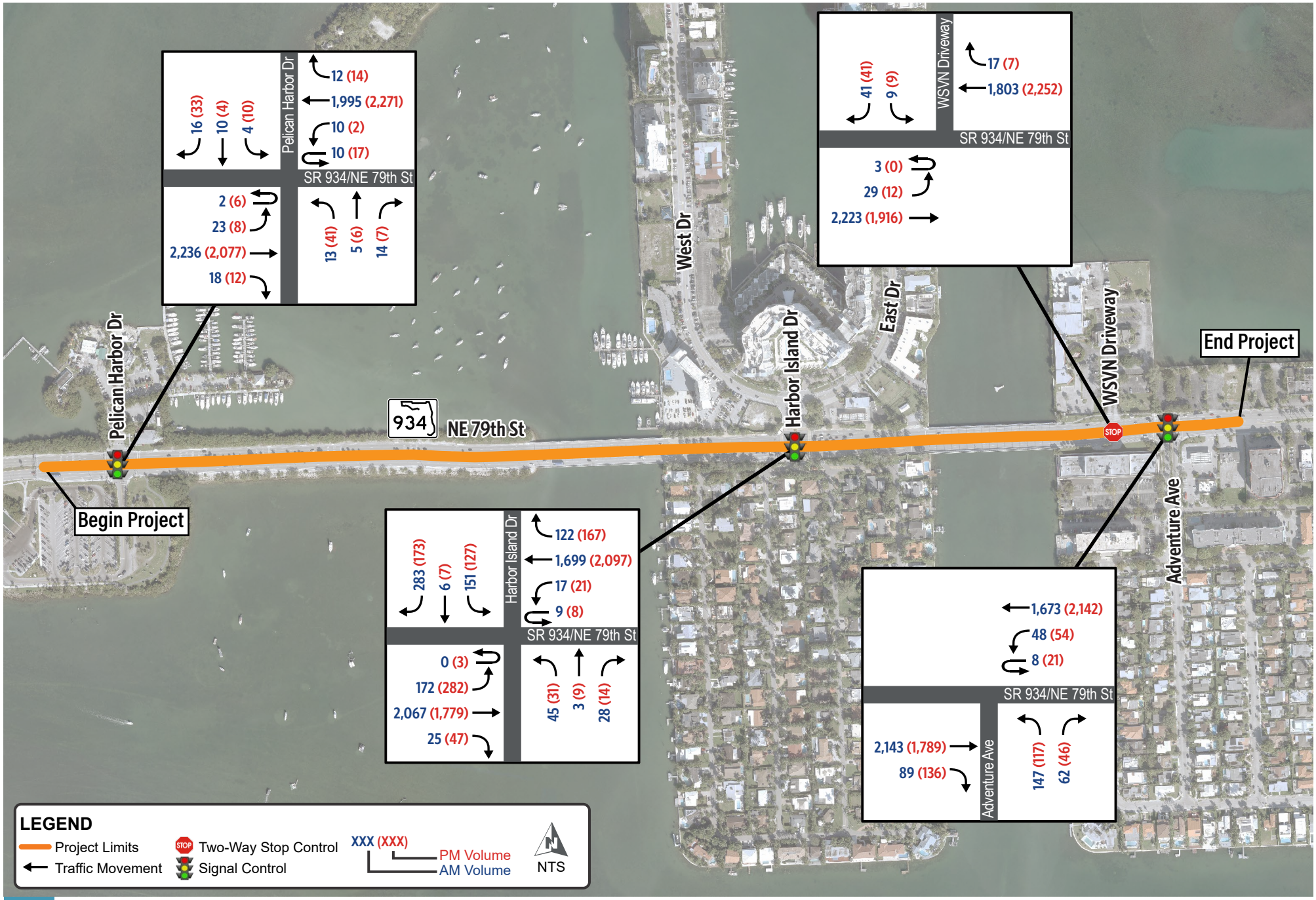


HDR FDOT

SR 934/NE 79TH STREET PD&E STUDY

OPENING YEAR (2030) INTERSECTION TURNING MOVEMENT VOLUMES

FIGURE 4.2



SR 934/NE 79TH STREET PD&E STUDY

DESIGN YEAR (2050) INTERSECTION TURNING MOVEMENT VOLUMES

FIGURE 4.3

4.2 Future Intersection Control Evaluation

An Intersection Control Evaluation (ICE) Stage 1 screening assessment was conducted for the four intersections along the SR 934/NE 79th Street corridor study area. This analysis was prepared consistent with the procedures outlined in the Manual on Intersection Control Evaluation, dated January 2023.

Stage 1 screening assessments include potential intersection control strategies and evaluates them using Capacity Analysis for Planning of Junctions (CAP-X) and Safety Performance for Intersection Control Evaluation (SPICE) worksheet tools, and the findings are summarized in the ICE Form. Such worksheet tools and forms are provided for each intersection in **Appendix G**.

4.2.1. SR 934/NE 79th Street at Pelican Harbor Drive

The intersection at Pelican Harbor Drive is currently signalized and consists of four approaches. The south approach provides access for a public boat launch and park. As a result, vehicles utilizing the south approach often include boat trailers and represent a lengthy design vehicle.

Intersection control strategies that were reviewed include:

- Signal Control
- Roundabout
- Median U-turn (MUT)
- Partial Median U-turn (PMUT)
- Restricted Crossing U-turn (RCUT) - signalized
- Thru Cut - signalized

CAP-X analyses were performed for the noted potential intersection control strategies. Results summarized in the ICE Form reveal that all of the control strategies will have adequate capacity through 2050 except a Roundabout. Analyses indicate that a Roundabout will have volume-to-capacity ratios in excess of 1.0 during the 2050 PM peak period. Hence, a Roundabout control strategy is not considered viable at this location.

SPICE was also conducted to evaluate and rank each of the intersection control strategies. Results indicate that the top ranked control strategies are Signal Control, MUT, and RCUT (signalized).

The SR 934/NE 79th Street corridor is a constrained system where bridges link small, narrow islands to the barrier island and mainland, and water surrounds much of the corridor. Consequently, a review of the physical viability of implementing various intersection control strategies was performed. This review revealed that the MUT, PMUT, and RCUT are not feasible strategies because the necessary U-turn movements would impact the bridges located east and west of the intersection. It would also require large bulbouts to accommodate the U-turn maneuvers where an insufficient amount of land exists to construct such a feature without a structure.

The signalized Thru Cut strategy would require excessive re-routing that is considered unreasonable. Northbound and southbound through movements at the intersection would have to turn right or left at the intersection, rather than travel directly through the intersection. These drivers would instead travel west across a bridge to the mainland or east across a bridge to access Harbor Island Drive. Then, the driver would complete a U-turn maneuver to travel back to Pelican Harbor Drive. Such maneuvers add more than one mile to the trip length that is currently accommodated by simply traveling through the signalized intersection.

The remaining intersection control strategy is Signal Control, which is currently employed at the intersection. CAP-X analysis indicates Design Year (2050) volumes can be accommodated with volume-to-capacity ratios less than 0.58 during both peak periods. With additional multimodal accommodations, Signal Control is the one viable control strategy for the Pelican Harbor Drive intersection.

4.2.2. SR 934/NE 79th Street at Harbor Island Drive

Harbor Island Drive at SR 934/NE 79th Street is currently signalized and consists of four approaches. The intersection operates with split phasing for the northbound and southbound approaches due to lane configurations. Further, it is situated about 420 feet between bridges to the east and west that connect the Harbor Island/North Bay Island to the mainland and barrier island.

Intersection control strategies that were reviewed include:

- Signal Control
- Roundabout
- Median U-turn (MUT)
- Partial Median U-turn (PMUT)
- Restricted Crossing U-turn (RCUT) - signalized
- Thru Cut - signalized

CAP-X analyses were performed for the noted potential intersection control strategies. Results summarized in the ICE Form reveal that all control strategies will have adequate capacity through 2050 except a Roundabout. Analyses indicate that a Roundabout will have volume-to-capacity ratios in excess of 1.0 during the 2050 AM and PM peak hours. As a result, a Roundabout control strategy is not considered viable at the Harbor Island Drive intersection.

SPICE was also conducted to evaluate and rank each of the intersection control strategies. Results indicate that the top ranked control strategies are Signal Control, MUT, and PMUT.

The proximity the Harbor Island Drive intersection has to the bridges immediately adjacent to the west and east presents a physical constraint concerning the viability of various types of alternative intersection control strategies. Consequently, a review of the physical viability of implementing various intersection control strategies was performed. This review revealed that the MUT, PMUT, and RCUT are not feasible strategies because the necessary U-turn movements would impact the bridges located east and west of the intersection. It would also

require large bulb-outs to accommodate the U-turn maneuvers where an insufficient amount of land exists to construct such a feature without acquiring right-of-way.

Implementing a signalized Thru Cut configuration would require excessive re-routing of northbound and southbound drivers. These through movements at the intersection would have to turn right or left at the intersection, rather than travel directly through the intersection. Instead, they would travel west across a bridge just east of Pelican Harbor Drive or east across a bridge to a location east of Adventure Avenue. Then, the driver would complete a U-turn maneuver to travel back to Harbor Island Drive. Such maneuvers add unnecessary travel time and trip length that is currently accommodated by simply traveling through the signalized intersection.

The remaining intersection control strategy is Signal Control, which is currently employed at the intersection. CAP-X analysis indicates Design Year (2050) volumes can be accommodated with volume-to-capacity ratios less than 0.79 during both peak periods. With additional multimodal accommodations, Signal Control is the one viable control strategy for the Harbor Island Drive intersection.

4.2.3. SR 934/NE 79th Street at WSVN Driveway

SR 934/NE 79th Street at WSVN Driveway is currently an unsignalized tee intersection that operates under two-way stop control. Traffic flow on SR 934/NE 79th Street is free flow, while the north approach is controlled by a stop sign. The intersection is located about 200 feet west of the signalized intersection at Adventure Avenue and about 200 feet east of a bridge.

Intersection control strategies that were reviewed include:

- Two-Way Stop Control
- Signal Control
- Roundabout
- Median U-turn (MUT)
- Partial Median U-turn (PMUT)
- Restricted Crossing U-turn (RCUT) – unsignalized
- Continuous Green Tee

CAP-X analyses were performed for the noted potential intersection control strategies. Results summarized in the ICE Form reveal that an RCUT configuration will have volume-to-capacity ratios in excess of 1.0 during the 2050 PM peak hour. In addition, Two-Way Stop Control will have volume-to-capacity ratios in excess of 1.0 during the 2050 AM peak hour and 2050 PM peak hour. As a result, an RCUT control strategy is not considered viable at the WSVN Driveway intersection. However, Two-Way Stop Control remains a viable strategy as it is currently implemented, and the close proximity to a signalized intersection at Adventure Avenue creates systemic gaps in the traffic stream that cannot be evaluated using CAP-X.

SPICE was also conducted to evaluate and rank each of the intersection control strategies. Results indicate that the top ranked control strategies are Two-Way Stop Control, RCUT, and MUT.

The unsignalized WSVN Driveway intersection is approximately 200 feet east of an existing bridge. This, coupled with the signalized intersection at Adventure Avenue, presents a physical constraint concerning the viability of various types of alternative intersection control strategies. A review of the physical viability of implementing various intersection control strategies was performed. This review revealed that the MUT and PMUT are not feasible strategies because the necessary U-turn movements would impact the bridge located west of the intersection. It would also require large bulbouts to accommodate the U-turn maneuvers where an insufficient amount of land exists to construct such a feature without acquiring right-of-way.

Signal control is also not considered a viable configuration as the traffic volumes on the cross street likely do not meet signal warrant criteria. Further, this unsignalized intersection is located just 200 feet west of an existing traffic signal. Such a distance does not support signal control and fails to satisfy access management standards for signalized intersections along the SR 934/NE 79th Street corridor.

A multilane Roundabout strategy was evaluated. Accommodating this control strategy requires a large physical footprint since SR 934/NE 79th Street consists of 3 lanes in each direction. The resultant impact upon the adjacent bridge and signalized intersection at Adventure Avenue renders this Roundabout strategy unviable.

Implementing a Continuous Green Tee configuration would provide a dedicated receiving lane for southbound left-turning vehicles onto SR 934/NE 79th Street. In addition to right-of-way needs along SR 934/NE 79th Street to provide the additional roadway width to add such a receiving lane, the physical proximity of the signalized intersection at Adventure Avenue is considered a fatal flaw for this configuration. The distance between WSVN Driveway and Adventure Avenue is approximately 200 feet, which is insufficient to accommodate an acceleration lane to safely merge southbound left-turning vehicles prior to the signalized intersection.

The remaining intersection control strategy evaluated is Two-Way Stop Control, which is currently used at the intersection. The proximity of signal control at Adventure Avenue provides artificial gaps in the traffic stream along SR 934/NE 79th Street. Such gaps allow exiting vehicles from the WSVN Driveway to enter the SR 934/NE 79th Street traffic flow. Two-Way Stop Control is the one viable control strategy for the WSVN Driveway intersection.

4.2.4. SR 934/NE 79th Street at Adventure Avenue

The intersection of SR 934/NE 79th Street and Adventure Avenue has a tee configuration that is currently signalized. The south approach provides access for a mixture of residential, retail, and office uses. The intersection is situated about 400 feet east of a bridge and about 200 feet east of the WSVN Driveway.

Intersection control strategies that were reviewed include:

- Signal Control
- Roundabout
- Median U-turn (MUT)

- Restricted Crossing U-turn (RCUT) – signalized
- Continuous Green Tee

CAP-X analyses were performed for the noted potential intersection control strategies. Results summarized in the ICE Form reveal that all control strategies would provide adequate capacity during both peak hours through 2050. It is noted that the Roundabout control strategy is projected to function with volume-to-capacity ratio 0.99 during the 2050 PM peak hour. Such a result suggests potential capacity deficiencies may arise given a Roundabout configuration.

SPICE was also conducted to evaluate and rank each of the intersection control strategies. Results indicate that the top ranked control strategies are Signal Control, MUT, and Continuous Green Tee.

Adventure Avenue is located approximately 400 feet east of a bridge linking this island to the Harbor Island/North Bay Island. Such proximity presents a potential constraint concerning the viability of various types of alternative intersection control strategies. Consequently, a review of the physical viability of implementing various intersection control strategies was performed. This review revealed that the Continuous Green Tee configuration is not viable. The distance between Adventure Avenue and WSVN Driveway is approximately 200 feet, which is insufficient to accommodate an acceleration lane to safely merge northbound left-turning vehicles prior to the unsignalized intersection and the bridge.

The RCUT and MUT strategies are also not feasible because the necessary U-turn movements would impact the bridge located west of the intersection. As a result, such U-turn maneuvers would have to be performed between the bridge and Harbor Island Drive, which is suboptimal spacing for such U-turns. Further, it would also require large bulb-outs to accommodate the U-turn maneuvers where an insufficient amount of land exists to construct such a feature without acquiring right-of-way.

Implementing a Roundabout configuration at SR 934/NE 79th Street and Adventure Avenue was evaluated. Accommodating this control strategy requires a large physical footprint since SR 934/NE 79th Street consists of 3 lanes in each direction. The resultant impact upon nearby intersections and the adjacent bridge, as well as the right-of-way needs in this highly developed area causes the Roundabout strategy to not be viable.

The remaining intersection control strategy is Signal Control, which is currently employed at the intersection. CAP-X analysis indicates Design Year (2050) volumes can be accommodated with volume-to-capacity ratios less than 0.63 during both peak periods. With additional multimodal accommodations and recently implemented signal timing modifications intended to enhance pedestrian safety, Signal Control is the one viable control strategy for the Adventure Avenue intersection.

4.3 Future Traffic Operations

Opening Year (2030) and Design Year (2050) future conditions analysis was performed to evaluate the traffic operations of the SR 934/NE 79th Street corridor and the four noted study intersections. Procedures outlined in the approved Traffic Analysis Methodology, dated September 22, 2022, were utilized for the analysis. Similar to existing conditions, the future traffic operations analysis accounted for the pedestrian and bicycle activity counted in the crosswalks. For analysis purposes the existing pedestrian and bicycle volumes were used for future conditions. The future conditions analysis also assumed no RTOR per HCM 6 guidelines.

Future year traffic operations analyses are based on current signal timings as obtained from the Traffic Signals and Signs Division of the Miami-Dade County Department of Transportation and Public Works (DTPW). Existing cycle lengths have been retained, although signal phasing splits may be optimized where necessary to meet LOS target. Per Traffic Analysis Methodology, dated September 22, 2022, the target LOS for SR 934 is LOS D. The minimum acceptable peak period operating LOS for SR 934 is "120% of Capacity" per Miami-Dade County Transportation Element.

4.3.1. Intersection Level of Service Analysis (Future Conditions)

Detailed intersection traffic operations analyses of future Opening Year (2030) and Design Year (2050) AM and PM peak hour conditions have been conducted. Analyses are prepared consistent with Synchro 11 and HCM 6 methodologies, where appropriate, and future conditions intersection capacity analysis worksheets are included in **Appendix H.** Due to the limitations of HCM 6 in analyzing non-standard signal phasing, i.e. split phasing, HCM 2000 methodologies were used for the SR 934/NE 79th Street at Harbor Island Drive intersection. The reported 95th percentile queue lengths and arterial LOS and travel speed were estimated based on Synchro 11 methodology.

Traffic operations analyses utilized existing intersection cycle lengths, but phase splits were optimized, where appropriate, for future conditions. **Tables 4.1** through **4.24** summarize the findings of the 2030 and 2050 intersection capacity and queuing analyses for each intersection.

4.3.1.1 SR 934/NE 79th Street at Pelican Harbor Drive

Results of the intersection capacity analysis are summarized in **Tables 4.1** through **4.6** and indicate that the intersection of SR 934/NE 79th Street at Pelican Harbor Drive will operate at LOS A during both the AM and PM peak hours under 2030 and 2050 conditions. Overall intersection delays are between 6.1 and 7.3 seconds per vehicle. All individual intersection turn movements operate at LOS D or better during both peak periods, and all movements function with a volume-to-capacity ratio below 0.61 during both the Opening Year and Design Year. Queue lengths are contained within each movement's turn lane storage bay during both peak periods under 2030 and 2050 conditions, and no spillback into adjacent lanes is anticipated to occur.

Table 4.1 Pelican Harbor Drive – Opening Year 2030 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	23	3.8	A	0.09	6.1	A
		TH	2,000	5.5	A	0.54		
		RT	16	2.9	A	0.01		
	WB	LT/UT	18	4.2	A	0.04		
		TH	1,784	5.4	A	0.47		
		RT	11	5.8	A	0.47		
	NB	LT	12	51.0	D	0.10		
		TH	4	0.0	A	0.00		
		RT	13	50.1	D	0.19		
	SB	LT	4	50.1	D	0.03		
		TH	9	0.0	A	0.00		
		RT	14	50.5	D	0.25		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.2 Pelican Harbor Drive – Opening Year 2030 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	12	4.6	A	0.04	6.5	A
		TH	1,858	5.4	A	0.50		
		RT	11	3.1	A	0.01		
	WB	LT/UT	17	4.2	A	0.01		
		TH	2,033	5.6	A	0.54		
		RT	13	5.8	A	0.54		
	NB	LT	37	52.0	D	0.29		
		TH	5	0.0	A	0.00		
		RT	6	48.0	D	0.09		
	SB	LT	9	48.5	D	0.06		
		TH	4	0.0	A	0.00		
		RT	30	49.7	D	0.32		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.3 Pelican Harbor Drive – Opening Year 2030 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2030 AM	2030 PM
SR 934/NE 79th Street at Pelican Harbor Drive	EBL/U	200	13	10
	EBT		415	440
	EBR	200	0	0
	WBL/U	200	11	13
	WBT/R		350	515
	NBL	250	25	48
	NBT/R		22	17
	SBL	50	12	17
	SBT/R		28	27

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

Table 4.4 Pelican Harbor Drive – Design Year 2050 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	25	4.5	A	0.11	6.8	A
		TH	2,236	6.3	A	0.60		
		RT	18	3.1	A	0.02		
	WB	LT/UT	20	5.1	A	0.06		
		TH	1,995	6.0	A	0.53		
		RT	12	6.4	A	0.53		
	NB	LT	13	51.1	D	0.11		
		TH	5	0.0	A	0.00		
		RT	14	50.0	D	0.20		
	SB	LT	4	50.1	D	0.03		
		TH	10	0.0	A	0.00		
		RT	16	50.6	D	0.28		

Notes:

1) Existing Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.5 Pelican Harbor Drive – Design Year 2050 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Pelican Harbor Drive	EB	LT/UT	14	5.7	A	0.05	7.3	A
		TH	2,077	6.1	A	0.56		
		RT	12	3.2	A	0.01		
	WB	LT/UT	19	4.9	A	0.01		
		TH	2,271	6.5	A	0.61		
		RT	14	6.7	A	0.61		
	NB	LT	41	51.8	D	0.31		
		TH	6	0.0	A	0.00		
		RT	7	47.5	D	0.10		
	SB	LT	10	48.2	D	0.07		
		TH	4	0.0	A	0.00		
		RT	33	49.2	D	0.32		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.6 Pelican Harbor Drive – Design Year 2050 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2050 AM	2050 PM
SR 934/NE 79th Street at Pelican Harbor Drive	EBL/U	200	13	11
	EBT		499	528
	EBR	200	0	0
	WBL/U	200	12	14
	WBT/R		413	627
	NBL	250	26	52
	NBT/R		24	18
	SBL	50	12	20
	SBT/R		31	28

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

4.3.1.2 SR 934/NE 79th Street at Harbor Island Drive

As summarized in **Tables 4.7** through **4.12**, results of the future conditions intersection capacity analysis indicate that the intersection of SR 934/NE 79th Street at Harbor Island Drive will operate at LOS C during the 2030 and 2050 AM peak hours and at LOS D during the 2030 and 2050 PM peak periods. Overall intersection delays range between 26.1 and 44.3 seconds per vehicle. All individual intersection turn movements operate at LOS E or better during both peak periods in 2030 and 2050, and all movements function with a volume-to-capacity ratio equal to or below 1.0. Because of the split phased operation employed for the minor street at this intersection, which is a non-standard NEMA phasing configuration not supported under the HCM 6 methodology, the capacity analysis was based on HCM 2000 methodology.

Queue lengths during the 2030 AM peak hour are generally stored within the turn lane storage bays along SR 934/NE 79th Street without affecting the arterial roadway's operations. However, during the 2030 PM peak hour the eastbound left-turn movement has a 95th percentile queue length of approximately 535 feet, which exceeds the turn lane storage of 180 feet by about 355 feet (or more than fourteen vehicle lengths). By 2050, the eastbound left-turn movement is expected to have a queue length of 256 feet during the AM peak period and 606 feet during the PM peak hour. Both exceed the current vehicular storage by 76 feet and 428 feet, respectively.

It is noted that the eastbound through movement has a 95th percentile queue length of 987 feet during the 2050 AM peak hour, and 631 feet during the 2050 PM peak hour. Such a queue length would likely block access to the eastbound left-turn lane, resulting in left-turn queues that are shorter than what is being reported in Synchro. Given that the bridge is approximately 400 feet west of the Harbor Island Drive intersection, it is recommended that the available eastbound left-turn vehicular storage be maximized to the extent feasible to accommodate future queue lengths.

During the 2030 PM peak hour the westbound right-turn movement has a 95th percentile queue length of approximately 138 feet, which exceeds the turn lane storage of 120 feet by about 18 feet, but with adjustments to signal timing splits this queue is reduced to 49 feet in the 2050 PM peak hour. It is noted that the westbound through movement has a 95th percentile queue length of 823 feet during the 2050 AM peak hour, which is expected to increase to 890 feet in the 2050 PM peak hour. Such a queue length would extend upstream to the bridge, but not directly block intersection operations at the WSVN Driveway since this intersection is nearly 1,200 feet east of Harbor Island Drive.

The northbound left turn has a 95th percentile queue length of approximately 54 to 78 feet during the 2030 and 2050 peak hours, exceeding the turn lane storage of 25 feet. The southbound left turn has a 95th percentile queue length of approximately 103 to 129 feet during the 2030 and 2050 peak hours exceeding the turn lane storage of 65 feet. Similarly, for the southbound right turn, the 95th percentile queue length falls within the range of approximately 124 to 204 feet during the 2030 and 2050 peak hours, also exceeding the designated turn lane storage of 65 feet.

Field observations of existing conditions determined that the northbound and southbound queues do not negatively affect the operation of SR 934/NE 79th Street. Southbound queues exceeding storage capacity are accommodated by the capacity of the adjacent stop-controlled intersection (East Drive/West Drive and Harbor Island Drive Intersection). A comparable situation was noted for the northbound queues. Similar operations would be expected under future conditions as well, with queued vehicles waiting for space at the Harbor Island Drive intersection.

Operational improvements were evaluated at the SR 934/NE 79th Street and Harbor Island Drive intersection that included longer cycle lengths and removal of the existing northbound/southbound split phasing, but this did not significantly reduce the eastbound left-turn queue, and in some cases made the through movement queues worse.

Table 4.7 Harbor Island Drive – Opening Year 2030 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	154	20.3	C	0.56	26.1	C
		TH	1,850	19.1	B	0.63		
		RT	22	7.5	A	0.02		
	WB	LT/UT	23	19.1	B	0.21		
		TH	1,520	24.0	C	0.61		
		RT	109	8.9	A	0.12		
	NB	LT	40	66.7	E	0.30		
		TH	3	66.0	E	0.23		
		RT	25	66.0	E	0.23		
	SB	LT/UT	135	66.2	E	0.47		
		TH	5	66.1	E	0.46		
		RT	253	70.6	E	0.82		

Notes:

1) Future Conditions LOS and delay results based on HCM 2000 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.8 Harbor Island Drive – Opening Year PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	255	41.4	D	0.60	44.3	D
		TH	1,591	19.4	B	0.56		
		RT	42	8.5	A	0.04		
	WB	LT/UT	26	20.7	C	0.19		
		TH	1,877	67.4	E	0.99		
		RT	149	24.4	C	0.20		
	NB	LT	28	65.9	E	0.21		
		TH	8	65.6	E	0.17		
		RT	13	65.6	E	0.17		
	SB	LT/UT	114	62.5	E	0.34		
		TH	6	62.6	E	0.34		
		RT	155	37.2	D	0.31		

Notes:

1) Future Conditions LOS and delay results based on HCM 2000 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.9 Harbor Island Drive – Opening Year 2030 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2030 AM	2030 PM
SR 934/NE 79th Street at Harbor Island Drive	EBL/U	180	174	**#535**
	EBT		#818	618
	EBR	125	15	24
	WBL/U	180	17	m18
	WBT		#684	#872
	WBR	120	81	**138**
	NBL	25	**72**	**54**
	NBT/R		55	45
	SBL/U	65	**117**	**103**
	SBT		116	104
	SBR	65	**180**	**124**

Notes:

1) **RED** = 95th percentile queue length exceeds available storage.

2) 95th percentile queue length based on Synchro 11 methodology.

3) m = volume for 95th percentile queue is metered by upstream signal.

4) # = 95th percentile volume exceeds capacity, queue may be longer.

Table 4.10 Harbor Island Drive – Design Year 2050 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	172	40.9	D	0.61	29.1	C
		TH	2,067	21.4	C	0.71		
		RT	25	7.7	A	0.02		
	WB	LT/UT	26	27.9	C	0.30		
		TH	1,699	27.6	C	0.72		
		RT	122	9.0	A	0.14		
	NB	LT	45	67.1	E	0.33		
		TH	3	66.2	E	0.25		
		RT	28	66.2	E	0.25		
	SB	LT/UT	151	66.3	E	0.51		
		TH	6	66.2	E	0.50		
		RT	283	66.7	E	0.81		

Notes:

1) Future Conditions LOS and delay results based on HCM 2000 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.11 Harbor Island Drive – Design Year 2050 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Harbor Island Drive	EB	LT/UT	285	54.4	D	0.77	42.4	D
		TH	1,779	19.5	B	0.61		
		RT	47	8.6	A	0.05		
	WB	LT/UT	29	16.9	B	0.24		
		TH	2,097	61.0	E	1.00		
		RT	167	22.2	C	0.21		
	NB	LT	31	69.2	E	0.30		
		TH	9	68.4	E	0.23		
		RT	14	68.4	E	0.23		
	SB	LT/UT	127	62.7	E	0.37		
		TH	7	62.7	E	0.37		
		RT	173	41.1	D	0.38		

Notes:

1) Future Conditions LOS and delay results based on HCM 2000 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.12 Harbor Island Drive – Design Year 2050 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2050 AM	2050 PM
SR 934/NE 79th Street at Harbor Island Drive	EBL/U	180	**#256**	**#606**
	EBT		#987	631
	EBR	125	16	26
	WBL/U	180	m25	m10
	WBT		#823	#890
	WBR	120	83	49
	NBL	25	**78**	**65**
	NBT/R		59	52
	SBL/U	65	**129**	**112**
	SBT		129	114
	SBR	65	**204**	**163**

Notes:

1) **RED** = 95th percentile queue length exceeds available storage.

2) 95th percentile queue length based on Synchro 11 methodology.

3) m = volume for 95th percentile queue is metered by upstream signal.

4) # = 95th percentile volume exceeds capacity, queue may be longer

4.3.1.3 SR 934/NE 79th Street at WSVN Driveway

The WSVN Driveway will continue to be unsignalized under future conditions and operate as a two-way stop-controlled intersection. Results of the intersection capacity analysis are summarized in **Tables 4.13** through **4.18**. The analysis indicates that the southbound shared left-turn and right-turn movement at the WSVN Driveway operates at LOS F during the 2030 and 2050 AM and PM peak hours. Individual movement delays range approximately between 53.3 seconds per vehicle and 193.7 seconds per vehicle. It is noted that the peak hour volumes present on the minor street are relatively low (i.e. less than 50 vehicles per hour in 2050), and the corresponding volume-to-capacity ratios range between 0.40 and 0.88. This finding suggests that adequate capacity is provided for the minor street turn movements operating under stop control.

The eastbound left-turn movement on SR 934/NE 79th Street operates at LOS D with 29.2 seconds of delay per vehicle during the 2030 AM peak hour, and LOS E with 43.1 seconds of delay per vehicle during the 2030 PM peak hour. However, delays are expected to increase by 2050 such that the eastbound left turn will operate at LOS E during the morning peak period and LOS F during the afternoon peak hour. Vehicular delays are projected to be 38.4 seconds per vehicle and 59.1 seconds per vehicle, respectively.

Adequate gaps in the oncoming traffic stream are expected to continue to occur due to the signalized intersection at Adventure Avenue. The signal control produces recurring gaps in the

traffic stream that allow the eastbound left-turn movement to safely complete the turn during future peak periods.

Since eastbound and westbound through movements operate under free flow conditions, no through movement queues are directly formed as a result of this intersection's operations. The eastbound left-turn movement does incur some delay and as a result queues are formed for this movement. Queueing analysis indicates that the 95th percentile queue length expected to occur under future conditions is approximately 23 feet during the 2050 AM peak hour. Although this queue can be accommodated by the current turn lane storage bay, the existing turn lane is substandard. Improvements are recommended to lengthen the turn bay to meet current design standards.

Table 4.13 WSVN Driveway – Opening Year 2030 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	29	29.2	D	0.17	0.9	A
		TH	1,989	0.0	A	0.00		
	WB	TH	1,612	0.0	A	0.00		
		RT	15	0.0	A	0.00		
	SB	LT/RT	45	53.3	F	0.40		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

Table 4.14 WSVN Driveway – Opening Year 2030 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	11	43.1	E	0.11	1.2	A
		TH	1,714	0.0	A	0.00		
	WB	TH	2,015	0.0	A	0.00		
		RT	6	0.0	A	0.00		
	SB	LT/RT	45	85.9	F	0.54		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

Table 4.15 WSVN Driveway – Opening Year 2030 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2030 AM	2030 PM
SR 934/NE 79th Street at WSVN Driveway	EBL/U	70	15	10
	EBT		0	0
	WBT		0	0
	WBR		0	0
	SBL/R		43	60

Notes:

1) 95th percentile queue length based on HCM 6 methodology.

Table 4.16 WSVN Driveway – Design Year 2050 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	32	38.4	E	0.24	1.5	A
		TH	2,223	0.0	A	0.00		
	WB	TH	1,803	0.0	A	0.00		
		RT	17	0.0	A	0.00		
	SB	LT/RT	50	104.4	F	0.63		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

Table 4.17 WSVN Driveway – Design Year 2050 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at WSVN Driveway	EB	LT/UT	12	59.1	F	0.16	2.5	A
		TH	1,916	0.0	A	0.00		
	WB	TH	2,252	0.0	A	0.00		
		RT	7	0.0	A	0.00		
	SB	LT/RT	50	193.7	F	0.88		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

Table 4.18 WSVN Driveway – Design Year 2050 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2050 AM	2050 PM
SR 934/NE 79th Street at WSVN Driveway	EBL/U	70	23	13
	EBT		0	0
	WBT		0	0
	WBR		0	0
	SBL/R		73	100

Notes:

1) 95th percentile queue length based on HCM 6 methodology.

4.3.1.4 SR 934/NE 79th Street at Adventure Avenue

As summarized in **Tables 4.19** through **4.24**, results of the capacity analysis indicate that the intersection of SR 934/NE 79th Street at Adventure Avenue will operate at LOS A during the 2030 and 2050 AM and PM peak periods. Overall intersection delays will be between 5.2 and 6.3 seconds per vehicle. All individual intersection turn movements will operate at LOS E or better during both peak periods through 2050 conditions and all movements function with a volume-to-capacity ratio below 0.85.

Future 2030 and 2050 queue lengths on SR 934/NE 79th Street at Adventure Avenue will be accommodated by the current turn lane storage bays. The westbound left-turn queue is expected to be nearly 58 feet during the 2050 AM peak hour, while the provided storage is approximately 150 feet.

Table 4.19 Adventure Avenue – Opening Year 2030 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	1,917	0.8	A	0.54	5.9	A
		RT	80	1.6	A	0.54		
	WB	LT/UT	50	3.9	A	0.19		
		TH	1,496	4.0	A	0.38		
	NB	LT	131	75.2	E	0.84		
		RT	55	65.4	E	0.40		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.20 Adventure Avenue – Opening Year 2030 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Opening Year 2030 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	1,600	0.6	A	0.46	5.2	A
		RT	122	1.1	A	0.46		
	WB	LT/UT	67	3.3	A	0.17		
		TH	1,916	4.0	A	0.48		
	NB	LT	105	76.5	E	0.81		
		RT	41	67.0	E	0.35		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.21 Adventure Avenue – Opening Year 2030 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2030 AM	2030 PM
SR 934/NE 79th Street at Adventure Avenue	EBT		543	715
	EBR		0	
	WBL/U	150	31	40
	WBT		280	404
	NBL		181	148
	NBR	400	38	34

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

Table 4.22 Adventure Avenue – Design Year 2050 AM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- AM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	2,143	1.2	A	0.61	6.3	A
		RT	89	2.2	A	0.62		
	WB	LT/UT	56	4.3	A	0.24		
		TH	1,673	4.7	A	0.43		
	NB	LT	147	74.4	E	0.85		
		RT	62	64.2	E	0.40		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.23 Adventure Avenue – Design Year 2050 PM Peak Hour Operations

Intersection	Appr.	Mvmt.	Design Year 2050 -- PM PEAK HOUR					
			Volume	Movement			Overall Intersection	
				Delay (sec/veh)	LOS	V/C	Delay (sec/veh)	LOS
SR 934/NE 79th Street at Adventure Avenue	EB	TH	1,789	0.8	A	0.52	5.6	A
		RT	136	1.5	A	0.52		
	WB	LT/UT	75	3.6	A	0.22		
		TH	2,142	4.7	A	0.54		
	NB	LT	117	75.9	E	0.83		
		RT	46	66.1	E	0.36		

Notes:

1) Future Conditions LOS and delay results based on HCM 6 methodologies.

2) Existing signal timing cycle lengths were maintained for future analyses.

Table 4.24 Adventure Avenue – Design Year 2050 AM and PM Peak Hour Queues

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)	
			2050 AM	2050 PM
SR 934/NE 79th Street at Adventure Avenue	EBT		640	553
	EBR		0	0
	WBL/U	150	58	54
	WBT		328	487
	NBL		200	162
	NBR	400	41	36

Notes:

1) 95th percentile queue length based on Synchro 11 methodology.

4.3.2. Arterial Level of Service Analysis (Future Conditions)

Given forecasted 2030 and 2050 conditions, a corridor analysis was performed along SR 934/NE 79th Street from Pelican Harbor Drive to Adventure Avenue. Roadway segments were defined between the three signalized intersections of the study area, and analysis was performed using Synchro 11 software. **Appendix I** includes the arterial analysis worksheets for the future 2030 and 2050 conditions.

Arterial analysis results reveal that SR 934/NE 79th Street will operate at LOS C during the 2030 AM and PM peak hours in both directions of travel. Overall 2030 peak hour corridor speeds in the eastbound direction are estimated to be 20.9 and 19.3 mph in the AM and PM peak hours, respectively. Each of the three roadway segments will function at LOS D or better during both peak periods.

Westbound SR 934/NE 79th Street is also projected to operate at LOS C during the 2030 AM and PM peak hours. Travel speeds for westbound traffic are expected to be approximately 21.9 mph and 18.1 mph in the AM and PM peak hours, respectively. Each of the three roadway segments will function at LOS E or better during both peak periods. The arterial roadway segment analysis results for 2030 conditions are summarized in **Table 4.25** and **4.26**.

Table 4.25 Arterial Travel Time & LOS Summary – Opening Year 2030 AM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Opening Year 2030 -- AM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	6.7	32.1	22.5	C
		Harbor Island Drive	30	64.8	21.6	86.4	21.2	C
		Adventure Avenue	30	35.7	16.5	52.2	19.4	C
		Total		**125.9**	**44.8**	**170.7**	**20.9**	**C**
	WB	Adventure Avenue	30	32.5	6.4	38.9	23.7	C
		Harbor Island Drive	30	35.7	26.0	61.7	16.4	D
		Pelican Harbor Drive	30	64.8	6.9	71.7	25.6	B
		Total		**133.0**	**39.3**	**172.3**	**21.9**	**C**

Table 4.26 Arterial Travel Time & LOS Summary – Opening Year 2030 PM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Opening Year 2030 -- PM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	8.1	33.5	21.5	C
		Harbor Island Drive	30	64.8	22.2	87.0	21.1	C
		Adventure Avenue	30	35.7	29.0	64.7	15.6	D
		Total		**125.9**	**59.3**	**185.2**	**19.3**	**C**
	WB	Adventure Avenue	30	32.5	7.0	39.5	23.4	C
		Harbor Island Drive	30	35.7	60.1	95.8	10.6	E
		Pelican Harbor Drive	30	64.8	7.7	72.5	25.3	B
		Total		**133.0**	**74.8**	**207.8**	**18.1**	**C**

Similarly, arterial analysis was conducted given 2050 peak period conditions. Results reveal that SR 934/NE 79th Street will also operate at LOS C during the 2050 AM and PM peak hours in both directions of travel. Overall 2050 peak hour corridor speeds in the eastbound direction are estimated to be 20.4 and 19.7 mph in the AM and PM peak hours, respectively. Each of the three roadway segments will function at LOS D or better during both peak periods.

Westbound SR 934/NE 79th Street is projected to operate at LOS C during the 2050 AM and PM peak hours. Travel speeds for westbound traffic are expected to be approximately 21.4 mph and 18.3 mph during the AM and PM peak hours, respectively. It is noted that the westbound segment of SR 934/NE 79th Street between Adventure Avenue and Harbor Island Drive is projected to operate at LOS E with travel speeds of about 11 miles per hour during the 2050 PM peak period. All remaining individual roadway segments will operate at LOS D or better during both the 2050 AM and PM peak hours. The arterial roadway segment analysis results for 2050 conditions are summarized in **Table 4.27** and **4.28**.

Table 4.27 Arterial Travel Time & LOS Summary – Design Year 2050 AM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Design Year 2050 -- AM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	7.4	32.8	22.0	C
		Harbor Island Drive	30	64.8	23.4	88.2	20.8	C
		Adventure Avenue	30	35.7	18.0	53.7	18.8	C
		Total		**125.9**	**48.8**	**174.7**	**20.4**	**C**
	WB	Adventure Avenue	30	32.5	7.2	39.7	23.2	C
		Harbor Island Drive	30	35.7	28.7	64.4	15.7	D
		Pelican Harbor Drive	30	64.8	7.5	72.3	25.4	B
		Total		**133.0**	**43.4**	**176.4**	**21.4**	**C**

Table 4.28 Arterial Travel Time & LOS Summary – Design Year 2050 PM Peak Hour

Arterial	Appr.	Cross Street	Posted Speed (mph)	Design Year 2050 -- PM PEAK HOUR				
				Running Time (sec)	Signal Delay (sec)	Travel Time (sec)	Speed (mph)	Arterial LOS
NE 79th St	EB	Pelican Harbor Drive	30	25.4	9.5	34.9	20.6	C
		Harbor Island Drive	30	64.8	21.3	86.1	21.3	C
		Adventure Avenue	30	35.7	24.3	60.0	16.9	D
		Total		**125.9**	**55.1**	**181.0**	**19.7**	**C**
	WB	Adventure Avenue	30	32.5	7.9	40.4	22.8	C
		Harbor Island Drive	30	35.7	54.1	89.8	11.3	E
		Pelican Harbor Drive	30	64.8	10.5	75.3	24.4	B
		Total		**133.0**	**72.5**	**205.5**	**18.3**	**C**

4.4 Future Conditions Safety Analysis

A quantitative future safety analysis using Crash Modification Factors (CMFs) was performed for the Build Alternative. In addition to bridge rehabilitation or replacement improvements, the Build

Alternative will extend the westbound and eastbound bike lanes westwardly, create safety improvements for pedestrians such as pedestrian and bicycle railings on both bridges within the project area, and close a directional median opening on SR 934/NE 79th Street west of the WSVN Driveway. This analysis measures the effectiveness of a safety treatment by quantifying the change in average crash frequency as a result of a proposed design alternative.

CMFs are applied to the historical number of crashes for an area to determine what the expected number of crashes will be after an engineering countermeasure is applied. Conversely, the Crash Reduction Factor (CRF) is the percentage of historical crashes that would be expected to be corrected, or reduced, if an engineering countermeasure were applied to a location. CMFs and CRFs are derived from before and after studies associated with the respective roadway countermeasures.

The anticipated crash reduction from implementation of the proposed improvements is based on published CRFs from the Federal Highway Administration's (FHWA) Crash Modification Factor (CMF) Clearinghouse and from FDOT's State Safety Office Crash Reduction Factors.

A brief synopsis of the future safety analysis findings is provided. For a more detailed summary, the Future Safety Analysis memorandum, dated April 2024, is included in **Appendix J.**

4.4.1. Intersection Crash Reduction

Based on the conceptual planned improvements for SR 934/NE 79th Street, a set of intersection-specific countermeasures are included that are intended to reduce crashes. These intersection countermeasures include Backplates with retroreflective borders; High Visibility Crosswalks; and Left Turn Flashing Yellow Arrow signal indicators. High Visibility Crosswalks and Left Turn Flashing Yellow Arrows address pedestrian and left-turn crashes at each intersection.

The quantitative safety analysis revealed that applying the three countermeasures at the signalized intersections within the study area will result in approximately 20.75 fewer overall crashes over a 5-year period, or 4.15 crashes per year.

4.4.2. Roadway Segment Crash Reduction

Under the Build Alternative, no roadway capacity improvements are proposed along SR 934/NE 79th Street between Pelican Harbor Drive and Adventure Avenue. However, bicycle lane improvements from Pelican Harbor Drive to Harbor Island Drive are provided. The provision of bicycle lanes is offset by a reduced lane width for the three vehicular travel lanes in each direction. While the installation of bicycle lanes within a roadway segment provides a positive crash reduction effect, a reduced lane width results in a slight increase in sideswipe crashes.

As summarized in the Future Safety Analysis memorandum in **Appendix J**, the inclusion of bicycle lanes with reduced lane widths for the roadway segment between Pelican Harbor Drive and Harbor Island Drive will result in approximately 0.1 more crashes over a 5-year period under the Build Alternative's conceptual planned improvements.

5 Conclusions and Recommendations

The Florida Department of Transportation (FDOT) District Six is preparing a Project Development and Environment (PD&E) Study to evaluate the replacement of four bridges (two bridge pairs) located along SR 934/NE 79th Street between Pelican Harbor Drive and Adventure Avenue in the incorporated municipalities of the City of Miami and North Bay Village within Miami-Dade County. SR 934/NE 79th Street is an important corridor that carries traffic from the mainland to the barrier islands of North Bay Village and Miami Beach.

The purpose of this project is to evaluate bridge replacement alternatives to address the structural deficiencies of four existing bridges (two bridge pairs) along SR 934/NE 79th Street. Additionally, a project goal is to maintain emergency evacuation capabilities.

The transportation analysis prepared on behalf of this PD&E Study is based on a No Build Alternative and Build Alternatives. The No-Build Alternative assumes that no improvements would be implemented within the project corridor. The Build alternatives are potential improvements to the four bridges that exist along SR 934/NE 79th Street within the study area. These four Build alternatives are:

- Alternative 1A: Minor Rehabilitation Alternative -- the bridges' current deficiencies per the latest bridge inspection reports are remediated.
- Alternative 1B: Major Rehabilitation Alternative -- the bridges' superstructures are replaced while their substructures remain as existing.
- Alternative 2A: Replacement Alternative (low-profile) -- the four existing bridges are removed and replaced with two bridge structures that have similar profiles to the existing bridges.
- Alternative 2B: Replacement Alternative (raised profile) -- the four existing bridges are removed and replaced with two bridge structures. The Proposed Profile is raised approximately 6 feet so the proposed bridges meet the FDOT minimum vertical clearance requirement.

A quantitative safety analysis was performed of the anticipated future conditions under the Build Alternative. In addition to bridge rehabilitation/replacement and bicycle lane improvements, various intersection-specific safety countermeasures were evaluated. These include Backplates with retroreflective borders; High Visibility Crosswalks; and Left Turn Flashing Yellow Arrow signal indicators at the three signalized intersections within the study area. Safety analysis results based on a 5-year data period indicate that these intersection countermeasures would result in approximately 20.75 fewer overall crashes, while the roadway segment improvements (which include bicycle lanes coupled with narrower travel lanes between Pelican Harbor Drive and Harbor Island Drive) will result in about 0.1 more crashes. The net result of the quantitative safety analysis is an overall reduction of more than 20 crashes based on a 5-year data period within the study area.

The traffic forecast analysis confirmed the need to maintain the existing 6-lane section on SR 934/NE 79th Street, therefore the opening year and design year analysis does not include any roadway capacity improvements. Intersection analysis was performed to identify the need for improvements, including turn bay storage lengths and signal phasing modifications. Because there are no capacity improvements proposed under any of the Build alternatives, the roadway and intersection conditions under the No-Build and Build alternatives are the same.

Given no capacity improvements, the transportation analysis results indicate that the SR 934/NE 79th Street arterial will operate at acceptable levels of service during the 2050 Design Year AM and PM peak hours. Further, each of the four study intersections within the corridor will also operate at acceptable levels of service during the 2050 AM and PM peak hours without the need for any capacity improvements, which is 120% of Capacity per the Miami-Dade County Transportation Element and a target LOS D per the Traffic Analysis Methodology, dated September 22, 2022.

At the SR 934/NE 79th Street and Harbor Island Drive intersection, analysis has shown that the eastbound left-turn movement has a 95th percentile queue length of approximately 535 feet in the 2030 PM peak hour, which exceeds the turn lane storage of 180 feet by about 355 feet (or more than fourteen vehicle lengths). By 2050, the eastbound left-turn movement is expected to have a queue length of 606 feet during the PM peak hour. This exceeds the current vehicular storage by 428 feet. Given that the bridge is approximately 400 feet west of the Harbor Island Drive intersection, it is recommended that the available eastbound left-turn vehicular storage be maximized to the extent possible to accommodate future queue lengths. Additionally, the existing eastbound left-turn lane at the SR 934/NE 79th Street and WSVN Driveway is substandard. Although it accommodates the 95th percentile queues in the opening and design year, improvements are recommended to lengthen the turn bay to meet current design standards.

Appendix A.

Traffic Analysis Methodology Memorandum (September 2022)

SR 934/NE 79th Street (John F. Kennedy Causeway) from West of Pelican Harbor Drive to Adventure Avenue Project Development and Environment (PD&E) Study

Traffic Analysis Methodology

FM# 449007-1-22-01

Miami-Dade County

September 22, 2022

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1 Traffic Analysis Objective

The Florida Department of Transportation (FDOT) District Six is conducting a Project Development and Environment (PD&E) Study for State Road 934 (SR 934)/NE 79th Street (John F. Kennedy Causeway) from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue) in Miami-Dade County. This Traffic Analysis Methodology outlines the limits, method and assumptions that will be used to analyze and document existing and future traffic conditions within the PD&E Study limits. The analysis results will be documented in the Project Traffic Analysis Report (PTAR). The analysis will follow procedures and guidance from the latest *FDOT PD&E Manual*, Traffic Analysis Handbook (2021), *Project Traffic Forecasting Handbook (2019)*, *FDOT Safety Analysis Guidebook for PD&E Studies (Safety Analysis Guidebook) (2019),* and the *Highway Safety Manual (HSM)*.

1.1 Project Description

This project involves the potential rehabilitation or replacement of four prestressed concrete slab (Sonovoid) bridges (two bridge pairs) connecting three islands within the Cities of Miami and North Bay Village in Miami-Dade County, as shown in **Figure 1**. The bridges are part of SR 934/NE 79th Street (John F. Kennedy Causeway), a roadway classified as "Urban Principal Arterial – Other" and a context classification of "C5 – Urban Center", which connects mainland Miami to Miami Beach. The specific limits of the bridge project extend from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue). The western bridge pair, comprised of Bridge Identification (ID) Numbers 870083 (westbound) and 870549 (eastbound), is located just west of North Bay Island/Harbor Island. The eastern bridge pair, comprised of Bridge ID Numbers 870084 (westbound) and 870550 (eastbound), is located between North Bay Island/Harbor Island and Treasure Island. The project is approximately 0.87 mile in length.

The existing western bridge pair consists of six lanes, including four 11-foot-wide travel lanes to the inside and two 13.5-foot-wide travel lanes to the outside, and a raised median connecting the two bridge structures. The outside travel lanes include shared-use markings to accommodate bicycles. In addition, a 5-foot-wide raised sidewalk is present on each side of the bridge pair to the outside. The existing eastern bridge pair consists of six 10-foot-wide travel lanes with a raised median connecting the two bridge structures, as well as a 5.5-foot-wide dedicated bicycle lane and a sidewalk varying between 5 and 6 feet in width (separated by guardrail) on each side of the bridge pair to the outside.

The bridge approaches are generally consistent with the typical section of the bridges, except for east of the western bridge pair which includes dedicated bicycle lanes. Crossing over the Biscayne Bay, the bridges have a maximum vertical clearance of 6.78 feet at Mean Low Water and a minimum vertical clearance of 4.78 feet at Mean High Water. Biscayne Bay at the bridge crossings is not deemed a navigable waterway by the United States Coast Guard.

The existing bridges were constructed in the early 1970s and have been determined to be Structurally Deficient given the condition of each bridge's superstructure (beams), which is referred to as "Sonovoid" design. Due to the structure type, the number of structural deficiencies, and the low clearance from the water, the bridge superstructures cannot properly be repaired and must be replaced. Therefore, the Project Development and Environment (PD&E) Study will evaluate bridge rehabilitation and replacement alternatives that are anticipated to be generally within the same footprint of the existing bridges. Future bridge concepts may also include potential provisions for new and/or improved paved shoulders/marked bicycle lanes and sidewalks. The existing right of way varies along the project segment and ranges from approximately 100 to 150 feet. Minimal right of way is anticipated to accommodate the replacement bridges; however, specific right of way requirements for the project will be determined during the PD&E Study.

Figure 1. Project Location Map

2 Purpose and Need

2.1 Purpose

The purpose of this project is to evaluate bridge rehabilitation or replacement alternatives to address the structural deficiencies of four existing bridges (two bridge pairs) along SR 934/NE 79th Street (John F. Kennedy Causeway).

The purpose of the traffic and safety analysis is to evaluate existing and projected future travel demands to enhance safety and operations within the project limits.

2.2 Need

The need for the project is based on the following criteria:

Bridge Deficiencies: Address Substandard Structural Elements

The existing bridges were constructed in the early 1970s and have been determined to be Structurally Deficient given the condition of each bridge's superstructure (beams), which is referred to as "Sonovoid" design. Due to the structure type, the number of structural deficiencies, and the low clearance from the water, the bridge superstructures cannot properly be repaired and must be replaced.

Based on FDOT Bridge Inspection Reports prepared in October 2020, each of the four bridges received a Sufficiency Rating of 48.7 (on a scale of 0 100). The Sufficiency Rating is essentially an overall rating of a bridge's fitness to remain in service. A Sufficiency Rating below 50.0 may qualify a bridge for replacement funds.

As part of the inspection process, a number of structural components were evaluated and assigned a rank or condition based on the National Bridge Inventory system. The ranks/conditions were based on a scale of zero through 9. A rank of zero generally means that the bridge is out of service, beyond corrective action, and in need of replacement; a rank of 9 means the bridge is in excellent condition and no deficiencies have been identified. The ranks/conditions for the structural components examined in the reports are as follows:

Bridge ID Numbers 870083 (westbound) and 870549 (eastbound)

Deck: 4 (Poor)

Superstructure: 4 (Poor)

Substructure: 6 (Satisfactory)

Bridge ID Numbers 870084 (westbound) and 870550 (eastbound)

Deck: 4 (Poor)

Superstructure: 4 (Poor)

Substructure: 7 (Good)

Safety: Maintain Evacuation and Emergency Response Times

Serving as part of the emergency evacuation route network designated by the Florida Division of Emergency Management (FDEM) and Miami-Dade County, SR 934/NE 79th Street (John F. Kennedy Causeway) [including the bridges] plays a critical role in facilitating traffic between the beaches and the mainland of Miami during emergency evacuation periods. The bridges currently meet hurricane evacuation requirements and will continue to meet them if replaced.

3 Analysis Limits

3.1 Study Area

The project study area for the SR 934 PD&E study is from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue) in Miami-Dade County (see **Figure 1**). The study area includes the following intersections and roadway segments between study intersections.

- SR 934 and Pelican Harbor Drive Intersection - signalized
- SR 934 and Harbor Island Drive Intersection - signalized
- SR 934 and Adventure Avenue Intersection - signalized
- SR 934 and Driveway west of Adventure Avenue Intersection - unsignalized

3.2 Analysis Years

The corridor will be analyzed for the following years:

- Existing Year 2022
- Opening Year 2030
- Design Year 2050

An opening year of 2030 was selected based on construction being funded for fiscal year 2028 per the latest FDOT Work Program Financials, see **Appendix A.** This provides sufficient time after the project is scheduled to be open to public, and when the new traffic pattern stabilizes. The design year was established based on opening year plus 20 years. Morning (AM) peak, and evening (PM) peak traffic conditions will be evaluated for traffic and safety analysis.

4 Operational Analysis Tools

The operational performance of SR 934 and the subject intersections will be analyzed according to methodologies provided in the Highway Capacity Manual 6 (HCM 6).

- Synchro software (version 11) will be used for the intersection operational analysis. Synchro models will be calibrated using field collected data per the 2021 FDOT Traffic Analysis Handbook. The calibrated model will be used for operational analysis.
- The reported results will be the LOS, delay, V/C ratios and 95th percentile queue lengths from both the Synchro queue reports and HCM 6th edition reports for each movement and overall intersection. The 95th percentile queue lengths will be compared to available turn lane storage lengths to identify spillback locations.
- Segment analysis will be performed between study intersections using Synchro software and will include arterial performance (speed and LOS) and queuing between intersections.

The primary measure of effectiveness for this traffic analysis will be LOS. The target LOS for SR 934 is LOS D, respectively.

5 Data Collection

Data will be collected from various sources including FDOT, Miami-Dade County, and other agencies in addition to field collected data. Field visits will also be conducted to collect information on existing geometry, storage lengths, traffic signal heads, and to determine/verify signal phasing information, such as protected/permitted left-turn operations, right-turn-on-red restrictions, phase overlaps, etc. The signal timing plans for signalized intersections will be obtained from Miami-Dade County. The traffic data to be obtained for the study is listed below and graphically depicted in **Figure 2**.

Traffic Counts

72-hour machine counts (volume) will be collected at all intersection approaches at the following locations:

- SR 934 and Pelican Harbor Drive Intersection - signalized
- SR 934 and Harbor Island Drive Intersection - signalized
- SR 934 and Adventure Avenue Intersection - signalized

Weekday 3-hour AM peak and 3-hour PM peak vehicle (car and truck) turning movement (including U-turns), bicycle, and pedestrian counts at the following locations:

- SR 934 and Pelican Harbor Drive Intersection - signalized
- SR 934 and Harbor Island Drive Intersection - signalized
- SR 934 and Adventure Avenue Intersection - signalized
- SR 934 and Driveway west of Adventure Avenue Intersection - unsignalized

Vehicle Classification Counts on Roadway Segments and Ramps

- 72-hour volume, speed, and classification count on SR 934 between Pelican Harbor Drive and Harbor Island Drive Intersections

Calibration Data

- Field observed queuing and signal timing

Crash Data

The most recent five-year crash data for study intersections and segments will be gathered from the *FDOT Crash Analysis Reporting System* (CARS) Online and reviewed for completeness. In addition, *FDOT High Crash Locations* (HCL) lists will also be reviewed for identification of listed study intersections and segments.

Figure 2. Data Collection Map

6 Existing Year (2022) Traffic Development

6.1 Intersection Peak Hour Volume

The intersection morning peak hour and the evening peak hour (AM and PM peak hour) volumes will be developed from 6-hour turning movement counts. The methodology for developing balanced existing peak hour traffic numbers is provided below.

- At each intersection, AM and PM peak hour will be calculated.
- A global peak hour will be determined for AM and PM peak hours for the entire study corridor based on consistent peak hour for study intersections along the corridor and peak hour of the critical intersections with higher volumes.
- The Peak Hour Factor (PHF) is defined as the hourly volume during the analysis hour divided by the peak 15-min flow rate within the analysis hour. PHF will be calculated for each intersection for AM and PM global peak hours for each intersection. As noted in FDOT's 2021 Traffic Analysis Handbook, the future year analysis will be performed using a PHF of 0.95 for urban arterials.
- The T-factor, Tf, is the percentage of truck traffic occurring during the peak hour for each intersection. Tf is the total number of trucks entering the intersection divided by the hourly intersection volume during the analysis hour for each AM and PM global peak hour. Truck percentages for each movement will be obtained from the traffic count data and used for the Synchro analysis.

- Each peak hour intersection traffic volume will be seasonally adjusted for day of week and month of year using the seasonal factors from FDOT Florida Traffic Online (2021) web portal.
- Seasonally adjusted peak hour intersection volumes will be compared with seasonally adjusted arrival and departure counts along the corridor and appropriate adjustments will be made.
- Reasonability checks will be made, and existing traffic counts will be balanced by adding and/or subtracting traffic numbers along the corridor. Balancing will avoid any unreasonable additions and subtractions by looking at existing driveways, major generators and attractions along the corridor.

6.2 Annual Average Daily Traffic (AADT) Volume

Annual Average Daily Traffic (AADT) will be developed from 72-hour traffic machine counts. The methodology for developing AADT from 72-hour traffic machine counts is provided below.

- The seasonal factor (SF) will be obtained from 2021 Miami-Dade County Peak Season Factor Category Report from FDOT Florida Traffic Online (2021) for each 72-hour traffic machine count site. Seasonal factors will be checked against factors prior to COVID-19 to verify the correct seasonal factors are being applied.
- The axle correction factor (ACF) will be obtained from 2021 Miami-Dade County Weekly Axle Factor Category Report from FDOT Florida Traffic Online (2021) for each 72-hour traffic machine count site.
- Average two-way volume (ADT) will be calculated at each 72-hour traffic machine count site.
- AADT at each 72-hour traffic machine count site will be developed using below formula:

  AADT = ADT X SF X ACF
- Resulting AADT will be compared to the AADTs from FDOT Florida Traffic Online (2021) for reasonableness.

6.3 Directional Peak Hour Volume

- Balanced traffic counts developed in Section 6.1 will form as a basis for existing directional peak hour volumes.
- The ratio of the traffic volume in the study hour to the AADT is called the K-factor. The peak-to-daily ratios for the existing year volumes will be computed using traffic count data and the Standard K Factor specified in the 2019 FDOT Project Traffic Forecasting Handbook will be used to determine the peak hour volumes for the Opening and Design years (see section 8.5).
- The D-factor is the directional distribution factor and it is defined as proportion of the total, two-way design hour traffic travelling in the peak direction. The D-factors for the existing year volumes will be computed using traffic count data and the recommended D-factors specified in the 2019 FDOT Project Traffic Forecasting

Handbook will be used to determine the peak hour volumes for the Opening and Design years (see section 8.5).

- Field and Historical K and D factors will be calculated and reviewed for reasonableness. Historical K and D factors will be obtained for available traffic counts from FDOT Florida Traffic Online (2021).

7 Project Alternatives

The PD&E Study will evaluate the following alternatives:

- No-Build Alternative – The No-Build (no construction) Alternative will include currently planned and programmed improvements.
- Build Alternatives – Up to three build alternatives will be evaluated during the PD&E Study. It is anticipated that the alternatives may have the same through lanes but differ in approach to intersection design and configuration. TSM&O strategies will also be integrated in the recommended alternative.

8 Travel Demand Forecasting

This section discusses detailed methodology for the subarea validation, the Opening Year and Design Year traffic forecast development process.

8.1 Travel Demand Model

Development of the future travel demand model will utilize the currently adopted version of the *Miami-Dade Transportation Planning Organization (TPO) Long Range Transportation Plan (LRTP)* travel demand model: *Southeast Florida Regional Planning Model Version 8.522 (SERPM v8.522).*

8.2 Subarea Validation

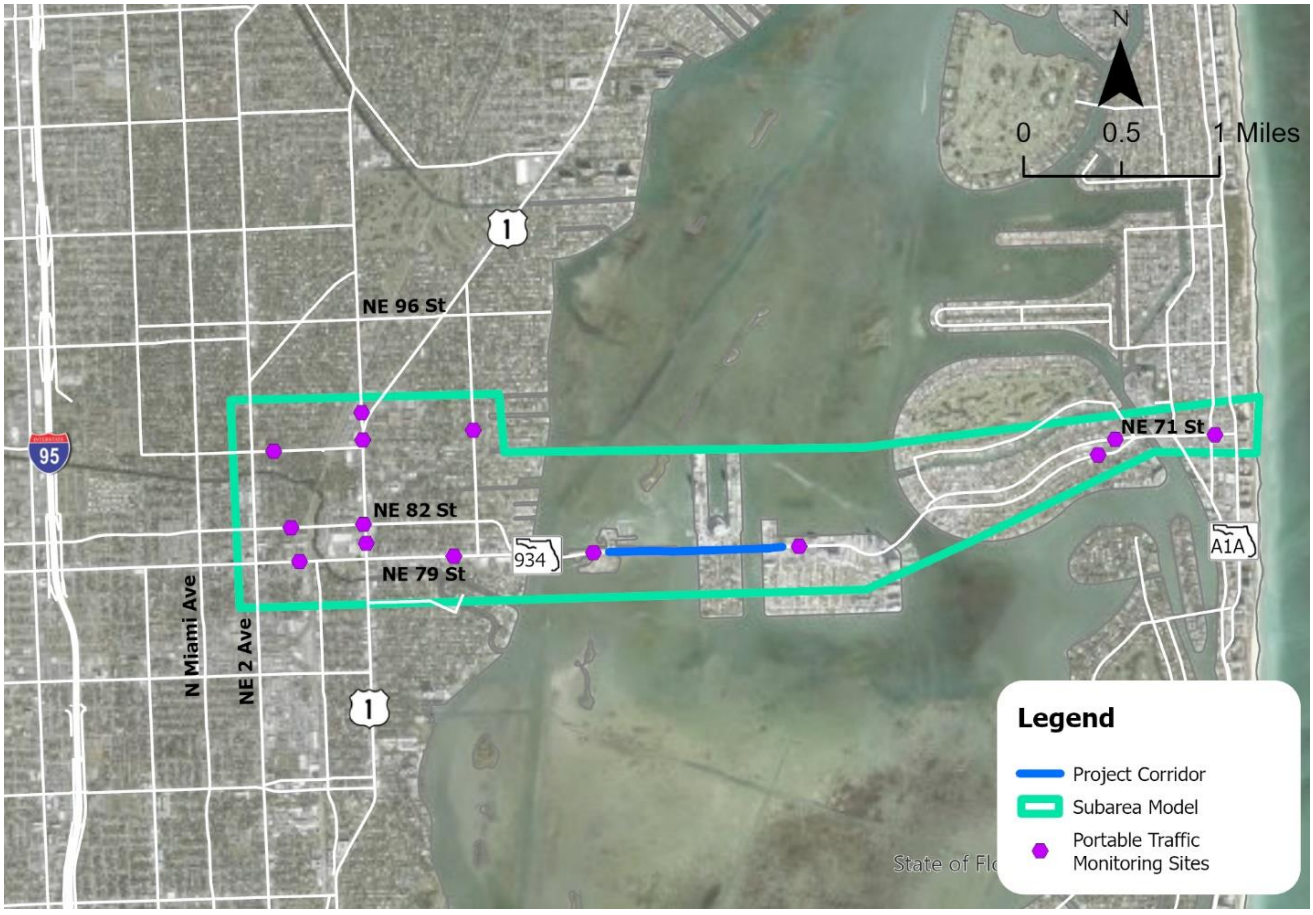
A subarea validation will be conducted using the SERPM v8.522. The SERPM v8.522 was developed in accordance with LRTP throughout FDOT District 6, which was validated for year 2015. The goal of the base year model calibration and validation is to improve the correlation between model estimates and observed conditions on the roadways within the study area; and ensure the reasonableness of the daily traffic demand forecasts. Reasonableness and project level model accuracy of the subarea will be based on assessment standards described in Table 3-3 of the 2019 FDOT Project Traffic Forecasting Handbook. The *Florida Traffic Online 2015* AADT data will be used for the model validation.

The physical and operational features of the area roadway networks will be reviewed for conformity to the actual conditions of the validation year. The network review is focused on roadway characteristics, such as area type (AT), facility type (FT), number of lanes, speed and turn penalty. Review of the input TAZ-level population and employment, land use, and other network checks will be performed. Adjustments to the model, will be made

in order to accurately reflect the 2015 roadway network and improve the model performance, while maintaining or improving the validation statistics outside the study area. Model validation results such as volume to count ratios and Root Mean Square Error (RMSE) percentages will be summarized at the subarea level. Review of validation results at the regional level will also be performed to ensure the subarea validation does not disrupt the regional model accuracy. Adjustment factors will be developed using the sub-area model validation performed for the 2015 base year consistent with Section 3.10.4 of the 2019 FDOT Traffic Forecasting Handbook. A map of the proposed SR 934 model subarea is depicted in **Figure 3**.

Following the subarea base year (2015) validation, the future year (2045) model will be developed by carrying forward updates from the base year network. A network review will again be performed for the 2045 network including area type, facility type, number of lanes, land uses, population and employment growth, and programmed roadway improvements. The SERPM v8.522 2045 cost feasible model trip table will be maintained from the same sub-area modeling. For the purposes of this study, a single set of future demand volumes will be used to evaluate the future conditions since no increase to capacity modifications in number of lanes are anticipated for the project.

Figure 3. Subarea Model Limits



8.3 Growth Rates

Appropriate growth rate will be developed for the project corridor and this growth rate will be applied to Existing AADT to generate Opening Year (2030) and Design Year (2050) AADT. Steps involved in development of AADTs are listed below:

- Population and employment estimate growth rates for Miami-Dade County will be calculated using BEBR data.
- Historic AADTs from the past ten years will be obtained from the FDOT Florida Transportation Online website for Portable Traffic Monitoring Sites (PTMS) 870533, 870142, and 870145; located on SR 934 east and west of the project corridor.
- FDOT Trends Analysis Spreadsheet will be utilized to calculate trends growth rate based on historic AADTs.
- Recommended growth rates will be developed based on SERPM v8.522 model assignment growth rates, population and employment estimate growth rates, and historic trends growth rates for the project segment through a comparative review of available sources. A minimum growth rate of 0.5% may be used for SR 934.

Within the project corridor, growth rates for side street traffic within North Bay Village is expected to remain low as the area is largely built out with single-family homes located on the south side of SR 934 restricting development opportunities. Low to minimal growth is also anticipated on the north side of the island where the land use is dense residential with limited commercial land uses. It is anticipated that most of the growth will occur on SR 934, a causeway connecting the mainland with the barrier islands. These growth rate assumptions will be verified with future land use maps and other relevant documents from North Bay Village.

8.4 Opening Year and Design Year AADTs

Recommended growth rates will be applied to Existing Year (2022) AADT to generate Opening Year (2030) and Design Year (2050) AADT. As previously mentioned, since no modifications to the number of lanes are anticipated for SR 934, only one set of future AADTs will be developed for Opening Year (2030) and Design Year (2050).

8.5 Opening Year and Design Year Peak Hour Volume

FDOT approved TMTool will be utilized to develop future turning movement volumes for each intersection under both AM and PM peak hours. TMTool utilizes Existing AADT volumes, existing intersection peak hour volumes, appropriate growth rates, future AADT volumes, and recommended K and D factors to develop Opening Year (2030) and Design Year (2050) peak hour volumes. The recommended K and D factors will be based on the recommended range of values for urban arterials from the *2019 FDOT Project Traffic Forecasting Handbook*[1] and selected based on the comparison of data collected and data obtained from the *Florida Traffic Online* website for PTMS 870533, 870142, and 870145. **Table 1** and **Table 2** show the FDOT Standard K Factor and D Factor target thresholds.

Table 1. FDOT Standard K Factors[1]

Area *(Population)*	Facility Type	Standard K Factor *(% AADT)**	Representative Time Period
Large Urbanized Areas with Core Freeways *(1,000,000+)*	Freeways	8.0 - 9.0 ***	Typical weekday peak period or hour
	Arterials & Highways	9.0 **	Typical weekday peak hour

[1]*Source: 2019 FDOT Project Traffic Forecasting Handbook*
***Value is 7.5% in approved Multimodal Transportation Districts where automobile movements are deemphasized. This lower value represents an extensive multi-hour peak period rather than a peak hour.*
****Value is 8.0% for FDOT-designated urbanized core freeways and may either be 8.5% or 9.0% for non-core freeways. Values less than 9% essentially represent a multi-hour peak period rather than a peak hour.*

Table 2. FDOT Recommended D Factor Ranges[1]

Road Type	Low	D	High	Standard Deviation
Rural Freeway	52.3	54.8	57.3	1.73
Rural Arterial	51.1	58.1	79.6	6.29
Urban Freeway	50.4	55.8	61.2	4.11
Urban Arterial	50.8	57.9	67.1	4.60

[1]*Source: 2019 FDOT Project Traffic Forecasting Handbook*

Opening Year (2030) and Design Year (2050) peak hour volumes developed for each intersection will be summarized and balanced along SR 934 under both AM and PM peak hours. Finally, all numbers will be checked for reasonableness.

9 Safety Analysis

This section discusses detailed methodology for existing and future safety analysis.

9.1 Analysis Area

The analysis will be performed for all intersections and roadway segments evaluated in the PTAR. In general, intersections will include an influence area of approximately 250 feet on each approach.

9.2 Analysis Methods

The analysis will consist of existing and future conditions. The existing analysis will consist of a five-year historical crash data analysis. The future analysis will consist of evaluating proposed alternatives based on observed crashes adjusted with crash modification factors (CMFs).

9.3 Existing Safety Analysis

The existing safety analysis will include a compilation of crash data, crash rate and safety ratio calculations, heat maps, and identification of crash trends and characteristics. Crash trends will be identified by evaluating observed crashes by location, type, time of day, year, severity, presence of overhead lighting, weather, distraction, contributing factors, and other characteristics. Based on the obtained data, the existing safety analysis will identify high crash locations, areas of safety concern and potential crash countermeasures based on probable causes and crash trends.

9.4 Future Safety Analysis

A CMFs analysis, as described in *Section 5.1* of the *Safety Analysis Guidebook,* will be performed for all the build alternatives. This analysis method measures the effectiveness of a safety treatment by quantifying the change in average crash frequency as a result of a proposed design alternative. *HSM* resources, including the CMF Clearing House, NCHRP, and FHWA studies will be used as necessary.

9.5 Safety Analysis Documentation

The safety analysis will be documented in the PTAR of the PD&E Study. The documentation will include details of the analytical procedures and results of the existing and future safety analysis. It will include tables and figures summarizing crash data, crash rates, safety ratios, crash contributing factors, applicable CMFs, and other relevant data.

10 Documentation

This traffic analysis will be documented in the Project Traffic Analysis Report (PTAR). The documentation will include details of the analytical procedures and results of the travel demand forecasts, operation and safety analyses. It will include tables and figures summarizing traffic forecasts (AADT, AM and PM peak hour intersection volumes, directional peak hour volumes) and results of the operations analyses (LOS, delays, and queue lengths).

Appendix A. FDOT Work Program Financials

Financials for Project 449007-2 (SR 934/NE 79 ST FROM W OF PELICAN HARBOR DR TO E OF ADVENTURE AVE)

Filtered by:

Selected Version: CA

Work Program Financials

PRELIMINARY ENGINEERING (3X)

Ver	Description	PDC	Programmed	Committed	Remaining	Fund	PGM	Federal Aid #	Status
CA	**IN-HOUSE (31) 01**	$50,000	$50,000	$0	$50,000				
	2025								
		$50,000	$50,000	$0	$50,000	ACBR	00		CANDIDATE
CA	**CONSULTANTS/CONTRACTORS (32) 01**	$3,200,000	$3,200,000	$0	$3,200,000				
	2025								
		$3,200,000	$3,200,000	$0	$3,200,000	ACBR	00		CANDIDATE

CONSTRUCTION (5X)

Ver	Description	PDC	Programmed	Committed	Remaining	Fund	PGM	Federal Aid #	Status
CA	**CONSULTANTS/CONTRACTORS (52) 01**	$32,054,000	$37,150,586	$0	$37,150,586				
	2028								
		$32,054,000	$37,150,586	$0	$37,150,586	ACBR	03		CANDIDATE

CONSTRUCTION SUPPORT (6X)

Ver	Description	PDC	Programmed	Committed	Remaining	Fund	PGM	Federal Aid #	Status
CA	**IN-HOUSE (61) 01**	$100,000	$115,900	$0	$115,900				
	2028								
		$100,000	$115,900	$0	$115,900	ACBR	00		CANDIDATE
CA	**CONSULTANTS/CONTRACTORS (62) 01**	$5,000,000	$5,795,000	$0	$5,795,000				
	2028								
		$5,000,000	$5,795,000	$0	$5,795,000	ACBR	00		CANDIDATE
CA	**CONSULTANTS/CONTRACTORS (62) 02**	$320,000	$370,880	$0	$370,880				
	2028								
		$320,000	$370,880	$0	$370,880	ACBR	40		CANDIDATE
CA	**CONSULTANTS/CONTRACTORS (62) 60**	$120,000	$139,080	$0	$139,080				
	2028								
		$120,000	$139,080	$0	$139,080	ACBR	96		CANDIDATE

Construction Estimates

No Construction Estimates found.

Right of Way Estimates

No Right Of Way Estimates found.

Appendix B.

Traffic Forecasting Memorandum (April 2024)

SR 934/NE 79th Street (John F. Kennedy Causeway) from West of Pelican Harbor Drive to Adventure Avenue Project Development and Environment (PD&E) Study

Traffic Forecasting Memo

FM# 449007-1-22-01

Miami-Dade County

April 4, 2024

Contents

Tables

Figures

1 Traffic Analysis Objective

The Florida Department of Transportation (FDOT) District Six is conducting a Project Development and Environment (PD&E) Study for State Road 934 (SR 934)/NE 79th Street (John F. Kennedy Causeway) from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue) in Miami-Dade County. This Traffic Forecasting memo provides the required existing traffic data, as well as the forecasted 2030 and 2050 data as per the approved Traffic Analysis Methodology to be used for the preparation of the Project Traffic Analysis Report (PTAR). The data collection procedures follow those of the Manual on Uniform Traffic Studies (MUTS), and traffic forecasting procedures follow those of the 2019 Project Traffic Forecasting Handbook (PTF).

1.1 Project Description

This project involves the potential rehabilitation or replacement of four prestressed concrete slab (Sonovoid) bridges (two bridge pairs) connecting three islands within the Cities of Miami and North Bay Village in Miami-Dade County, as shown in **Figure 1**. The bridges are part of SR 934/NE 79th Street (John F. Kennedy Causeway), a roadway classified as "Urban Principal Arterial – Other" and a context classification of "C5 – Urban Center", which connects mainland Miami to Miami Beach. The specific limits of the bridge project extend from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue). The western bridge pair, comprised of Bridge Identification (ID) Numbers 870083 (westbound) and 870549 (eastbound), is located just west of North Bay Island/Harbor Island. The eastern bridge pair, comprised of Bridge ID Numbers 870084 (westbound) and 870550 (eastbound), is located between North Bay Island/Harbor Island and Treasure Island. The project is approximately 0.87 mile in length.

The existing western bridge pair consists of six lanes, including four 11-foot-wide travel lanes to the inside and two 13.5-foot-wide travel lanes to the outside, and a raised median connecting the two bridge structures. The outside travel lanes include shared-use markings to accommodate bicycles. In addition, a 5-foot-wide raised sidewalk is present on each side of the bridge pair to the outside. The existing eastern bridge pair consists of six 10-foot-wide travel lanes with a raised median connecting the two bridge structures, as well as a 5.5-foot-wide dedicated bicycle lane and a sidewalk varying between 5 and 6 feet in width (separated by guardrail) on each side of the bridge pair to the outside.

The bridge approaches are generally consistent with the typical section of the bridges, except for east of the western bridge pair which includes dedicated bicycle lanes. Crossing over the Biscayne Bay, the bridges have a maximum vertical clearance of 6.78 feet at Mean Low Water and a minimum vertical clearance of 4.78 feet at Mean High Water. Biscayne Bay at the bridge crossings is not deemed a navigable waterway by the United States Coast Guard.

The existing bridges were constructed in the early 1970s and have been determined to be Structurally Deficient given the condition of each bridge's superstructure (beams), which is referred to as "Sonovoid" design. Due to the structure type, the number of structural deficiencies, and the low clearance from the water, the bridge superstructures cannot properly be repaired and must be replaced. Therefore, the Project Development and

Environment (PD&E) Study will evaluate bridge rehabilitation and replacement alternatives that are anticipated to be generally within the same footprint of the existing bridges. Future bridge concepts may also include potential provisions for new and/or improved paved shoulders/marked bicycle lanes and sidewalks. The existing right of way varies along the project segment and ranges from approximately 100 to 150 feet. Minimal right of way is anticipated to accommodate the replacement bridges; however, specific right of way requirements for the project will be determined during the PD&E Study.

Figure 1. Project Location Map

2 Data Collection

The traffic data obtained for the study is listed below and graphically depicted in **Figure 2**. Raw data traffic worksheets are provided in **Appendix A**.

2.1 Traffic Counts

Seventy-two-hour machine counts (volume) were collected from Tuesday, October 4, 2022, through Thursday, October 6, 2022, at all intersection approaches at the following locations:

1. SR 934 and Pelican Harbor Drive Intersection - signalized
2. SR 934 and Harbor Island Drive Intersection - signalized
3. SR 934 and Adventure Avenue Intersection – signalized

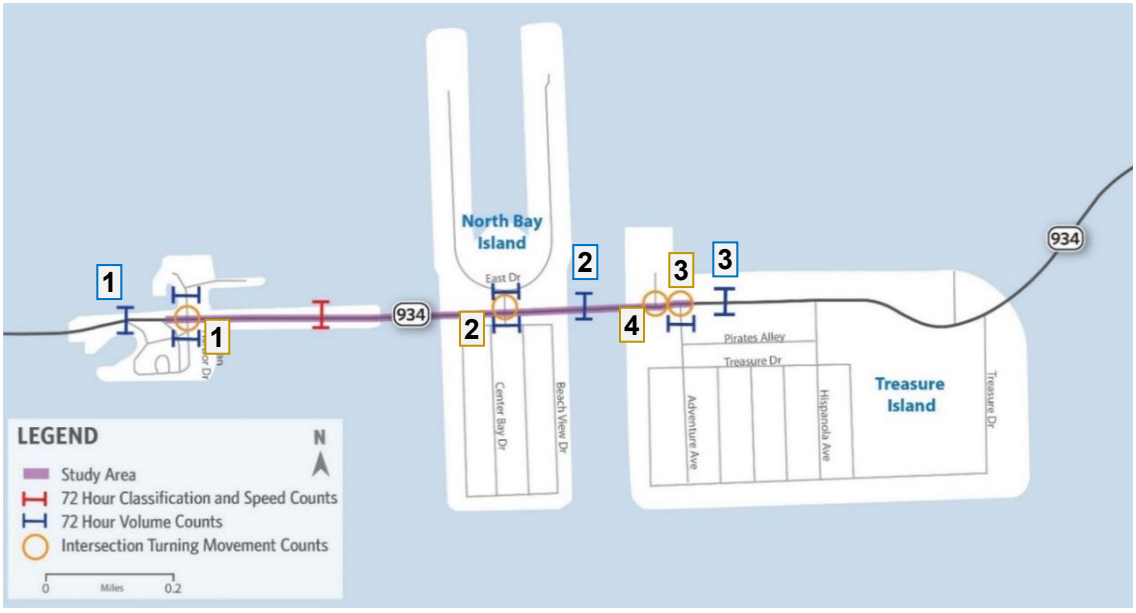
Weekday 3-hour AM peak (7:00AM – 10:00AM) and 3-hour PM (4:00AM – 7:00AM) peak vehicle (car and truck) turning movement (including U-turns), bicycle, and pedestrian counts were collected on October 4th and 6th, 2022, at the following locations:

1. SR 934 and Pelican Harbor Drive Intersection - signalized
2. SR 934 and Harbor Island Drive Intersection - signalized
3. SR 934 and Adventure Avenue Intersection - signalized
4. SR 934 and Driveway west of Adventure Avenue Intersection - unsignalized

2.2 Classification Counts

Seventy-two-hour classification counts were collected from Tuesday, October 4, 2022, through Thursday, October 6, 2022, on SR 934 between Pelican Harbor Drive and Harbor Island Drive Intersections.

Figure 2. Data Collection Map



3 Existing Year (2022) Traffic Development

3.1 Annual Average Daily Traffic (AADT) Volume

The Annual Average Daily Traffic (AADT) volumes were developed from the 72-hour traffic machine counts. The AADT for each machine count site was developed by applying a seasonal factor (SF) of 0.97 obtained from the 2021 Miami-Dade County Peak Season Factor Category Report from FDOT Florida Traffic Online (2021). An axle correction factor (ACF) of 0.96 obtained from the 2021 Miami-Dade County Weekly Axle Factor Category Report from FDOT Florida Traffic Online (2021) was also applied to intersection approach volume only counts. **Table 1** summarizes the existing AADTs for each intersection approach. The resulting AADTs were compared to the AADTs from FDOT Florida Traffic Online (FTO) 2021 for reasonableness. Related FTO data can be found in **Appendix B**.

Table 1 Existing Year (2022) AADT

Location	2022 AADT
SR 934 - West of Pelican Harbor Drive	42,000
SR 934 - East of Pelican Harbor Drive	42,000
SR 934 - East of Harbor Island Drive	39,500
SR 934 - East of Adventure Avenue	38,500
Pelican Harbor Drive - South of SR 934	800
Pelican Harbor Drive – North of SR 934	700
North Bay Island Drive - South of SR 934	1,200
Harbor Island Drive - North of SR 934	7,200
Channel 7 Drive - North of SR 934	600
Adventure Avenue - South of SR 934	3,400

3.2 Field Traffic Factors

The ratio of the traffic volume in the study hour to the AADT is called the peak-to-daily volume ratio. The peak hour peak direction distribution percentage is the directional distribution factor, defined as the proportion of the total, two-way design hour traffic travelling in the peak direction. The ratio of heavy vehicles is called the peak hour truck percentage. Using the collected field data, traffic factors for each intersection approach were calculated, see **Table 2**.

Table 2 Field Traffic Factors

Location	Peak Hours*	Peak-to-Daily Volume Ratio	Peak hour Peak Direction Distribution %	Peak Hour Truck %**
SR 934 - West of Pelican Harbor Drive	AM	0.073	0.511	0.025
	PM	0.074	0.544	0.021
SR 934 - East of Pelican Harbor Drive	AM	0.073	0.504	0.027
	PM	0.073	0.544	0.020
SR 934 - East of Harbor Island Drive	AM	0.071	0.519	0.025
	PM	0.074	0.571	0.023
SR 934 - East of Adventure Avenue	AM	0.071	0.539	0.028
	PM	0.075	0.559	0.024
Pelican Harbor Drive - South of SR 934	AM	0.045	0.694	-
	PM	0.131	0.514	-
Pelican Harbor Drive – North of SR 934	AM	0.039	0.704	0.037
	PM	0.130	0.527	0.000
North Bay Island Drive - South of SR 934	AM	0.078	0.591	0.032
	PM	0.080	0.521	0.031
Harbor Island Drive - North of SR 934	AM	0.067	0.667	0.014
	PM	0.077	0.586	0.004
Channel 7 Drive - North of SR 934	AM	0.105	0.810	-
	PM	0.088	0.868	-
Adventure Avenue - South of SR 934	AM	0.080	0.681	-
	PM	0.081	0.538	-

*Peak Hours vary by location; **Truck Data not available for volume only count locations

3.3 Directional Peak Hour Volume

Directional peak hour volumes for the existing (2022) condition were calculated from the field collected data. **Table 3** summarizes the AM and PM peak hour directional volume for each intersection approach based on field collected data to determine the peak volume approach. It should be noted that volumes shown are an average of the three days of collected field data.

Table 3 Directional Peak Hour Volumes

Location	Peak Hours*	Direction 1 (NB/EB)	Direction 2 (SB/WB)
SR 934 - West of Pelican Harbor Drive	AM	**1,561**	1,492
	PM	1,415	**1,686**
SR 934 - East of Pelican Harbor Drive	AM	**1,543**	1,518
	PM	1,406	**1,676**
SR 934 - East of Harbor Island Drive	AM	**1,450**	1,342
	PM	1,265	**1,685**
SR 934 - East of Adventure Avenue	AM	**1,465**	1,253
	PM	1,262	**1,600**
Pelican Harbor Drive - South of SR 934	AM	11	**25**
	PM	51	**54**
Pelican Harbor Drive – North of SR 934	AM	8	**19**
	PM	43	**48**
North Bay Island Drive - South of SR 934	AM	38	**55**
	PM	**50**	46
Harbor Island Drive - North of SR 934	AM	156	**327**
	PM	**323**	228
Channel 7 Drive - North of SR 934	AM	**51**	12
	PM	7	**46**
Adventure Avenue - South of SR 934	AM	**186**	87
	PM	**149**	128

*Peak hours vary by location

3.4 Intersection Peak Hour Volume

The intersection morning peak hour and the evening peak hour (AM and PM peak hour) volumes were developed from the 6-hour turning movement counts. Based on the collected data, the global AM and PM peak hours were established as 8:00 AM and 5:00 PM, respectively. All intersection volume data was compared to the machine count locations for reasonableness. Seasonally factored, balanced turning movement volumes are presented in **Figure 3,** with corresponding truck factors presented in **Figure 4**.

Figure 3 Existing (2022) AM & PM Peak Hour Turning Movement Volumes

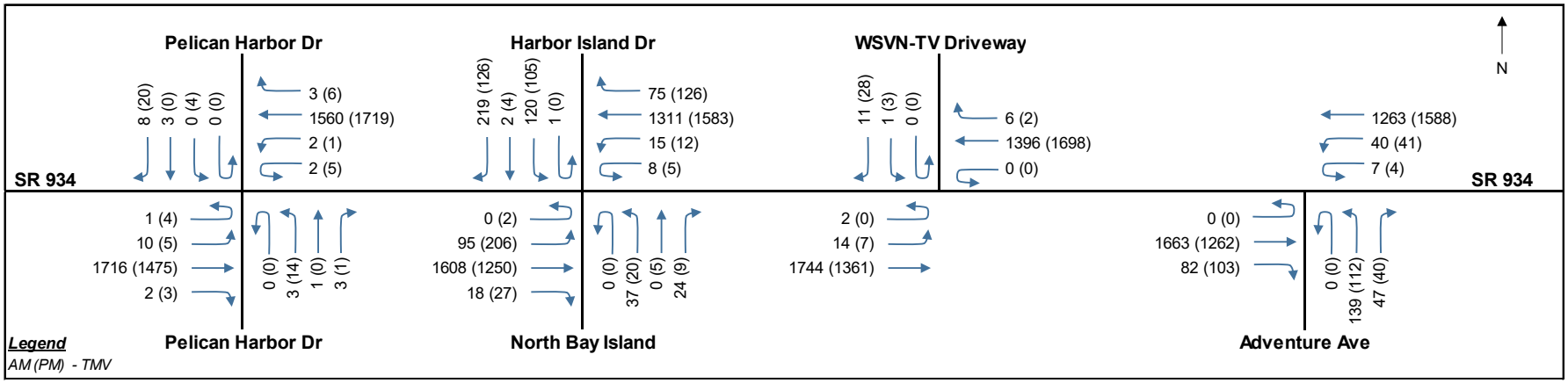
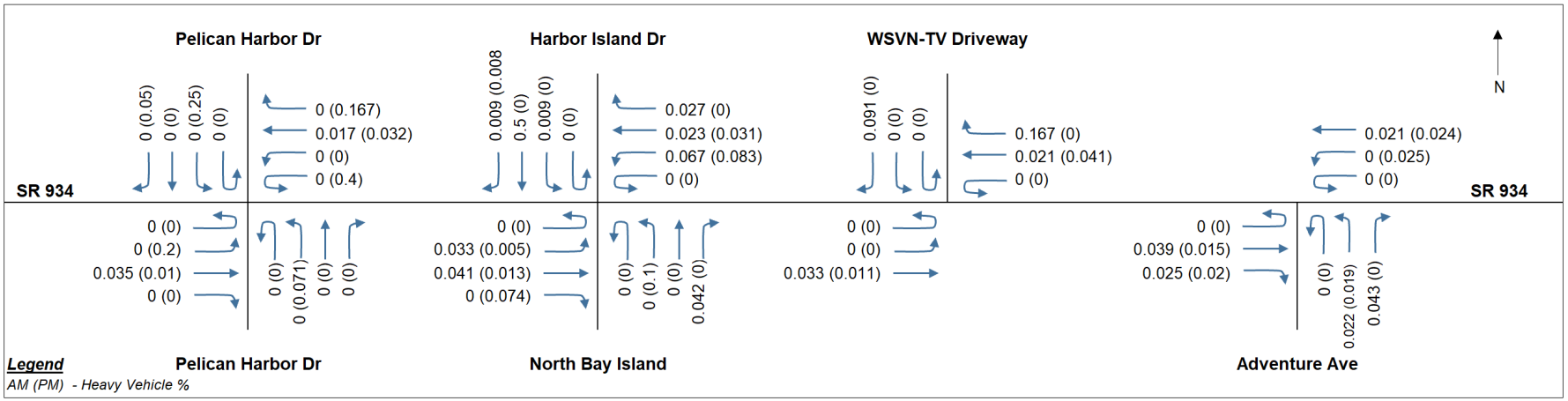


Figure 4 Existing (2022) AM & PM Peak Hour Turning Movement Truck Percentages



The Peak Hour Factor (PHF) is defined as the hourly volume during the analysis hour divided by the peak 15-minute flow rate within the analysis hour. PHF was calculated for each intersection for AM and PM global peak hours for each intersection and presented in **Table 4**. As noted in FDOT's 2021 Traffic Analysis Handbook, the future year analysis will be performed using a PHF of 0.95 for urban arterials.

Table 4 Intersection Peak Hour Factors

Intersection	Peak Hour Factor	
	AM Peak Hour	PM Peak Hour
SR 934 and Pelican Harbor Drive	0.93	0.95
SR 934 and Harbor Island Drive	0.94	0.93
SR 934 and WSVN TV Driveway	0.96	0.92
SR 934 and Adventure Avenue	0.96	0.93

3.5 Recommended Traffic Factor Development

The traffic factors established in this section will be used in developing design hour volumes (DHV's) at the study intersections for the future conditions. These characteristics are determined based on the procedures outlined in the 2019 FDOT Project Traffic Forecasting (PTF) Handbook. These factors are important as they play a role in determining the appropriate number of lanes along a facility or design features such as pavement thickness. Key traffic factors include: K-factor, D-factor, Daily Truck Volume (DTV) and Design Hour Truck (DHT) which are further described in this section.

In general terms, the K-factor is the percentage of the daily traffic volume that occurs during the design hour of the day. Specifically, the K-factor is used to convert an AADT volume into a two-way DHV for a given roadway segment. The FDOT has implemented standardized K-factors to be used in traffic forecasting statewide. The Standard K-factor is dependent upon the area type and facility type for a given project. A Standard K-factor of 9.0 percent is typically used for most urban arterials. This means that 9 percent of the daily traffic occurs in the design hour.

The D-factor represents the percentage of traffic traveling in each direction along a roadway segment during the design hour. By applying a D-factor to the previously developed two-way design hour volume, the Direction Design Hourly Volumes (DDHVs) is calculated for a given roadway segment. These segment DDHVs for each leg of an intersection was utilized in developing design hour intersection volumes.

3.5.1 Recommended Traffic Factors

The recommended K and D factors is based on the recommended range of values for urban arterials from the 2019 FDOT Project Traffic Forecasting Handbook and selected based on the comparison of data collected and data obtained from the FTO for traffic stations 870533, 870142, and 870145. It should be noted that DHT factors are based on

an average from data collection values. **Table 5** summarizes the recommended traffic factors:

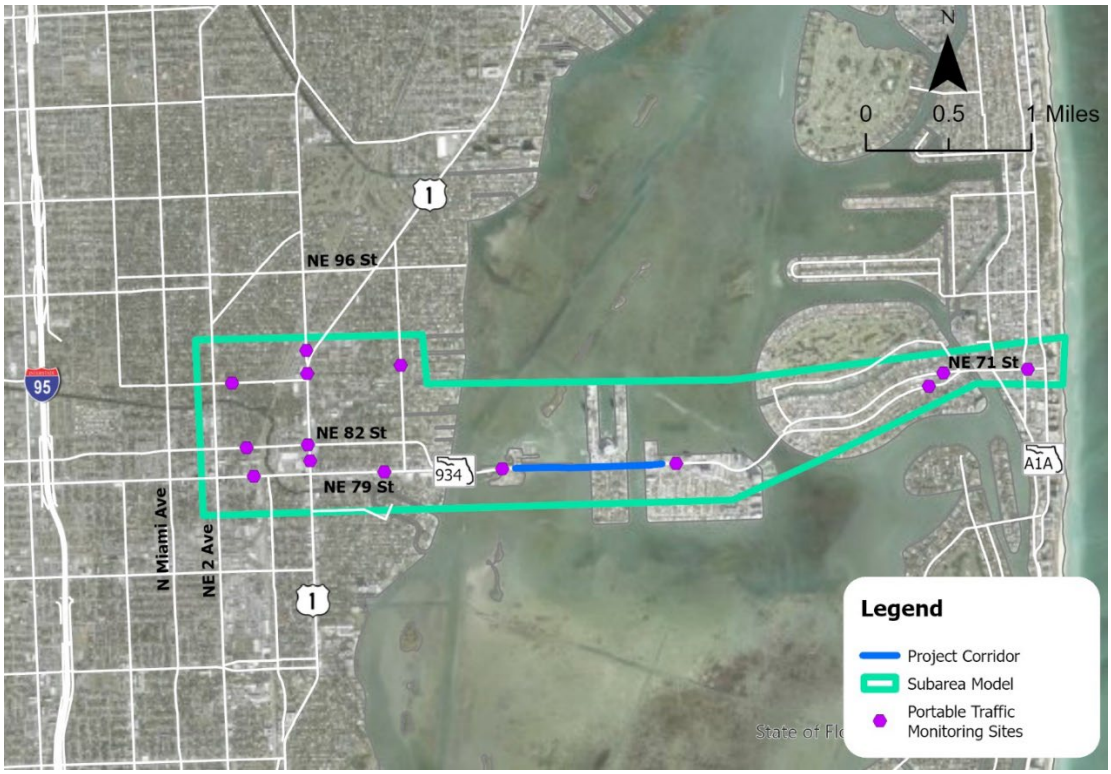
Table 5 Recommended Traffic Factors

Roadway	K (%)	D (%)	DHT Factors (%)
SR 934	9.0	53.7	2.4
Pelican Harbor Drive	9.0	60.9	1.8
Harbor Island Drive	9.0	62.6	0.9
WSVN-TV Driveway	9.0	83.9	2.7
Adventure Avenue	9.0	60.9	2.7

4 Subarea Model Validation

A subarea validation was conducted using the Southeast Regional Planning Model (SERPM) v8.522. The SERPM v8.522 was developed in accordance with Long Range Transportation Plan (LRTP) throughout FDOT District 6, which was validated for year 2015. The goal of the base year model calibration and validation is to improve the correlation between model estimates and observed conditions on the roadways within the study area; and ensure the reasonableness of the daily traffic demand forecasts. Reasonableness and project level model accuracy of the subarea was based on assessment standards described in Table 3-3 of the 2019 FDOT Project Traffic Forecasting Handbook and Table 2.10 of the Florida Standard Urban Transportation Model Structure (FSUTMS) Cube Framework Phase II Model Calibration and Validation Standards. The FTO 2015 AADT data was used for the model validation. The level of accuracy of the model is checked by percent error by volume groups, percent error by facility types, and the percent root mean square error (RMSE) for the study area. A map of the SR 934 model subarea is shown in **Figure 5**.

Figure 5 Subarea Model Limits



4.1 Highway Network Reasonableness Check

The changes that follow were made to the SERPM v8.522 year 2015 model to reflect the year 2015 traffic conditions. The speed limit for a link on NE 82 Street was changed from 20 to 40 miles per hour (mph). The model plots showing above mentioned changes are included in **Appendix C**.

4.2 Validation Results

Table 6 shows the percent deviation error by volume group. As shown in **Table 5**, the traffic count percent errors for volume groups are within the acceptable FDOT model validation standards except for volume group less than 10,000 which is slightly above the acceptable standard. Although the subject volume group is outside the standard, the majority of the subarea network is comprised of links with volumes greater than 10,000 vehicles.

Table 6 Volume over Count Ratios by Volume Group & Percent Error

Statistic	Acceptable	Preferable	Before	After
< 10000	50%	25%	-55%	-54%
10,000-30,000	30%	20%	-10%	-8%
30,000-50,000	25%	15%	-21%	-20%

Table 7 shows the volume over count ratios by corridor. The validation results minor improvements and the overall volume to count ratios are 0.94 and 0.96 before and after the subarea validation, respectively.

Table 7 Volume over Count Ratios by Corridor

Road Name	Before Validation			After Validation		
	SERPM Volumes	FTO AADTs	Ratio	SERPM Volumes	FTO AADTs	Ratio
SR 934/NE 79 Street	45,145	46,500	0.97	45,742	46,500	0.98
NE 2 Avenue	12,331	13,800	0.89	13,127	13,800	0.95
NE 10 Avenue	4,898	6,100	0.80	5,395	6,100	0.88
Biscayne Blvd/US1	28,072	32,700	0.86	28,584	32,700	0.87
NE 82 Street	20,762	13,000	1.60	20,711	13,000	1.59
Normandy Drive	15,399	18,000	0.86	15,550	18,000	0.86
NE 71 Street	6,195	11,700	0.53	6,387	11,700	0.55
Total	**132,802**	**141,800**	**0.94**	**135,496**	**141,800**	**0.96**

The percent RMSE for the study area is another aggregate measure of how well the model has been validated against the traffic counts. The RMSE for the study area comprising the study roadway links is 33%, which is accepted by the 45-35% FSUTMS standard. **Table 8** shows the calibrated model has been adjusted reasonably to replicate the existing traffic counts within study area. The base year model plots are provided in **Appendix D**.

Table 8 RMSE Percentage Statistics

Volume Group	Acceptable	Preferable	RMSE%
5,000 - 9,999	45	35	67
10,000 - 14,999	35	27	52
15,000-19,999	30	25	21
20,000-29,999	27	15	34
30,000-49,999	25	15	21
Areawide	45	35	33

Based on the validation efforts performed, the model is considered acceptable for use in estimating future travel demand within the study area. A future year (2045) subarea model scenario was developed based on these calibration efforts to obtain future year volume forecasts, which is discussed in detail in the next section.

5 Traffic Forecasting

Based on the approved Traffic Analysis Methodology, the future traffic forecasts were developed for the following analysis years:

- Opening Year – 2030
- Design Year – 2050

The development of traffic projections for the SR 934 study corridor required review of historical growth, trend growth, and proposed development levels within the corridor vicinity. An annual growth rate was selected for the study roadway segment based upon comparisons of historic growth rates, trends growth rates, projected area-wide growth trends from the Bureau of Economic and Business Research (BEBR) (population growth from BEBR), and model growth rates. The subsequent sections summarize the review of the growth rates and the resulting forecast AADTs.

5.1 BEBR Population Projections

The population projections for Miami-Dade County were obtained from the BEBR Volume 55, Bulletin 192, dated February 2022. The BEBR bulletin provides three estimates for future year: low, medium, and high. **Table 9** summarizes the annual population growth rate for Miami-Dade County. The BEBR projections are included in **Appendix D**. **Table 9** shows annual growth rates for Miami-Dade County range from approximately -0.25 percent to 1.16 percent. It should be noted that BEBR data does not account for growth or decline of specific roadway segments. It is a countywide estimate and therefore is useful in comparing the growth rates obtained from other sources. The key takeaway here is that the county population is likely expected to grow and therefore, there will be growth in the study area in general.

Table 9 BEBR Population Projections

County	Estimation	2021	2050 Projections	Annual Growth Rate (2021-2050)
Miami-Dade	Low	2,731,939	2,543,700	-0.25%
	Medium		3,179,600	0.52%
	High		3,815,500	1.16%

5.2 SERPM v8.522 Future Modeling

As discussed earlier, the SERPM v8.522 model was used to generate future daily traffic volume projection in the project area. The validation adjustments that were applied to the base year validated 2015 model were carried over to the future year model. For future conditions, the year 2045 model runs were conducted. As of the time of the analysis, the North Bay Village development has not been approved and was not considered in the forecasting analysis. Traffic Analysis Zones (TAZs) within North Bay Village, to the north and south of SR 934, and within Miami Beach were reviewed to ensure projected growth is shown to account for the potential growth from new developments.

5.2.1 SERPM 2045 Roadway Network

Before conducting the year 2045 model run, the roadway network was reviewed to account for any new developments and network connectivity. No updates were made regarding socioeconomic data within SERPM.

The future year travel demand model considered all the programmed and planned improvements in the vicinity of the study area that are consistent with regional transportation plans including the following:

- FDOT Five Year Work Program
- FDOT Strategic Intermodal System (SIS) plans
- Adopted LRTPs and Comprehensive Plans

For the location of the project corridor, no additional changes were observed throughout the regional transportation plans.

5.3 Historic and Trend Growth Rates

Historical AADTs were obtained from the 2021 FTO. Historic growth rates were evaluated using FDOT standard spreadsheets for linear trend analysis. Evaluations were conducted for three (3) FTO count sites. The FDOT Historical AADT reports, historic growth, and trend growth rate analyses for each count station are provided in **Appendix B.**

Table 10 summarizes the historical AADT data along with the linear historical growth rates, linear trends growth rates and respective R-square values at each station along SR 934. Based on this disruption affecting growth rates, year 2020 AADTs were adjusted in the trends analysis sheets; however, no locations displayed R-square values greater than 17 percent. Generally, only trend growth rates with an R-square value greater than or equal to 75 percent should be considered when determining growth factors with historical volumes.

Table 10 Historic and Trend Growth Rates

Roadway		SR 934		
Location		West of NE 10 Avenue	West of Pelican Harbour Drive	East of Adventure Avenue
Year		Site ID 870145	Site ID 870142	Site ID 870533
2011		28,200	39,500	38,000
2012		25,900	43,000	36,500
2013		25,700	39,000	36,500
2014		22,100	39,000	27,500
2015		23,000	46,500	37,500
2016		26,900	45,500	30,500
2017		27,000	44,000	39,500
2018		26,500	41,500	41,000
2019		27,800	41,500	39,500
2020		20,600	40,500	37,000
2021		25,400	43,500	39,000
Historic GR	Linear	0.27%	0.63%	1.46%
	Exponential	0.31%	0.64%	1.40%
	Decaying	-0.12%	0.79%	0.89%
Trend GR (2021-2050)	Linear	0.28%	0.43%	1.25%
	Exponential	0.30%	0.59%	1.38%
	Decaying	-0.01	0.14%	0.15%
Trend R^2	Linear	1.62%	11.20%	15.56%
	Exponential	1.90%	12.22%	13.82%
	Decaying	0.26%	16.72%	5.69%

5.4 Model Growth Rates and Opening/Design Year AADTs

After updating roadway networks as previously discussed, one regional 2045 SERPM 8.522 model run was conducted.

The recommended growth rates were determined based on a comprehensive evaluation of BEBR and model growth rates summarized in **Table 11**. Based on this review, it was determined that the 0.56% recommended growth rate is consistent with the lower growth projected for the TAZs east of the causeway compared to the mainland.The applied linear growth rates for the forecasted AADTs are summarized in **Table 12**. The 2030 and 2050 AADTs were developed by applying the selected growth rate shown in **Table 11** to existing 2022 AADTs that were obtained via data collection in the field, and can be found in the Traffic Data Collection Summary found in **Appendix A**. The resulting 2030 and 2050 AADTs are summarized in **Table 12** and the supporting table can be found in **Appendix C**.

Table 11 Growth Rate Comparisons

Roadway	Segment	2021 AADT	Comparison of Annual Growth Rate				Recommended Annual Growth Rate	Notes
			BEBR Medium	Validated SERPM v8.522				
				2015 Count	2045 Count	Growth Rate		
SR 934	West of North Bayshore Drive	20,900	0.63%	25,134	29,209	0.50%	0.56%	Average of Validated Model
	From US-1 to North Bayshore Drive	18,000	0.63%	20,608	25,181	0.67%		
	From North Bayshore Drive to Adventure Avenue	43,500	0.63%	45,742	54,390	0.58%		
	From Adventure Avenue to Bay Drive West	39,000	0.63%	31,523	36,584	0.50%		

Table 12 Forecasted 2050 AADT

Location	2022 AADT	Forecasted 2030 AADT	Forecasted 2050 AADT
SR 934 - West of Pelican Harbor Drive	42,000	44,000	48,500
SR 934 - East of Pelican Harbor Drive	42,000	44,000	48,500
SR 934 - East of Harbor Island Drive	39,500	41,500	46,000
SR 934 - East of Adventure Avenue	38,500	40,000	44,500
Pelican Harbor Drive - South of SR 934	800	800	900
Pelican Harbor Drive – North of SR 934	700	700	800
North Bay Island Drive - South of SR 934	1,200	1,300	1,400
Harbor Island Drive - North of SR 934	7,200	7,500	8,300
WSVN TV Driveway - North of SR 934	600	600	700
Adventure Avenue - South of SR 934	3,400	3,600	3,900

5.5 Opening Year and Design Year Peak Hour Volume

To develop future turning movement volumes for each intersection, FDOT's approved Turning Movement Tool (TMTool) was inputted with Existing (2022) AADT volumes, balanced existing intersection peak hour volumes, appropriate growth rates, future AADT volumes, and recommended K and D factors to develop Design Year (2050) peak hour volumes. It should be noted that the minor disprepancies between existing traffic factors and traffic factors obtained from TMTool are due to the inputs in TMTool utilizing balanced volumes instead of field counts. Opening year (2030) volumes were developed by interpolating volumes between existing and design year. Forecasted, balanced, turning movement volumes for opening and design year are shown in **Figure 6** and **Figure 7** respectively. TMTool sheets will be provided in **Appendix E**.

Figure 6 Opening (2030) AM & PM Peak Hour Turning Movement Volumes

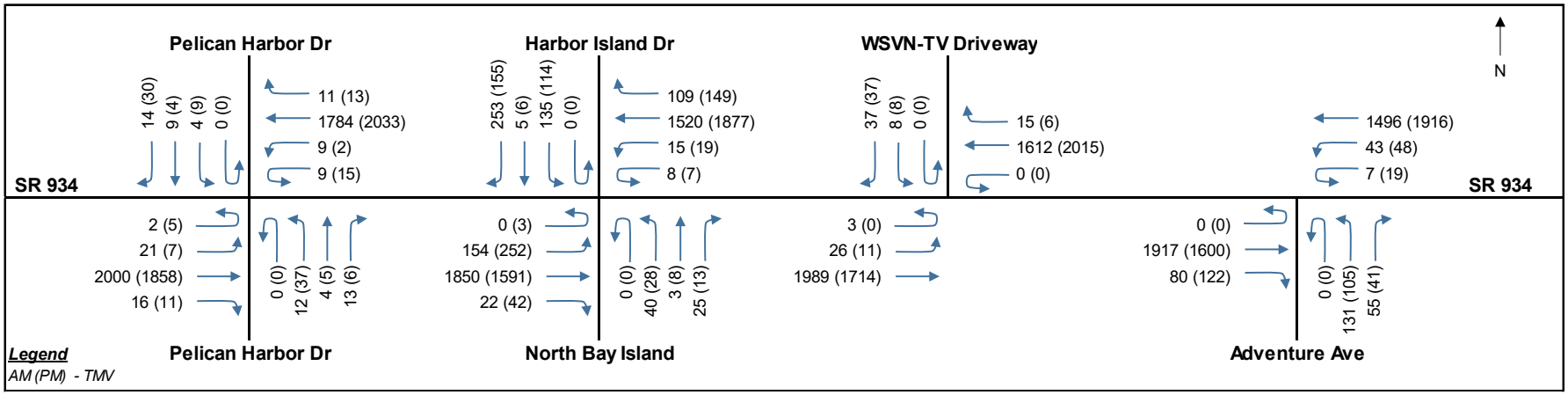
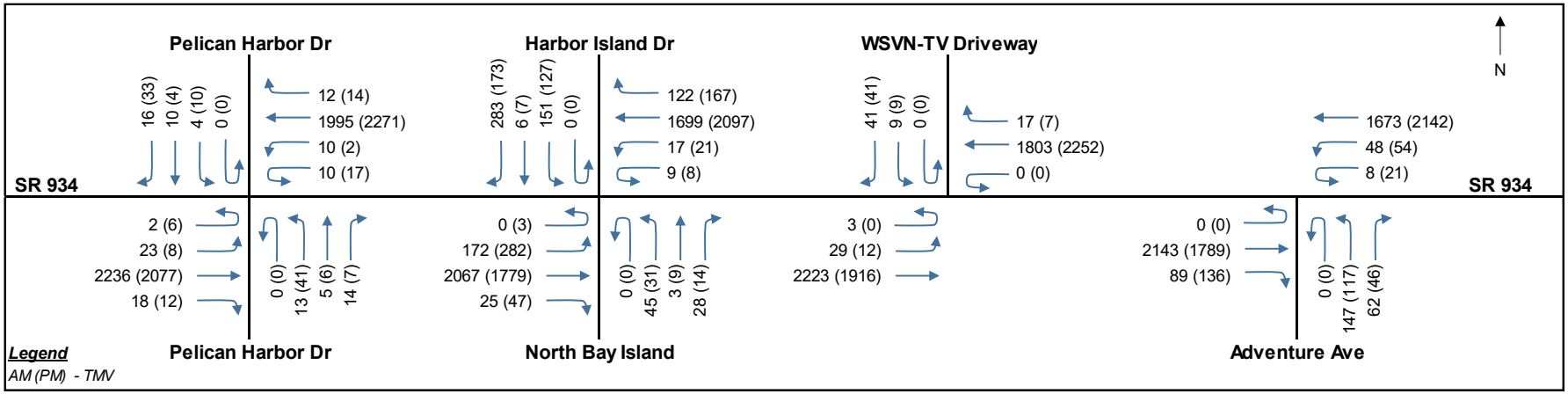


Figure 7 Design (2050) AM & PM Peak Hour Turning Movement Volumes



Appendix A. Traffic Data Collection

72-Hour Counts

SR 934 - NE 79th Street West of Pelican Harbor Dr - 72-Hour Classification Summary
Three Day Volume Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																									
Direction	Eastbound														Westbound											
Period	AM							PM							AM							PM						
Class	Bikes[1]	Motorcycles[2]	Lights[3]	Single-Unit Trucks[4]	Buses[5]	Articulated Trucks[6]	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	3	75	0	0	0	78	0	5	237	6	2	0	250	0	0	72	0	1	0	73	1	3	294	7	2	2	309
12:15	0	3	74	0	1	0	78	1	4	267	9	1	1	283	0	0	51	0	0	0	51	1	8	314	13	1	1	338
12:30	0	0	72	0	0	0	72	0	4	269	3	1	0	277	0	2	49	0	1	0	52	1	3	292	8	1	2	307
12:45	0	1	43	0	0	0	44	0	5	225	6	1	0	237	1	2	52	0	0	0	55	0	3	284	8	1	0	296
1:00	0	1	42	0	0	1	44	0	7	246	6	2	1	262	0	1	32	1	0	0	34	0	5	222	7	1	4	239
1:15	1	1	43	0	1	1	47	0	6	356	8	4	0	374	0	2	27	0	0	0	29	1	3	286	9	0	0	299
1:30	0	0	35	0	0	0	35	0	3	268	8	2	0	281	0	0	23	0	0	1	24	1	1	287	7	2	1	299
1:45	0	1	44	0	1	0	46	2	2	286	5	3	0	298	0	0	30	0	0	0	30	1	6	309	6	3	2	327
2:00	0	1	29	0	0	0	30	2	4	169	5	1	0	181	0	0	22	0	1	0	23	0	1	226	7	0	0	234
2:15	0	0	38	0	0	0	38	0	10	413	4	3	0	430	0	0	26	0	0	1	27	0	2	376	17	2	2	399
2:30	0	0	28	0	0	0	28	2	9	276	2	3	0	292	0	1	15	0	0	0	16	1	5	302	3	0	1	312
2:45	0	0	23	0	0	1	24	0	5	324	1	1	0	331	0	0	23	0	0	0	23	1	6	311	9	2	1	330
3:00	0	0	20	0	1	0	21	1	9	293	1	1	0	305	0	0	25	1	0	0	26	0	3	348	7	2	0	360
3:15	0	0	14	0	0	0	14	0	9	269	7	2	0	287	1	0	20	0	0	0	21	2	6	375	5	1	0	389
3:30	0	0	23	1	0	0	24	1	10	325	2	1	0	339	0	3	25	0	0	0	28	1	5	404	10	3	0	423
3:45	0	0	22	2	1	1	26	3	8	353	5	4	0	373	0	1	18	0	0	0	19	1	5	355	6	2	5	374
4:00	0	0	20	0	0	0	20	2	7	330	3	6	0	348	0	2	18	2	0	0	22	1	11	388	7	4	1	412
4:15	0	0	22	0	0	0	22	0	4	331	3	2	0	340	0	0	26	1	0	0	27	1	2	416	9	9	1	438
4:30	0	1	34	1	0	0	36	0	11	351	3	1	0	366	0	1	21	1	0	1	24	0	3	423	1	7	1	435
4:45	1	0	22	1	0	1	25	2	4	330	3	3	0	342	0	0	40	1	0	0	41	2	5	418	3	4	2	434
5:00	0	0	26	1	1	0	28	0	11	345	1	3	0	360	0	0	45	1	0	0	46	0	4	403	7	2	2	418
5:15	0	1	39	0	4	1	45	3	3	337	1	2	0	346	0	2	45	0	0	0	47	4	7	398	9	3	1	422
5:30	0	1	54	5	2	0	62	1	5	390	0	1	0	397	0	2	72	1	0	1	76	2	3	399	7	3	0	414
5:45	0	0	84	1	1	0	86	2	7	390	2	3	1	405	0	3	96	3	0	0	102	0	3	359	7	1	1	371
6:00	0	0	81	5	6	1	93	2	11	366	4	2	0	385	0	1	109	0	2	0	112	0	5	319	7	5	1	337
6:15	1	3	115	2	11	1	133	2	14	382	2	0	0	400	0	0	138	1	4	0	143	4	6	255	2	1	1	269
6:30	0	3	140	2	7	1	153	1	11	400	0	1	1	414	1	1	198	1	5	0	206	2	7	253	1	2	0	265
6:45	1	3	216	6	5	1	232	0	7	336	0	4	0	347	0	2	206	1	3	0	212	3	11	237	5	1	0	257
7:00	0	7	225	2	2	0	236	2	4	350	0	2	0	358	4	5	230	1	1	3	244	0	6	291	5	1	0	303
7:15	2	4	235	8	6	0	255	0	5	304	0	1	0	310	1	6	316	0	2	1	326	1	8	298	4	1	2	314
7:30	0	4	307	10	1	0	322	1	10	314	0	1	0	326	2	4	352	1	3	0	362	0	2	267	3	0	0	272
7:45	0	6	355	1	6	0	368	0	7	315	0	1	0	323	0	8	387	1	3	0	399	0	7	260	1	0	0	268
8:00	0	8	449	11	1	0	469	0	4	257	0	1	0	262	0	2	310	3	2	1	318	0	0	245	0	2	1	248
8:15	1	7	401	11	2	2	424	1	8	345	0	0	0	354	0	5	376	3	4	1	389	0	4	188	0	0	0	192
8:30	0	3	362	11	3	0	379	1	4	274	0	0	0	279	0	2	352	1	2	0	357	0	4	205	0	1	0	210
8:45	2	7	378	7	1	1	396	1	8	188	0	2	0	199	0	5	362	1	1	0	369	0	1	192	0	1	0	194
9:00	1	4	314	13	1	0	333	0	11	230	0	0	0	241	2	8	355	4	2	0	371	0	5	149	0	0	0	154
9:15	0	5	322	10	1	0	338	1	4	258	0	1	0	264	4	4	339	5	1	1	354	0	1	145	0	1	0	147
9:30	0	2	292	10	1	1	306	0	4	211	0	0	0	215	0	3	309	6	1	1	320	1	3	147	1	0	0	152
9:45	1	6	229	10	1	0	247	0	2	180	0	0	0	182	2	0	308	3	2	2	317	0	2	147	0	0	1	150
10:00	0	3	271	17	1	2	294	0	6	209	1	1	0	217	0	8	282	5	1	0	296	1	2	126	1	1	0	131
10:15	0	3	237	8	1	0	249	0	7	189	0	1	0	197	0	4	272	12	2	3	293	0	2	146	0	0	0	148
10:30	0	5	274	14	1	0	294	0	3	154	0	0	0	157	2	5	272	10	0	1	290	1	5	118	0	1	0	125
10:45	0	5	254	10	1	2	272	0	9	151	0	0	0	160	4	6	275	9	2	2	298	0	1	129	0	0	0	130
11:00	2	1	215	8	1	0	227	0	5	164	0	1	0	170	1	2	261	9	2	3	278	0	1	139	0	2	0	142
11:15	2	8	242	8	1	0	261	0	4	140	1	0	0	145	1	5	260	4	1	0	271	0	4	119	0	1	0	124
11:30	0	6	263	11	2	1	283	0	4	136	0	1	0	141	1	4	281	12	1	0	299	0	2	139	0	0	0	141
11:45	0	9	260	7	2	2	280	0	1	84	0	0	0	85	0	3	247	10	1	0	261	0	2	96	0	0	0	98
Total	15	126	7,363	214	78	21	7,817	34	305	13,317	102	73	4	13,835	27	115	7,670	115	51	23	8,001	35	194	12,799	209	77	36	13,350
Directional	**21,652**														**21,351**												
ADT	**43,003**																										
AADT	**41,713**																										
Daily Truck %	**2.3%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street West of Pelican Harbor Dr - 72-Hour Classification Summary
Three Day Volume Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	6	104	0	0	0	110	1	4	265	10	0	1	281	0	0	82	1	1	0	84	0	2	271	25	1	0	299
12:15	0	5	98	0	1	0	104	1	6	304	3	0	2	316	0	3	65	0	0	0	68	0	1	295	37	1	1	335
12:30	0	1	81	0	0	0	82	0	8	238	7	2	0	255	0	3	72	0	1	0	76	0	0	297	10	1	2	310
12:45	0	4	54	0	1	0	59	0	3	236	3	3	0	245	0	2	48	0	0	0	50	0	6	326	9	2	1	344
1:00	0	2	50	0	0	0	52	0	7	305	6	1	0	319	0	2	39	0	0	0	41	2	5	296	4	1	2	310
1:15	0	0	63	0	0	1	64	1	6	241	0	4	1	253	0	2	33	1	0	0	36	1	8	284	9	1	1	304
1:30	0	0	40	1	0	0	41	0	5	306	3	1	2	317	0	1	32	1	0	0	34	0	6	299	8	1	1	315
1:45	0	1	33	0	0	0	34	0	7	290	1	1	0	299	0	0	23	1	0	0	24	0	5	273	9	1	0	288
2:00	0	1	35	0	1	0	37	0	7	282	3	2	1	295	1	0	31	0	0	1	33	0	10	291	6	1	2	310
2:15	0	0	27	0	0	0	27	3	2	282	5	0	0	292	0	1	29	0	1	0	31	0	3	275	5	1	3	287
2:30	0	2	26	0	0	0	28	0	4	285	4	2	1	296	0	0	20	0	0	3	23	1	2	347	12	1	0	363
2:45	0	0	21	1	1	0	23	2	8	321	2	4	1	338	0	0	12	0	0	0	12	0	5	304	1	2	0	312
3:00	0	1	20	0	0	0	21	3	6	303	8	1	2	323	0	0	14	0	1	0	15	1	1	380	7	1	1	391
3:15	0	0	24	0	0	0	24	0	5	328	4	1	1	339	0	0	24	1	0	0	25	0	7	388	3	0	0	398
3:30	0	0	17	1	0	0	18	0	6	307	1	0	0	314	0	0	21	0	0	0	21	0	5	432	6	2	2	447
3:45	0	0	32	0	0	0	32	1	4	303	2	2	0	312	0	1	15	0	0	0	16	0	9	375	9	0	0	393
4:00	0	0	29	0	1	0	30	1	7	337	1	0	1	347	0	0	23	0	1	0	24	2	4	356	6	2	1	371
4:15	0	1	26	0	0	0	27	1	4	329	3	2	0	339	0	0	19	0	0	0	19	2	8	425	8	2	0	445
4:30	0	1	23	1	0	1	26	1	7	368	4	3	2	385	0	0	33	0	0	0	33	3	8	421	7	2	1	442
4:45	0	0	25	1	0	0	26	3	6	322	1	2	0	334	1	1	29	3	0	0	34	1	4	365	3	3	0	376
5:00	0	0	30	0	1	1	32	0	5	334	1	0	0	340	0	1	51	1	1	0	54	0	7	335	3	1	0	346
5:15	1	0	42	0	1	1	45	1	6	308	0	2	0	317	0	2	61	0	0	0	63	0	3	333	8	3	3	350
5:30	0	2	50	1	1	1	55	1	4	343	2	1	0	351	0	2	97	1	1	1	102	0	6	334	4	1	3	348
5:45	0	1	82	2	1	1	87	4	8	364	0	3	1	380	2	5	79	0	1	0	87	1	4	325	3	2	5	340
6:00	1	1	85	6	4	0	97	1	6	364	1	2	0	374	0	2	97	4	0	2	105	2	9	315	2	4	1	333
6:15	1	2	112	6	2	1	124	1	9	388	1	1	1	401	0	0	161	0	0	2	163	0	10	299	0	2	1	312
6:30	0	3	156	7	2	1	169	3	8	354	1	1	1	368	0	1	143	1	2	2	149	1	6	268	3	2	0	280
6:45	0	7	210	6	1	0	224	4	5	355	0	0	0	364	0	1	178	2	2	0	183	1	6	251	3	1	1	263
7:00	0	6	231	3	5	0	245	3	6	337	1	2	0	349	0	0	203	4	1	0	208	1	5	258	0	1	1	266
7:15	0	5	238	4	2	1	250	0	10	310	0	2	0	322	2	3	281	4	1	0	291	2	2	231	1	1	0	237
7:30	1	4	270	10	6	0	291	4	9	332	0	0	1	346	0	7	319	3	3	0	332	0	8	264	1	0	1	274
7:45	0	5	270	18	5	0	298	0	8	281	0	0	0	289	0	1	321	3	3	0	328	1	6	225	1	1	1	235
8:00	0	5	257	11	1	1	275	0	6	316	1	2	1	326	0	7	270	0	1	0	278	1	3	259	0	1	0	264
8:15	0	10	390	13	4	0	417	1	6	265	1	1	0	274	2	1	393	5	1	0	402	0	2	242	2	1	0	247
8:30	1	2	321	14	1	0	339	0	5	256	1	0	0	262	2	3	362	1	1	1	370	0	10	229	1	1	0	241
8:45	0	4	276	4	2	0	286	1	8	260	0	1	0	270	2	2	382	2	2	0	390	1	2	181	1	1	0	186
9:00	0	2	291	9	2	0	304	2	4	230	0	0	0	236	0	5	288	4	0	1	298	2	6	204	0	0	0	212
9:15	1	8	295	10	1	1	316	0	6	200	1	1	0	208	0	1	300	2	3	0	306	0	2	177	1	0	0	180
9:30	1	8	295	14	1	0	319	0	4	202	0	0	0	206	3	2	280	7	2	0	294	1	0	139	0	0	0	140
9:45	1	2	259	6	1	2	271	0	8	189	1	0	0	198	0	4	269	7	2	1	283	0	5	155	0	0	0	160
10:00	1	3	219	13	0	0	236	0	9	198	0	1	0	208	0	4	262	10	0	1	277	0	3	123	1	0	0	127
10:15	2	6	269	13	2	0	292	0	2	172	1	1	0	176	0	2	292	3	2	0	299	0	2	164	0	0	0	166
10:30	0	3	256	11	1	1	272	0	4	186	1	0	0	191	2	6	268	2	1	1	280	0	0	137	0	0	0	137
10:45	0	2	229	11	1	1	244	1	6	154	0	0	0	161	2	1	296	8	1	0	308	0	5	125	0	1	0	131
11:00	3	4	260	10	2	0	279	0	8	157	0	1	1	167	4	7	276	7	1	1	296	0	2	127	1	0	0	130
11:15	0	4	171	6	1	0	182	0	4	142	2	0	0	148	1	5	175	4	1	1	187	0	5	109	0	1	0	115
11:30	1	7	230	8	1	0	247	0	4	139	1	1	0	145	0	6	303	5	2	1	317	0	0	127	1	0	1	129
11:45	1	6	236	7	3	1	254	0	9	97	1	0	0	107	0	5	283	19	1	1	309	0	1	92	0	0	0	93
Total	16	137	6,858	228	60	16	7,315	45	289	13,185	89	54	21	13,683	24	102	7,354	117	41	20	7,658	27	219	12,728	221	51	36	13,282
Directional	**20,998**														**20,940**												
ADT	**41,938**																										
AADT	**40,680**																										
Daily Truck %	**2.3%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street West of Pelican Harbor Dr - 72-Hour Classification Summary
Three Day Volume Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	5	63	0	0	0	68	0	8	288	2	1	0	299	0	4	81	0	1	0	86	3	7	275	5	0	2	292
12:15	0	3	69	0	1	0	73	1	3	291	6	3	1	305	0	0	69	0	0	0	69	2	2	278	11	2	1	296
12:30	0	4	80	0	0	0	84	0	6	316	10	1	3	336	1	2	48	0	1	0	52	0	5	301	6	1	0	313
12:45	1	2	45	0	0	0	48	1	7	266	10	2	1	287	0	2	51	0	0	0	53	1	4	326	11	1	2	345
1:00	0	2	65	0	1	0	68	0	7	269	7	4	2	289	0	3	40	0	1	0	44	0	3	261	7	1	2	274
1:15	0	0	34	0	0	0	34	1	3	269	5	3	1	282	0	0	35	0	0	0	35	0	3	293	8	0	2	306
1:30	0	1	32	0	0	0	33	0	6	300	7	2	2	317	0	0	31	0	0	0	31	0	5	278	7	3	1	294
1:45	0	1	30	0	1	0	32	0	11	279	7	3	0	300	0	1	33	0	0	0	34	0	6	323	10	0	2	341
2:00	0	0	39	0	0	0	39	0	7	348	3	0	1	359	0	1	24	0	0	0	25	1	6	245	5	2	2	261
2:15	0	1	38	0	0	0	39	0	5	290	1	3	0	299	0	1	21	0	1	0	23	1	5	386	13	2	2	409
2:30	0	0	29	0	0	0	29	0	6	337	2	1	0	346	0	1	19	0	0	0	20	0	5	168	4	0	1	178
2:45	0	2	16	0	0	0	18	0	5	320	2	2	2	331	0	0	16	0	0	0	16	0	8	437	23	3	3	474
3:00	0	1	30	0	1	0	32	1	5	281	3	2	0	292	0	1	12	0	1	0	14	0	7	367	7	3	1	385
3:15	0	0	34	0	0	0	34	1	7	311	3	0	3	325	0	1	20	0	0	0	21	0	4	374	11	2	0	391
3:30	0	1	23	5	0	0	29	0	11	342	0	5	1	359	0	0	24	0	0	0	24	0	11	393	4	1	1	410
3:45	0	0	27	0	1	0	28	2	6	313	0	3	0	324	1	1	14	1	0	0	17	0	6	381	4	3	1	395
4:00	0	0	24	0	0	0	24	0	7	346	2	3	2	360	0	1	26	1	1	0	29	0	8	416	6	3	2	435
4:15	0	0	24	0	1	0	25	0	6	346	1	4	0	357	0	0	24	3	0	0	27	2	12	377	9	9	2	411
4:30	0	0	46	0	0	0	46	2	6	357	0	2	1	368	1	1	35	0	0	0	37	0	9	410	9	6	1	435
4:45	0	1	23	1	0	1	26	1	11	292	1	3	0	308	0	0	33	0	0	0	33	1	9	407	8	3	1	429
5:00	2	0	27	0	1	0	30	0	8	395	1	4	0	408	1	2	48	0	0	0	51	3	6	425	7	6	3	450
5:15	0	2	41	0	2	0	45	4	12	325	1	2	1	345	0	1	47	0	0	0	48	1	10	459	3	4	1	478
5:30	1	4	63	3	2	0	73	1	4	368	3	0	0	376	0	2	72	2	0	2	78	1	6	410	7	5	2	431
5:45	0	0	77	2	2	1	82	0	8	358	1	4	0	371	0	3	81	3	0	0	87	0	4	396	4	3	1	408
6:00	0	4	65	2	7	1	79	2	4	133	1	1	0	141	0	0	126	2	1	0	129	0	10	256	4	2	0	272
6:15	0	2	130	2	9	0	143	1	11	598	1	1	0	612	0	8	167	3	3	0	181	1	9	484	3	1	0	498
6:30	0	1	143	3	6	2	155	0	8	348	0	0	0	356	0	4	176	4	1	0	185	0	8	361	5	5	1	380
6:45	0	6	217	4	6	1	234	1	6	346	1	2	0	356	2	5	210	3	2	3	225	0	8	335	4	1	0	348
7:00	2	4	190	2	5	1	204	3	9	390	3	3	0	408	4	3	284	0	2	2	295	0	7	292	6	2	0	307
7:15	1	1	250	4	2	4	262	1	4	341	1	2	0	349	0	6	335	2	3	0	346	1	6	297	3	3	0	310
7:30	2	5	263	3	6	1	280	0	3	329	0	0	0	332	2	6	372	3	4	0	387	0	7	259	2	2	0	270
7:45	2	3	391	9	5	0	410	0	3	283	1	1	0	288	0	6	373	0	2	1	382	0	5	253	0	2	0	260
8:00	0	6	363	19	4	2	394	1	8	254	0	0	0	263	3	8	346	4	2	0	363	2	6	243	5	1	0	257
8:15	0	1	445	14	2	0	462	1	8	260	1	2	1	273	0	6	390	2	6	1	405	0	8	222	0	0	0	230
8:30	1	7	408	19	1	0	436	0	6	343	1	0	0	350	0	3	442	3	4	0	452	1	6	218	1	2	0	228
8:45	2	7	386	10	1	1	407	0	6	270	1	0	0	277	3	5	372	0	3	0	383	3	4	178	2	0	0	187
9:00	2	5	316	18	1	4	346	1	6	234	3	0	0	244	2	3	391	9	0	2	407	0	4	196	0	1	0	201
9:15	0	1	331	13	3	6	354	0	8	208	0	0	0	216	1	3	349	5	1	0	359	0	3	143	0	0	0	146
9:30	0	3	325	20	1	2	351	0	8	223	0	1	0	232	3	6	349	4	1	0	363	0	4	156	0	1	0	161
9:45	1	5	303	15	0	1	325	0	4	207	0	0	0	211	2	4	290	5	2	4	307	0	6	139	2	0	0	147
10:00	0	3	346	18	0	0	367	0	5	204	1	1	0	211	0	1	327	9	0	1	338	0	2	137	3	1	0	143
10:15	1	2	257	12	2	2	276	0	4	178	1	1	0	184	3	4	294	2	3	1	307	0	2	155	0	0	0	157
10:30	1	4	225	8	2	0	240	1	7	219	0	0	0	227	2	6	271	8	1	0	288	1	0	139	0	1	0	141
10:45	3	8	262	8	2	0	283	1	4	178	1	0	0	184	0	6	279	4	2	3	294	0	3	122	1	2	0	128
11:00	0	1	242	7	1	1	252	0	6	157	0	1	0	164	1	7	274	11	1	2	296	0	2	144	0	0	0	146
11:15	2	2	233	6	2	1	246	0	2	139	0	0	0	141	1	2	287	6	1	2	299	2	3	119	0	1	1	126
11:30	1	5	277	6	1	1	291	0	8	129	0	1	0	138	0	5	270	13	0	1	289	0	1	143	0	1	1	146
11:45	1	3	268	8	1	2	283	0	3	97	0	0	0	100	0	8	260	7	1	1	277	0	1	139	0	1	0	141
Total	26	119	7,615	241	83	35	8,119	28	306	13,675	95	74	22	14,200	33	143	8,138	119	52	26	8,511	27	266	13,516	230	93	39	14,171
Directional	**22,319**														**22,682**												
ADT	**45,001**																										
AADT	**43,651**																										
Daily Truck %	**2.5%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street West of Pelican Harbor Dr - 72-Hour Classification Summary
Three Day Volume Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	85	0	269	7	80	1	285	15
12:15	84	1	293	9	63	0	300	23
12:30	79	0	280	9	59	1	300	10
12:45	50	0	248	9	53	0	317	12
1:00	54	1	280	10	39	1	265	10
1:15	47	1	294	9	33	0	293	10
1:30	36	0	296	9	29	1	292	10
1:45	37	1	292	7	29	0	308	11
2:00	35	0	273	5	26	1	260	8
2:15	35	0	335	5	26	1	349	16
2:30	28	0	306	5	19	1	277	7
2:45	21	1	328	5	17	0	357	15
3:00	24	1	301	6	17	1	369	10
3:15	24	0	310	7	22	0	385	7
3:30	21	2	334	3	24	0	417	10
3:45	27	2	331	5	17	0	377	10
4:00	24	0	346	6	23	2	395	11
4:15	24	0	340	5	23	1	415	16
4:30	35	1	368	5	31	1	426	12
4:45	24	2	324	4	35	1	404	9
5:00	28	2	366	3	49	1	394	10
5:15	42	3	333	3	53	0	405	12
5:30	58	5	372	2	82	3	387	11
5:45	81	4	380	5	90	2	364	9
6:00	79	11	296	4	112	4	305	9
6:15	122	11	469	2	158	4	356	4
6:30	149	10	378	2	175	5	302	6
6:45	220	10	353	2	201	5	284	5
7:00	222	7	368	4	244	5	287	5
7:15	245	10	325	2	317	4	282	5
7:30	285	12	334	1	355	6	269	3
7:45	344	15	299	1	365	4	252	2
8:00	363	17	282	2	315	4	253	3
8:15	418	16	298	2	391	8	222	1
8:30	368	16	296	1	389	4	224	2
8:45	354	9	247	1	378	3	187	2
9:00	312	16	239	1	351	7	189	0
9:15	321	15	228	1	334	6	157	1
9:30	309	17	217	0	318	7	150	1
9:45	269	12	197	0	293	9	151	1
10:00	282	17	210	2	295	9	131	2
10:15	259	13	184	2	290	9	157	0
10:30	256	13	191	0	278	8	134	1
10:45	254	12	168	0	290	10	128	1
11:00	243	10	166	1	278	12	138	1
11:15	221	8	144	1	246	7	120	1
11:30	263	10	140	1	290	12	137	1
11:45	261	11	97	0	269	14	110	0
Total	7,422	325	13,725	176	7,871	185	13,266	331
Directional	21,648				21,653			
ADT	43,301							
AADT	42,000							
Daily Truck %	2.3%							

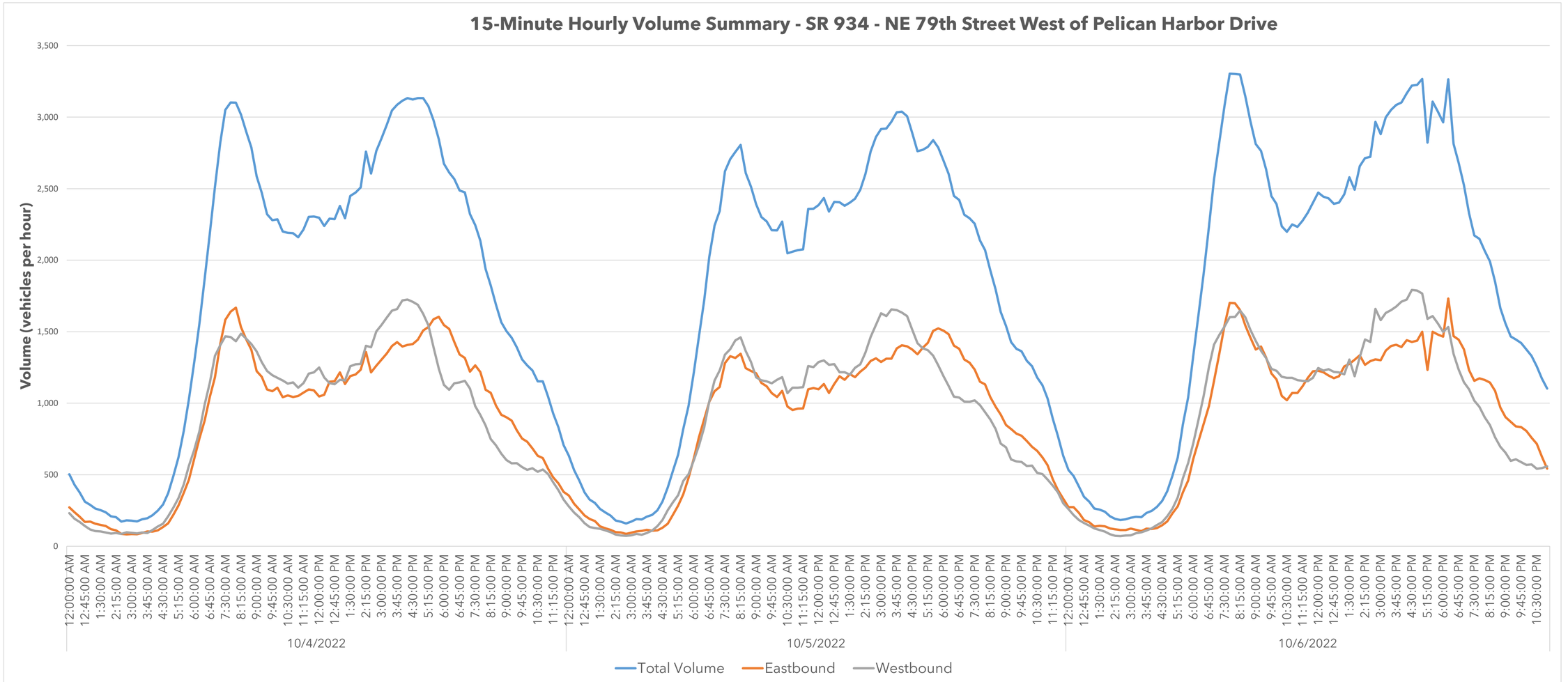
Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	3,103	1,640	1,463	0.074	0.529	0.022
MD	2:45 PM	2,764	1,262	1,502	0.066	0.543	0.020
PM	4:15 PM	3,133	1,408	1,725	0.075	0.551	0.021

Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:15 AM	2,806	1,346	1,460	0.067	0.520	0.024
MD	2:45 PM	2,862	1,314	1,548	0.068	0.541	0.017
PM	4:00 PM	3,039	1,405	1,634	0.072	0.538	0.018

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	3,304	1,702	1,602	0.079	0.515	0.030
MD	2:45 PM	2,967	1,307	1,660	0.071	0.559	0.028
PM	5:00 PM	3,267	1,500	1,767	0.078	0.541	0.019

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	3,053	1,561	1,492	0.073	0.511	0.025
MD	2:45 PM	2,864	1,294	1,570	0.068	0.548	0.022
PM	4:15 PM	3,101	1,415	1,686	0.074	0.544	0.021

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Pelican Harbor Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																													
Direction	Northbound														Southbound															
Period	AM							PM							AM							PM								
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total		
12:00	0	0	2	0	0	0	2	0	0	4	0	0	0	4	0	0	1	0	0	0	1	0	0	2	0	0	0	2		
12:15	0	0	0	0	0	0	0	0	0	7	1	0	0	8	0	0	0	0	0	0	0	0	0	5	0	0	0	5		
12:30	0	0	1	0	0	0	1	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	7		
12:45	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
1:00	0	0	2	0	0	0	2	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0		
1:15	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0	0	0	6		
1:30	0	0	0	0	0	0	0	1	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	6	0	0	0	6		
1:45	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	4	0	0	0	4		
2:00	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	2		
2:15	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	7		
2:30	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
2:45	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	1	0	1	0	2		
3:00	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	0	0	1	0	0	3	0	0	0	3		
3:15	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
3:45	0	0	1	0	0	0	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	3		
4:00	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	1	0	3		
4:15	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	5	0	2	0	7		
4:30	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	5	0	1	0	6		
4:45	0	0	1	0	0	0	1	0	0	6	0	0	0	6	0	0	2	0	0	0	2	0	0	6	0	0	0	6		
5:00	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
5:15	0	0	1	0	0	0	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2		
5:30	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
5:45	0	0	1	0	0	0	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
6:00	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	4		
6:15	0	0	0	0	1	0	1	0	0	2	0	0	0	2	0	0	2	0	1	0	3	0	0	3	0	0	0	3		
6:30	0	0	1	0	2	0	3	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	8	0	0	0	8		
6:45	0	0	1	0	0	0	1	0	0	7	0	0	0	7	0	0	1	0	2	0	3	0	0	2	0	0	0	2		
7:00	0	0	2	0	1	0	3	0	1	11	0	0	0	12	0	0	1	0	0	0	1	0	1	4	0	0	0	5		
7:15	0	0	1	0	0	0	1	0	0	4	0	0	0	4	0	0	2	0	1	0	3	0	0	1	0	0	0	1		
7:30	0	0	1	0	1	0	2	0	0	6	0	0	0	6	0	0	2	0	1	0	3	0	0	4	0	0	0	4		
7:45	0	0	0	0	1	0	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	3		
8:00	0	0	1	0	1	0	2	0	0	7	0	0	0	7	0	0	3	0	2	0	5	0	0	3	0	0	0	3		
8:15	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	2		
8:30	0	0	2	0	0	0	2	0	0	4	0	0	0	4	0	0	3	0	0	0	3	0	0	3	0	0	0	3		
8:45	0	0	2	0	0	0	2	0	0	5	0	0	0	5	0	0	2	0	0	0	2	0	0	1	0	0	0	1		
9:00	0	0	1	0	0	0	1	0	0	6	0	0	0	6	0	0	3	0	0	0	3	0	0	1	0	0	0	1		
9:15	0	0	2	0	0	0	2	0	0	1	0	0	0	1	0	0	3	0	0	1	4	0	0	0	0	0	0	0		
9:30	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
9:45	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	5	0	0	0	5	0	0	1	0	0	0	1		
10:00	0	0	1	0	0	0	1	0	0	5	0	0	0	5	0	0	8	0	0	0	8	0	0	3	0	0	0	3		
10:15	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	5	0	1	0	6	0	0	3	0	0	0	3		
10:30	0	0	2	0	0	0	2	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	3	0	0	0	3		
10:45	0	0	3	0	0	0	3	0	1	1	0	0	0	2	0	0	4	0	0	0	4	1	0	1	0	0	0	2		
11:00	0	0	4	0	0	0	4	0	0	2	0	0	0	2	0	0	7	0	0	0	7	0	0	1	0	0	0	1		
11:15	0	0	9	0	0	0	9	0	0	2	0	0	0	2	0	0	5	0	0	0	5	0	0	0	0	0	0	0		
11:30	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	0	1	0	0	0	1		
11:45	0	0	2	0	0	0	2	0	0	3	0	0	0	3	0	0	8	0	0	0	8	0	0	0	0	0	0	0		
Total	0	0	55	0	9	1	65	1	2	154	1	5	0	163	0	0	75	1	8	1	85	2	1	129	0	7	0	139		
Directional	**228**														**224**															
ADT	**452**																													
AADT	**438**																													
Daily Truck %	**7.3%**																													

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Pelican Harbor Drive - North of SR 934 - 72-Hour Classification Summary
October 5th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																											
Direction	Northbound														Southbound													
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	1	0	0	0	1	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	7	0	0	0	7
12:15	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	13	0	0	0	13
12:30	0	0	1	0	0	0	1	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	4	0	0	0	4
12:45	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	4
1:00	0	0	1	0	0	0	1	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	2
1:15	0	0	2	0	0	0	2	0	0	6	0	1	0	7	0	0	1	0	0	0	1	0	0	3	0	0	0	3
1:30	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1	0	3
1:45	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	0	1	0	1	4	0	0	0	5
2:00	0	0	0	0	0	0	0	0	1	4	0	0	0	5	0	0	0	0	0	0	0	0	0	5	0	0	0	5
2:15	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0	0	0	6
2:30	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	3	0	0	0	3
2:45	0	0	0	0	0	0	0	1	0	7	0	0	0	8	0	0	0	0	0	0	0	1	0	5	0	0	0	6
3:00	0	0	1	0	0	0	1	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	3	1	0	0	4
3:15	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	0	1	1	0	5	1	0	0	7
3:30	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8	0	0	0	8
3:45	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	1	0	6	2	0	0	9
4:00	0	0	1	0	0	0	1	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	4	5	0	0	9
4:15	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	11	3	0	0	14
4:30	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	1	1	9	1	0	0	12
4:45	0	0	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	1	0	12	0	0	0	13
5:00	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	1	0	0	0	1	0	1	12	0	0	0	13
5:15	0	0	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	0	0	11	0	0	0	11
5:30	0	0	1	0	0	0	1	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	1	18	0	0	0	19
5:45	0	0	0	0	0	0	0	1	0	12	0	0	0	13	0	0	1	0	0	0	1	0	0	21	1	0	0	22
6:00	0	0	0	0	0	0	0	0	1	15	1	0	0	17	0	0	0	0	0	0	0	0	0	16	0	0	0	16
6:15	0	0	0	0	0	0	0	0	0	17	0	0	0	17	0	0	1	0	0	0	1	0	1	27	0	0	0	28
6:30	0	0	1	0	0	0	1	0	0	21	0	0	0	21	0	0	1	0	0	0	1	0	0	32	0	0	0	32
6:45	0	0	1	0	0	0	1	1	1	19	0	0	0	21	0	0	2	0	0	0	2	0	0	17	0	0	1	18
7:00	0	0	1	0	0	0	1	0	0	27	0	0	0	27	0	0	3	0	0	0	3	1	0	29	0	0	0	30
7:15	0	0	0	0	1	0	1	0	0	20	0	0	0	20	1	0	0	0	1	0	2	0	0	21	0	0	0	21
7:30	0	0	0	0	0	0	0	0	0	23	0	0	0	23	0	0	2	0	0	0	2	0	1	25	0	0	0	26
7:45	0	0	2	0	0	0	2	0	0	21	0	0	0	21	0	0	1	0	0	0	1	0	0	27	0	0	0	27
8:00	0	0	0	0	0	0	0	0	1	23	0	0	1	25	0	0	1	0	0	0	1	0	1	26	0	0	0	27
8:15	0	0	1	0	0	0	1	0	0	28	0	0	0	28	0	0	1	0	0	0	1	0	0	21	0	0	0	21
8:30	0	0	2	0	0	0	2	0	0	27	0	0	0	27	0	0	1	0	0	0	1	0	0	17	0	0	0	17
8:45	0	0	0	0	0	0	0	0	1	32	0	0	0	33	0	0	7	0	0	0	7	0	0	18	0	0	0	18
9:00	0	0	2	0	0	0	2	0	0	25	0	0	0	25	0	0	3	0	0	0	3	0	0	14	0	0	0	14
9:15	0	0	1	0	0	0	1	0	0	18	0	0	0	18	0	0	3	0	0	0	3	0	1	9	0	0	0	10
9:30	0	0	2	0	0	0	2	0	0	18	0	0	0	18	0	0	3	0	0	0	3	0	0	5	0	0	0	5
9:45	0	0	0	0	0	0	0	0	1	13	1	0	0	15	0	0	5	0	0	0	5	0	0	10	0	0	0	10
10:00	1	0	1	0	0	0	2	0	1	17	1	0	0	19	1	0	6	0	0	0	7	0	1	3	0	0	0	4
10:15	0	0	4	0	0	0	4	0	1	15	2	0	0	18	0	0	8	0	0	0	8	0	1	7	0	0	0	8
10:30	0	0	3	0	0	0	3	0	0	21	4	0	0	25	0	0	1	0	0	0	1	0	0	0	0	0	0	0
10:45	0	0	2	0	0	0	2	0	0	1	0	0	0	1	0	0	5	0	0	0	5	0	0	1	0	0	0	1
11:00	0	1	6	0	0	0	7	1	0	1	0	0	0	2	0	0	8	0	0	0	8	0	0	0	0	0	0	0
11:15	0	0	5	0	0	0	5	0	0	6	0	0	0	6	0	0	6	0	0	0	6	1	0	0	0	0	0	1
11:30	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0
11:45	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	8	0	0	0	8	0	0	1	0	0	0	1
Total	1	1	53	0	1	0	56	4	10	542	9	1	1	567	2	0	85	0	1	0	88	7	10	504	14	1	1	537
Directional	**623**														**625**													
ADT	**1,248**																											
AADT	**1,211**																											
Daily Truck %	**2.3%**																											

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Pelican Harbor Drive - North of SR 934 - 72-Hour Classification Summary
October 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																												
Direction	Northbound														Southbound														
Period	AM							PM							AM							PM							
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	2	0	0	0	2	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	2	0	0	0	2
12:15	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	3	0	0	0	3
12:30	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2
12:45	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
1:00	0	0	1	0	0	0	1	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	4	1	0	0	5
1:15	0	0	1	0	0	0	1	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	1
1:30	0	0	1	0	0	0	1	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	3	0	0	0	3
1:45	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0	0	0	5
2:00	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	1	0	0	0	1	0	0	7	0	0	0	7
2:15	0	0	2	0	0	0	2	0	1	4	0	0	0	5	0	0	1	0	0	0	1	0	1	5	0	0	0	6
2:30	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	0	0	1	0	0	3	0	0	0	3
2:45	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	2	0	1	0	3
3:00	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:15	0	0	2	0	0	0	2	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	2
3:30	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:45	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	0	1	0	0	7	0	0	0	7
4:00	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	0	0	0	0	1	0	2	0	1	0	4
4:15	0	0	0	0	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30	0	0	1	0	0	0	1	0	0	1	0	1	0	2	0	0	1	0	0	0	1	0	0	1	1	2	0	4
4:45	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	4
5:00	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:15	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	0	0	1	0	0	1	0	0	0	1
5:30	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	2
5:45	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	0	0	1	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	1	0	1	0	0	2	0	0	0	2	0	0	1	0	1	0	2	0	0	7	0	0	0	7
6:30	0	0	0	0	1	0	1	0	0	6	0	0	0	6	0	0	0	0	1	0	1	0	0	4	0	0	0	4
6:45	0	0	1	0	1	0	2	0	0	7	0	0	0	7	0	0	1	0	1	0	2	0	0	4	0	0	0	4
7:00	0	0	2	0	1	0	3	0	0	4	0	0	0	4	0	0	2	0	0	0	2	0	0	0	0	0	0	0
7:15	0	0	4	0	0	0	4	0	0	2	0	0	0	2	0	0	3	0	2	0	5	0	0	4	0	0	0	4
7:30	0	0	2	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	0	3
7:45	0	0	1	0	1	0	2	1	1	3	0	0	0	5	0	0	3	0	0	0	3	1	0	5	0	0	0	6
8:00	0	0	4	0	1	0	5	0	1	3	0	0	0	4	0	0	2	0	2	0	4	0	1	2	0	0	0	3
8:15	1	0	2	0	0	0	3	0	0	1	0	0	0	1	1	0	2	0	0	0	3	0	0	2	0	0	0	2
8:30	0	0	2	0	0	0	2	0	0	2	0	0	0	2	0	0	2	0	0	0	2	0	0	5	0	0	0	5
8:45	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2	0	0	0	2	0	0	3	0	0	0	3
9:00	0	0	1	0	0	0	1	0	0	2	0	0	0	2	0	0	3	0	0	0	3	1	0	2	0	0	0	3
9:15	0	0	3	0	0	0	3	0	0	3	0	0	0	3	0	0	5	0	0	0	5	0	0	0	0	0	0	0
9:30	0	0	2	0	0	0	2	0	0	5	0	0	0	5	0	0	2	0	0	0	2	0	0	0	0	0	0	0
9:45	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	4	0	0	0	4	0	0	2	0	0	0	2
10:00	0	0	2	0	0	0	2	0	0	3	0	0	0	3	1	0	5	0	0	0	6	0	0	1	0	0	0	1
10:15	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	0	1
10:30	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1
10:45	2	1	1	0	0	0	4	0	0	1	0	0	0	1	0	1	4	0	0	0	5	0	0	3	0	0	0	3
11:00	0	0	5	0	0	0	5	0	0	3	0	0	0	3	0	0	9	0	0	0	9	0	0	0	0	0	0	0
11:15	0	0	3	0	0	0	3	0	0	2	0	0	0	2	0	0	3	0	0	0	3	0	0	0	0	0	0	0
11:30	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	2	0	0	0	2
11:45	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	3	1	64	0	6	0	74	1	5	124	2	4	0	136	2	1	68	0	7	0	78	6	2	112	2	6	0	128
Directional	**210**														**206**													
ADT	**416**																											
AADT	**404**																											
Daily Truck %	**6.5%**																											

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Pelican Harbor Drive - North of SR 934 - 72-Hour Classification Summary
Three Day Average Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Northbound				Southbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	2	0	4	0	1	0	4	0
12:15	0	0	4	0	0	0	7	0
12:30	2	0	4	0	0	0	4	0
12:45	0	0	2	0	0	0	3	0
1:00	1	0	3	0	0	0	2	0
1:15	1	0	4	0	0	0	3	0
1:30	1	0	4	0	0	0	4	0
1:45	1	0	2	0	1	0	5	0
2:00	0	0	3	0	0	0	4	0
2:15	1	0	3	0	0	0	6	0
2:30	0	0	5	0	0	0	2	0
2:45	0	0	5	1	0	0	3	1
3:00	0	0	4	0	0	0	2	0
3:15	1	0	2	0	0	0	3	0
3:30	0	0	2	0	0	0	4	0
3:45	0	0	5	0	0	0	5	1
4:00	0	0	3	1	0	0	3	2
4:15	0	0	4	1	0	0	5	2
4:30	0	0	5	0	0	0	6	2
4:45	0	0	5	0	1	0	8	0
5:00	0	0	5	0	0	0	5	0
5:15	0	0	5	0	0	0	5	0
5:30	0	0	6	0	0	0	8	0
5:45	0	0	6	0	1	0	8	0
6:00	0	0	6	0	0	0	7	0
6:15	0	1	7	0	1	1	13	0
6:30	1	1	10	0	0	0	15	0
6:45	1	0	12	0	1	1	8	0
7:00	2	1	14	0	2	0	12	0
7:15	2	0	9	0	2	1	9	0
7:30	1	0	10	0	1	0	11	0
7:45	1	1	9	0	1	0	12	0
8:00	2	1	12	0	2	1	11	0
8:15	1	0	11	0	1	0	8	0
8:30	2	0	11	0	2	0	8	0
8:45	1	0	13	0	4	0	7	0
9:00	1	0	11	0	3	0	6	0
9:15	2	0	7	0	4	0	3	0
9:30	1	0	8	0	2	0	2	0
9:45	2	0	5	0	5	0	4	0
10:00	2	0	9	0	7	0	3	0
10:15	2	1	5	1	5	0	4	0
10:30	2	0	8	1	1	0	1	0
10:45	3	0	1	0	5	0	2	0
11:00	5	0	2	0	8	0	0	0
11:15	6	0	3	0	5	0	0	0
11:30	4	0	0	0	3	0	1	0
11:45	3	0	1	0	5	0	1	0
Total	57	6	279	5	74	4	257	8
Directional	347				343			
ADT	690							
AADT	700							
Daily Truck %	3.3%							

Daily Summary 10/4/2022							
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor	T Factor
AM	9:45 AM	27	7	20	0.039	0.741	0.148
MD	11:00 AM	46	21	25	0.066	0.543	0.022
PM	4:00 PM	41	19	22	0.059	0.537	0.195

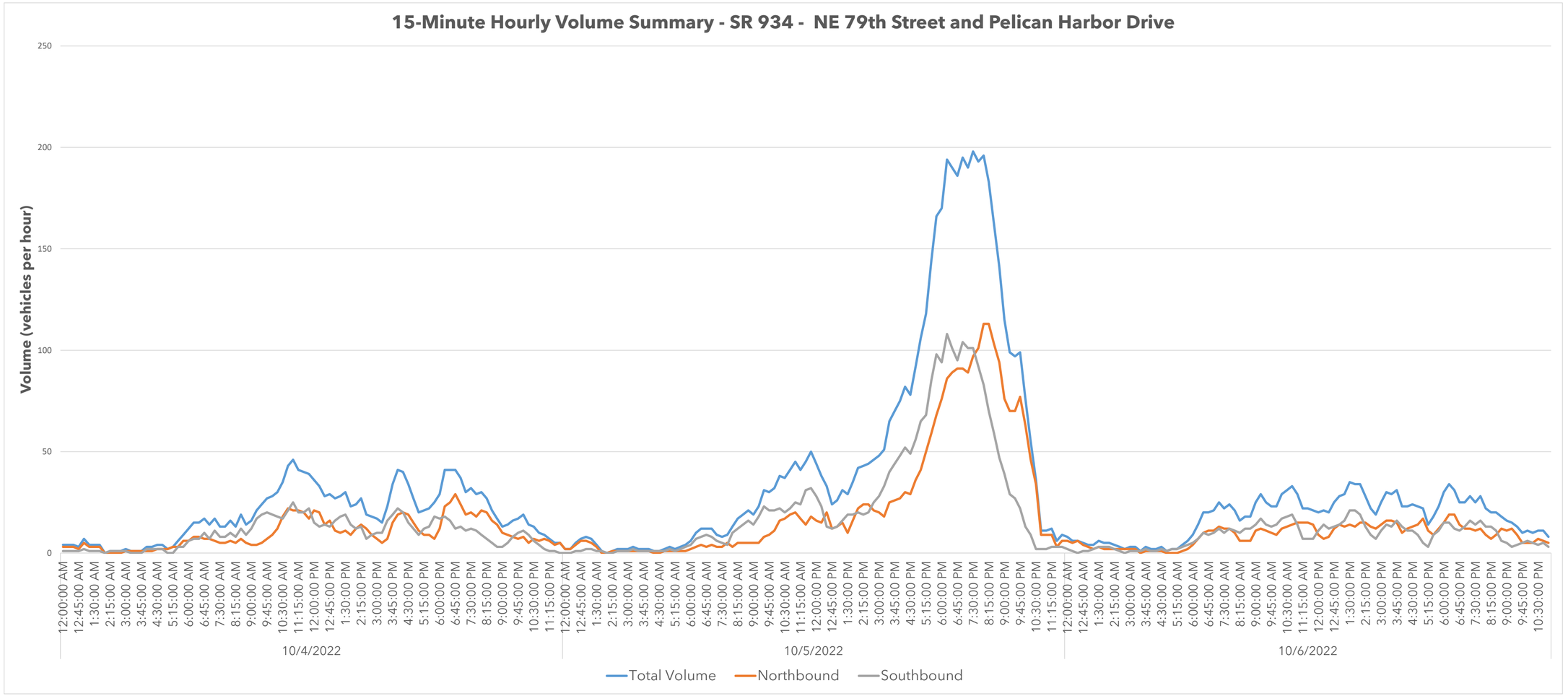
Daily Summary 10/5/2022							
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor	T Factor
AM	9:30 AM	31	8	23	0.044	0.742	0.000
MD	11:45 AM	50	18	32	0.071	0.640	0.000
PM	7:30 PM	198	97	101	0.283	0.510	0.005

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor	T Factor
AM	9:15 AM	29	12	17	0.041	0.586	0.000
MD	1:30 PM	35	14	21	0.050	0.600	0.000
PM	6:15 PM	34	19	15	0.049	0.559	0.000

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor	T Factor
AM	9:30 AM	27	8	19	0.039	0.704	0.037
MD	10:45 AM	39	18	21	0.056	0.538	0.000
PM	6:15 PM	91	43	48	0.130	0.527	0.000

Pelican Harbor Drive - North of SR 934 - 72-Hour Classification Summary
Three Day Volume Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



SR 934 - NE 79th Street East of Pelican Harbor Drive - 72-Hour Classification Summary
October 4, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	1	4	72	0	0	0	77	0	6	245	8	2	0	261	0	1	68	0	1	0	70	0	4	293	8	1	1	307
12:15	0	3	73	1	1	0	78	1	5	263	9	1	0	279	0	0	53	0	0	0	53	1	6	315	11	1	0	334
12:30	1	0	74	0	0	0	75	0	4	261	4	1	0	270	0	2	45	0	1	0	48	0	3	281	8	1	1	294
12:45	0	1	43	1	0	0	45	0	5	224	6	1	0	236	0	3	52	0	0	0	55	0	3	282	8	1	0	294
1:00	0	1	41	0	0	1	43	0	7	233	2	3	2	247	0	1	31	0	1	0	33	0	6	252	7	1	4	270
1:15	1	1	43	0	1	1	47	0	5	375	5	5	1	391	0	2	27	0	0	0	29	1	5	296	9	0	1	312
1:30	0	0	31	0	0	0	31	1	4	274	7	3	1	290	0	0	23	0	0	1	24	3	4	311	10	2	1	331
1:45	0	2	48	0	1	0	51	1	2	283	6	3	0	295	0	0	28	0	0	0	28	1	8	311	9	1	1	331
2:00	0	1	30	0	0	0	31	3	4	144	4	0	0	155	0	0	21	0	1	0	22	0	2	275	7	1	0	285
2:15	0	0	36	0	0	0	36	2	8	438	6	4	0	458	0	0	25	0	0	1	26	0	3	366	14	2	3	388
2:30	0	0	27	0	0	0	27	2	8	273	2	1	0	286	1	0	15	0	0	0	16	1	5	314	3	0	1	324
2:45	0	0	23	0	0	1	24	1	4	325	1	2	0	333	0	0	23	0	0	1	24	0	6	326	7	2	2	343
3:00	0	0	20	0	1	0	21	2	8	274	0	1	0	285	0	0	25	0	1	0	26	0	5	369	5	2	0	381
3:15	0	0	15	0	0	0	15	0	7	278	7	2	0	294	1	0	21	1	0	0	23	2	12	408	6	1	0	429
3:30	0	0	21	1	0	0	22	0	11	320	2	0	0	333	0	3	24	0	0	0	27	3	5	455	8	1	3	475
3:45	0	0	24	3	1	0	28	1	7	352	4	4	1	369	0	1	16	0	0	0	17	1	7	404	9	2	2	425
4:00	0	0	21	0	0	0	21	1	7	331	1	5	0	345	0	1	20	1	1	0	23	2	12	405	4	4	0	427
4:15	0	0	21	0	0	0	21	0	4	308	2	3	0	317	0	0	26	1	0	0	27	1	4	397	6	9	1	418
4:30	0	1	35	1	0	0	37	0	10	361	1	1	0	373	0	1	19	1	0	1	22	0	3	418	2	7	0	430
4:45	2	0	21	0	0	2	25	2	5	309	1	4	0	321	0	0	41	1	0	0	42	2	5	412	4	3	2	428
5:00	0	0	23	1	1	0	25	0	10	351	1	3	0	365	0	0	45	0	1	0	46	1	4	406	3	2	3	419
5:15	0	0	40	0	4	1	45	1	3	340	1	2	0	347	0	2	44	0	0	0	46	5	9	403	9	3	1	430
5:30	1	1	55	4	2	0	63	3	4	384	0	1	0	392	0	5	75	0	1	1	82	4	5	403	7	4	0	423
5:45	0	0	81	2	1	0	84	2	8	396	3	3	1	413	1	2	101	3	1	0	108	0	7	378	4	2	1	392
6:00	0	0	75	6	5	0	86	2	11	343	1	2	0	359	0	1	113	0	2	0	116	2	6	340	7	4	1	360
6:15	0	4	117	1	11	1	134	1	16	393	2	0	0	412	0	2	160	1	4	0	167	2	11	274	2	1	1	291
6:30	0	3	129	2	7	1	142	2	10	380	0	1	1	394	3	2	203	3	3	0	214	2	10	319	1	3	0	335
6:45	1	4	206	5	6	1	223	0	7	331	0	3	0	341	0	4	214	1	3	0	222	4	9	254	5	1	0	273
7:00	0	7	218	2	2	0	229	2	4	360	0	2	0	368	3	5	236	2	1	2	249	1	7	297	5	1	0	311
7:15	1	3	228	5	6	2	245	0	7	293	1	1	0	302	0	5	296	1	1	1	304	1	8	288	4	1	2	304
7:30	0	5	306	5	3	3	322	5	8	317	0	1	0	331	2	5	327	1	4	0	339	0	3	242	3	0	0	248
7:45	0	6	352	1	6	0	365	1	4	306	0	1	0	312	0	9	356	2	4	0	371	0	7	253	0	1	0	261
8:00	0	7	441	9	3	2	462	1	4	272	0	1	0	278	0	3	333	4	3	0	343	0	1	229	0	2	1	233
8:15	1	6	375	10	2	3	397	2	7	335	2	0	0	346	0	8	398	2	5	0	413	2	3	185	0	0	0	190
8:30	0	3	381	9	3	2	398	1	6	274	0	0	0	281	0	4	352	1	2	0	359	3	3	211	0	1	1	219
8:45	2	8	349	4	1	3	367	1	6	183	0	2	0	192	2	8	367	2	2	1	382	0	8	175	0	1	0	184
9:00	3	3	327	16	1	1	351	1	12	223	0	0	0	236	0	9	340	4	1	0	354	0	5	147	0	0	0	152
9:15	0	5	302	10	1	0	318	1	4	260	0	1	0	266	4	5	343	5	1	2	360	0	1	142	0	1	0	144
9:30	0	2	305	11	2	2	322	0	4	217	0	0	0	221	0	4	290	6	1	1	302	1	3	154	1	0	0	159
9:45	2	3	232	9	1	0	247	0	2	179	0	0	0	181	1	1	303	4	2	0	311	0	2	142	1	0	0	145
10:00	0	2	255	14	1	3	275	0	6	203	0	1	0	210	0	6	294	4	1	1	306	1	2	125	1	1	0	130
10:15	0	3	244	9	1	1	258	1	7	187	0	1	0	196	0	4	274	16	1	1	296	0	2	150	0	0	0	152
10:30	0	4	281	13	1	1	300	0	3	159	0	0	0	162	2	5	286	9	0	2	304	0	5	117	0	1	0	123
10:45	0	6	246	10	1	2	265	0	9	148	0	0	0	157	2	7	267	10	1	0	287	0	2	130	0	0	0	132
11:00	1	2	213	6	2	0	224	0	5	159	0	1	0	165	3	5	262	8	2	6	286	1	2	134	0	2	0	139
11:15	3	8	238	7	1	0	257	0	4	145	1	0	0	150	2	4	262	7	1	3	279	1	3	118	1	1	0	124
11:30	0	5	256	8	0	2	271	0	3	121	0	1	0	125	1	4	272	10	1	4	292	0	2	138	0	0	0	140
11:45	0	7	251	5	2	4	269	1	1	96	0	0	0	98	0	4	241	17	0	9	271	0	2	92	0	0	0	94
Total	20	121	7,245	191	82	40	7,699	45	296	13,226	90	74	7	13,738	28	138	7,657	128	55	38	8,044	49	240	13,136	199	75	34	13,733
Directional	**21,437**														**21,777**												
ADT	**43,214**																										
AADT	**41,918**																										
Daily Truck %	**2.3%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street East of Pelican Harbor Drive - 72-Hour Classification Summary
October 4, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																									
Direction	Eastbound														Westbound											
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	6	102	0	0	0	108	1	4	265	10	0	1	281	0	1	87	1	1	0	90	0	2	271	25	1	0	299
12:15	0	2	106	0	1	0	109	1	6	304	3	0	2	316	0	2	67	0	0	0	69	0	1	295	37	1	1	335
12:30	0	0	82	0	0	0	82	0	8	238	7	2	0	255	0	3	71	0	1	0	75	0	0	297	10	1	2	310
12:45	1	1	60	0	0	0	62	0	3	236	3	3	0	245	1	1	47	0	0	0	49	0	6	326	9	2	1	344
1:00	0	2	49	0	1	0	52	0	7	305	6	1	0	319	0	0	25	0	0	0	25	2	5	296	4	1	2	310
1:15	0	0	62	0	0	1	63	1	6	241	0	4	1	253	0	0	28	0	0	0	28	1	8	284	9	1	1	304
1:30	0	0	41	1	0	0	42	0	5	306	3	1	2	317	0	0	30	0	0	1	31	0	6	299	8	1	1	315
1:45	0	1	31	0	0	0	32	0	7	290	1	1	0	299	0	0	27	0	0	0	27	0	5	273	9	1	0	288
2:00	0	1	35	0	1	0	37	0	7	282	3	2	1	295	0	0	29	2	1	0	32	0	10	291	6	1	2	310
2:15	0	0	27	0	0	0	27	3	2	282	5	0	0	292	0	1	33	0	0	0	34	0	3	275	5	1	3	287
2:30	0	2	25	0	0	0	27	0	4	285	4	2	1	296	0	0	19	0	0	0	19	1	2	347	12	1	0	363
2:45	0	0	22	1	1	0	24	2	8	321	2	4	1	338	0	0	13	0	0	0	13	0	5	304	1	2	0	312
3:00	2	0	20	0	0	0	22	3	6	303	8	1	2	323	0	1	15	0	1	0	17	1	1	380	7	1	1	391
3:15	0	0	26	0	0	0	26	0	5	328	4	1	1	339	0	0	25	1	0	0	26	0	7	388	3	0	0	398
3:30	0	0	16	2	0	0	18	0	6	307	1	0	0	314	0	0	21	0	0	0	21	0	5	432	6	2	2	447
3:45	1	0	29	0	0	0	30	1	4	303	2	2	0	312	0	1	17	0	0	0	18	0	9	375	9	0	0	393
4:00	0	0	29	1	1	0	31	1	7	337	1	0	1	347	0	0	21	0	1	0	22	2	4	356	6	2	1	371
4:15	1	0	25	1	0	0	27	1	4	329	3	2	0	339	0	1	20	1	0	0	22	2	8	425	8	2	0	445
4:30	2	0	23	1	0	1	27	1	7	368	4	3	2	385	0	0	33	0	0	0	33	3	8	421	7	2	1	442
4:45	0	0	26	0	1	0	27	3	6	322	1	2	0	334	1	1	28	3	0	0	33	1	4	365	3	3	0	376
5:00	0	0	31	0	1	1	33	0	5	334	1	0	0	340	0	1	50	1	1	0	53	0	7	335	3	1	0	346
5:15	1	0	40	0	1	1	43	1	6	308	0	2	0	317	0	1	59	0	0	0	60	0	3	333	8	3	3	350
5:30	1	1	50	1	1	1	55	1	4	343	2	1	0	351	0	2	91	1	1	1	96	0	6	334	4	1	3	348
5:45	0	1	78	3	1	0	83	4	8	364	0	3	1	380	1	3	81	0	1	0	86	1	4	325	3	2	5	340
6:00	0	2	85	4	5	0	96	1	6	364	1	2	0	374	1	2	98	4	1	1	107	2	9	315	2	4	1	333
6:15	0	1	106	7	1	1	116	1	9	388	1	1	1	401	0	1	161	1	1	1	165	0	10	299	0	2	1	312
6:30	2	3	158	8	2	1	174	3	8	354	1	1	1	368	1	2	146	0	3	0	152	1	6	268	3	2	0	280
6:45	0	7	205	4	1	1	218	4	5	355	0	0	0	364	0	1	171	3	2	0	177	1	6	251	3	1	1	263
7:00	0	6	216	1	4	2	229	3	6	337	1	2	0	349	1	3	213	4	2	0	223	1	5	258	0	1	1	266
7:15	0	5	245	5	3	1	259	0	10	310	0	2	0	322	2	7	282	2	1	0	294	2	2	231	1	1	0	237
7:30	1	3	258	4	9	2	277	4	9	332	0	0	1	346	2	11	315	5	3	0	336	0	8	264	1	0	1	274
7:45	0	4	267	16	5	4	296	0	8	281	0	0	0	289	1	2	322	4	4	0	333	1	6	225	1	1	1	235
8:00	0	6	255	7	1	6	275	0	6	316	1	2	1	326	0	12	257	1	1	0	271	1	3	259	0	1	0	264
8:15	0	10	380	11	4	1	406	1	6	265	1	1	0	274	1	4	410	5	3	0	423	0	2	242	2	1	0	247
8:30	1	3	315	9	1	4	333	0	5	256	1	0	0	262	3	6	344	4	1	2	360	0	10	229	1	1	0	241
8:45	0	4	278	7	2	1	292	1	8	260	0	1	0	270	2	5	384	3	2	0	396	1	2	181	1	1	0	186
9:00	0	2	274	8	2	1	287	2	4	230	0	0	0	236	0	6	289	3	0	2	300	2	6	204	0	0	0	212
9:15	1	8	308	5	4	4	330	0	6	200	1	1	0	208	0	1	280	4	2	0	287	0	2	177	1	0	0	180
9:30	0	8	270	13	1	2	294	0	4	202	0	0	0	206	0	1	284	6	2	0	293	1	0	139	0	0	0	140
9:45	1	2	252	4	1	3	263	0	8	189	1	0	0	198	2	4	270	8	2	1	287	0	5	155	0	0	0	160
10:00	0	3	221	7	0	1	232	0	9	198	0	1	0	208	0	7	268	8	0	2	285	0	3	123	1	0	0	127
10:15	3	6	272	6	2	0	289	0	2	172	1	1	0	176	0	3	285	5	2	1	296	0	2	164	0	0	0	166
10:30	0	2	258	11	1	1	273	0	4	186	1	0	0	191	0	7	277	2	1	1	288	0	0	137	0	0	0	137
10:45	0	3	236	12	1	0	252	1	6	154	0	0	0	161	2	1	302	9	1	1	316	0	5	125	0	1	0	131
11:00	3	4	247	11	3	1	269	0	8	157	0	1	1	167	5	7	265	3	1	3	284	0	2	127	1	0	0	130
11:15	0	7	240	9	2	1	259	0	4	142	2	0	0	148	1	7	263	9	1	2	283	0	5	109	0	1	0	115
11:30	1	7	230	8	1	0	247	0	4	139	1	1	0	145	0	6	303	5	2	1	317	0	0	127	1	0	1	129
11:45	1	6	236	7	3	1	254	0	9	97	1	0	0	107	0	5	283	19	1	1	309	0	1	92	0	0	0	93
Total	23	129	6,847	195	69	44	7,307	45	289	13,185	89	54	21	13,683	27	130	7,409	127	47	21	7,761	27	219	12,728	221	51	36	13,282
Directional	**20,990**														**21,043**													
ADT	**42,033**																											
AADT	**40,772**																											
Daily Truck %	**2.3%**																											

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street East of Pelican Harbor Drive - 72-Hour Classification Summary
October 4, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	5	63	0	0	0	68	0	8	288	2	1	0	299	0	4	81	0	1	0	86	3	7	275	5	0	2	292
12:15	0	3	69	0	1	0	73	1	3	291	6	3	1	305	0	0	69	0	0	0	69	2	2	278	11	2	1	296
12:30	0	4	80	0	0	0	84	0	6	316	10	1	3	336	1	2	48	0	1	0	52	0	5	301	6	1	0	313
12:45	1	2	45	0	0	0	48	1	7	266	10	2	1	287	0	2	51	0	0	0	53	1	4	326	11	1	2	345
1:00	0	2	65	0	1	0	68	0	7	269	7	4	2	289	0	3	40	0	1	0	44	0	3	261	7	1	2	274
1:15	0	0	34	0	0	0	34	1	3	269	5	3	1	282	0	0	35	0	0	0	35	0	3	293	8	0	2	306
1:30	0	1	32	0	0	0	33	0	6	300	7	2	2	317	0	0	31	0	0	0	31	0	5	278	7	3	1	294
1:45	0	1	30	0	1	0	32	0	11	279	7	3	0	300	0	1	33	0	0	0	34	0	6	323	10	0	2	341
2:00	0	0	39	0	0	0	39	0	7	348	3	0	1	359	0	1	24	0	0	0	25	1	6	245	5	2	2	261
2:15	0	1	38	0	0	0	39	0	5	290	1	3	0	299	0	1	21	0	1	0	23	1	5	386	13	2	2	409
2:30	0	0	29	0	0	0	29	0	6	337	2	1	0	346	0	1	19	0	0	0	20	0	5	168	4	0	1	178
2:45	0	2	16	0	0	0	18	0	5	320	2	2	2	331	0	0	16	0	0	0	16	0	8	437	23	3	3	474
3:00	0	1	30	0	1	0	32	1	5	281	3	2	0	292	0	1	12	0	1	0	14	0	7	367	7	3	1	385
3:15	0	0	34	0	0	0	34	1	7	311	3	0	3	325	0	1	20	0	0	0	21	0	4	374	11	2	0	391
3:30	0	1	23	5	0	0	29	0	11	342	0	5	1	359	0	0	24	0	0	0	24	0	11	393	4	1	1	410
3:45	0	0	27	0	1	0	28	2	6	313	0	3	0	324	1	1	14	1	0	0	17	0	6	381	4	3	1	395
4:00	0	0	24	0	0	0	24	0	7	346	2	3	2	360	0	1	26	1	1	0	29	0	8	416	6	3	2	435
4:15	0	0	24	0	1	0	25	0	6	346	1	4	0	357	0	0	24	3	0	0	27	2	12	377	9	9	2	411
4:30	0	0	46	0	0	0	46	2	6	357	0	2	1	368	1	1	35	0	0	0	37	0	9	410	9	6	1	435
4:45	0	1	23	1	0	1	26	1	11	292	1	3	0	308	0	0	33	0	0	0	33	1	9	407	8	3	1	429
5:00	2	0	27	0	1	0	30	0	8	395	1	4	0	408	1	2	48	0	0	0	51	3	6	425	7	6	3	450
5:15	0	2	41	0	2	0	45	4	12	325	1	2	1	345	0	1	47	0	0	0	48	1	10	459	3	4	1	478
5:30	1	4	63	3	2	0	73	1	4	368	3	0	0	376	0	2	72	2	0	2	78	1	6	410	7	5	2	431
5:45	0	0	77	2	2	1	82	0	8	358	1	4	0	371	0	3	81	3	0	0	87	0	4	396	4	3	1	408
6:00	0	4	65	2	7	1	79	2	4	133	1	1	0	141	0	0	126	2	1	0	129	0	10	256	4	2	0	272
6:15	0	2	130	2	9	0	143	1	11	598	1	1	0	612	0	8	167	3	3	0	181	1	9	484	3	1	0	498
6:30	0	1	143	3	6	2	155	0	8	348	0	0	0	356	0	4	176	4	1	0	185	0	8	361	5	5	1	380
6:45	0	6	217	4	6	1	234	1	6	346	1	2	0	356	2	5	210	3	2	3	225	0	8	335	4	1	0	348
7:00	2	4	190	2	5	1	204	3	9	390	3	3	0	408	4	3	284	0	2	2	295	0	7	292	6	2	0	307
7:15	1	1	250	4	2	4	262	1	4	341	1	2	0	349	0	6	335	2	3	0	346	1	6	297	3	3	0	310
7:30	2	5	263	3	6	1	280	0	3	329	0	0	0	332	2	6	372	3	4	0	387	0	7	259	2	2	0	270
7:45	2	3	391	9	5	0	410	0	3	283	1	1	0	288	0	6	373	0	2	1	382	0	5	253	0	2	0	260
8:00	0	6	363	19	4	2	394	1	8	254	0	0	0	263	3	8	346	4	2	0	363	2	6	243	5	1	0	257
8:15	0	1	445	14	2	0	462	1	8	260	1	2	1	273	0	6	390	2	6	1	405	0	8	222	0	0	0	230
8:30	1	7	408	19	1	0	436	0	6	343	1	0	0	350	0	3	442	3	4	0	452	1	6	218	1	2	0	228
8:45	2	7	386	10	1	1	407	0	6	270	1	0	0	277	3	5	372	0	3	0	383	3	4	178	2	0	0	187
9:00	2	5	316	18	1	4	346	1	6	234	3	0	0	244	2	3	391	9	0	2	407	0	4	196	0	1	0	201
9:15	0	1	331	13	3	6	354	0	8	208	0	0	0	216	1	3	349	5	1	0	359	0	3	143	0	0	0	146
9:30	0	3	325	20	1	2	351	0	8	223	0	1	0	232	3	6	349	4	1	0	363	0	4	156	0	1	0	161
9:45	1	5	303	15	0	1	325	0	4	207	0	0	0	211	2	4	290	5	2	4	307	0	6	139	2	0	0	147
10:00	0	3	346	18	0	0	367	0	5	204	1	1	0	211	0	1	327	9	0	1	338	0	2	137	3	1	0	143
10:15	1	2	257	12	2	2	276	0	4	178	1	1	0	184	3	4	294	2	3	1	307	0	2	155	0	0	0	157
10:30	1	4	225	8	2	0	240	1	7	219	0	0	0	227	2	6	271	8	1	0	288	1	0	139	0	1	0	141
10:45	3	8	262	8	2	0	283	1	4	178	1	0	0	184	0	6	279	4	2	3	294	0	3	122	1	2	0	128
11:00	0	1	242	7	1	1	252	0	6	157	0	1	0	164	1	7	274	11	1	2	296	0	2	144	0	0	0	146
11:15	2	2	233	6	2	1	246	0	2	139	0	0	0	141	1	2	287	6	1	2	299	2	3	119	0	1	1	126
11:30	1	5	277	6	1	1	291	0	8	129	0	1	0	138	0	5	270	13	0	1	289	0	1	143	0	1	1	146
11:45	1	3	268	8	1	2	283	0	3	97	0	0	0	100	0	8	260	7	1	1	277	0	1	139	0	1	0	141
Total	26	119	7,615	241	83	35	8,119	28	306	13,675	95	74	22	14,200	33	143	8,138	119	52	26	8,511	27	266	13,516	230	93	39	14,171
Directional	**22,319**														**22,682**												
ADT	**45,001**																										
AADT	**43,651**																										
Daily Truck %	**2.5%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - NE 79th Street East of Pelican Harbor Drive - 72-Hour Classification Summary
October 4, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	84	0	272	8	81	1	285	14
12:15	85	1	292	8	64	0	300	22
12:30	80	0	278	9	57	1	296	10
12:45	51	0	247	9	52	0	316	12
1:00	53	1	276	9	33	1	275	10
1:15	47	1	300	8	31	0	297	10
1:30	35	0	299	9	28	1	302	11
1:45	38	1	291	7	30	0	309	11
2:00	35	0	265	5	25	1	277	9
2:15	34	0	343	6	27	1	346	15
2:30	28	0	305	4	18	0	281	7
2:45	21	1	329	5	17	0	362	14
3:00	24	1	294	6	18	1	377	9
3:15	25	0	312	7	23	1	398	8
3:30	20	3	332	3	24	0	435	9
3:45	27	2	330	5	17	0	394	10
4:00	25	1	346	5	23	2	402	9
4:15	24	1	333	5	24	2	409	15
4:30	36	1	371	5	30	1	424	12
4:45	24	2	317	4	35	1	402	9
5:00	28	2	368	3	49	1	396	9
5:15	41	3	333	3	51	0	408	12
5:30	59	5	371	2	82	3	390	11
5:45	79	4	383	5	91	3	372	8
6:00	77	10	289	3	114	4	313	8
6:15	120	11	473	2	166	5	363	4
6:30	146	11	371	2	179	5	325	7
6:45	215	10	352	2	202	6	289	5
7:00	214	6	371	4	251	5	289	5
7:15	245	11	322	2	311	4	279	5
7:30	281	12	336	1	347	7	261	3
7:45	342	15	295	1	356	6	250	2
8:00	359	18	287	2	321	5	248	3
8:15	406	16	295	3	406	8	221	1
8:30	373	16	297	1	385	6	227	2
8:45	345	10	245	1	383	4	184	2
9:00	311	17	238	1	347	7	188	0
9:15	319	15	229	1	329	7	156	1
9:30	304	18	219	0	312	7	153	1
9:45	267	11	196	0	292	9	150	1
10:00	277	15	208	1	301	9	131	2
10:15	263	12	184	2	289	11	158	0
10:30	258	13	193	0	285	8	133	1
10:45	255	12	167	0	289	10	129	1
11:00	238	11	164	1	276	12	137	1
11:15	244	10	145	1	276	11	120	2
11:30	261	9	135	1	287	12	137	1
11:45	258	11	101	0	267	19	109	0
Total	7,381	330	13,699	172	7,901	208	13,403	324
Directional	21,582				21,836			
ADT	43,418							
AADT	42,100							
Daily Truck %	2.4%							

Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	3,121	1,624	1,497	0.074	0.520	0.023
MD	2:45 PM	2,873	1,245	1,628	0.068	0.567	0.018
PM	5:00 PM	3,181	1,517	1,664	0.076	0.523	0.017

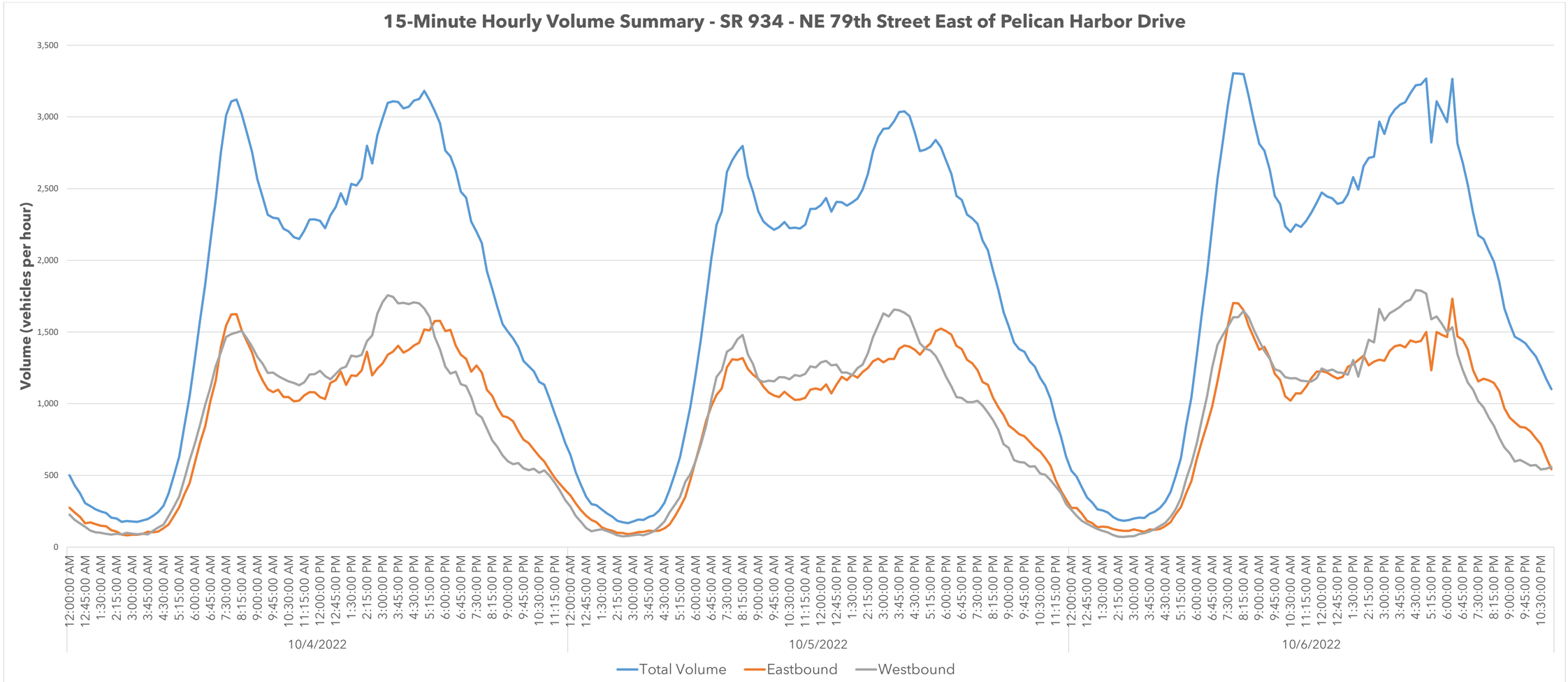
Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:15 AM	2,797	1,318	1,479	0.066	0.529	0.027
MD	2:45 PM	2,862	1,314	1,548	0.068	0.541	0.017
PM	4:00 PM	3,039	1,405	1,634	0.072	0.538	0.018

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	3,304	1,702	1,602	0.078	0.515	0.030
MD	2:45 PM	2,967	1,307	1,660	0.070	0.559	0.028
PM	5:00 PM	3,267	1,500	1,767	0.078	0.541	0.019

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	3,061	1,543	1,518	0.073	0.504	0.027
MD	2:45 PM	2,900	1,288	1,612	0.069	0.556	0.021
PM	4:15 PM	3,082	1,406	1,676	0.073	0.544	0.020

SR 934 - NE 79th Street East of Pelican Harbor Drive - 72-Hour Classification Summary
October 4, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



SR 934 - East of Harbor Island Dr - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																									
Direction	Eastbound														Westbound											
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	5	66	0	0	0	71	0	4	234	3	2	1	244	0	1	75	0	1	0	77	0	3	295	7	1	2	308
12:15	0	3	58	0	1	0	62	1	6	223	5	2	1	238	0	0	57	0	0	0	57	1	8	306	12	1	0	328
12:30	0	0	67	0	0	0	67	2	3	245	5	1	0	256	0	4	40	0	1	0	45	1	3	266	9	1	1	281
12:45	1	1	52	0	0	0	54	0	4	248	6	2	0	260	0	2	47	0	0	0	49	2	4	274	8	1	0	289
1:00	0	1	42	0	0	1	44	0	8	155	3	0	1	167	0	1	34	0	1	0	36	2	9	250	6	1	4	272
1:15	0	1	32	0	1	1	35	0	3	378	7	4	2	394	0	2	30	0	0	0	32	2	3	274	10	0	1	290
1:30	1	0	32	0	0	0	33	0	4	227	5	2	1	239	0	0	23	0	0	1	24	1	5	299	8	3	1	317
1:45	0	1	43	0	0	0	44	0	2	284	7	3	0	296	0	0	24	0	0	0	24	1	7	324	8	2	2	344
2:00	0	0	27	0	0	0	27	1	2	83	3	1	0	90	0	0	20	0	1	0	21	1	4	285	8	2	1	301
2:15	0	0	25	0	0	0	25	2	10	465	5	2	1	485	0	0	25	0	0	1	26	1	1	307	14	1	0	324
2:30	0	0	19	0	0	0	19	3	10	282	3	3	0	301	0	1	16	0	0	0	17	1	7	291	4	0	0	303
2:45	0	0	7	0	0	1	8	1	4	310	2	3	0	320	0	0	26	0	0	0	26	1	6	297	8	3	2	317
3:00	0	1	16	0	0	0	17	1	7	284	2	1	0	295	0	1	24	0	1	0	26	0	7	379	6	2	0	394
3:15	0	0	10	0	0	0	10	0	6	228	5	2	0	241	0	0	21	0	0	0	21	1	12	410	7	2	0	432
3:30	0	0	15	0	0	0	15	0	9	297	3	1	0	310	0	3	22	0	0	0	25	2	5	406	11	2	0	426
3:45	0	0	18	0	1	0	19	2	6	323	5	3	1	340	0	1	14	0	0	0	15	1	10	408	9	3	2	433
4:00	0	0	17	0	0	0	17	0	5	262	2	2	0	271	0	1	15	1	1	0	18	1	11	374	5	4	0	395
4:15	0	0	23	0	0	0	23	0	4	309	4	4	0	321	0	0	21	1	0	0	22	2	2	425	9	11	0	449
4:30	0	0	35	1	0	0	36	0	4	311	2	0	0	317	0	1	17	0	0	2	20	0	4	402	3	3	0	412
4:45	1	0	26	0	0	0	27	0	1	308	2	3	0	314	0	1	31	1	0	0	33	1	7	403	4	4	0	419
5:00	0	1	19	1	1	0	22	0	6	292	1	3	0	302	0	0	42	0	1	0	43	0	7	430	6	1	2	446
5:15	0	0	41	1	3	1	46	1	3	279	1	2	0	286	0	2	41	0	0	0	43	5	11	376	6	4	0	402
5:30	1	1	45	4	2	0	53	0	1	328	1	1	0	331	0	2	72	0	1	0	75	3	5	392	4	5	1	410
5:45	0	0	67	1	2	0	70	1	6	325	2	2	1	337	0	4	88	2	2	0	96	1	9	363	2	2	1	378
6:00	0	0	81	5	5	1	92	0	7	321	1	2	0	331	0	1	95	1	2	0	99	2	8	350	5	5	0	370
6:15	1	3	111	2	10	1	128	0	9	346	1	1	0	357	0	2	139	1	4	0	146	3	9	285	4	1	0	302
6:30	0	3	131	2	7	1	144	0	12	342	1	1	1	357	1	3	160	3	3	0	170	2	8	304	0	2	0	316
6:45	1	3	229	4	7	0	244	0	7	303	0	3	0	313	1	7	180	1	3	0	192	4	12	245	2	2	0	265
7:00	0	5	219	1	3	0	228	2	2	317	0	2	0	323	2	5	204	2	2	2	217	3	4	269	9	0	0	285
7:15	5	5	229	4	6	0	249	1	8	253	1	1	0	264	0	5	291	1	2	1	300	3	4	287	4	1	1	300
7:30	0	3	306	5	4	2	320	2	4	279	0	1	0	286	2	3	297	1	5	0	308	0	3	227	3	0	0	233
7:45	1	2	384	2	4	1	394	1	4	266	0	1	0	272	0	9	331	2	5	0	347	0	4	246	4	1	0	255
8:00	1	1	420	7	5	3	437	0	2	237	0	0	0	239	1	4	301	4	3	0	313	2	2	256	0	2	1	263
8:15	2	5	341	10	2	2	362	1	2	282	1	1	0	287	0	7	343	3	5	0	358	0	6	207	0	0	0	213
8:30	1	3	346	9	3	2	364	3	5	267	0	0	0	275	2	2	321	2	3	0	330	1	4	198	0	2	0	205
8:45	3	3	355	5	3	1	370	1	7	201	0	2	0	211	1	9	340	3	2	0	355	0	6	195	0	1	0	202
9:00	2	5	311	12	0	1	331	3	9	195	0	0	0	207	3	7	319	5	1	0	335	0	5	141	0	0	0	146
9:15	1	4	284	10	2	0	301	1	0	204	0	0	0	205	4	6	309	5	1	0	325	0	1	147	0	1	0	149
9:30	0	3	304	9	2	1	319	0	4	206	0	1	0	211	0	5	280	6	2	1	294	1	3	142	0	0	0	146
9:45	0	4	226	7	1	0	238	0	2	177	0	0	0	179	2	2	276	3	2	0	285	0	1	142	1	0	0	144
10:00	1	1	216	17	2	3	240	0	4	167	0	1	0	172	0	7	256	6	1	0	270	0	2	126	1	1	0	130
10:15	0	1	230	12	1	2	246	0	3	168	0	1	0	172	0	4	247	13	4	1	269	1	1	148	0	0	0	150
10:30	1	0	264	12	0	0	277	0	4	146	0	0	0	150	2	6	262	9	0	1	280	0	5	120	0	1	0	126
10:45	0	4	228	17	2	2	253	0	7	131	0	0	0	138	5	4	241	9	2	0	261	0	1	127	0	0	0	128
11:00	2	1	186	5	0	2	196	1	4	140	0	1	0	146	5	4	235	9	1	1	255	1	3	135	0	2	0	141
11:15	3	6	280	8	3	0	300	0	4	125	1	0	0	130	0	5	259	8	1	0	273	0	3	117	0	1	0	121
11:30	0	2	250	8	0	1	261	0	2	118	0	1	0	121	1	3	257	9	1	0	271	0	2	137	0	0	0	139
11:45	1	4	277	5	2	3	292	0	1	86	0	0	0	87	0	5	233	9	1	0	248	0	2	96	0	0	0	98
Total	30	86	7,010	186	85	33	7,430	31	231	11,957	90	69	10	12,388	32	142	7,001	120	66	11	7,372	54	249	12,883	207	82	22	13,497
Directional	**19,818**														**20,869**												
ADT	**40,687**																										
AADT	**39,466**																										
Daily Truck %	**2.4%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - East of Harbor Island Dr - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	1	5	88	0	0	0	94	1	6	252	7	1	1	268	0	2	77	1	1	0	81	2	6	260	11	1	0	280
12:15	0	4	88	0	1	0	93	2	4	280	3	0	3	292	0	2	70	0	0	0	72	1	4	296	13	1	1	316
12:30	0	1	72	0	0	0	73	1	7	232	10	2	1	253	0	3	66	0	1	0	70	0	8	269	7	1	3	288
12:45	0	1	57	0	0	0	58	0	3	239	7	1	1	251	0	1	44	0	0	0	45	1	7	316	6	1	1	332
1:00	0	2	46	0	1	0	49	0	7	273	5	0	0	285	0	3	41	0	0	0	44	3	8	285	6	1	0	303
1:15	0	0	48	0	0	1	49	1	7	234	4	3	0	249	0	2	30	0	1	0	33	2	8	294	9	1	0	314
1:30	0	0	37	2	0	0	39	0	7	278	6	1	2	294	0	1	25	1	0	0	27	0	9	300	7	1	0	317
1:45	0	2	27	0	0	0	29	0	6	280	1	2	0	289	0	0	22	1	0	0	23	0	6	261	9	2	0	278
2:00	0	2	35	1	0	0	38	0	9	266	5	1	1	282	1	0	30	1	0	1	33	1	9	289	8	1	1	309
2:15	0	0	27	0	0	0	27	0	3	258	5	0	1	267	0	1	36	0	1	0	38	1	3	275	8	1	0	288
2:30	0	2	26	0	0	0	28	1	3	269	3	2	0	278	0	0	24	0	0	0	24	3	4	339	10	1	1	358
2:45	0	0	23	1	0	0	24	5	7	302	9	2	0	325	1	0	16	0	0	0	17	2	8	300	5	2	0	317
3:00	1	0	12	0	1	0	14	3	4	272	7	1	1	288	0	1	20	0	1	0	22	2	4	352	6	1	0	365
3:15	0	0	30	0	0	0	30	3	1	275	6	1	0	286	0	0	17	1	0	0	18	0	8	381	3	0	0	392
3:30	0	0	18	1	0	0	19	1	3	278	1	0	0	283	0	0	19	0	0	0	19	0	10	372	6	2	1	391
3:45	0	1	22	0	0	0	23	7	4	305	4	2	0	322	0	1	18	0	0	0	19	1	9	346	11	1	0	368
4:00	0	0	28	1	1	0	30	0	5	312	1	1	1	320	0	0	20	0	1	0	21	3	5	344	7	1	0	360
4:15	1	0	28	1	0	0	30	1	5	298	5	2	0	311	0	1	18	1	0	0	20	3	12	408	7	2	0	432
4:30	1	1	27	1	0	1	31	3	6	300	2	3	2	316	0	1	28	0	0	0	29	2	11	413	6	3	0	435
4:45	0	0	24	1	0	0	25	2	9	302	1	2	0	316	0	1	26	1	1	1	30	1	5	348	3	3	0	360
5:00	0	0	27	0	1	1	29	0	6	282	0	2	0	290	0	1	48	1	1	0	51	0	8	374	2	3	0	387
5:15	1	0	33	0	1	1	36	0	8	286	0	1	0	295	0	2	52	0	0	0	54	1	5	374	7	2	0	389
5:30	0	1	54	1	1	1	58	3	4	298	1	2	0	308	1	2	85	1	1	1	91	2	12	383	10	1	0	408
5:45	0	1	85	2	1	1	90	2	6	326	1	1	1	337	0	3	75	1	1	0	80	2	5	324	7	2	0	340
6:00	0	0	75	2	6	0	83	1	7	315	2	4	0	329	0	2	90	2	1	1	96	2	10	323	2	4	0	341
6:15	0	0	109	5	0	0	114	0	11	356	0	1	1	369	0	1	147	0	1	1	150	0	12	305	3	3	0	323
6:30	0	3	142	9	2	1	157	3	5	320	1	1	0	330	0	3	126	0	3	0	132	1	7	260	4	1	0	273
6:45	1	6	199	4	1	0	211	2	5	309	0	0	1	317	0	1	145	1	2	0	149	1	5	260	7	1	1	275
7:00	1	5	205	2	4	3	220	0	6	314	1	2	0	323	2	4	199	2	2	0	209	3	6	275	2	1	1	288
7:15	0	3	241	2	2	2	250	0	8	301	0	1	0	310	3	5	256	3	1	0	268	0	3	249	1	1	0	254
7:30	1	5	255	8	5	2	276	0	7	282	0	1	1	291	1	11	272	3	3	0	290	1	8	291	1	1	0	302
7:45	0	2	275	13	7	5	302	0	12	280	0	0	0	292	1	3	278	1	4	0	287	2	7	213	2	2	0	226
8:00	2	5	259	6	1	7	280	0	2	259	0	2	0	263	0	12	247	1	1	1	262	2	2	280	0	1	0	285
8:15	1	6	329	10	2	1	349	0	3	253	4	0	1	261	3	4	321	4	4	0	336	0	4	233	5	2	0	244
8:30	1	2	336	6	2	2	349	1	0	206	0	0	0	207	3	6	290	3	1	2	305	0	11	224	0	1	0	236
8:45	0	2	275	4	2	1	284	1	2	245	2	1	0	251	1	8	305	3	2	1	320	0	2	192	0	1	0	195
9:00	0	3	207	4	0	2	216	1	0	208	0	0	0	209	0	7	292	2	0	0	301	3	3	203	0	0	0	209
9:15	0	6	370	12	3	1	392	0	1	183	1	0	0	185	0	2	265	4	2	0	273	0	1	180	1	0	0	182
9:30	1	5	264	11	1	3	285	0	0	150	0	0	0	150	5	5	254	5	2	0	271	1	1	131	0	0	0	133
9:45	1	2	255	4	1	3	266	0	0	159	0	0	0	159	2	6	263	6	4	1	282	0	5	143	0	0	0	148
10:00	0	0	203	5	0	1	209	0	9	171	1	1	0	182	2	8	252	7	0	1	270	1	2	120	0	1	0	124
10:15	0	2	264	9	0	2	277	1	0	146	1	1	0	149	1	3	266	4	2	0	276	0	3	176	0	0	0	179
10:30	0	1	242	8	0	0	251	1	2	170	0	0	1	174	3	6	268	4	1	1	283	0	1	132	0	0	0	133
10:45	0	1	245	7	0	1	254	0	3	150	0	0	0	153	2	2	293	9	1	0	307	1	4	135	0	1	0	141
11:00	0	1	228	9	0	3	241	2	6	137	0	1	1	147	4	7	240	6	0	1	258	0	3	123	0	1	0	127
11:15	0	3	215	1	0	0	219	1	1	124	2	0	0	128	1	6	259	8	1	2	277	0	7	107	0	1	0	115
11:30	0	3	232	6	0	0	241	3	2	125	1	1	0	132	0	5	269	8	1	1	284	1	2	130	1	0	1	135
11:45	0	4	213	8	0	0	225	0	6	88	0	0	0	94	2	4	276	11	1	0	294	0	1	97	0	0	0	98
Total	14	93	6,600	167	47	46	6,967	53	228	11,948	110	50	21	12,410	39	149	6,780	107	50	16	7,141	52	284	12,685	203	58	11	13,293
Directional	**19,377**														**20,434**												
ADT	**39,811**																										
AADT	**38,617**																										
Daily Truck %	**2.2%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - East of Harbor Island Dr - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	4	56	0	0	0	60	0	5	212	3	0	0	220	0	3	79	0	1	0	83	1	5	220	7	1	2	236
12:15	0	1	59	0	1	0	61	3	5	258	6	2	1	275	1	0	61	0	0	0	62	0	4	266	9	2	1	282
12:30	1	3	69	0	0	0	73	2	5	294	10	1	1	313	0	3	49	0	1	0	53	2	6	267	5	2	0	282
12:45	2	0	42	0	0	0	44	1	5	251	8	1	2	268	0	4	49	0	0	0	53	0	2	316	11	1	2	332
1:00	0	3	60	0	1	0	64	1	8	253	6	3	1	272	0	1	42	0	1	0	44	2	3	245	3	1	2	256
1:15	0	1	30	0	0	0	31	1	2	265	4	3	2	277	0	1	37	0	0	0	38	2	3	284	3	1	3	296
1:30	0	1	30	0	0	0	31	1	6	290	7	2	2	308	0	1	28	0	0	0	29	0	5	288	5	3	1	302
1:45	0	1	23	0	0	0	24	4	7	273	6	2	2	294	0	0	34	0	0	0	34	1	7	289	4	1	5	307
2:00	0	0	37	0	1	0	38	0	7	330	6	1	0	344	0	2	20	0	0	0	22	4	5	247	6	1	0	263
2:15	0	1	32	0	0	0	33	0	5	278	1	3	0	287	0	1	16	0	1	0	18	2	6	365	9	3	2	387
2:30	0	1	30	0	0	0	31	1	8	313	3	0	0	325	0	1	21	0	0	0	22	1	4	148	3	0	2	158
2:45	1	2	15	0	0	0	18	0	4	309	1	4	1	319	0	0	18	0	0	0	18	1	8	436	14	3	2	464
3:00	0	0	26	0	1	0	27	2	4	283	3	2	0	294	0	0	11	0	1	0	12	0	9	376	3	4	1	393
3:15	0	1	29	0	0	0	30	1	8	267	4	0	0	280	0	1	21	0	0	0	22	2	2	378	4	2	2	390
3:30	0	1	24	5	0	0	30	1	3	336	0	5	1	346	0	0	26	0	0	0	26	0	9	379	6	0	4	398
3:45	0	0	28	0	1	0	29	0	7	299	3	1	0	310	0	2	12	1	0	0	15	1	7	385	1	4	2	400
4:00	0	0	23	0	0	0	23	0	4	315	2	3	1	325	0	3	25	1	1	0	30	1	11	394	8	4	2	420
4:15	0	0	24	1	0	0	25	1	4	339	1	4	0	349	0	0	23	1	0	0	24	3	9	338	8	12	0	370
4:30	0	0	42	0	0	0	42	2	6	340	1	3	2	354	0	2	28	0	0	0	30	0	11	417	8	6	0	442
4:45	0	1	24	1	0	1	27	1	5	251	2	3	1	263	0	0	30	0	0	0	30	1	10	402	8	5	2	428
5:00	0	0	27	0	1	0	28	0	5	329	1	4	0	339	0	2	45	0	1	0	48	4	8	444	7	5	5	473
5:15	0	1	40	0	2	0	43	1	5	331	0	2	1	340	0	1	45	0	0	0	46	0	9	445	4	3	2	463
5:30	0	4	64	2	1	0	71	0	3	319	3	0	0	325	0	2	68	1	1	1	73	1	7	410	8	4	2	432
5:45	0	1	76	2	3	1	83	1	1	296	1	4	0	303	0	2	74	2	0	0	78	1	7	410	3	3	1	425
6:00	0	1	69	5	6	0	81	1	6	127	1	2	0	137	0	0	110	2	2	0	114	2	10	365	7	4	0	388
6:15	0	3	116	1	11	0	131	2	7	531	1	1	0	542	0	8	145	0	4	0	157	2	10	415	3	2	0	432
6:30	3	0	144	2	8	1	158	0	8	309	0	0	0	317	0	4	160	2	4	0	170	3	8	326	2	3	1	343
6:45	0	2	227	2	6	1	238	1	8	343	1	2	1	356	2	4	184	1	2	1	194	2	6	321	5	1	0	335
7:00	0	2	189	1	4	1	197	0	9	346	2	3	0	360	2	3	239	0	3	1	248	0	12	297	7	1	0	317
7:15	0	4	227	4	3	3	241	0	4	307	0	1	0	312	1	6	290	2	2	0	301	5	8	276	2	2	0	293
7:30	0	3	253	3	3	1	263	0	3	301	1	1	0	306	0	5	319	1	5	0	330	3	6	302	2	2	0	315
7:45	0	1	346	4	3	0	354	0	1	314	1	1	0	317	0	7	312	0	3	1	323	1	11	228	2	1	0	243
8:00	0	1	388	10	0	0	399	2	5	227	0	0	0	234	2	6	312	3	6	0	329	1	5	245	1	3	0	255
8:15	0	0	426	3	0	0	429	1	0	167	1	2	1	172	0	4	357	3	4	0	368	2	5	222	0	0	0	229
8:30	0	4	354	10	0	3	371	3	5	360	0	0	1	369	2	5	386	4	3	0	400	1	8	225	1	2	0	237
8:45	2	3	344	5	1	1	356	0	2	265	1	0	0	268	3	6	336	2	3	1	351	0	6	166	1	0	0	173
9:00	1	7	333	18	0	1	360	1	3	195	1	1	0	201	2	5	307	8	2	2	326	0	4	198	0	1	0	203
9:15	1	0	317	10	1	4	333	2	2	163	0	0	0	167	0	3	293	8	1	0	305	0	4	137	0	0	0	141
9:30	0	3	319	14	2	3	341	1	2	201	0	1	0	205	3	6	293	4	1	0	307	0	4	154	1	1	0	160
9:45	1	3	304	15	0	0	323	2	1	179	0	0	0	182	3	6	277	7	2	2	297	0	4	134	3	0	0	141
10:00	0	1	303	11	1	1	317	0	1	180	0	1	0	182	1	1	291	10	1	0	304	0	2	131	1	1	0	135
10:15	0	0	284	14	2	0	300	0	4	147	1	1	0	153	7	4	285	8	0	1	305	0	5	165	0	0	0	170
10:30	0	1	244	11	0	2	258	1	2	187	0	0	0	190	1	7	260	8	1	1	278	2	0	134	1	0	0	137
10:45	0	2	249	9	0	0	260	0	5	159	0	0	0	164	1	7	250	7	2	1	268	0	4	126	0	2	0	132
11:00	0	0	218	6	0	0	224	0	5	135	0	1	0	141	0	6	232	9	1	0	248	1	3	140	0	0	0	144
11:15	0	0	169	6	1	1	177	1	2	117	0	0	0	120	1	3	251	7	1	2	265	3	4	127	0	1	1	136
11:30	0	1	263	3	0	1	268	0	8	113	0	1	0	122	0	6	272	11	1	0	290	0	2	122	1	1	0	126
11:45	0	1	193	4	0	1	199	1	3	86	0	0	0	90	0	3	191	3	1	1	199	0	2	140	0	1	0	143
Total	12	70	7,189	182	64	27	7,544	43	218	12,490	93	72	21	12,937	32	147	7,214	116	63	15	7,587	58	290	13,245	187	100	47	13,927
Directional	**20,481**														**21,514**												
ADT	**41,995**																										
AADT	**40,735**																										
Daily Truck %	**2.4%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

SR 934 - East of Harbor Island Dr - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	75	0	238	6	79	1	264	11
12:15	71	1	261	8	64	0	295	13
12:30	71	0	264	10	55	1	274	10
12:45	52	0	250	9	49	0	307	10
1:00	51	1	235	6	41	1	269	8
1:15	37	1	297	10	34	0	291	9
1:30	34	1	271	9	26	1	302	10
1:45	32	0	285	8	27	0	299	11
2:00	34	1	233	6	24	1	282	9
2:15	28	0	340	6	26	1	320	13
2:30	26	0	297	5	21	0	266	7
2:45	16	1	314	7	20	0	353	13
3:00	19	1	287	6	19	1	376	8
3:15	23	0	263	6	20	0	398	7
3:30	19	2	309	4	23	0	394	11
3:45	23	1	318	6	16	0	389	11
4:00	23	1	301	4	21	2	381	10
4:15	25	1	320	7	21	1	401	16
4:30	35	1	324	5	26	1	420	10
4:45	25	1	293	5	30	1	393	10
5:00	25	2	307	4	46	1	425	10
5:15	39	3	305	2	48	0	409	9
5:30	57	4	319	3	77	2	405	12
5:45	77	4	321	4	82	3	374	7
6:00	75	10	262	4	99	4	357	9
6:15	114	10	421	2	147	4	347	5
6:30	142	11	333	2	152	5	306	4
6:45	223	8	326	3	175	4	285	6
7:00	209	6	332	3	220	5	290	7
7:15	238	9	294	1	286	4	278	4
7:30	275	11	293	2	303	6	280	3
7:45	337	13	293	1	314	5	237	4
8:00	359	13	245	1	295	6	265	3
8:15	370	10	236	4	346	8	226	2
8:30	349	12	283	0	339	6	224	2
8:45	329	8	241	2	336	6	189	1
9:00	290	13	205	1	314	7	186	0
9:15	328	14	185	0	294	7	157	1
9:30	300	15	188	1	284	7	146	1
9:45	265	10	173	0	279	9	143	1
10:00	242	14	177	1	273	9	128	2
10:15	260	14	156	2	272	11	166	0
10:30	251	11	171	0	272	9	131	1
10:45	243	13	152	0	268	10	133	1
11:00	212	8	143	1	244	9	136	1
11:15	225	7	125	1	262	10	123	1
11:30	250	6	124	1	271	11	132	1
11:45	231	8	90	0	238	9	113	0
Total	7,034	281	12,400	179	7,178	189	13,265	305
Directional	19,894				20,937			
ADT	40,831							
AADT	39,600							
Daily Truck %	2.3%							

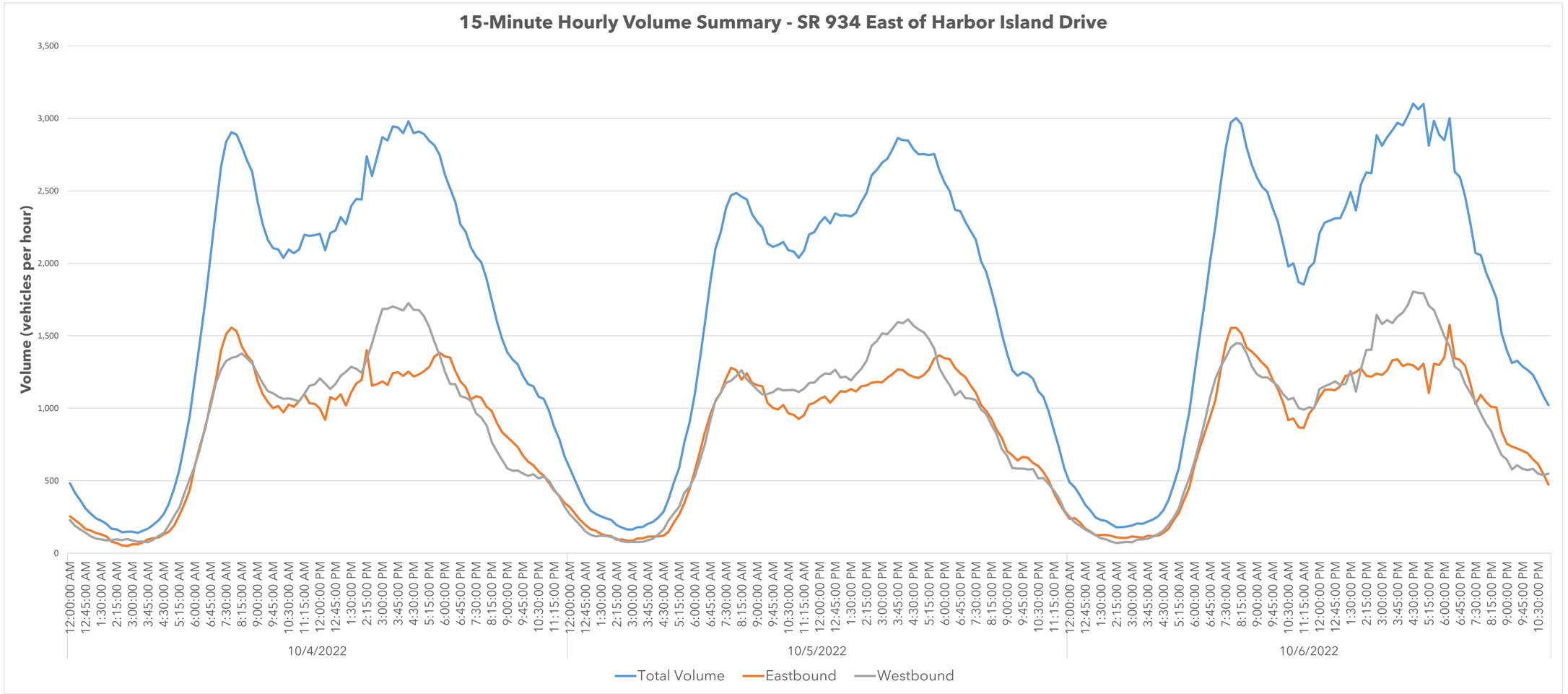
Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	2,905	1,557	1,348	0.073	0.536	0.027
MD	2:15 PM	2,739	1,401	1,338	0.069	0.512	0.023
PM	4:15 PM	2,980	1,254	1,726	0.075	0.579	0.021

Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	2,485	1,262	1,223	0.063	0.508	0.027
MD	2:45 PM	2,647	1,182	1,465	0.067	0.553	0.020
PM	3:45 PM	2,864	1,269	1,595	0.072	0.557	0.021

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	3,003	1,555	1,448	0.076	0.518	0.021
MD	2:45 PM	2,884	1,239	1,645	0.073	0.570	0.023
PM	4:30 PM	3,102	1,296	1,806	0.078	0.582	0.024

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	2,792	1,450	1,342	0.071	0.519	0.025
MD	2:45 PM	2,756	1,196	1,560	0.070	0.566	0.022
PM	4:15 PM	2,950	1,265	1,685	0.074	0.571	0.023

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



SR 934 - NE 79th Street East of Adventure Ave - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																									
Direction	Eastbound														Westbound											
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	4	60	0	0	0	64	0	4	231	5	2	0	242	0	1	72	0	1	0	74	0	2	270	7	0	5	284
12:15	0	1	55	0	1	0	57	1	5	212	6	2	1	227	0	0	56	0	0	0	56	3	8	277	7	1	0	296
12:30	0	0	66	0	0	0	66	0	3	216	5	1	0	225	0	4	38	0	1	0	43	2	3	239	6	1	2	253
12:45	1	1	50	0	0	0	52	0	7	250	6	1	0	264	0	2	52	0	0	0	54	1	5	242	9	1	0	258
1:00	0	1	41	0	0	1	43	1	5	167	2	0	1	176	0	1	31	0	1	0	33	2	8	232	3	1	2	248
1:15	0	1	29	0	1	0	31	2	2	363	4	4	0	375	0	2	29	0	0	0	31	2	2	247	6	1	1	259
1:30	1	0	27	0	0	0	28	0	4	205	4	2	1	216	1	0	22	0	0	1	24	0	4	274	7	2	1	288
1:45	0	1	41	0	0	0	42	1	1	280	3	3	0	288	0	0	24	0	0	0	24	1	7	301	6	2	2	319
2:00	0	1	29	0	1	0	31	0	2	97	4	1	0	104	0	0	17	0	1	0	18	1	4	276	11	2	1	295
2:15	0	0	24	0	0	0	24	1	7	453	5	2	1	469	0	0	25	0	0	0	25	1	2	294	11	1	1	310
2:30	0	0	23	0	0	0	23	2	8	296	1	3	0	310	0	1	14	0	0	0	15	1	8	282	6	0	1	298
2:45	0	0	16	0	0	1	17	1	3	314	5	3	0	326	0	0	22	0	0	0	22	1	5	286	8	5	2	307
3:00	0	1	17	0	1	0	19	0	9	260	2	0	1	272	0	3	21	0	1	0	25	0	8	370	6	3	0	387
3:15	0	0	13	0	0	0	13	0	7	221	6	2	1	237	0	0	19	0	0	0	19	2	11	409	10	1	0	433
3:30	0	0	13	0	0	0	13	0	10	260	4	1	0	275	0	3	20	0	0	0	23	1	7	380	10	2	0	400
3:45	0	0	22	2	1	1	26	0	7	312	4	3	1	327	0	1	13	0	0	0	14	2	10	413	8	4	1	438
4:00	0	0	13	1	0	0	14	0	6	301	2	2	0	311	0	2	15	2	1	0	20	2	12	377	4	3	2	400
4:15	0	0	21	0	0	0	21	0	6	306	3	4	0	319	0	0	22	0	0	0	22	2	2	405	7	12	1	429
4:30	0	0	30	1	0	0	31	0	7	306	2	1	0	316	0	1	17	0	0	2	20	0	4	392	3	3	0	402
4:45	1	1	24	0	0	0	26	0	1	291	3	3	0	298	0	1	28	1	0	0	30	2	7	375	3	4	1	392
5:00	0	1	17	1	1	0	20	1	7	297	1	3	0	309	0	0	45	0	1	0	46	0	7	423	6	2	0	438
5:15	0	0	43	1	3	1	48	2	5	289	2	1	0	299	0	2	36	0	0	0	38	4	10	338	5	2	0	359
5:30	0	2	48	4	2	0	56	3	3	332	1	1	0	340	1	2	69	0	1	0	73	2	4	376	4	4	0	390
5:45	0	0	70	2	1	0	73	3	6	322	1	2	1	335	0	1	77	2	1	0	81	2	10	317	2	2	0	333
6:00	0	0	79	5	5	1	90	2	11	310	3	2	0	328	0	0	98	0	0	0	98	2	10	333	6	5	1	357
6:15	2	1	105	1	10	0	119	2	9	345	1	1	0	358	0	0	128	1	4	0	133	3	7	268	2	1	2	283
6:30	0	3	134	4	7	0	148	2	11	319	1	1	1	335	0	0	154	1	3	0	158	3	9	300	1	2	0	315
6:45	1	3	215	4	6	1	230	2	10	308	1	3	0	324	3	0	176	1	2	0	182	3	11	241	5	1	0	261
7:00	0	6	207	1	3	0	217	2	4	291	1	2	0	300	0	5	193	2	2	2	204	5	5	297	6	2	0	315
7:15	3	4	222	2	5	4	240	1	7	235	1	1	0	245	0	5	263	1	2	0	271	5	6	262	2	0	1	276
7:30	1	5	312	5	4	3	330	3	6	258	0	1	0	268	0	4	288	1	5	0	298	1	6	218	3	0	0	228
7:45	1	3	345	2	5	1	357	2	4	260	0	0	0	266	0	7	293	1	4	0	305	2	7	258	1	1	0	269
8:00	0	3	399	6	4	0	412	0	3	234	1	0	0	238	1	4	295	2	4	0	306	3	3	240	0	2	1	249
8:15	0	7	367	9	2	2	387	2	4	284	1	1	0	292	0	7	324	3	2	0	336	1	5	199	0	1	0	206
8:30	0	3	352	9	3	0	367	1	6	261	0	0	0	268	2	2	299	3	2	1	309	4	4	164	0	0	0	172
8:45	0	5	370	6	2	2	385	0	10	185	0	2	0	197	2	9	302	2	1	0	316	0	8	175	0	1	0	184
9:00	1	2	306	11	1	0	321	1	8	190	0	0	0	199	3	5	303	4	2	1	318	0	4	147	0	0	0	151
9:15	1	1	273	13	0	0	288	0	4	192	0	0	0	196	4	6	299	5	2	1	317	0	1	141	0	1	0	143
9:30	1	3	284	7	0	1	296	0	2	207	0	1	0	210	0	5	266	4	2	0	277	2	3	143	0	0	0	148
9:45	0	4	217	5	1	1	228	0	3	175	0	0	0	178	2	3	265	2	2	1	275	1	2	132	1	0	0	136
10:00	2	2	239	15	1	3	262	0	2	160	0	1	0	163	0	8	230	7	1	0	246	0	2	129	1	1	0	133
10:15	0	2	220	9	1	3	235	0	0	171	0	1	0	172	0	4	245	14	2	2	267	1	2	142	0	0	0	145
10:30	1	5	226	6	0	0	238	0	2	146	0	0	0	148	2	5	241	9	0	1	258	0	4	114	0	1	0	119
10:45	0	3	268	12	2	2	287	0	6	134	0	0	0	140	4	3	228	8	2	1	246	0	3	115	0	0	0	118
11:00	0	4	144	5	1	0	154	0	4	129	0	1	0	134	7	3	220	3	2	1	236	1	2	132	0	2	0	137
11:15	2	7	299	9	2	0	319	1	6	113	1	0	0	121	2	4	243	7	1	0	257	0	3	103	0	1	0	107
11:30	0	2	235	7	0	3	247	0	2	131	0	0	0	133	1	4	246	8	3	0	262	0	2	117	0	0	0	119
11:45	0	5	232	5	1	3	246	0	1	77	0	1	0	79	1	6	229	7	2	0	245	0	2	91	0	0	0	93
Total	19	98	6,842	170	78	34	7,241	39	250	11,696	92	66	9	12,152	36	126	6,612	101	61	14	6,950	71	261	12,256	183	81	28	12,880
Directional	**19,393**														**19,830**												
ADT	**39,223**																										
AADT	**38,046**																										
Daily Truck %	**2.3%**																										

SR 934 - NE 79th Street East of Adventure Ave - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	1	4	90	0	0	0	95	1	4	247	10	1	2	265	1	2	80	1	1	0	85	4	6	238	8	1	1	258
12:15	0	5	85	1	1	0	92	1	6	257	7	0	3	274	1	1	65	0	0	0	67	0	5	293	12	1	2	313
12:30	0	1	67	0	0	0	68	2	10	216	6	2	0	236	1	2	67	0	1	0	71	0	8	253	9	1	1	272
12:45	1	2	53	0	0	0	56	1	3	240	5	2	1	252	0	1	42	0	0	0	43	1	8	288	7	1	2	307
1:00	0	1	41	0	1	0	43	0	6	255	4	0	0	265	0	1	41	0	0	0	42	4	6	281	4	1	2	298
1:15	0	0	48	0	0	0	48	0	7	274	3	9	1	294	0	2	30	0	1	0	33	2	6	284	5	1	2	300
1:30	0	0	36	0	0	0	36	1	7	275	7	0	0	290	0	1	29	0	0	0	30	3	5	285	5	1	1	300
1:45	0	1	20	0	0	0	21	0	4	320	1	1	0	326	1	0	20	1	0	0	22	0	6	238	9	2	0	255
2:00	0	3	33	0	1	0	37	2	7	235	4	2	0	250	0	1	28	1	0	1	31	2	7	261	6	1	2	279
2:15	0	0	28	0	0	0	28	0	2	249	4	0	1	256	0	1	36	0	0	0	37	1	4	252	11	1	2	271
2:30	0	2	23	0	0	0	25	5	1	254	3	3	0	266	0	0	25	0	0	0	25	3	4	300	8	1	0	316
2:45	0	0	24	1	0	0	25	2	6	295	4	2	0	309	0	0	15	0	0	0	15	1	6	304	5	2	0	318
3:00	0	0	13	1	0	0	14	4	4	267	8	1	0	284	0	1	21	0	1	0	23	3	4	346	3	1	1	358
3:15	2	0	25	0	0	0	27	2	3	294	6	1	0	306	0	0	15	1	0	0	16	0	10	390	4	0	0	404
3:30	0	0	17	1	0	0	18	0	3	290	1	0	0	294	0	0	18	0	0	0	18	0	11	382	4	3	1	401
3:45	1	0	17	0	0	0	18	4	8	288	5	1	0	306	0	1	22	0	0	0	23	1	7	341	9	1	1	360
4:00	0	0	24	1	1	0	26	2	4	330	1	1	1	339	0	0	15	0	1	0	16	3	3	340	7	2	1	356
4:15	0	1	22	1	0	0	24	0	3	281	6	2	0	292	0	1	19	1	0	0	21	3	11	407	4	3	1	429
4:30	1	0	20	1	0	1	23	4	8	293	3	2	2	312	0	1	27	0	0	0	28	2	9	397	6	2	1	417
4:45	0	0	23	1	0	0	24	2	8	287	3	2	0	302	0	1	24	3	0	0	28	1	5	329	11	3	0	349
5:00	0	0	25	0	1	1	27	0	6	285	0	2	0	293	0	1	48	1	1	0	51	0	8	367	3	3	0	381
5:15	1	0	32	0	1	0	34	0	9	260	1	1	0	271	0	2	50	0	0	0	52	3	3	356	7	2	2	373
5:30	1	1	56	2	1	0	61	4	4	279	1	2	0	290	0	3	79	1	1	1	85	4	7	380	5	1	5	402
5:45	0	1	78	1	1	2	83	1	6	317	0	1	1	326	0	4	67	1	2	0	74	3	4	311	3	2	4	327
6:00	0	1	76	2	4	0	83	0	7	311	2	4	0	324	2	1	87	1	1	1	93	2	9	298	3	3	0	315
6:15	1	1	100	6	0	0	108	0	10	333	0	1	1	345	0	1	138	1	1	0	141	0	13	302	2	3	1	321
6:30	2	2	138	6	3	3	154	3	7	309	0	1	0	320	1	1	119	1	2	0	124	1	7	240	4	1	1	254
6:45	1	4	181	5	1	0	192	6	6	264	0	0	1	277	0	0	137	2	2	0	141	1	6	259	9	1	0	276
7:00	2	5	200	4	4	2	217	4	7	298	0	2	0	311	2	4	191	1	2	0	200	2	7	263	1	1	1	275
7:15	1	4	229	4	2	0	240	2	8	290	0	1	0	301	3	4	244	3	1	0	255	0	3	243	1	1	0	248
7:30	1	1	261	10	2	0	275	3	10	264	0	1	1	279	1	8	274	3	3	0	289	1	10	286	1	1	0	299
7:45	0	4	274	12	4	3	297	0	14	269	0	0	0	283	2	2	247	2	4	0	257	5	4	220	3	1	0	233
8:00	1	5	264	8	1	7	286	0	6	266	0	2	0	274	1	11	240	2	1	0	255	2	4	263	0	1	0	270
8:15	1	8	304	11	3	1	328	1	5	239	1	1	1	248	3	4	278	4	4	0	293	1	3	212	5	0	0	221
8:30	0	3	309	11	1	3	327	0	5	235	0	0	0	240	2	6	284	3	1	2	298	0	13	192	0	1	0	206
8:45	1	3	235	6	3	0	248	1	8	231	2	0	0	242	1	5	282	2	2	1	293	0	3	181	0	1	0	185
9:00	0	2	175	6	0	1	184	1	4	202	0	1	0	208	0	7	270	1	0	0	278	3	4	189	0	0	0	196
9:15	0	1	370	12	2	1	386	1	4	196	0	1	0	202	1	1	252	2	3	0	259	0	3	181	1	1	0	186
9:30	1	5	258	11	1	2	278	0	6	161	1	1	0	169	4	4	254	5	2	0	269	1	1	135	0	0	0	137
9:45	0	2	267	6	2	2	279	1	10	168	0	0	0	179	2	4	271	5	2	2	286	0	6	147	0	0	0	153
10:00	1	5	199	9	0	0	214	1	10	172	0	1	0	184	1	9	252	6	1	1	270	1	6	120	2	0	0	129
10:15	2	5	263	14	2	0	286	0	0	140	0	1	0	141	1	3	270	3	2	0	279	0	2	169	0	0	0	171
10:30	0	1	226	12	1	1	241	0	5	175	0	0	1	181	1	5	267	3	1	1	278	2	1	125	0	0	0	128
10:45	0	3	251	11	1	0	266	0	7	158	0	0	0	165	3	2	280	7	1	1	294	1	4	128	0	1	0	134
11:00	2	1	227	10	1	0	241	1	9	134	0	1	1	146	5	7	226	6	1	1	246	0	3	121	0	0	0	124
11:15	1	4	231	3	1	1	241	0	5	124	2	0	0	131	0	5	248	8	1	1	263	0	6	103	1	1	0	111
11:30	2	3	246	9	0	0	260	2	3	117	5	1	0	128	2	5	258	6	1	2	274	0	4	109	0	1	1	115
11:45	3	8	210	7	2	0	230	0	8	85	0	0	0	93	2	3	267	8	2	0	282	0	1	85	0	0	0	86
Total	31	103	6,394	206	49	31	6,814	65	293	11,729	106	58	18	12,269	44	129	6,519	96	50	15	6,853	67	276	12,194	188	56	36	12,817
Directional	**19,083**														**19,670**												
ADT	**38,753**																										
AADT	**37,590**																										
Daily Truck %	**2.3%**																										

SR 934 - NE 79th Street East of Adventure Ave - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	5	51	0	0	0	56	0	5	260	4	1	0	270	0	3	76	0	1	0	80	1	7	253	5	1	2	269
12:15	0	1	57	0	1	0	59	1	3	247	7	1	3	262	0	1	65	0	0	0	66	0	5	256	9	1	1	272
12:30	0	3	61	0	0	0	64	1	4	255	12	1	2	275	1	3	47	0	1	0	52	2	5	269	5	2	0	283
12:45	1	0	42	0	0	0	43	0	3	267	5	2	3	280	0	5	46	0	0	0	51	0	2	316	9	1	2	330
1:00	0	3	55	0	1	0	59	2	7	244	8	3	0	264	0	1	42	0	1	0	44	1	3	228	9	1	2	244
1:15	0	1	26	0	0	0	27	3	3	281	5	3	2	297	0	1	32	0	0	0	33	2	3	266	7	0	1	279
1:30	0	1	28	0	0	0	29	1	8	264	3	2	1	279	0	1	31	0	0	0	32	0	5	277	4	3	1	290
1:45	0	1	21	0	0	0	22	1	6	261	6	2	1	277	0	0	33	0	0	0	33	1	7	269	8	1	3	289
2:00	0	0	30	0	1	0	31	0	4	327	5	1	0	337	0	2	20	0	0	0	22	4	5	243	6	1	1	260
2:15	0	1	30	0	0	0	31	0	3	266	0	3	0	272	0	1	19	0	1	0	21	2	5	349	14	3	0	373
2:30	0	1	24	0	0	0	25	1	9	245	0	0	1	256	1	1	17	0	0	0	19	1	4	122	3	0	1	131
2:45	0	2	11	0	0	0	13	0	2	322	1	4	1	330	0	0	16	0	0	0	16	1	7	449	14	3	1	475
3:00	0	0	23	0	1	0	24	1	7	278	3	0	0	289	0	0	11	0	1	0	12	0	8	349	4	5	1	367
3:15	0	1	28	0	0	0	29	0	8	284	4	1	0	297	0	1	18	0	0	0	19	3	1	367	2	2	2	377
3:30	0	1	20	4	1	0	26	0	9	308	1	5	2	325	0	0	23	0	0	0	23	0	9	402	5	1	3	420
3:45	0	0	28	0	1	0	29	0	4	286	3	1	0	294	1	1	10	1	0	0	13	1	10	360	1	4	3	379
4:00	0	0	18	0	0	0	18	1	0	303	1	4	1	310	0	2	25	2	1	0	30	1	10	367	6	3	2	389
4:15	0	0	22	2	0	0	24	2	6	321	3	5	0	337	0	0	25	0	0	0	25	3	10	336	7	10	0	366
4:30	0	0	39	1	0	0	40	3	6	308	3	3	0	323	1	1	26	0	0	0	28	0	11	409	7	6	0	433
4:45	0	1	20	1	0	1	23	1	6	255	1	1	1	265	0	0	29	0	0	0	29	0	9	378	7	3	2	399
5:00	2	0	21	0	1	0	24	0	5	307	1	3	0	316	0	2	43	0	1	0	46	4	8	415	9	5	2	443
5:15	0	2	36	0	2	0	40	0	6	296	0	2	1	305	0	1	40	0	0	0	41	0	10	420	3	3	2	438
5:30	1	3	63	2	1	0	70	1	5	314	2	0	0	322	2	1	67	1	1	2	74	1	8	389	10	4	0	412
5:45	0	1	75	2	3	0	81	0	2	277	0	4	0	283	1	1	74	1	0	0	77	3	4	390	1	3	1	402
6:00	0	1	61	5	5	2	74	1	5	142	3	2	0	153	0	1	111	1	1	0	114	1	9	341	7	3	0	361
6:15	0	3	116	0	9	0	128	2	4	475	3	1	0	485	1	5	136	0	4	0	146	3	7	407	2	4	1	424
6:30	1	1	125	4	8	2	141	0	5	304	2	0	0	311	1	3	158	3	4	0	169	1	7	293	2	3	1	307
6:45	1	4	235	2	6	1	249	0	7	310	1	2	0	320	1	4	167	0	2	1	175	2	7	326	3	1	0	339
7:00	1	3	192	1	5	2	204	0	8	307	2	3	0	320	4	1	224	0	3	1	233	1	8	289	6	1	0	305
7:15	1	5	236	4	2	2	250	0	4	281	0	1	0	286	1	5	245	2	2	0	255	5	8	288	2	3	0	306
7:30	2	5	264	3	7	1	282	0	2	284	2	1	0	289	1	4	289	2	5	0	301	3	6	282	2	2	0	295
7:45	0	4	367	7	4	0	382	0	5	305	1	1	0	312	0	6	303	0	1	1	311	2	8	215	1	2	0	228
8:00	2	3	383	12	4	4	408	0	4	197	0	0	0	201	3	7	297	6	7	0	320	1	7	240	5	1	0	254
8:15	0	0	403	6	2	3	414	1	6	156	0	0	1	164	1	4	336	1	1	0	343	1	6	227	0	0	0	234
8:30	0	4	410	11	1	4	430	0	7	367	1	1	0	376	1	5	347	2	5	0	360	1	8	197	1	2	0	209
8:45	1	6	387	7	3	4	408	0	5	248	1	0	0	254	3	6	320	1	2	1	333	0	6	157	2	0	0	165
9:00	3	7	344	17	0	1	372	2	5	190	1	1	0	199	2	5	272	9	1	0	289	0	4	196	0	1	0	201
9:15	1	0	310	13	1	3	328	0	5	191	0	0	0	196	1	3	274	6	1	0	285	0	4	136	0	0	0	140
9:30	1	4	328	13	2	5	353	0	11	191	0	1	0	203	2	6	276	6	1	0	291	0	5	153	0	1	0	159
9:45	2	4	281	15	0	0	302	0	3	188	0	0	0	191	4	5	269	5	2	2	287	0	4	140	3	0	0	147
10:00	0	1	303	16	0	0	320	0	2	157	1	1	0	161	1	1	248	10	0	0	260	0	2	129	1	1	0	133
10:15	0	4	288	11	5	0	308	0	4	140	1	1	0	146	7	4	272	6	2	1	292	0	5	153	0	0	0	158
10:30	1	3	250	9	2	2	267	1	9	171	0	0	0	181	1	7	249	9	1	0	267	1	0	130	1	0	0	132
10:45	1	6	194	9	11	0	221	0	5	150	1	0	0	156	0	7	205	7	2	2	223	0	4	116	1	1	0	122
11:00	0	3	231	3	1	0	238	0	5	130	0	1	0	136	0	7	237	9	1	1	255	0	2	131	0	0	0	133
11:15	3	1	221	8	1	1	235	0	2	118	0	0	0	120	0	2	248	7	1	2	260	0	5	120	0	1	1	127
11:30	0	5	250	5	2	1	263	0	9	111	0	1	0	121	0	6	256	6	2	0	270	0	2	97	1	1	0	101
11:45	1	2	254	13	1	1	272	0	4	86	0	0	0	90	1	7	244	5	2	1	260	0	5	131	1	0	0	137
Total	26	107	7,262	206	95	40	7,736	26	247	11,975	98	70	20	12,436	43	140	6,818	108	61	15	7,185	53	285	12,773	196	94	36	13,437
Directional	**20,172**														**20,622**												
ADT	**40,794**																										
AADT	**39,570**																										
Daily Truck %	**2.5%**																										

SR 934 - NE 79th Street East of Adventure Ave - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	72	0	251	8	78	1	260	10
12:15	68	1	244	10	63	0	282	11
12:30	66	0	236	10	54	1	260	9
12:45	50	0	257	8	49	0	288	11
1:00	47	1	229	6	39	1	255	8
1:15	35	0	312	10	32	0	271	8
1:30	31	0	255	7	28	0	284	8
1:45	28	0	291	6	26	0	277	11
2:00	32	1	225	6	23	1	268	10
2:15	28	0	327	5	27	0	303	15
2:30	24	0	274	4	20	0	242	7
2:45	18	1	315	7	18	0	353	13
3:00	18	1	277	5	19	1	363	8
3:15	23	0	273	7	18	0	398	7
3:30	17	2	293	5	21	0	397	10
3:45	23	2	303	6	16	0	382	11
4:00	18	1	316	4	20	2	372	10
4:15	22	1	308	8	22	0	393	15
4:30	30	1	312	5	25	1	408	9
4:45	23	1	284	5	28	1	369	11
5:00	22	2	303	3	46	1	411	10
5:15	38	3	289	3	44	0	381	9
5:30	58	4	315	2	75	3	390	11
5:45	75	4	311	3	75	2	348	6
6:00	73	10	263	5	100	2	335	9
6:15	110	9	393	3	136	4	337	6
6:30	135	12	320	2	146	5	287	5
6:45	215	9	304	3	163	3	285	7
7:00	205	7	307	3	208	4	292	6
7:15	235	8	276	1	257	4	273	3
7:30	284	12	277	2	290	6	271	3
7:45	333	13	286	1	287	4	240	3
8:00	353	15	237	1	286	7	254	3
8:15	363	13	233	2	319	5	218	2
8:30	360	14	294	1	316	6	194	1
8:45	336	11	229	2	310	4	177	1
9:00	280	12	201	1	289	6	182	0
9:15	319	15	198	0	280	7	155	1
9:30	295	14	193	1	272	7	148	0
9:45	259	11	183	0	275	8	144	1
10:00	251	15	168	1	250	9	130	2
10:15	261	15	152	1	269	11	158	0
10:30	238	11	170	0	259	8	126	1
10:45	242	16	153	0	244	10	124	1
11:00	204	7	137	1	237	8	131	1
11:15	256	9	123	1	251	9	113	2
11:30	248	9	125	2	259	9	110	1
11:45	238	11	87	0	253	9	105	0
Total	6,959	304	12,109	177	6,822	170	12,744	297
Directional	19,549				20,033			
ADT	39,582							
AADT	38,400							
Daily Truck %	2.4%							

Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	2,818	1,551	1,267	0.073	0.550	0.023
MD	2:15 PM	2,679	1,377	1,302	0.070	0.514	0.025
PM	3:45 PM	2,942	1,273	1,669	0.077	0.567	0.024

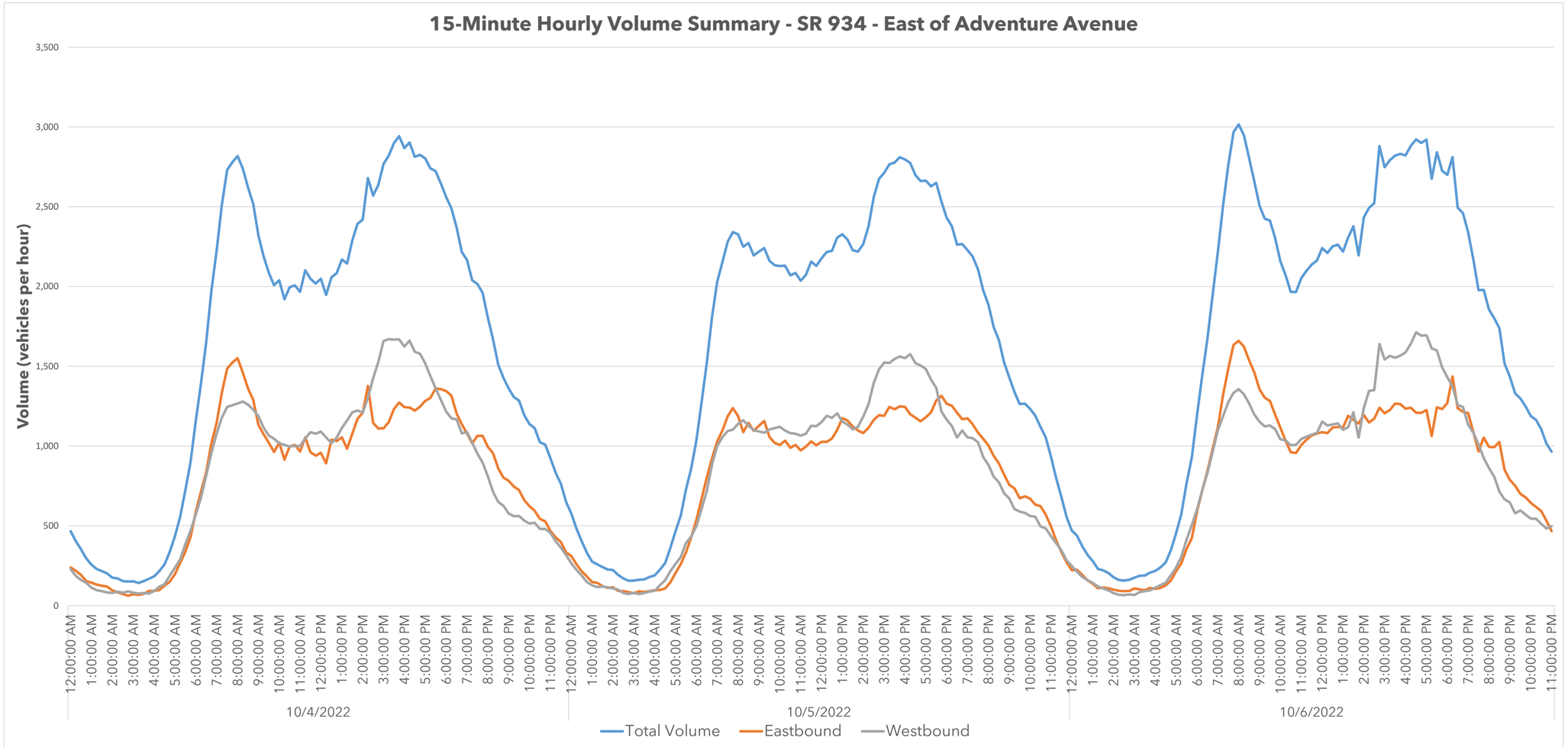
Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	2,341	1,238	1,103	0.061	0.529	0.038
MD	2:45 PM	2,674	1,193	1,481	0.070	0.554	0.018
PM	3:45 PM	2,811	1,249	1,562	0.073	0.556	0.022

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	3,016	1,660	1,356	0.079	0.550	0.029
MD	2:45 PM	2,880	1,241	1,639	0.075	0.569	0.023
PM	4:30 PM	2,922	1,209	1,713	0.076	0.586	0.022

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	2,718	1,465	1,253	0.071	0.539	0.028
MD	2:45 PM	2,731	1,182	1,549	0.071	0.567	0.023
PM	3:45 PM	2,862	1,262	1,600	0.075	0.559	0.024

SR 934 - NE 79th Street East of Adventure Ave - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Harbor Island Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	15	0	0	0	15	0	0	59	3	0	0	62	0	0	4	0	0	0	4	1	1	60	1	0	0	63
12:15	0	0	24	0	0	0	24	0	0	65	1	0	0	66	0	0	9	0	0	0	9	0	1	52	1	0	0	54
12:30	0	0	9	0	0	0	9	0	0	51	0	0	0	51	0	0	11	0	0	0	11	0	2	54	0	0	0	56
12:45	0	0	11	0	0	0	11	0	1	41	0	0	0	42	0	0	11	0	0	0	11	0	1	53	0	0	0	54
1:00	0	0	5	0	0	0	5	0	0	42	0	0	0	42	0	0	1	0	0	0	1	0	1	41	0	0	0	42
1:15	0	0	12	0	0	0	12	0	0	75	1	0	0	76	0	0	3	0	0	0	3	0	1	67	1	0	0	69
1:30	0	0	5	0	0	0	5	0	0	46	1	0	0	47	0	0	3	0	0	0	3	0	0	56	2	0	0	58
1:45	0	0	5	0	0	0	5	0	1	63	1	0	0	65	0	0	9	0	0	0	9	0	1	70	0	0	0	71
2:00	0	0	5	0	0	0	5	0	0	19	0	0	0	19	0	0	5	0	0	0	5	0	0	58	2	1	0	61
2:15	0	0	11	0	0	0	11	0	0	55	1	0	0	56	0	0	3	0	0	0	3	0	3	69	3	0	0	75
2:30	0	0	9	0	0	0	9	0	0	49	1	0	0	50	0	0	5	1	0	0	6	0	0	74	1	0	0	75
2:45	0	0	7	0	0	0	7	0	0	47	0	1	1	49	0	0	1	0	0	0	1	1	0	52	2	1	0	56
3:00	0	0	3	0	0	0	3	0	0	69	0	0	0	69	0	0	4	0	0	0	4	0	1	62	0	0	0	63
3:15	0	0	5	0	0	0	5	1	1	65	4	0	0	71	0	0	4	0	0	0	4	0	0	57	0	0	0	57
3:30	0	0	8	0	0	0	8	0	0	62	0	0	0	62	0	1	4	0	0	0	5	0	0	69	0	0	0	69
3:45	0	0	1	0	0	0	1	1	1	72	4	0	0	78	0	0	2	0	0	0	2	0	0	47	2	1	0	50
4:00	0	0	4	0	0	0	4	0	0	62	0	2	0	64	0	0	7	0	0	0	7	1	1	41	1	1	0	45
4:15	0	0	3	0	0	0	3	0	0	46	2	2	0	50	0	0	8	0	0	0	8	0	1	50	1	2	0	54
4:30	0	0	4	0	0	0	4	0	0	66	1	0	0	67	0	0	8	0	0	0	8	0	1	68	0	1	0	70
4:45	0	0	4	0	0	0	4	0	2	66	1	0	0	69	1	0	11	0	0	0	12	0	2	46	1	0	0	49
5:00	0	0	1	0	0	0	1	0	0	75	0	0	0	75	0	0	7	0	0	1	8	1	1	66	2	0	0	70
5:15	0	0	6	0	0	0	6	0	2	77	0	0	0	79	0	0	4	0	0	0	4	1	2	48	1	0	0	52
5:30	0	0	6	0	0	0	6	0	0	82	0	0	0	82	0	0	12	0	0	0	12	0	1	63	0	0	0	64
5:45	0	0	11	0	0	0	11	0	0	83	0	0	0	83	0	0	19	0	0	0	19	0	1	54	3	0	0	58
6:00	0	0	9	1	0	0	10	1	0	67	0	0	0	68	0	0	23	0	0	0	23	1	0	64	1	0	0	66
6:15	0	2	11	0	1	0	14	0	0	84	0	0	0	84	0	0	29	1	1	0	31	0	2	51	0	0	0	53
6:30	0	0	12	0	2	0	14	0	0	59	0	0	0	59	0	0	59	0	0	0	59	0	1	53	0	0	0	54
6:45	0	0	14	0	0	0	14	0	0	63	0	0	0	63	0	0	53	0	2	0	55	0	0	55	1	0	0	56
7:00	0	0	20	1	1	0	22	0	0	83	0	0	0	83	0	0	56	0	0	0	56	0	2	49	0	0	0	51
7:15	0	0	21	0	0	0	21	0	0	82	0	0	0	82	0	2	70	0	1	0	73	1	0	48	0	0	0	49
7:30	0	0	31	0	1	0	32	0	2	56	0	0	0	58	1	1	96	1	1	0	100	0	1	50	0	0	0	51
7:45	0	0	22	0	1	0	23	2	0	72	0	0	0	74	0	0	92	0	0	0	92	0	0	43	0	0	0	43
8:00	1	1	40	0	1	1	44	0	0	64	0	0	0	64	1	0	79	0	2	0	82	0	0	31	0	0	0	31
8:15	0	1	49	2	0	0	52	0	0	64	0	0	0	64	1	0	92	0	0	0	93	0	0	30	0	0	0	30
8:30	0	1	49	0	0	0	50	0	0	46	0	0	0	46	0	2	80	0	0	0	82	0	1	33	0	0	0	34
8:45	0	1	44	0	0	0	45	0	0	47	0	0	0	47	2	0	71	0	0	0	73	0	1	25	0	0	0	26
9:00	0	0	28	0	0	0	28	0	0	54	0	0	0	54	0	2	65	1	0	0	68	1	0	26	0	0	0	27
9:15	0	0	44	0	0	0	44	0	0	64	0	0	0	64	0	0	66	1	0	0	67	0	0	31	0	0	0	31
9:30	0	0	44	0	0	0	44	0	0	43	0	0	0	43	1	3	49	0	0	0	53	0	0	24	0	0	0	24
9:45	0	0	27	0	0	0	27	0	0	34	0	0	0	34	0	0	60	0	0	0	60	0	0	24	0	0	0	24
10:00	1	2	29	0	0	0	32	0	0	46	0	0	0	46	0	2	52	0	0	0	54	0	0	23	0	0	0	23
10:15	0	0	40	1	2	0	43	0	0	34	0	0	0	34	0	1	56	0	1	0	58	0	0	18	0	0	0	18
10:30	0	0	53	2	0	0	55	0	0	33	0	0	0	33	0	0	58	1	0	0	59	0	0	23	0	0	0	23
10:45	1	2	34	2	0	0	39	0	0	27	0	0	0	27	0	0	59	0	0	0	59	0	0	13	0	0	0	13
11:00	0	0	36	1	0	0	37	0	0	24	0	0	0	24	0	0	51	4	0	0	55	0	0	9	0	0	0	9
11:15	0	0	44	5	0	0	49	0	1	24	0	0	0	25	0	1	53	0	0	0	54	0	0	10	0	0	0	10
11:30	0	1	45	1	0	0	47	0	2	20	0	0	0	22	0	0	46	3	0	0	49	0	0	11	0	0	0	11
11:45	0	3	36	0	0	0	39	0	0	21	0	0	0	21	0	2	57	1	0	0	60	0	0	13	0	0	0	13
Total	3	14	956	16	9	1	999	5	13	2,648	21	5	1	2,693	7	17	1,627	14	8	1	1,674	8	30	2,134	26	7	0	2,205
Directional	**3,692**														**3,879**												
ADT	**7,571**																										
AADT	**7,344**																										
Daily Truck %	**1.4%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Harbor Island Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	1	19	0	0	0	20	0	0	49	1	0	0	50	0	0	14	0	0	0	14	0	1	63	2	0	0	66
12:15	0	0	21	0	0	0	21	0	0	55	2	0	0	57	0	0	6	0	0	0	6	0	0	59	1	0	0	60
12:30	0	1	11	0	0	0	12	2	0	50	0	0	0	52	0	0	8	0	0	0	8	0	0	63	2	0	0	65
12:45	0	0	13	0	0	0	13	1	1	39	0	0	0	41	0	0	7	0	0	0	7	0	1	43	1	0	0	45
1:00	0	0	10	0	0	0	10	0	1	45	0	0	0	46	0	1	8	0	0	0	9	0	2	50	1	0	0	53
1:15	0	0	13	0	0	0	13	0	1	58	0	1	0	60	0	0	4	0	0	0	4	0	2	47	0	0	0	49
1:30	0	0	4	0	0	0	4	0	1	53	0	0	0	54	0	0	4	0	0	0	4	0	1	41	0	1	0	43
1:45	0	0	5	0	0	0	5	0	0	55	0	0	0	55	0	0	3	0	0	0	3	0	1	53	0	0	0	54
2:00	0	0	6	0	0	0	6	0	1	59	1	0	0	61	0	0	2	0	0	0	2	0	2	61	0	0	1	64
2:15	0	0	7	0	0	0	7	0	1	51	2	0	0	54	0	0	3	0	0	0	3	0	2	55	1	0	0	58
2:30	0	0	7	0	0	0	7	0	1	46	0	0	0	47	0	0	1	0	0	0	1	0	0	69	0	0	0	69
2:45	0	0	7	0	0	0	7	0	0	60	0	0	0	60	0	0	1	0	0	0	1	1	0	56	1	0	0	58
3:00	0	0	7	0	0	0	7	0	3	64	1	0	0	68	0	0	1	0	0	0	1	0	1	54	1	0	1	57
3:15	0	0	0	0	0	0	0	0	2	43	1	0	0	46	0	0	6	0	0	0	6	0	0	37	1	0	1	39
3:30	0	0	3	0	0	0	3	1	2	61	0	0	0	64	0	0	1	0	0	0	1	1	0	54	0	0	1	56
3:45	0	0	11	0	0	0	11	0	1	49	1	0	0	51	0	0	2	0	0	0	2	0	1	47	4	0	0	52
4:00	0	0	1	0	0	0	1	0	2	53	1	0	0	56	0	0	4	0	0	0	4	0	3	43	0	0	0	46
4:15	0	0	10	0	0	0	10	0	3	66	1	0	0	70	0	0	5	0	0	0	5	0	2	56	1	0	0	59
4:30	0	0	2	0	0	0	2	0	0	59	0	0	0	59	0	0	5	0	0	0	5	0	2	54	0	0	0	56
4:45	0	0	2	0	0	1	3	0	0	67	0	0	0	67	0	0	3	0	0	1	4	0	2	62	1	0	0	65
5:00	0	0	5	0	0	0	5	0	0	73	0	0	0	73	0	0	4	0	0	0	4	0	1	52	0	0	0	53
5:15	0	0	8	0	0	1	9	0	0	67	0	0	0	67	0	0	10	0	0	0	10	0	0	48	0	0	0	48
5:30	0	0	2	0	0	0	2	1	2	83	0	0	0	86	0	0	12	0	0	0	12	0	1	42	0	0	0	43
5:45	0	0	3	0	0	0	3	0	0	78	0	0	0	78	0	0	11	0	0	1	12	0	0	54	0	0	0	54
6:00	0	0	8	0	0	0	8	0	1	77	0	0	0	78	0	0	18	1	0	0	19	0	1	45	0	0	0	46
6:15	0	0	9	2	0	1	12	0	3	83	1	0	0	87	0	0	27	0	0	0	27	0	2	51	0	0	0	53
6:30	0	0	10	0	0	0	10	0	1	90	1	0	0	92	0	0	38	0	0	0	38	0	1	68	0	0	0	69
6:45	0	0	16	0	0	0	16	0	0	72	0	0	0	72	0	0	32	0	0	0	32	1	1	41	0	0	0	43
7:00	0	0	12	0	0	0	12	0	2	74	0	0	0	76	0	0	43	2	0	0	45	0	2	59	0	0	0	61
7:15	0	0	21	0	1	0	22	0	2	60	0	0	0	62	0	1	45	0	1	1	48	0	3	43	0	0	0	46
7:30	0	0	19	0	0	0	19	0	3	67	0	0	0	70	0	0	70	1	0	0	71	0	1	45	0	0	0	46
7:45	0	1	28	0	0	0	29	0	0	53	0	0	0	53	0	0	72	0	0	0	72	0	1	30	0	0	0	31
8:00	0	0	21	1	0	0	22	0	0	67	0	0	0	67	1	0	52	0	0	0	53	0	0	41	0	0	0	41
8:15	1	1	39	1	0	0	42	0	0	57	0	0	0	57	0	0	78	0	0	1	79	0	0	44	0	0	0	44
8:30	1	0	33	2	0	0	36	0	0	62	0	0	0	62	1	0	83	1	0	0	85	0	0	36	1	0	0	37
8:45	1	0	29	0	0	1	31	0	0	48	0	0	0	48	1	0	80	2	0	0	83	0	0	36	1	0	0	37
9:00	0	0	28	1	0	0	29	0	0	51	0	0	0	51	0	1	55	0	0	1	57	0	1	26	0	0	0	27
9:15	1	0	53	1	0	0	55	0	0	43	0	0	0	43	0	0	72	0	0	0	72	0	0	30	0	0	0	30
9:30	0	0	34	1	0	0	35	0	0	46	0	0	0	46	0	0	68	0	0	1	69	0	0	33	0	0	0	33
9:45	0	0	28	0	0	0	28	0	0	41	0	0	0	41	0	0	51	1	0	0	52	0	0	28	0	0	0	28
10:00	0	0	31	0	0	0	31	0	0	36	0	0	0	36	0	0	55	0	0	0	55	0	0	26	0	0	0	26
10:15	0	0	36	0	0	0	36	0	0	50	0	0	0	50	0	0	54	0	0	0	54	0	0	14	0	0	0	14
10:30	0	0	33	1	0	0	34	0	0	37	0	0	0	37	0	1	47	0	0	0	48	0	0	21	0	0	0	21
10:45	0	1	45	2	0	0	48	0	0	34	0	0	0	34	0	0	63	0	0	0	63	0	0	18	0	0	0	18
11:00	0	1	39	0	0	0	40	0	0	33	0	0	0	33	0	1	54	0	0	0	55	0	1	16	0	0	0	17
11:15	0	1	44	3	0	0	48	0	0	30	0	0	0	30	1	1	67	0	0	0	69	0	0	20	0	0	0	20
11:30	0	4	29	2	0	0	35	0	0	24	0	0	0	24	0	2	53	2	0	0	57	0	0	11	0	0	0	11
11:45	0	0	50	3	0	0	53	0	0	24	0	0	0	24	0	2	59	1	0	0	62	0	0	4	0	0	0	4
Total	4	11	872	20	1	4	912	5	34	2,642	13	1	0	2,695	4	10	1,461	11	1	6	1,493	3	39	2,049	19	1	4	2,115
Directional	**3,607**														**3,608**												
ADT	**7,215**																										
AADT	**6,999**																										
Daily Truck %	**1.1%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Harbor Island Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	11	0	0	0	11	0	0	51	0	0	0	51	0	0	3	0	0	0	3	0	1	50	1	0	0	52
12:15	0	0	11	0	0	0	11	0	0	40	0	0	0	40	0	0	2	0	0	0	2	0	1	52	0	0	0	53
12:30	0	0	14	0	0	0	14	0	0	50	0	0	0	50	0	0	3	0	0	0	3	0	1	50	0	0	0	51
12:45	0	1	14	0	0	0	15	0	0	49	1	0	0	50	0	0	3	0	0	0	3	0	0	58	0	0	0	58
1:00	0	0	12	0	0	0	12	0	0	45	3	0	1	49	0	0	4	0	0	0	4	0	0	45	1	0	1	47
1:15	0	0	12	0	0	0	12	1	0	46	1	0	0	48	0	1	6	0	0	0	7	0	0	46	0	0	0	46
1:30	0	0	5	0	0	0	5	0	1	55	0	0	0	56	0	0	3	0	0	0	3	0	1	53	1	0	0	55
1:45	0	0	6	0	0	0	6	0	0	54	0	0	0	54	0	0	3	0	0	0	3	0	0	58	0	0	0	58
2:00	0	0	4	0	0	0	4	0	1	48	0	0	0	49	0	0	4	0	0	0	4	0	1	56	1	0	0	58
2:15	0	0	5	0	0	0	5	0	0	47	0	0	0	47	0	0	3	0	0	0	3	0	1	66	0	0	0	67
2:30	0	0	10	0	0	0	10	1	0	50	1	0	0	52	0	0	4	0	0	0	4	0	0	63	0	0	0	63
2:45	0	0	4	0	0	0	4	0	0	67	1	1	0	69	0	0	0	0	0	0	0	0	0	66	0	1	0	67
3:00	0	0	6	0	0	0	6	0	1	55	0	0	0	56	0	0	2	0	0	0	2	0	2	51	2	0	0	55
3:15	0	0	9	0	0	0	9	1	1	58	0	0	0	60	0	0	1	0	0	0	1	0	1	49	0	0	0	50
3:30	0	0	4	0	0	0	4	0	0	66	0	0	0	66	0	0	3	0	0	0	3	0	1	56	0	0	0	57
3:45	0	0	3	0	0	0	3	1	1	61	0	0	0	63	0	0	2	0	0	0	2	0	0	60	1	0	0	61
4:00	0	0	5	0	0	0	5	1	0	65	4	1	0	71	0	0	6	0	0	0	6	0	1	62	3	1	0	67
4:15	0	0	7	0	0	0	7	0	0	58	0	1	0	59	0	0	4	0	0	0	4	0	1	60	1	1	0	63
4:30	0	0	6	0	0	0	6	0	0	63	0	1	0	64	0	0	11	0	0	0	11	0	1	50	0	2	0	53
4:45	0	0	4	0	0	0	4	0	2	66	1	0	0	69	0	0	2	0	0	0	2	0	0	45	0	0	0	45
5:00	0	0	4	0	0	0	4	0	5	80	0	0	0	85	0	0	3	0	0	0	3	0	1	51	0	0	0	52
5:15	0	0	7	0	0	0	7	0	4	84	1	0	0	89	0	0	9	0	0	0	9	0	2	69	0	0	0	71
5:30	0	0	9	1	0	0	10	0	1	74	0	0	0	75	0	0	9	0	0	0	9	0	1	56	0	1	0	58
5:45	0	0	3	0	0	0	3	0	0	96	0	0	0	96	0	1	19	0	0	0	20	0	0	60	0	0	0	60
6:00	0	0	10	0	0	0	10	0	0	50	1	0	0	51	0	0	26	2	0	1	29	1	3	59	0	0	0	63
6:15	0	0	11	0	1	0	12	0	0	106	1	0	0	107	0	0	26	0	1	0	27	0	0	36	1	0	0	37
6:30	0	0	14	0	1	0	15	0	0	100	0	0	0	100	1	0	43	0	1	0	45	0	1	62	1	0	0	64
6:45	0	0	15	0	1	0	16	0	2	70	0	0	0	72	0	0	49	0	1	0	50	0	4	58	0	0	0	62
7:00	0	0	17	0	1	0	18	2	3	82	0	0	0	87	0	0	52	0	0	0	52	0	1	48	0	0	0	49
7:15	0	0	21	0	0	0	21	0	2	74	0	0	0	76	0	2	66	0	2	0	70	0	1	55	1	0	0	57
7:30	0	0	28	0	0	0	28	0	2	77	0	0	0	79	0	1	80	0	0	1	82	0	0	45	0	0	0	45
7:45	0	0	17	0	1	0	18	0	0	58	0	0	0	58	0	1	83	0	0	0	84	1	1	58	0	0	0	60
8:00	0	0	33	0	1	0	34	0	0	49	0	0	0	49	0	0	89	0	2	0	91	1	1	39	0	0	0	41
8:15	0	0	25	0	0	0	25	0	0	42	0	0	0	42	0	2	80	0	0	0	82	0	1	33	0	0	0	34
8:30	0	0	42	1	0	0	43	0	0	79	0	0	0	79	1	0	87	1	0	1	90	0	3	34	0	0	0	37
8:45	1	0	40	1	0	0	42	0	0	68	0	0	0	68	1	0	87	0	0	0	88	0	0	33	0	0	0	33
9:00	0	0	40	0	0	0	40	0	0	51	0	0	0	51	2	1	66	2	0	0	71	0	2	33	0	0	0	35
9:15	1	0	35	2	0	0	38	0	0	38	0	0	0	38	0	1	61	0	0	0	62	0	4	23	0	0	0	27
9:30	0	1	41	0	0	0	42	0	0	47	0	0	0	47	1	0	62	1	0	0	64	0	1	20	0	0	0	21
9:45	0	0	34	0	0	0	34	0	1	43	0	0	0	44	0	0	66	0	0	0	66	0	1	24	0	0	0	25
10:00	0	0	46	1	0	0	47	1	1	38	0	0	0	40	0	0	65	1	0	0	66	0	0	22	1	0	0	23
10:15	0	0	42	1	0	0	43	0	1	46	0	0	0	47	1	1	66	1	0	0	69	0	3	20	0	0	0	23
10:30	0	0	33	1	0	1	35	0	1	37	0	0	0	38	0	0	51	2	0	0	53	0	0	18	0	0	0	18
10:45	0	0	39	0	0	0	39	0	0	30	0	0	0	30	0	0	66	1	0	0	67	0	0	18	0	0	0	18
11:00	0	0	44	0	0	0	44	0	0	34	0	0	0	34	0	2	45	1	0	1	49	0	0	18	0	0	0	18
11:15	0	0	32	1	0	0	33	0	0	26	0	0	0	26	0	0	59	1	0	0	60	0	1	19	0	0	1	21
11:30	0	0	42	1	0	0	43	0	0	36	0	0	0	36	0	0	57	0	0	0	57	0	0	12	0	0	0	12
11:45	0	0	37	0	0	0	37	0	0	26	0	0	0	26	0	2	52	2	0	0	56	0	1	15	0	0	0	16
Total	2	2	913	10	6	1	934	8	30	2,735	15	4	1	2,793	7	15	1,593	15	7	4	1,641	3	46	2,134	15	6	2	2,206
Directional	**3,727**														**3,847**												
ADT	**7,574**																										
AADT	**7,347**																										
Daily Truck %	**1.1%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

Harbor Island Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	15	0	53	1	7	0	59	1
12:15	19	0	53	1	6	0	55	1
12:30	12	0	51	0	7	0	57	1
12:45	13	0	44	0	7	0	52	0
1:00	9	0	44	1	5	0	46	1
1:15	12	0	60	1	5	0	54	0
1:30	5	0	52	0	3	0	51	1
1:45	5	0	58	0	5	0	61	0
2:00	5	0	43	0	4	0	59	2
2:15	8	0	51	1	3	0	65	1
2:30	9	0	49	1	3	0	69	0
2:45	6	0	58	1	1	0	59	2
3:00	5	0	64	0	2	0	57	1
3:15	5	0	57	2	4	0	48	1
3:30	5	0	64	0	3	0	60	0
3:45	5	0	62	2	2	0	52	3
4:00	3	0	61	3	6	0	51	2
4:15	7	0	58	2	6	0	57	2
4:30	4	0	63	1	8	0	59	1
4:45	3	0	68	1	6	0	52	1
5:00	3	0	78	0	5	0	58	1
5:15	7	0	78	0	8	0	57	0
5:30	6	0	81	0	11	0	55	0
5:45	6	0	86	0	17	0	56	1
6:00	9	0	65	0	22	1	58	0
6:15	11	2	92	1	27	1	47	0
6:30	12	1	83	0	47	0	62	0
6:45	15	0	69	0	45	1	53	0
7:00	16	1	82	0	50	1	54	0
7:15	21	0	73	0	62	2	50	0
7:30	26	0	69	0	83	1	47	0
7:45	23	1	62	0	83	0	45	0
8:00	32	1	60	0	74	1	38	0
8:15	39	1	54	0	84	0	36	0
8:30	42	1	62	0	85	1	36	0
8:45	39	1	54	0	81	1	32	0
9:00	32	0	52	0	64	1	30	0
9:15	45	1	48	0	67	0	29	0
9:30	40	0	45	0	61	1	26	0
9:45	30	0	40	0	59	0	26	0
10:00	36	0	41	0	58	0	24	0
10:15	39	1	44	0	60	1	18	0
10:30	40	2	36	0	52	1	21	0
10:45	41	1	30	0	63	0	16	0
11:00	40	0	30	0	51	2	15	0
11:15	40	3	27	0	61	0	17	0
11:30	40	1	27	0	53	2	11	0
11:45	42	1	24	0	58	1	11	0
Total	927	19	2,705	19	1,584	19	2,151	23
Directional	3,670				3,777			
ADT	7,447							
AADT	7,200							
Daily Truck %	1.1%							

Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	521	191	330	0.072	0.633	0.012
MD	2:45 PM	496	251	245	0.069	0.506	0.018
PM	5:00 PM	563	319	244	0.078	0.567	0.011

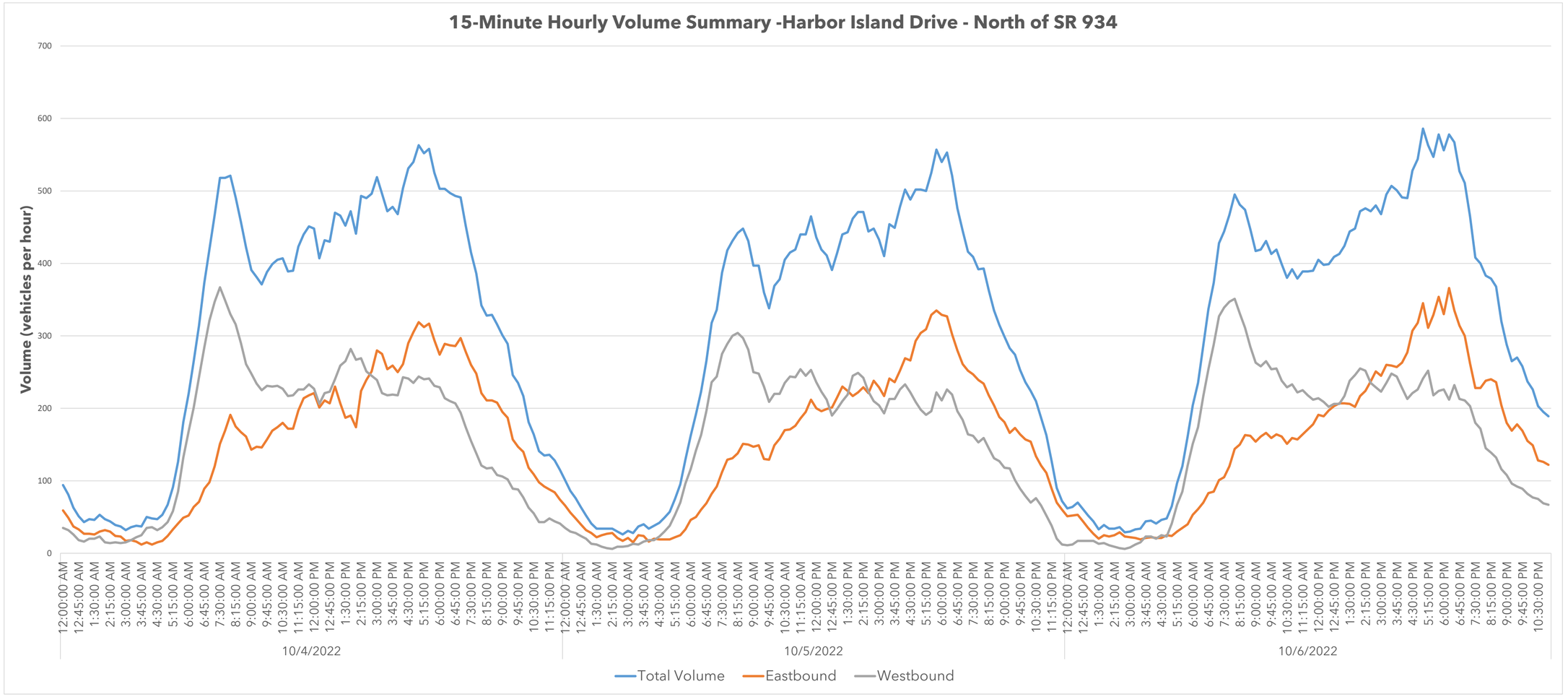
Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:30 AM	448	151	297	0.062	0.663	0.020
MD	2:00 PM	471	222	249	0.065	0.529	0.013
PM	5:45 PM	557	335	222	0.077	0.601	0.004

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	495	144	351	0.069	0.709	0.014
MD	2:45 PM	480	251	229	0.067	0.523	0.010
PM	5:00 PM	586	345	241	0.081	0.589	0.003

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	483	156	327	0.067	0.677	0.014
MD	2:15 PM	479	225	254	0.067	0.530	0.015
PM	5:00 PM	551	323	228	0.077	0.586	0.004

Harbor Island Drive - North of SR 934 - 72-Hour Classification Summary
October 4th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



North Bay Island Drive - South of SR 934 - 72-Hour Classification Summary
Three Day Class Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM					
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	1	0	0	0	1	0	0	6	1	0	0	7	0	0	0	0	0	0	0	0	0	8	0	0	0	8
12:15	0	0	0	0	0	0	0	0	0	11	0	0	0	11	0	0	1	0	0	0	1	1	0	7	0	0	0	8
12:30	0	0	1	0	0	0	1	0	0	12	1	0	0	13	0	0	2	0	0	0	2	0	0	5	1	0	0	6
12:45	0	0	2	0	0	0	2	1	0	9	1	0	0	11	0	0	1	0	0	0	1	0	0	15	1	0	0	16
1:00	0	0	1	0	0	0	1	0	0	8	0	0	0	8	0	0	1	0	0	0	1	0	0	10	2	0	0	12
1:15	0	0	1	0	0	0	1	0	0	9	2	0	0	11	0	0	0	0	0	0	0	0	0	15	0	0	0	15
1:30	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	1	0	0	0	1	0	1	9	0	0	0	10
1:45	0	0	0	0	0	0	0	0	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	14	1	0	0	15
2:00	0	0	3	0	0	0	3	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	9	0	0	0	9
2:15	0	0	2	0	0	0	2	0	0	15	1	0	0	16	0	0	1	0	0	0	1	0	0	12	0	0	0	12
2:30	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	14	1	0	0	15
2:45	0	0	2	0	0	0	2	0	0	10	0	0	0	10	0	0	1	0	0	0	1	0	0	13	0	0	0	13
3:00	0	0	1	0	0	0	1	0	0	6	0	0	0	6	0	0	1	0	0	0	1	0	0	10	0	0	0	10
3:15	0	0	3	0	0	0	3	0	0	10	0	0	0	10	0	0	2	0	0	0	2	0	0	10	0	0	0	10
3:30	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	0	0	0	0	0	0	0	0	8	2	0	0	10
3:45	0	0	1	0	0	0	1	0	0	6	0	0	0	6	0	0	1	0	0	0	1	0	0	10	1	0	0	11
4:00	0	0	2	0	0	0	2	0	0	10	0	0	0	10	0	0	1	0	0	0	1	0	0	9	0	0	0	9
4:15	0	0	1	0	0	0	1	0	0	10	1	1	0	12	0	0	2	0	0	0	2	0	1	9	0	0	0	10
4:30	0	0	0	0	0	0	0	0	1	11	0	0	0	12	0	0	2	0	0	0	2	0	0	13	0	1	0	14
4:45	0	0	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	0	0	8	1	0	0	9
5:00	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	0	0	0	0	0	0	0	0	10	0	0	0	10
5:15	0	0	0	0	0	0	0	0	0	13	0	0	0	13	0	0	3	0	0	0	3	0	1	16	1	0	0	18
5:30	0	0	1	0	0	0	1	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	12	1	0	0	13
5:45	0	0	2	0	0	0	2	0	0	12	0	0	0	12	0	0	4	0	0	0	4	0	0	9	0	0	0	9
6:00	0	0	1	1	0	0	2	0	0	12	1	0	0	13	0	0	3	1	0	0	4	0	0	11	0	0	0	11
6:15	0	0	1	1	1	0	3	0	0	16	0	0	0	16	0	0	3	0	1	0	4	0	0	6	0	0	0	6
6:30	0	0	1	0	0	0	1	0	0	15	0	0	0	15	0	0	6	1	0	0	7	0	0	8	1	0	0	9
6:45	0	0	4	0	0	0	4	0	0	5	0	0	0	5	0	0	7	0	0	0	7	0	0	8	0	0	0	8
7:00	0	0	4	1	0	0	5	1	1	17	0	0	0	19	0	0	2	0	0	0	2	1	0	10	0	0	0	11
7:15	0	0	10	0	0	0	10	0	0	13	0	0	0	13	0	0	12	0	0	0	12	0	0	8	0	0	0	8
7:30	0	0	4	0	0	0	4	1	0	9	0	0	0	10	0	0	8	0	0	0	8	0	0	6	0	0	0	6
7:45	0	0	5	0	0	0	5	0	0	12	0	0	0	12	0	0	11	0	0	0	11	0	0	6	0	0	0	6
8:00	0	0	5	0	1	0	6	0	0	7	0	0	0	7	0	0	14	0	0	0	14	0	0	5	0	0	0	5
8:15	0	0	12	1	0	0	13	0	0	4	0	0	0	4	1	0	16	0	1	0	18	0	0	4	0	0	0	4
8:30	0	0	7	0	0	0	7	0	0	6	0	0	0	6	0	0	14	0	0	0	14	0	0	4	0	0	0	4
8:45	0	0	14	0	0	0	14	0	0	5	0	0	0	5	1	0	8	0	0	0	9	0	0	8	0	0	0	8
9:00	0	0	12	1	0	0	13	0	0	3	0	0	0	3	0	0	6	0	0	0	6	0	0	6	0	0	0	6
9:15	0	0	5	0	0	1	6	0	0	5	0	0	0	5	0	0	12	0	0	0	12	0	0	5	0	0	0	5
9:30	0	0	18	0	0	0	18	0	0	5	0	0	0	5	0	0	12	1	0	0	13	0	0	3	0	0	0	3
9:45	0	0	10	0	0	0	10	0	0	5	0	0	0	5	0	0	13	0	0	0	13	0	0	6	0	0	0	6
10:00	0	0	11	0	0	0	11	0	0	3	0	0	0	3	0	0	16	0	0	0	16	0	0	1	0	0	0	1
10:15	0	0	8	0	0	0	8	0	0	2	0	0	0	2	0	0	12	0	0	0	12	0	0	0	0	0	0	0
10:30	0	0	8	1	0	0	9	0	0	4	0	0	0	4	0	0	15	0	0	0	15	0	0	1	0	0	0	1
10:45	0	0	13	1	0	0	14	0	0	2	0	0	0	2	0	0	8	0	0	0	8	0	0	2	0	0	0	2
11:00	0	0	5	2	0	0	7	0	0	1	0	0	0	1	0	0	22	1	0	0	23	0	0	3	0	0	0	3
11:15	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0
11:30	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	7	0	0	0	7	1	0	1	0	0	0	2
11:45	0	0	10	1	0	1	12	0	0	1	0	0	0	1	0	0	10	0	1	0	11	0	0	1	0	0	0	1
Total	0	0	213	10	2	2	227	3	3	393	10	1	0	410	2	0	269	4	3	0	278	3	3	368	13	1	0	388
Directional	**637**														**666**												
ADT	**1,303**																										
AADT	**1,264**																										
Daily Truck %	**3.5%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

North Bay Island Drive - South of SR 934 - 72-Hour Classification Summary
Three Day Class Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Wednesday, October 5, 2022																										
Direction	Eastbound														Westbound												
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	1	0	0	0	1	0	1	10	3	0	0	14	0	0	1	0	0	0	1	0	1	9	1	0	0	11
12:15	0	0	2	0	0	0	2	0	1	12	1	0	0	14	0	0	2	0	0	0	2	0	0	11	2	0	0	13
12:30	0	0	1	0	0	0	1	0	1	6	1	0	0	8	0	0	1	0	0	0	1	0	1	6	2	0	0	9
12:45	1	0	1	0	0	0	2	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	8	1	0	0	9
1:00	0	0	0	0	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	6	1	0	0	7
1:15	0	0	3	0	0	0	3	0	0	8	0	0	0	8	0	0	1	0	0	0	1	0	0	9	0	0	0	9
1:30	0	0	1	0	0	0	1	0	0	6	1	0	0	7	0	0	1	0	0	0	1	0	0	8	0	0	0	8
1:45	1	0	0	0	0	0	1	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	1	14	0	0	0	15
2:00	0	0	1	0	0	0	1	0	0	10	0	0	1	11	0	0	1	0	0	0	1	0	0	9	0	0	1	10
2:15	0	0	0	0	0	0	0	0	1	12	2	0	0	15	0	0	0	0	0	0	0	0	0	8	0	0	0	8
2:30	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	5	0	0	0	5
2:45	0	0	2	0	0	0	2	0	0	15	0	0	0	15	0	0	1	0	0	0	1	0	0	19	1	0	0	20
3:00	0	0	1	0	0	0	1	0	0	5	0	0	1	6	0	0	0	0	0	0	0	0	0	8	2	0	0	10
3:15	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	1	0	0	0	1	0	0	6	0	0	0	6
3:30	0	0	1	0	0	0	1	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	11	0	0	0	11
3:45	0	0	3	0	0	0	3	0	0	12	0	0	0	12	0	0	1	0	0	0	1	0	0	18	0	0	0	18
4:00	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	0	1	0	0	4	0	0	0	4
4:15	0	0	2	0	0	0	2	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	8	0	0	0	8
4:30	0	0	1	0	0	0	1	0	0	12	0	0	0	12	0	0	3	0	0	0	3	0	0	5	0	0	0	5
4:45	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	9	0	0	0	9
5:00	0	0	0	0	0	0	0	0	0	15	0	0	0	15	0	0	2	0	0	0	2	0	0	7	0	0	0	7
5:15	0	0	2	0	0	0	2	0	0	16	0	0	0	16	0	0	2	0	0	0	2	0	0	19	1	0	1	21
5:30	0	0	0	0	0	0	0	0	1	12	2	0	0	15	0	0	2	0	0	0	2	0	1	12	0	0	0	13
5:45	0	0	0	0	0	0	0	0	0	17	0	0	0	17	1	0	1	0	0	0	2	0	0	10	1	0	0	11
6:00	0	0	1	0	0	0	1	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	11	1	0	0	12
6:15	0	0	0	0	0	0	0	1	1	6	0	0	0	8	0	0	1	0	0	0	1	1	1	8	0	0	0	10
6:30	0	0	1	0	0	0	1	0	0	9	0	0	0	9	0	0	3	0	0	0	3	0	0	8	0	0	0	8
6:45	0	0	5	0	0	0	5	0	0	7	1	0	0	8	0	0	2	0	0	0	2	0	0	9	0	0	0	9
7:00	0	0	6	0	0	0	6	0	0	15	0	0	0	15	0	0	5	0	0	0	5	0	1	8	0	0	0	9
7:15	0	0	3	1	0	0	4	0	1	6	0	0	0	7	0	0	7	0	0	0	7	0	0	8	1	0	0	9
7:30	0	0	7	0	0	0	7	0	0	10	0	0	0	10	0	0	10	0	0	0	10	0	0	9	0	0	0	9
7:45	0	0	5	0	0	0	5	0	0	10	0	0	0	10	0	0	10	0	0	0	10	0	0	6	0	0	0	6
8:00	0	0	9	0	0	1	10	0	0	15	0	0	0	15	0	0	7	0	0	0	7	0	0	12	0	0	0	12
8:15	1	0	9	2	0	0	12	0	0	6	3	0	0	9	0	0	12	1	0	0	13	0	0	6	1	0	0	7
8:30	0	0	10	0	0	0	10	0	0	7	0	0	0	7	0	0	13	0	0	0	13	0	0	6	0	0	0	6
8:45	0	0	7	0	0	0	7	0	0	6	0	0	0	6	0	0	11	0	0	0	11	0	0	1	2	0	0	3
9:00	0	0	5	0	0	0	5	0	0	8	0	0	0	8	0	0	13	0	1	1	15	0	0	6	0	0	0	6
9:15	0	0	13	0	0	0	13	0	0	3	0	0	0	3	0	0	11	0	0	0	11	0	0	2	0	0	0	2
9:30	0	0	7	1	0	0	8	0	0	2	0	0	0	2	0	0	14	0	0	0	14	0	0	2	0	0	0	2
9:45	0	0	11	0	0	0	11	0	0	7	0	0	0	7	0	0	10	0	0	0	10	0	0	5	0	0	0	5
10:00	0	1	5	1	0	0	7	0	0	6	0	0	0	6	0	1	9	1	0	0	11	0	0	1	0	0	0	1
10:15	0	0	4	1	0	0	5	0	0	8	0	0	0	8	0	0	7	0	0	0	7	0	0	6	0	0	0	6
10:30	0	0	5	0	0	0	5	0	0	3	0	0	0	3	0	0	12	1	0	0	13	0	0	3	0	0	0	3
10:45	0	0	10	0	0	0	10	0	0	6	0	0	0	6	0	0	9	1	0	0	10	0	0	6	0	0	0	6
11:00	0	0	8	0	0	0	8	1	0	2	0	0	0	3	0	1	8	0	0	0	9	0	0	3	0	0	0	3
11:15	0	1	12	0	0	0	13	0	0	1	1	0	0	2	0	0	7	0	0	0	7	0	0	2	0	0	0	2
11:30	1	0	7	2	0	0	10	0	0	2	0	0	0	2	0	0	6	1	0	0	7	0	0	1	0	0	0	1
11:45	0	0	6	0	0	0	6	0	0	1	1	0	0	2	0	0	8	0	0	0	8	0	0	1	0	0	0	1
Total	4	2	178	8	0	1	193	2	7	395	16	0	2	422	1	2	217	5	1	1	227	1	6	359	17	0	2	385
Directional	**615**														**612**												
ADT	**1,227**																										
AADT	**1,190**																										
Daily Truck %	**4.3%**																										

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

North Bay Island Drive - South of SR 934 - 72-Hour Classification Summary
Three Day Class Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Thursday, October 6, 2022																											
Direction	Eastbound														Westbound													
Period	AM							PM							AM							PM						
Class	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total	Bikes	Motorcycles	Lights	Single-Unit Trucks	Buses	Articulated Trucks	Total
12:00	0	0	1	0	0	0	1	0	0	9	1	0	0	10	0	0	0	0	0	0	0	0	0	9	0	0	0	9
12:15	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	1	0	0	0	1	0	1	13	1	0	0	15
12:30	0	0	1	0	0	0	1	0	0	9	0	0	0	9	0	0	1	0	0	0	1	0	0	13	0	0	0	13
12:45	0	0	1	0	0	0	1	0	0	4	1	0	0	5	0	0	0	0	0	0	0	0	1	8	0	0	0	9
1:00	0	0	0	0	0	0	0	0	0	9	2	0	0	11	0	0	1	0	0	0	1	0	0	11	0	0	0	11
1:15	0	0	1	0	0	0	1	0	0	7	0	0	0	7	0	0	1	0	0	0	1	0	0	10	0	0	0	10
1:30	0	0	1	0	0	0	1	0	0	12	1	0	0	13	0	0	2	0	0	0	2	0	0	6	2	0	0	8
1:45	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	14	1	0	0	15
2:00	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	9	1	0	0	10
2:15	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	15	0	0	0	15
2:30	0	0	0	0	0	0	0	0	0	10	1	0	0	11	0	0	0	0	0	0	0	0	0	6	2	0	0	8
2:45	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	1	0	12	0	0	1	14
3:00	0	0	0	0	0	0	0	0	0	8	0	0	1	9	0	0	0	0	0	0	0	0	0	9	0	0	0	9
3:15	0	0	3	0	0	0	3	0	0	5	0	0	0	5	0	0	1	0	0	0	1	0	0	6	0	0	0	6
3:30	0	0	1	0	0	0	1	0	0	6	1	0	0	7	0	0	1	0	0	0	1	0	0	5	1	0	0	6
3:45	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	14	0	0	0	14
4:00	0	0	0	0	0	0	0	0	0	10	1	0	1	12	0	0	0	0	0	0	0	0	0	7	0	0	0	7
4:15	0	0	0	0	0	0	0	0	0	19	0	0	0	19	0	0	0	2	0	0	2	0	0	13	0	0	1	14
4:30	0	0	2	0	0	0	2	0	0	16	0	0	1	17	0	0	1	0	0	0	1	0	0	9	1	1	0	11
4:45	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	1	0	0	0	1	0	0	2	0	0	2	4
5:00	0	0	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	11	0	0	0	11
5:15	0	0	2	0	0	0	2	0	0	16	1	0	0	17	0	0	3	0	0	0	3	0	0	12	0	0	0	12
5:30	0	0	2	0	0	0	2	0	0	6	2	0	0	8	0	0	1	0	0	0	1	0	0	4	0	0	0	4
5:45	0	0	1	0	0	0	1	0	0	8	0	0	0	8	0	0	0	0	0	0	0	1	0	7	2	0	0	10
6:00	0	0	1	0	0	0	1	0	0	9	1	0	0	10	0	0	3	0	0	0	3	0	0	8	0	0	0	8
6:15	0	0	1	0	1	0	2	0	0	19	0	0	0	19	0	0	1	0	1	0	2	0	0	10	1	0	0	11
6:30	0	0	0	0	0	0	0	0	0	14	0	0	0	14	0	0	7	0	0	0	7	0	0	12	0	0	0	12
6:45	0	0	5	0	0	0	5	0	0	15	0	0	0	15	0	0	5	0	0	0	5	0	0	7	0	0	0	7
7:00	0	0	3	0	0	0	3	0	0	7	0	0	0	7	0	0	7	0	0	0	7	0	0	7	0	0	0	7
7:15	0	0	2	0	0	0	2	0	0	7	0	0	0	7	0	0	6	0	0	0	6	0	0	9	0	0	0	9
7:30	0	0	6	1	0	0	7	0	0	8	0	0	0	8	0	0	5	0	0	0	5	0	0	3	0	0	0	3
7:45	0	0	7	0	0	0	7	0	0	7	0	0	0	7	0	0	10	0	0	0	10	0	0	6	0	0	0	6
8:00	0	0	6	0	1	0	7	0	0	6	0	0	0	6	0	1	19	0	0	0	20	0	0	7	0	0	0	7
8:15	0	0	10	0	0	0	10	0	0	3	0	0	0	3	0	0	14	0	1	0	15	0	0	4	0	0	0	4
8:30	0	0	11	0	0	0	11	0	0	8	0	0	0	8	0	0	22	0	0	0	22	0	0	4	0	0	0	4
8:45	0	0	7	1	0	0	8	0	0	7	0	0	0	7	0	0	9	0	0	0	9	0	0	3	0	0	0	3
9:00	0	0	13	1	0	0	14	0	0	8	0	0	0	8	0	0	10	1	0	0	11	1	0	4	0	0	0	5
9:15	0	0	7	0	0	1	8	0	0	8	0	0	0	8	0	0	10	1	0	0	11	0	0	3	0	0	0	3
9:30	0	0	9	0	0	0	9	0	0	4	0	0	0	4	0	0	10	0	0	0	10	0	0	3	0	0	0	3
9:45	0	0	10	0	0	0	10	0	0	6	0	0	0	6	0	0	10	0	0	0	10	0	0	2	0	0	0	2
10:00	0	0	14	0	0	0	14	0	0	8	0	0	0	8	0	0	12	0	0	0	12	0	0	5	0	0	0	5
10:15	0	0	12	1	0	0	13	0	0	10	0	0	0	10	0	0	16	0	0	0	16	0	0	3	0	0	0	3
10:30	0	0	7	1	0	0	8	0	0	9	0	0	0	9	0	0	7	0	0	0	7	0	0	4	0	0	0	4
10:45	0	0	7	1	0	0	8	0	0	7	0	0	0	7	0	0	10	0	0	0	10	0	0	6	0	0	0	6
11:00	0	0	7	0	0	0	7	0	0	7	0	0	0	7	0	0	11	1	0	0	12	0	0	3	0	0	0	3
11:15	0	0	7	1	0	0	8	0	0	9	0	0	0	9	0	0	11	2	0	0	13	0	0	7	0	0	0	7
11:30	0	0	18	1	0	0	19	0	0	2	0	0	0	2	0	0	10	0	0	0	10	0	0	4	0	0	0	4
11:45	0	0	9	1	0	0	10	0	0	7	0	0	0	7	0	0	8	1	0	0	9	0	0	4	0	0	0	4
Total	0	0	195	9	2	1	207	0	0	418	13	0	3	434	0	1	247	8	2	0	258	3	2	353	12	1	4	375
Directional	**641**														**633**													
ADT	**1,274**																											
AADT	**1,236**																											
Daily Truck %	**4.3%**																											

*Relevant FHWA Classes: 1- Pedal Bike; 2- Motorcycles; 3- Passenger Cars and Other Two-Axle, Four-Tire Single Unit Passenger Vehicles; 4- Buses; 5-7: Two-Axle, Six-Tire, Single Unit Trucks and Three or More Axle Single Unit Trucks; 5- Buses; 6- Three or More Axle Trailer or Multi Trailer Trucks

North Bay Island Drive - South of SR 934 - 72-Hour Classification Summary
Three Day Class Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Three Day Average 10/4/2022 - 10/6/2022							
Direction	Eastbound				Westbound			
Period	AM		PM		AM		PM	
Class	Lights	Heavy	Lights	Heavy	Lights	Heavy	Lights	Heavy
12:00	1	0	9	2	0	0	9	0
12:15	1	0	10	1	1	0	11	1
12:30	1	0	9	1	1	0	8	1
12:45	2	0	6	1	1	0	11	1
1:00	0	0	10	1	1	0	9	1
1:15	2	0	8	1	1	0	11	0
1:30	1	0	9	1	1	0	8	1
1:45	0	0	10	0	0	0	14	1
2:00	1	0	10	0	0	0	9	1
2:15	1	0	12	1	0	0	12	0
2:30	0	0	9	0	0	0	8	1
2:45	1	0	11	0	1	0	15	1
3:00	1	0	6	1	0	0	9	1
3:15	2	0	7	0	1	0	7	0
3:30	1	0	8	1	0	0	8	1
3:45	1	0	9	0	1	0	14	0
4:00	1	0	8	1	1	0	7	0
4:15	1	0	13	1	1	1	10	0
4:30	1	0	13	0	2	0	9	1
4:45	0	0	12	0	0	0	6	1
5:00	0	0	12	0	1	0	9	0
5:15	1	0	15	0	3	0	16	1
5:30	1	0	10	1	1	0	10	0
5:45	1	0	12	0	2	0	9	1
6:00	1	0	10	1	2	0	10	0
6:15	1	1	14	0	2	1	9	0
6:30	1	0	13	0	5	0	9	0
6:45	5	0	9	0	5	0	8	0
7:00	4	0	14	0	5	0	9	0
7:15	5	0	9	0	8	0	8	0
7:30	6	0	9	0	8	0	6	0
7:45	6	0	10	0	10	0	6	0
8:00	7	1	9	0	14	0	8	0
8:15	11	1	4	1	14	1	5	0
8:30	9	0	7	0	16	0	5	0
8:45	9	0	6	0	10	0	4	1
9:00	10	1	6	0	10	1	6	0
9:15	8	1	5	0	11	0	3	0
9:30	11	0	4	0	12	0	3	0
9:45	10	0	6	0	11	0	4	0
10:00	10	0	6	0	13	0	2	0
10:15	8	1	7	0	12	0	3	0
10:30	7	1	5	0	11	0	3	0
10:45	10	1	5	0	9	0	5	0
11:00	7	1	4	0	14	1	3	0
11:15	10	0	3	0	9	1	3	0
11:30	13	1	1	0	8	0	2	0
11:45	8	1	3	0	9	1	2	0
Total	199	11	407	16	248	7	365	16
Directional	633				636			
ADT	1,269							
AADT	1,200							
Daily Truck %	3.9%							

Daily Summary 10/4/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	9:30 AM	101	47	54	0.084	0.535	0.010
MD	1:45 PM	99	48	51	0.083	0.515	0.030
PM	4:30 PM	100	49	51	0.083	0.510	0.040

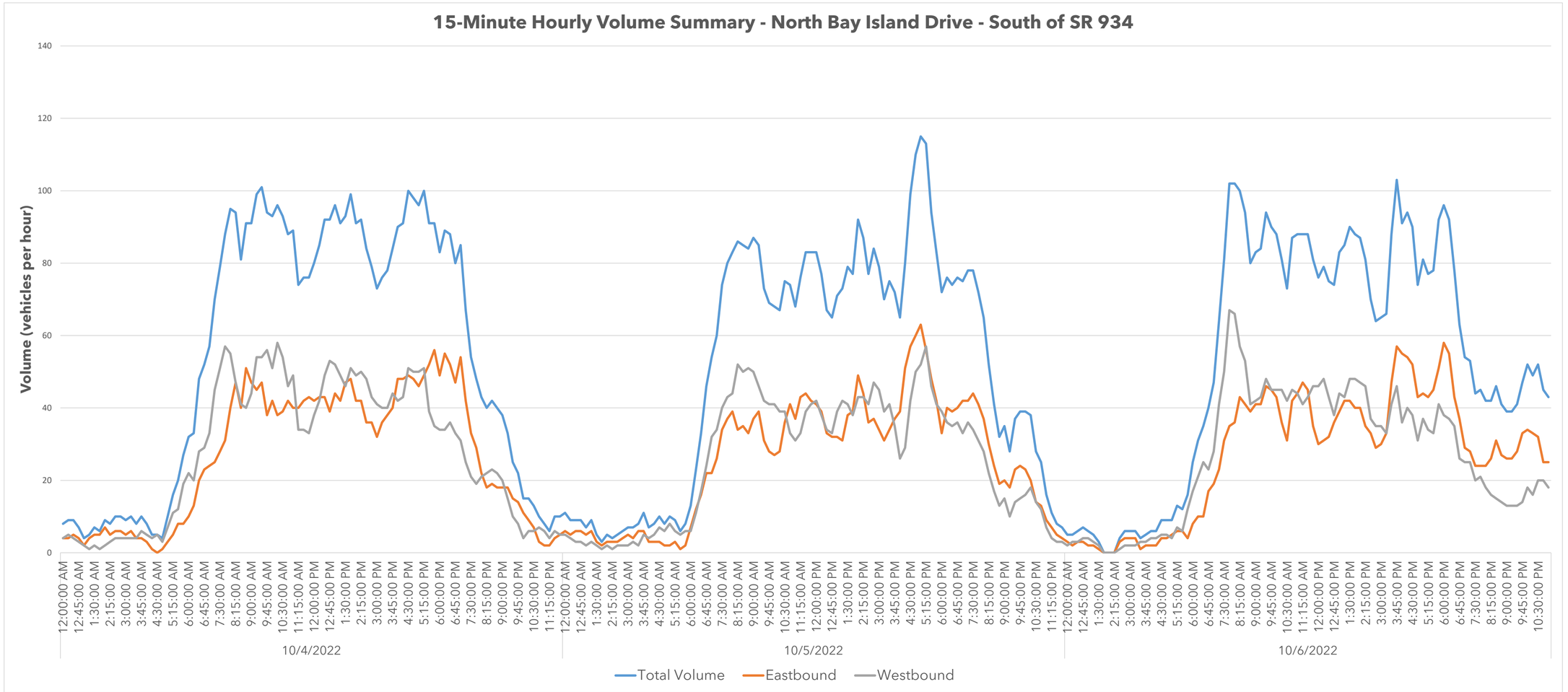
Daily Summary 10/5/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	9:00 AM	87	37	50	0.073	0.575	0.034
MD	2:00 PM	92	49	43	0.077	0.533	0.054
PM	5:00 PM	115	63	52	0.096	0.548	0.043

Daily Summary 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	7:45 AM	102	35	67	0.085	0.657	0.020
MD	1:30 PM	90	42	48	0.075	0.533	0.056
PM	3:45 PM	103	57	46	0.086	0.553	0.058

Three Day Average Summary 10/4/2022 - 10/6/2022							
Peak Hours	Time	Volume	EB	WB	K Factor	D Factor	T Factor
AM	8:00 AM	93	38	55	0.078	0.591	0.032
MD	2:00 PM	90	43	47	0.075	0.522	0.044
PM	5:00 PM	96	50	46	0.080	0.521	0.031

North Bay Island Drive - South of SR 934 - 72-Hour Classification Summary
Three Day Class Summary

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Adventure Avenue - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022				Wednesday, October 5, 2022				Thursday, October 6, 2022			
Direction	Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
Period	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	4	33	5	20	5	29	7	17	5	25	7	19
12:15	3	32	5	20	4	31	3	32	0	25	8	24
12:30	5	28	6	26	1	43	6	26	3	33	1	30
12:45	0	26	3	33	5	30	6	26	1	25	6	22
1:00	3	2	4	2	1	1	3	4	3	0	6	1
1:15	1	31	2	36	1	23	5	16	2	27	1	19
1:30	2	31	2	35	1	23	4	27	0	32	1	30
1:45	1	31	4	22	3	27	1	22	0	45	2	27
2:00	2	20	2	14	1	22	3	25	0	33	4	35
2:15	1	24	2	32	5	18	1	25	1	24	0	16
2:30	1	32	2	19	0	25	2	24	1	21	3	27
2:45	6	27	5	44	1	22	0	23	1	23	1	41
3:00	1	46	0	32	0	21	0	30	0	55	1	33
3:15	1	36	0	31	3	25	3	28	2	34	1	22
3:30	1	43	0	27	0	25	1	24	0	29	0	27
3:45	0	22	1	36	0	26	3	28	2	23	0	24
4:00	1	26	2	33	2	32	2	29	2	40	4	29
4:15	3	32	2	23	1	21	2	30	4	28	4	40
4:30	1	46	1	38	1	35	2	20	1	26	0	30
4:45	2	35	1	31	3	31	1	27	4	36	2	28
5:00	5	33	6	41	3	36	1	21	5	46	3	36
5:15	2	39	0	41	4	32	3	31	4	37	6	24
5:30	5	40	1	32	11	38	4	34	2	42	3	33
5:45	12	45	2	28	7	25	5	28	7	34	4	34
6:00	8	29	5	28	5	32	3	36	6	28	4	15
6:15	12	32	7	38	11	13	5	27	13	28	6	57
6:30	21	26	6	32	12	19	1	24	17	29	3	26
6:45	19	22	12	25	12	15	13	43	26	16	8	36
7:00	28	18	11	25	22	22	5	23	27	28	13	48
7:15	23	27	17	34	24	17	19	28	24	15	19	28
7:30	37	18	22	26	22	18	11	27	29	23	17	27
7:45	48	19	15	28	29	13	15	22	40	18	17	30
8:00	30	17	46	21	35	22	17	31	43	14	37	22
8:15	59	13	35	27	25	20	12	24	45	16	37	20
8:30	41	92	17	50	48	67	21	36	45	60	19	46
8:45	50	26	16	21	37	48	24	36	50	28	20	23
9:00	54	10	18	16	34	31	17	33	67	15	25	25
9:15	53	5	29	16	31	10	26	22	38	9	22	14
9:30	43	12	24	19	33	6	25	13	42	17	12	11
9:45	21	11	15	15	33	9	23	14	33	11	21	16
10:00	39	7	18	20	28	7	19	20	37	3	27	9
10:15	28	9	21	16	29	6	17	17	28	6	19	16
10:30	27	4	16	9	28	9	23	9	26	9	16	14
10:45	33	10	20	13	32	5	29	9	22	8	17	14
11:00	36	1	17	2	30	0	22	2	40	1	25	3
11:15	30	6	19	11	28	5	13	13	29	8	11	9
11:30	33	7	21	7	23	10	21	8	29	3	17	7
11:45	19	5	29	14	40	2	20	5	24	5	22	12
Total	855	1,186	514	1,209	714	1,047	469	1,119	830	1,141	502	1,179
Directional	**2,041**		**1,723**		**1,761**		**1,588**		**1,971**		**1,681**	
ADT	**3,764**				**3,349**				**3,652**			
AADT	**3,600**				**3,200**				**3,500**			

Adventure Avenue - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	3-Day Average			
Direction	Northbound		Southbound	
Period	AM	PM	AM	PM
12:00	5	29	6	19
12:15	2	29	5	25
12:30	3	35	4	27
12:45	2	27	5	27
1:00	2	1	4	2
1:15	1	27	3	24
1:30	1	29	2	31
1:45	1	34	2	24
2:00	1	25	3	25
2:15	2	22	1	24
2:30	1	26	2	23
2:45	3	24	2	36
3:00	0	41	0	32
3:15	2	32	1	27
3:30	0	32	0	26
3:45	1	24	1	29
4:00	2	33	3	30
4:15	3	27	3	31
4:30	1	36	1	29
4:45	3	34	1	29
5:00	4	38	3	33
5:15	3	36	3	32
5:30	6	40	3	33
5:45	9	35	4	30
6:00	6	30	4	26
6:15	12	24	6	41
6:30	17	25	3	27
6:45	19	18	11	35
7:00	26	23	10	32
7:15	24	20	18	30
7:30	29	20	17	27
7:45	39	17	16	27
8:00	36	18	33	25
8:15	43	16	28	24
8:30	45	73	19	44
8:45	46	34	20	27
9:00	52	19	20	25
9:15	41	8	26	17
9:30	39	12	20	14
9:45	29	10	20	15
10:00	35	6	21	16
10:15	28	7	19	16
10:30	27	7	18	11
10:45	29	8	22	12
11:00	35	1	21	2
11:15	29	6	14	11
11:30	28	7	20	7
11:45	28	4	24	10
Total	800	1,129	492	1,169
Directional	**1,929**		**1,661**	
ADT	**3,590**			
AADT	**3,400**			

Daily Summary 10/4/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	8:45 AM	370	256	114	0.109	0.69
MD	2:45 PM	341	170	171	0.100	0.50
PM	4:30 PM	354	167	187	0.104	0.53

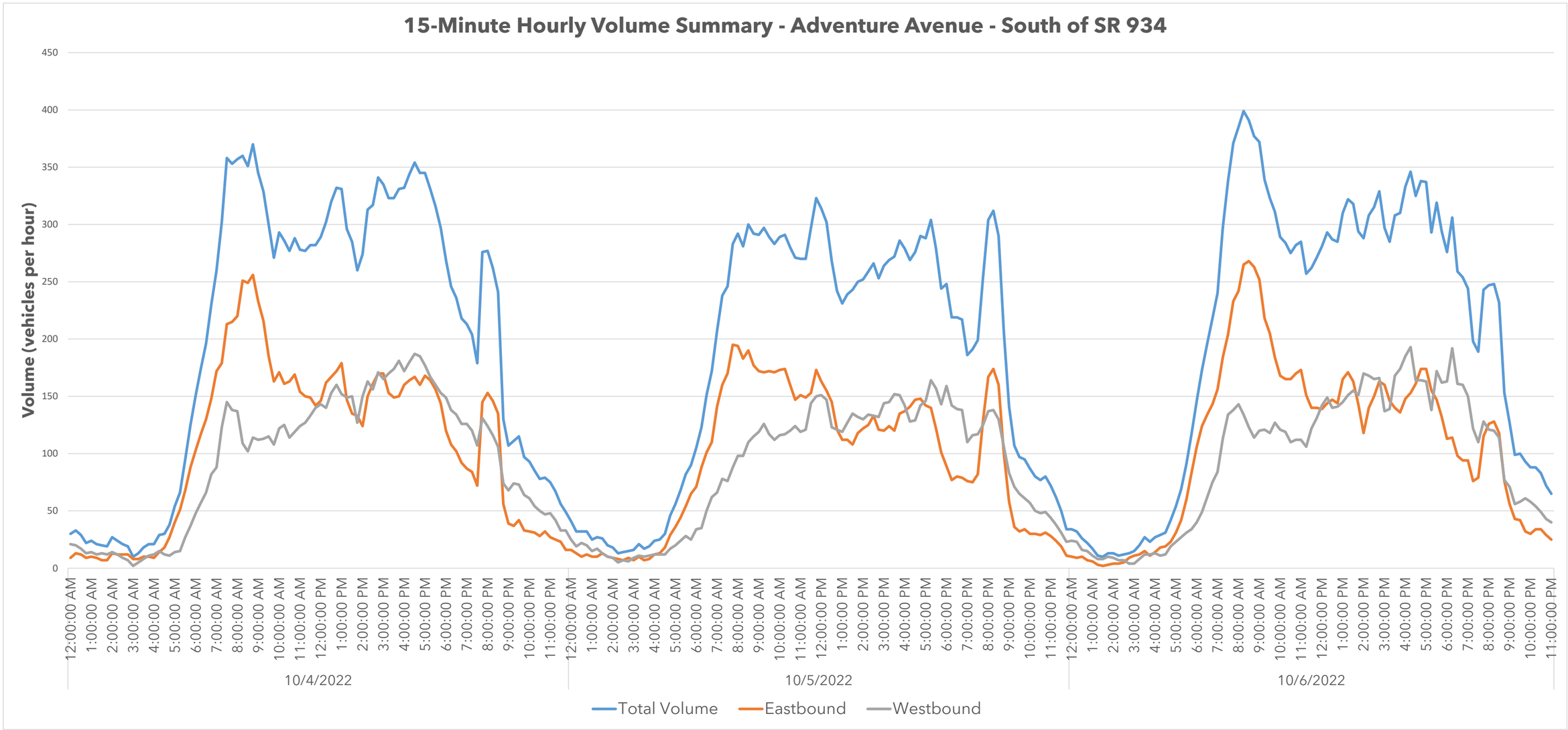
Daily Summary 10/5/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	8:30 AM	300	190	110	0.088	0.63
MD	11:45 AM	323	173	150	0.095	0.54
PM	5:15 PM	304	140	164	0.089	0.54

Daily Summary 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	8:15 AM	399	265	134	0.117	0.66
MD	2:45 PM	329	163	166	0.097	0.51
PM	4:15 PM	346	153	193	0.102	0.56

Three Day Average Summary 10/4/2022 - 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	8:15 AM	273	186	87	0.080	0.68
MD	2:45 PM	250	129	121	0.074	0.52
PM	5:00 PM	277	149	128	0.081	0.54

Adventure Avenue - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Channel 7 Drive - North of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022				Wednesday, October 5, 2022				Thursday, October 6, 2022			
Direction	Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
Period	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0	13	1	3	0	8	0	3	0	8	0	2
12:15	0	12	0	6	0	5	0	10	0	8	0	7
12:30	2	8	0	8	4	12	1	5	2	4	0	5
12:45	0	8	0	7	0	4	0	5	0	4	0	9
1:00	1	1	0	0	0	0	0	0	0	0	0	0
1:15	2	10	0	6	2	6	0	9	2	6	0	8
1:30	1	9	0	5	0	6	0	0	0	13	0	4
1:45	3	8	1	4	3	14	0	1	3	15	0	4
2:00	2	3	0	3	3	15	1	5	3	13	0	1
2:15	0	13	0	5	1	10	0	6	2	7	0	7
2:30	0	3	0	0	0	4	0	2	0	3	0	3
2:45	0	11	0	6	2	9	0	2	2	14	0	4
3:00	3	11	0	7	1	9	0	9	1	9	0	6
3:15	3	6	1	1	2	7	1	0	2	6	1	3
3:30	3	6	1	2	1	5	1	0	2	4	1	3
3:45	0	6	0	0	7	5	0	1	3	4	0	4
4:00	3	3	1	9	2	1	2	8	3	4	3	6
4:15	7	2	0	5	8	2	1	7	5	4	0	3
4:30	5	1	1	2	4	4	0	2	6	2	1	3
4:45	2	3	0	6	1	0	0	6	2	3	0	6
5:00	0	1	0	13	2	4	0	17	4	5	1	9
5:15	0	4	1	12	1	1	0	7	2	4	0	10
5:30	0	1	0	7	1	3	0	12	0	1	0	7
5:45	2	1	0	14	2	0	0	13	1	1	0	7
6:00	1	1	0	13	0	0	0	7	1	1	1	27
6:15	3	2	0	8	1	4	0	6	2	2	1	7
6:30	0	1	0	10	0	0	0	12	0	1	1	8
6:45	2	2	0	9	5	3	1	8	3	4	0	7
7:00	4	1	1	8	3	0	0	6	3	1	1	8
7:15	4	1	3	2	2	2	1	4	3	1	3	4
7:30	1	1	0	1	4	4	0	7	2	0	0	0
7:45	5	0	1	2	3	5	1	2	0	4	1	1
8:00	5	0	3	11	3	1	3	12	5	2	4	12
8:15	4	3	1	2	5	2	4	4	5	0	4	2
8:30	6	4	2	2	8	3	1	2	9	1	3	0
8:45	11	2	1	1	4	2	0	0	6	2	3	1
9:00	11	1	1	0	5	1	3	0	16	1	2	0
9:15	10	1	2	0	16	1	5	0	10	0	2	1
9:30	14	0	2	0	19	0	3	0	13	1	2	1
9:45	13	0	0	0	13	0	2	0	16	0	4	0
10:00	9	0	5	0	6	1	7	1	16	2	2	1
10:15	6	0	3	1	7	2	0	0	5	1	4	2
10:30	6	2	2	2	10	3	4	5	7	0	0	0
10:45	8	1	4	9	7	1	1	6	7	1	4	6
11:00	6	0	4	0	2	0	1	0	9	0	1	0
11:15	5	0	3	8	7	0	3	7	2	1	3	6
11:30	4	0	2	14	4	4	4	19	8	1	4	16
11:45	7	1	5	2	9	1	3	7	8	2	3	9
Total	184	168	52	236	190	174	54	245	201	171	60	240
Directional	**352**		**288**		**364**		**299**		**372**		**300**	
ADT	**640**				**663**				**672**			
AADT	**600**				**600**				**600**			

Channel 7 Drive - North of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	3-Day Average			
Direction	Northbound		Southbound	
Period	AM	PM	AM	PM
12:00	0	10	0	3
12:15	0	8	0	8
12:30	3	8	0	6
12:45	0	5	0	7
1:00	0	0	0	0
1:15	2	7	0	8
1:30	0	9	0	3
1:45	3	12	0	3
2:00	3	10	0	3
2:15	1	10	0	6
2:30	0	3	0	2
2:45	1	11	0	4
3:00	2	10	0	7
3:15	2	6	1	1
3:30	2	5	1	2
3:45	3	5	0	2
4:00	3	3	2	8
4:15	7	3	0	5
4:30	5	2	1	2
4:45	2	2	0	6
5:00	2	3	0	13
5:15	1	3	0	10
5:30	0	2	0	9
5:45	2	1	0	11
6:00	1	1	0	16
6:15	2	3	0	7
6:30	0	1	0	10
6:45	3	3	0	8
7:00	3	1	1	7
7:15	3	1	2	3
7:30	2	2	0	3
7:45	3	3	1	2
8:00	4	1	3	12
8:15	5	2	3	3
8:30	8	3	2	1
8:45	7	2	1	1
9:00	11	1	2	0
9:15	12	1	3	0
9:30	15	0	2	0
9:45	14	0	2	0
10:00	10	1	5	1
10:15	6	1	2	1
10:30	8	2	2	2
10:45	7	1	3	7
11:00	6	0	2	0
11:15	5	0	3	7
11:30	5	2	3	16
11:45	8	1	4	6
Total	192	171	51	242
Directional	**363**		**293**	
ADT	**656**			
AADT	**600**			

Daily Summary 10/4/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:30 AM	143	96	47	0.238	0.671
MD	11:45 AM	137	70	67	0.228	0.511
PM	3:30 PM	114	43	71	0.190	0.623

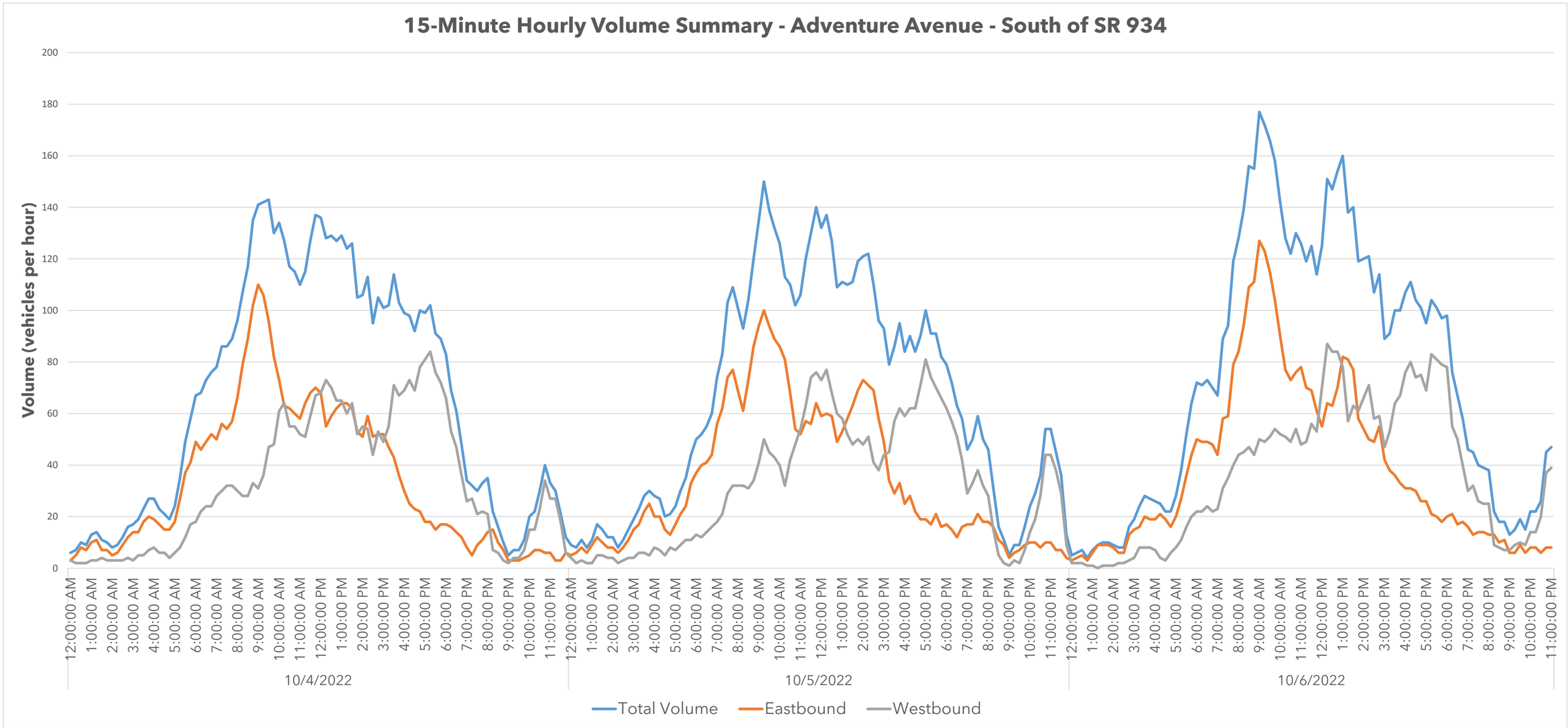
Daily Summary 10/5/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:15 AM	150	100	50	0.250	0.667
MD	11:45 AM	140	64	76	0.233	0.543
PM	5:00 PM	100	19	81	0.167	0.810

Daily Summary 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:00 AM	177	127	50	0.295	0.718
MD	1:00 PM	160	82	78	0.267	0.513
PM	4:15 PM	111	31	80	0.185	0.721

Three Day Average Summary 10/4/2022 - 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:15 AM	63	51	12	0.105	0.810
MD	1:30 PM	56	41	15	0.093	0.732
PM	5:15 PM	53	7	46	0.088	0.868

Channel 7 Drive - North of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Pelican Harbor Drive - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	Tuesday, October 4, 2022				Wednesday, October 5, 2022				Thursday, October 6, 2022			
Direction	Northbound		Southbound		Northbound		Southbound		Northbound		Southbound	
Period	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	3	5	1	2	2	7	0	12	4	5	1	3
12:15	0	12	0	7	0	5	0	17	0	7	1	5
12:30	1	3	0	8	1	12	0	6	3	2	0	6
12:45	0	9	0	3	0	3	0	5	1	0	0	6
1:00	4	0	1	0	1	5	0	0	2	1	0	1
1:15	0	5	0	6	3	10	1	5	2	5	0	1
1:30	0	8	0	10	5	1	0	2	1	8	1	5
1:45	4	2	1	6	0	7	1	4	0	2	0	6
2:00	0	3	0	0	0	4	0	7	0	1	1	12
2:15	0	4	0	10	0	9	0	8	2	5	1	6
2:30	0	5	0	1	0	12	0	4	0	7	1	6
2:45	0	6	0	2	0	10	0	7	0	4	0	2
3:00	0	4	1	4	1	8	0	5	0	4	0	1
3:15	0	1	0	1	0	3	1	8	2	3	0	4
3:30	0	2	0	5	0	11	0	11	0	6	0	2
3:45	1	3	0	1	0	10	0	11	0	13	1	10
4:00	0	0	0	3	1	7	1	11	0	2	0	2
4:15	0	5	0	7	0	15	0	18	0	5	0	0
4:30	0	13	0	6	0	6	0	14	1	1	1	4
4:45	1	5	2	9	0	10	0	15	0	3	0	6
5:00	0	4	0	1	0	10	1	14	0	11	0	3
5:15	2	6	0	5	0	14	0	15	0	6	2	1
5:30	0	3	0	3	1	17	0	18	0	4	0	1
5:45	1	5	0	2	0	20	2	22	0	7	1	0
6:00	1	4	0	7	0	18	0	19	0	0	0	0
6:15	1	2	2	5	0	21	0	31	0	1	1	8
6:30	0	7	0	12	1	21	2	39	1	8	0	3
6:45	1	10	1	2	3	20	1	20	0	12	1	6
7:00	2	16	1	5	1	27	5	32	3	7	1	0
7:15	1	6	2	1	2	28	0	24	5	3	4	7
7:30	4	10	1	9	0	29	2	31	2	1	0	1
7:45	0	2	0	3	2	25	2	29	3	4	3	6
8:00	1	10	4	3	2	24	1	28	4	7	2	4
8:15	0	9	0	2	2	29	1	20	1	0	2	2
8:30	2	8	4	3	2	33	1	18	3	3	2	5
8:45	3	7	2	2	3	37	10	18	0	3	2	7
9:00	1	4	3	1	3	28	1	15	3	3	4	2
9:15	2	2	9	0	7	14	8	10	3	5	7	0
9:30	0	2	0	1	3	20	4	4	2	7	2	0
9:45	0	2	10	1	0	23	6	11	6	2	4	1
10:00	1	3	12	2	1	15	7	6	4	3	5	1
10:15	7	0	8	3	7	25	10	8	2	0	6	0
10:30	3	1	0	3	6	29	1	2	1	1	1	2
10:45	5	1	6	1	6	1	7	1	4	1	9	3
11:00	7	0	8	0	9	0	14	0	11	0	10	1
11:15	15	2	10	0	7	7	7	0	6	3	9	0
11:30	11	0	6	1	5	0	6	0	5	0	2	2
11:45	7	3	12	0	4	1	10	1	7	0	0	0
Total	92	224	107	169	91	691	113	606	94	186	88	154
Directional	**316**		**276**		**782**		**719**		**280**		**242**	
ADT	**592**				**1,501**				**522**			
AADT	**600**				**1,400**				**500**			

Pelican Harbor Drive - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US

Date	3-Day Average			
Direction	Northbound		Southbound	
Period	AM	PM	AM	PM
12:00	3	6	1	6
12:15	0	8	0	10
12:30	2	6	0	7
12:45	0	4	0	5
1:00	2	2	0	0
1:15	2	7	0	4
1:30	2	6	0	6
1:45	1	4	1	5
2:00	0	3	0	6
2:15	1	6	0	8
2:30	0	8	0	4
2:45	0	7	0	4
3:00	0	5	0	3
3:15	1	2	0	4
3:30	0	6	0	6
3:45	0	9	0	7
4:00	0	3	0	5
4:15	0	8	0	8
4:30	0	7	0	8
4:45	0	6	1	10
5:00	0	8	0	6
5:15	1	9	1	7
5:30	0	8	0	7
5:45	0	11	1	8
6:00	0	7	0	9
6:15	0	8	1	15
6:30	1	12	1	18
6:45	1	14	1	9
7:00	2	17	2	12
7:15	3	12	2	11
7:30	2	13	1	14
7:45	2	10	2	13
8:00	2	14	2	12
8:15	1	13	1	8
8:30	2	15	2	9
8:45	2	16	5	9
9:00	2	12	3	6
9:15	4	7	8	3
9:30	2	10	2	2
9:45	2	9	7	4
10:00	2	7	8	3
10:15	5	8	8	4
10:30	3	10	1	2
10:45	5	1	7	2
11:00	9	0	11	0
11:15	9	4	9	0
11:30	7	0	5	1
11:45	6	1	7	0
Total	89	369	101	310
Directional	**458**		**411**	
ADT	**869**			
AADT	**800**			

Daily Summary 10/4/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	10:45 AM	147	75	72	0.184	0.510
MD	11:00 AM	150	76	74	0.188	0.507
PM	4:00 PM	116	44	72	0.145	0.621

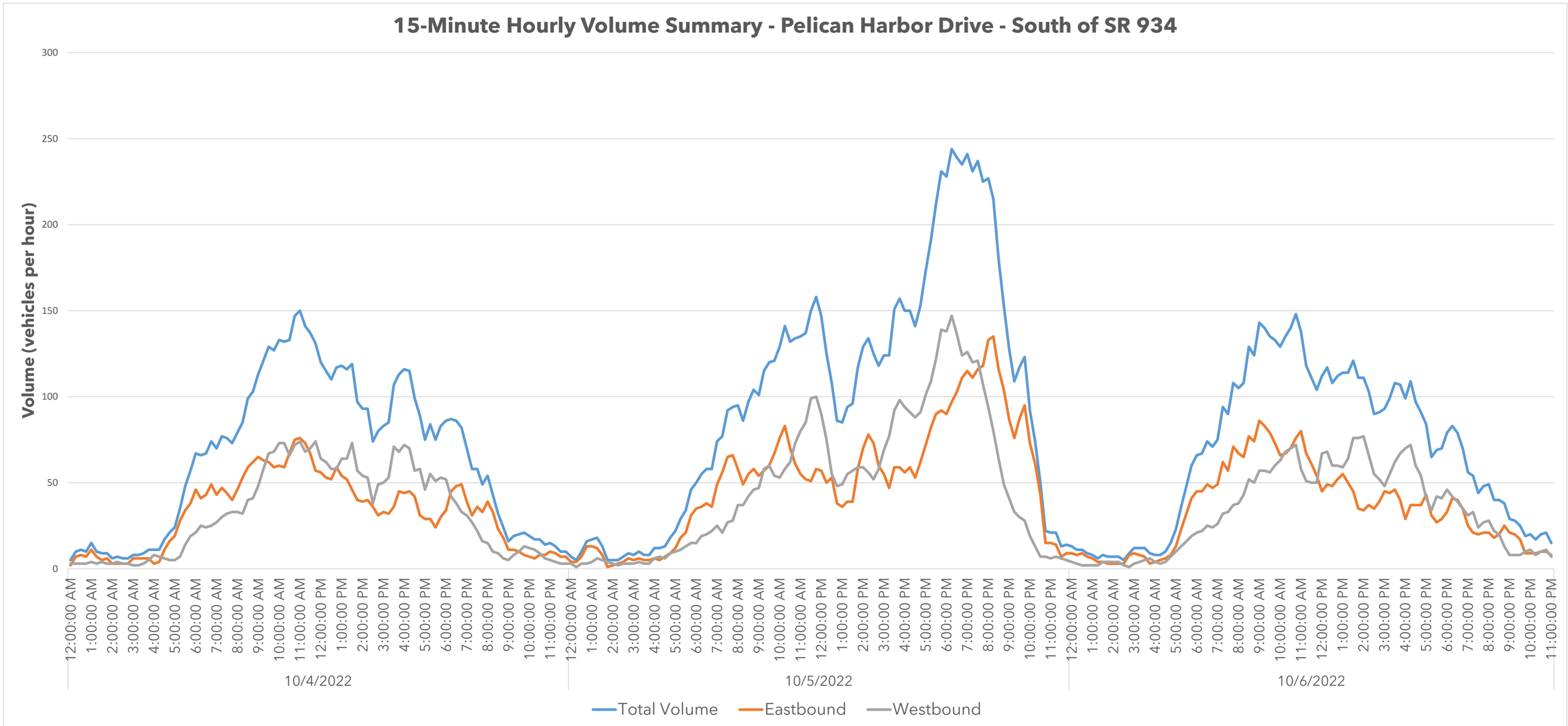
Daily Summary 10/5/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:45 AM	121	67	54	0.151	0.554
MD	11:45 AM	158	58	100	0.198	0.633
PM	6:15 PM	244	97	147	0.305	0.602

Daily Summary 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:00 AM	143	86	57	0.179	0.601
MD	10:45 AM	148	76	72	0.185	0.514
PM	4:15 PM	109	37	72	0.136	0.661

Three Day Average Summary 10/4/2022 - 10/6/2022						
Peak Hours	Time	Volume	NB	SB	K Factor	D Factor
AM	9:30 AM	36	11	25	0.045	0.694
MD	11:00 AM	63	31	32	0.079	0.508
PM	6:15 PM	105	51	54	0.131	0.514

Pelican Harbor Drive - South of SR 934 - 72-Hour Volume Summary
Tue Oct 4th - Thurs Oct 6th, 2022

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200
Miami,FL, 33186, US



Existing (2022)

TMC Sheets

SR 934 - NE 79th Street and Pelican Harbor D... - TMC

Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

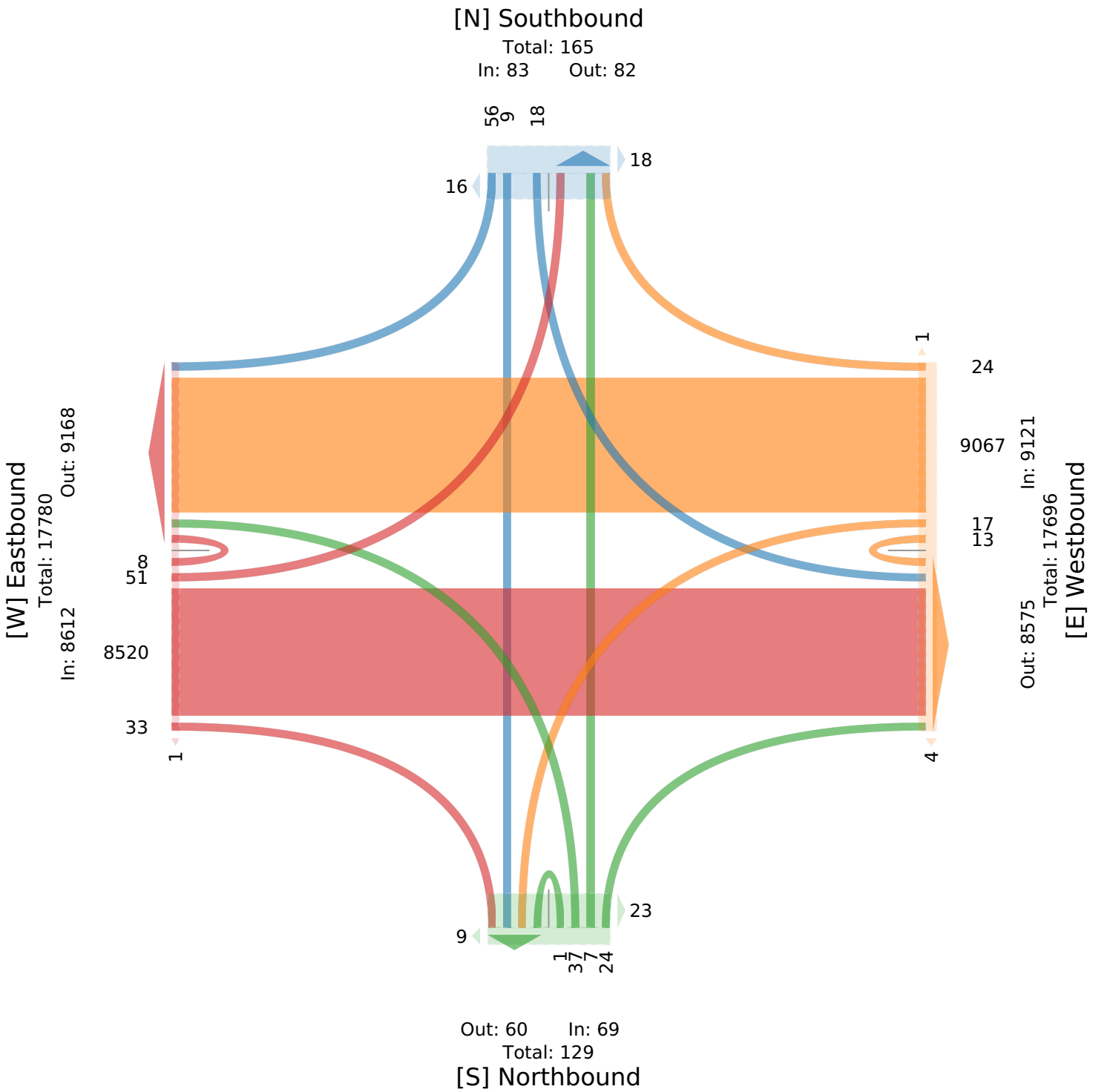
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-10-06 7:00AM	4	207	0	0	**211**	0	1	268	1	1	**271**	0	0	1	1	0	**2**	2	1	1	2	0	**4**	0	**488**
7:15AM	2	281	0	0	**283**	0	3	335	1	0	**339**	0	3	1	0	0	**4**	0	0	1	1	0	**2**	4	**628**
7:30AM	1	292	0	0	**293**	0	0	374	0	0	**374**	0	2	0	0	0	**2**	2	0	0	0	0	**0**	0	**669**
7:45AM	2	418	2	0	**422**	0	0	372	0	0	**372**	0	0	0	1	0	**1**	1	0	1	0	0	**1**	0	**796**
Hourly Total	9	1198	2	0	**1209**	0	4	1349	2	1	**1356**	0	5	2	2	0	**9**	5	1	3	3	0	**7**	4	**2581**
8:00AM	2	394	0	1	**397**	0	1	365	0	0	**366**	0	2	0	2	0	**4**	0	0	1	2	0	**3**	0	**770**
8:15AM	1	469	1	0	**471**	1	0	393	1	1	**395**	0	0	1	0	0	**1**	1	0	1	3	0	**4**	2	**871**
8:30AM	6	440	1	0	**447**	0	0	434	1	1	**436**	1	1	0	1	0	**2**	0	0	0	0	0	**0**	1	**885**
8:45AM	1	395	0	0	**396**	0	1	368	1	0	**370**	0	0	0	0	0	**0**	1	0	1	3	0	**4**	1	**770**
Hourly Total	10	1698	2	1	**1711**	1	2	1560	3	2	**1567**	1	3	1	3	0	**7**	2	0	3	8	0	**11**	4	**3296**
9:00AM	1	355	3	0	**359**	0	0	357	1	0	**358**	1	1	0	0	0	**1**	0	0	0	0	0	**0**	1	**718**
9:15AM	3	338	4	0	**345**	0	0	328	1	0	**329**	1	1	1	1	0	**3**	2	0	0	2	0	**2**	3	**679**
9:30AM	2	348	0	0	**350**	0	1	319	0	2	**322**	0	0	1	1	0	**2**	1	0	1	0	0	**1**	3	**675**
9:45AM	4	313	2	0	**319**	0	1	303	0	0	**304**	1	0	1	4	0	**5**	3	0	1	0	0	**1**	1	**629**
Hourly Total	10	1354	9	0	**1373**	0	2	1307	2	2	**1313**	3	2	3	6	0	**11**	6	0	2	2	0	**4**	8	**2701**
4:00PM	3	342	3	0	**348**	0	0	420	1	1	**422**	0	1	0	2	0	**3**	1	1	0	4	0	**5**	0	**778**
4:15PM	1	361	0	0	**362**	0	0	455	1	0	**456**	0	1	0	1	0	**2**	3	0	0	1	0	**1**	1	**821**
4:30PM	6	358	1	0	**365**	0	2	429	2	0	**433**	0	0	0	1	0	**1**	3	3	0	7	0	**10**	1	**809**
4:45PM	0	303	4	0	**307**	0	0	423	1	1	**425**	0	0	0	1	0	**1**	1	1	1	3	0	**5**	2	**738**
Hourly Total	10	1364	8	0	**1382**	0	2	1727	5	2	**1736**	0	2	0	5	0	**7**	8	5	1	15	0	**21**	4	**3146**
5:00PM	2	398	2	3	**405**	0	0	413	1	1	**415**	0	5	0	1	0	**6**	0	1	0	3	0	**4**	0	**830**
5:15PM	0	331	1	1	**333**	0	1	447	2	1	**451**	1	4	0	0	0	**4**	0	3	0	5	0	**8**	0	**796**
5:30PM	1	364	0	0	**365**	0	0	415	2	2	**419**	0	3	0	0	0	**3**	2	0	0	8	0	**8**	4	**795**
5:45PM	2	346	0	0	**348**	0	0	379	1	1	**381**	0	2	0	0	0	**2**	0	0	0	4	0	**4**	2	**735**
Hourly Total	5	1439	3	4	**1451**	0	1	1654	6	5	**1666**	1	14	0	1	0	**15**	2	4	0	20	0	**24**	6	**3156**
6:00PM	1	151	0	0	**152**	0	0	219	0	0	**219**	0	2	0	0	0	**2**	2	2	0	1	0	**3**	2	**376**
6:15PM	4	601	5	0	**610**	0	2	551	0	1	**554**	0	1	0	1	1	**3**	0	3	0	1	0	**4**	1	**1171**
6:30PM	2	356	1	3	**362**	0	3	362	4	0	**369**	0	3	1	2	0	**6**	2	1	0	3	0	**4**	2	**741**
6:45PM	0	359	3	0	**362**	0	1	338	2	0	**341**	0	5	0	4	0	**9**	5	2	0	3	0	**5**	3	**717**
Hourly Total	7	1467	9	3	**1486**	0	6	1470	6	1	**1483**	0	11	1	7	1	**20**	9	8	0	8	0	**16**	8	**3005**
Total	51	8520	33	8	**8612**	1	17	9067	24	13	**9121**	5	37	7	24	1	**69**	32	18	9	56	0	**83**	34	**17885**
% Approach	0.6%	98.9%	0.4%	0.1%	**-**	-	0.2%	99.4%	0.3%	0.1%	**-**	-	53.6%	10.1%	34.8%	1.4%	**-**	-	21.7%	10.8%	67.5%	0%	**-**	-	-
% Total	0.3%	47.6%	0.2%	0%	**48.2%**	-	0.1%	50.7%	0.1%	0.1%	**51.0%**	-	0.2%	0%	0.1%	0%	**0.4%**	-	0.1%	0.1%	0.3%	0%	**0.5%**	-	-
Motorcycles	2	137	0	0	**139**	-	1	148	1	0	**150**	-	1	0	1	0	**2**	-	1	0	1	0	**2**	-	293
% Motorcycles	3.9%	1.6%	0%	0%	**1.6%**	-	5.9%	1.6%	4.2%	0%	**1.6%**	-	2.7%	0%	4.2%	0%	**2.9%**	-	5.6%	0%	1.8%	0%	**2.4%**	-	1.6%
Lights	47	8149	32	8	**8236**	-	15	8678	22	11	**8726**	-	35	7	22	1	**65**	-	15	9	54	0	**78**	-	17105
% Lights	92.2%	95.6%	97.0%	100%	**95.6%**	-	88.2%	95.7%	91.7%	84.6%	**95.7%**	-	94.6%	100%	91.7%	100%	**94.2%**	-	83.3%	100%	96.4%	0%	**94.0%**	-	95.6%
Single-Unit Trucks	2	110	0	0	**112**	-	1	111	1	2	**115**	-	1	0	0	0	**1**	-	2	0	1	0	**3**	-	231
% Single-Unit Trucks	3.9%	1.3%	0%	0%	**1.3%**	-	5.9%	1.2%	4.2%	15.4%	**1.3%**	-	2.7%	0%	0%	0%	**1.4%**	-	11.1%	0%	1.8%	0%	**3.6%**	-	1.3%
Articulated Trucks	0	33	0	0	**33**	-	0	32	0	0	**32**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	65
% Articulated Trucks	0%	0.4%	0%	0%	**0.4%**	-	0%	0.4%	0%	0%	**0.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Buses	0	62	0	0	**62**	-	0	74	0	0	**74**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	136
% Buses	0%	0.7%	0%	0%	**0.7%**	-	0%	0.8%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Bicycles on Road	0	29	1	0	**30**	-	0	24	0	0	**24**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	55
% Bicycles on Road	0%	0.3%	3.0%	0%	**0.3%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	0%	4.2%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	20	-	-	-	-	-	27	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	60.0%	-	-	-	-	-	62.5%	-	-	-	-	-	79.4%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	12	-	-	-	-	-	7	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	40.0%	-	-	-	-	-	37.5%	-	-	-	-	-	20.6%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934 - NE 79th Street and Pelican Harbor D... - TMC
Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934 - NE 79th Street and Pelican Harbor D... - TMC

Thu Oct 6, 2022
AM Peak (7:45 AM - 8:45 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

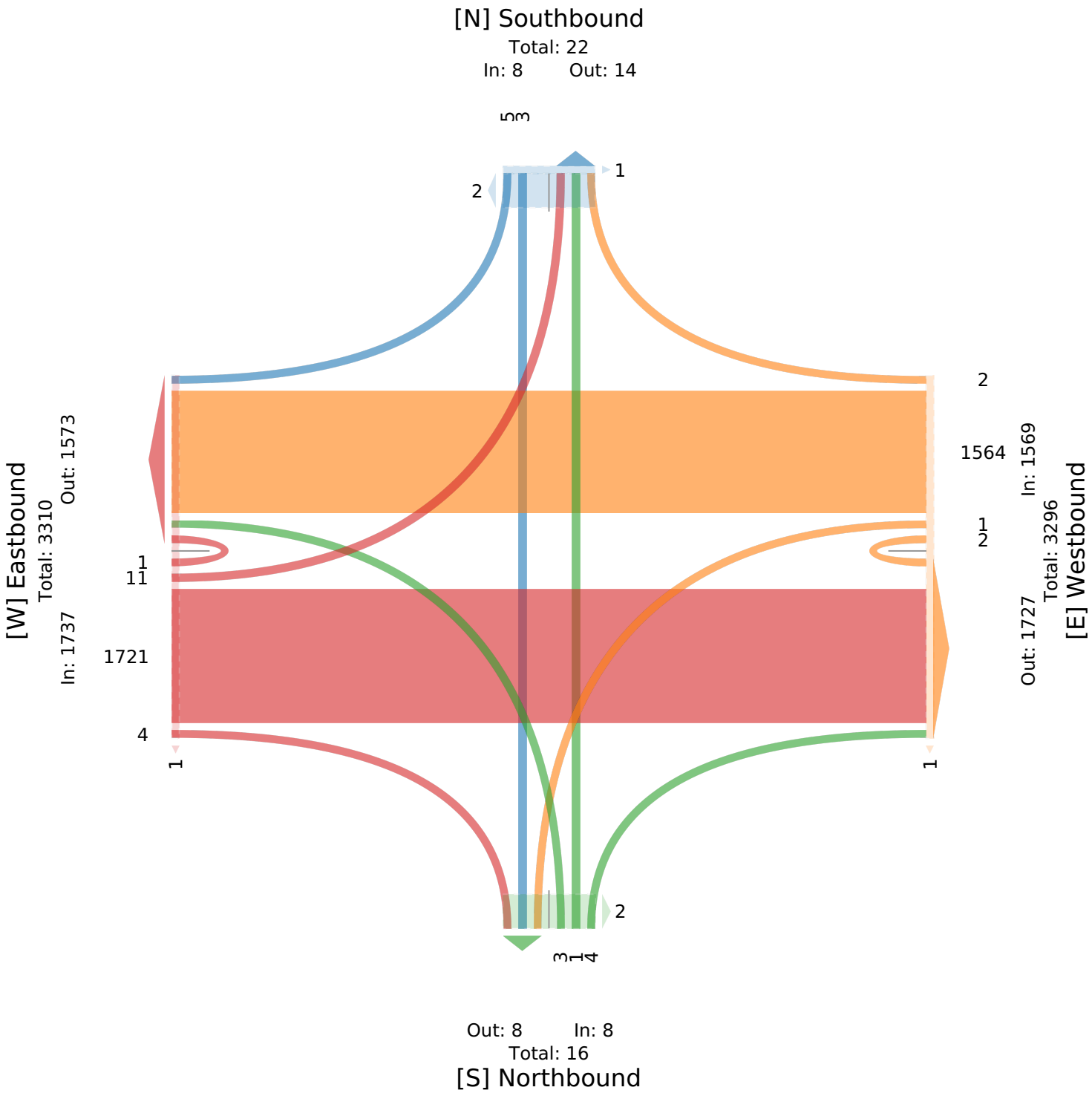
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-10-06 7:45AM	2	418	2	0	**422**	0	0	372	0	0	**372**	0	0	0	1	0	**1**	1	0	1	0	0	**1**	0	**796**
8:00AM	2	394	0	1	**397**	0	1	365	0	0	**366**	0	2	0	2	0	**4**	0	0	1	2	0	**3**	0	**770**
8:15AM	1	469	1	0	**471**	1	0	393	1	1	**395**	0	0	1	0	0	**1**	1	0	1	3	0	**4**	2	**871**
8:30AM	6	440	1	0	**447**	0	0	434	1	1	**436**	1	1	0	1	0	**2**	0	0	0	0	0	**0**	1	**885**
Total	11	1721	4	1	**1737**	1	1	1564	2	2	**1569**	1	3	1	4	0	**8**	2	0	3	5	0	**8**	3	**3322**
% Approach	0.6%	99.1%	0.2%	0.1%	**-**	-	0.1%	99.7%	0.1%	0.1%	**-**	-	37.5%	12.5%	50.0%	0%	**-**	-	0%	37.5%	62.5%	0%	**-**	-	-
% Total	0.3%	51.8%	0.1%	0%	**52.3%**	-	0%	47.1%	0.1%	0.1%	**47.2%**	-	0.1%	0%	0.1%	0%	**0.2%**	-	0%	0.1%	0.2%	0%	**0.2%**	-	-
PHF	0.458	0.917	0.500	0.250	**0.922**	-	0.250	0.900	0.500	0.500	**0.899**	-	0.375	0.250	0.500		**- 0.500**	-	-	0.750	0.417		**- 0.500**	-	0.937
Motorcycles	1	18	0	0	**19**	-	0	22	0	0	**22**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	41
% Motorcycles	9.1%	1.0%	0%	0%	**1.1%**	-	0%	1.4%	0%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Lights	10	1640	4	1	**1655**	-	1	1515	2	2	**1520**	-	3	1	4	0	**8**	-	0	3	5	0	**8**	-	3191
% Lights	90.9%	95.3%	100%	100%	**95.3%**	-	100%	96.9%	100%	100%	**96.9%**	-	100%	100%	100%	0%	**100%**	-	0%	100%	100%	0%	**100%**	-	96.1%
Single-Unit Trucks	0	35	0	0	**35**	-	0	10	0	0	**10**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	45
% Single-Unit Trucks	0%	2.0%	0%	0%	**2.0%**	-	0%	0.6%	0%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.4%
Articulated Trucks	0	11	0	0	**11**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	13
% Articulated Trucks	0%	0.6%	0%	0%	**0.6%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Buses	0	13	0	0	**13**	-	0	13	0	0	**13**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	26
% Buses	0%	0.8%	0%	0%	**0.7%**	-	0%	0.8%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Bicycles on Road	0	4	0	0	**4**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	6
% Bicycles on Road	0%	0.2%	0%	0%	**0.2%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934 - NE 79th Street and Pelican Harbor D... - TMC
Thu Oct 6, 2022
AM Peak (7:45 AM - 8:45 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934 - NE 79th Street and Pelican Harbor D... - TMC

Thu Oct 6, 2022
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

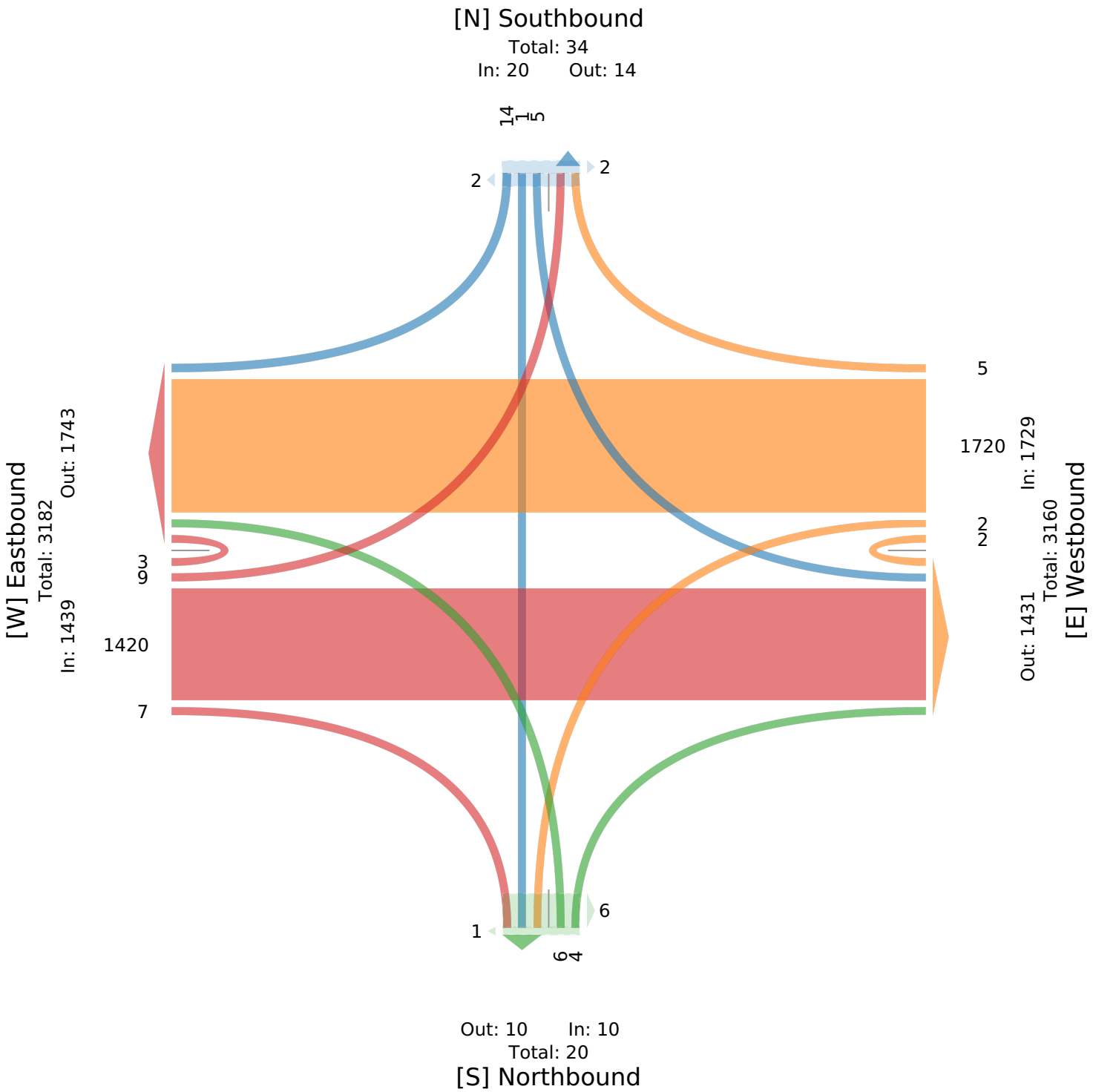
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2022-10-06 4:15PM	1	361	0	0	**362**	0	0	455	1	0	**456**	0	1	0	1	0	**2**	3	0	0	1	0	**1**	1	**821**
4:30PM	6	358	1	0	**365**	0	2	429	2	0	**433**	0	0	0	1	0	**1**	3	3	0	7	0	**10**	1	**809**
4:45PM	0	303	4	0	**307**	0	0	423	1	1	**425**	0	0	0	1	0	**1**	1	1	1	3	0	**5**	2	**738**
5:00PM	2	398	2	3	**405**	0	0	413	1	1	**415**	0	5	0	1	0	**6**	0	1	0	3	0	**4**	0	**830**
Total	9	1420	7	3	**1439**	0	2	1720	5	2	**1729**	0	6	0	4	0	**10**	7	5	1	14	0	**20**	4	**3198**
% Approach	0.6%	98.7%	0.5%	0.2%	**-**	-	0.1%	99.5%	0.3%	0.1%	**-**	-	60.0%	0%	40.0%	0%	**-**	-	25.0%	5.0%	70.0%	0%	**-**	-	-
% Total	0.3%	44.4%	0.2%	0.1%	**45.0%**	-	0.1%	53.8%	0.2%	0.1%	**54.1%**	-	0.2%	0%	0.1%	0%	**0.3%**	-	0.2%	0%	0.4%	0%	**0.6%**	-	-
PHF	0.375	0.890	0.438	0.250	**0.886**	-	0.250	0.944	0.625	0.500	**0.947**	-	0.300	-	1.000	-	**0.417**	-	0.417	0.250	0.500	-	**0.500**	-	0.965
Motorcycles	0	31	0	0	**31**	-	1	31	0	0	**32**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	64
% Motorcycles	0%	2.2%	0%	0%	**2.2%**	-	50.0%	1.8%	0%	0%	**1.9%**	-	0%	0%	25.0%	0%	**10.0%**	-	0%	0%	0%	0%	**0%**	-	2.0%
Lights	9	1370	7	3	**1389**	-	0	1623	5	2	**1630**	-	5	0	3	0	**8**	-	5	1	14	0	**20**	-	3047
% Lights	100%	96.5%	100%	100%	**96.5%**	-	0%	94.4%	100%	100%	**94.3%**	-	83.3%	0%	75.0%	0%	**80.0%**	-	100%	100%	100%	0%	**100%**	-	95.3%
Single-Unit Trucks	0	2	0	0	**2**	-	1	28	0	0	**29**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	32
% Single-Unit Trucks	0%	0.1%	0%	0%	**0.1%**	-	50.0%	1.6%	0%	0%	**1.7%**	-	16.7%	0%	0%	0%	**10.0%**	-	0%	0%	0%	0%	**0%**	-	1.0%
Articulated Trucks	0	1	0	0	**1**	-	0	8	0	0	**8**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	9
% Articulated Trucks	0%	0.1%	0%	0%	**0.1%**	-	0%	0.5%	0%	0%	**0.5%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Buses	0	13	0	0	**13**	-	0	25	0	0	**25**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	38
% Buses	0%	0.9%	0%	0%	**0.9%**	-	0%	1.5%	0%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Bicycles on Road	0	3	0	0	**3**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	8
% Bicycles on Road	0%	0.2%	0%	0%	**0.2%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71.4%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.6%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934 - NE 79th Street and Pelican Harbor D... - TMC
Thu Oct 6, 2022
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003712, Location: 25.848336, -80.166763

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Adventure Ave - TMC

Tue Oct 4, 2022
Full Length (4 PM-7 PM, 7 AM-10 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

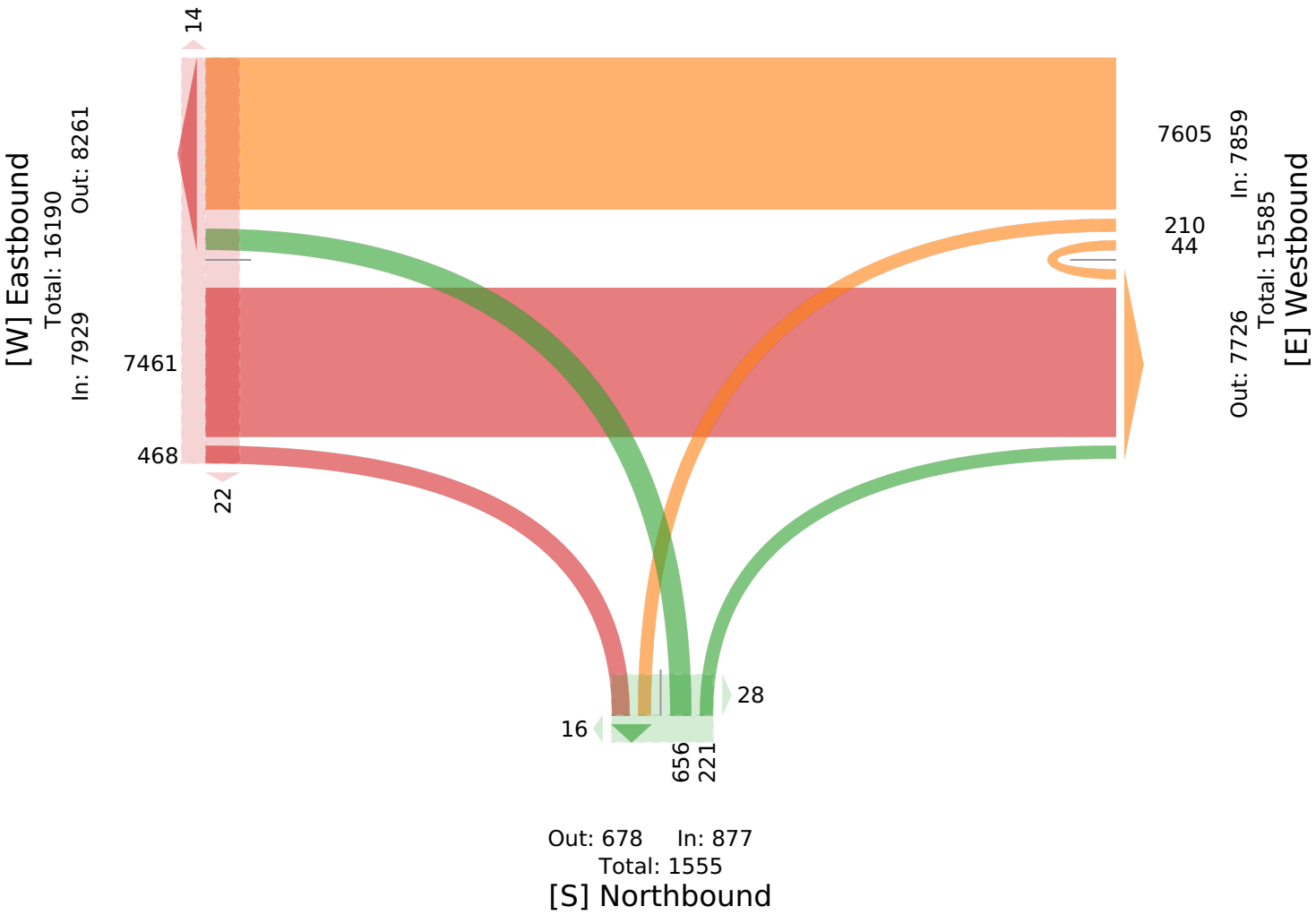
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg Direction	Eastbound Eastbound					Westbound Westbound					Northbound Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-04 4:00PM	284	24	0	**308**	0	11	364	4	**379**	0	28	7	0	**35**	0	**722**
4:15PM	304	21	0	**325**	0	5	430	1	**436**	0	20	10	0	**30**	0	**791**
4:30PM	292	23	0	**315**	1	9	389	2	**400**	0	36	10	0	**46**	0	**761**
4:45PM	259	22	0	**281**	3	9	374	1	**384**	0	31	6	0	**37**	2	**702**
Hourly Total	1139	90	0	**1229**	4	34	1557	8	**1599**	0	115	33	0	**148**	2	**2976**
5:00PM	308	37	0	**345**	0	7	434	0	**441**	0	24	12	0	**36**	0	**822**
5:15PM	295	23	0	**318**	2	19	344	1	**364**	0	25	9	0	**34**	1	**716**
5:30PM	311	23	0	**334**	0	9	386	1	**396**	0	30	8	0	**38**	0	**768**
5:45PM	334	20	0	**354**	2	6	335	2	**343**	0	33	11	0	**44**	9	**741**
Hourly Total	1248	103	0	**1351**	4	41	1499	4	**1544**	0	112	40	0	**152**	10	**3047**
6:00PM	314	16	0	**330**	4	10	329	3	**342**	0	22	4	0	**26**	3	**698**
6:15PM	334	24	0	**358**	2	12	264	2	**278**	0	18	12	0	**30**	1	**666**
6:30PM	324	22	0	**346**	5	12	287	2	**301**	0	18	10	0	**28**	3	**675**
6:45PM	285	28	0	**313**	2	10	234	5	**249**	0	11	8	0	**19**	2	**581**
Hourly Total	1257	90	0	**1347**	13	44	1114	12	**1170**	0	69	34	0	**103**	9	**2620**
2022-10-06 7:00AM	191	5	0	**196**	0	7	231	1	**239**	0	27	2	0	**29**	2	**464**
7:15AM	238	9	0	**247**	2	6	284	1	**291**	0	19	7	0	**26**	2	**564**
7:30AM	263	15	0	**278**	2	5	301	4	**310**	0	28	5	0	**33**	4	**621**
7:45AM	360	14	0	**374**	2	4	292	1	**297**	0	23	13	0	**36**	2	**707**
Hourly Total	1052	43	0	**1095**	6	22	1108	7	**1137**	0	97	27	0	**124**	10	**2356**
8:00AM	384	31	0	**415**	0	6	271	2	**279**	0	37	7	0	**44**	0	**738**
8:15AM	400	28	0	**428**	0	9	320	0	**329**	0	34	11	0	**45**	1	**802**
8:30AM	386	10	0	**396**	2	12	341	3	**356**	0	37	13	0	**50**	0	**802**
8:45AM	379	13	0	**392**	1	13	299	2	**314**	0	31	16	0	**47**	1	**753**
Hourly Total	1549	82	0	**1631**	3	40	1231	7	**1278**	0	139	47	0	**186**	2	**3095**
9:00AM	317	24	0	**341**	1	9	276	1	**286**	0	43	18	0	**61**	1	**688**
9:15AM	310	17	0	**327**	0	3	276	1	**280**	0	26	5	0	**31**	4	**638**
9:30AM	303	8	0	**311**	4	9	272	4	**285**	0	32	10	0	**42**	4	**638**
9:45AM	286	11	0	**297**	1	8	272	0	**280**	0	23	7	0	**30**	2	**607**
Hourly Total	1216	60	0	**1276**	6	29	1096	6	**1131**	0	124	40	0	**164**	11	**2571**
Total	7461	468	0	**7929**	36	210	7605	44	**7859**	0	656	221	0	**877**	44	**16665**
% Approach	94.1%	5.9%	0%	**-**	-	2.7%	96.8%	0.6%	**-**	-	74.8%	25.2%	0%	**-**	-	-
% Total	44.8%	2.8%	0%	**47.6%**	-	1.3%	45.6%	0.3%	**47.2%**	-	3.9%	1.3%	0%	**5.3%**	-	-
Motorcycles	112	2	0	**114**	-	1	143	2	**146**	-	5	4	0	**9**	-	269
% Motorcycles	1.5%	0.4%	0%	**1.4%**	-	0.5%	1.9%	4.5%	**1.9%**	-	0.8%	1.8%	0%	**1.0%**	-	1.6%
Lights	7110	453	0	**7563**	-	206	7237	42	**7485**	-	634	211	0	**845**	-	15893
% Lights	95.3%	96.8%	0%	**95.4%**	-	98.1%	95.2%	95.5%	**95.2%**	-	96.6%	95.5%	0%	**96.4%**	-	95.4%
Single-Unit Trucks	127	5	0	**132**	-	2	96	0	**98**	-	10	3	0	**13**	-	243
% Single-Unit Trucks	1.7%	1.1%	0%	**1.7%**	-	1.0%	1.3%	0%	**1.2%**	-	1.5%	1.4%	0%	**1.5%**	-	1.5%
Articulated Trucks	28	1	0	**29**	-	0	11	0	**11**	-	2	1	0	**3**	-	43
% Articulated Trucks	0.4%	0.2%	0%	**0.4%**	-	0%	0.1%	0%	**0.1%**	-	0.3%	0.5%	0%	**0.3%**	-	0.3%
Buses	51	5	0	**56**	-	1	69	0	**70**	-	4	1	0	**5**	-	131
% Buses	0.7%	1.1%	0%	**0.7%**	-	0.5%	0.9%	0%	**0.9%**	-	0.6%	0.5%	0%	**0.6%**	-	0.8%
Bicycles on Road	33	2	0	**35**	-	0	49	0	**49**	-	1	1	0	**2**	-	86
% Bicycles on Road	0.4%	0.4%	0%	**0.4%**	-	0%	0.6%	0%	**0.6%**	-	0.2%	0.5%	0%	**0.2%**	-	0.5%
Pedestrians	-	-	-	-	32	-	-	-	-	0	-	-	-	-	36	
% Pedestrians	-	-	-	-	88.9%	-	-	-	-	-	-	-	-	-	81.8%	-
Bicycles on Crosswalk	-	-	-	-	4	-	-	-	-	0	-	-	-	-	8	
% Bicycles on Crosswalk	-	-	-	-	11.1%	-	-	-	-	-	-	-	-	-	18.2%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Adventure Ave - TMC
Tue Oct 4, 2022
Full Length (4 PM-7 PM, 7 AM-10 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Adventure Ave - TMC

Tue Oct 4, 2022
PM Peak (Oct 04 2022 4:15PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

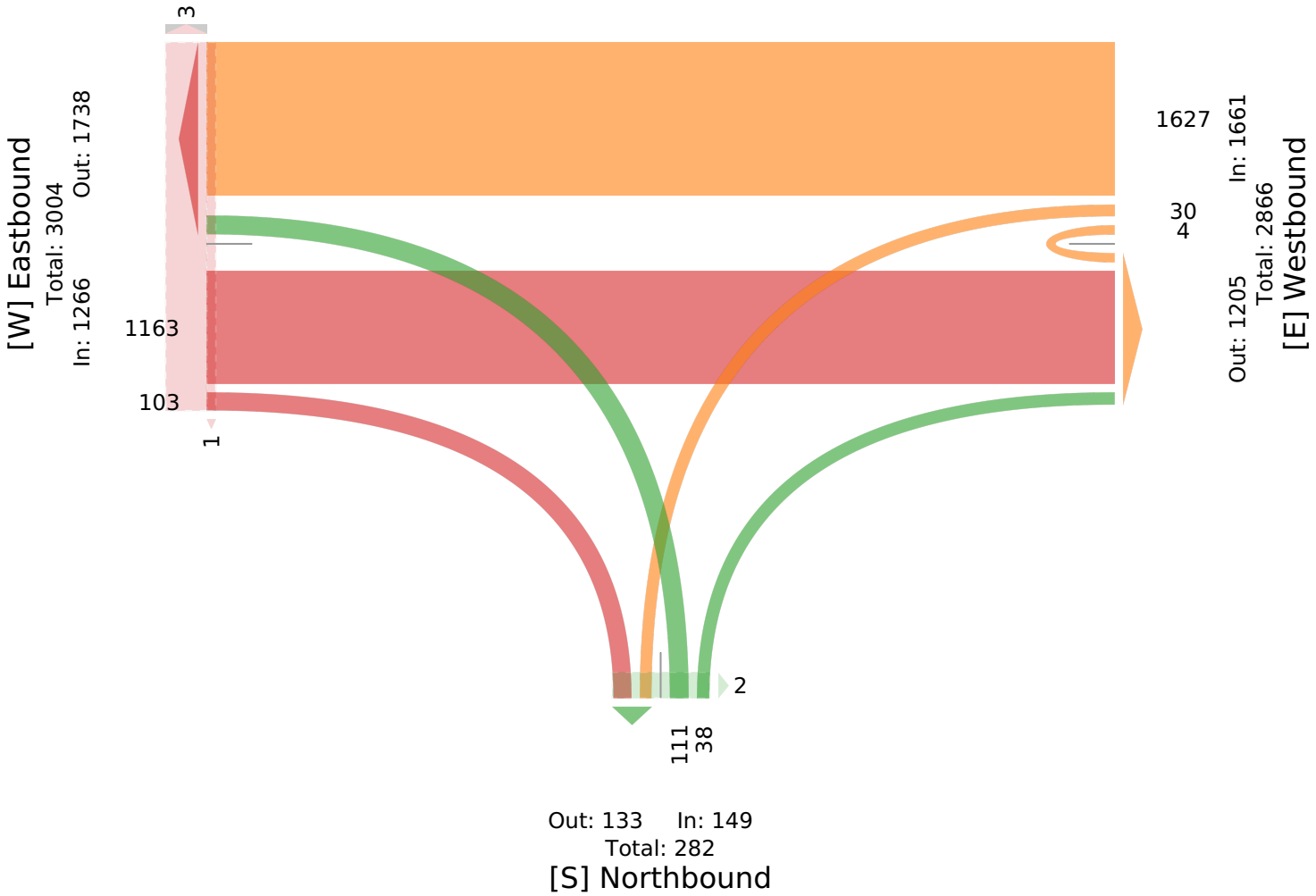
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg Direction	Eastbound Eastbound					Westbound Westbound					Northbound Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-04 4:15PM	304	21	0	**325**	0	5	430	1	**436**	0	20	10	0	**30**	0	**791**
4:30PM	292	23	0	**315**	1	9	389	2	**400**	0	36	10	0	**46**	0	**761**
4:45PM	259	22	0	**281**	3	9	374	1	**384**	0	31	6	0	**37**	2	**702**
5:00PM	308	37	0	**345**	0	7	434	0	**441**	0	24	12	0	**36**	0	**822**
Total	1163	103	0	**1266**	4	30	1627	4	**1661**	0	111	38	0	**149**	2	**3076**
% Approach	91.9%	8.1%	0%	**-**	-	1.8%	98.0%	0.2%	**-**	-	74.5%	25.5%	0%	**-**	-	**-**
% Total	37.8%	3.3%	0%	**41.2%**	-	1.0%	52.9%	0.1%	**54.0%**	-	3.6%	1.2%	0%	**4.8%**	-	**-**
PHF	0.947	0.696	-	**0.920**	-	0.833	0.935	0.500	**0.940**	-	0.764	0.792	-	**0.804**	-	0.935
Motorcycles	22	0	0	**22**	-	0	21	0	**21**	-	0	1	0	**1**	-	44
% Motorcycles	1.9%	0%	0%	**1.7%**	-	0%	1.3%	0%	**1.3%**	-	0%	2.6%	0%	**0.7%**	-	1.4%
Lights	1113	103	0	**1216**	-	30	1558	4	**1592**	-	109	37	0	**146**	-	2954
% Lights	95.7%	100%	0%	**96.1%**	-	100%	95.8%	100%	**95.8%**	-	98.2%	97.4%	0%	**98.0%**	-	96.0%
Single-Unit Trucks	13	0	0	**13**	-	0	25	0	**25**	-	0	0	0	**0**	-	38
% Single-Unit Trucks	1.1%	0%	0%	**1.0%**	-	0%	1.5%	0%	**1.5%**	-	0%	0%	0%	**0%**	-	1.2%
Articulated Trucks	0	0	0	**0**	-	0	2	0	**2**	-	0	0	0	**0**	-	2
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	11	0	0	**11**	-	0	18	0	**18**	-	1	0	0	**1**	-	30
% Buses	0.9%	0%	0%	**0.9%**	-	0%	1.1%	0%	**1.1%**	-	0.9%	0%	0%	**0.7%**	-	1.0%
Bicycles on Road	4	0	0	**4**	-	0	3	0	**3**	-	1	0	0	**1**	-	8
% Bicycles on Road	0.3%	0%	0%	**0.3%**	-	0%	0.2%	0%	**0.2%**	-	0.9%	0%	0%	**0.7%**	-	0.3%
Pedestrians	-	-	-	-	4	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Adventure Ave - TMC
Tue Oct 4, 2022
PM Peak (Oct 04 2022 4:15PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Adventure Ave - TMC

Thu Oct 6, 2022
AM Peak (Oct 06 2022 8AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

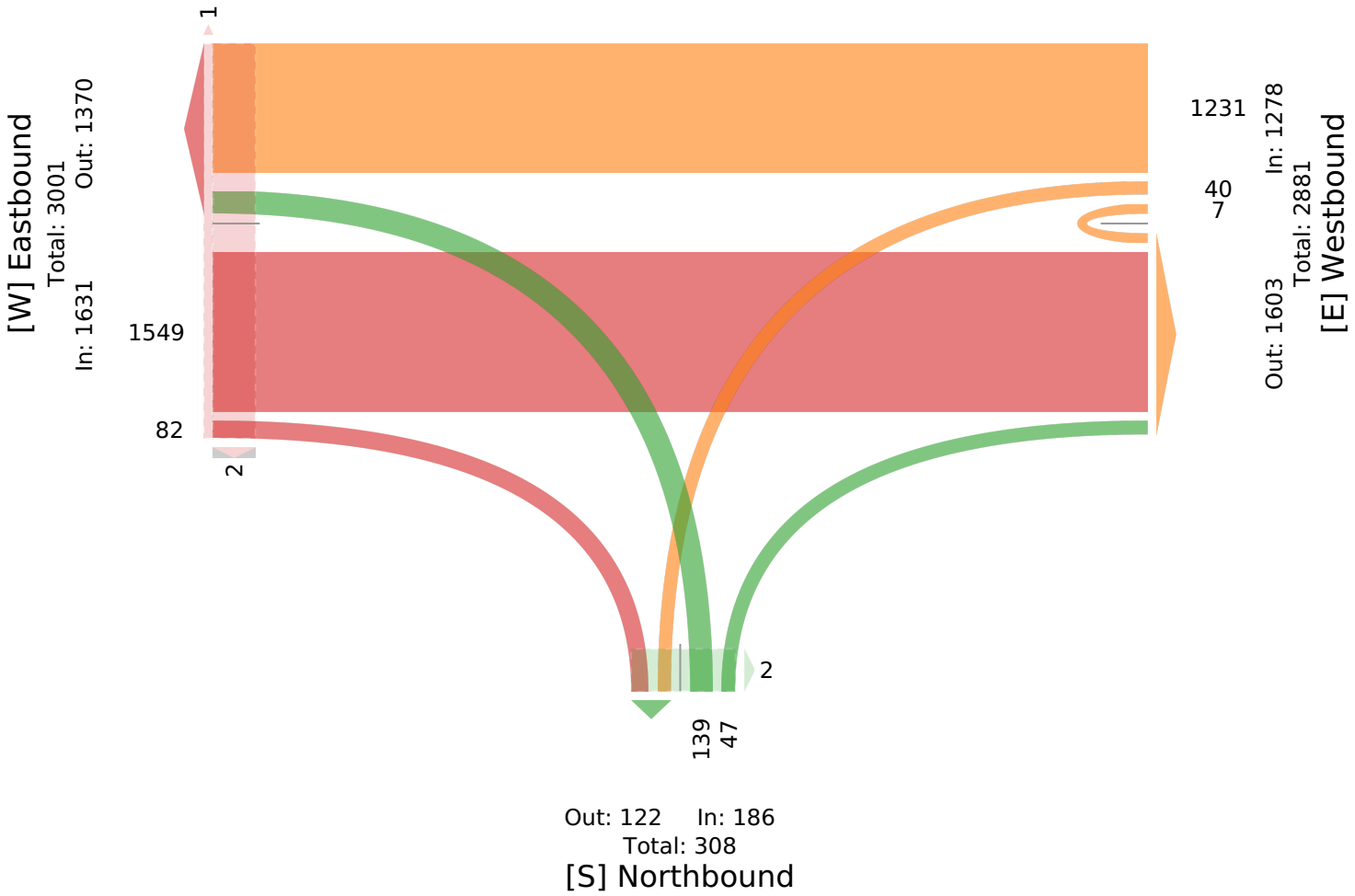
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg Direction	Eastbound Eastbound					Westbound Westbound					Northbound Northbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2022-10-06 8:00AM	384	31	0	**415**	0	6	271	2	**279**	0	37	7	0	**44**	0	**738**
8:15AM	400	28	0	**428**	0	9	320	0	**329**	0	34	11	0	**45**	1	**802**
8:30AM	386	10	0	**396**	2	12	341	3	**356**	0	37	13	0	**50**	0	**802**
8:45AM	379	13	0	**392**	1	13	299	2	**314**	0	31	16	0	**47**	1	**753**
Total	1549	82	0	**1631**	3	40	1231	7	**1278**	0	139	47	0	**186**	2	**3095**
% Approach	95.0%	5.0%	0%	**-**	-	3.1%	96.3%	0.5%	**-**	-	74.7%	25.3%	0%	**-**	-	**-**
% Total	50.0%	2.6%	0%	**52.7%**	-	1.3%	39.8%	0.2%	**41.3%**	-	4.5%	1.5%	0%	**6.0%**	-	**-**
PHF	0.965	0.675	-	**0.949**	-	0.769	0.899	0.583	**0.894**	-	0.939	0.767	-	**0.925**	-	0.960
Motorcycles	14	0	0	**14**	-	0	17	0	**17**	-	1	0	0	**1**	-	32
% Motorcycles	0.9%	0%	0%	**0.9%**	-	0%	1.4%	0%	**1.3%**	-	0.7%	0%	0%	**0.5%**	-	1.0%
Lights	1466	79	0	**1545**	-	40	1177	7	**1224**	-	135	44	0	**179**	-	2948
% Lights	94.6%	96.3%	0%	**94.7%**	-	100%	95.6%	100%	**95.8%**	-	97.1%	93.6%	0%	**96.2%**	-	95.3%
Single-Unit Trucks	37	1	0	**38**	-	0	13	0	**13**	-	3	1	0	**4**	-	55
% Single-Unit Trucks	2.4%	1.2%	0%	**2.3%**	-	0%	1.1%	0%	**1.0%**	-	2.2%	2.1%	0%	**2.2%**	-	1.8%
Articulated Trucks	11	0	0	**11**	-	0	0	0	**0**	-	0	1	0	**1**	-	12
% Articulated Trucks	0.7%	0%	0%	**0.7%**	-	0%	0%	0%	**0%**	-	0%	2.1%	0%	**0.5%**	-	0.4%
Buses	12	1	0	**13**	-	0	12	0	**12**	-	0	0	0	**0**	-	25
% Buses	0.8%	1.2%	0%	**0.8%**	-	0%	1.0%	0%	**0.9%**	-	0%	0%	0%	**0%**	-	0.8%
Bicycles on Road	9	1	0	**10**	-	0	12	0	**12**	-	0	1	0	**1**	-	23
% Bicycles on Road	0.6%	1.2%	0%	**0.6%**	-	0%	1.0%	0%	**0.9%**	-	0%	2.1%	0%	**0.5%**	-	0.7%
Pedestrians	-	-	-	-	3	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Adventure Ave - TMC
Thu Oct 6, 2022
AM Peak (Oct 06 2022 8AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003710, Location: 25.84867, -80.154105

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC

Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

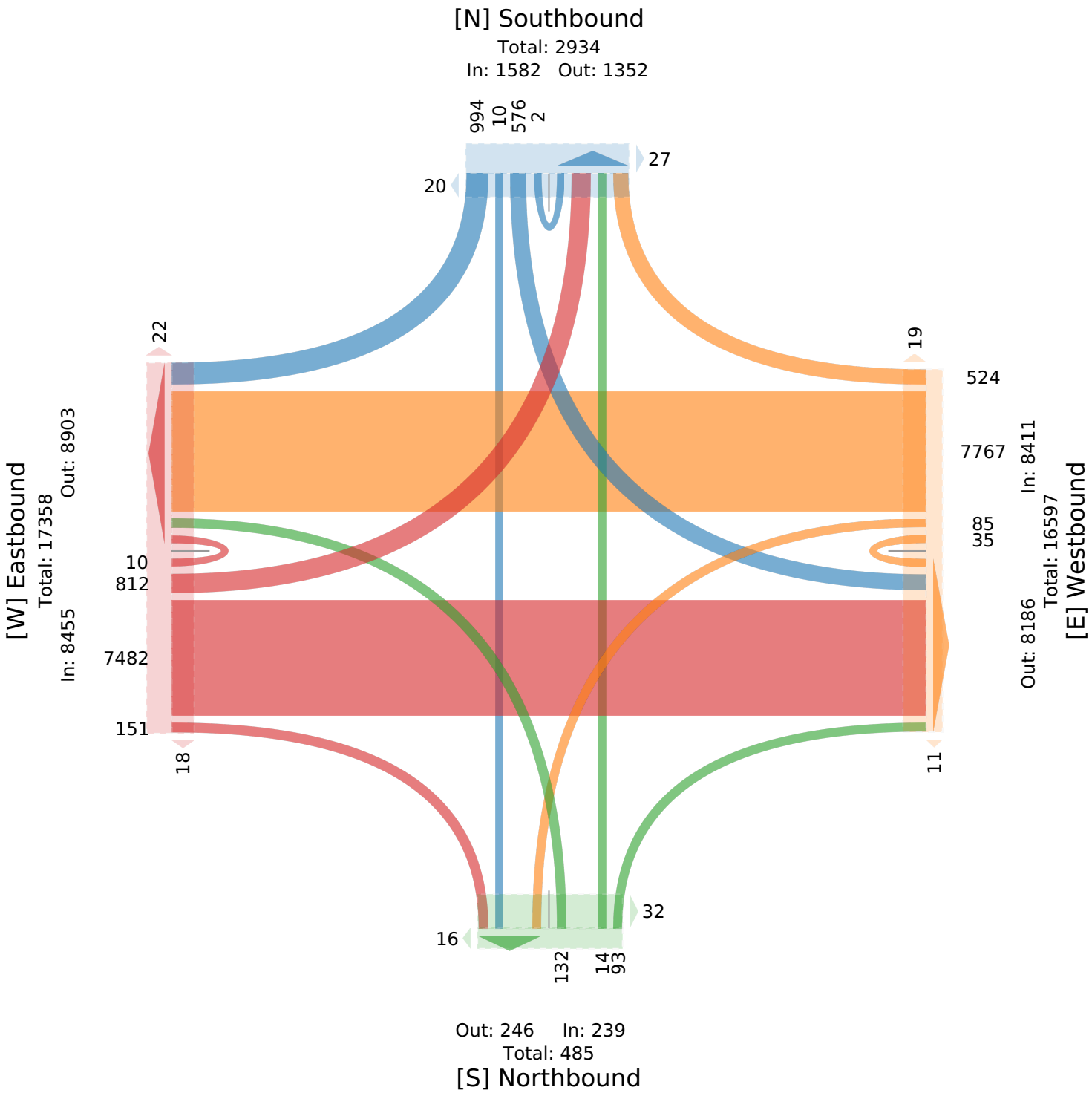
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-10-06 7:00AM	13	188	3	0	**204**	2	0	241	8	0	**249**	3	4	1	2	0	**7**	4	17	0	33	0	**50**	2	**510**
7:15AM	18	236	2	0	**256**	0	0	278	4	1	**283**	2	5	0	1	0	**6**	2	20	0	49	0	**69**	4	**614**
7:30AM	21	256	5	2	**284**	1	0	304	11	0	**315**	2	2	0	5	0	**7**	5	23	0	58	0	**81**	0	**687**
7:45AM	14	348	2	0	**364**	0	2	284	6	0	**292**	0	9	1	0	0	**10**	0	32	0	54	0	**86**	0	**752**
Hourly Total	66	1028	12	2	**1108**	3	2	1107	29	1	**1139**	7	20	2	8	0	**30**	11	92	0	194	0	**286**	6	**2563**
8:00AM	28	361	2	0	**391**	5	5	285	15	1	**306**	1	12	0	8	0	**20**	2	37	1	54	0	**92**	2	**809**
8:15AM	21	420	7	0	**448**	1	1	321	15	2	**339**	2	6	0	7	0	**13**	0	27	1	54	1	**83**	0	**883**
8:30AM	24	406	5	0	**435**	0	4	354	25	3	**386**	1	13	0	7	0	**20**	1	29	0	60	0	**89**	0	**930**
8:45AM	22	407	4	0	**433**	0	5	315	20	2	**342**	4	6	0	2	0	**8**	0	27	0	51	0	**78**	0	**861**
Hourly Total	95	1594	18	0	**1707**	6	15	1275	75	8	**1373**	8	37	0	24	0	**61**	3	120	2	219	1	**342**	2	**3483**
9:00AM	21	315	10	0	**346**	2	1	292	19	0	**312**	1	4	1	6	0	**11**	3	23	2	48	0	**73**	3	**742**
9:15AM	22	282	9	0	**313**	5	0	268	14	1	**283**	0	6	1	4	0	**11**	4	21	0	42	0	**63**	2	**670**
9:30AM	26	325	5	0	**356**	1	3	272	16	1	**292**	0	5	0	5	0	**10**	5	21	0	42	0	**63**	2	**721**
9:45AM	22	261	5	0	**288**	2	5	240	17	0	**262**	3	4	1	5	0	**10**	2	32	0	36	0	**68**	7	**628**
Hourly Total	91	1183	29	0	**1303**	10	9	1072	66	2	**1149**	4	19	3	20	0	**42**	14	97	2	168	0	**267**	14	**2761**
4:00PM	39	306	8	0	**353**	0	3	396	30	3	**432**	0	4	1	2	0	**7**	1	24	0	44	0	**68**	1	**860**
4:15PM	33	301	12	1	**347**	0	6	316	25	7	**354**	1	5	0	9	0	**14**	2	19	0	42	1	**62**	1	**777**
4:30PM	39	304	10	1	**354**	0	8	390	23	2	**423**	0	6	0	5	0	**11**	2	21	1	30	0	**52**	0	**840**
4:45PM	45	256	3	1	**305**	0	4	378	15	2	**399**	0	3	0	1	0	**4**	1	15	0	32	0	**47**	2	**755**
Hourly Total	156	1167	33	3	**1359**	0	21	1480	93	14	**1608**	1	18	1	17	0	**36**	6	79	1	148	1	**229**	4	**3232**
5:00PM	52	317	5	0	**374**	5	5	398	26	1	**430**	1	7	1	2	0	**10**	0	22	1	27	0	**50**	2	**864**
5:15PM	53	329	8	2	**392**	2	4	439	30	1	**474**	1	3	4	4	0	**11**	1	30	3	34	0	**67**	4	**944**
5:30PM	44	310	6	0	**360**	2	3	386	30	2	**421**	1	4	0	0	0	**4**	0	27	0	32	0	**59**	4	**844**
5:45PM	57	311	8	0	**376**	2	0	360	40	1	**401**	2	6	0	3	0	**9**	1	26	0	33	0	**59**	3	**845**
Hourly Total	206	1267	27	2	**1502**	11	12	1583	126	5	**1726**	5	20	5	9	0	**34**	2	105	4	126	0	**235**	13	**3497**
6:00PM	15	99	3	0	**117**	1	7	332	38	2	**379**	0	4	0	4	0	**8**	2	28	0	33	0	**61**	0	**565**
6:15PM	76	516	13	3	**608**	1	8	342	28	2	**380**	4	2	2	5	0	**9**	6	9	0	28	0	**37**	3	**1034**
6:30PM	71	312	8	0	**391**	1	4	294	33	0	**331**	0	7	1	4	0	**12**	1	15	1	47	0	**63**	2	**797**
6:45PM	36	316	8	0	**360**	7	7	282	36	1	**326**	1	5	0	2	0	**7**	3	31	0	31	0	**62**	3	**755**
Hourly Total	198	1243	32	3	**1476**	10	26	1250	135	5	**1416**	5	18	3	15	0	**36**	12	83	1	139	0	**223**	8	**3151**
Total	812	7482	151	10	**8455**	40	85	7767	524	35	**8411**	30	132	14	93	0	**239**	48	576	10	994	2	**1582**	47	**18687**
% Approach	9.6%	88.5%	1.8%	0.1%	**-**	-	1.0%	92.3%	6.2%	0.4%	**-**	-	55.2%	5.9%	38.9%	0%	**-**	-	36.4%	0.6%	62.8%	0.1%	**-**	-	**-**
% Total	4.3%	40.0%	0.8%	0.1%	**45.2%**	-	0.5%	41.6%	2.8%	0.2%	**45.0%**	-	0.7%	0.1%	0.5%	0%	**1.3%**	-	3.1%	0.1%	5.3%	0%	**8.5%**	-	**-**
Motorcycles	10	112	0	1	**123**	-	0	133	6	1	**140**	-	0	0	0	0	**0**	-	12	0	11	0	**23**	-	286
% Motorcycles	1.2%	1.5%	0%	10.0%	**1.5%**	-	0%	1.7%	1.1%	2.9%	**1.7%**	-	0%	0%	0%	0%	**0%**	-	2.1%	0%	1.1%	0%	**1.5%**	-	1.5%
Lights	794	7142	141	9	**8086**	-	81	7419	502	34	**8036**	-	127	13	87	0	**227**	-	555	8	968	2	**1533**	-	17882
% Lights	97.8%	95.5%	93.4%	90.0%	**95.6%**	-	95.3%	95.5%	95.8%	97.1%	**95.5%**	-	96.2%	92.9%	93.5%	0%	**95.0%**	-	96.4%	80.0%	97.4%	100%	**96.9%**	-	95.7%
Single-Unit Trucks	4	123	5	0	**132**	-	3	104	7	0	**114**	-	2	1	2	0	**5**	-	5	0	6	0	**11**	-	262
% Single-Unit Trucks	0.5%	1.6%	3.3%	0%	**1.6%**	-	3.5%	1.3%	1.3%	0%	**1.4%**	-	1.5%	7.1%	2.2%	0%	**2.1%**	-	0.9%	0%	0.6%	0%	**0.7%**	-	1.4%
Articulated Trucks	2	32	2	0	**36**	-	0	28	0	0	**28**	-	2	0	1	0	**3**	-	0	0	2	0	**2**	-	69
% Articulated Trucks	0.2%	0.4%	1.3%	0%	**0.4%**	-	0%	0.4%	0%	0%	**0.3%**	-	1.5%	0%	1.1%	0%	**1.3%**	-	0%	0%	0.2%	0%	**0.1%**	-	0.4%
Buses	2	51	1	0	**54**	-	0	73	6	0	**79**	-	1	0	1	0	**2**	-	3	2	3	0	**8**	-	143
% Buses	0.2%	0.7%	0.7%	0%	**0.6%**	-	0%	0.9%	1.1%	0%	**0.9%**	-	0.8%	0%	1.1%	0%	**0.8%**	-	0.5%	20.0%	0.3%	0%	**0.5%**	-	0.8%
Bicycles on Road	0	22	2	0	**24**	-	1	10	3	0	**14**	-	0	0	2	0	**2**	-	1	0	4	0	**5**	-	45
% Bicycles on Road	0%	0.3%	1.3%	0%	**0.3%**	-	1.2%	0.1%	0.6%	0%	**0.2%**	-	0%	0%	2.2%	0%	**0.8%**	-	0.2%	0%	0.4%	0%	**0.3%**	-	0.2%
Pedestrians	-	-	-	-	-	38	-	-	-	-	-	29	-	-	-	-	-	34	-	-	-	-	-	40	
% Pedestrians	-	-	-	-	-	95.0%	-	-	-	-	-	96.7%	-	-	-	-	-	70.8%	-	-	-	-	-	85.1%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	14	-	-	-	-	-	7	
% Bicycles on Crosswalk	-	-	-	-	-	5.0%	-	-	-	-	-	3.3%	-	-	-	-	-	29.2%	-	-	-	-	-	14.9%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC
Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC

Thu Oct 6, 2022
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

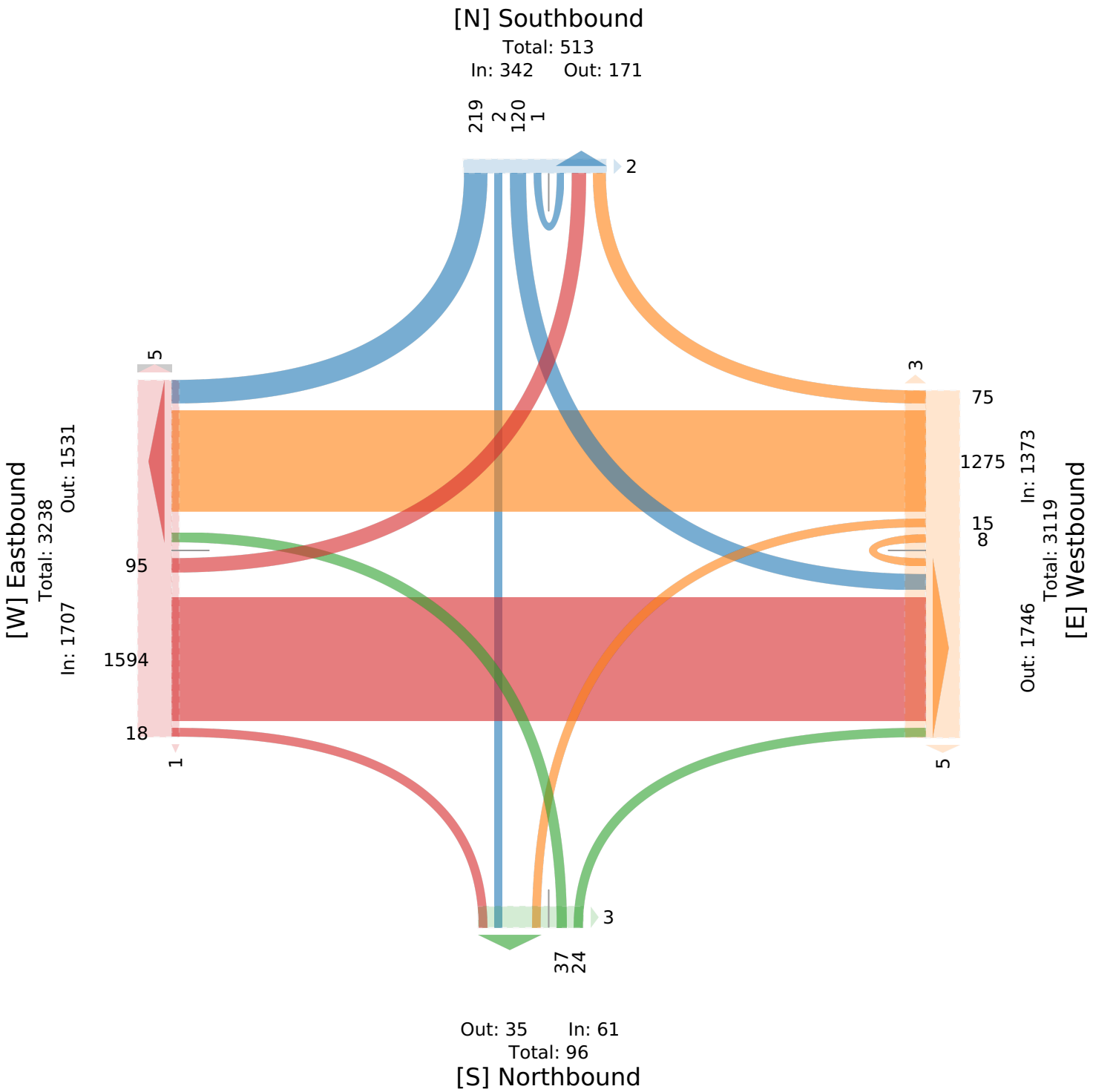
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-10-06 8:00AM	28	361	2	0	**391**	5	5	285	15	1	**306**	1	12	0	8	0	**20**	2	37	1	54	0	**92**	2	**809**
8:15AM	21	420	7	0	**448**	1	1	321	15	2	**339**	2	6	0	7	0	**13**	0	27	1	54	1	**83**	0	**883**
8:30AM	24	406	5	0	**435**	0	4	354	25	3	**386**	1	13	0	7	0	**20**	1	29	0	60	0	**89**	0	**930**
8:45AM	22	407	4	0	**433**	0	5	315	20	2	**342**	4	6	0	2	0	**8**	0	27	0	51	0	**78**	0	**861**
Total	95	1594	18	0	**1707**	6	15	1275	75	8	**1373**	8	37	0	24	0	**61**	3	120	2	219	1	**342**	2	**3483**
% Approach	5.6%	93.4%	1.1%	0%	**-**	-	1.1%	92.9%	5.5%	0.6%	**-**	-	60.7%	0%	39.3%	0%	**-**	-	35.1%	0.6%	64.0%	0.3%	**-**	-	-
% Total	2.7%	45.8%	0.5%	0%	**49.0%**	-	0.4%	36.6%	2.2%	0.2%	**39.4%**	-	1.1%	0%	0.7%	0%	**1.8%**	-	3.4%	0.1%	6.3%	0%	**9.8%**	-	-
PHF	0.848	0.947	0.643	-	**0.951**	-	0.750	0.900	0.730	0.667	**0.887**	-	0.712	-	0.750	-	**0.763**	-	0.804	0.500	0.904	0.250	**0.921**	-	0.935
Motorcycles	1	18	0	0	**19**	-	0	17	1	0	**18**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	38
% Motorcycles	1.1%	1.1%	0%	0%	**1.1%**	-	0%	1.3%	1.3%	0%	**1.3%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.5%	0%	**0.3%**	-	1.1%
Lights	91	1506	18	0	**1615**	-	14	1229	70	8	**1321**	-	37	0	23	0	**60**	-	118	1	214	1	**334**	-	3330
% Lights	95.8%	94.5%	100%	0%	**94.6%**	-	93.3%	96.4%	93.3%	100%	**96.2%**	-	100%	0%	95.8%	0%	**98.4%**	-	98.3%	50.0%	97.7%	100%	**97.7%**	-	95.6%
Single-Unit Trucks	2	41	0	0	**43**	-	1	12	1	0	**14**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	58
% Single-Unit Trucks	2.1%	2.6%	0%	0%	**2.5%**	-	6.7%	0.9%	1.3%	0%	**1.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.5%	0%	**0.3%**	-	1.7%
Articulated Trucks	1	14	0	0	**15**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	18
% Articulated Trucks	1.1%	0.9%	0%	0%	**0.9%**	-	0%	0.2%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.5%	0%	**0.3%**	-	0.5%
Buses	0	9	0	0	**9**	-	0	14	1	0	**15**	-	0	0	1	0	**1**	-	1	1	0	0	**2**	-	27
% Buses	0%	0.6%	0%	0%	**0.5%**	-	0%	1.1%	1.3%	0%	**1.1%**	-	0%	0%	4.2%	0%	**1.6%**	-	0.8%	50.0%	0%	0%	**0.6%**	-	0.8%
Bicycles on Road	0	6	0	0	**6**	-	0	1	2	0	**3**	-	0	0	0	0	**0**	-	1	0	2	0	**3**	-	12
% Bicycles on Road	0%	0.4%	0%	0%	**0.4%**	-	0%	0.1%	2.7%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.8%	0%	0.9%	0%	**0.9%**	-	0.3%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	87.5%	-	-	-	-	-	66.7%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	12.5%	-	-	-	-	-	33.3%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC
Thu Oct 6, 2022
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC

Thu Oct 6, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

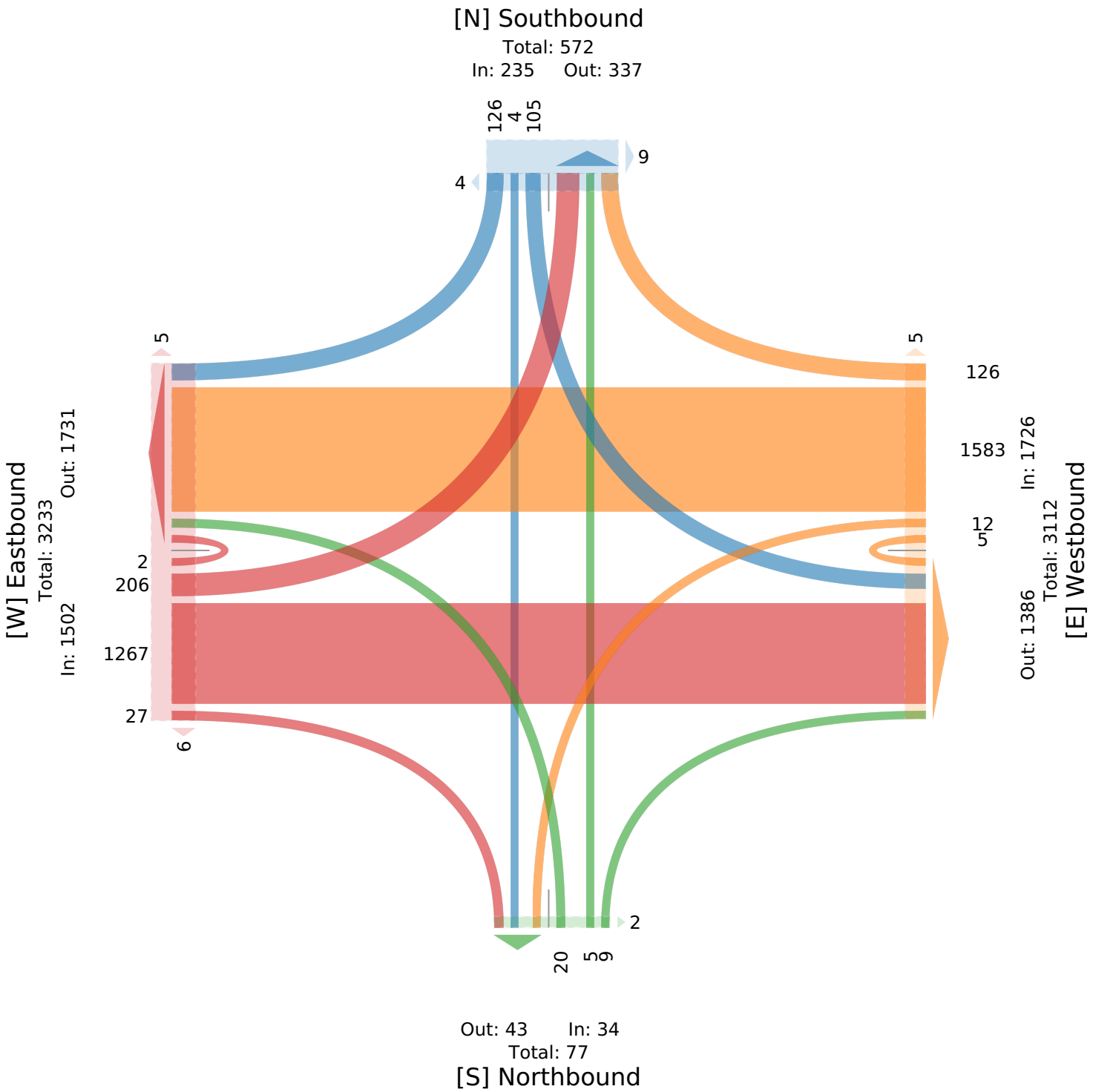
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						Northbound						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2022-10-06 5:00PM	52	317	5	0	**374**	5	5	398	26	1	**430**	1	7	1	2	0	**10**	0	22	1	27	0	**50**	2	**864**
5:15PM	53	329	8	2	**392**	2	4	439	30	1	**474**	1	3	4	4	0	**11**	1	30	3	34	0	**67**	4	**944**
5:30PM	44	310	6	0	**360**	2	3	386	30	2	**421**	1	4	0	0	0	**4**	0	27	0	32	0	**59**	4	**844**
5:45PM	57	311	8	0	**376**	2	0	360	40	1	**401**	2	6	0	3	0	**9**	1	26	0	33	0	**59**	3	**845**
Total	206	1267	27	2	**1502**	11	12	1583	126	5	**1726**	5	20	5	9	0	**34**	2	105	4	126	0	**235**	13	**3497**
% Approach	13.7%	84.4%	1.8%	0.1%	**-**	-	0.7%	91.7%	7.3%	0.3%	**-**	-	58.8%	14.7%	26.5%	0%	**-**	-	44.7%	1.7%	53.6%	0%	**-**	-	-
% Total	5.9%	36.2%	0.8%	0.1%	**43.0%**	-	0.3%	45.3%	3.6%	0.1%	**49.4%**	-	0.6%	0.1%	0.3%	0%	**1.0%**	-	3.0%	0.1%	3.6%	0%	**6.7%**	-	-
PHF	0.904	0.965	0.844	0.250	**0.960**	-	0.600	0.901	0.788	0.625	**0.910**	-	0.714	0.313	0.563	-	**0.773**	-	0.875	0.333	0.926	-	**0.877**	-	0.927
Motorcycles	5	20	0	0	**25**	-	0	24	1	0	**25**	-	0	0	0	0	**0**	-	3	0	1	0	**4**	-	54
% Motorcycles	2.4%	1.6%	0%	0%	**1.7%**	-	0%	1.5%	0.8%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	2.9%	0%	0.8%	0%	**1.7%**	-	1.5%
Lights	200	1222	25	2	**1449**	-	11	1512	125	5	**1653**	-	18	5	9	0	**32**	-	102	4	124	0	**230**	-	3364
% Lights	97.1%	96.4%	92.6%	100%	**96.5%**	-	91.7%	95.5%	99.2%	100%	**95.8%**	-	90.0%	100%	100%	0%	**94.1%**	-	97.1%	100%	98.4%	0%	**97.9%**	-	96.2%
Single-Unit Trucks	1	5	1	0	**7**	-	1	23	0	0	**24**	-	2	0	0	0	**2**	-	0	0	1	0	**1**	-	34
% Single-Unit Trucks	0.5%	0.4%	3.7%	0%	**0.5%**	-	8.3%	1.5%	0%	0%	**1.4%**	-	10.0%	0%	0%	0%	**5.9%**	-	0%	0%	0.8%	0%	**0.4%**	-	1.0%
Articulated Trucks	0	1	0	0	**1**	-	0	9	0	0	**9**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	10
% Articulated Trucks	0%	0.1%	0%	0%	**0.1%**	-	0%	0.6%	0%	0%	**0.5%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Buses	0	10	1	0	**11**	-	0	15	0	0	**15**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	26
% Buses	0%	0.8%	3.7%	0%	**0.7%**	-	0%	0.9%	0%	0%	**0.9%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.7%
Bicycles on Road	0	9	0	0	**9**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	9
% Bicycles on Road	0%	0.7%	0%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	-	11	-	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	13	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79 Street and Harbor Island Dr/Nor... - TMC
Thu Oct 6, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003711, Location: 25.848416, -80.158627

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79th Street West of Adventure Ave ... - TMC

Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

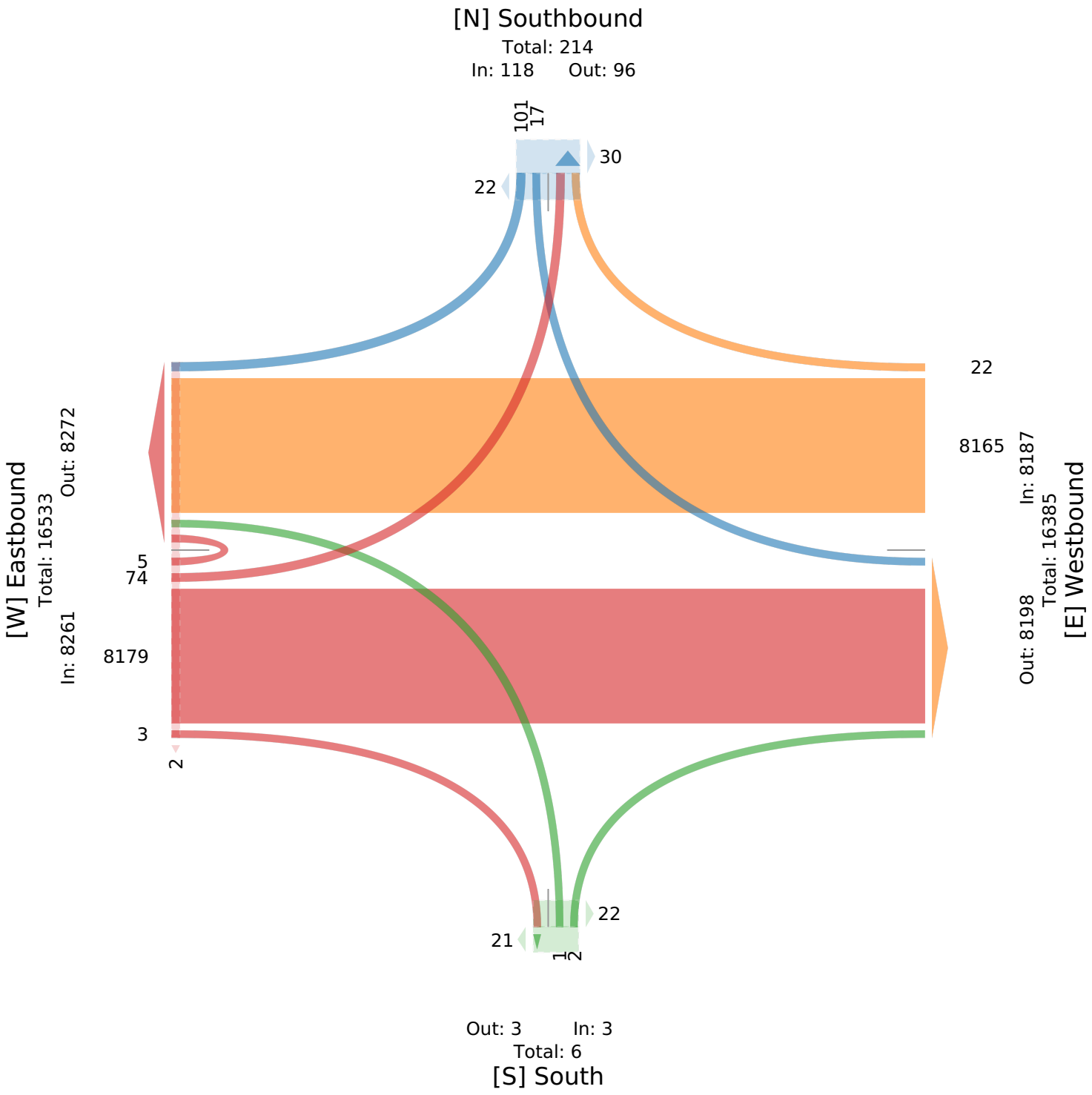
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						South						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-10-06 7:00AM	2	208	0	0	**210**	0	0	242	1	0	**243**	0	0	0	0	0	**0**	2	0	0	1	0	**1**	3	**454**
7:15AM	3	258	1	0	**262**	0	0	299	0	0	**299**	0	0	0	1	0	**1**	2	2	0	2	0	**4**	6	**566**
7:30AM	0	289	0	0	**289**	0	0	326	2	0	**328**	0	0	0	0	0	**0**	2	0	0	0	0	**0**	5	**617**
7:45AM	0	398	0	0	**398**	0	0	320	0	0	**320**	0	0	0	0	0	**0**	1	0	0	1	0	**1**	1	**719**
Hourly Total	5	1153	1	0	**1159**	0	0	1187	3	0	**1190**	0	0	0	1	0	**1**	7	2	0	4	0	**6**	15	**2356**
8:00AM	2	437	0	1	**440**	0	0	311	3	0	**314**	0	0	0	0	0	**0**	1	0	0	2	0	**2**	1	**756**
8:15AM	3	452	0	0	**455**	0	0	354	1	0	**355**	0	0	0	0	0	**0**	2	1	0	4	0	**5**	2	**815**
8:30AM	4	439	0	0	**443**	0	0	377	2	0	**379**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	4	**824**
8:45AM	5	416	0	1	**422**	1	0	342	0	0	**342**	0	0	0	0	0	**0**	2	0	0	3	0	**3**	1	**767**
Hourly Total	14	1744	0	2	**1760**	1	0	1384	6	0	**1390**	0	0	0	0	0	**0**	5	1	0	11	0	**12**	8	**3162**
9:00AM	14	340	0	0	**354**	0	0	306	0	0	**306**	0	0	0	0	0	**0**	1	0	0	1	0	**1**	1	**661**
9:15AM	9	327	0	0	**336**	0	0	286	2	0	**288**	0	0	0	0	0	**0**	2	2	0	0	0	**2**	0	**626**
9:30AM	4	339	0	0	**343**	0	0	287	2	0	**289**	0	0	0	0	0	**0**	8	1	0	1	0	**2**	4	**634**
9:45AM	8	297	0	0	**305**	0	0	265	1	0	**266**	0	0	0	0	0	**0**	1	1	0	0	0	**1**	4	**572**
Hourly Total	35	1303	0	0	**1338**	0	0	1144	5	0	**1149**	0	0	0	0	0	**0**	12	4	0	2	0	**6**	9	**2493**
4:00PM	2	310	1	1	**314**	0	0	411	1	0	**412**	0	0	0	0	0	**0**	0	0	0	5	0	**5**	3	**731**
4:15PM	2	349	0	1	**352**	0	0	379	2	0	**381**	0	0	0	0	0	**0**	2	0	0	4	0	**4**	0	**737**
4:30PM	1	323	0	0	**324**	0	0	421	0	0	**421**	0	1	0	0	0	**1**	0	1	0	1	0	**2**	1	**748**
4:45PM	1	274	0	0	**275**	0	0	409	1	0	**410**	0	0	0	0	0	**0**	2	0	0	6	0	**6**	1	**691**
Hourly Total	6	1256	1	2	**1265**	0	0	1620	4	0	**1624**	0	1	0	0	0	**1**	4	1	0	16	0	**17**	5	**2907**
5:00PM	3	343	1	0	**347**	0	0	414	2	0	**416**	0	0	0	1	0	**1**	0	1	0	8	0	**9**	1	**773**
5:15PM	3	330	0	0	**333**	0	0	372	0	0	**372**	0	0	0	0	0	**0**	1	0	0	9	0	**9**	0	**714**
5:30PM	0	358	0	0	**358**	0	0	327	0	0	**327**	0	0	0	0	0	**0**	3	0	0	6	0	**6**	3	**691**
5:45PM	1	330	0	0	**331**	1	0	318	0	0	**318**	0	0	0	0	0	**0**	2	2	0	5	0	**7**	2	**656**
Hourly Total	7	1361	1	0	**1369**	1	0	1431	2	0	**1433**	0	0	0	1	0	**1**	6	3	0	28	0	**31**	6	**2834**
6:00PM	1	135	0	0	**136**	0	0	342	0	0	**342**	0	0	0	0	0	**0**	1	3	0	18	0	**21**	0	**499**
6:15PM	2	546	0	1	**549**	0	0	418	0	0	**418**	0	0	0	0	0	**0**	3	1	0	8	0	**9**	1	**976**
6:30PM	0	319	0	0	**319**	0	0	311	1	0	**312**	0	0	0	0	0	**0**	3	1	0	10	0	**11**	5	**642**
6:45PM	4	362	0	0	**366**	0	0	328	1	0	**329**	0	0	0	0	0	**0**	2	1	0	4	0	**5**	3	**700**
Hourly Total	7	1362	0	1	**1370**	0	0	1399	2	0	**1401**	0	0	0	0	0	**0**	9	6	0	40	0	**46**	9	**2817**
Total	74	8179	3	5	**8261**	2	0	8165	22	0	**8187**	0	1	0	2	0	**3**	43	17	0	101	0	**118**	52	**16569**
% Approach	0.9%	99.0%	0%	0.1%	**-**	-	0%	99.7%	0.3%	0%	**-**	-	33.3%	0%	66.7%	0%	**-**	-	14.4%	0%	85.6%	0%	**-**	-	-
% Total	0.4%	49.4%	0%	0%	**49.9%**	-	0%	49.3%	0.1%	0%	**49.4%**	-	0%	0%	0%	0%	**0%**	-	0.1%	0%	0.6%	0%	**0.7%**	-	-
Motorcycles	1	141	0	0	**142**	-	0	130	1	0	**131**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	274
% Motorcycles	1.4%	1.7%	0%	0%	**1.7%**	-	0%	1.6%	4.5%	0%	**1.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	1.0%	0%	**0.8%**	-	1.7%
Lights	71	7804	3	5	**7883**	-	0	7810	19	0	**7829**	-	1	0	2	0	**3**	-	16	0	98	0	**114**	-	15829
% Lights	95.9%	95.4%	100%	100%	**95.4%**	-	0%	95.7%	86.4%	0%	**95.6%**	-	100%	0%	100%	0%	**100%**	-	94.1%	0%	97.0%	0%	**96.6%**	-	95.5%
Single-Unit Trucks	2	106	0	0	**108**	-	0	104	2	0	**106**	-	0	0	0	0	**0**	-	1	0	2	0	**3**	-	217
% Single-Unit Trucks	2.7%	1.3%	0%	0%	**1.3%**	-	0%	1.3%	9.1%	0%	**1.3%**	-	0%	0%	0%	0%	**0%**	-	5.9%	0%	2.0%	0%	**2.5%**	-	1.3%
Articulated Trucks	0	25	0	0	**25**	-	0	33	0	0	**33**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	58
% Articulated Trucks	0%	0.3%	0%	0%	**0.3%**	-	0%	0.4%	0%	0%	**0.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Buses	0	61	0	0	**61**	-	0	75	0	0	**75**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	136
% Buses	0%	0.7%	0%	0%	**0.7%**	-	0%	0.9%	0%	0%	**0.9%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Bicycles on Road	0	42	0	0	**42**	-	0	13	0	0	**13**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	55
% Bicycles on Road	0%	0.5%	0%	0%	**0.5%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	33	-	-	-	-	-	37	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	76.7%	-	-	-	-	-	71.2%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	10	-	-	-	-	-	15	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	23.3%	-	-	-	-	-	28.8%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79th Street West of Adventure Ave ... - TMC
Thu Oct 6, 2022
Full Length (7 AM-10 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79th Street West of Adventure Ave ... - TMC

Thu Oct 6, 2022
AM Peak (8 AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

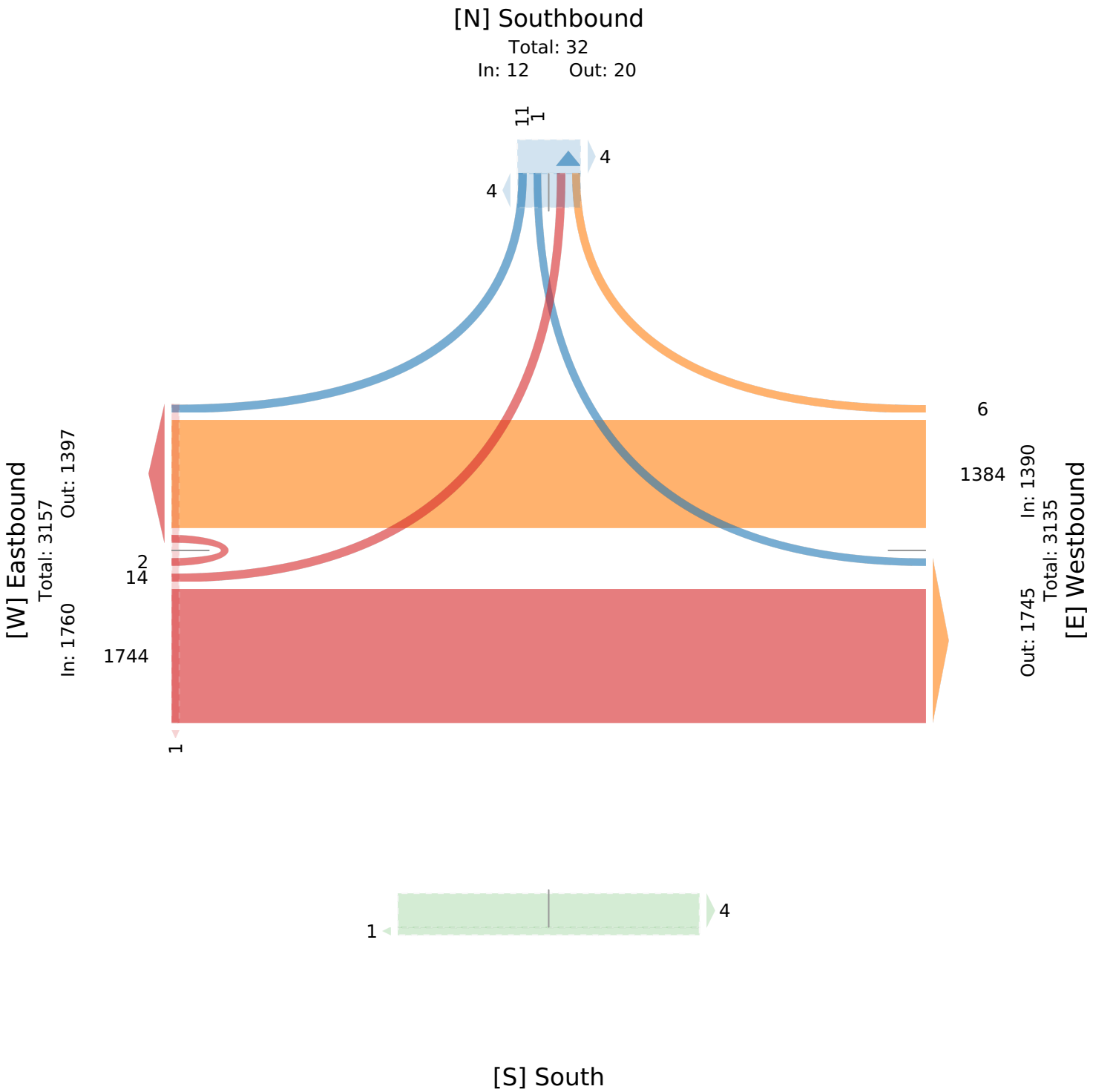
Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg Direction	Eastbound Eastbound						Westbound Westbound						South Northbound						Southbound Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2022-10-06 8:00AM	2	437	0	1	**440**	0	0	311	3	0	**314**	0	0	0	0	0	**0**	1	0	0	2	0	**2**	1	**756**
8:15AM	3	452	0	0	**455**	0	0	354	1	0	**355**	0	0	0	0	0	**0**	2	1	0	4	0	**5**	2	**815**
8:30AM	4	439	0	0	**443**	0	0	377	2	0	**379**	0	0	0	0	0	**0**	0	0	0	2	0	**2**	4	**824**
8:45AM	5	416	0	1	**422**	1	0	342	0	0	**342**	0	0	0	0	0	**0**	2	0	0	3	0	**3**	1	**767**
Total	14	1744	0	2	**1760**	1	0	1384	6	0	**1390**	0	0	0	0	0	**0**	5	1	0	11	0	**12**	8	**3162**
% Approach	0.8%	99.1%	0%	0.1%	**-**	-	0%	99.6%	0.4%	0%	**-**	-	0%	0%	0%	0%	**-**	-	8.3%	0%	91.7%	0%	**-**	-	-
% Total	0.4%	55.2%	0%	0.1%	**55.7%**	-	0%	43.8%	0.2%	0%	**44.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.3%	0%	**0.4%**	-	-
PHF	0.700	0.963	-	0.500	**0.965**	-	-	0.914	0.500	-	**0.914**	-	-	-	-	-	**-**	-	0.250	-	0.688	-	**0.600**	-	0.958
Motorcycles	0	21	0	0	**21**	-	0	16	0	0	**16**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	37
% Motorcycles	0%	1.2%	0%	0%	**1.2%**	-	0%	1.2%	0%	0%	**1.2%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	1.2%
Lights	14	1656	0	2	**1672**	-	0	1335	5	0	**1340**	-	0	0	0	0	**0**	-	1	0	10	0	**11**	-	3023
% Lights	100%	95.0%	0%	100%	**95.0%**	-	0%	96.5%	83.3%	0%	**96.4%**	-	0%	0%	0%	0%	**-**	-	100%	0%	90.9%	0%	**91.7%**	-	95.6%
Single-Unit Trucks	0	32	0	0	**32**	-	0	13	1	0	**14**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	47
% Single-Unit Trucks	0%	1.8%	0%	0%	**1.8%**	-	0%	0.9%	16.7%	0%	**1.0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	9.1%	0%	**8.3%**	-	1.5%
Articulated Trucks	0	11	0	0	**11**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	12
% Articulated Trucks	0%	0.6%	0%	0%	**0.6%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0.4%
Buses	0	13	0	0	**13**	-	0	14	0	0	**14**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	27
% Buses	0%	0.7%	0%	0%	**0.7%**	-	0%	1.0%	0%	0%	**1.0%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0.9%
Bicycles on Road	0	11	0	0	**11**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	16
% Bicycles on Road	0%	0.6%	0%	0%	**0.6%**	-	0%	0.4%	0%	0%	**0.4%**	-	0%	0%	0%	0%	**-**	-	0%	0%	0%	0%	**0%**	-	0.5%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	8	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	80.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	20.0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79th Street West of Adventure Ave ... - TMC
Thu Oct 6, 2022
AM Peak (8 AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



SR 934-NE 79th Street West of Adventure Ave ... - TMC

Thu Oct 6, 2022
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

Provided by: Metric Engineering
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US

Leg	Eastbound						Westbound						South						Southbound						
Direction	Eastbound						Westbound						Northbound						Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2022-10-06 4:15PM	2	349	0	1	**352**	0	0	379	2	0	**381**	0	0	0	0	0	**0**	2	0	0	4	0	**4**	0	**737**
4:30PM	1	323	0	0	**324**	0	0	421	0	0	**421**	0	1	0	0	0	**1**	0	1	0	1	0	**2**	1	**748**
4:45PM	1	274	0	0	**275**	0	0	409	1	0	**410**	0	0	0	0	0	**0**	2	0	0	6	0	**6**	1	**691**
5:00PM	3	343	1	0	**347**	0	0	414	2	0	**416**	0	0	0	1	0	**1**	0	1	0	8	0	**9**	1	**773**
Total	7	1289	1	1	**1298**	0	0	1623	5	0	**1628**	0	1	0	1	0	**2**	4	2	0	19	0	**21**	3	**2949**
% Approach	0.5%	99.3%	0.1%	0.1%	**-**	-	0%	99.7%	0.3%	0%	**-**	-	50.0%	0%	50.0%	0%	**-**	-	9.5%	0%	90.5%	0%	**-**	-	-
% Total	0.2%	43.7%	0%	0%	**44.0%**	-	0%	55.0%	0.2%	0%	**55.2%**	-	0%	0%	0%	0%	**0.1%**	-	0.1%	0%	0.6%	0%	**0.7%**	-	-
PHF	0.583	0.923	0.250	0.250	**0.922**	-	-	0.963	0.625	-	**0.966**	-	0.250	-	0.250	-	**0.500**	-	0.500	-	0.594	-	**0.583**	-	0.952
Motorcycles	0	27	0	0	**27**	-	0	27	1	0	**28**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	56
% Motorcycles	0%	2.1%	0%	0%	**2.1%**	-	0%	1.7%	20.0%	0%	**1.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	5.3%	0%	**4.8%**	-	1.9%
Lights	7	1241	1	1	**1250**	-	0	1536	4	0	**1540**	-	1	0	1	0	**2**	-	2	0	18	0	**20**	-	2812
% Lights	100%	96.3%	100%	100%	**96.3%**	-	0%	94.6%	80.0%	0%	**94.6%**	-	100%	0%	100%	0%	**100%**	-	100%	0%	94.7%	0%	**95.2%**	-	95.4%
Single-Unit Trucks	0	3	0	0	**3**	-	0	33	0	0	**33**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	36
% Single-Unit Trucks	0%	0.2%	0%	0%	**0.2%**	-	0%	2.0%	0%	0%	**2.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Articulated Trucks	0	1	0	0	**1**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	4
% Articulated Trucks	0%	0.1%	0%	0%	**0.1%**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Buses	0	13	0	0	**13**	-	0	23	0	0	**23**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	36
% Buses	0%	1.0%	0%	0%	**1.0%**	-	0%	1.4%	0%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Bicycles on Road	0	4	0	0	**4**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	5
% Bicycles on Road	0%	0.3%	0%	0%	**0.3%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

SR 934-NE 79th Street West of Adventure Ave ... - TMC
Thu Oct 6, 2022
PM Peak (4:15 PM - 5:15 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1003709, Location: 25.848638, -80.154739

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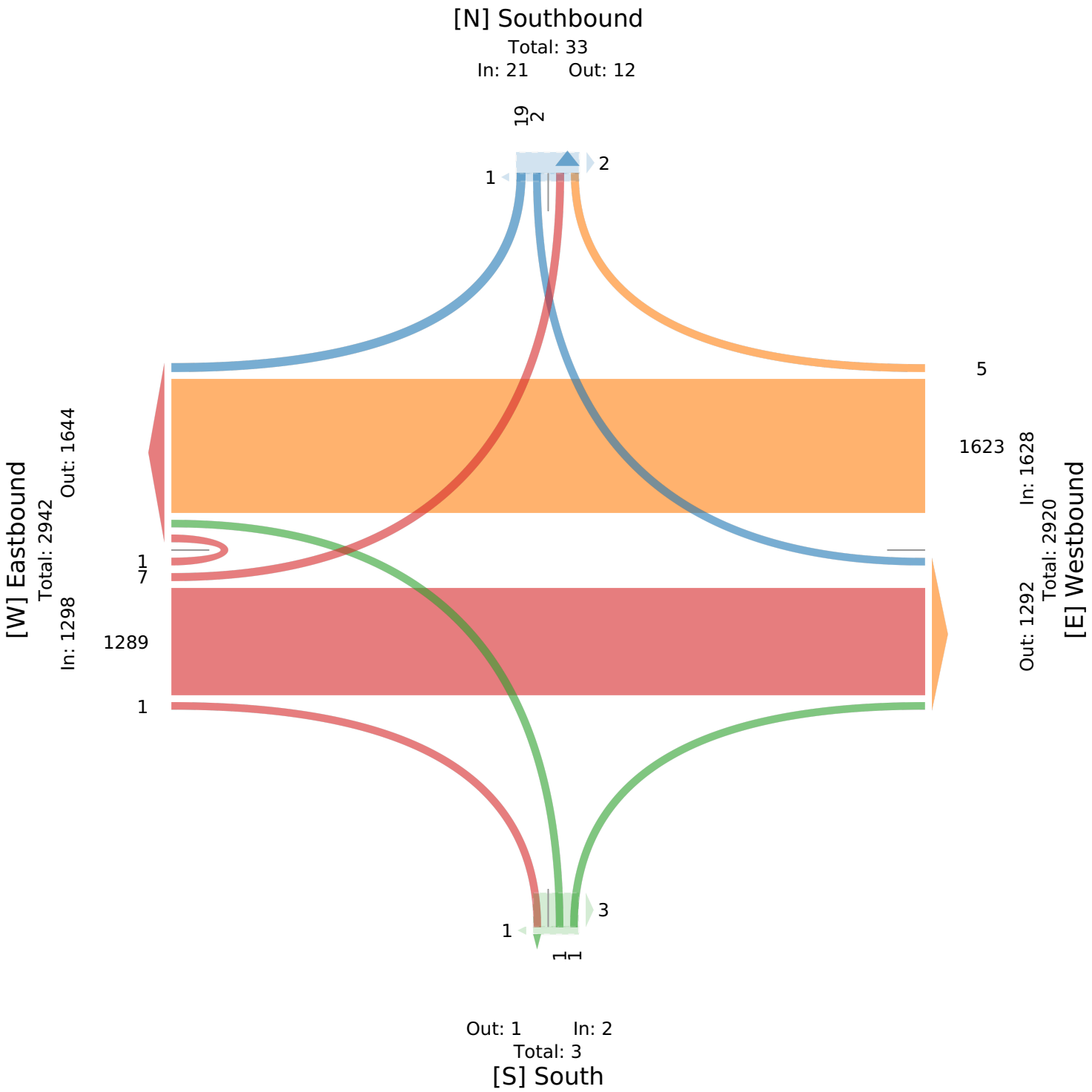
13940 SW 136th Street, Suite 200,
Miami, FL, 33186, US



Turning Movement Counts Summary

Truck Percentage

AM Peak (8:00 AM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	0.000	0.000	0.034	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SR 934 at North Bay Dr	0.000	0.032	0.040	0.000	0.000	0.067	0.022	0.027	0.000	0.000	0.000	0.042	0.000	0.008	0.500	0.009
SR 934 at Channel 7	0.000	0.000	0.032	0.000	0.000	0.000	0.020	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.091
SR 934 at Adventure Ave	0.000	0.000	0.037	0.024	0.000	0.000	0.020	0.000	0.000	0.022	0.000	0.043	0.000	0.000	0.000	0.000

PM Peak (5:00 PM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	0.000	0.200	0.010	0.000	0.400	0.000	0.031	0.167	0.000	0.071	0.000	0.000	0.000	0.250	0.000	0.050
SR 934 at North Bay Dr	0.000	0.005	0.013	0.074	0.000	0.083	0.030	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.008
SR 934 at Channel 7	0.000	0.000	0.011	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SR 934 at Adventure Ave	0.000	0.000	0.014	0.019	0.000	0.024	0.023	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.000

Total Vehicles

AM Peak (8:00 AM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	1	10	1698	2	2	2	1560	3	0	3	1	3	0	0	3	8
SR 934 at North Bay Dr	0	95	1594	18	8	15	1275	75	0	37	0	24	1	120	2	219
SR 934 at Channel 7	2	14	1744	0	0	0	1384	6	0	0	0	0	0	1	0	11
SR 934 at Adventure Ave	0		1549	82	7	40	1231		0	139		47				

PM Peak (5:00 PM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	4	5	1439	3	5	1	1654	6	0	14	0	1	0	4	0	20
SR 934 at North Bay Dr	2	206	1267	27	5	12	1583	126	0	20	5	9	0	105	4	126
SR 934 at Channel 7	0	7	1361	1	0	0	1431	2	0	0	0	1	0	3	0	28
SR 934 at Adventure Ave	0		1248	103	4	41	1499		0	112		40				

Heavy Vehicles

AM Peak (8:00 AM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	0	0	57	0	0	0	26	0	0	0	0	0	0	0	0	0
SR 934 at North Bay Dr	0	3	64	0	0	1	28	2	0	0	0	1	0	1	1	2
SR 934 at Channel 7	0	0	56	0	0	0	28	1	0	0	0	0	0	0	0	1
SR 934 at Adventure Ave	0		58	2	0	0	25		0	3		2				

PM Peak (5:00 PM)

Intersection	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
SR 934 at Pelican Harbor Dr	0	1	14	0	2	0	51	1	0	1	0	0	0	1	0	1
SR 934 at North Bay Dr	0	1	16	2	0	1	47	0	0	2	0	0	0	0	0	1
SR 934 at Channel 7	0	0	15	0	0	0	57	0	0	0	0	0	0	0	0	0
SR 934 at Adventure Ave	0		18	2	0	1	35		0	2		0				

Turning Movement Counts Summary

Start Time	Global Intersection Totals	Hourly Total
2022-10-06 07:00:00	2,174	10,476
2022-10-06 07:15:00	2,599	11,459
2022-10-06 07:30:00	2,734	12,145
2022-10-06 07:45:00	2,969	12,818
2022-10-06 08:00:00	3,157	12,988
2022-10-06 08:15:00	3,285	12,650
2022-10-06 08:30:00	3,407	12,006
2022-10-06 08:45:00	3,139	11,304
2022-10-06 09:00:00	2,819	10,575
2022-10-06 09:15:00	2,641	
2022-10-06 09:30:00	2,705	
2022-10-06 09:45:00	2,410	
2022-10-06 16:00:00	2,833	11,641
2022-10-06 16:15:00	2,899	12,013
2022-10-06 16:30:00	3,018	12,370
2022-10-06 16:45:00	2,891	12,484
2022-10-06 17:00:00	3,205	12,582
2022-10-06 17:15:00	3,256	11,505
2022-10-06 17:30:00	3,132	12,068
2022-10-06 17:45:00	2,989	11,754
2022-10-06 18:00:00	2,128	11,544
2022-10-06 18:15:00	3,819	
2022-10-06 18:30:00	2,818	
2022-10-06 18:45:00	2,779	

2030 & 2050

Forecasted TMCs

AM Peak (8:00 AM) (2030)																
Intersection	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
SR 934 at Pelican Harbor Dr	2	21	2,000	16	9	9	1,784	11	0	12	4	13	0	4	9	14
SR 934 at North Bay Dr	0	154	1,850	22	8	15	1,520	109	0	40	3	25	0	135	5	253
SR 934 at Channel 7	3	26	1,989		0		1,612	15					0	8		37
SR 934 at Adventure Ave	0		1,917	80	7	43	1,496		0	131		55				

PM Peak (5:00 PM) (2030)																
Intersection	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
SR 934 at Pelican Harbor Dr	5	7	1,858	11	15	2	2,033	13	0	37	5	6	0	9	4	30
SR 934 at North Bay Dr	3	252	1,591	42	7	19	1,877	149	0	28	8	13	0	114	6	155
SR 934 at Channel 7	0	11	1,714		0		2,015	6					0	8		37
SR 934 at Adventure Ave	0		1,600	122	19	48	1,916		0	105		41				

AM Peak (8:00 AM) (2050)																
Intersection	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
SR 934 at Pelican Harbor Dr	2	23	2,236	18	10	10	1,995	12	0	13	5	14	0	4	10	16
SR 934 at North Bay Dr	0	172	2,067	25	9	17	1,699	122	0	45	3	28	0	151	6	283
SR 934 at Channel 7	3	29	2,223		0		1,803	17					0	9		41
SR 934 at Adventure Ave	0		2,143	89	8	48	1,673		0	147		62				

PM Peak (5:00 PM) (2050)																
Intersection	**EBU**	**EBL**	**EBT**	**EBR**	**WBU**	**WBL**	**WBT**	**WBR**	**NBU**	**NBL**	**NBT**	**NBR**	**SBU**	**SBL**	**SBT**	**SBR**
SR 934 at Pelican Harbor Dr	6	8	2,077	12	17	2	2,271	14	0	41	6	7	0	10	4	33
SR 934 at North Bay Dr	3	282	1,779	47	8	21	2,097	167	0	31	9	14	0	127	7	173
SR 934 at Channel 7	0	12	1,916		0		2,252	7					0	9		41
SR 934 at Adventure Ave	0		1,789	136	21	54	2,142		0	117		46				

Appendix B.

Florida Traffic Online Data

Peak Season Factor

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.98

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	1.01	1.03
2	01/03/2021 - 01/09/2021	1.05	1.07
3	01/10/2021 - 01/16/2021	1.08	1.10
4	01/17/2021 - 01/23/2021	1.07	1.09
5	01/24/2021 - 01/30/2021	1.07	1.09
6	01/31/2021 - 02/06/2021	1.06	1.08
7	02/07/2021 - 02/13/2021	1.05	1.07
8	02/14/2021 - 02/20/2021	1.05	1.07
9	02/21/2021 - 02/27/2021	1.04	1.06
10	02/28/2021 - 03/06/2021	1.03	1.05
11	03/07/2021 - 03/13/2021	1.02	1.04
12	03/14/2021 - 03/20/2021	1.02	1.04
13	03/21/2021 - 03/27/2021	1.01	1.03
14	03/28/2021 - 04/03/2021	0.99	1.01
15	04/04/2021 - 04/10/2021	0.98	1.00
16	04/11/2021 - 04/17/2021	0.97	0.99
17	04/18/2021 - 04/24/2021	0.97	0.99
18	04/25/2021 - 05/01/2021	0.97	0.99
19	05/02/2021 - 05/08/2021	0.98	1.00
20	05/09/2021 - 05/15/2021	0.98	1.00
21	05/16/2021 - 05/22/2021	0.98	1.00
22	05/23/2021 - 05/29/2021	0.99	1.01
23	05/30/2021 - 06/05/2021	1.00	1.02
24	06/06/2021 - 06/12/2021	1.01	1.03
25	06/13/2021 - 06/19/2021	1.02	1.04
26	06/20/2021 - 06/26/2021	1.01	1.03
27	06/27/2021 - 07/03/2021	1.01	1.03
28	07/04/2021 - 07/10/2021	1.00	1.02
29	07/11/2021 - 07/17/2021	0.99	1.01
30	07/18/2021 - 07/24/2021	0.99	1.01
31	07/25/2021 - 07/31/2021	0.99	1.01
32	08/01/2021 - 08/07/2021	0.99	1.01
33	08/08/2021 - 08/14/2021	0.99	1.01
34	08/15/2021 - 08/21/2021	0.99	1.01
35	08/22/2021 - 08/28/2021	0.99	1.01
*36	08/29/2021 - 09/04/2021	0.99	1.01
*37	09/05/2021 - 09/11/2021	0.99	1.01
*38	09/12/2021 - 09/18/2021	0.99	1.01
*39	09/19/2021 - 09/25/2021	0.98	1.00
*40	09/26/2021 - 10/02/2021	0.98	1.00
*41	10/03/2021 - 10/09/2021	0.97	0.99
*42	10/10/2021 - 10/16/2021	0.96	0.98
*43	10/17/2021 - 10/23/2021	0.96	0.98
*44	10/24/2021 - 10/30/2021	0.97	0.99
*45	10/31/2021 - 11/06/2021	0.97	0.99
*46	11/07/2021 - 11/13/2021	0.98	1.00
*47	11/14/2021 - 11/20/2021	0.99	1.01
*48	11/21/2021 - 11/27/2021	0.99	1.01
49	11/28/2021 - 12/04/2021	1.00	1.02
50	12/05/2021 - 12/11/2021	1.01	1.03
51	12/12/2021 - 12/18/2021	1.01	1.03
52	12/19/2021 - 12/25/2021	1.05	1.07
53	12/26/2021 - 12/31/2021	1.08	1.10

* PEAK SEASON

Weekly Axle Factor

2021 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: ALL

COUNTY: 87 - MIAMI-DADE

WEEK	DATES	8736 SR 825, 985	8737 SR 934	8738 SR 7/US 441, SR 933	8739 SR 25/OKEECHOBEE
1	01/01/2021 - 01/02/2021	0.99	0.96	0.99	0.89
2	01/03/2021 - 01/09/2021	0.99	0.96	0.99	0.89
3	01/10/2021 - 01/16/2021	0.99	0.96	0.99	0.89
4	01/17/2021 - 01/23/2021	0.99	0.96	0.99	0.89
5	01/24/2021 - 01/30/2021	0.99	0.96	0.99	0.89
6	01/31/2021 - 02/06/2021	0.99	0.96	0.99	0.89
7	02/07/2021 - 02/13/2021	0.99	0.96	0.99	0.89
8	02/14/2021 - 02/20/2021	0.99	0.96	0.99	0.89
9	02/21/2021 - 02/27/2021	0.99	0.96	0.99	0.89
10	02/28/2021 - 03/06/2021	0.99	0.96	0.99	0.89
11	03/07/2021 - 03/13/2021	0.99	0.96	0.99	0.88
12	03/14/2021 - 03/20/2021	0.99	0.96	0.99	0.88
13	03/21/2021 - 03/27/2021	0.99	0.96	0.99	0.88
14	03/28/2021 - 04/03/2021	0.99	0.96	0.99	0.88
15	04/04/2021 - 04/10/2021	0.99	0.96	0.99	0.88
16	04/11/2021 - 04/17/2021	0.99	0.96	0.99	0.88
17	04/18/2021 - 04/24/2021	0.99	0.96	0.99	0.88
18	04/25/2021 - 05/01/2021	0.99	0.96	0.99	0.89
19	05/02/2021 - 05/08/2021	0.99	0.96	0.99	0.89
20	05/09/2021 - 05/15/2021	0.99	0.96	0.99	0.89
21	05/16/2021 - 05/22/2021	0.99	0.96	0.99	0.89
22	05/23/2021 - 05/29/2021	0.99	0.96	0.99	0.88
23	05/30/2021 - 06/05/2021	0.99	0.96	0.99	0.88
24	06/06/2021 - 06/12/2021	0.99	0.96	0.99	0.87
25	06/13/2021 - 06/19/2021	0.99	0.96	0.99	0.87
26	06/20/2021 - 06/26/2021	0.99	0.96	0.99	0.88
27	06/27/2021 - 07/03/2021	0.99	0.96	0.99	0.89
28	07/04/2021 - 07/10/2021	0.99	0.96	0.99	0.90
29	07/11/2021 - 07/17/2021	0.99	0.96	0.99	0.91
30	07/18/2021 - 07/24/2021	0.99	0.96	0.99	0.91
31	07/25/2021 - 07/31/2021	0.99	0.96	0.99	0.90
32	08/01/2021 - 08/07/2021	0.99	0.96	0.99	0.90
33	08/08/2021 - 08/14/2021	0.99	0.96	0.99	0.89
34	08/15/2021 - 08/21/2021	0.99	0.96	0.99	0.89
35	08/22/2021 - 08/28/2021	0.99	0.96	0.99	0.89
36	08/29/2021 - 09/04/2021	0.99	0.96	0.99	0.89
37	09/05/2021 - 09/11/2021	0.99	0.96	0.99	0.89
38	09/12/2021 - 09/18/2021	0.99	0.96	0.99	0.89
39	09/19/2021 - 09/25/2021	0.99	0.96	0.99	0.89
40	09/26/2021 - 10/02/2021	0.99	0.96	0.99	0.89
41	10/03/2021 - 10/09/2021	0.99	0.96	0.99	0.89
42	10/10/2021 - 10/16/2021	0.99	0.96	0.99	0.89
43	10/17/2021 - 10/23/2021	0.99	0.96	0.99	0.90
44	10/24/2021 - 10/30/2021	0.99	0.96	0.99	0.91
45	10/31/2021 - 11/06/2021	0.99	0.96	0.99	0.92
46	11/07/2021 - 11/13/2021	0.99	0.96	0.99	0.93
47	11/14/2021 - 11/20/2021	0.99	0.96	0.99	0.94
48	11/21/2021 - 11/27/2021	0.99	0.96	0.99	0.93
49	11/28/2021 - 12/04/2021	0.99	0.96	0.99	0.92
50	12/05/2021 - 12/11/2021	0.99	0.96	0.99	0.90
51	12/12/2021 - 12/18/2021	0.99	0.96	0.99	0.89
52	12/19/2021 - 12/25/2021	0.99	0.96	0.99	0.89
53	12/26/2021 - 12/31/2021	0.99	0.96	0.99	0.89

Historical AADTs

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 1009 - SR 915/NE 6 AV, 400' N SR 5/US-1

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	9500 C	N 4500	S 5000	9.00	54.30	1.70
2020	7900 C	N 3900	S 4000	9.00	54.20	1.50
2019	10000 C	N 5000	S 5000	9.00	54.60	2.60
2018	9700 C	N 4800	S 4900	9.00	54.30	1.90
2017	8600 C	N 4300	S 4300	9.00	55.00	2.40
2016	9500 C	N 4500	S 5000	9.00	54.50	2.10
2015	9300 C	N 4600	S 4700	9.00	54.70	2.50
2014	7400 C	N 3600	S 3800	9.00	54.50	10.80
2013	7700 C	N 3500	S 4200	9.00	52.40	3.00
2012	8400 C	N 3900	S 4500	9.00	55.70	7.70
2011	8500 C	N 3900	S 4600	9.00	55.10	2.00
2010	8100 C	N 4000	S 4100	8.98	54.08	2.10
2009	6800 C	N 3200	S 3600	8.99	53.24	2.60
2008	10300 C	N 4900	S 5400	9.09	55.75	2.90
2007	10500 F	N 4800	S 5700	8.01	54.34	7.20
2006	10500 C	N 4800	S 5700	7.97	54.22	2.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5065 - SR 5/US-1, 120' N NE 71 ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	34000 C	N 16000	S 18000	9.00	54.30	5.40
2020	34000 C	N 16000	S 18000	9.00	54.20	3.90
2019	41000 C	N 18500	S 22500	9.00	54.60	7.70
2018	40500 C	N 18500	S 22000	9.00	54.30	5.80
2017	40000 C	N 18500	S 21500	9.00	55.00	8.70
2016	39000 C	N 16500	S 22500	9.00	54.50	4.70
2015	40000 C	N 18500	S 21500	9.00	54.70	6.50
2014	40000 C	N 19000	S 21000	9.00	54.50	12.20
2013	41000 C	N 20000	S 21000	9.00	52.40	6.10
2012	43000 C	N 20500	S 22500	9.00	55.70	4.60
2011	37500 C	N 17500	S 20000	9.00	55.10	2.80
2010	39000 C	N 18500	S 20500	8.98	54.08	2.80
2009	37500 C	N 18000	S 19500	8.99	53.24	5.30
2008	39000 C	N 17500	S 21500	9.09	55.75	5.70
2007	41000 F	N 19000	S 22000	8.01	54.34	12.90
2006	41000 C	N 19000	S 22000	7.97	54.22	12.90

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
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5068 - SR 5/US-1, 200' N NE 79 ST/SR 934

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	36000 C	N 17500	S 18500	9.00	54.30	3.70
2020	35000 C	N 16000	S 19000	9.00	54.20	3.20
2019	41000 C	N 18500	S 22500	9.00	54.60	4.70
2018	36000 C	N 17000	S 19000	9.00	54.30	4.90
2017	38500 E	N	S	9.00	55.00	4.50
2016	38500 C	N 18500	S 20000	9.00	54.50	5.10
2015	40500 C	N 20000	S 20500	9.00	54.70	4.20
2014	40500 C	N 21500	S 19000	9.00	54.50	5.10
2013	60000 C	N 31000	S 29000	9.00	52.40	5.20
2012	42000 C	N 20500	S 21500	9.00	55.70	5.80
2011	46000 C	N 22000	S 24000	9.00	55.10	4.50
2010	39000 C	N 19500	S 19500	8.98	54.08	4.40
2009	41500 C	N 20500	S 21000	8.99	53.24	3.40
2008	35000 C	N 17000	S 18000	9.09	55.75	3.70
2007	33000 F	N 16000	S 17000	8.01	54.34	3.10
2006	33000 C	N 16000	S 17000	7.97	54.22	4.90

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
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8351 - NE 2ND AVE, 200' NORTH OF NE 96TH STREET

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	11500 C	N 6100	S 5400	9.00	54.30	6.90
2020	11500 C	N 5800	S 5700	9.00	54.20	3.40
2019	12900 C	N 6500	S 6400	9.00	54.60	3.60
2018	10600 C	N 5500	S 5100	9.00	54.30	3.40
2017	11700 C	N 5900	S 5800	9.00	55.00	3.60
2016	13800 C	N 7900	S 5900	9.00	54.50	3.10
2015	13800 C	N 7800	S 6000	9.00	54.70	6.70
2014	12800 C	N 6700	S 6100	9.00	54.50	7.60
2013	15500 C	N 8400	S 7100	9.00	52.40	16.20

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
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2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8438 - NE 10 AVE, 200 FT S OF NE 89 ST (2011 OFF SYSTEM CYCLE)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	12000 T	N 6100	S 5900	9.00	55.00	4.50
2020	12600 S	N 6400	S 6200	9.00	56.00	3.20
2019	14200 F	N 7200	S 7000	9.00	56.00	3.10
2018	14400 C	N 7300	S 7100	9.00	54.30	4.10
2017	12600 T	N 6700	S 5900	9.00	59.30	2.90
2016	12800 S	N 6800	S 6000	9.00	56.10	2.80
2015	13000 F	N 6900	S 6100	9.00	57.40	4.70
2014	13200 C	N 7000	S 6200	9.00	59.30	7.70
2013	10500 F	0	0	9.00	58.90	16.20
2012	10500 C	N 0	S 0	9.00	59.70	16.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8707 - NE 2ND AVE 100 FT NORTH OF NE 71ST ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	10200 S	N 5100	S 5100	9.00	55.00	3.40
2020	10800 F	N 5400	S 5400	9.00	56.00	3.40
2019	12100 C	N 6000	S 6100	9.00	56.00	2.50
2018	9800 T	N 5800	S 4000	9.00	54.30	3.80
2017	11000 S	N 6500	S 4500	9.00	59.30	3.00
2016	11200 F	N 6600	S 4600	9.00	56.10	5.20
2015	11400 C	N 6700	S 4700	9.00	57.40	5.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8438 - NE 10 AVE, 200 FT S OF NE 89 ST (2011 OFF SYSTEM CYCLE)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	12000 T	N 6100	S 5900	9.00	55.00	4.50
2020	12600 S	N 6400	S 6200	9.00	56.00	3.20
2019	14200 F	N 7200	S 7000	9.00	56.00	3.10
2018	14400 C	N 7300	S 7100	9.00	54.30	4.10
2017	12600 T	N 6700	S 5900	9.00	59.30	2.90
2016	12800 S	N 6800	S 6000	9.00	56.10	2.80
2015	13000 F	N 6900	S 6100	9.00	57.40	4.70
2014	13200 C	N 7000	S 6200	9.00	59.30	7.70
2013	10500 F	0	0	9.00	58.90	16.20
2012	10500 C	N 0	S 0	9.00	59.70	16.00

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
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TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5189 - SR 934/71 ST, 200' W SR A1A/HARDING AV

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	9700 C	E 5300	W 4400	9.00	54.30	8.70
2020	8000 C	E 4500	W 3500	9.00	54.20	7.60
2019	10700 C	E 5600	W 5100	9.00	54.60	10.20
2018	10500 C	E 5400	W 5100	9.00	54.30	4.30
2017	10800 C	E 5300	W 5500	9.00	55.00	4.30
2016	11100 C	E 5600	W 5500	9.00	54.50	4.30
2015	11700 C	E 5900	W 5800	9.00	54.70	3.80
2014	12000 C	E 6100	W 5900	9.00	54.50	3.80
2013	11600 C	E 5900	W 5700	9.00	52.40	3.70
2012	16600 C	E 7100	W 9500	9.00	55.70	10.50
2011	12000 C	E 5900	W 6100	9.00	55.10	10.50
2010	13800 C	E 5900	W 7900	8.98	54.08	9.50
2009	14400 C	E 6500	W 7900	8.99	53.24	8.40
2008	13800 C	E 6200	W 7600	9.09	55.75	9.60
2007	13800 C	E 5900	W 7900	8.01	54.34	6.60
2006	12700 C	E 5800	W 6900	7.97	54.22	8.80

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

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TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0103 - NE 82ST/ONE-WAY-PAIR WB. 750' E NE 7 AVE.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	13500 C	W 13500	0	9.00	99.90	8.70
2020	15000 C	W 15000	0	9.00	99.90	7.60
2019	12500 C	W 12500	0	9.00	99.90	10.20
2018	12500 C	W 12500	0	9.00	99.90	8.50
2017	17000 C	W 17000	0	9.00	99.90	6.90
2016	13500 C	W 13500	0	9.00	99.90	7.20
2015	13000 C	W 13000	0	9.00	99.90	11.80
2014	14000 C	W 14000		9.00	99.90	10.40
2013	11500 C	W 11500	0	9.00	99.90	9.00
2012	11500 C	W 11500	0	9.00	99.90	10.50
2011	13000 C	W 13000	0	9.00	99.90	10.50
2010	10000 C	W 10000	0	8.98	99.99	9.50
2009	11500 C	W 11500	0	8.99	99.99	8.40
2008	11500 C	W 11500	0	9.09	99.99	9.60
2007	12000 C	W 12000	0	8.01	99.99	6.60
2006	11500 C	W 11500	0	7.97	99.99	8.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0105 - SR 934/NE 82 ST/ONE-WAY PAIR WB, 200' W NE 3 PL

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	17500 C	W 17500	0	9.00	99.90	8.70
2020	16000 C	W 16000	0	9.00	99.90	7.60
2019	16500 C	W 16500	0	9.00	99.90	10.20
2018	14500 C	W 14500	0	9.00	99.90	8.50
2017	16000 C	W 16000	0	9.00	99.90	6.90
2016	17500 C	W 17500	0	9.00	99.90	7.20
2015	17000 C	W 17000	0	9.00	99.90	11.80
2014	17500 C	W 17500		9.00	99.90	10.40
2013	15500 C	W 15500	0	9.00	99.90	9.00
2012	23500 C	W 23500	0	9.00	99.90	10.50
2011	17500 C	W 17500	0	9.00	99.90	10.50
2010	14000 C	W 14000	0	8.98	99.99	9.50
2009	14500 C	W 14500	0	8.99	99.99	8.40
2008	14000 C	W 14000	0	9.09	99.99	9.60
2007	15500 C	W 15500	0	8.01	99.99	6.60
2006	15000 C	W 15000	0	7.97	99.99	8.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8439 - NE 87 ST, 200 FT W OF NE 3 AVE (2011 OFFSYS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	4500 T	E 2100	W 2400	9.00	55.00	4.50
2020	4700 S	E 2200	W 2500	9.00	56.00	3.20
2019	5300 F	E 2500	W 2800	9.00	56.00	3.10
2018	5300 C	E 2500	W 2800	9.00	54.30	4.10
2017	4800 T	E 2500	W 2300	9.00	59.30	2.90
2016	4800 S	E 2500	W 2300	9.00	56.10	2.80
2015	4800 F	E 2500	W 2300	9.00	57.40	4.70
2014	4800 C	E 2500	W 2300	9.00	59.30	7.70
2013	4400 F	0	0	9.00	58.90	16.20
2012	4400 C	E 0	W 0	9.00	59.70	16.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0115 - SR 934/NORMANDY DR. WB. 100' W RUE VERSAILLES.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	17500 C	W 17500	0	9.00	99.90	8.70
2020	18500 C	W 18500	0	9.00	99.90	7.60
2019	20000 C	W 20000	0	9.00	99.90	10.20
2018	14500 C	W 14500	0	9.00	99.90	8.50
2017	21000 C	W 21000	0	9.00	99.90	6.90
2016	19500 C	W 19500	0	9.00	99.90	7.20
2015	18000 C	W 18000	0	9.00	99.90	11.80
2014	17500 C	W 17500		9.00	99.90	10.40
2013	18500 C	W 18500	0	9.00	99.90	9.00
2012	21500 C	W 21500	0	9.00	99.90	10.50
2011	18000 C	W 18000	0	9.00	99.90	10.50
2010	18000 C	W 18000	0	8.98	99.99	9.50
2009	16000 C	W 16000	0	8.99	99.99	8.40
2008	16500 C	W 16500	0	9.09	99.99	9.60
2007	18000 C	W 18000	0	8.01	99.99	6.60
2006	17000 C	W 17000	0	7.97	99.99	8.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0104 - SR 934/NE 79 ST/ONE WAY PAIR EB, 200' W NE 4 CT

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	26400 C	E 20000	W 6400	9.00	54.30	8.70
2020	25700 C	E 19500	W 6200	9.00	54.20	7.60
2019	29700 C	E 23000	W 6700	9.00	54.60	10.20
2018	29600 C	E 22500	W 7100	9.00	54.30	8.50
2017	25500 C	E 19000	W 6500	9.00	55.00	6.90
2016	28700 C	E 22000	W 6700	9.00	54.50	7.20
2015	28800 C	E 22500	W 6300	9.00	54.70	11.80
2014	30900 C	E 24500	W 6400	9.00	54.50	10.40
2013	26400 C	E 19500	W 6900	9.00	52.40	9.00
2012	18000 C	E 18000	0	9.00	99.90	10.50
2011	23000 C	E 23000	0	9.00	99.90	10.50
2010	22500 C	E 22500	0	8.98	99.99	9.50
2009	19500 C	E 19500	0	8.99	99.99	8.40
2008	20500 C	E 20500	0	9.09	99.99	9.60
2007	21500 C	E 21500	0	8.01	54.34	6.60
2006	20500 C	E 20500	0	7.97	54.22	8.80

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
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FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0142 - SR 934/NW/NE 79 ST, 350' WEST OF PELICAN HARBOUR DR

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	43500 C	E 21000	W 22500	9.00	54.30	4.90
2020	40500 C	E 20000	W 20500	9.00	54.20	4.50
2019	41500 F	E 19500	W 22000	9.00	54.60	6.90
2018	41500 C	E 19500	W 22000	9.00	54.30	6.90
2017	44000 C	E 21500	W 22500	9.00	55.00	2.60
2016	45500 C	E 22500	W 23000	9.00	54.50	3.10
2015	46500 C	E 22500	W 24000	9.00	54.70	4.90
2014	39000 C	E 19500	W 19500	9.00	54.50	4.70
2013	39000 C	E 20500	W 18500	9.00	52.40	4.00
2012	43000 C	E 21500	W 21500	9.00	55.70	4.10
2011	39500 C	E 19500	W 20000	9.00	55.10	4.30
2010	39500 C	E 20500	W 19000	8.98	54.08	4.30
2009	35500 C	E 16500	W 19000	8.99	53.24	3.90
2008	37000 C	E 17500	W 19500	9.09	55.75	3.80
2007	38500 F	E 19000	W 19500	8.01	54.34	4.00
2006	38500 C	E 19000	W 19500	7.97	54.22	4.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0145 - SR934/NE 79ST./B BAY CSWY./71 ST. 600' W NE 10TH AVE.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	25400 C	E 18000	W 7400	9.00	54.30	8.70
2020	20600 C	E 13000	W 7600	9.00	54.20	7.60
2019	27800 C	E 18500	W 9300	9.00	54.60	10.20
2018	26500 C	E 19000	W 7500	9.00	54.30	8.50
2017	27000 C	E 18500	W 8500	9.00	55.00	6.90
2016	26900 C	E 19500	W 7400	9.00	54.50	7.20
2015	23000 C	E 16500	W 6500	9.00	54.70	11.80
2014	22100 C	E 15000	W 7100	9.00	54.50	10.40
2013	25700 C	E 18500	W 7200	9.00	52.40	9.00
2012	25900 C	E 18500	W 7400	9.00	55.70	10.50
2011	28200 C	E 21500	W 6700	9.00	55.10	10.50
2010	27000 C	E 19500	W 7500	8.98	54.08	9.50
2009	23600 C	E 17000	W 6600	8.99	53.24	8.40
2008	24800 C	E 17500	W 7300	9.09	55.75	9.60
2007	27700 C	E 20000	W 7700	8.01	54.34	6.60
2006	37500 C	E 16500	W 21000	7.97	54.22	8.80

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

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2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0533 - SR 934/N BAY CSWY, 450' EAST OF ADVENTURE AVE

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	39000 C	E 19500	W 19500	9.00	54.30	5.40
2020	37000 C	E 18500	W 18500	9.00	54.20	2.10
2019	39500 C	E 21500	W 18000	9.00	54.60	6.40
2018	41000 C	E 21000	W 20000	9.00	54.30	4.60
2017	39500 C	E 20000	W 19500	9.00	55.00	8.40
2016	30500 C	E 15500	W 15000	9.00	54.50	8.70
2015	37500 C	E 18500	W 19000	9.00	54.70	11.80
2014	27500 C	E 12500	W 15000	9.00	54.50	10.40
2013	36500 C	E 17500	W 19000	9.00	52.40	9.00
2012	36500 C	E 18000	W 18500	9.00	55.70	10.50
2011	38000 C	E 17500	W 20500	9.00	55.10	10.50
2010	35500 C	E 17500	W 18000	8.98	54.08	9.50
2009	29500 C	E 15000	W 14500	8.99	53.24	8.40
2008	30500 C	E 15500	W 15000	9.09	55.75	9.60
2007	31500 C	E 16000	W 15500	8.01	54.34	6.60
2006	40500 C	E 19500	W 21000	7.97	54.22	8.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2021 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 5191 - SR934/NE 79TH ST/NORTH BAY CSWY/71ST ST, 100' W OF RUE VERSAILLES

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2021	16000 C	E 16000	0	9.00	99.90	8.70
2020	13500 C	E 13500	0	9.00	99.90	7.60
2019	18000 C	E 18000	0	9.00	99.90	10.20
2018	17500 C	E 17500	0	9.00	99.90	8.50
2017	17000 C	E 17000	0	9.00	99.90	6.90
2016	18500 C	E 18500	0	9.00	99.90	7.20
2015	19000 C	E 19000	0	9.00	99.90	11.80
2014	16500 C	E 16500		9.00	99.90	10.40
2013	20500 C	E 20500	0	9.00	99.90	9.00
2012	19500 C	E 19500	0	9.00	99.90	10.50
2011	18500 C	E 18500	0	9.00	99.90	10.50
2010	16500 C	E 16500	0	8.98	99.99	9.50
2009	17500 C	E 17500	0	8.99	99.99	8.40

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

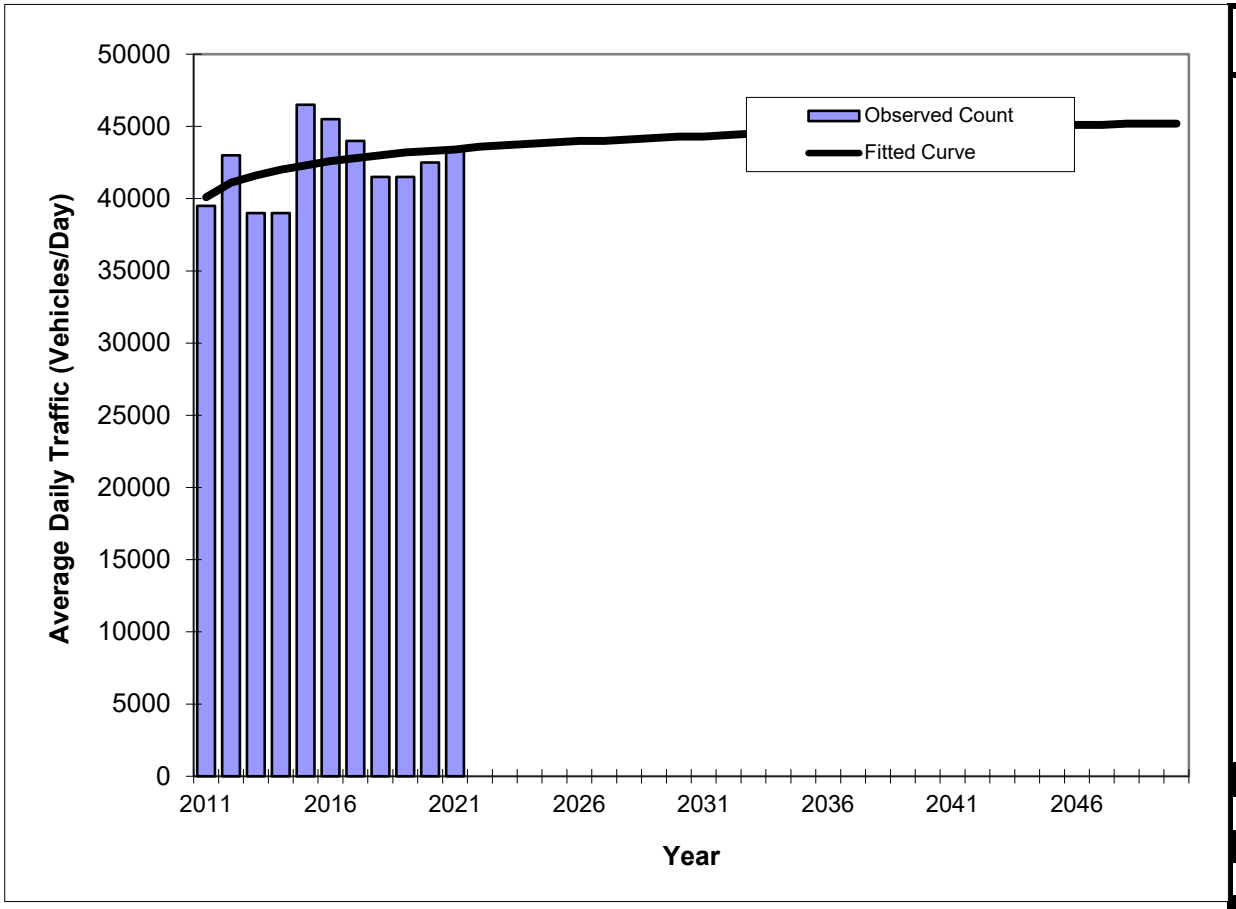
Trend Growth Analysis

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0142
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	39500	40100
2012	43000	41100
2013	39000	41600
2014	39000	42000
2015	46500	42300
2016	45500	42600
2017	44000	42800
2018	41500	43000
2019	41500	43200
2020	42500	43300
2021	43500	43400
2030 Opening Year Trend		
2030	N/A	44300
2040 Mid-Year Trend		
2040	N/A	44800
2050 Design Year Trend		
2050	N/A	45200
TRANPLAN Forecasts/Trends		

Trend R-squared:	16.72%
Compounded Annual Historic Growth Rate:	0.79%
Compounded Growth Rate (2021 to Design Year):	0.14%
Printed:	31-Jan-23

Decaying Exponential Growth Option

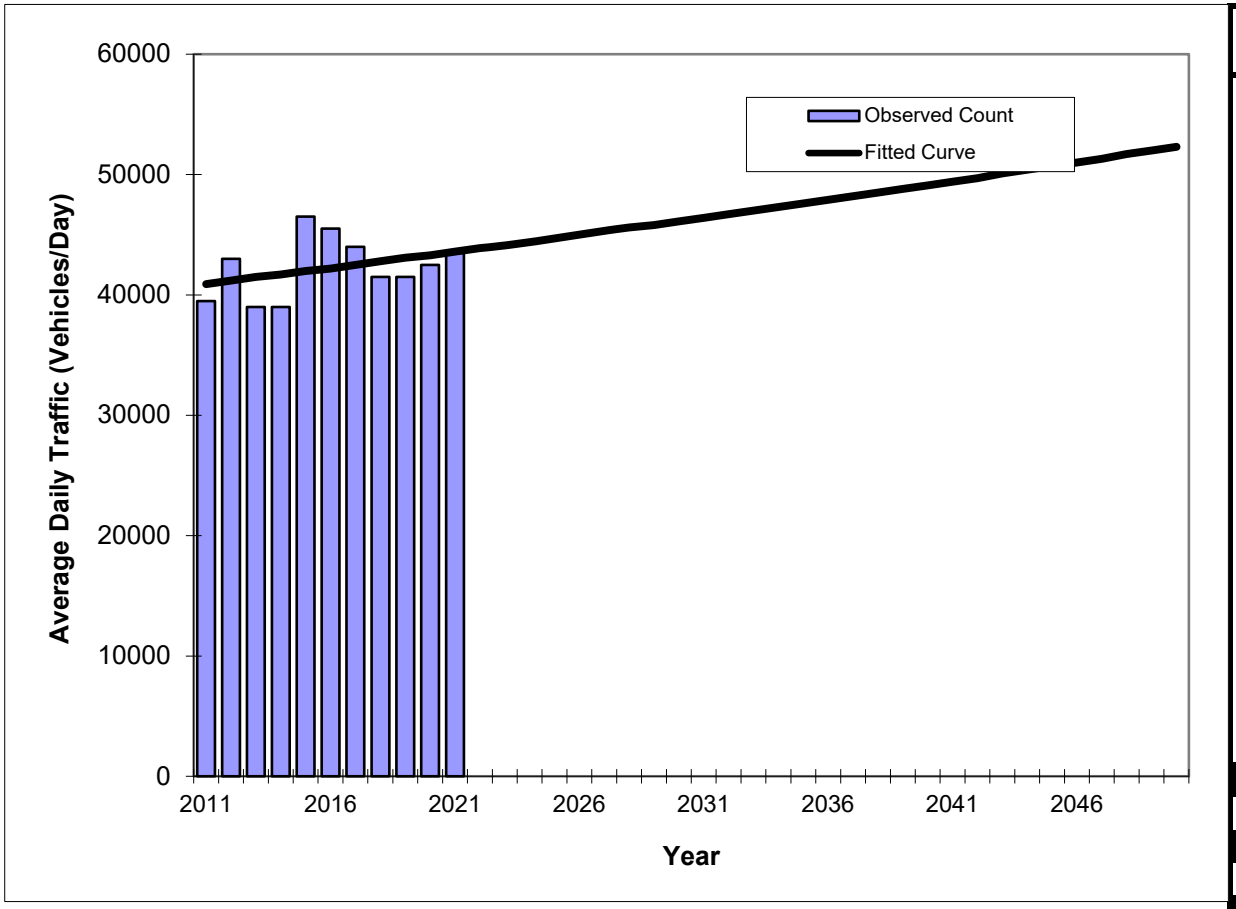
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0142
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	39500	40900
2012	43000	41200
2013	39000	41500
2014	39000	41700
2015	46500	42000
2016	45500	42200
2017	44000	42500
2018	41500	42800
2019	41500	43100
2020	42500	43300
2021	43500	43600
2030 Opening Year Trend		
2030	N/A	46100
2040 Mid-Year Trend		
2040	N/A	49100
2050 Design Year Trend		
2050	N/A	52300
TRANPLAN Forecasts/Trends		

Trend R-squared:	12.22%
Compounded Annual Historic Growth Rate:	0.64%
Compounded Growth Rate (2021 to Design Year):	0.63%
Printed:	31-Jan-23

Exponential Growth Option

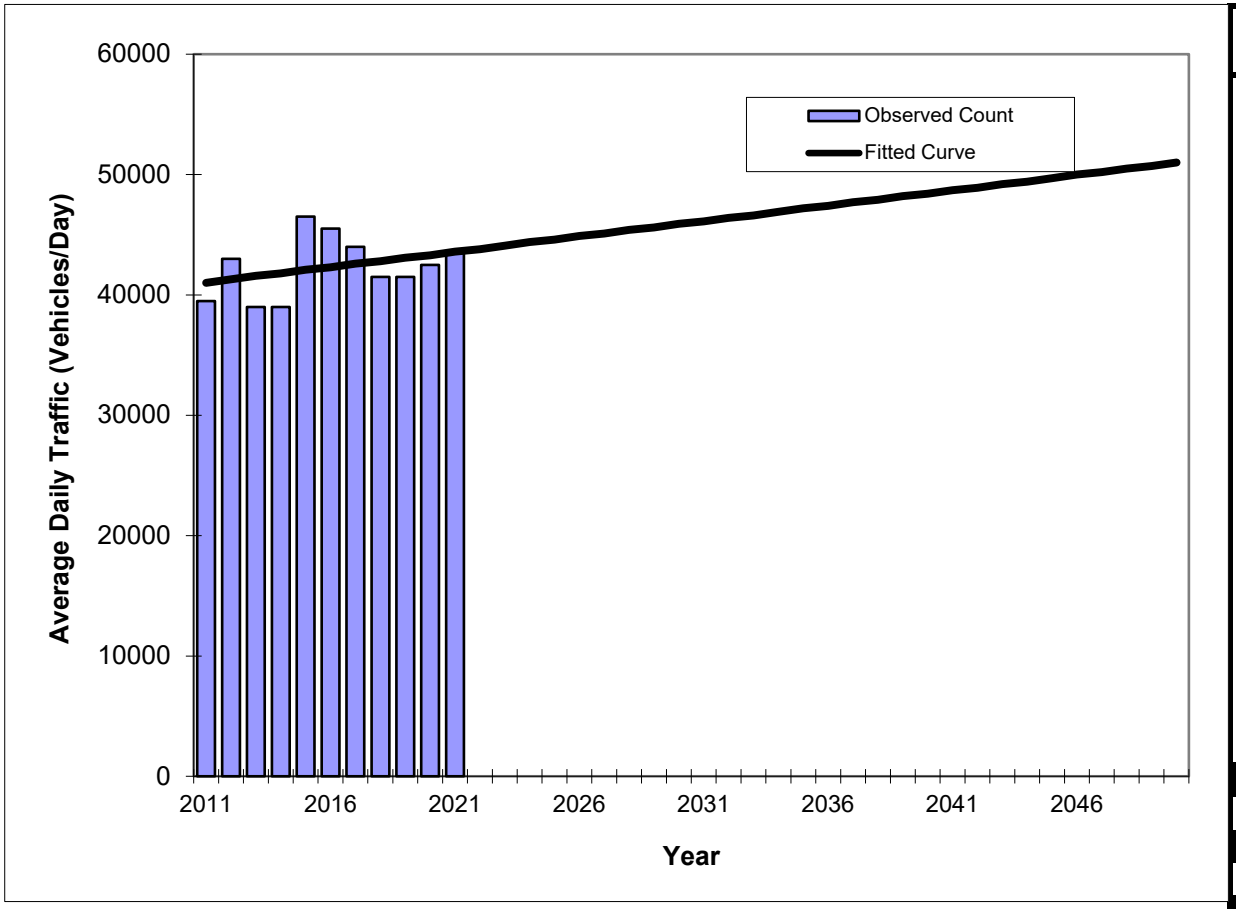
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0142
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	39500	41000
2012	43000	41300
2013	39000	41600
2014	39000	41800
2015	46500	42100
2016	45500	42300
2017	44000	42600
2018	41500	42800
2019	41500	43100
2020	42500	43300
2021	43500	43600
2030 Opening Year Trend		
2030	N/A	45900
2040 Mid-Year Trend		
2040	N/A	48400
2050 Design Year Trend		
2050	N/A	51000
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	255
Trend R-squared:	11.20%
Trend Annual Historic Growth Rate:	0.63%
Trend Growth Rate (2021 to Design Year):	0.59%
Printed:	31-Jan-23

Straight Line Growth Option

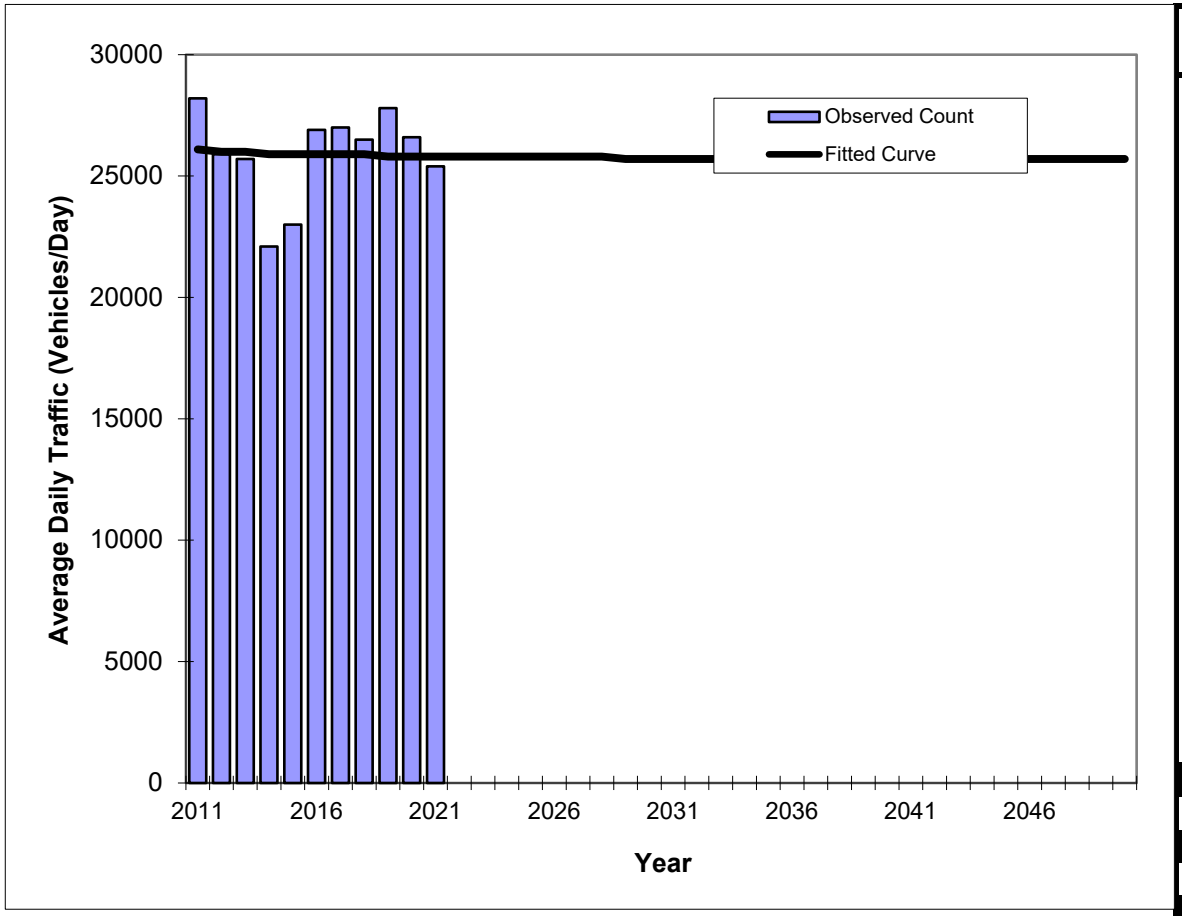
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

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

County:	Miami-Dade (87)
Station #:	0145
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	28200	26100
2012	25900	26000
2013	25700	26000
2014	22100	25900
2015	23000	25900
2016	26900	25900
2017	27000	25900
2018	26500	25900
2019	27800	25800
2020	26600	25800
2021	25400	25800
2030 Opening Year Trend		
2030	N/A	25700
2040 Mid-Year Trend		
2040	N/A	25700
2050 Design Year Trend		
2050	N/A	25700
TRANPLAN Forecasts/Trends		

Trend R-squared:	0.26%
Compounded Annual Historic Growth Rate:	-0.12%
Compounded Growth Rate (2021 to Design Year):	-0.01%
Printed:	31-Jan-23

Decaying Exponential Growth Option

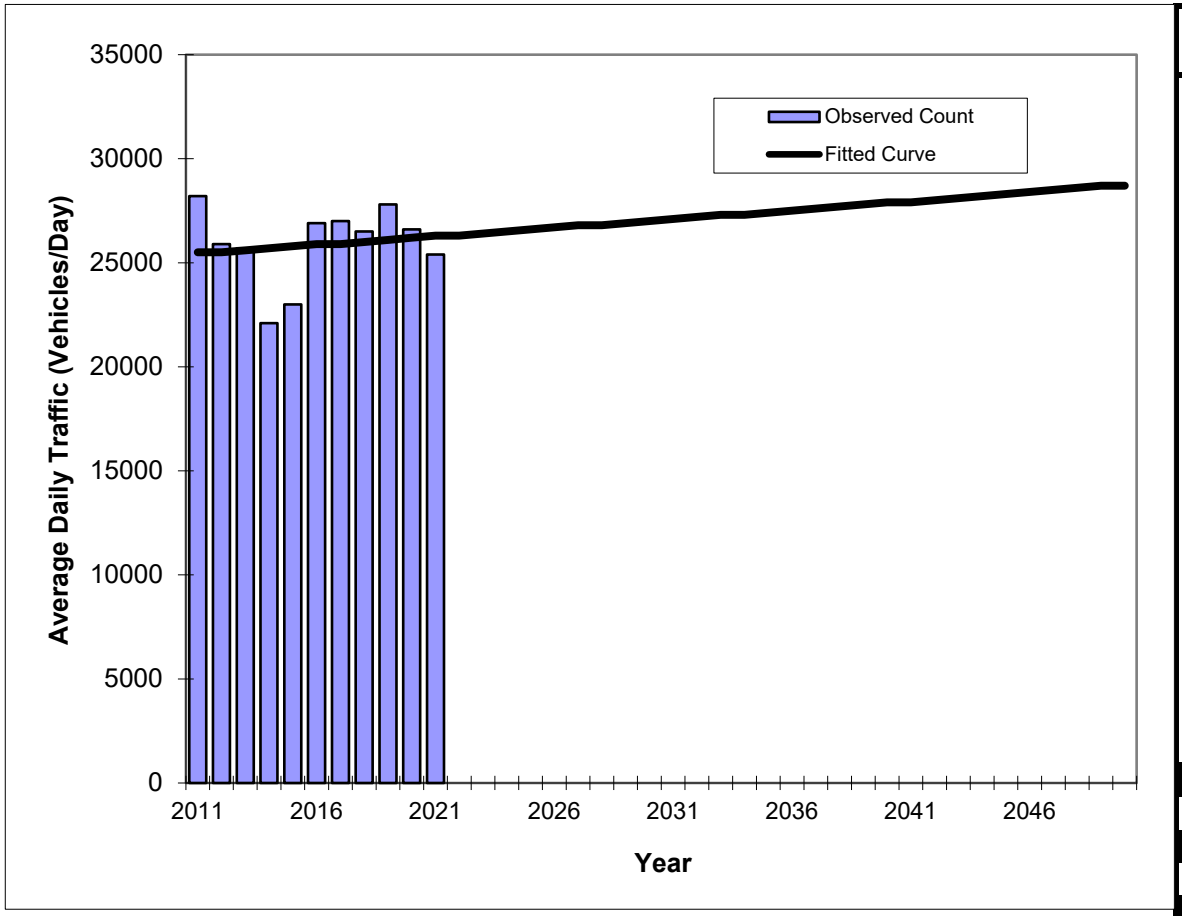
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

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

County:	Miami-Dade (87)
Station #:	0145
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	28200	25500
2012	25900	25500
2013	25700	25600
2014	22100	25700
2015	23000	25800
2016	26900	25900
2017	27000	25900
2018	26500	26000
2019	27800	26100
2020	26600	26200
2021	25400	26300
2030 Opening Year Trend		
2030	N/A	27000
2040 Mid-Year Trend		
2040	N/A	27900
2050 Design Year Trend		
2050	N/A	28700
TRANPLAN Forecasts/Trends		

Trend R-squared:	1.90%
Compounded Annual Historic Growth Rate:	0.31%
Compounded Growth Rate (2021 to Design Year):	0.30%
Printed:	31-Jan-23

Exponential Growth Option

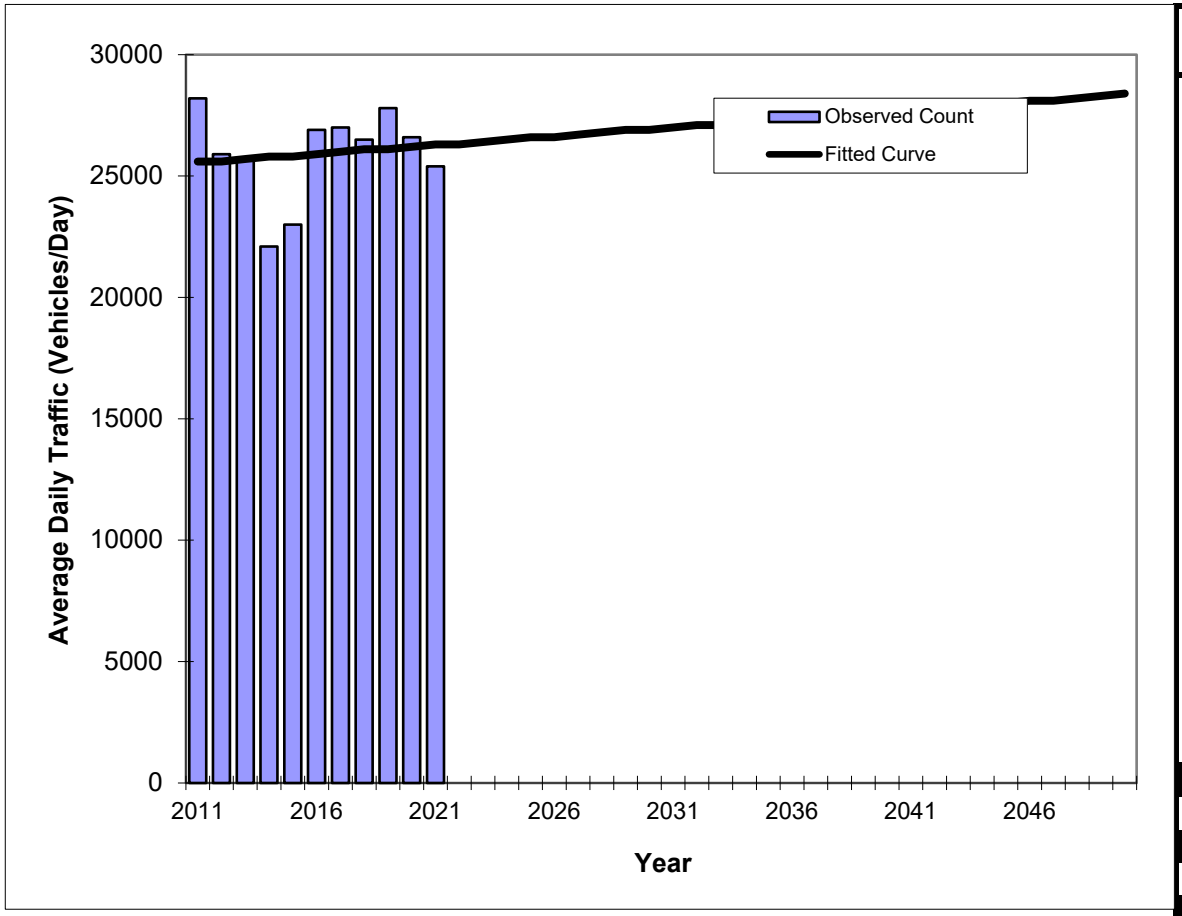
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

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

County:	Miami-Dade (87)
Station #:	0145
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	28200	25600
2012	25900	25600
2013	25700	25700
2014	22100	25800
2015	23000	25800
2016	26900	25900
2017	27000	26000
2018	26500	26100
2019	27800	26100
2020	26600	26200
2021	25400	26300
2030 Opening Year Trend		
2030	N/A	26900
2040 Mid-Year Trend		
2040	N/A	27600
2050 Design Year Trend		
2050	N/A	28400
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	72
Trend R-squared:	1.62%
Trend Annual Historic Growth Rate:	0.27%
Trend Growth Rate (2021 to Design Year):	0.28%
Printed:	31-Jan-23

Straight Line Growth Option

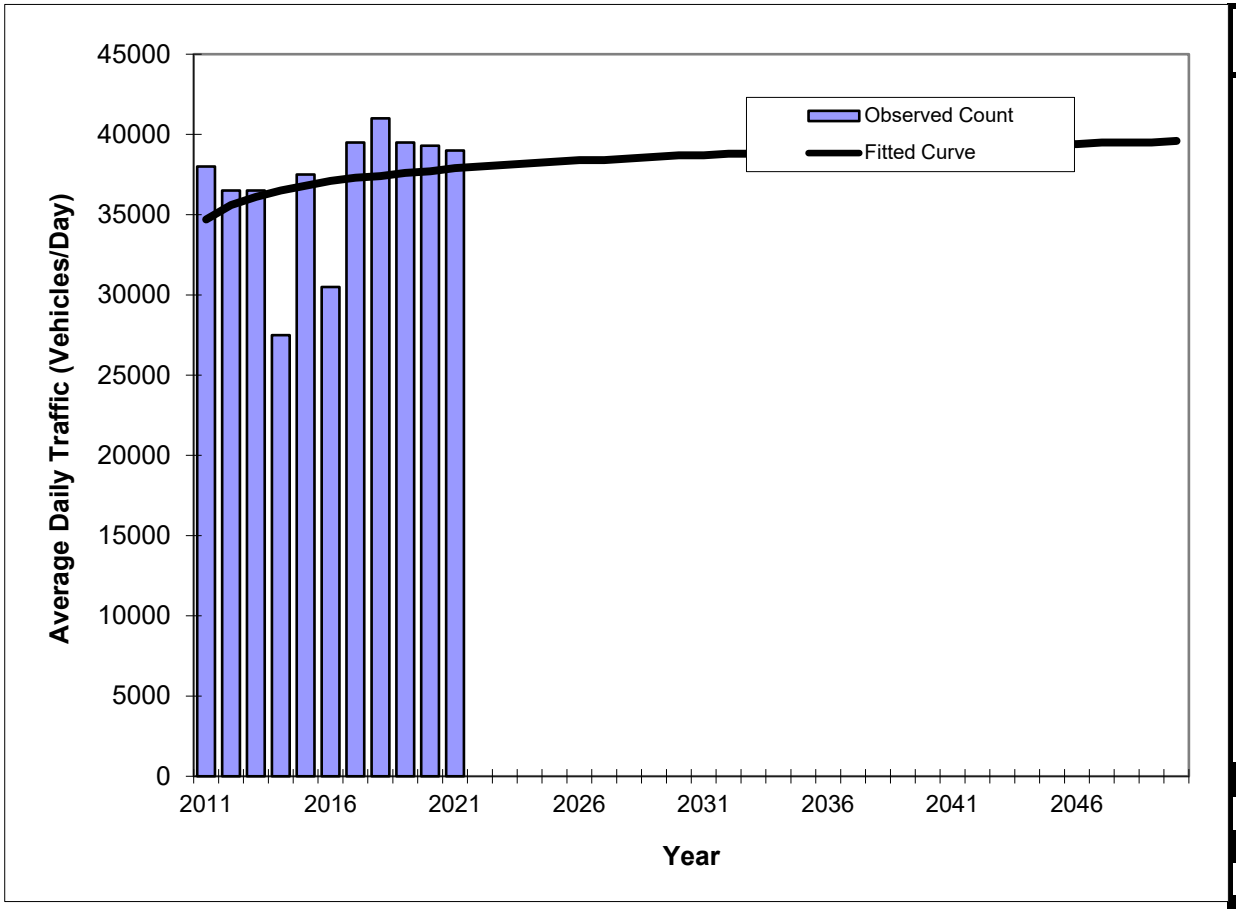
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0533
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	38000	34700
2012	36500	35600
2013	36500	36100
2014	27500	36500
2015	37500	36800
2016	30500	37100
2017	39500	37300
2018	41000	37400
2019	39500	37600
2020	39300	37700
2021	39000	37900
2030 Opening Year Trend		
2030	N/A	38700
2040 Mid-Year Trend		
2040	N/A	39200
2050 Design Year Trend		
2050	N/A	39600
TRANPLAN Forecasts/Trends		

Trend R-squared:	5.69%
Compounded Annual Historic Growth Rate:	0.89%
Compounded Growth Rate (2021 to Design Year):	0.15%
Printed:	31-Jan-23

Decaying Exponential Growth Option

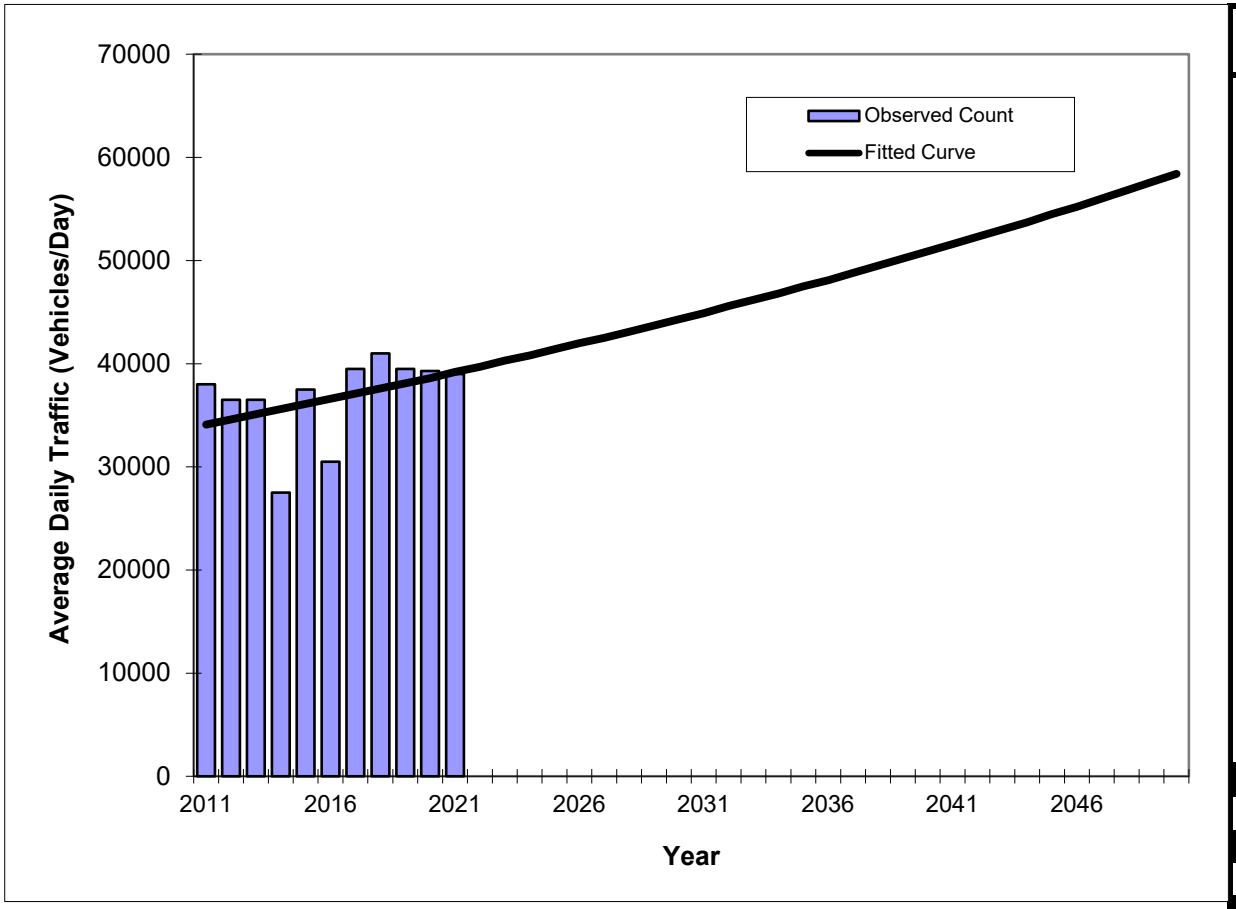
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0533
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	38000	34100
2012	36500	34600
2013	36500	35100
2014	27500	35600
2015	37500	36100
2016	30500	36600
2017	39500	37100
2018	41000	37600
2019	39500	38100
2020	39300	38600
2021	39000	39200
2030 Opening Year Trend		
2030	N/A	44300
2040 Mid-Year Trend		
2040	N/A	50900
2050 Design Year Trend		
2050	N/A	58400
TRANPLAN Forecasts/Trends		

Trend R-squared:	13.82%
Compounded Annual Historic Growth Rate:	1.40%
Compounded Growth Rate (2021 to Design Year):	1.38%
Printed:	31-Jan-23

Exponential Growth Option

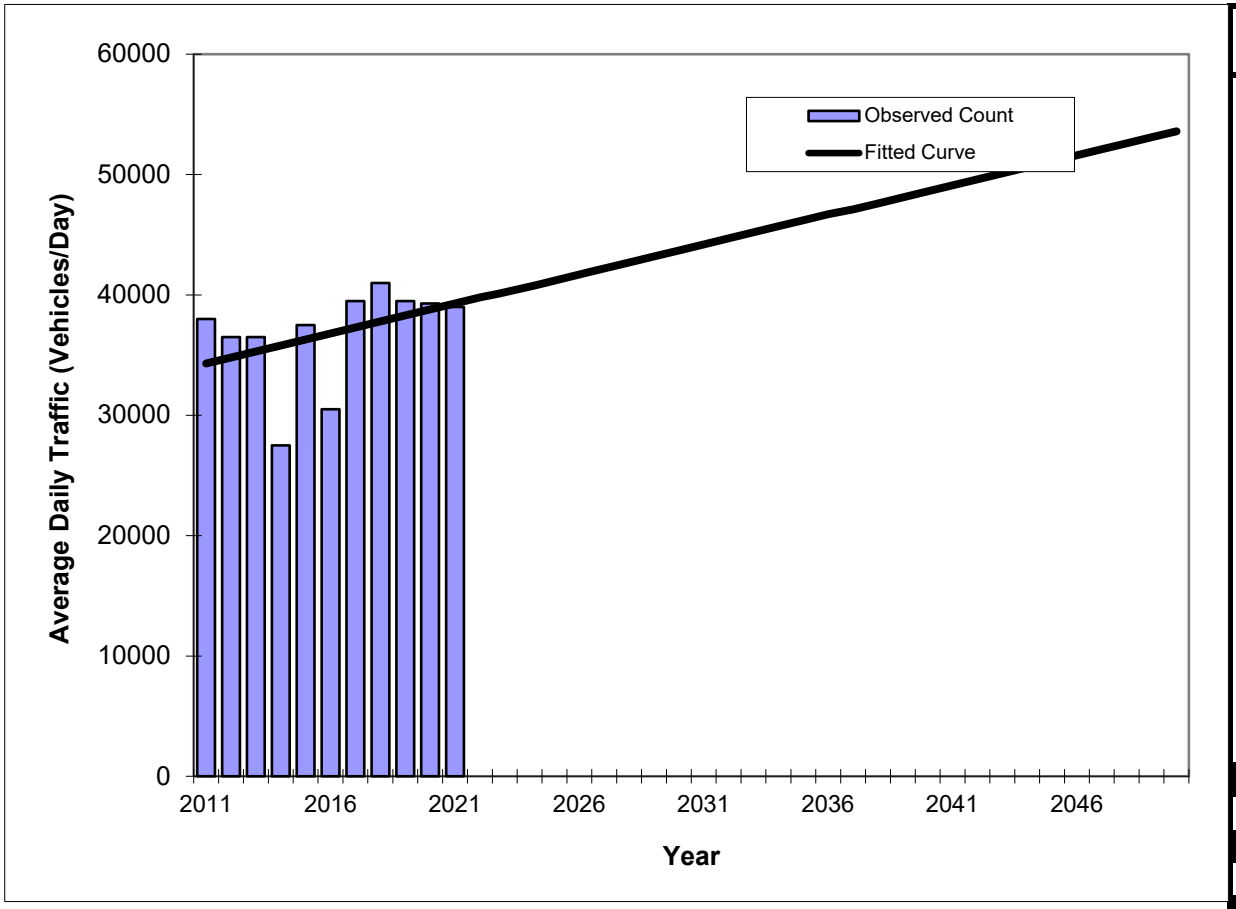
***Axle-Adjusted**

Traffic Trends - V03.a

SR 934 --

FIN#	1234
Location	1

County:	Miami-Dade (87)
Station #:	0533
Highway:	SR 934



Year	Traffic (ADT/AADT) Count*	Trend**
2011	38000	34300
2012	36500	34800
2013	36500	35300
2014	27500	35800
2015	37500	36300
2016	30500	36800
2017	39500	37300
2018	41000	37800
2019	39500	38300
2020	39300	38800
2021	39000	39300
2030 Opening Year Trend		
2030	N/A	43700
2040 Mid-Year Trend		
2040	N/A	48600
2050 Design Year Trend		
2050	N/A	53600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	493
Trend R-squared:	15.56%
Trend Annual Historic Growth Rate:	1.46%
Trend Growth Rate (2021 to Design Year):	1.25%
Printed:	31-Jan-23

Straight Line Growth Option

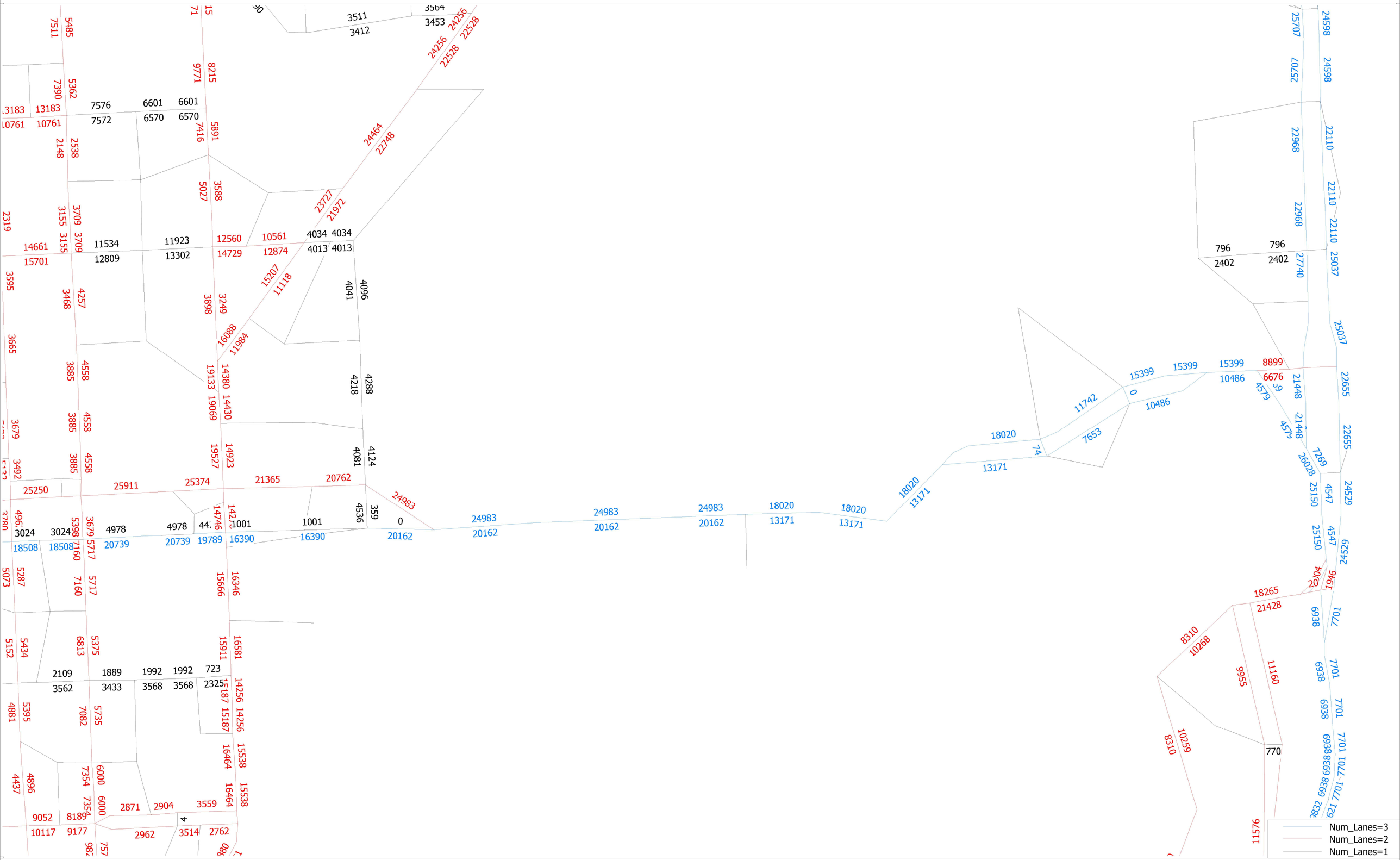
***Axle-Adjusted**

Appendix C.

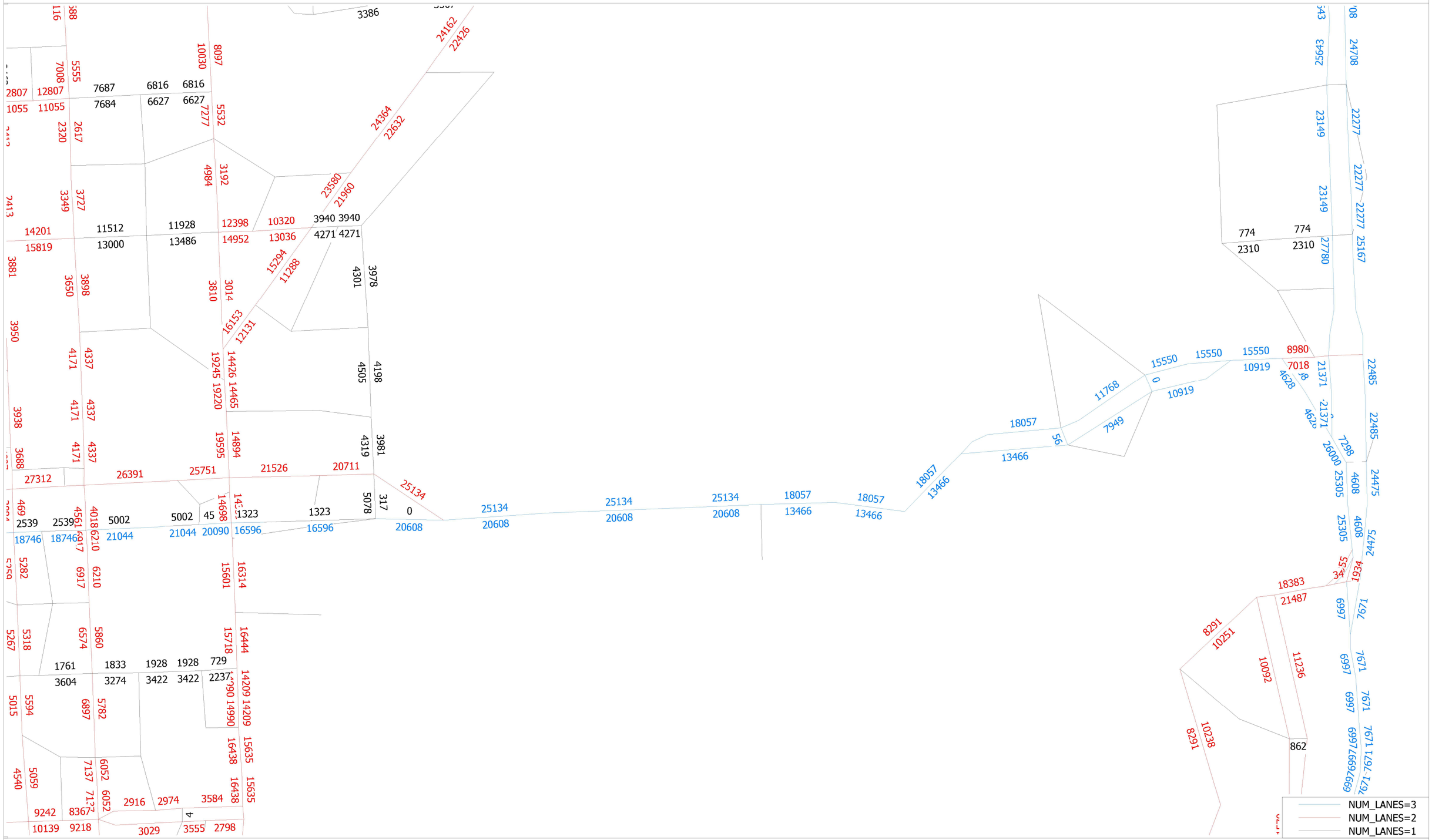
SERPM 8.522 Model Plots

& Calculations

Base 2015 SR 934 Model Plot

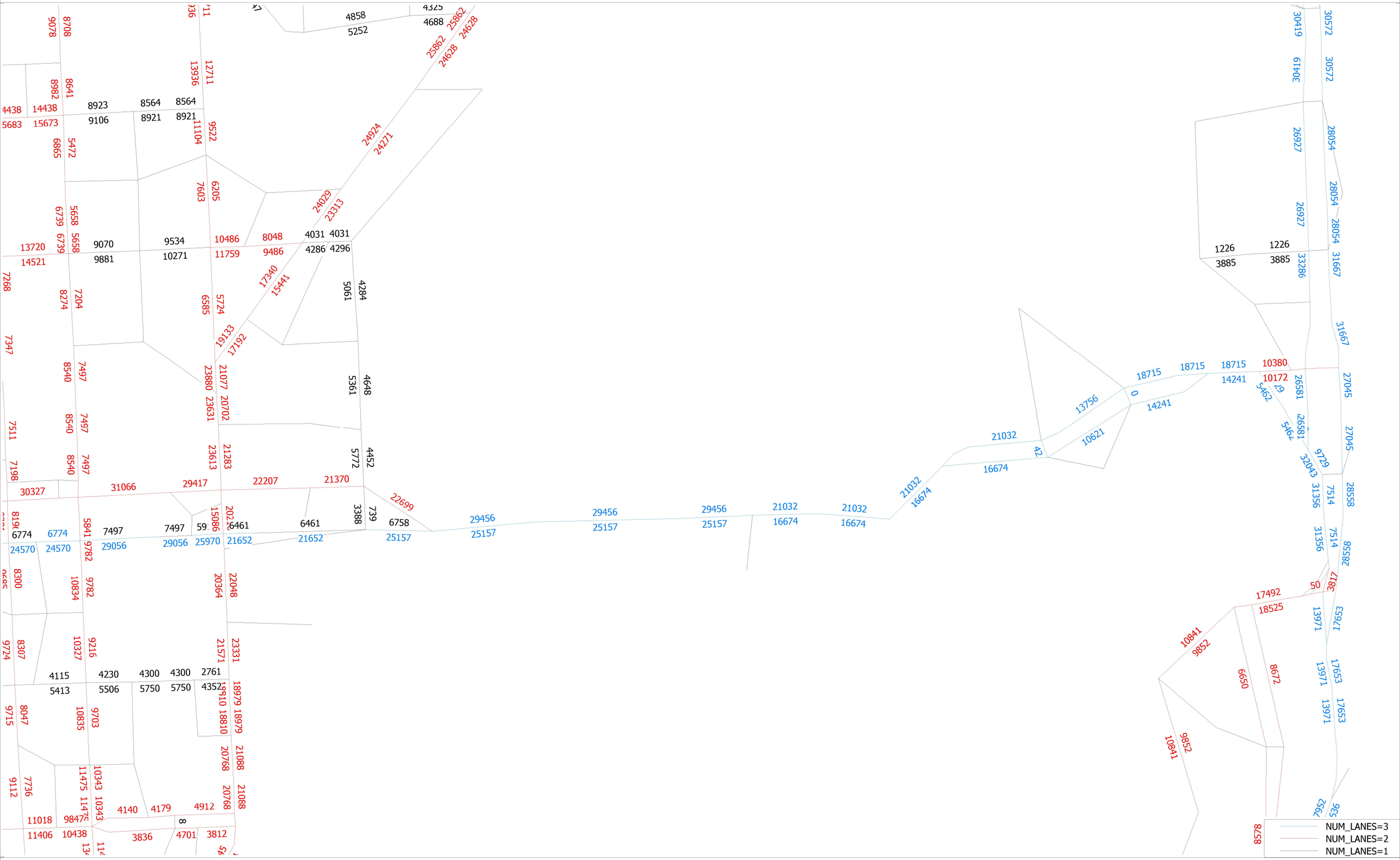


Validated 2015 SR 934 Model Plot

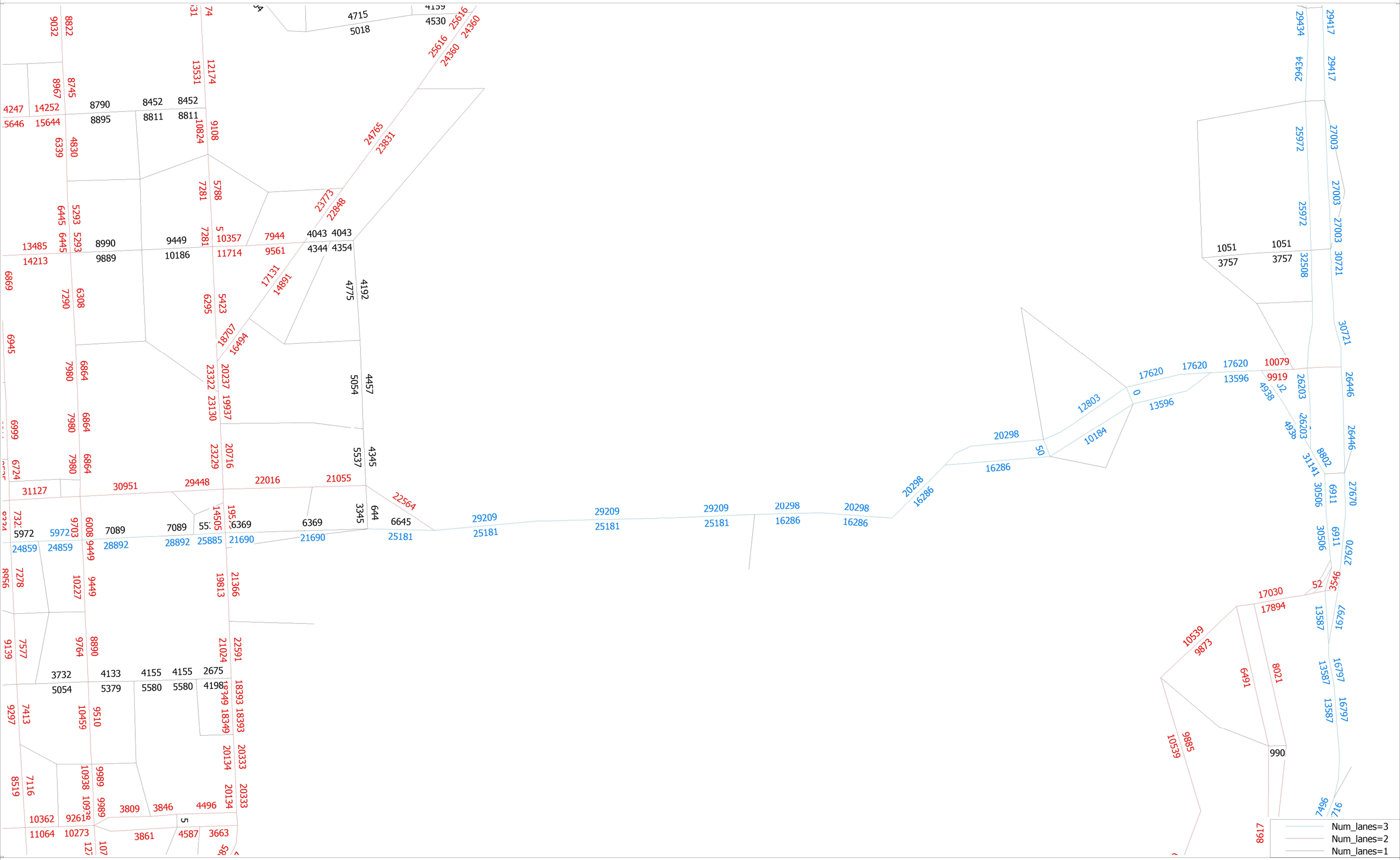


cube

Base 2045 SR 934 Model Plot



Validated 2045 SR 934 Model Plot



RMSE Calculations

A	B	Rdwy_Name	Validated_Total_Volume	Validated_Two Way Sum	Base_Total_Volume	Base_Two Way Sum	FTO AADT	RMSE%	AreaWide RMSE%
30050	30108	NE 10 Avenue	317	5395	359	4895	6100		33%
30108	30049	NE 10 Avenue	317	5395	359	4895	6100		
30049	30108	NE 10 Avenue	5078	5395	4536	4895	6100		
30108	30050	NE 10 Avenue	5078	5395	4536	4895	6100		
28604	28606	NE 71 Street	4535	6387	1906	6195	11700		
28606	28604	NE 71 Street	1852	6387	4289	6195	11700		
29882	29881	NE 6 Avenue	3014	6824	3249	7147	7100		
29881	29882	NE 6 Avenue	3810	6824	3898	7147	7100		
28596	28599	SR 934-1	7949	7949	7653	7653	19000		
29876	29878	NE 2 Avenue	3650	7548	3468	7725	13800		
29878	29876	NE 2 Avenue	3898	7548	4257	7725	13800		
30129	33895	NE 10 Avenue	3978	8279	4096	8137	13000	67%	
33895	30129	NE 10 Avenue	4301	8279	4041	8137	13000		
30049	30130	NE 10 Avenue	3981	8300	4124	8205	13000		
30130	30049	NE 10 Avenue	4319	8300	4081	8205	13000		
29878	30032	NE 2 Avenue	4171	8508	3885	8443	13800		
30032	29878	NE 2 Avenue	4337	8508	4558	8443	13800		
30130	30129	NE 10 Avenue	4198	8703	4288	8506	13000		
30129	30130	NE 10 Avenue	4505	8703	4218	8506	13000		
30033	30032	NE 2 Avenue	3992	8328	4682	8685	13800		
30032	30033	NE 2 Avenue	4336	8328	4003	8685	13800		
30033	30034	NE 2 Avenue	4018	8579	5398	9077	13800		
30034	30033	NE 2 Avenue	4561	8579	3679	9077	13800		
28599	34331	SR 934-1	10919	10919	10486	10486	19000		
34331	28600	SR 934-1	10919	10919	10486	10486	19000		
34333	28595	Normandy Drive	11768	11768	11742	11742	18000		
28598	34333	Normandy Drive	11768	11768	11742	11742	18000	52%	
30035	30034	NE 2 Avenue	6210	13127	5171	12331	13800		
30034	30035	NE 2 Avenue	6917	13127	7160	12331	13800		
28594	28596	SR 934-1	13466	13466	13171	13171	19000		
28512	28604	NE 71 Street	6853	15399	6574	15053	11700		
28604	28512	NE 71 Street	8546	15399	8479	15053	11700		
28600	34332	Normandy Drive	15550	15550	15399	15399	18000		
34332	28598	Normandy Drive	15550	15550	15399	15399	18000		
28512	28601	NE 71 Street	8980	15998	8899	15575	11700		
28601	28512	NE 71 Street	7018	15998	6676	15575	11700	21%	
30050	30045	SR 934-1	1323	17919	1001	17391	23000		
30045	30050	SR 934-1	16596	17919	16390	17391	23000		
28595	34330	Normandy Drive	18057	18057	18020	18020	18000		
34329	28594	Normandy Drive	18057	18057	18020	18020	18000		
34330	34329	Normandy Drive	18057	18057	18020	18020	18000		
30051	30050	SR 934-1	0	20608	0	20162	23000		
30050	30051	SR 934-1	20608	20608	20162	20162	23000		
30049	36285	NE 82 Street	20711	20711	20762	20762	13000		
36285	30043	NE 82 Street	21526	21526	21365	21365	13000		
30034	34894	SR 934-1	2539	21285	3024	21532	28800		
34894	30034	SR 934-1	18746	21285	18508	21532	28800		
30033	30031	NE 82 Street	26192	26192	23512	23512	17000		
30045	30041	SR 934-1	4523	24613	4429	24218	28800		
30041	30045	SR 934-1	20090	24613	19789	24218	28800		
30051	30049	NE 82 Street	25134	25134	24983	24983	13000		
30043	30040	NE 82 Street	25751	25751	25374	25374	17000		
30041	30034	SR 934-1	5002	26046	4978	25717	28800		
30034	30041	SR 934-1	21044	26046	20739	25717	28800	34%	
28600	28601	NE 71 Street	10919	26469	10486	25885	11700		
28601	28600	NE 71 Street	15550	26469	15399	25885	11700		
30040	30033	NE 82 Street	26391	26391	25911	25911	17000		
29885	30131	US1	15294	26582	15207	26325	32700		
30131	29885	US1	11288	26582	11118	26325	32700		
29882	30131	US1	12131	28284	11984	28072	32700		
30131	29882	US1	16153	28284	16088	28072	32700		
30045	30044	US1	14359	29057	14278	29024	40500		
30044	30045	US1	14698	29057	14746	29024	40500		
30044	30043	US1	14666	29808	14651	29895	40500		
30043	30044	US1	15142	29808	15244	29895	40500		
28591	28593	SR 934-1	13466	31523	13171	31191	37500		
28593	28594	SR 934-1	13466	31523	13171	31191	37500		
28593	28591	SR 934-1	18057	31523	18020	31191	37500		
28594	28593	SR 934-1	18057	31523	18020	31191	37500		
28590	28591	SR 934-2	13466	31523	13171	31191	37500		
28591	28590	SR 934-2	18057	31523	18020	31191	37500		
36284	30046	US1	15601	31915	15666	32012	42000		
30046	36284	US1	16314	31915	16346	32012	42000		
36284	30045	US1	15693	32019	15899	32236	40000		
30045	36284	US1	16326	32019	16337	32236	40000	21%	
30042	36282	US1	14465	33685	14430	33499	42000		
36282	30042	US1	19220	33685	19069	33499	42000		
36282	29882	US1	14426	33671	14380	33513	42000		
29882	36282	US1	19245	33671	19133	33513	42000		
30043	30042	US1	14894	34489	14923	34450	41000		
30042	30043	US1	19595	34489	19527	34450	41000		
30051	28590	SR 934-2	20608	45742	20162	45145	46500		
28590	30051	SR 934-2	25134	45742	24983	45145	46500		

Population and Employment Data Summary per Traffic Analysis Zone

TAZ	8.522_Pop_15	8.522_Emp_15	8.522_Pop_45	8.522_Emp_45	TAZ Location
3280	3019	136	3293	157	West
3281	1855	1555	2577	1833	West
3282	1098	1408	1768	2199	West
3283	2755	273	3030	371	West
3284	2559	916	3264	1090	West
3285	2642	242	3062	377	West
3286	1604	818	2471	979	West
3287	3085	663	3647	1069	West
3304	165	757	366	1012	West
3308	661	271	2938	678	West
3309	2724	586	4266	1800	West
3310	1175	37	1359	41	West
3313	3904	218	4411	313	West
3336	2348	898	3228	1204	West
3337	2991	377	3418	460	West
3521	4336	180	4729	212	East
3522	4620	1381	5286	1876	East
3523	5074	450	5715	555	East
3524	7459	2448	8341	3149	East
3525	4086	660	4476	847	East
3526	4058	2674	4565	3067	East
3307	1938	650	5432	1203	West
3312	1023	220	1091	277	West
3306	2876	1326	3728	1516	West
3305	2608	1058	3129	1168	West
Total	**70,663**	**20,202**	**89,590**	**27,453**	
East	29,633	7,793	33,112	9,706	
West	41,030	12,409	56,478	17,747	
GR Total			**0.89%**	**1.20%**	
GR East			0.39%	0.82%	
GR West			1.26%	1.43%	

Handbook Excerpts

Table 3-1 Regionwide Model Accuracy Volume-Count-Ratios

Volume-Over-Count Ratios	Standards	
	Acceptable	Preferable
Facility Type		
Freeway Volume-over-Count (FT1x, FT8x, FT9x)	+/- 7%	+/- 6%
Divided Arterial Volume-over-Count (FT2x)	+/- 15%	+/- 10%
Undivided Arterial Volume-over-Count (FT3x)	+/- 15%	+/- 10%
Collector Volume-over-Count (FT4x)	+/- 25%	+/- 20%
One way/Frontage Road Volume-over-Count (FT6x)	+/- 25%	+/- 20%
Peak Period		
Freeway Peak Volume-over-Count	75% of links @ +/-20%	50% of links @ +/-10%
Major Arterial Peak Volume-over-Count	75% of links @ +/-30%	50% of links @ +/-15%
VMT/VHT		
Assigned VMT-over-Count Areawide	+/-5%	+/-2%
Assigned VHT-over-Count Areawide	+/-5%	+/-2%
Assigned VMT-over-Count by FT/AT/NL	+/- 25%	+/- 15%
Assigned VHT-over-Count by FT/AT/NL	+/- 25%	+/- 15%
Screenlines/Cut lines		
External Model Cordon Lines	+/- 1%	-
Screenlines with greater than 70,000 AADT	+/- 10%	-
Screenlines with 35,000 to 70,000 AADT	+/- 15%	-
Screenlines with less than 35,000 AADT	+/- 20%	-

Source: FSUTMS-Cube Framework Phase II Model Calibration and Validation Standards, Table 2.9, "Volume-Over-Count Ratios and Percent Error", and discussions on Page 2-19.

Table 3-2 Regionwide Model Accuracy Assessment Percent RMSE

Volume Range, Vehicles Per Day	Standards	
	Acceptable	Preferable
LT 5,000	100%	45%
5,000-9,999	45%	35%
10,000-14,999	35%	27%
15,000-19,999	30%	25%
20,000-29,999	27%	15%
30,000-49,999	25%	15%
50,000-59,999	20%	10%
60,000+	19%	10%
Areawide	45%	35%

Source: FSUTMS-Cube Framework Phase II Model Calibration and Validation Standards, Table 2.11, "Root Mean Square Error (RMSE)", Page 2-21.

Percent error has historically reflected a "plus or minus one lane" criteria in Florida. This concept means that highway assignment accuracy should minimize incorrect future laneage calls resulting from forecasted traffic. With most available error percentages being based on 1965 and 1985 Highway Capacity Manual (HCM) assumptions, new error percentages were calculated for this study based on 2007 Updates to Florida DOT's *Level of Service Handbook.* Appendix G depicts a spreadsheet used during preparation of this report to iteratively adjust and calculate error percentages for volume groups such that most errors would minimize incorrect lane call estimates. In addition to modifying the percent error, the volumes contained in each group also were adjusted to better synchronize with daily volumes contained in the *Level of Service Handbook.* Table 2.10 depicts a range of accepted and preferable accuracy ranges for five volume groups. A desired percentage of links with counts in each volume group will be identified in follow up FDOT-sponsored studies.

Table 2.10 Revised Percent Error by Volume Group

Statistic	Standards	
	Acceptable	Preferable
Percent Error: LT 10,000 volume (2L road)	50%	25%
Percent Error: 10,000-30,000 (4L road)	30%	20%
Percent Error: 30,000-50,000 (6L road)	25%	15%
Percent Error: 50,000-65,000 (4-6L freeway)	20%	10%
Percent Error: 65,000-75,000 (6L freeway)	15%	5%
Percent Error: GT 75,000 (8+L freeway)	10%	5%

Aggregate VMT Statistics

In addition to accuracy standards for VMT volume-over-count ratios, the literature review uncovered other validation benchmarks that use VMT. The *Quick Response Freight Manual* identified an approximate percent VMT of 11 percent for trucks in a typical urbanized area, although this rate will vary considerably by region. *Accounting for Commercial Vehicles in Urban Transportation Models* documented a commercial vehicle range of 3 to 25 percent of total VMT (11.79 percent average). Commercial vehicles were further divided into three categorical groupings for additional VMT summaries:

- **Movement of People –** School buses, fixed shuttle services, taxis, paratransit, and rental cars (1-5 percent of total VMT; 2.4 percent average);
- **Movement of Goods –** Package and mail delivery, warehouse delivery, construction transport (1-7 percent of total VMT; 3.5 percent average); and
- **Services –** Safety vehicles, utility vehicles, public service vehicles, and business/ personal services (1-13 percent of total VMT; 5.9 percent average).

Appendix D.

BEBR Projections

Projections of Florida Population by County, 2025–2050, with Estimates for 2021 (continued)

County and State	Estimates April 1, 2021	Projections, April 1 2025	2030	2035	2040	2045	2050
MIAMI-DADE	2,731,939						
Low		2,682,600	2,674,200	2,649,100	2,615,800	2,579,400	2,543,700
Medium		2,823,800	2,922,600	3,001,800	3,068,400	3,126,600	3,179,600
High		2,965,000	3,171,000	3,354,500	3,521,000	3,673,700	3,815,500
MONROE	83,411						
Low		79,200	76,600	73,900	71,300	68,800	66,400
Medium		84,300	85,100	85,700	86,200	86,500	86,800
High		89,300	93,600	97,500	101,000	104,300	107,200
NASSAU	93,012						
Low		94,600	98,200	99,800	100,500	100,300	99,600
Medium		101,700	110,900	118,500	125,300	131,100	136,500
High		108,800	123,700	137,200	150,000	162,000	173,300
OKALOOSA	213,204						
Low		210,200	210,400	208,700	206,000	202,600	198,900
Medium		223,600	233,800	241,900	248,900	254,800	260,000
High		237,000	257,100	275,200	291,900	307,100	321,100
OKEECHOBEE	39,148						
Low		37,900	37,100	36,100	35,100	34,100	33,300
Medium		39,900	40,500	40,900	41,200	41,400	41,600
High		41,900	44,000	45,700	47,200	48,600	49,900
ORANGE	1,457,940						
Low		1,483,000	1,534,200	1,558,500	1,566,800	1,565,400	1,559,200
Medium		1,577,700	1,704,700	1,807,000	1,893,400	1,969,000	2,038,200
High		1,672,300	1,875,100	2,055,500	2,220,000	2,372,700	2,517,200
OSCEOLA	406,460						
Low		431,000	465,100	484,400	496,100	502,700	506,100
Medium		463,500	525,500	575,000	618,200	657,100	693,200
High		495,900	586,000	665,500	740,400	811,600	880,400
PALM BEACH	1,502,495						
Low		1,492,900	1,504,200	1,502,700	1,492,900	1,478,700	1,462,900
Medium		1,571,500	1,643,900	1,702,700	1,751,200	1,792,300	1,828,700
High		1,650,100	1,783,600	1,902,800	2,009,500	2,106,000	2,194,400
PASCO	575,891						
Low		585,900	605,100	614,800	617,900	617,200	614,600
Medium		623,300	672,400	712,800	746,700	776,300	803,400
High		660,700	739,600	810,800	875,500	935,500	992,200
PINELLAS	964,490						
Low		940,300	924,800	908,300	891,900	876,500	862,700
Medium		979,500	994,400	1,006,400	1,016,500	1,025,200	1,033,100
High		1,018,700	1,064,000	1,104,500	1,141,000	1,173,900	1,203,600
POLK	748,365						
Low		762,300	790,000	804,500	810,300	810,500	808,000
Medium		810,900	877,800	932,700	979,200	1,019,500	1,056,200
High		859,600	965,500	1,061,000	1,148,100	1,228,500	1,304,400
PUTNAM	73,673						
Low		70,300	68,100	65,900	63,900	62,000	60,300
Medium		74,000	74,400	74,700	75,000	75,200	75,400
High		77,700	80,700	83,500	86,000	88,300	90,500
ST. JOHNS	285,533						
Low		302,100	324,200	337,100	345,000	349,200	351,200
Medium		324,800	366,400	400,200	429,900	456,500	481,100
High		347,600	408,500	463,200	514,800	563,800	611,100
ST. LUCIE	340,060						
Low		348,200	362,900	370,700	373,200	373,400	372,500
Medium		370,400	403,200	429,800	451,000	469,700	486,900
High		392,600	443,500	488,900	528,800	566,000	601,400

Appendix E.

TM Tool Sheets

TMTOOL INPUT SHEET

Project Description:

SECTION NO:	88000000	PREPARED BY:	Sergio Rios
FM NO.:	4490007-1-22-01	FILE:	Version 1
PROJECT LIMITS:	from MP 1.077 to MP 1.947	DATE:	11/23/2022
DESIGN YEAR:	2050	T-INTERSECTION?	Yes
INTERSECTION:	SR 934 and Adventure Avenue	MISSING Leg:	North Leg

NOTES:

Historical AADTs:

	YEAR	NORTH LEG AADT	EAST LEG AADT	SOUTH LEG AADT	WEST LEG AADT
		-			
		-			
		-			
Model Volume:		-			

Growth Rates:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
Historic Trend GR =	-	CGR		CGR		CGR		CGR
Historic + Model Trend GR =	-	CGR		CGR		CGR		CGR
Base Year Model to Future Year Model GR =	-	CGR		CGR		CGR		CGR
Recommended Growth Rate:	**-**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**

Choose Methodology for Calculating Growth Factor on Each Leg (Input 1, 2 or 3)

	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
1 = Compound Growth Throughout All Years	-	2	2	2

2 = Linear Growth Throughout All Years

3 = Blend of Compound Growth First Ten Years, Linear Growth Thereafter (Based Upon the Base Year AADT)

		YEAR	NORTH LEG FACTOR	NORTH LEG AADT	EAST LEG FACTOR	EAST LEG AADT	SOUTH LEG FACTOR	SOUTH LEG AADT	WEST LEG FACTOR	WEST LEG AADT
		2022		-		38,500		3,400		39,500
NO. YEARS	8	2030	-	-	1.045	40,200	1.045	3,600	1.045	41,300
NO. YEARS	18	2040	-	-	1.101	42,400	1.101	3,700	1.101	43,500
NO. YEARS	28	2050	-	-	1.157	44,500	1.157	3,900	1.157	45,700

Percent Turns Calculated From Base Year TMCs:

TURN STUDY		FROM NORTH LEG (Southbound)			FROM EAST LEG (Westbound)			FROM SOUTH LEG (Northbound)			FROM WEST LEG (Eastbound)			
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	TOTAL
A.M.	2-Way Pk Hr Vol:	-				3,022			326			3,149		
10/6/2022		-	-	-	-	1,263	47	47	-	139	82	1,663	-	3,256
% TURNS:		-	-	-	-	96%	4%	24%	-	71%	5%	95%	-	
P.M.	2-Way Pk Hr Vol:	-				2,937			302			3,067		
10/4/2022		-	-	-	-	1,588	45	40	-	112	103	1,262	-	3,156
% TURNS:		-	-	-	-	97%	3%	26%	-	73%	8%	92%	-	

Est. % Turns Calculated From Base Year AADTs & TMCs:

SUGGESTED STARTING POINTS

	NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M.												
2022	-	-	-	-	96%	4%	24%	-	71%	5%	95%	-
2030	-	-	-	-	96%	4%	27%	-	69%	5%	95%	-
2040	-	-	-	-	96%	4%	27%	-	68%	5%	95%	-
2050	-	-	-	-	96%	4%	28%	-	68%	5%	95%	-
P.M.												
2022	-	-	-	-	97%	3%	26%	-	73%	8%	92%	-
2030	-	-	-	-	97%	3%	28%	-	71%	8%	92%	-
2040	-	-	-	-	97%	3%	29%	-	70%	8%	92%	-
2050	-	-	-	-	96%	4%	30%	-	69%	8%	92%	-

K & D FACTORS:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
	AM	PM	AM	PM	AM	PM	AM	PM
K FACTOR								
2022	-	-	7.8%	7.6%	9.6%	8.9%	8.0%	7.8%
2030	-	-	8.2%	8.0%	9.4%	8.9%	8.3%	8.1%
2040	-	-	8.6%	8.5%	9.2%	9.0%	8.6%	8.6%
2050	-	-	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
D FACTOR								
2022	-	-	43.4%	55.6%	60.1%	50.7%	55.4%	44.5%
2030	-	-	44.2%	55.1%	60.3%	47.4%	54.9%	45.0%
2040	-	-	45.3%	54.4%	60.6%	43.2%	54.3%	45.7%
2050	-	-	46.3%	53.7%	60.9%	39.1%	53.7%	46.3%

TMTOOL "TURNS" REPORT

DESIGN HOUR TURNS CALCULATIONS

SECTION NO: 88000000
FM NO.: 4490007-1-22-01
PROJECT LIMITS: from MP 1.077 to MP 1.947
DESIGN YEAR: 2050
INTERSECTION: SR 934 and Adventure Avenue
PREPARED BY: Sergio Rios
FILE: Version 1

DATE: 11/23/2022
NOTES:

ESTIMATED TWO-WAY 24 HOUR AADT FOR EACH LEG OF THE INTERSECTION:

	YEAR	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
24 HR EST. AADT	2022	-	38,500	3,400	39,500
24 HR EST. AADT	2030	-	40,200	3,600	41,300
24 HR EST. AADT	2040	-	42,400	3,700	43,500
24 HR EST. AADT	2050	-	44,500	3,900	45,700

Percent Turns Calculated From Base Year AADTs:

JKTURNS		FROM NORTH LEG			FROM EAST LEG			FROM SOUTH LEG			FROM WEST LEG		
	2022 2-WAY ADT	-			38,500			3,400			39,500		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		-	-	-	-	39,500	3,400	38,500	-	39,500	3,400	38,500	-
		-	-	-	-	92%	8%	49%	-	51%	8%	92%	-
	2030 2-WAY ADT	-			40,200			3,600			41,300		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		-	-	-	-	41,300	3,600	40,200	-	41,300	3,600	40,200	-
		-	-	-	-	92%	8%	49%	-	51%	8%	92%	-
	2040 2-WAY ADT	-			42,400			3,700			43,500		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		-	-	-	-	43,500	3,700	42,400	-	43,500	3,700	42,400	-
		-	-	-	-	92%	8%	49%	-	51%	8%	92%	-
	2050 2-WAY ADT	-			44,500			3,900			45,700		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		-	-	-	-	45,700	3,900	44,500	-	45,700	3,900	44,500	-
		-	-	-	-	92%	8%	49%	-	51%	8%	92%	-

		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M. DESIGN HR. TURNS													
2022	EST. TURNS	-	-	-	-	1,259	48	48	-	143	84	1,659	-
2030	EST. TURNS	-	-	-	-	1,389	51	56	-	144	86	1,779	-
2040	EST. TURNS	-	-	-	-	1,575	52	57	-	146	87	1,933	-
2050	EST. TURNS	-	-	-	-	1,755	56	62	-	147	89	2,092	-
P.M. DESIGN HR. TURNS													
2022	EST. TURNS	-	-	-	-	1,591	44	40	-	112	101	1,264	-
2030	EST. TURNS	-	-	-	-	1,729	55	43	-	114	111	1,399	-
2040	EST. TURNS	-	-	-	-	1,917	64	44	-	115	122	1,602	-
2050	EST. TURNS	-	-	-	-	2,109	75	46	-	117	136	1,814	-

LINK VOLUME CHECK		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
DESIGN HOUR A.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		-	-	-	1,311	1,709	3,020	196	134	330	1,746	1,404	3,150
2022	TURN SUMMARY	-	-	-	1,308	1,709	3,017	196	134	330	1,743	1,404	3,147
CONTROL LINK VOLUMES		-	-	-	1,454	1,836	3,290	205	135	340	1,876	1,534	3,410
2030	TURN SUMMARY	-	-	-	1,440	1,836	3,276	203	139	342	1,870	1,535	3,405
CONTROL LINK VOLUMES		-	-	-	1,648	1,992	3,640	207	133	340	2,040	1,720	3,760
2040	TURN SUMMARY	-	-	-	1,628	1,993	3,621	207	141	348	2,026	1,724	3,750
CONTROL LINK VOLUMES		-	-	-	1,854	2,156	4,010	214	136	350	2,209	1,901	4,110
2050	TURN SUMMARY	-	-	-	1,812	2,157	3,969	214	148	362	2,185	1,904	4,089
DESIGN HOUR P.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		-	-	-	1,634	1,306	2,940	153	147	300	1,366	1,704	3,070
2022	TURN SUMMARY	-	-	-	1,636	1,306	2,942	153	147	300	1,367	1,704	3,071
CONTROL LINK VOLUMES		-	-	-	1,776	1,444	3,220	152	168	320	1,510	1,840	3,350
2030	TURN SUMMARY	-	-	-	1,787	1,444	3,231	160	168	328	1,518	1,845	3,363
CONTROL LINK VOLUMES		-	-	-	1,963	1,647	3,610	143	187	330	1,700	2,020	3,720
2040	TURN SUMMARY	-	-	-	1,983	1,649	3,632	164	190	354	1,733	2,035	3,768
CONTROL LINK VOLUMES		-	-	-	2,151	1,859	4,010	137	213	350	1,904	2,206	4,110
2050	TURN SUMMARY	-	-	-	2,186	1,864	4,050	169	218	387	1,958	2,227	4,185

Note: Boxed number indicates manual adjustment.

TMTOOL INPUT SHEET

Project Description:

SECTION NO:	88000000	PREPARED BY:	Sergio Rios
FM NO.:	4490007-1-22-01	FILE:	Version 1
PROJECT LIMITS:	from MP 1.077 to MP 1.947	DATE:	1/27/2023
DESIGN YEAR:	2050		
INTERSECTION:	SR 934 and Harbor Island Drive		

NOTES:

Historical AADTs:

	YEAR	NORTH LEG AADT	EAST LEG AADT	SOUTH LEG AADT	WEST LEG AADT
Model Volume:					

Growth Rates:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
Historic Trend GR =		CGR		CGR		CGR		CGR
Historic + Model Trend GR =		CGR		CGR		CGR		CGR
Base Year Model to Future Year Model GR =		CGR		CGR		CGR		CGR
Recommended Growth Rate:	**0.56%**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**

Choose Methodology for Calculating Growth Factor on Each Leg (Input 1, 2 or 3)

1 = Compound Growth Throughout All Years
2 = Linear Growth Throughout All Years
3 = Blend of Compound Growth First Ten Years, Linear Growth Thereafter (Based Upon the Base Year AADT)

			2		**2**		**2**		**2**	
		YEAR	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT
		2022		7,200		39,500		1,200		42,000
NO. YEARS	8	2030	1.045	7,500	1.045	41,300	1.045	1,300	1.045	43,900
NO. YEARS	18	2040	1.101	7,900	1.101	43,500	1.101	1,300	1.101	46,200
NO. YEARS	28	2050	1.157	8,300	1.157	45,700	1.157	1,400	1.157	48,600

Percent Turns Calculated From Base Year TMCs:

TURN STUDY		FROM NORTH LEG (Southbound)			FROM EAST LEG (Westbound)			FROM SOUTH LEG (Northbound)			FROM WEST LEG (Eastbound)			
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	TOTAL
A.M.	2-Way Pk Hr Vol:	512			3,162			104			3,288		
10/5/2022	219	2	121	75	1,311	23	24	0	37	18	1,608	95	3,533
% TURNS:	64%	1%	35%	5%	93%	2%	39%	0%	61%	1%	93%	6%	
P.M.	2-Way Pk Hr Vol:	574			3,090			82			3,214		
10/5/2022	126	4	105	126	1,583	17	9	5	20	27	1,250	208	3,480
% TURNS:	54%	2%	45%	7%	92%	1%	26%	15%	59%	2%	84%	14%	

Est. % Turns Calculated From Base Year AADTs & TMCs:

SUGGESTED STARTING POINTS

	NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M.												
2022	64%	1%	35%	5%	93%	2%	39%	0%	61%	1%	93%	6%
2030	63%	1%	37%	6%	92%	2%	40%	1%	59%	1%	92%	6%
2040	62%	1%	37%	6%	92%	2%	40%	1%	59%	1%	92%	7%
2050	62%	1%	37%	7%	91%	2%	40%	1%	58%	1%	92%	7%
P.M.												
2022	54%	2%	45%	7%	92%	1%	26%	15%	59%	2%	84%	14%
2030	53%	2%	45%	8%	91%	1%	28%	14%	58%	2%	84%	14%
2040	53%	2%	45%	8%	91%	1%	29%	14%	57%	2%	84%	14%
2050	53%	2%	45%	8%	90%	1%	29%	14%	57%	2%	84%	14%

K & D FACTORS:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
	AM	PM	AM	PM	AM	PM	AM	PM
K FACTOR								
2022	7.1%	8.0%	8.0%	7.8%	8.7%	6.8%	7.8%	7.7%
2030	7.7%	8.3%	8.3%	8.2%	8.8%	7.5%	8.2%	8.0%
2040	8.3%	8.6%	8.6%	8.6%	8.9%	8.2%	8.6%	8.5%
2050	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
D FACTOR								
2022	66.8%	40.9%	44.6%	55.9%	58.7%	41.5%	52.3%	46.2%
2030	65.1%	40.4%	45.1%	55.2%	59.3%	40.8%	52.7%	46.2%
2040	63.0%	39.8%	45.7%	54.5%	60.1%	39.9%	53.2%	46.3%
2050	60.9%	39.1%	46.3%	53.7%	60.9%	39.1%	53.7%	46.3%

TMTOOL "TURNS" REPORT

DESIGN HOUR TURNS CALCULATIONS

SECTION NO: 88000000
FM NO.: 4490007-1-22-01
PROJECT LIMITS: from MP 1.077 to MP 1.947
DESIGN YEAR: 2050
INTERSECTION: SR 934 and Harbor Island Drive
PREPARED BY: Sergio Rios
FILE: Version 1

DATE: 1/27/2023
NOTES:

ESTIMATED TWO-WAY 24 HOUR AADT FOR EACH LEG OF THE INTERSECTION:

	YEAR	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
24 HR EST. AADT	2022	7,200	39,500	1,200	42,000
24 HR EST. AADT	2030	7,500	41,300	1,300	43,900
24 HR EST. AADT	2040	7,900	43,500	1,300	46,200
24 HR EST. AADT	2050	8,300	45,700	1,400	48,600

Percent Turns Calculated From Base Year AADTs:

JKTURNS		FROM NORTH LEG			FROM EAST LEG			FROM SOUTH LEG			FROM WEST LEG		
	2022 2-WAY ADT		7,200			39,500			1,200			42,000	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		42,000	1,200	39,500	7,200	42,000	1,200	39,500	7,200	42,000	1,200	39,500	7,200
		51%	1%	48%	14%	83%	2%	45%	8%	47%	3%	82%	15%
	2030 2-WAY ADT		7,500			41,300			1,300			43,900	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		43,900	1,300	41,300	7,500	43,900	1,300	41,300	7,500	43,900	1,300	41,300	7,500
		51%	2%	48%	14%	83%	2%	45%	8%	47%	3%	82%	15%
	2040 2-WAY ADT		7,900			43,500			1,300			46,200	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		46,200	1,300	43,500	7,900	46,200	1,300	43,500	7,900	46,200	1,300	43,500	7,900
		51%	1%	48%	14%	83%	2%	45%	8%	47%	2%	83%	15%
	2050 2-WAY ADT		8,300			45,700			1,400			48,600	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		48,600	1,400	45,700	8,300	48,600	1,400	45,700	8,300	48,600	1,400	45,700	8,300
		51%	1%	48%	14%	83%	2%	45%	8%	47%	3%	82%	15%

		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M. DESIGN HR. TURNS													
2022	EST. TURNS	219	2	120	74	1,313	21	24	0	37	16	1,607	94
2030	EST. TURNS	234	3	131	84	1,415	23	26	1	40	19	1,720	111
2040	EST. TURNS	259	4	142	104	1,551	25	27	2	41	23	1,874	141
2050	EST. TURNS	283	6	151	122	1,693	26	28	3	45	25	2,027	172
P.M. DESIGN HR. TURNS													
2022	EST. TURNS	125	4	105	125	1,580	16	9	5	20	26	1,250	205
2030	EST. TURNS	139	5	111	139	1,735	22	11	6	24	34	1,387	225
2040	EST. TURNS	156	6	119	151	1,936	24	12	8	27	38	1,566	253
2050	EST. TURNS	173	7	127	167	2,141	29	14	9	31	47	1,760	285

LINK VOLUME CHECK		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
DESIGN HOUR A.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		342	168	510	1,409	1,751	3,160	61	39	100	1,721	1,569	3,290
2022	TURN SUMMARY	341	168	509	1,407	1,751	3,158	61	39	100	1,717	1,569	3,286
CONTROL LINK VOLUMES		374	196	570	1,543	1,877	3,420	68	42	110	1,890	1,690	3,580
2030	TURN SUMMARY	369	197	566	1,523	1,877	3,400	68	45	113	1,850	1,690	3,540
CONTROL LINK VOLUMES		414	246	660	1,718	2,042	3,760	69	51	120	2,110	1,850	3,960
2040	TURN SUMMARY	405	247	652	1,680	2,043	3,723	69	53	122	2,038	1,850	3,888
CONTROL LINK VOLUMES		455	295	750	1,904	2,206	4,110	77	53	130	2,349	2,021	4,370
2050	TURN SUMMARY	440	297	737	1,841	2,206	4,047	76	57	133	2,224	2,021	4,245
DESIGN HOUR P.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		235	335	570	1,726	1,364	3,090	34	46	80	1,485	1,725	3,210
2022	TURN SUMMARY	234	335	569	1,721	1,364	3,085	34	46	80	1,481	1,725	3,206
CONTROL LINK VOLUMES		251	369	620	1,861	1,509	3,370	40	60	100	1,631	1,899	3,530
2030	TURN SUMMARY	255	370	625	1,896	1,509	3,405	42	61	102	1,645	1,899	3,544
CONTROL LINK VOLUMES		271	409	680	2,033	1,697	3,730	43	67	110	1,821	2,119	3,940
2040	TURN SUMMARY	280	411	691	2,111	1,697	3,808	46	68	114	1,857	2,119	3,976
CONTROL LINK VOLUMES		292	458	750	2,209	1,901	4,110	49	81	130	2,025	2,345	4,370
2050	TURN SUMMARY	308	461	769	2,336	1,901	4,237	54	83	137	2,091	2,345	4,436

Note: Boxed number indicates manual adjustment.

TMTOOL INPUT SHEET

Project Description:

SECTION NO:	88000000	PREPARED BY:	Sergio Rios
FM NO.:	4490007-1-22-01	FILE:	Version 1
PROJECT LIMITS:	from MP 1.077 to MP 1.947	DATE:	1/27/2023
DESIGN YEAR:	2050		
INTERSECTION:	SR 934 and Pelican Harbor Drive		

NOTES:

Historical AADTs:

	YEAR	NORTH LEG AADT	EAST LEG AADT	SOUTH LEG AADT	WEST LEG AADT
	2011				
	2012				
	2013				
	2014				
Model Volume:	2030				

Growth Rates:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
Historic Trend GR =		CGR		CGR		CGR		CGR
Historic + Model Trend GR =		CGR		CGR		CGR		CGR
Base Year Model to Future Year Model GR =		CGR		CGR		CGR		CGR
Recommended Growth Rate:	**0.56%**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**	**0.56%**	**CGR**

Choose Methodology for Calculating Growth Factor on Each Leg (Input 1, 2 or 3)

1 = Compound Growth Throughout All Years
2 = Linear Growth Throughout All Years
3 = Blend of Compound Growth First Ten Years, Linear Growth Thereafter (Based Upon the Base Year AADT)

			2		**2**		**2**		**2**	
	YEAR	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT	
	2022		700		42,000		800		42,000	
NO. YEARS 8	2030	1.045	700	1.045	43,900	1.045	800	1.045	43,900	
NO. YEARS 18	2040	1.101	800	1.101	46,200	1.101	900	1.101	46,200	
NO. YEARS 28	2050	1.157	800	1.157	48,600	1.157	900	1.157	48,600	

Percent Turns Calculated From Base Year TMCs:

TURN STUDY		FROM NORTH LEG (Southbound)			FROM EAST LEG (Westbound)			FROM SOUTH LEG (Northbound)			FROM WEST LEG (Eastbound)			
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	TOTAL
A.M.	2-Way Pk Hr Vol:	26				3,286			16			3,300		
10/6/2022		8	3	0	3	1,560	4	3	1	3	2	1,716	11	3,314
% TURNS:		73%	27%	0%	0%	100%	0%	43%	14%	43%	0%	99%	1%	
P.M.	2-Way Pk Hr Vol:	39				3,211			24			3,240		
10/6/2022		20	0	4	6	1,719	6	1	0	14	3	1,475	9	3,257
% TURNS:		83%	0%	17%	0%	99%	0%	7%	0%	93%	0%	99%	1%	

Est. % Turns Calculated From Base Year AADTs & TMCs:

SUGGESTED STARTING POINTS

	NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M.												
2022	73%	27%	0%	0%	100%	0%	43%	14%	43%	0%	99%	1%
2030	70%	25%	5%	0%	99%	0%	44%	13%	44%	0%	99%	1%
2040	70%	24%	6%	0%	99%	0%	44%	13%	44%	0%	99%	1%
2050	69%	23%	8%	0%	99%	1%	44%	12%	44%	0%	99%	1%
P.M.												
2022	83%	0%	17%	0%	99%	0%	7%	0%	93%	0%	99%	1%
2030	80%	0%	20%	0%	99%	0%	11%	0%	89%	0%	99%	1%
2040	79%	0%	21%	1%	99%	1%	12%	0%	88%	0%	99%	1%
2050	78%	0%	22%	1%	99%	1%	14%	0%	86%	0%	99%	1%

K & D FACTORS:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
	AM	PM	AM	PM	AM	PM	AM	PM
K FACTOR								
2022	3.7%	5.6%	7.8%	7.6%	2.0%	3.0%	7.9%	7.7%
2030	5.2%	6.6%	8.2%	8.0%	4.0%	4.7%	8.2%	8.1%
2040	7.1%	7.8%	8.6%	8.5%	6.5%	6.9%	8.6%	8.5%
2050	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
D FACTOR								
2022	42.3%	61.5%	47.7%	53.9%	43.8%	62.5%	52.4%	45.9%
2030	41.4%	61.4%	47.3%	53.8%	42.4%	62.0%	52.8%	46.0%
2040	40.2%	61.1%	46.8%	53.8%	40.8%	61.5%	53.2%	46.2%
2050	39.1%	60.9%	46.3%	53.7%	39.1%	60.9%	53.7%	46.3%

TMTOOL "TURNS" REPORT

DESIGN HOUR TURNS CALCULATIONS

SECTION NO: 88000000
FM NO.: 4490007-1-22-01
PROJECT LIMITS: from MP 1.077 to MP 1.947
DESIGN YEAR: 2050
INTERSECTION: SR 934 and Pelican Harbor Drive
PREPARED BY: Sergio Rios
FILE: Version 1

DATE: 1/27/2023
NOTES:

ESTIMATED TWO-WAY 24 HOUR AADT FOR EACH LEG OF THE INTERSECTION:

	YEAR	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
24 HR EST. AADT	2022	700	42,000	800	42,000
24 HR EST. AADT	2030	700	43,900	800	43,900
24 HR EST. AADT	2040	800	46,200	900	46,200
24 HR EST. AADT	2050	800	48,600	900	48,600

Percent Turns Calculated From Base Year AADTs:

JKTURNS		FROM NORTH LEG			FROM EAST LEG			FROM SOUTH LEG			FROM WEST LEG		
	2022 2-WAY ADT		700			42,000			800			42,000	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		42,000	800	42,000	700	42,000	800	42,000	700	42,000	800	42,000	700
		50%	1%	50%	2%	97%	2%	50%	1%	50%	2%	97%	2%
	2030 2-WAY ADT		700			43,900			800			43,900	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		43,900	800	43,900	700	43,900	800	43,900	700	43,900	800	43,900	700
		50%	1%	50%	2%	97%	2%	50%	1%	50%	2%	97%	2%
	2040 2-WAY ADT		800			46,200			900			46,200	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		46,200	900	46,200	800	46,200	900	46,200	800	46,200	900	46,200	800
		50%	1%	50%	2%	96%	2%	50%	1%	50%	2%	96%	2%
	2050 2-WAY ADT		800			48,600			900			48,600	
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
		48,600	900	48,600	800	48,600	900	48,600	800	48,600	900	48,600	800
		50%	1%	50%	2%	97%	2%	50%	1%	50%	2%	97%	2%

		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M. DESIGN HR. TURNS													
2022	EST. TURNS	7	4	0	4	1,561	6	3	1	3	3	1,720	14
2030	EST. TURNS	11	6	1	7	1,678	7	6	2	6	5	1,879	16
2040	EST. TURNS	14	8	2	10	1,834	15	10	4	10	12	2,094	23
2050	EST. TURNS	16	10	4	12	1,992	20	14	5	13	18	2,329	25
P.M. DESIGN HR. TURNS													
2022	EST. TURNS	20	0	4	6	1,719	3	1	0	14	2	1,474	10
2030	EST. TURNS	22	2	6	10	1,875	11	3	2	20	6	1,623	12
2040	EST. TURNS	29	3	8	12	2,067	13	5	4	33	9	1,801	13
2050	EST. TURNS	33	4	10	14	2,271	19	7	6	41	12	2,003	14

LINK VOLUME CHECK		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
DESIGN HOUR A.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		11	19	30	1,567	1,723	3,290	7	13	20	1,729	1,571	3,300
2022	TURN SUMMARY	11	19	30	1,571	1,723	3,294	7	13	20	1,737	1,571	3,308
CONTROL LINK VOLUMES		15	25	40	1,694	1,886	3,580	14	16	30	1,896	1,694	3,590
2030	TURN SUMMARY	17	25	42	1,691	1,886	3,577	14	18	32	1,901	1,694	3,595
CONTROL LINK VOLUMES		23	37	60	1,855	2,105	3,960	24	36	60	2,113	1,857	3,970
2040	TURN SUMMARY	24	37	61	1,859	2,106	3,965	24	36	60	2,129	1,857	3,986
CONTROL LINK VOLUMES		28	42	70	2,025	2,345	4,370	32	48	80	2,349	2,021	4,370
2050	TURN SUMMARY	30	42	72	2,024	2,347	4,371	32	48	80	2,372	2,021	4,393
DESIGN HOUR P.M.:		FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK	FROM	TO	LINK
CONTROL LINK VOLUMES		24	16	40	1,731	1,479	3,210	15	5	20	1,487	1,753	3,240
2022	TURN SUMMARY	24	16	40	1,729	1,479	3,208	15	5	20	1,485	1,753	3,238
CONTROL LINK VOLUMES		28	22	50	1,899	1,631	3,530	23	17	40	1,632	1,918	3,550
2030	TURN SUMMARY	30	24	54	1,896	1,631	3,527	25	19	44	1,641	1,918	3,559
CONTROL LINK VOLUMES		38	22	60	2,116	1,814	3,930	38	22	60	1,821	2,129	3,950
2040	TURN SUMMARY	41	29	70	2,092	1,814	3,906	42	25	67	1,823	2,129	3,952
CONTROL LINK VOLUMES		44	26	70	2,349	2,021	4,370	49	31	80	2,025	2,345	4,370
2050	TURN SUMMARY	47	34	81	2,304	2,021	4,325	54	35	89	2,029	2,345	4,374

Note: Boxed number indicates manual adjustment.

TMTOOL INPUT SHEET

Project Description:

SECTION NO:	88000000	PREPARED BY:	Sergio Rios
FM NO.:	4490007-1-22-01	FILE:	Version 1
PROJECT LIMITS:	from MP 1.077 to MP 1.947	DATE:	11/23/2022
DESIGN YEAR:	2050	T-INTERSECTION?	Yes
INTERSECTION:	SR 934 and WSVN TV Driveway	MISSING Leg:	South Leg

NOTES:

Historical AADTs:

	YEAR	NORTH LEG AADT	EAST LEG AADT	SOUTH LEG AADT	WEST LEG AADT
	2011			-	
	2012			-	
	2013			-	
	2014			-	
Model Volume:	2035				

Growth Rates:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
Historic Trend GR =		CGR		CGR	-	CGR		CGR
Historic + Model Trend GR =		CGR		CGR	-	CGR		CGR
Base Year Model to Future Year Model GR =		CGR		CGR	-	CGR		CGR
Recommended Growth Rate:	**0.56%**	**CGR**	**0.56%**	**CGR**	**-**	**CGR**	**0.56%**	**CGR**

Choose Methodology for Calculating Growth Factor on Each Leg (Input 1, 2 or 3)

1 = Compound Growth Throughout All Years
2 = Linear Growth Throughout All Years
3 = Blend of Compound Growth First Ten Years, Linear Growth Thereafter (Based Upon the Base Year AADT)

		NORTH LEG: **2**		EAST LEG: **2**		SOUTH LEG: **-**		WEST LEG: **2**	
	YEAR	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT	FACTOR	AADT
	2022		600		39,500		-		39,500
NO. YEARS 8	2030	1.045	600	1.045	41,300	-	-	1.045	41,300
NO. YEARS 18	2040	1.101	700	1.101	43,500	-	-	1.101	43,500
NO. YEARS 28	2050	1.157	700	1.157	45,700	-	-	1.157	45,700

Percent Turns Calculated From Base Year TMCs:

TURN STUDY		FROM NORTH LEG (Southbound)			FROM EAST LEG (Westbound)			FROM SOUTH LEG (Northbound)			FROM WEST LEG (Eastbound)			
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	TOTAL
A.M.	2-Way Pk Hr Vol:	36				3,149			-			3,169		
10/6/2022		11	-	1	6	1,396	-	-	-	-	-	1,744	16	3,180
% TURNS:		85%	-	8%	0%	100%	-	-	-	-	-	99%	1%	
P.M.	2-Way Pk Hr Vol:	42				3,066			-			3,096		
10/6/2022		28	-	3	2	1,698	-	-	-	-	-	1,361	7	3,105
% TURNS:		88%	-	9%	0%	100%	-	-	-	-	-	99%	1%	

Est. % Turns Calculated From Base Year AADTs & TMCs:

SUGGESTED STARTING POINTS

		NORTH LEG			EAST LEG			SOUTH LEG			WEST LEG		
		RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT	RIGHT	THRU	LEFT
A.M.													
	2022	85%	-	8%	0%	100%	-	-	-	-	-	99%	1%
	2030	81%	-	12%	1%	99%	-	-	-	-	-	99%	1%
	2040	80%	-	13%	1%	99%	-	-	-	-	-	99%	1%
	2050	79%	-	15%	1%	99%	-	-	-	-	-	99%	1%
P.M.													
	2022	88%	-	9%	0%	100%	-	-	-	-	-	99%	1%
	2030	84%	-	13%	0%	100%	-	-	-	-	-	99%	1%
	2040	83%	-	14%	0%	100%	-	-	-	-	-	99%	1%
	2050	81%	-	16%	0%	100%	-	-	-	-	-	99%	1%

K & D FACTORS:

	NORTH LEG		EAST LEG		SOUTH LEG		WEST LEG	
	AM	PM	AM	PM	AM	PM	AM	PM
K FACTOR								
2022	6.0%	7.0%	8.0%	7.8%	-	-	8.0%	7.8%
2030	6.9%	7.6%	8.3%	8.1%	-	-	8.3%	8.2%
2040	7.9%	8.3%	8.6%	8.6%	-	-	8.7%	8.6%
2050	9.0%	9.0%	9.0%	9.0%	-	-	9.0%	9.0%
D FACTOR								
2022	36.1%	76.2%	44.6%	55.5%	-	-	55.6%	44.2%
2030	30.4%	78.4%	45.1%	55.0%	-	-	55.0%	44.8%
2040	23.2%	81.1%	45.7%	54.3%	-	-	54.4%	45.6%
2050	16.1%	83.9%	46.3%	53.7%	-	-	53.7%	46.3%

Appendix C.

Existing Signal Timings

TOD Schedule Report

for 3014: Adventure Av&J. F. Kennedy Blvd

Print Date: 11/16/2022

Print Time: 9:28 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3014	Adventure Av&J. F. Kennedy Blvd	DOW-4	TOD	[04] HEAVY AM PEAK	150	106	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	WBT	-	NBT	WBL	EBT	-	-
0	70	0	53	0	63	0	13

Active Phase Bank: Phase Bank 1

Phase	Walk	Don't Walk	Min Initial	Veh Ext	Max Limit	Max 2	Yellow	Red
Phase Bank	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2 WBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	1 - 1 - 1	30 - 40 - 40	0 - 50 - 50	4	3
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	2.5 - 2.5 - 2.5	12 - 25 - 12	80 - 12 - 8	4	3.2
5 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 10 - 10	80 - 0 - 10	4	3
6 EBT	7 - 7 - 7	32 - 32 - 32	7 - 7 - 7	1 - 1 - 1	30 - 40 - 40	0 - 50 - 50	4	3
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	7 - 7 - 7	28 - 28 - 28	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	-2-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

Current TOD Schedule	Plan	Cycle	Green Time 1	2	3	4	5	6	7	8	Ring Offset	Offset
	Free		-	WBT	-	NBT	WBL	EBT	-	-		
0600	4	150	0	70	0	53	0	63	0	13	0	106
1330	8	150	0	74	0	49	0	67	0	13	0	142
1530	9	150	0	74	0	49	0	67	0	13	0	84
2200	11	140	0	60	0	53	0	53	0	13	0	5

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S
0600	4	M T W Th F
0800	4	Su S
1330	8	M T W Th F
1530	9	M T W Th F
2000	11	Su S
2200	11	M T W Th F

TOD Schedule Report

for 3014: Adventure Av&J. F. Kennedy Blvd

Print Date: 11/16/2022

Print Time: 9:28 AM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

TOD Schedule Report

for 3015: Harbor Dr&J. F. Kennedy Blvd

Print Date: 11/16/2022

Print Time: 9:27 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3015	Harbor Dr&J. F. Kennedy Blvd	DOW-4	TOD	[04] HEAVY AM PEAK	150	106	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	SBT	NBT	WBL	EBT	-	-
9	48	35	28	14	43	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk	Don't Walk	Min Initial	Veh Ext	Max Limit	Max 2	Yellow	Red
Phase Bank	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	20 - 15 - 6	20 - 15 - 6	3.7	3.3
2 WBT	4 - 4 - 4	36 - 36 - 36	4 - 4 - 4	1 - 1 - 1	100 - 50 - 45	0 - 75 - 45	4	3.3
3 SBT	4 - 4 - 4	24 - 24 - 24	7 - 7 - 7	2.5 - 2.5 - 2.5	20 - 16 - 12	60 - 16 - 10	4	3.7
4 NBT	4 - 4 - 4	24 - 24 - 24	10 - 10 - 10	4 - 4 - 4	20 - 16 - 10	60 - 16 - 8	4	3.7
5 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	20 - 15 - 6	20 - 15 - 6	3.7	3.3
6 EBT	4 - 4 - 4	36 - 36 - 36	4 - 4 - 4	1 - 1 - 1	100 - 50 - 45	0 - 75 - 45	4	3.3
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0

Last In Service Date: unknown

Permitted Phases

	12345678
Default	123456--
External Permit 0	--------
External Permit 1	-234-6--
External Permit 2	-234-6--

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 SBT	4 NBT	5 WBL	6 EBT	7 -	8 -	Ring Offset	Offset
	Free											
0600	4	150	9	48	35	28	14	43	0	0	0	106
1330	8	150	9	55	28	28	11	53	0	0	0	102
1530	9	150	9	55	28	28	11	53	0	0	0	97
2200	11	140	6	47	29	28	10	43	0	0	0	5
	23	90	5	20	27	8	5	20	0	0	0	10

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S
0600	4	M T W Th F
0800	4	Su S
1330	8	M T W Th F
1530	9	M T W Th F
2000	11	Su S
2200	11	M T W Th F

TOD Schedule Report

for 3015: Harbor Dr&J. F. Kennedy Blvd

Print Date: 11/16/2022

Print Time: 9:27 AM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

TOD Schedule Report

for 3785: J. F. Kennedy Blvd&Pelican Harbor Dr

Print Date: 11/16/2022

Print Time: 12:14 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3785	J. F. Kennedy Blvd&Pelican Harbor Dr	DOW-4	TOD	[01] EARLY MORNING	100	66	N/A	1	Max 2

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	-	NBT	WBL	EBT	-	SBT
5	55	0	22	5	55	0	22

Active Phase Bank: Phase Bank 1

Phase	Walk	Don't Walk	Min Initial	Veh Ext	Max Limit	Max 2	Yellow	Red
Phase Bank	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	10 - 5 - 10	10 - 16 - 16	3.7	2
2 WBT	5 - 5 - 5	17 - 17 - 17	7 - 7 - 7	1 - 1 - 1	40 - 48 - 40	0 - 50 - 50	4	2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	5 - 5 - 5	27 - 27 - 27	7 - 7 - 7	2.5 - 2.5 - 2.5	8 - 8 - 12	12 - 10 - 14	4	2
5 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	10 - 5 - 10	12 - 16 - 16	3.7	2
6 EBT	5 - 5 - 5	17 - 17 - 17	7 - 7 - 7	1 - 1 - 1	40 - 48 - 40	0 - 50 - 50	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	5 - 5 - 5	27 - 27 - 27	7 - 7 - 7	2.5 - 2.5 - 2.5	8 - 8 - 12	12 - 10 - 14	4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 -	4 NBT	5 WBL	6 EBT	7 -	8 SBT	Ring Offset	Offset
	Free											
0100	Flash											
0600	1	100	5	55	0	22	5	55	0	22	0	66
0700	2	110	5	65	0	22	5	65	0	22	0	32
0930	1	100	5	55	0	22	5	55	0	22	0	66
1330	11	110	8	54	0	30	8	54	0	30	0	82
1530	3	110	5	57	0	30	5	57	0	30	0	32
1800	6	100	15	45	0	22	15	45	0	22	0	68
2230	Free											

Local TOD Schedule

Time	Plan	DOW
0000	Free	Su M T W Th F S
0100	Flash	Su M T W Th F S
0600	1	M T W Th F
0700	Free	Su S
0700	2	M T W Th F
0930	1	M T W Th F
1330	11	M T W Th F
1530	3	M T W Th F
1800	6	M T W Th F
2230	Free	M T W Th F

TOD Schedule Report

for 3785: J. F. Kennedy Blvd&Pelican Harbor Dr

Print Date: 11/16/2022

Print Time: 12:14 PM

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

No Calendar Defined/Enabled

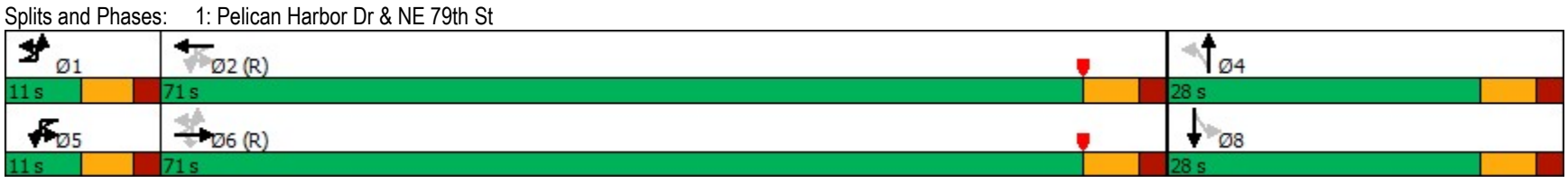
Appendix D.

Existing Intersection Capacity Analyses

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBT
Lane Configurations										
Traffic Volume (vph)	1	10	1716	2	2	2	1560	3	1	3
Future Volume (vph)	1	10	1716	2	2	2	1560	3	1	3
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	NA	NA
Protected Phases	1	1	6		5	5	2		4	8
Permitted Phases	6	6		6	2	2		4		
Detector Phase	1	1	6	6	5	5	2	4	4	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None
Act Effct Green (s)		93.0	95.3	95.3		92.9	95.2	12.0	12.0	12.0
Actuated g/C Ratio		0.85	0.87	0.87		0.84	0.87	0.11	0.11	0.11
v/c Ratio		0.05	0.43	0.00		0.02	0.38	0.02	0.02	0.06
Control Delay		5.4	6.5	0.0		5.8	6.1	36.7	25.5	22.1
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		5.4	6.5	0.0		5.8	6.1	36.7	25.5	22.1
LOS	A	A	A		A	A	D	C	C	
Approach Delay		6.5				6.1		30.3	22.1	
Approach LOS		A				A		C	C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.4	Intersection LOS: A
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBT
Protected Phases	1	1	6		5	5	2		4	8
Permitted Phases	6	6		6	2	2		4		
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%
Maximum Green (s)	5.3	5.3	65.0	65.0	5.3	5.3	65.0	22.0	22.0	22.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			4	1	1	1
90th %ile Green (s)	5.3	5.3	55.4	55.4	5.0	5.0	55.1	31.9	31.9	31.9
90th %ile Term Code	Max	Max	Coord	Coord	Min	Min	Coord	Ped	Ped	Ped
70th %ile Green (s)	0.0	0.0	91.0	91.0	0.0	0.0	91.0	7.0	7.0	7.0
70th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Hold	Hold	Min
50th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0
50th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip
30th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

1: Pelican Harbor Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	12	1845	2	4	1680	3	4	12
v/c Ratio	0.05	0.43	0.00	0.02	0.38	0.02	0.02	0.06
Control Delay	5.4	6.5	0.0	5.8	6.1	36.7	25.5	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	6.5	0.0	5.8	6.1	36.7	25.5	22.1
Queue Length 50th (ft)	0	0	0	0	0	2	1	2
Queue Length 95th (ft)	11	421	0	6	364	9	9	16
Internal Link Dist (ft)		977			2612		419	426
Turn Bay Length (ft)	200		200	200		250		
Base Capacity (vph)	270	4407	1401	236	4493	310	366	371
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.42	0.00	0.02	0.37	0.01	0.01	0.03

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	1	10	1716	2	2	2	1560	3	3	1	3	0	3	8
Future Volume (veh/h)	1	10	1716	2	2	2	1560	3	3	1	3	0	3	8
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	0.99		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		1900	1841	1900		1900	1870	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h		11	1845	2		2	1677	3	3	1	3	0	3	9
Peak Hour Factor		0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		0	4	0		0	2	0	0	0	0	0	0	0
Cap, veh/h		297	4036	1290		245	4173	7	103	14	42	65	14	42
Arrive On Green		0.01	0.80	0.80		0.00	0.79	0.79	0.03	0.03	0.03	0.00	0.03	0.03
Sat Flow, veh/h		1810	5025	1606		1810	5263	9	1413	417	1251	1435	417	1251
Grp Volume(v), veh/h		11	1845	2		2	1085	595	3	0	4	0	0	12
Grp Sat Flow(s),veh/h/ln		1810	1675	1606		1810	1702	1869	1413	0	1668	1435	0	1668
Q Serve(g_s), s		0.1	12.6	0.0		0.0	10.7	10.7	0.2	0.0	0.3	0.0	0.0	0.8
Cycle Q Clear(g_c), s		0.1	12.6	0.0		0.0	10.7	10.7	1.0	0.0	0.3	0.0	0.0	0.8
Prop In Lane		1.00		1.00		1.00		0.01	1.00		0.75	1.00		0.75
Lane Grp Cap(c), veh/h		297	4036	1290		245	2699	1481	103	0	56	65	0	56
V/C Ratio(X)		0.04	0.46	0.00		0.01	0.40	0.40	0.03	0.00	0.07	0.00	0.00	0.22
Avail Cap(c_a), veh/h		361	4036	1290		328	2699	1481	338	0	334	305	0	334
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		0.83	0.83	0.83	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		2.6	3.4	2.1		2.9	3.5	3.5	52.3	0.0	51.5	0.0	0.0	51.8
Incr Delay (d2), s/veh		0.0	0.4	0.0		0.0	0.4	0.7	0.1	0.0	0.4	0.0	0.0	1.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.1	5.7	0.0		0.0	5.2	5.9	0.1	0.0	0.2	0.0	0.0	0.6
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		2.6	3.7	2.1		2.9	3.8	4.1	52.3	0.0	51.9	0.0	0.0	53.2
LnGrp LOS		A	A	A		A	A	A	D	A	D	A	A	D
Approach Vol, veh/h			1858				1682			7			12	
Approach Delay, s/veh			3.7				3.9			52.1			53.2	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	7.1	93.2	9.7	6.0	94.3	9.7
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	65.0	22.0	* 5.3	65.0	22.0
Max Q Clear Time (g_c+I1), s	2.1	12.7	3.0	2.0	14.6	2.8
Green Ext Time (p_c), s	0.0	5.4	0.0	0.0	7.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.1
HCM 6th LOS	A

Notes

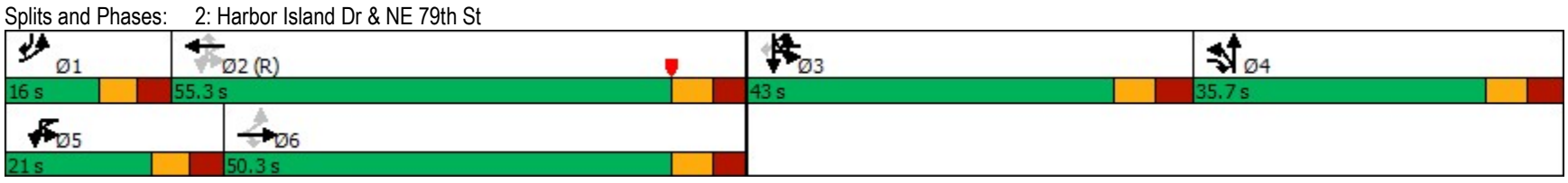
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	1608	18	8	15	1311	75	37	0	120	2	219
Future Volume (vph)	95	1608	18	8	15	1311	75	37	0	120	2	219
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Detector Phase	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase												
Minimum Initial (s)	5.0	1.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)	103.9	95.8	107.2		87.8	82.0	95.1	13.8	13.8	13.5	13.5	28.8
Actuated g/C Ratio	0.69	0.64	0.71		0.59	0.55	0.63	0.09	0.09	0.09	0.09	0.19
v/c Ratio	0.32	0.53	0.02		0.15	0.50	0.08	0.24	0.19	0.43	0.44	0.77
Control Delay	14.2	20.3	5.7		13.8	24.9	11.3	64.0	62.9	70.7	71.3	58.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	20.3	5.7		13.8	24.9	11.3	64.0	62.9	70.7	71.3	58.5
LOS	B	C	A		B	C	B	E	E	E	E	E
Approach Delay		19.8				24.0			63.6		63.0	
Approach LOS		B				C			E		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	95	1608	18	8	15	1311	75	37	0	24	1	120	2	219
Future Volume (vph)	95	1608	18	8	15	1311	75	37	0	24	1	120	2	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7			7.7	7.7	7.0
Lane Util. Factor	1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00			0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00	0.99	1.00	0.98			1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.85			1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00			0.95	0.95	1.00
Satd. Flow (prot)	1805	5036	1515		1728	5085	1548	1805	1515			1698	1680	1583
Flt Permitted	0.12	1.00	1.00		0.11	1.00	1.00	0.95	1.00			0.95	0.95	1.00
Satd. Flow (perm)	237	5036	1515		198	5085	1548	1805	1515			1698	1680	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Adj. Flow (vph)	101	1711	19	9	16	1395	80	39	0	26	1	128	2	233
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	101	1711	19	0	25	1395	80	39	26	0	0	65	66	233
Confl. Peds. (#/hr)	2		3		3		2	6		8		8		6
Heavy Vehicles (%)	0%	3%	4%	0%	7%	2%	3%	0%	0%	4%	0%	1%	50%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4		3!	3	3	1
Permitted Phases	6		6	2	2		2							3
Actuated Green, G (s)	102.0	91.5	103.3		83.9	80.4	93.9	11.8	11.8			13.5	13.5	28.1
Effective Green, g (s)	102.0	91.5	103.3		83.9	80.4	93.9	11.8	11.8			13.5	13.5	28.1
Actuated g/C Ratio	0.68	0.61	0.69		0.56	0.54	0.63	0.08	0.08			0.09	0.09	0.19
Clearance Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7			7.7	7.7	7.0
Vehicle Extension (s)	2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0			2.5	2.5	2.0
Lane Grp Cap (vph)	313	3071	1043		146	2725	969	141	119			152	151	296
v/s Ratio Prot	0.03	c0.34	0.00		0.00	0.27	0.01	c0.02	0.02			0.04	0.04	c0.08
v/s Ratio Perm	0.19		0.01		0.09		0.04							0.07
v/c Ratio	0.32	0.56	0.02		0.17	0.51	0.08	0.28	0.22			0.43	0.44	0.79
Uniform Delay, d1	11.6	17.3	7.4		15.4	22.3	11.1	65.1	64.8			64.6	64.7	58.1
Progression Factor	1.00	1.00	1.00		0.86	0.96	1.03	1.00	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	0.0		0.2	0.7	0.0	1.5	1.3			1.4	1.5	12.0
Delay (s)	11.9	17.4	7.4		13.4	22.1	11.4	66.5	66.0			66.0	66.1	70.1
Level of Service	B	B	A		B	C	B	E	E			E	E	E
Approach Delay (s)		17.0				21.4			66.3				68.6	
Approach LOS		B				C			E				E	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Minimum Initial (s)	5.0	1.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Maximum Green (s)	9.0	43.0	28.0	14.0	14.0	48.0	35.3	28.0	28.0	35.3	35.3	9.0
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)		4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)		36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)		3	8			2	6	8	8	6	6	
90th %ile Green (s)	15.5	57.2	28.0	7.1	7.1	48.8	28.0	28.0	28.0	28.0	28.0	15.5
90th %ile Term Code	Gap	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Gap
70th %ile Green (s)	17.7	91.2	10.9	5.5	5.5	79.0	12.7	10.9	10.9	12.7	12.7	17.7
70th %ile Term Code	Gap	Coord	Gap	Gap	Gap	Coord	Gap	Gap	Gap	Gap	Gap	Gap
50th %ile Green (s)	15.8	94.4	10.0	5.1	5.1	83.7	10.8	10.0	10.0	10.8	10.8	15.8
50th %ile Term Code	Gap	Coord	Min	Gap	Gap	Coord	Gap	Min	Min	Gap	Gap	Gap
30th %ile Green (s)	13.9	108.4	10.0	0.0	0.0	87.5	8.9	10.0	10.0	8.9	8.9	13.9
30th %ile Term Code	Gap	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Gap
10th %ile Green (s)	10.0	128.0	0.0	0.0	0.0	111.0	7.0	0.0	0.0	7.0	7.0	10.0
10th %ile Term Code	Gap	Coord	Skip	Skip	Skip	Coord	Min	Skip	Skip	Min	Min	Gap

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow

Control Type: Actuated-Coordinated

! Phase conflict between lane groups.

2: Harbor Island Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	101	1711	19	25	1395	80	39	26	65	66	233
v/c Ratio	0.32	0.53	0.02	0.15	0.50	0.08	0.24	0.19	0.43	0.44	0.77
Control Delay	14.2	20.3	5.7	13.8	24.9	11.3	64.0	62.9	70.7	71.3	58.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	20.3	5.7	13.8	24.9	11.3	64.0	62.9	70.7	71.3	58.5
Queue Length 50th (ft)	28	327	3	5	325	33	37	25	66	67	174
Queue Length 95th (ft)	91	640	13	17	535	77	67	50	106	107	159
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	316	3217	1173	270	2779	1201	336	282	399	395	303
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.53	0.02	0.09	0.50	0.07	0.12	0.09	0.16	0.17	0.77

Intersection Summary

Intersection	
Int Delay, s/veh	0.2

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	2	14	1744	1396	6	1	11
Future Vol, veh/h	2	14	1744	1396	6	1	11
Conflicting Peds, #/hr	0	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	70	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	2	17	0	9
Mvmt Flow	2	15	1817	1454	6	1	11

Major/Minor	Major1			Major2		Minor2	
Conflicting Flow All	1066	1468	0	-	0	2226	738
Stage 1	-	-	-	-	-	1465	-
Stage 2	-	-	-	-	-	761	-
Critical Hdwy	5.6	5.3	-	-	-	5.7	7.28
Critical Hdwy Stg 1	-	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	-	6	-
Follow-up Hdwy	2.3	3.1	-	-	-	3.8	3.99
Pot Cap-1 Maneuver	411	236	-	-	-	73	297
Stage 1	-	-	-	-	-	127	-
Stage 2	-	-	-	-	-	388	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	247	247	-	-	-	67	295
Mov Cap-2 Maneuver	-	-	-	-	-	67	-
Stage 1	-	-	-	-	-	117	-
Stage 2	-	-	-	-	-	385	-

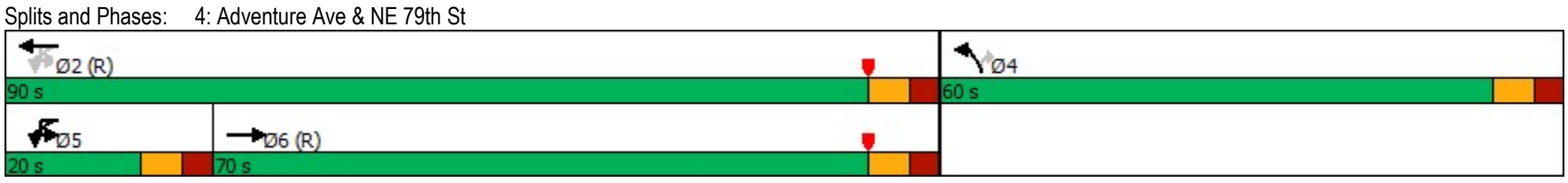
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	247	-	-	-	230
HCM Lane V/C Ratio	0.067	-	-	-	0.054
HCM Control Delay (s)	20.7	-	-	-	21.6
HCM Lane LOS	C	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1663	7	40	1263	139	47
Future Volume (vph)	1663	7	40	1263	139	47
Turn Type	NA	pm+pt	pm+pt	NA	Prot	Perm
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	106.2		116.5	116.5	19.5	19.5
Actuated g/C Ratio	0.71		0.78	0.78	0.13	0.13
v/c Ratio	0.52		0.26	0.33	0.63	0.20
Control Delay	16.2		8.8	6.0	72.3	14.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	16.2		8.8	6.0	72.3	14.2
LOS	B		A	A	E	B
Approach Delay	16.2			6.1	57.6	
Approach LOS	B			A	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Maximum Green (s)	63.0	13.0	13.0	83.0	53.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	2				3	3
90th %ile Green (s)	86.8	7.2	7.2	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	103.2	5.8	5.8	116.0	20.0	20.0
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	106.4	5.3	5.3	118.7	17.3	17.3
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	109.4	5.0	5.0	121.4	14.6	14.6
30th %ile Term Code	Coord	Min	Min	Coord	Gap	Gap
10th %ile Green (s)	125.2	0.0	0.0	125.2	10.8	10.8
10th %ile Term Code	Coord	Skip	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1817	49	1316	145	49
v/c Ratio	0.52	0.26	0.33	0.63	0.20
Control Delay	16.2	8.8	6.0	72.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	8.8	6.0	72.3	14.2
Queue Length 50th (ft)	239	9	114	139	0
Queue Length 95th (ft)	519	30	220	188	36
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3505	265	3947	625	580
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.18	0.33	0.23	0.08

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	1663	82	7	40	1263	139	47
Future Volume (veh/h)	1663	82	7	40	1263	139	47
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1841	1856		1856	1870	1870	1841
Adj Flow Rate, veh/h	1732	85		42	1316	145	49
Peak Hour Factor	0.96	0.96		0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	3		3	2	2	4
Cap, veh/h	3613	177		285	4138	171	150
Arrive On Green	1.00	1.00		0.03	0.81	0.10	0.10
Sat Flow, veh/h	5072	241		1767	5274	1781	1560
Grp Volume(v), veh/h	1182	635		42	1316	145	49
Grp Sat Flow(s),veh/h/ln	1675	1797		1767	1702	1781	1560
Q Serve(g_s), s	0.0	0.0		0.8	9.9	12.0	4.4
Cycle Q Clear(g_c), s	0.0	0.0		0.8	9.9	12.0	4.4
Prop In Lane		0.13		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2467	1323		285	4138	171	150
V/C Ratio(X)	0.48	0.48		0.15	0.32	0.85	0.33
Avail Cap(c_a), veh/h	2467	1323		389	4138	629	551
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		3.8	3.6	66.7	63.3
Incr Delay (d2), s/veh	0.7	1.2		0.1	0.2	8.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.8		0.5	5.5	9.9	7.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.7	1.2		3.9	3.8	75.0	64.2
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	1817				1358	194	
Approach Delay, s/veh	0.9				3.8	72.2	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	128.6	21.4	11.1	117.4
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	83.0	53.0	13.0	63.0
Max Q Clear Time (g_c+I1), s	11.9	14.0	2.8	2.0
Green Ext Time (p_c), s	4.5	0.4	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

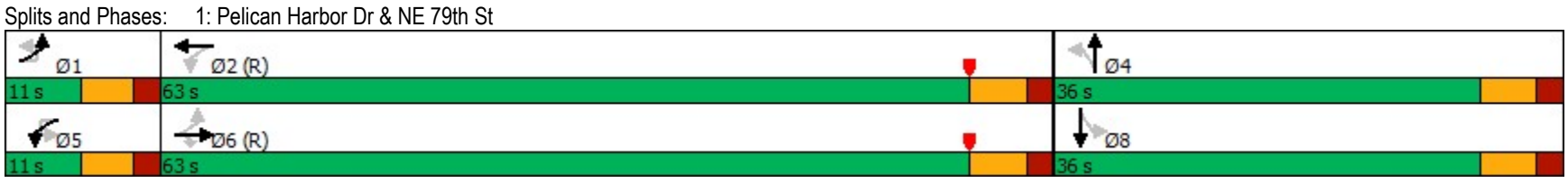
Notes

User approved ignoring U-Turning movement.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	4	5	1475	3	5	1	1719	14	0	4	0
Future Volume (vph)	4	5	1475	3	5	1	1719	14	0	4	0
Turn Type	custom	pm+pt	NA	Perm	custom	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Detector Phase	1	1	6	6	5	5	2	4	4	8	8
Switch Phase											
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Act Effct Green (s)		90.3	91.4	91.4		90.3	91.4	12.0	12.0	12.0	12.0
Actuated g/C Ratio		0.82	0.83	0.83		0.82	0.83	0.11	0.11	0.11	0.11
v/c Ratio		0.04	0.36	0.00		0.03	0.43	0.10	0.00	0.03	0.09
Control Delay		6.0	6.3	0.0		6.0	7.0	40.4	0.0	37.2	0.7
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		6.0	6.3	0.0		6.0	7.0	40.4	0.0	37.2	0.7
LOS	A	A	A		A	A	D	A	D	A	
Approach Delay		6.3				7.0		37.9		6.5	
Approach LOS		A				A		D		A	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.8	Intersection LOS: A
Intersection Capacity Utilization 51.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



1: Pelican Harbor Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Maximum Green (s)	5.3	5.3	57.0	57.0	5.3	5.3	57.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			6	1	1	0	0
90th %ile Green (s)	5.3	5.3	55.1	55.1	5.2	5.2	55.0	32.0	32.0	32.0	32.0
90th %ile Term Code	Gap	Gap	Coord	Coord	Gap	Gap	Coord	Ped	Ped	Hold	Hold
70th %ile Green (s)	0.0	0.0	90.8	90.8	0.0	0.0	90.8	7.2	7.2	7.2	7.2
70th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Gap	Gap	Hold	Hold
50th %ile Green (s)	0.0	0.0	91.0	91.0	0.0	0.0	91.0	7.0	7.0	7.0	7.0
50th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Hold	Hold	Min	Min
30th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

1: Pelican Harbor Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	9	1553	3	6	1815	15	1	4	21
v/c Ratio	0.04	0.36	0.00	0.03	0.43	0.10	0.00	0.03	0.09
Control Delay	6.0	6.3	0.0	6.0	7.0	40.4	0.0	37.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	6.3	0.0	6.0	7.0	40.4	0.0	37.2	0.7
Queue Length 50th (ft)	1	73	0	1	94	10	0	3	0
Queue Length 95th (ft)	9	325	0	7	411	24	0	11	0
Internal Link Dist (ft)		977			2612		419		426
Turn Bay Length (ft)	200		200	200		250		50	
Base Capacity (vph)	211	4284	1328	220	4198	365	509	317	487
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.36	0.00	0.03	0.43	0.04	0.00	0.01	0.04

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	4	5	1475	3	5	1	1719	6	14	0	1	4	0	20
Future Volume (veh/h)	4	5	1475	3	5	1	1719	6	14	0	1	4	0	20
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	0.99		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		1604	1885	1900		1900	1856	1648	1796	1900	1900	1530	1900	1826
Adj Flow Rate, veh/h		5	1553	3		1	1809	6	15	0	1	4	0	21
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		20	1	0		0	3	17	7	0	0	25	0	5
Cap, veh/h		222	4042	1260		301	4067	13	118	0	84	125	0	84
Arrive On Green		0.01	0.79	0.79		0.00	0.78	0.78	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h		1527	5147	1604		1810	5212	17	1329	0	1603	1152	0	1603
Grp Volume(v), veh/h		5	1553	3		1	1172	643	15	0	1	4	0	21
Grp Sat Flow(s),veh/h/ln		1527	1716	1604		1810	1689	1852	1329	0	1603	1152	0	1603
Q Serve(g_s), s		0.1	10.2	0.0		0.0	12.9	12.9	1.2	0.0	0.1	0.4	0.0	1.4
Cycle Q Clear(g_c), s		0.1	10.2	0.0		0.0	12.9	12.9	2.6	0.0	0.1	0.4	0.0	1.4
Prop In Lane		1.00		1.00		1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h		222	4042	1260		301	2635	1445	118	0	84	125	0	84
V/C Ratio(X)		0.02	0.38	0.00		0.00	0.44	0.44	0.13	0.00	0.01	0.03	0.00	0.25
Avail Cap(c_a), veh/h		286	4042	1260		386	2635	1445	411	0	437	379	0	437
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		0.64	0.64	0.64	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh		3.3	3.6	2.5		3.0	4.1	4.1	51.3	0.0	49.4	49.6	0.0	50.0
Incr Delay (d2), s/veh		0.0	0.3	0.0		0.0	0.3	0.6	0.4	0.0	0.0	0.1	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		0.0	5.1	0.0		0.0	6.0	6.7	0.7	0.0	0.0	0.2	0.0	1.0
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		3.3	3.9	2.5		3.1	4.4	4.7	51.6	0.0	49.5	49.7	0.0	51.2
LnGrp LOS		A	A	A		A	A	A	D	A	D	D	A	D
Approach Vol, veh/h			1561				1816			16			25	
Approach Delay, s/veh			3.9				4.5			51.5			50.9	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	6.4	91.8	11.8	5.9	92.4	11.8
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	57.0	30.0	* 5.3	57.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	14.9	4.6	2.0	12.2	3.4
Green Ext Time (p_c), s	0.0	6.1	0.0	0.0	5.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

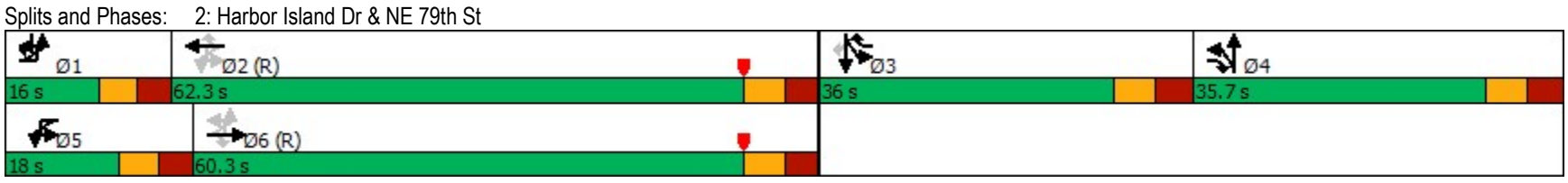
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	2	206	1250	27	5	12	1583	126	20	5	105	4	126
Future Volume (vph)	2	206	1250	27	5	12	1583	126	20	5	105	4	126
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Detector Phase	1	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase													
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	60.3	35.7	18.0	18.0	62.3	36.0	35.7	35.7	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	40.2%	23.8%	12.0%	12.0%	41.5%	24.0%	23.8%	23.8%	24.0%	24.0%	10.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		100.4	93.4	104.6		73.5	67.8	83.7	13.6	13.6	16.3	16.3	43.1
Actuated g/C Ratio		0.67	0.62	0.70		0.49	0.45	0.56	0.09	0.09	0.11	0.11	0.29
v/c Ratio		0.62	0.42	0.03		0.08	0.75	0.15	0.15	0.10	0.32	0.31	0.30
Control Delay		44.4	19.7	6.6		16.4	43.5	16.1	61.9	60.2	62.7	62.4	28.3
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.4	19.7	6.6		16.4	43.5	16.1	61.9	60.2	62.7	62.4	28.3
LOS	D	B	A		B	D	B	E	E	E	E	C	
Approach Delay		22.9				41.2			61.2		44.2		
Approach LOS		C				D			E		D		

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



2: Harbor Island Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	60.3	35.7	18.0	18.0	62.3	36.0	35.7	35.7	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	40.2%	23.8%	12.0%	12.0%	41.5%	24.0%	23.8%	23.8%	24.0%	24.0%	10.7%
Maximum Green (s)	9.0	9.0	53.0	28.0	11.0	11.0	55.0	28.3	28.0	28.0	28.3	28.3	9.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	2.0	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)			4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)			36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)			2	5			13	11	5	5	11	11	
90th %ile Green (s)	9.3	9.3	57.7	28.0	6.6	6.6	55.0	28.0	28.0	28.0	28.0	28.0	9.3
90th %ile Term Code	Max	Max	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Max
70th %ile Green (s)	25.0	25.0	76.8	10.0	5.5	5.5	57.3	28.0	10.0	10.0	28.0	28.0	25.0
70th %ile Term Code	Gap	Gap	Coord	Min	Gap	Gap	Coord	Ped	Min	Min	Ped	Ped	Gap
50th %ile Green (s)	25.9	25.9	95.3	10.0	5.0	5.0	74.4	10.0	10.0	10.0	10.0	10.0	25.9
50th %ile Term Code	Gap	Gap	Coord	Min	Min	Min	Coord	Gap	Min	Min	Gap	Gap	Gap
30th %ile Green (s)	29.4	29.4	109.0	10.0	0.0	0.0	72.6	8.3	10.0	10.0	8.3	8.3	29.4
30th %ile Term Code	Gap	Gap	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Gap
10th %ile Green (s)	41.2	41.2	128.0	0.0	0.0	0.0	79.8	7.0	0.0	0.0	7.0	7.0	41.2
10th %ile Term Code	Gap	Gap	Coord	Skip	Skip	Skip	Coord	Min	Skip	Skip	Min	Min	Gap

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated
! Phase conflict between lane groups.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	224	1344	29	18	1702	135	22	15	59	58	135
v/c Ratio	0.62	0.42	0.03	0.08	0.75	0.15	0.15	0.10	0.32	0.31	0.30
Control Delay	44.4	19.7	6.6	16.4	43.5	16.1	61.9	60.2	62.7	62.4	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	19.7	6.6	16.4	43.5	16.1	61.9	60.2	62.7	62.4	28.3
Queue Length 50th (ft)	143	225	4	7	545	57	21	14	60	58	85
Queue Length 95th (ft)	#441	454	18	m24	684	140	45	34	98	96	104
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	362	3196	1118	280	2276	1007	306	314	323	325	454
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.42	0.03	0.06	0.75	0.13	0.07	0.05	0.18	0.18	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	2	206	1250	27	5	12	1583	126	20	5	9	105	4	126
Future Volume (vph)	2	206	1250	27	5	12	1583	126	20	5	9	105	4	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Lane Util. Factor		1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		0.95	0.95	1.00
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.97	1.00	0.99		1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)		1787	5136	1476		1706	5036	1573	1641	1687		1715	1725	1581
Flt Permitted		0.05	1.00	1.00		0.19	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)		103	5136	1476		344	5036	1573	1641	1687		1715	1725	1581
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	2	222	1344	29	5	13	1702	135	22	5	10	113	4	135
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	224	1344	29	0	18	1702	135	22	15	0	59	58	135
Confl. Peds. (#/hr)		13		2		2		13			5			11
Heavy Vehicles (%)	0%	1%	1%	7%	0%	8%	3%	0%	10%	0%	0%	0%	0%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4		3	3	1!
Permitted Phases	6!	6		6	2	2		2						3
Actuated Green, G (s)		99.4	89.0	100.6		69.6	66.2	82.5	11.6	11.6		16.3	16.3	42.5
Effective Green, g (s)		99.4	89.0	100.6		69.6	66.2	82.5	11.6	11.6		16.3	16.3	42.5
Actuated g/C Ratio		0.66	0.59	0.67		0.46	0.44	0.55	0.08	0.08		0.11	0.11	0.28
Clearance Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Vehicle Extension (s)		2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0		2.5	2.5	2.0
Lane Grp Cap (vph)		362	3047	989		190	2222	865	126	130		186	187	447
v/s Ratio Prot		c0.11	0.26	0.00		0.00	c0.34	0.02	c0.01	0.01		c0.03	0.03	0.05
v/s Ratio Perm		0.30		0.02		0.04		0.07						0.03
v/c Ratio		0.62	0.44	0.03		0.09	0.77	0.16	0.17	0.12		0.32	0.31	0.30
Uniform Delay, d1		40.4	16.8	8.3		21.8	35.4	16.6	64.7	64.4		61.7	61.7	42.1
Progression Factor		1.00	1.00	1.00		0.96	1.16	1.21	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		2.2	0.5	0.0		0.1	2.4	0.1	0.9	0.5		0.7	0.7	0.1
Delay (s)		42.6	17.3	8.3		21.0	43.4	20.1	65.6	65.0		62.4	62.4	42.3
Level of Service		D	B	A		C	D	C	E	E		E	E	D
Approach Delay (s)			20.7				41.5			65.4			51.6	
Approach LOS			C				D			E			D	

Intersection Summary			
HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	1361	1698	2	3	28
Future Vol, veh/h	7	1361	1698	2	3	28
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	4	0	0	0
Mvmt Flow	8	1479	1846	2	3	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1854	0	-	0	2461	930
Stage 1	-	-	-	-	1853	-
Stage 2	-	-	-	-	608	-
Critical Hdwy	5.3	-	-	-	5.7	7.1
Critical Hdwy Stg 1	-	-	-	-	6.6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	3.1	-	-	-	3.8	3.9
Pot Cap-1 Maneuver	152	-	-	-	54	234
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	151	-	-	-	51	233
Mov Cap-2 Maneuver	-	-	-	-	51	-
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	463	-

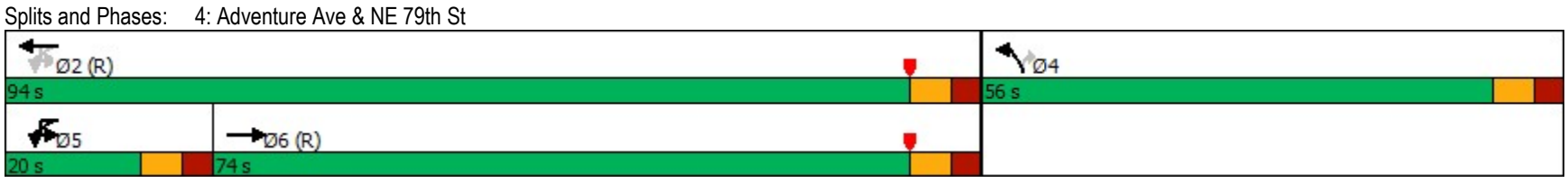
Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	30.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	151	-	-	-	173
HCM Lane V/C Ratio	0.05	-	-	-	0.195
HCM Control Delay (s)	30.1	-	-	-	30.8
HCM Lane LOS	D	-	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1262	4	41	1588	112	40
Future Volume (vph)	1262	4	41	1588	112	40
Turn Type	NA	pm+pt	pm+pt	NA	Prot	Perm
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	107.8		118.1	118.1	17.9	17.9
Actuated g/C Ratio	0.72		0.79	0.79	0.12	0.12
v/c Ratio	0.41		0.18	0.43	0.57	0.19
Control Delay	22.5		6.7	6.4	70.9	15.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	22.5		6.7	6.4	70.9	15.1
LOS	C		A	A	E	B
Approach Delay	22.5			6.4	56.2	
Approach LOS	C			A	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Maximum Green (s)	67.0	13.0	13.0	87.0	49.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	10				4	4
90th %ile Green (s)	86.8	7.2	7.2	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	105.7	5.7	5.7	118.4	17.6	17.6
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	108.6	5.3	5.3	120.9	15.1	15.1
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	111.3	5.0	5.0	123.3	12.7	12.7
30th %ile Term Code	Coord	Min	Min	Coord	Gap	Gap
10th %ile Green (s)	126.8	0.0	0.0	126.8	9.2	9.2
10th %ile Term Code	Coord	Skip	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1468	48	1708	120	43
v/c Ratio	0.41	0.18	0.43	0.57	0.19
Control Delay	22.5	6.7	6.4	70.9	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	6.7	6.4	70.9	15.1
Queue Length 50th (ft)	356	8	151	115	0
Queue Length 95th (ft)	603	30	315	158	33
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3608	333	4002	578	556
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.14	0.43	0.21	0.08

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	1262	103	4	41	1588	112	40
Future Volume (veh/h)	1262	103	4	41	1588	112	40
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		0.99		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1856	1870	1870	1900
Adj Flow Rate, veh/h	1357	111		44	1708	120	43
Peak Hour Factor	0.93	0.93		0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2		3	2	2	0
Cap, veh/h	3606	295		366	4211	146	132
Arrive On Green	1.00	1.00		0.03	0.82	0.08	0.08
Sat Flow, veh/h	4976	393		1767	5274	1781	1610
Grp Volume(v), veh/h	961	507		44	1708	120	43
Grp Sat Flow(s),veh/h/ln	1702	1796		1767	1702	1781	1610
Q Serve(g_s), s	0.0	0.0		0.8	13.2	9.9	3.8
Cycle Q Clear(g_c), s	0.0	0.0		0.8	13.2	9.9	3.8
Prop In Lane		0.22		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2553	1348		366	4211	146	132
V/C Ratio(X)	0.38	0.38		0.12	0.41	0.82	0.33
Avail Cap(c_a), veh/h	2553	1348		469	4211	582	526
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		3.4	3.5	67.8	65.0
Incr Delay (d2), s/veh	0.4	0.8		0.1	0.3	8.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.5		0.5	7.0	8.5	6.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.4	0.8		3.4	3.8	76.1	66.0
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	1468				1752	163	
Approach Delay, s/veh	0.6				3.7	73.4	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	130.7	19.3	11.2	119.5
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	87.0	49.0	13.0	67.0
Max Q Clear Time (g_c+I1), s	15.2	11.9	2.8	2.0
Green Ext Time (p_c), s	6.6	0.3	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Appendix E.

Existing Arterial Analyses

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	6.5	31.9	0.20	22.6	C
Harbor Island Dr	III	30	64.8	20.3	85.1	0.51	21.6	C
Adventure Ave	III	30	35.7	16.2	51.9	0.28	19.5	C
Total	III		125.9	43.0	168.9	0.99	21.1	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	6.0	38.5	0.26	24.0	C
Harbor Island Dr	III	30	35.7	24.9	60.6	0.28	16.7	D
Pelican Harbor Dr	III	30	64.8	6.1	70.9	0.51	25.9	B
Total	III		133.0	37.0	170.0	1.05	22.2	C

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	6.3	31.7	0.20	22.7	C
Harbor Island Dr	III	30	64.8	19.7	84.5	0.51	21.7	C
Adventure Ave	III	30	35.7	22.5	58.2	0.28	17.4	D
Total	III		125.9	48.5	174.4	0.99	20.5	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	6.4	38.9	0.26	23.7	C
Harbor Island Dr	III	30	35.7	43.5	79.2	0.28	12.8	E
Pelican Harbor Dr	III	30	64.8	7.0	71.8	0.51	25.6	B
Total	III		133.0	56.9	189.9	1.05	19.8	C

Appendix F.

Existing Safety Analysis Memorandum (April 2024)

SR 934/NE 79th Street (John F. Kennedy Causeway) from West of Pelican Harbor Drive to Adventure Avenue Project Development and Environment (PD&E) Study

Existing Safety Analysis

FM# 449007-1-22-01

Miami-Dade County

April 4, 2024

Contents

Tables

Figures

1 Introduction

The SR 934 Project Development and Environment (PD&E) study evaluates the additional capacity need of SR 934 from Pelican Harbor Drive to Adventure Avenue. In the existing condition, SR 934 is an urban principle arterial, access class 5 facility with posted speeds ranging from 30 miles per hour (MPH) to 35 MPH. The roadway has six travel lanes (three in each direction) and a project length of approximately 0.92 miles from Pelican Harbor Drive to Adventure Avenue. The project is located in Miami-Dade County. The purpose of this PD&E is to evaluate the need for any capacity and multimodal enhancements along the entire corridor.

1.1 Project Description

This project involves the potential rehabilitation or replacement of four prestressed concrete slab (Sonovoid) bridges (two bridge pairs) connecting three islands within the Cities of Miami and North Bay Village in Miami-Dade County, as shown in **Figure 1**. The bridges are part of SR 934/NE 79th Street (John F. Kennedy Causeway), a roadway classified as "Urban Principal Arterial – Other" and a context classification of "C5 – Urban Center", which connects mainland Miami to Miami Beach. The specific limits of the bridge project extend from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue). The western bridge pair, comprised of Bridge Identification (ID) Numbers 870083 (westbound) and 870549 (eastbound), is located just west of North Bay Island/Harbor Island. The eastern bridge pair, comprised of Bridge ID Numbers 870084 (westbound) and 870550 (eastbound), is located between North Bay Island/Harbor Island and Treasure Island. The project is approximately 0.87 mile in length.

The existing western bridge pair consists of six lanes, including four 11-foot-wide travel lanes to the inside and two 13.5-foot-wide travel lanes to the outside, and a raised median connecting the two bridge structures. The outside travel lanes include shared-use markings to accommodate bicycles. In addition, a 5-foot-wide raised sidewalk is present on each side of the bridge pair to the outside. The existing eastern bridge pair consists of six 10-foot-wide travel lanes with a raised median connecting the two bridge structures, as well as a 5.5-foot-wide dedicated bicycle lane and a sidewalk varying between 5 and 6 feet in width (separated by guardrail) on each side of the bridge pair to the outside.

The bridge approaches are generally consistent with the typical section of the bridges, except for east of the western bridge pair which includes dedicated bicycle lanes. Crossing over the Biscayne Bay, the bridges have a maximum vertical clearance of 6.78 feet at Mean Low Water and a minimum vertical clearance of 4.78 feet at Mean High Water. Biscayne Bay at the bridge crossings is not deemed a navigable waterway by the United States Coast Guard.

The existing bridges were constructed in the early 1970s and have been determined to be Structurally Deficient given the condition of each bridge's superstructure (beams), which is referred to as "Sonovoid" design. Due to the structure type, the number of structural deficiencies, and the low clearance from the water, the bridge superstructures cannot properly be repaired and must be replaced. Therefore, the Project Development and Environment (PD&E) Study will evaluate bridge rehabilitation and replacement alternatives

that are anticipated to be generally within the same footprint of the existing bridges. Future bridge concepts may also include potential provisions for new and/or improved paved shoulders/marked bicycle lanes and sidewalks. The existing right of way varies along the project segment and ranges from approximately 100 to 150 feet. Minimal right of way is anticipated to accommodate the replacement bridges; however, specific right of way requirements for the project will be determined during the PD&E Study.

Figure 1. Project Location Map

2 Crash Analysis

This safety analysis is being conducted based on methods and procedures described in the Florida Department of Transportation (FDOT) PD&E Manual, the 2021 FDOT Traffic Analysis Handbook, 2019 FDOT Safety Analysis Guidebook for PD&E Studies (Safety Analysis Guidebook), and the Highway Safety Manual (HSM).

Crash data for the five-year period of January 1, 2018 through December 31, 2022 was obtained from the Signal Four Analytics database. **Figure 2** shows the breakdown of intersections and segments analyzed. In addition to the five-year crash summaries, the analysis utilized crash rates, statewide average crash rates and High Crash Location lists to identify high crash locations. Detailed crash data and rates are provided in **Appendix A.**

Tables 1 and **2** provide a comprehensive summary of the five-year crash totals, crash rates and identified locations on the FDOT High Crash Location List. Crash rates were calculated per million entering vehicles (MEV) for intersections and per million vehicle miles traveled (MVMT) for segments. Intersection and segment crash rate categories were determined based on the coded category within the obtained crash data. Crash rate categories were modified as needed based on intersection or segment characteristics. The following crash rate category was used in the analysis and are referenced in **Tables 1** and **2**:

- 27 – Urban 6+ Lane Divided Raised

The following sections summarize the crash data, crash rates, and safety ratio results for each of the analyzed locations. Historical AADTs utilized to develop a weighted AADT to better represent travel conditions between 2017 due to impacts from COVID-19 are included in **Table 3**.

Figure 2. Crash Analysis Segmentation

Table 1 Intersection Crash Summary Traffic Factors

No.	Roadway	Roadway ID	Intersection MP	Influence Begin MP	Influence End MP	No. of Crashes (2018-2022)	No. of Crashes (2018, 2019, 2021, & 2022)	Annual Crash Frequency	Annual Crash Frequency w/out 2020	AADT (5yrAvg.)	Crash Rate (per MEV) [1]	Safety Ratio[2]	Crash Rate Category Code	Number of Legs	Statewide Crash Rates	On High Crash List[5]
1	SR 934 at Pelican Harbor Drive	87080000	1.115	1.065	1.165	47	46	9.4	**11.5**	42,400	**0.743**[3]	0.676	27	4	0.746	No
2	SR 934 at North Bay Island	87080000	1.624	1.574	1.674	60	57	12.0	**14.3**	42,400	**0.921**[3]	0.641	27	4	0.746	No
3	SR 934 at Adventure Avenue	87080000	1.909	1.859	1.959	21	18	4.2	**4.5**	39,400	**0.313**[4]	N/A	27	3	0.322	No

1 – Crash Rate calculations based on highest Annual Crash Frequency (with/without 2020); 2 - Minimum of 8 crashes per year frequency required for statistical significance; 3 – AADTS are based on an average from Station 870142; 4 – AADTS are based on an average from Station 870533; 5 – 2019 HCL was used for this analysis

Table 2 Segment Crash Summary Traffic Factors

No.	Segment	Roadway ID	Begin MP	End MP	Length (mi)	No. of Crashes (2018-2022)	No. of Crashes (2018, 2019, 2021, & 2022)	Annual Crash Frequency	Annual Crash Frequency w/out 2020	AADT (5yrAvg.)	Crash Rate (per MVMT) [1]	Safety Ratio[2]	Crash Rate Category Code	Statewide Crash Rates	On High Crash List[5]
1	SR 934 from Pelican Harbor Drive to North Bay Island	87080000	1.166	1.573	0.407	34	31	6.8	**7.8**	42,400	**1.230**[3]	N/A	27	2.742	No
2	SR 934 from North Bay Island to Adventure Avenue	87080000	1.675	1.858	0.183	8	5	1.6	1.3	39,400	**0.608**[4]	N/A	27	2.742	No

1 – Crash Rate calculations based on highest Annual Crash Frequency (with/without 2020); 2 - Minimum of 8 crashes per year frequency required for statistical significance; 3 – AADTS are based on an average from Station 870142; 4 – AADTS are based on an average from Station 870533; 5 – 2019 HCL was used for this analysis

Table 3 Historical AADTs

Station	AADT 1 (2018)	AADT 1 (2019)	AADT 1 (2020)	AADT 1 (2021)	AADT 1 (2022)	AADT 2 (2018)	AADT 2 (2019)	AADT 2 (2020)	AADT 2 (2021)	AADT 2 (2022)	Two-Way Avg. AADT
870142	19,500	19,500	20,000	21,000	21,500	22,000	22,000	20,500	22,500	23,500	42,400
870533	21,000	21,500	18,500	19,500	19,500	20,000	18,000	18,500	19,500	21,000	39,400

FORMULAS

Crash Rates: *Intersection:* $ACR = \frac{1{,}000{,}000 \text{ x } C}{365 \text{ x } N \text{ x } V}$ Segment: $ACR = \frac{1{,}000{,}000 \text{ x } C}{365 \text{ x } N \text{ x } V \text{ x } L}$

Where (MVMT used for segments and MEV for intersections):

ACR = Crash rate expressed as crashes per million entering vehicles (MEV) (million vehicle miles traveled [MVMT] for segments).
C = Total number of intersection/segment crashes in the study period.
N = Number of years of data.
V = AADT
L = Segment Length (miles)

2.1 Intersections

2.1.1 SR 934 at Pelican Harbor Drive

A total of 47 crashes were reported at the intersection of SR 934 and Pelican Harbor Drive during the five-year period. **Table 4** summarizes the crash severity and most recurring crash types. Rear-end was the most reported crash type, accounting for 25 crashes (53.2% of all crashes). Additionally, there were nine (9) sideswipe crashes reported at the intersection. Per the HSM, possible contributing factors for the high number of reported rear-end crashes include inappropriate approach speeds, poor visibility of signals, and unexpected stops on approach.

A total of 39 crashes involved property damage only, eight (8) crashes involved injuries, and no fatal crashes were reported. One (1) pedestrian and two (2) bicycle crashes were recorded during the five-year period. Below details each pedestrian crash report. Based on the recorded crash data and AADT, the intersection experienced an average of 0.610 crashes per MEV. The intersection is below the statewide average and is not listed on the D6 Five-Year High Crash Location list.

Pedestrian Crash States:

"…Vehicle #1 driver #1 was on the far right lane, traveling west bound on John F Kennedy cswy. According to driver #1, the light had just turn green as he accelerated his vehicle suddenly struck person #2…"

Bicycle Crash States:

"…Driver 1 stated he had a static green light as he was passing through the intersection. Driver 1 stated he felt an impact towards the right side of the vehicle and when he looked in the rear view mirror the cyclist was on the floor. Driver 1 stated when he was passing through the intersection the cyclist was not on the road in his lane…"

"…THE BICYCLE ATTEMPTED TO TRAVEL NORTHBOUND. HE DID NOT SEE THE VEHICLE THAT WAS TRAVELING EASTBOUND ON NE 79 ST. AT THIS POINT, THE BICYCLE'S FRONT TIRE AND THE VEHICLE'S RIGHT REAR BUMPER COLLIDED…"

Table 4 SR 934 at Pelican Harbor Drive Crash Summary

SR 934 at Pelican Harbor Drive		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	6	7	0	8	4	25	53.2%
	Head On	0	0	0	0	0	0	0.0%
	Angle	1	0	0	0	0	1	2.1%
	Left Turn	1	0	0	0	0	1	2.1%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	2	0	3	4	9	19.1%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	1	0	0	0	0	1	2.1%
	Bicycle	0	0	0	2	0	2	4.3%
	Other	2	2	1	2	1	8	17.0%
	Non Collision	0	0	0	0	0	0	0.0%
	Total	**11**	**11**	**1**	**15**	**9**	**47**	**100%**
Severity	PDO Crashes	8	10	1	12	8	39	83.0%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	3	1	0	3	1	8	17.0%
	Total Crashes	**11**	**11**	**1**	**15**	**9**	**47**	**100.0%**
Lighting Conditions	Daylight	8	10	0	13	5	36	76.6%
	Dusk	0	0	0	0	0	0	0.0%
	Dawn	0	0	0	1	0	1	2.1%
	Dark	3	1	1	1	4	10	21.3%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**11**	**11**	**1**	**15**	**9**	**47**	**100.0%**
Weather Condition	Clear	10	9	1	15	8	43	91.5%
	Cloudy	0	1	0	0	0	1	2.1%
	Rain	1	1	0	0	1	3	6.4%
	Total Crashes	**11**	**11**	**1**	**15**	**9**	**47**	**100.0%**
Distracted Driving	**Total Crashes**	**0**	**0**	**0**	**0**	**0**	**0**	**-**

2.1.2 SR 934 at North Bay Island Crash Summary

A total of 60 crashes were reported at the intersection of SR 934 and North Bay Island during the five-year period. **Table 5** summarizes the crash severity and most recurring crash types. Rear-end was the most reported crash type, accounting for 31 crashes (51.7% of all crashes). Additionally, there were 17 sideswipe crashes reported at the intersection. Per the HSM, possible contributing factors for the high number of reported sideswipe crashes include unexpected stops on approach, excessive speeds, and narrow lanes.

A total of 54 crashes involved property damage only, six (6) crashes involved injuries, and no fatal crashes were reported. Based on the recorded crash data and AADT, the intersection experienced an average of 0.779 crashes per MEV. The intersection is above the statewide average and is not listed on the D6 Five-Year High Crash Location list.

Table 5 SR 934 at North Bay Island Crash Summary

SR 934 at North Bay Island		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	9	12	1	5	4	31	51.7%
	Head On	1	0	0	0	0	1	1.7%
	Angle	0	0	0	0	1	1	1.7%
	Left Turn	1	1	1	1	3	7	11.7%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	6	2	1	4	4	17	28.3%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	0	0	0	0	0	0	0.0%
	Bicycle	0	0	0	0	0	0	0.0%
	Other	0	3	0	0	0	3	5.0%
	Non Collision	0	0	0	0	0	0	0.0%
	Total	**17**	**18**	**3**	**10**	**12**	**60**	**100%**
Severity	PDO Crashes	15	16	3	9	11	54	90.0%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	2	2	0	1	1	6	10.0%
	Total Crashes	**17**	**18**	**3**	**10**	**12**	**60**	**100.0%**
Lighting Conditions	Daylight	10	14	3	8	7	42	70.0%
	Dusk	1	0	0	0	0	1	1.7%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	6	4	0	2	5	17	28.3%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**17**	**18**	**3**	**10**	**12**	**60**	**100.0%**
Weather Condition	Clear	15	14	3	9	11	52	86.7%
	Cloudy	2	3	0	0	1	6	10.0%
	Rain	0	1	0	1	0	2	3.3%
	Total Crashes	**17**	**18**	**3**	**10**	**12**	**60**	**100.0%**
Distracted Driving	**Total Crashes**	**2**	**4**	**0**	**0**	**3**	**9**	**-**

2.1.3 SR 934 at Adventure Avenue

A total of 21 crashes were reported at the intersection of SR 934 and Adventure Avenue during the five-year period. **Table 6** summarizes the crash severity and most recurring crash types. Rear-end was the most reported crash type, accounting for 11 crashes (52.4% of all crashes). Additionally, there were four (4) sideswipe crashes reported at the intersection.

A total of 16 crashes involved property damage only, five (5) crashes involved injuries, and no fatal crashes were reported. Based on the recorded crash data and AADT, the intersection experienced an average of 0.294 crashes per MEV. The intersection is below the statewide average and is not listed on the D6 Five-Year High Crash Location list.

A bicycle crash occurred at this intersection. Below is the description of the crash.

Bicycle crash states:

"…VEHICLE 1 WAS USING THE EXIT/ENTRY DRIVEWAY TO KENNEDY CSWY, WHEN BICYCLIST CRASH WITH VEHICLE 1. BICYCLIST STATED THAT SHE WAS RIDING HER BICYCLE ON THE SIDEWALK AGAINST THE FLOW OF TRAFFIC. BICYCLIST MADE CONTACT WITH THE FRONT RIGHT FRONT BUMPER OF VEHICLE 1 CAUSING MINOR, BUT VISIBLE DAMAGE…."

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Table 6 SR 934 at Adventure Avenue Crash Summary

SR 934 at Adventure Avenue		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	3	3	1	2	2	11	52.4%
	Head On	0	0	1	0	0	1	4.8%
	Angle	0	0	0	0	1	1	4.8%
	Left Turn	0	0	0	0	0	0	0.0%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	2	1	0	1	0	4	19.0%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	0	0	0	0	0	0	0.0%
	Bicycle	1	0	0	0	0	1	4.8%
	Other	1	1	1	0	0	3	14.3%
	Non Collision	0	0	0	0	0	0	0.0%
	Total	**7**	**5**	**3**	**3**	**3**	**21**	**100%**
Severity	PDO Crashes	4	3	3	3	3	16	76.2%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	3	2	0	0	0	5	23.8%
	Total Crashes	**7**	**5**	**3**	**3**	**3**	**21**	**100.0%**
Lighting Conditions	Daylight	7	3	3	1	3	17	81.0%
	Dusk	0	0	0	1	0	1	4.8%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	0	2	0	1	0	3	14.3%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**7**	**5**	**3**	**3**	**3**	**21**	**100.0%**
Weather Condition	Clear	6	4	3	3	2	18	85.7%
	Cloudy	0	1	0	0	0	1	4.8%
	Rain	1	0	0	0	1	2	9.5%
	Total Crashes	**7**	**5**	**3**	**3**	**3**	**21**	**100.0%**
Distracted Driving	**Total Crashes**	**1**	**1**	**0**	**0**	**0**	**2**	**-**

2.2 Segments

2.2.1 SR 934 between Pelican Harbor Drive and North Bay Island

A total of 34 crashes were reported on the segment of SR 934 between Pelican Harbor Drive and North Bay Island during the five-year period. **Table 7** summarizes the crash severity and most recurring crash types. Rear-end was the most reported crash type, accounting for 21 crashes (61.8% of all crashes). Additionally, there were four (4) non-collision crashes reported at the segment. The non collision crashes were due to the drivers losing control and striking the barriers.

A total of 24 crashes involved property damage only, nine (9) crashes involved injuries, and one (1) fatal crash was reported. The fatal crash is described below. Based on the recorded crash data and AADT, the segment experienced an average of 5.194 crashes per MVMT. The segment is above the statewide average and is not listed on the D6 Five-Year High Crash Location list.

Fatal crash states:

"…Witness stated that vehicle #1 was in the center lane then all of a sudden veered off the road and crashed into the rocks. Vehicle #1's final rest was in the water at the water's edge on its left side…"

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Table 7 SR 934 between Pelican Harbor Drive and North Bay Island

SR 934/NE 79th Street Segment 1		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	6	6	1	2	6	21	61.8%
	Head On	0	1	0	0	0	1	2.9%
	Angle	0	0	0	0	0	0	0.0%
	Left Turn	0	0	0	0	0	0	0.0%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	2	1	2	1	6	17.6%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	0	0	0	0	0	0	0.0%
	Bicycle	0	0	0	0	0	0	0.0%
	Other	0	0	1	1	0	2	5.9%
	Non Collision	2	0	0	0	2	4	11.8%
	Total Crashes	**8**	**9**	**3**	**5**	**9**	**34**	**100%**
Severity	PDO Crashes	6	8	2	2	6	24	70.6%
	Fatal Crashes	0	0	0	0	1	1	2.9%
	Injury Crashes	2	1	1	3	2	9	26.5%
	Total Crashes	**8**	**9**	**3**	**5**	**9**	**34**	**100.0%**
Lighting Conditions	Daylight	5	6	1	4	5	21	61.8%
	Dusk	0	0	0	0	0	0	0.0%
	Dawn	0	0	1	0	1	2	5.9%
	Dark	3	3	1	1	3	11	32.4%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**8**	**9**	**3**	**5**	**9**	**34**	**100.0%**
Weather Condition	Clear	7	8	2	5	7	29	85.3%
	Cloudy	0	0	0	0	1	1	2.9%
	Rain	1	1	1	0	1	4	11.8%
	Total Crashes	**8**	**9**	**3**	**5**	**9**	**34**	**100.0%**
Distracted Driving	**Total Crashes**	**1**	**0**	**0**	**1**	**1**	**3**	**-**

2.2.2 SR 934 between North Bay Island and Adventure Avenue

A total of eight (8) crashes were reported on the SR 934 between North Bay Island and Adventure Avenue during the five-year period. **Table 8** summarizes the crash severity and most recurring crash types. Rear-end was the most reported crash type, accounting for four (4) crashes.

A total of six (6) crashes involved property damage only, two (2) crashes involved injuries, and no fatal crashes were reported. Based on the recorded crash data and AADT, the segment experienced an average of 0.787 crashes per MVMT. The segment is below the statewide average and is not listed on the D6 Five-Year High Crash Location list.

Table 8 SR 934 between North Bay Island and Adventure Avenue

SR 934 between North Bay Island and Adventure Avenue		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	0	2	1	0	1	4	50.0%
	Head On	0	0	0	0	0	0	0.0%
	Angle	0	0	0	0	0	0	0.0%
	Left Turn	0	0	0	0	0	0	0.0%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	0	0	1	0	0	1	12.5%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	0	0	0	0	0	0	0.0%
	Bicycle	0	0	0	0	0	0	0.0%
	Other	2	0	1	0	0	3	37.5%
	Non Collision	0	0	0	0	0	0	0.0%
	Total	**2**	**2**	**3**	**0**	**1**	**8**	**100%**
Severity	PDO Crashes	2	2	2	0	0	6	75.0%
	Fatal Crashes	0	0	0	0	0	0	0.0%
	Injury Crashes	0	0	1	0	1	2	25.0%
	Total Crashes	**2**	**2**	**3**	**0**	**1**	**8**	**100.0%**
Lighting Conditions	Daylight	1	2	3	0	0	6	75.0%
	Dusk	0	0	0	0	0	0	0.0%
	Dawn	0	0	0	0	0	0	0.0%
	Dark	1	0	0	0	1	2	25.0%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**2**	**2**	**3**	**0**	**1**	**8**	**100.0%**
Weather Condition	Clear	0	2	3	0	1	6	75.0%
	Cloudy	0	0	0	0	0	0	0.0%
	Rain	2	0	0	0	0	2	25.0%
	Total Crashes	**2**	**2**	**3**	**0**	**1**	**8**	**100.0%**
Distracted Driving	**Total Crashes**	**0**	**0**	**0**	**0**	**0**	**0**	**-**

2.3 Study Area

Based on the crash data obtained from Signal Four Analytics for the five-year period, a total of 170 crashes were identified within the study area. Forty-five (45) crashes in 2018, 45 crashes in 2019, 13 crashes in 2020, 33 crashes in 2021 and 34 crashes in 2022. The project crash statistics are summarized in **Table 9**. The low crash frequency identified in 2020 can likely be attributed to the effects of the Covid-19 Pandemic.

One-hundred thirty-nine (139) crashes involved property damage only, 30 crashes involving injuries and one (1) fatal crash was reported during the five-year period. Rear-end crashes were the most reported crash type, accounting for 92 crashes (54.1% of all crashes). Sideswipe crashes were the second highest crash type accounting for 37 crashes (21.8% of all crashes). Most of the crashes (71.8%) occurred during the daytime. **Figure 3** summarizes the crash by Date/Time throughout the study area.

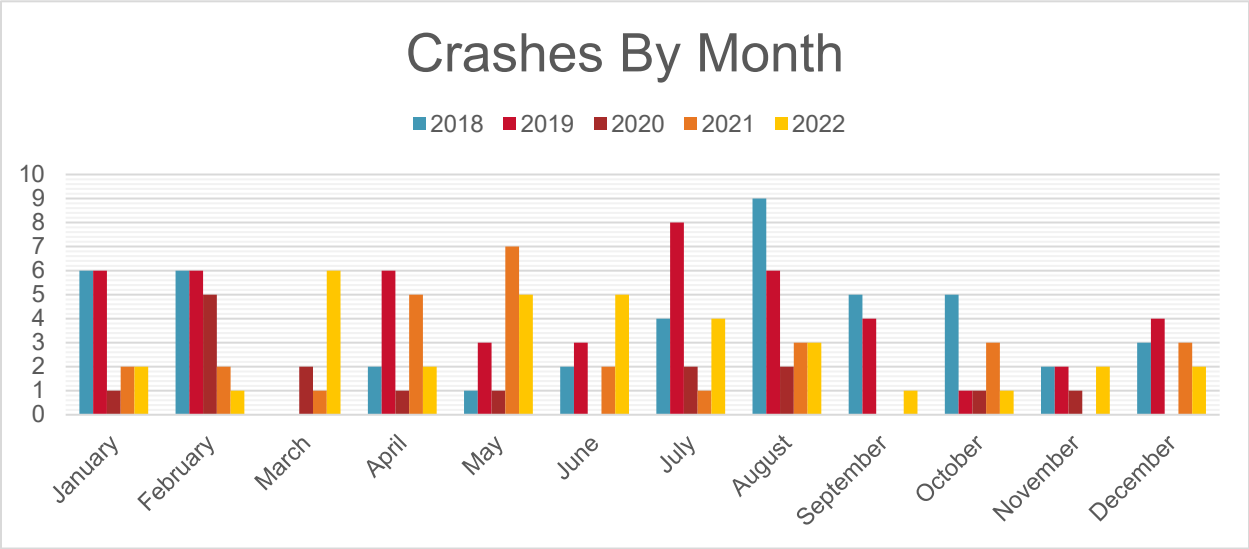
Based on the identified contributing factors for each intersection and segments, the following countermeasures are recommended for consideration during the development of alternatives:

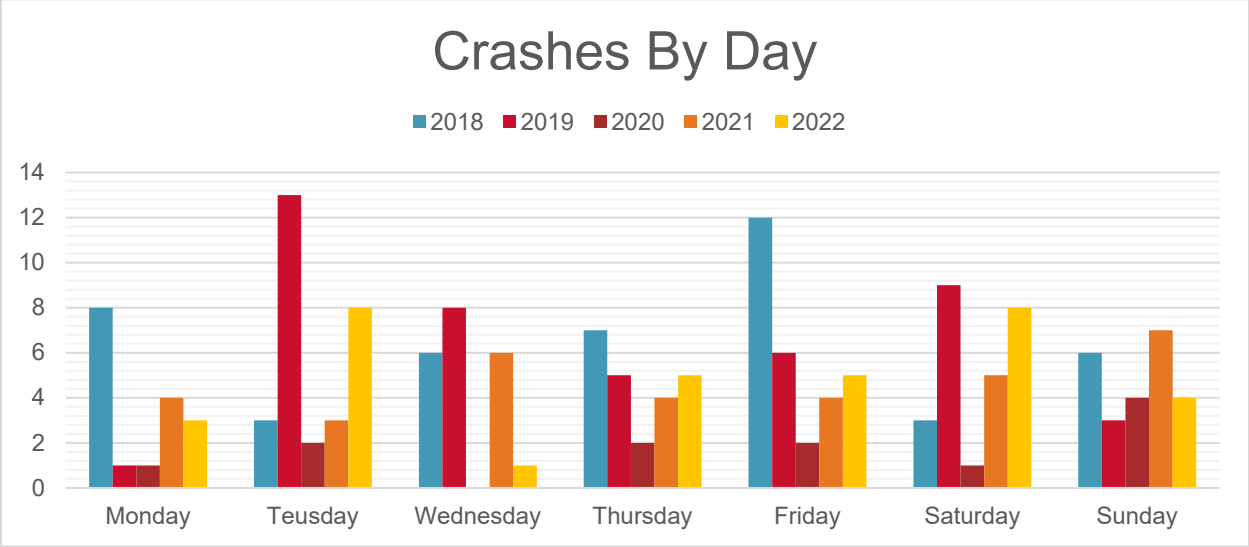
- Signalization
    - Yellow and all-red clearance intervals review
    - Improve signal progression
    - Review left turn phase operations
    - Improve visibility of signal heads through improvements such as retroreflective backplates or additional signal heads (especially at large intersections)
- Geometric
    - Reduce conflict points by the addition of indirect left-turns (median u-turns, displaced left turns, etc.)
    - Increase left turn storage and/or capacity
    - Improve signage
    - Provide or enhance pedestrian and bicycle facilities

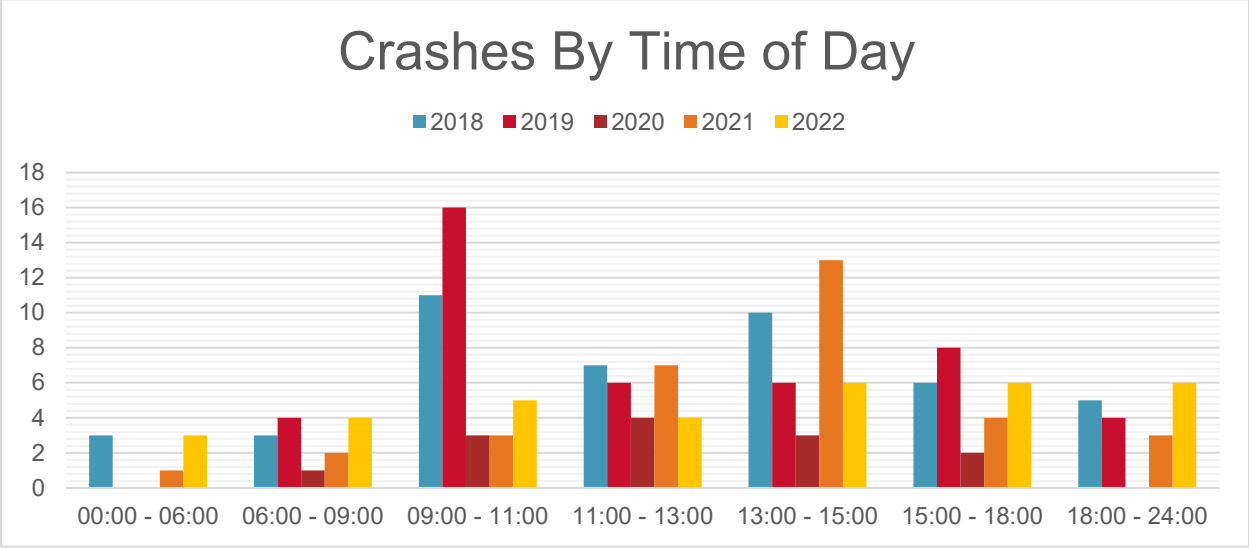
Table 9 Crash Summary

SR 934 from Pelican Harbor Dr to Adventure Ave		Number of Crashes Per Year					Total Crashes	% Total Crashes
		2018	2019	2020	2021	2022		
Crash Type	Rear End	24	30	4	17	17	92	54.1%
	Head On	1	1	1	0	0	3	1.8%
	Angle	1	0	0	0	2	3	1.8%
	Left Turn	2	1	1	1	3	8	4.7%
	Right Turn	0	0	0	0	0	0	0.0%
	Sideswipe	8	7	3	10	9	37	21.8%
	Backed Into	0	0	0	0	0	0	0.0%
	Pedestrian	1	0	0	0	0	1	0.6%
	Bicycle	1	0	0	2	0	3	1.8%
	Other	5	6	4	3	1	19	11.2%
	Non Collision	2	0	0	0	2	4	2.4%
	Total	**45**	**45**	**13**	**33**	**34**	**170**	**100%**
Severity	PDO Crashes	35	39	11	26	28	139	81.8%
	Fatal Crashes	0	0	0	0	1	1	0.6%
	Injury Crashes	10	6	2	7	5	30	17.6%
	Total Crashes	**45**	**45**	**13**	**33**	**34**	**170**	**100.0%**
Lighting Conditions	Daylight	31	35	10	26	20	122	71.8%
	Dusk	1	0	0	1	0	2	1.2%
	Dawn	0	0	1	1	1	3	1.8%
	Dark	13	10	2	5	13	43	25.3%
	Unknown	0	0	0	0	0	0	0.0%
	Total Crashes	**45**	**45**	**13**	**33**	**34**	**170**	**100.0%**
Weather Condition	Clear	38	37	12	32	29	148	87.1%
	Cloudy	2	5	0	0	2	9	5.3%
	Rain	5	3	1	1	3	13	7.6%
	Total Crashes	**45**	**45**	**13**	**33**	**34**	**170**	**100.0%**
Distracted Driving	**Total Crashes**	**4**	**5**	**0**	**1**	**4**	**14**	**-**

Figure 3 Crash by Date/Time







Appendix A. Crash Data

CRASH SUMMARY

INTERSECTING ROADWAY: **SR 934/NE 79 St John F Kennedy Cswy from Pelican Harbor Dr to Adventure Ave** PREPARED BY: **Metric Eng.**

STUDY PERIOD: FROM **01/2018** TO: **12/2018** COUNTY: **Miami-Dade**

Crash Number	No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WEATHER
86930404	1	-	01/07/18	Sunday	16:02	Rear End	0	0	1	Daylight	Dry
87853874	2	-	01/12/18	Friday	10:30	Rear End	0	0	1	Daylight	Dry
87064962	3	-	01/13/18	Saturday	9:25	Rear End	0	1	0	Daylight	Dry
87064855	4	-	01/19/18	Friday	11:05	Rear End	0	0	1	Daylight	Dry
87064806	5	-	01/19/18	Friday	21:05	Left Turn	0	0	1	Dark - Lighte	Dry
87621769	6	-	01/21/18	Sunday	22:18	Off Road	0	0	1	Dark - Lighte	Dry
87064831	7	-	02/01/18	Thursday	15:40	Rear End	0	2	0	Daylight	Dry
87626840	8	-	02/22/18	Thursday	17:45	Left Turn	0	1	0	Daylight	Dry
87064951	9	-	02/23/18	Friday	18:54	Sideswipe	0	0	1	Dark - Lighte	Dry
87064847	10	-	02/25/18	Sunday	0:20	Rear End	0	0	1	Dark - Lighte	Dry
87064825	11	-	02/28/18	Wednesday	11:19	Rear End	0	0	1	Daylight	Dry
87576348	12	-	02/28/18	Wednesday	15:02	Rear End	0	0	1	Daylight	Dry
87064812	13	-	04/02/18	Monday	14:32	Head On	0	1	0	Daylight	Dry
87625926	14	-	04/09/18	Monday	9:45	Other	0	0	1	Daylight	Dry
87850891	15	-	05/26/18	Saturday	15:15	Rear End	0	1	0	Daylight	Wet
87064874	16	-	06/20/18	Wednesday	12:24	Rear End	0	0	1	Daylight	Dry
87064838	17	-	06/21/18	Thursday	0:15	Rear End	0	1	0	Dark - Lighte	Dry
87064837	18	-	07/02/18	Monday	20:03	Sideswipe	0	0	1	Dusk	Dry
87853475	19	-	07/05/18	Thursday	16:01	Rear End	0	0	1	Daylight	Dry
87064982	20	-	07/13/18	Friday	11:15	Sideswipe	0	0	1	Daylight	Dry
88656128	21	-	07/25/18	Wednesday	7:06	Sideswipe	0	0	1	Daylight	Dry
87855386	22	-	08/05/18	Sunday	9:00	Angle	0	0	1	Daylight	Dry
87855427	23	-	08/06/18	Monday	2:00	Other	0	0	1	Dark - Lighte	Wet
87064887	24	-	08/07/18	Tuesday	14:15	Bicycle	0	1	0	Daylight	Dry
87064967	25	-	08/16/18	Thursday	15:04	Rear End	0	0	1	Daylight	Dry
82345172	26	-	08/17/18	Friday	16:06	Other	0	1	0	Daylight	Wet
87856215	27	-	08/17/18	Friday	20:45	Rear End	0	0	1	Dark - Lighte	Dry
87064889	28	-	08/24/18	Friday	17:50	Sideswipe	0	0	1	Daylight	Dry
87857052	29	-	08/30/18	Thursday	16:05	Rear End	0	0	1	Daylight	Wet
87857091	30	-	08/31/18	Friday	10:00	Rear End	0	1	0	Daylight	Dry
87064894	31	-	09/02/18	Sunday	21:30	Rear End	0	0	1	Dark - Lighte	Dry
87064895	32	-	09/03/18	Monday	19:48	Rear End	0	0	1	Dark - Lighte	Dry
87651115	33	-	09/04/18	Tuesday	21:34	Off Road	0	0	1	Dark - Lighte	Dry
87857761	34	-	09/10/18	Monday	21:50	Other	0	0	1	rk - Not Ligh	Wet
87064959	35	-	09/19/18	Wednesday	7:18	Rear End	0	0	1	Daylight	Dry
87064905	36	-	10/02/18	Tuesday	19:45	Sideswipe	0	0	1	Dark - Lighte	Dry
87859218	37	-	10/03/18	Wednesday	9:45	Unknown	0	0	1	Daylight	Wet
87064906	38	-	10/05/18	Friday	10:29	Rear End	0	0	1	Daylight	Dry
87859439	39	-	10/05/18	Friday	20:30	Rear End	0	0	1	Dark - Lighte	Dry
87860736	40	-	10/27/18	Saturday	13:20	Pedestrian	0	1	0	Daylight	Dry
87064914	41	-	11/01/18	Thursday	10:40	Rear End	0	0	1	Daylight	Dry
87064916	42	-	11/12/18	Monday	7:39	Sideswipe	0	0	1	Daylight	Dry
87863093	43	-	12/02/18	Sunday	13:04	Rear End	0	0	1	Daylight	Dry
87064923	44	-	12/03/18	Monday	14:30	Sideswipe	0	0	1	Daylight	Dry
87064929	45	-	12/28/18	Friday	13:54	Rear End	0	0	1	Daylight	Dry

CRASH SUMMARY

INTERSECTING ROADWAY: **SR 934/NE 79 St John F Kennedy Cswy from Pelican Harbor Dr to Adventure Ave** PREPARED BY: **Metric Eng.**

STUDY PERIOD: FROM **01/2019** TO: **12/2019** COUNTY: **Miami-Dade**

Crash Number	No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WEATHER
87588963	1	-	01/26/19	Saturday	11:02	Rear End	0	0	1	Daylight	Wet
87588969	2	-	02/02/19	Saturday	19:05	Rear End	0	0	1	Dark - Lighte	Dry
87588968	3	-	02/05/19	Tuesday	7:24	Sideswipe	0	0	1	Daylight	Dry
88826443	4	-	02/06/19	Wednesday	11:45	Rear End	0	1	0	Daylight	Dry
88825563	5	-	02/09/19	Saturday	12:30	Rear End	0	0	1	Daylight	Dry
87588972	6	-	02/19/19	Tuesday	8:10	Rear End	0	0	1	Daylight	Dry
88827048	7	-	03/01/19	Friday	14:45	Rear End	0	0	1	Daylight	Dry
88828665	8	-	03/24/19	Sunday	16:45	Rear End	0	0	1	Daylight	Dry
87588982	9	-	04/02/19	Tuesday	20:52	Other	0	0	1	Dark - Lighte	Dry
87588984	10	-	04/06/19	Saturday	20:09	Rear End	0	0	1	Dark - Lighte	Dry
88829848	11	-	04/10/19	Wednesday	10:00	Rear End	0	0	1	Daylight	Dry
87588988	12	-	04/17/19	Wednesday	9:18	Rear End	0	0	1	Daylight	Dry
88830401	13	-	04/17/19	Wednesday	11:10	Sideswipe	0	0	1	Daylight	Dry
88831155	14	-	04/30/19	Tuesday	8:50	Rear End	0	0	1	Daylight	Dry
87589000	15	-	05/07/19	Tuesday	16:07	Rear End	0	0	1	Daylight	Dry
87589004	16	-	05/28/19	Tuesday	11:31	Rear End	0	0	1	Daylight	Dry
87589005	17	-	05/28/19	Tuesday	11:32	Sideswipe	0	0	1	Daylight	Dry
89239805	18	-	06/05/19	Wednesday	23:12	Sideswipe	0	0	1	Dark - Lighte	Dry
89240040	19	-	06/08/19	Saturday	9:15	Rear End	0	0	1	Daylight	Dry
87589012	20	-	06/11/19	Tuesday	10:12	Rear End	0	0	1	Daylight	Dry
89241498	21	-	07/01/19	Monday	10:50	Rear End	0	2	0	Daylight	Dry
87589021	22	-	07/09/19	Tuesday	22:00	Rear End	0	1	0	Dark - Lighte	Dry
89242054	23	-	07/10/19	Wednesday	13:50	Other	0	0	1	Daylight	Dry
87589023	24	-	07/11/19	Thursday	9:17	Rear End	0	0	1	Daylight	Dry
87589032	25	-	07/12/19	Friday	14:55	Rear End	0	0	1	Daylight	Dry
87589028	26	-	07/18/19	Thursday	18:34	Sideswipe	0	0	1	Daylight	Dry
87589029	27	-	07/21/19	Sunday	18:26	Other	0	1	0	Daylight	Dry
87589030	28	-	07/27/19	Saturday	3:15	Rear End	0	0	1	Dark - Lighte	Dry
89243654	29	-	08/03/19	Saturday	17:35	Head On	0	0	1	Daylight	Wet
89245024	30	-	08/25/19	Sunday	11:55	Sideswipe	0	0	1	Daylight	Dry
87589042	31	-	08/29/19	Thursday	10:33	Rear End	0	0	1	Daylight	Dry
87589048	32	-	08/30/19	Friday	9:21	Rear End	0	0	1	Daylight	Wet
87589043	33	-	08/30/19	Friday	21:02	Rear End	0	0	1	Dark - Lighte	Dry
87589044	34	-	08/31/19	Saturday	12:53	Left Turn	0	0	1	Daylight	Dry
89246135	35	-	09/11/19	Wednesday	10:15	Rear End	0	0	1	Daylight	Dry
87589059	36	-	09/14/19	Saturday	16:38	Sideswipe	0	0	1	Daylight	Dry
87589055	37	-	09/18/19	Wednesday	23:05	Rear End	0	1	0	Dark - Lighte	Dry
87589058	38	-	09/24/19	Tuesday	18:26	Other	0	0	1	Daylight	Dry
87589062	39	-	10/01/19	Tuesday	15:51	Rear End	0	0	1	Daylight	Dry
87589070	40	-	11/15/19	Friday	15:45	Other	0	0	1	Daylight	Wet
89477865	41	-	11/15/19	Friday	19:45	Other	0	0	1	Dark - Lighte	Wet
87589077	42	-	12/03/19	Tuesday	9:50	Rear End	0	0	1	Daylight	Dry
87589079	43	-	12/05/19	Thursday	13:28	Rear End	0	0	1	Daylight	Dry
87589080	44	-	12/10/19	Tuesday	18:56	Rear End	0	1	0	Dark - Lighte	Dry
87589082	45	-	12/19/19	Thursday	8:10	Rear End	0	0	1	Daylight	Wet

CRASH SUMMARY

INTERSECTING ROADWAY: **SR 934/NE 79 St John F Kennedy Cswy from Pelican Harbor Dr to Adventure Ave** PREPARED BY: **Metric Eng.**

STUDY PERIOD: FROM **01/2020** TO: **12/2020** COUNTY: **Miami-Dade**

Crash Number	No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WEATHER
87589088	1	-	01/05/20	Sunday	14:25	Left Turn	0	0	1	Daylight	Dry
87589094	2	-	01/28/20	Tuesday	11:22	Head On	0	0	1	Daylight	Dry
87589098	3	-	02/06/20	Thursday	17:17	Unknown	0	0	1	Daylight	Dry
87589106	4	-	02/18/20	Tuesday	14:56	Sideswipe	0	1	0	Daylight	Dry
89485540	5	-	03/06/20	Friday	18:20	Other	0	0	1	Dark - Lighte	Dry
87589122	6	-	04/30/20	Thursday	9:06	Rear End	0	0	1	Daylight	Dry
87589123	7	-	05/01/20	Friday	13:38	Other	0	0	1	Daylight	Dry
87589143	8	-	07/25/20	Saturday	16:45	Rear End	0	0	1	Daylight	Dry
90123816	9	-	07/26/20	Sunday	7:20	Other	0	1	0	Dawn	Dry
90124108	10	-	08/02/20	Sunday	20:45	Sideswipe	0	0	1	Dark - Lighte	Wet
90125067	11	-	08/24/20	Monday	15:52	Rear End	0	0	1	Daylight	Dry
87589157	12	-	10/11/20	Sunday	11:57	Sideswipe	0	0	1	Daylight	Dry
87589170	13	-	11/23/20	Monday	14:22	Rear End	0	0	1	Daylight	Dry

CRASH SUMMARY

INTERSECTING ROADWAY: **SR 934/NE 79 St John F Kennedy Cswy from Pelican Harbor Dr to Adventure Ave** PREPARED BY: **Metric Eng.**

STUDY PERIOD: FROM **01/2021** TO: **12/2021** COUNTY: **Miami-Dade**

Crash Number	No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WEATHER
24209126	1	-	01/20/21	Wednesday	14:26	Other	0	0	1	Daylight	Dry
87589182	2	-	01/26/21	Tuesday	22:55	Sideswipe	0	0	1	Dark - Lighte	Dry
87589183	3	-	02/02/21	Tuesday	17:47	Left Turn	0	0	1	Dark - Lighte	Dry
87589194	4	-	03/09/21	Tuesday	17:30	Sideswipe	0	0	1	Daylight	Dry
24212213	5	-	03/19/21	Friday	12:40	Sideswipe	0	0	1	Daylight	Dry
24212314	6	-	03/20/21	Saturday	22:45	Rear End	0	0	1	Dark - Lighte	Dry
87589196	7	-	03/21/21	Sunday	10:55	Sideswipe	0	0	1	Daylight	Dry
24212549	8	-	03/24/21	Wednesday	17:18	Rear End	0	1	0	Daylight	Dry
24212837	9	-	03/29/21	Monday	20:45	Rear End	0	2	0	Dark - Lighte	Dry
24213155	10	-	04/04/21	Sunday	19:03	Bicycle	0	1	0	Dawn	Dry
24213784	11	-	04/14/21	Wednesday	13:25	Sideswipe	0	0	1	Daylight	Dry
24213845	12	-	04/15/21	Thursday	9:00	Other	0	1	0	Daylight	Dry
24214046	13	-	04/18/21	Sunday	16:17	Rear End	0	1	0	Daylight	Dry
24214380	14	-	04/24/21	Saturday	14:53	Other	0	0	1	Daylight	Dry
87589208	15	-	05/01/21	Saturday	13:05	Sideswipe	0	0	1	Daylight	Dry
24215127	16	-	05/05/21	Wednesday	19:50	Rear End	0	0	1	Daylight	Dry
24215400	17	-	05/09/21	Sunday	17:43	Rear End	0	0	1	Daylight	Dry
87589213	18	-	05/14/21	Friday	17:40	Rear End	0	0	1	Daylight	Dry
90128986	19	-	05/17/21	Monday	11:42	Rear End	0	0	1	Daylight	Dry
24525851	20	-	05/26/21	Wednesday	21:11	Rear End	0	1	0	Daylight	Dry
24525997	21	-	05/29/21	Saturday	14:58	Bicycle	0	0	1	Daylight	Dry
87589222	22	-	06/09/21	Wednesday	15:00	Sideswipe	0	0	1	Daylight	Dry
24527851	23	-	06/27/21	Sunday	15:11	Sideswipe	0	0	1	Daylight	Dry
24529734	24	-	07/25/21	Sunday	6:00	Sideswipe	0	0	1	Daylight	Dry
87589233	25	-	08/09/21	Monday	14:48	Rear End	0	0	1	Daylight	Wet
87589237	26	-	08/12/21	Thursday	17:37	Rear End	0	0	1	Daylight	Dry
87589238	27	-	08/22/21	Sunday	7:15	Rear End	0	0	1	Daylight	Dry
87589258	28	-	10/07/21	Thursday	16:24	Rear End	0	0	1	Daylight	Dry
87589257	29	-	10/09/21	Saturday	2:34	Rear End	0	1	0	Dark - Lighte	Wet
24534695	30	-	10/11/21	Monday	16:55	Rear End	0	0	1	Daylight	Dry
24783119	31	-	12/02/21	Thursday	16:28	Rear End	0	0	1	Daylight	Dry
87589270	32	-	12/10/21	Friday	18:30	Rear End	0	0	1	Dusk	Dry
87589275	33	-	12/31/21	Friday	17:20	Sideswipe	0	0	1	Daylight	Dry

CRASH SUMMARY

INTERSECTING ROADWAY: **SR 934/NE 79 St John F Kennedy Cswy from Pelican Harbor Dr to Adventure Ave** PREPARED BY: **Metric Eng.**

STUDY PERIOD: FROM **01/2022** TO: **12/2022** COUNTY: **Miami-Dade**

Crash Number	No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WEATHER
87589281	1	-	01/18/22	Tuesday	22:25	Sideswipe	0	0	1	Dark - Lighte	Dry
24786372	2	-	01/25/22	Tuesday	0:20	Sideswipe	0	0	1	Dark - Lighte	Dry
87589282	3	-	01/25/22	Tuesday	8:47	Rear End	0	0	1	Daylight	Dry
24786503	4	-	01/27/22	Thursday	0:28	Off Road	0	0	1	Dark - Lighte	Dry
87589286	5	-	02/10/22	Thursday	20:36	Left Turn	0	3	0	Dark - Lighte	Dry
87589285	6	-	02/11/22	Friday	23:30	Rear End	0	1	0	Dark - Lighte	Dry
24789811	7	-	03/15/22	Tuesday	7:29	Off Road	1	0	0	Dawn	Wet
24790036	8	-	03/20/22	Sunday	15:20	Other	0	0	1	Daylight	Dry
87589300	9	-	03/29/22	Tuesday	19:25	Rear End	0	0	1	Daylight	Dry
25275881	10	-	04/11/22	Monday	16:00	Rear End	0	1	0	Daylight	Dry
25277060	11	-	04/30/22	Saturday	8:49	Rear End	0	0	1	Daylight	Wet
87589308	12	-	05/03/22	Tuesday	18:55	Rear End	0	0	1	Daylight	Dry
25277520	13	-	05/06/22	Friday	16:28	Rear End	0	0	1	Daylight	Dry
25277896	14	-	05/12/22	Thursday	11:30	Sideswipe	0	0	1	Dark - Lighte	Dry
87589320	15	-	05/28/22	Saturday	2:00	Angle	0	0	1	Dark - Lighte	Dry
87589322	16	-	05/29/22	Sunday	10:15	Rear End	0	0	1	Daylight	Dry
87589325	17	-	06/03/22	Friday	19:21	Rear End	0	0	1	Daylight	Wet
87589328	18	-	06/12/22	Sunday	14:55	Sideswipe	0	0	1	Daylight	Dry
87589332	19	-	06/25/22	Saturday	20:30	Left Turn	0	0	1	Dark - Lighte	Dry
87589334	20	-	06/27/22	Monday	21:26	Left Turn	0	0	1	Dark - Lighte	Dry
87589344	21	-	06/30/22	Thursday	11:37	Sideswipe	0	0	1	Daylight	Dry
87589337	22	-	07/01/22	Friday	17:56	Rear End	0	0	1	Daylight	Dry
87589345	23	-	07/18/22	Monday	9:30	Angle	0	0	1	Daylight	Dry
87589349	24	-	07/24/22	Sunday	11:56	Rear End	0	0	1	Daylight	Dry
87589350	25	-	07/30/22	Saturday	12:24	Rear End	0	1	0	Daylight	Dry
87589354	26	-	08/06/22	Saturday	16:34	Rear End	0	0	1	Daylight	Dry
25283718	27	-	08/13/22	Saturday	22:10	Rear End	0	0	1	Dark - Lighte	Dry
25284340	28	-	08/23/22	Tuesday	13:14	Rear End	0	0	1	Daylight	Dry
87589369	29	-	09/16/22	Friday	7:15	Sideswipe	0	0	1	Daylight	Dry
25517545	30	-	10/01/22	Saturday	23:30	Rear End	0	1	0	Dark - Lighte	Dry
25520407	31	-	11/12/22	Saturday	12:28	Sideswipe	0	0	1	Daylight	Dry
25520786	32	-	11/17/22	Thursday	21:32	Sideswipe	0	0	1	Dark - Lighte	Dry
87589390	33	-	12/07/22	Wednesday	20:13	Sideswipe	0	0	1	Dark - Lighte	Dry
25230659	34	-	12/20/22	Tuesday	15:53	Rear End	0	0	1	Daylight	Wet

Appendix G.

Intersection Control Evaluation (ICE) Worksheets

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms are to be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. **Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.**

Project Name	SR 934/NE 79th Street at Pelican Harbor Drive		FDOT Project #		
Submitted By		Agency/Company	HDR	Date	10/10/2023
Email		FDOT District	District 6	County	Miami-Dade
Project Locality (*City/Town/Village*)	North Bay Village				
Intersection Type	At-Grade Intersection	FDOT Context Classification	C5 - Urban Center		
Project Funding Source	Federal	Project Type	Corridor Improvement Project		
Project Purpose (*What is the catalyst for this project and why is it being undertaken?*)	The SR 934/NE 79th Street PD&E study is evaluating the rehabilitation or replacement of 2 sets of bridge pairs along NE 79th Street within North Bay Village. The study area includes this intersection. No roadway capacity improvements are expected as part of this project.				
Project Setting Description (*Describe the area surrounding the intersection*)	The two sets of bridge pairs on SR 934/NE 79th Street link developed islands (representing North Bay Village) situated between the mainland and the barrier island. Near Pelican Harbor Drive, land uses constitute an urban setting and generally contain retail such as marina and a boat launch.				
Multimodal Context (*Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns*)	Sidewalks are located on the north and south side of SR 934/NE 79th Street, as well as on the east and west side of Pelican Harbor Drive north and south of NE 79th Street. Marked pedestrian crosswalks are located on all four approaches. Sharrows are provided in EB and WB NE 79th Street to accommodate bicyclists, while no explicitly marked bicycle lane is provided on Pelican Harbor Drive north or south of NE 79th Street.				

Major Street Information

Route #:	SR 934	Route Name(s)	NE 79th Street			Milepost	1.115
Existing Control Type	Signal		Existing AADT	42,000	Design Year AADT		48,500
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification	Urban Principal Arterial - Other				Design Speed (mph)		35
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]		

Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	25	Left	14
	Multi-Use Path?	No	Left-Through-Right	0	Through	2,236	Through	2,077
	Scheduled Bus Service?	Yes	Through-Right	0	Right	18	Right	12
	Bus Stop on Approach?	Yes	Right-Turn	1	Daily Truck %		4.8%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	2	Left	20	Left	19
	Multi-Use Path?	No	Left-Through-Right	0	Through	1,995	Through	2,271
	Scheduled Bus Service?	Yes	Through-Right	1	Right	12	Right	14
	Bus Stop on Approach?	Yes	Right-Turn	0	Daily Truck %		4.8%	

Minor Street Information											
Route #:		Route Name(s)	Pelican Harbor Drive						Milepost (if app.)		
Existing Control Type		Signal		Existing AADT		800			Design Year AADT		900
Design Vehicle		Florida Interstate Semitrailer (WB-62FL)		Control Vehicle		Florida Interstate Semitrailer (WB-62FL)					
Primary Functional Classification		Urban Local							Design Speed (mph)		25
Secondary Functional Classification (if app.)									Target Speed (mph) [if app.]		
Approach #1	Direction	Northbound		Number of Lanes			Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach		Left-Turn	1						
	Crosswalk on Approach?	Yes		Left-Through	0		Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?	No		Through	0		Left	13		Left	41
	Multi-Use Path?	Yes		Left-Through-Right	0		Through	5		Through	6
	Scheduled Bus Service?	No		Through-Right	1		Right	14		Right	7
	Bus Stop on Approach?	No		Right-Turn	0		Daily Truck %			3.6%	
Approach #2	Direction	Southbound		Number of Lanes			Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach		Left-Turn	1						
	Crosswalk on Approach?	Yes		Left-Through	0		Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?	No		Through	0		Left	4		Left	10
	Multi-Use Path?	No		Left-Through-Right	0		Through	10		Through	4
	Scheduled Bus Service?	No		Through-Right	1		Right	16		Right	33
	Bus Stop on Approach?	No		Right-Turn	0		Daily Truck %			3.6%	
Approach #3	Direction			Number of Lanes			Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:			Left-Turn							
	Crosswalk on Approach?			Left-Through			Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?			Through			Left			Left	
	Multi-Use Path?			Left-Through-Right			Through			Through	
	Scheduled Bus Service?			Through-Right			Right			Right	
	Bus Stop on Approach?			Right-Turn			Daily Truck %				

Crash History (Existing Intersections Only)
Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:
Existing crash analysis is attached. The intersection is not listed on the FDOT-6 Five Year High Crash Location list.

Control Strategy Evaluation								
Provide a brief justification as to why each of the following control strategies should be advanced or not. Justification should consider potential environmental impacts.								
	CAP-X Outputs				SPICE Outputs			
	V/C Ratio							
Control Strategy	Weekday AM Peak	Weekday PM Peak	Ped Accom.	Bike Accom.	Crash Prediction Rank	SSI Rank	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	
All-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	
Signalized Control	0.54	0.58	5.24	4.40	3	3	Yes	Existing intersection is signalized, and future conditions indicate signalization will continue to provide adequate capacity through 2050 conditions
Roundabout (1-lane)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Roundabout (2-lane)	0.99	1.02	4.68	4.41	5	4	No	Insufficient ROW to accommodate multi-lane roundabout without impacting current developments. Likely capacity deficiencies as V/C ratios exceed
Median U-Turn	0.45	0.48	3.33	4.40	2	1	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Signalized)	0.45	0.47	3.18	4.08	1	5	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Jughandle					n/a	n/a	No	
Displaced Left-Turn	n/a	n/a	n/a	n/a	n/a	n/a	No	
Continuous Green Tee	n/a	n/a	n/a	n/a	n/a	n/a	No	
Quadrant Roadway	n/a	n/a	n/a	n/a			No	
Thru-Cut (Signalized)	0.50	0.55	4.01	4.40	n/a	2	No	NB-SB through movements do not have a reasonable route to follow given this configuration, and require motorists to travel over a drawbridge towards the east.
Thru-Cut (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Bowtie	n/a	n/a	n/a	n/a	n/a	n/a	No	
Partial Median U-Turn (PMUT)	0.47	0.50	3.14	4.40	3	n/a	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges

Resolution					
To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer					
Project Determination					
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 AM
Number of Intersection Legs	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	2	23	2236	18	2.40%	0.00%
Westbound	10	10	1995	12	2.40%	0.00%
Southbound	0	4	10	16	1.80%	0.00%
Northbound	0	13	5	14	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	2	24	2290	18
Westbound	10	10	2043	12
Southbound	0	4	10	16
Northbound	0	13	5	14

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Major Street Direction	East-West

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	827	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.54	Pedestrian Accommodation	5.24	Bicycle Accommodation	4.40

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		No	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		Yes	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0
Signalized Restricted Crossing U-Turn	E-W				1				1	1	1	3	1	1	1	3	0
Median U-Turn	E-W			1	1			1	1	1		3	1	1		3	0
Partial Median U-Turn	E-W		1	1	0		1	1	0	1		3	1	1		3	0
Signalized ThruCut	E-W		1		1		1		1		1	3	1		1	3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		13	19	0		4	26	0		24	2290	18		10	2055	0
Signalized Restricted Crossing U-Turn	E-W				14				16	2	24	2290	18	10	10	2055	0
Median U-Turn	E-W			5	14			10	16	2		2290	18	10		2055	0
Partial Median U-Turn	E-W		13	19	0		4	26	0	2		2290	18	10		2055	0
Signalized ThruCut	E-W		16		17		9		21		24	2290	18		10	2057	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
		Number of Configurations			
Project Name:	NE 79th Street at Pelican Harbor Drive	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Project Number:	10348806	5	0	1	0
Location	North Bay Village, FL				
Date	2050 AM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									827	0.54	0.54	5.24	4.40
Signalized Restricted Crossing U-Turn	E-W	725	0.40	806	0.45	717	0.40	808	0.45			0.45	3.18	4.08
Median U-Turn	E-W					740	0.41	808	0.45	804	0.45	0.45	3.33	4.40
Partial Median U-Turn	E-W					724	0.40	803	0.45	815	0.47	0.47	3.14	4.40
Signalized ThruCut	E-W									792	0.50	0.50	4.01	4.40

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	*0.08*	*0.07*		0.83	0.88		*0.10*	0.10		0.92	0.99		0.99	4.68	4.41

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicle volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Crosswalk Marking Legend
Conflicting Vehicle Type
Stop/Signal Controlled
Freeflowing
Yield Controlled (yield to vehicles downstream)
Permissive Left (unless exclusive pedestrian phase)
Marking Type
Marked / Unmarked

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Traffic Signal	FULL	5.24	No	Yes Crossing(s) with 2 stages
Signalized Restricted Crossing U-Turn	E-W	3.18	Yes	Yes Crossing(s) with 3+ stages
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages
Partial Median U-Turn	E-W	3.14	Yes	Yes Crossing(s) with 3+ stages
Signalized Thrucut	E-W	4.01	Yes	No

TYPE OF INTERSECTION	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	30	Stop/Signal Controlled	Marked	1	25	41	Stop/Signal Controlled	Marked	5	30	2075	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	2	25	38	Stop/Signal Controlled	Marked	1	30	17	Free Flowing	Marked	3	30	2068	Stop/Signal Controlled	Marked
Median U-Turn	2	25	15	Stop/Signal Controlled	Marked	1	30	36	Yield Controlled	Marked	3	30	2078	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	25	19	Stop/Signal Controlled	Marked	1	30	36	Yield Controlled	Marked	3	30	2065	Stop/Signal Controlled	Marked
Signalized Thrucut	2	25	40	Stop/Signal Controlled	Marked	4	30	2075	Stop/Signal Controlled	Marked	3	30	2304	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	30	2318	Stop/Signal Controlled	Marked	3	25	32	Stop/Signal Controlled	Marked	1	25	38	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	2	25	28	Stop/Signal Controlled	Marked	3	30	2306	Stop/Signal Controlled	Marked	1	30	28	Free Flowing	Marked
Median U-Turn	3	30	2330	Stop/Signal Controlled	Marked	1	25	27	Yield Controlled	Marked	1	25	15	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	30	2330	Permissive Left	Marked	1	25	14	Yield Controlled	Marked	3	25	28	Stop/Signal Controlled	Marked
Signalized Thrucut	1	25	14	Yield Controlled	Marked	2	25	41	Stop/Signal Controlled	Marked	5	30	2334	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	5	30	2334	Stop/Signal Controlled	Marked	3	30	2074	Stop/Signal Controlled	Marked					
Signalized Restricted Crossing U-Turn															
Median U-Turn	1	30	28	Yield Controlled	Marked	3	30	2330	Stop/Signal Controlled	Marked	3	30	2078	Stop/Signal Controlled	Marked
Partial Median U-Turn	1	30	28	Yield Controlled	Marked	3	30	2326	Stop/Signal Controlled	Marked	3	30	2078	Permissive Left	Marked
Signalized Thrucut	3	30	2058	Stop/Signal Controlled	Marked	1	25	16	Yield Controlled	Marked					

TYPE OF INTERSECTION	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Signalized Restricted Crossing U-Turn															
Median U-Turn	1	25	20	Yield Controlled	Marked										
Partial Median U-Turn	1	25	16	Yield Controlled	Marked										
Signalized Thrucut															

TYPE OF INTERSECTION	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Signalized Restricted Crossing U-Turn															
Median U-Turn															
Partial Median U-Turn															
Signalized Thrucut															

TYPE OF INTERSECTION	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Signalized Restricted Crossing U-Turn															
Median U-Turn															
Partial Median U-Turn															
Signalized Thrucut															

TYPE OF INTERSECTION	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	5.24	4.50	5.00	3.75	4.25	4.50	5.00	3.75	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.18	4.75	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.14	4.50	4.75	4.25	3.25	5.00	4.50	4.75	4.25	3.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Thrucut	4.01	4.75	4.00	4.25	5.00	4.75	3.75	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Two Lane Roundabout	2 X 2	4.68	No	Yes Crossing(s) with 2 stages

TYPE OF ROUNDABOUT	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	30	Yield Controlled	Marked	2	30	41	Free Flowing	Marked	2	30	2075	Yield Controlled	Marked

TYPE OF ROUNDABOUT	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	2318	Free Flowing	Marked	2	30	32	Yield Controlled	Marked	2	30	38	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	2334	Yield Controlled	Marked	2	30	2074	Free Flowing	Marked					

TYPE OF ROUNDABOUT	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.68	4.50	4.00	3.75	3.50	4.50	4.00	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing

TYPE OF INTERCHANGE	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the bicycle segment *(approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the MultimodalPed worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyzes bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	Shared with Vehicles
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	FULL	4.49	1	772	Stop/Signal Controlled	No	No	No	1	783	Stop/Signal Controlled	No	No	No	3	48575	Stop/Signal Controlled	No	No	No
Signalized Restricted Crossing U-Turn	E-W	4.66	1	772	Stop/Signal Controlled	Yes	No	No	1	783	Stop/Signal Controlled	Yes	No	No	3	49126	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	4.49	1	772	Stop/Signal Controlled	No	No	No	1	783	Stop/Signal Controlled	No	No	No	3	48575	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	4.49	1	772	Stop/Signal Controlled	No	No	No	1	783	Stop/Signal Controlled	No	No	No	3	48575	Stop/Signal Controlled	No	No	No
Signalized Thrucut	E-W	4.49	1	606	Stop/Signal Controlled	No	No	No	1	617	Stop/Signal Controlled	No	No	No	3	48575	Stop/Signal Controlled	No	No	No

TYPE OF INTERSECTION	Sheet	Intersection Score	Westbound						Northbound 2						Southbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	FULL	4.49	3	48321	Stop/Signal Controlled	No	No	No												
Signalized Restricted Crossing U-Turn	E-W	4.66	3	48872	Stop/Signal Controlled	No	No	No												
Median U-Turn	E-W	4.49	3	48321	Stop/Signal Controlled	No	No	No												
Partial Median U-Turn	E-W	4.49	3	48321	Stop/Signal Controlled	No	No	No												
Signalized Thrucut	E-W	4.49	3	48321	Stop/Signal Controlled	No	No	No												

TYPE OF INTERSECTION	Sheet	Intersection Score	Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	FULL	4.49												
Signalized Restricted Crossing U-Turn	E-W	4.66												
Median U-Turn	E-W	4.49												
Partial Median U-Turn	E-W	4.49												
Signalized Thrucut	E-W	4.49												

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.40	5.00	5.00	3.83	3.83				
4.08	4.33	4.33	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.41	2	772	Yield Controlled	No	No	No	2	783	Yield Controlled	No	No	No	2	48575	Yield Controlled	No	No	No	2	48321	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.41	4.67	4.67	4.17	4.17				

Bicycle Treatment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Northbound					Southbound					Northbound 2					Southbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	NB	SB	NB2	SB2				

Scores

Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	50	25	30	40	50
3000	5	4	4	4	3	4	3	2	1
7000	5	4	4	4	2	3	2	1	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control

Free Flowing	5
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

	Volume (AADT)	Speed All Speeds
3000	<= 3000	5
3001	3001-7000	5
7000		
7001	>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

	Volume (AADT)	Speed (mi/h)			
		<=25	30-35	36-40	>=40
3000	<=3000	5	4	4	2
3001	3001-7000	4	4	4	2
7000					
7001	>7000	3	2	2	1

	<=25	30-35	36-40	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

	Volume (AADT)	Speed (mi/h)			
		<=25	30-35	36-40	>=40
3000	<=3000	5	4	3	2
3001	3001-7000	3	3	2	1
7000					
7001	>7000	2	1	1	1

	<=25	30-35	36-40	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

North Leg AADT	783
South Leg AADT	772
East Leg AADT	48321
West Leg AADT	48575

Major/Minor Street Facility Type
Shared with Vehicles
Un-striped Lane
Shared Use Path

Conflicting Control Type
Stop/Signal Controlled
Free Flowing
Yield Controlled

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	0.45	1	3.18	4.08
Median U-Turn E-W	0.45	1	3.33	4.40
Partial Median U-Turn E-W	0.47	3	3.14	4.40
Signalized ThruCut E-W	0.50	4	4.01	4.40
Traffic Signal	0.54	5	5.24	4.40
2 X 2	0.99	6	4.68	4.41
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Pelican Harbor Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	2	23	2236	18	2.40%	0.00%
Westbound	10	10	1995	12	2.40%	0.00%
Southbound	0	4	10	16	1.80%	0.00%
Northbound	0	13	5	14	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	**0.45**	**1**	**3.18**	**4.08**
Median U-Turn E-W	**0.45**	**1**	**3.33**	**4.40**
Partial Median U-Turn E-W	**0.47**	**3**	**3.14**	**4.40**
Signalized ThruCut E-W	**0.50**	**4**	**4.01**	**4.40**
Traffic Signal	**0.54**	**5**	**5.24**	**4.40**
2 X 2	**0.99**	**6**	**4.68**	**4.41**
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Pelican Harbor Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	4
Major Street Direction:	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	2	23	2236	18	2.40%	0.00%
Westbound	10	10	1995	12	2.40%	0.00%
Southbound	0	4	10	16	1.80%	0.00%
Northbound	0	13	5	14	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0
Signalized Restricted Crossing U-Turn	E-W				1				1	1	1	3	1	1	1	3	0
Median U-Turn	E-W			1	1			1	1	1		3	1	1		3	0
Partial Median U-Turn	E-W		1	1	0		1	1	0	1		3	1	1		3	0
Signalized ThruCut	E-W		1		1		1		1		1	3	1		1	3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									827	0.54	0.54	5.24	4.40
Signalized Restricted Crossing U-Turn	E-W	725	0.40	806	0.45	717	0.40	808	0.45			0.45	3.18	4.08
Median U-Turn	E-W					740	0.41	808	0.45	804	0.45	0.45	3.33	4.40
Partial Median U-Turn	E-W					724	0.40	803	0.45	815	0.47	0.47	3.14	4.40
Signalized ThruCut	E-W									792	0.50	0.50	4.01	4.40

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.08	0.07		0.83	0.88		0.10	0.10		0.92	0.99		0.99	4.68	4.41

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 PM
Number of Intersection Legs	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	6	8	2077	12	2.40%	0.00%
Westbound	17	2	2271	14	2.40%	0.00%
Southbound	0	10	4	33	1.80%	0.00%
Northbound	0	41	6	7	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	6	8	2127	12
Westbound	17	2	2326	14
Southbound	0	10	4	34
Northbound	0	42	6	7

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Major Street Direction	East-West

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	880	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.58	Pedestrian Accommodation	5.24	Bicycle Accommodation	4.40

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		No	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		Yes	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0
Signalized Restricted Crossing U-Turn	E-W				1				1	1	1	3	1	1	1	3	0
Median U-Turn	E-W			1	1			1	1	1		3	1	1		3	0
Partial Median U-Turn	E-W		1	1	0		1	1	0	1		3	1	1		3	0
Signalized ThruCut	E-W		1		1		1		1		1	3	1		1	3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Pelican Harbor Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		42	13	0		10	38	0		8	2127	12		2	2340	0
Signalized Restricted Crossing U-Turn	E-W				7				34	6	8	2127	12	17	2	2340	0
Median U-Turn	E-W			6	7			4	34	6		2127	12	17		2340	0
Partial Median U-Turn	E-W		42	13	0		10	38	0	6		2127	12	17		2340	0
Signalized ThruCut	E-W		45		10		12		36		8	2127	12		2	2342	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	NE 79th Street at Pelican Harbor Drive	Number of Configurations			
Project Number:	10348806	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	North Bay Village, FL	5	0	0	1
Date	2050 PM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									880	0.58	0.58	5.24	4.40
Signalized Restricted Crossing U-Turn	E-W	853	0.47	783	0.43	854	0.47	756	0.42			0.47	3.18	4.08
Median U-Turn	E-W					856	0.48	754	0.42	844	0.47	0.48	3.33	4.40
Partial Median U-Turn	E-W					804	0.45	741	0.41	871	0.50	0.50	3.14	4.40
Signalized ThruCut	E-W									870	0.55	0.55	4.01	4.40

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	*0.10*	*0.20*		0.96	1.02		*0.25*	0.06		0.85	0.91		1.02	4.68	4.41

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Crosswalk Marking Legend

Conflicting Vehicle Type
- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type
- Marked
- Unmarked

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Traffic Signal	FULL	5.24	No	Yes Crossing(s) with 2 stages
Signalized Restricted Crossing U-Turn	E-W	3.18	Yes	Yes Crossing(s) with 3+ stages
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages
Partial Median U-Turn	E-W	3.14	Yes	Yes Crossing(s) with 3+ stages
Signalized Thrucut	E-W	4.01	Yes	No

TYPE OF INTERSECTION	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	48	Stop/Signal Controlled	Marked	1	25	28	Stop/Signal Controlled	Marked	5	30	2359	Stop/Signal Controlled	Marked	3	30	2161	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	2	25	22	Stop/Signal Controlled	Marked	1	30	20	Free Flowing	Marked	3	30	2391	Stop/Signal Controlled	Marked	2	25	50	Stop/Signal Controlled	Marked
Median U-Turn	2	25	10	Stop/Signal Controlled	Marked	1	30	22	Yield Controlled	Marked	3	30	2393	Stop/Signal Controlled	Marked	3	30	2168	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	25	20	Stop/Signal Controlled	Marked	1	30	22	Yield Controlled	Marked	3	30	2351	Stop/Signal Controlled	Marked	3	30	2168	Permissive Left	Marked
Signalized Thrucut	2	25	32	Stop/Signal Controlled	Marked	4	30	2359	Stop/Signal Controlled	Marked	3	30	2154	Stop/Signal Controlled	Marked	1	25	7	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	55	Stop/Signal Controlled	Marked	1	25	18	Stop/Signal Controlled	Marked	5	30	2153	Stop/Signal Controlled	Marked	3	30	2408	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	3	30	2160	Stop/Signal Controlled	Marked	1	30	16	Free Flowing	Marked										
Median U-Turn	1	25	49	Yield Controlled	Marked	1	25	10	Stop/Signal Controlled	Marked	1	30	14	Yield Controlled	Marked	3	30	2168	Stop/Signal Controlled	Marked
Partial Median U-Turn	1	25	7	Yield Controlled	Marked	3	25	52	Stop/Signal Controlled	Marked	1	30	14	Yield Controlled	Marked	3	30	2158	Stop/Signal Controlled	Marked
Signalized Thrucut	2	25	56	Stop/Signal Controlled	Marked	5	30	2153	Stop/Signal Controlled	Marked	3	30	2374	Stop/Signal Controlled	Marked	1	25	34	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #9					Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																				
Signalized Restricted Crossing U-Turn																				
Median U-Turn	3	30	2393	Stop/Signal Controlled	Marked	1	25	44	Yield Controlled	Marked										
Partial Median U-Turn	3	30	2393	Permissive Left	Marked	1	25	34	Yield Controlled	Marked										
Signalized Thrucut																				

TYPE OF INTERSECTION	Crossing #13					Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																														
Signalized Restricted Crossing U-Turn																														
Median U-Turn																														
Partial Median U-Turn																														
Signalized Thrucut																														

TYPE OF INTERSECTION	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	5.24	4.50	5.00	3.75	4.25	4.50	5.00	3.75	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.18	4.75	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.14	4.50	4.75	4.25	3.50	5.00	4.50	4.75	4.25	3.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Thrucut	4.01	4.75	4.00	4.25	5.00	4.75	3.75	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Two Lane Roundabout	2 X 2	4.68	No	Yes Crossing(s) with 2 stages

TYPE OF ROUNDABOUT	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	48	Yield Controlled	Marked	2	30	28	Free Flowing	Marked	2	30	2359	Yield Controlled	Marked	2	30	2161	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	55	Yield Controlled	Marked	2	30	18	Free Flowing	Marked	2	30	2153	Yield Controlled	Marked	2	30	2408	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #9					Crossing #10					Crossing #11					Crossing #12					Crossing #13				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout																									

TYPE OF ROUNDABOUT	Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout																									

TYPE OF ROUNDABOUT	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.68	4.50	4.00	3.50	3.50	4.50	4.00	3.75	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1 – Crossing #18: # Lanes, Veh Speed, Volume, Conflicting Veh Types, Markings	Score: Combined	Individual Crossing Scores: #1 – #18

Score	
Vehicle Speed	
< 25	5
26-34	4
35-40	3
41-50	2
51+	1
Volume (vph) (PV)	Conflicting vehicle type
< 225	
226-450	
451-1350	
1351-2250	
>2250	
Markings (PM)	
Marked	5
Unmarked	1
Multistage	
Out of Direction	
No	1
Yes	1

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	Shared with Vehicles
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	4.49	1	805	Stop/Signal Controlled	No	No	No	1	838	Stop/Signal Controlled	No	No	No	3	50217	Stop/Signal Controlled	No	No	No	3	49644	Stop/Signal Controlled	No	No	No
Signalized Restricted Crossing U-Turn	E-W	4.69	1	805	Stop/Signal Controlled	Yes	No	No	1	838	Stop/Signal Controlled	Yes	No	No	3	50967	Stop/Signal Controlled	No	No	No	3	51022	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	4.49	1	805	Stop/Signal Controlled	No	No	No	1	838	Stop/Signal Controlled	No	No	No	3	50217	Stop/Signal Controlled	No	No	No	3	49644	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	4.49	1	805	Stop/Signal Controlled	No	No	No	1	838	Stop/Signal Controlled	No	No	No	3	50217	Stop/Signal Controlled	No	No	No	3	49644	Stop/Signal Controlled	No	No	No
Signalized Thrucut	E-W	4.49	1	695	Stop/Signal Controlled	No	No	No	1	728	Stop/Signal Controlled	No	No	No	3	50217	Stop/Signal Controlled	No	No	No	3	49644	Stop/Signal Controlled	No	No	No

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound 2						Southbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	4.49												
Signalized Restricted Crossing U-Turn	E-W	4.69												
Median U-Turn	E-W	4.49												
Partial Median U-Turn	E-W	4.49												
Signalized Thrucut	E-W	4.49												

TYPE OF INTERSECTION	Sheet	Intersection Score	Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	4.49												
Signalized Restricted Crossing U-Turn	E-W	4.69												
Median U-Turn	E-W	4.49												
Partial Median U-Turn	E-W	4.49												
Signalized Thrucut	E-W	4.49												

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.40	5.00	5.00	3.83	3.83				
4.08	4.33	4.33	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				
4.40	5.00	5.00	3.83	3.83				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.41	2	805	Yield Controlled	No	No	No	2	838	Yield Controlled	No	No	No	2	50217	Yield Controlled	No	No	No	2	49644	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.41	4.67	4.67	4.17	4.17				

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Northbound					Southbound					Northbound 2					Southbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	NB	SB	NB2	SB2				

Scores

Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)		Speed							
	Any	25	30	40	85	25	30	40	85
3000	5	5	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	3
2	4
3	2
4	1

*4 or mons lanes

Conflicting Movement Crossing Control

Free Flowing	4
Yield Controlled	3
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

North Leg AADT	838
South Leg AADT	805
East Leg AADT	49644
West Leg AADT	50217

Leg AADT and Roadway Speed Score for SUP Facility

	Volume (AADT)	Score (AllSpeeds)
3000	<= 3000	5
3001-7000	3001-7000	5
7001+	>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

	Volume (AADT)	Speed (mph)			
		<=25	26-30	31-39	>=40
3000	<=3000	5	4	4	2
3001-7000	3001-7000	4	4	4	2
7001+	>7000	3	2	2	1

<=3000 - 5 4 4 2
3001-7000 - 4 4 4 2
>7000 - 3 2 2 1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

	Volume (AADT)	Speed (mph)			
		<=25	26-30	31-39	>=40
3000	<=3000	5	4	3	2
3001-7000	3001-7000	3	3	2	1
7001+	>7000	2	1	1	1

<=3000 - 5 4 3 2
3001-7000 - 3 3 2 1
>7000 - 2 1 1 1

Major/Minor Street Facility Type
Shared With Vehicles
Separate Use Path
Shared Use Path

Conflicting Control Type
Stop/Signal Controlled
Yield Controlled

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	0.47	1	3.18	4.08
Median U-Turn E-W	0.48	2	3.33	4.40
Partial Median U-Turn E-W	0.50	3	3.14	4.40
Signalized ThruCut E-W	0.55	4	4.01	4.40
Traffic Signal	0.58	5	5.24	4.40
2 X 2	1.02	6	4.68	4.41
--	--	--	--	--
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Pelican Harbor Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	6	8	2077	12	2.40%	0.00%
Westbound	17	2	2271	14	2.40%	0.00%
Southbound	0	10	4	33	1.80%	0.00%
Northbound	0	41	6	7	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	**0.47**	**1**	**3.18**	**4.08**
Median U-Turn E-W	**0.48**	**2**	**3.33**	**4.40**
Partial Median U-Turn E-W	**0.50**	**3**	**3.14**	**4.40**
Signalized ThruCut E-W	**0.55**	**4**	**4.01**	**4.40**
Traffic Signal	**0.58**	**5**	**5.24**	**4.40**
2 X 2	**1.02**	**6**	**4.68**	**4.41**
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Pelican Harbor Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	4
Major Street Direction:	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	6	8	2077	12	2.40%	0.00%
Westbound	17	2	2271	14	2.40%	0.00%
Southbound	0	10	4	33	1.80%	0.00%
Northbound	0	41	6	7	1.80%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		1	1	0		1	3	1		1	3	0
Signalized Restricted Crossing U-Turn	E-W				1				1	1	1	3	1	1	1	3	0
Median U-Turn	E-W			1	1			1	1	1		3	1	1		3	0
Partial Median U-Turn	E-W		1	1	0		1	1	0	1		3	1	1		3	0
Signalized ThruCut	E-W		1		1		1		1		1	3	1		1	3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									880	0.58	0.58	5.24	4.40
Signalized Restricted Crossing U-Turn	E-W	853	0.47	783	0.43	854	0.47	756	0.42			0.47	3.18	4.08
Median U-Turn	E-W					856	0.48	754	0.42	844	0.47	0.48	3.33	4.40
Partial Median U-Turn	E-W					804	0.45	741	0.41	871	0.50	0.50	3.14	4.40
Signalized ThruCut	E-W									870	0.55	0.55	4.01	4.40

Capacity Analysis for Planning of Junctions

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Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.10	0.20		0.96	1.02		0.25	0.06		0.85	0.91		1.02	4.68	4.41

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Project Information	
Provide general project information for reference purposes only.	
Project Name:	SR 934/NE 79th Street PD&E Study
Intersection:	NE 79th Street at Pelican Harbor Drive
Agency:	FDOT-6
Project Reference:	10348806
City:	North Bay Village
State:	Florida
Date:	10/10/2023
Analyst:	HDR
Use this button to clear all inputs/outputs and reset the tool to its initial defaults	Reset SPICE Tool

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening and Design Year
Opening Year	2030
Design Year	2050
Facility Type	On Urban and Suburban Arterial
Number of Legs	4-leg
1-Way/2-Way	2-way Intersecting 2-way
# of Major Street Lanes (both directions)	6 or more
Major Street Approach Speed	Less than 55 mph
Opening Year - Major Road AADT	44,000
Opening Year - Minor Road AADT	800
Design Year - Major Road AADT	48,500
Design Year - Minor Road AADT	900

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop	No	--		
All Way Stop	No	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Unsignalized Restricted Crossing U-Turn (RCUT)	No	--		Design Year AADT Outside of SPF Development Range
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	No	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	No	Traffic Signal		
Partial Median U-Turn (PMUT)	Yes	Traffic Signal	*Please Select	
Other 2*	No	Minor Road Stop	*Please Select	

At-Grade Intersection Inputs

Provide inputs needed to compute and apply Part C CMFs.

Input		Control Strategy										
		Traffic Signal	Traffic Signal (Alt)	1-lane Roundabout	2-lane Roundabout	Displaced Left Turn (DLT)	Median U-Turn (MUT)	Signalized RCUT	Signalized Thru-Cut	Unsignalized Thru-Cut	Bowtie	
Opening Year Major Road AADT	Optional AADT Overrides	44000	44000	44000	44000	44000	44000	44000	44000	44000	44000	All strategies will have the same AADT as the Base Conditions unless overridden by user.
Opening Year Minor Road AADT		800	800	800	800	800	800	800	800	800	800	
Design Year Major Road AADT		48500	48500	48500	48500	48500	48500	48500	48500	48500	48500	
Design Year Minor Road AADT		900	900	900	900	900	900	900	900	900	900	
Number of Approaches with Left-Turn Lanes	Additional Required Control Strategy Inputs	0	4									Do not include stop controlled approaches for minor stop
Number of Approaches with Right-Turn Lanes		0	0									
Number of Uncontrolled Approaches with Left-Turn Lanes												
Number of Uncontrolled Approaches with Right-Turn Lanes												

Keep default values below here for planning-level analysis, override with actual values for full HSM Analysis

	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE										
Skew Angle	A yellow cell indicates the value may be used in the SPF computation	N/A	N/A	Scroll Down for Roundabout CMF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	Scroll Down for Signalized RCUT SPF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	All yellow cells will be automatically populated by a macro. If users want to do a planning-level analysis, they can leave the automatic inputs as-is
Lighting Present		Yes	Yes								
# of Approaches Permissive LT Signal Phasing		0	0								
# of Approaches Perm/Prot LT Signal Phasing		0	0								
# of Approaches Protected LT Signal Phasing		0	0								
Number of Approaches with Right-Turn-on-Red Prohibited		0	0								
Red Light Cameras Present		No	No								
Number of Major Street Through Lanes		0	0								
Number of Minor Street Lanes		0	0								
# of Major St Approaches w/ Right-Turn Channelization		0	0								
Number of Approaches with U-Turn Prohibited		0	0								
Pedestrian Volume by Activity Level		Low (50)	Low (50)								
User Specified Sum of all daily pedestrian crossing volumes		50	50								
Max # of Lanes Crossed by Pedestrians		5	5								
Number of Bus Stops within 1000' of Intersection		0	0								
Schools within 1000' of intersection		No	No								
Number of Alcohol Sales Establishments within 1000' of Intersection		0	0								

	Roundabout CMF Inputs								
Inscribed Circle Diameter (ft)	130								
Leg 1 (Major Leg #1)	Leg 1 (Major Leg #1)								
Opening Year Entering AADT	22,000	22,000							
Leg has Right-Turn Bypass	No	No							
# of Access Points within 250' of Yield Line	0								
Entering Width (ft)		29							
# of Entering Lanes		2							
# of Circulating Lanes		2							
Leg 2 (Major Leg #2)	Leg 2 (Major Leg #2)								
Opening Year Entering AADT	22,000	22,000							
Leg has Right-Turn Bypass	No	No							
# of Access Points within 250' of Yield Line	0								
Entering Width (ft)		29							
# of Entering Lanes		2							
# of Circulating Lanes		2							
Leg 3 (Minor Leg #1)	Leg 3 (Minor Leg #1)								
Opening Year Entering AADT	400	400							
Leg has Right-Turn Bypass	No	No							
# of Access Points within 250' of Yield Line	0								
Entering Width (ft)		29							
# of Entering Lanes		2							
# of Circulating Lanes		2							
Leg 4 (Minor Leg #2)	Leg 4 (Minor Leg #2)								
Opening Year Entering AADT	400	400							
Leg has Right-Turn Bypass	No	No							
# of Access Points within 250' of Yield Line	0								
Entering Width (ft)		29							
# of Entering Lanes		2							
# of Circulating Lanes		2							

	Restricted Crossing U-Turn
# U-Turns	2
# of Major Roadway Lanes	2
# of Minor Roadway Lanes	2
Total Offset Distance (ft)	1250
Number of Driveways	4
Total Deceleration Lane Length (ft)	750
Total Acceleration Lane Length (ft)	
Number of Left-Turn Lanes From Major Road	1
Major Road Speed Limit (mph)	<=50
Total Median Width (ft)	65
Maximum Median Width (ft)	

Ramp Terminal Inputs

Provide inputs needed to compute and apply Part C CMFs.

Alternative	Signalized Diamond		Signalized Diamond (Alt)		Unsignalized Diamond		1-lane Roundabout		2-lane Roundabout		Single-Point Diamond	Signalized Tight Diamond
	4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)			
Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	Both Ramps	Both Ramps
Opening Year AADT Crossroad - Inside Leg	12000	15000	12000	15000	12000	15000	12000	15000	12000	15000	--	--
Opening Year AADT Crossroad - Outside Leg	10000	15000	10000	15000	10000	15000	10000	15000	10000	15000	15000	15000
Opening Year AADT Exit Ramp	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	9000	9000
Opening Year AADT Entrance Ramp	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000
Design Year AADT Crossroad - Inside Leg	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	--	--
Design Year AADT Crossroad - Outside Leg	31000	29000	31000	29000	31000	29000	31000	29000	31000	29000	31000	31000
Design Year AADT Exit Ramp	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Design Year AADT Entrance Ramp	3250	3250	3250	3250	3250	3250	3250	3250	3250	3250	6500	6500
Number of Crossroad Lanes	4	4	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the inside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the outside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of free-flow right turns from exit ramp to crossroad	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A

CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE											
Exit Ramp Skew Angle	N/A	N/A	N/A	N/A	0	0						
Is a non-ramp public street leg present?	No	No	No	No	N/A	N/A						
Exit ramp right turn control	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled						
Effective number of lanes serving exit ramp	1	0.5	0.5	1.5	2	2.5						
Number of unsignalized driveways on the outside crossroad leg within 250' of the interchange	0	0	0	0	N/A	N/A						
Distance (mi) to the adjacent ramp terminal	0.10	0.10	0.10	0.10	0.10	0.10						
Distance (mi) to the next public street intersection on the outside crossroad leg	0.15	0.15	0.15	0.15	0.15	0.15						
# of unsignalized public street approaches on the outside crossroad leg within 250' (<0.05 mi) of the interchange	1	1	1	1	1	1						
Median Width (ft)	12.00	12.00	12.00	12.00	12.00	12.00						
Presence of right-turn lane/bay on outside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes						
Presence of left-turn lane/bay on inside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes						
Left-turn lane/bay Width for inside crossroad leg	12.00	12.00	12.00	12.00	12.00	12.00						
Protected Left-turn operation for inside crossroad leg	No	No	No	No	N/A	N/A						
Right turn channelization for outside crossroad leg	No	No	No	No	N/A	N/A						
Right turn channelization for exit ramp	No	No	No	No	N/A	N/A						

	Roundabout CMF Inputs					
Inscribed Circle Diameter (ft)	130	130	125	125		
Outbound Only Leg	Yes	Yes	Yes	Yes		
Leg 1 (Crossroad Leg - Inside)	Leg 1 (Crossroad Leg - Inside)					
Opening Year Entering AADT	6,000	7,500	6,000	7,500		
Leg has Right-Turn Bypass	No	No	No	No		
# of Access Points within 250' of Yield Line	0	0	0	0		
Entering Width (ft)	29	29	29	29		
# of Entering Lanes	2	2	2	2		
# of Circulating Lanes	2	2	2	2		
Leg 2 (Crossroad Leg - Outside)	Leg 2 (Crossroad Leg - Outside)					
Opening Year Entering AADT	5,000	7,500	5,000	7,500		
Leg has Right-Turn Bypass	No	No	No	No		
# of Access Points within 250' of Yield Line	0	0	0	0		
Entering Width (ft)	29	29	29	29		
# of Entering Lanes	2	2	2	2		
# of Circulating Lanes	2	2	2	2		
Leg 3 (Exit Ramp Inside)	Leg 3 (Exit Ramp Leg)					
Opening Year Entering AADT	4,500	4,500	4,500	4,500		
Leg has Right-Turn Bypass	No	No	No	No		
# of Access Points within 250' of Yield Line	0	0	0	0		
Entering Width (ft)	29	29	29	29		
# of Entering Lanes	2	2	2	2		
# of Circulating Lanes	2	2	2	2		

Ramp Terminal Inputs						
Provide inputs needed to compute and apply Part C CMFs.						
Alternative	**Traffic Signal**		**Traffic Signal (Alt)**		**Minor Road (Ramp) Stop**	
	4 Leg Terminal w/ Diagonal Ramps (D4)		**4 Leg Terminal w/ Diagonal Ramps (D4)**		**4 Leg Terminal w/ Diagonal Ramps (D4)**	
Ramp Terminal	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
Crossroad AADT	18000	17000	18000	17000	18000	17000
Ramp AADT	5000	4500	5000	4500	5000	4500
Area Type	Urban		Urban		Urban	
# of Crossroad Lanes	2	2	2	2	2	2

2-6 (5,6 Urban only)

For signalized ramp terminals, the applicable values for $AADT_{in}$ and $AADT_{out}$ range from 14,000 to 60,000 veh/day. AADT volumes smaller than 14,000 should be set to 14,000 in Equation 19-51.

Table 19-11. Applicable AADT Volume Ranges for Crossroad Ramp Terminal SPFs

Site Type (w)	Control Type (x)	Applicable AADT Volume Range (veh/day)	
		Crossroad	Total All Ramps
Four-leg terminals with diagonal ramps ($D4$)	Stop control (ST)	0 to 18,000	0 to 10,000
	Signal control (SG)	0 to 47,000	0 to 31,000

Other CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Crossroad Left Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Crossroad Right Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Skew Angle	skew	Planning	Double	Not/ Applicable	Include in MRS	Include in MRS
Exit ramp right turn control	mergeRT	Planning	Merge/FF or Signal/Sto	Include in TS	Include in MRS	Include in MRS
Effective number of lanes serving exit ramp	nex	Planning	1-2, see graphic	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "in" leg	i_LTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "out" leg	i_LTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "in" leg	i_RTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "out" leg	i_RTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled public street approaches to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_ps	Planning	Integer	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled driveways to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_dw	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Distance between subject ramp terminal and adjacent ramp terminal (from terminal center to terminal center)	l_rmp	Planning	Double	Include in TS	Include in MRS	Include in MRS
distance between subject ramp terminal and nearest public road intersection in a direction away form the freeway	l_str	Planning	Double	Include in TS	Include in MRS	Include in MRS
Width of median adjacent to turn lane for crossroad leg	w_m	Planning	Double	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "in" crossroad leg	w_bkIn	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "out" crossroad leg	w_bkOut	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "in"	n_oppLTIn	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "out"	n_oppLTOut	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "in"	i_protLTIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "out"	i_protLTOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "in"	i_crtIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "out"	i_crtOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for exit ramp	i_crtEx	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Non-ramp public street leg indicator	i_ps	Planning	Boolean	Include in TS	Not Applicable	Not Applicable

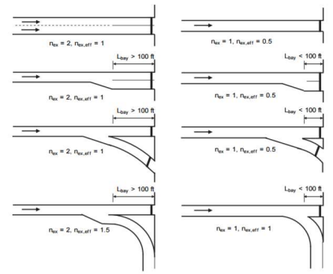

Figure 19-23. Effective Number of Lanes for Various Exit Ramp Configurations

The CMF is applicable to W_m values in the range of 0 to 50 ft. Similarly, it is applicable to W_{bLT} values in the range of 0 to 26 ft.

#	Conflict Type	Mvmt1	Mvmt1_gen	Mvmt1_SpeedCat	Mvmt2	Mvmt2_gen	Mvmt2_SpeedCat	Exposure Q1	Exposure Q2	Exposure I	Severity Speed_V1	Severity Speed_V2	Severity Angle	Severity delta_V	Severity P_FSI	Conflicting Traffic Complexity Traffic Control	Conflicting Traffic Complexity Conflicting Lanes CrossC	RampC	CrossN/P	RampM/P	Score	Conflicting Speed Speed	Conflicting Speed Factor	Pedestrian Complexity Indirect Paths Indicator	Pedestrian Complexity Non-intuitive movements indicator	Pedestrian Complexity Pedestrian Complexity factor	Total Complexity Multiplier	Exposure-Severity-Complexity Product
1	Crossing - LT	EBL	CrossL1	Cross left	NBL	RampL1	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
2	Crossing - LT	EBT	CrossT1	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
3	Crossing - LT	WBL	CrossL2	Cross left	NBL	RampL1	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
4	Crossing - LT	EBT	CrossT1	Cross thru	NBL	RampL1	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
5	Crossing - LT	WBL	CrossL2	Cross left	SBL	RampL2	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
6	Crossing - LT	WBT	CrossT2	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
7	Crossing - LT	EBL	CrossL1	Cross left	SBL	RampL2	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
8	Crossing - LT	WBT	CrossT2	Cross thru	SBL	RampL2	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
9	Merging	WBT,NBL	CrossT2,RampL1	Cross thru	SBR	RampR2	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
10	Merging	EBR	CrossR1	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004	1	0	0	0	0	1	40	0.778			1	0.777777778	3267.033058
11	Merging	WBT	CrossT2	Cross thru	NBL	RampL1	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
12	Merging	EBT	CrossT1	Cross thru	SBL	RampL2	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
13	Merging	EBT,SBL	CrossT1,RampL2	Cross thru	NBR	RampR1	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
14	Merging	WBR	CrossR2	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004	1	0	0	0	0	1	40	0.778			1	0.777777778	3267.033058
15	Diverging	SBR	RampR2	Signal near	SBL	RampL2	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000	1	0	0	0	0	1		1.000			1	1	0.810776943
16	Diverging	EBT	CrossT1	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016	1	0	0	0	0	1		1.000			1	1	11348.31263
17	Diverging	EBT	CrossT1	Cross thru	EBR	CrossR1	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036	1	0	0	0	0	1		1.000			1	1	24976.22992
18	Diverging	NBR	RampR1	Signal near	NBL	RampL1	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000	1	0	0	0	0	1		1.000			1	1	0.810776943
19	Diverging	WBT	CrossT2	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016	1	0	0	0	0	1		1.000			1	1	11348.31263
20	Diverging	WBT	CrossT2	Cross thru	WBR	CrossR2	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036	1	0	0	0	0	1		1.000			1	1	24976.22992
21	Nonmotorized		RampNM2	Nonmotorized	SBL	RampL2	Signal near	375	1125	421875	0	15			0.1205	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
22	Nonmotorized		RampNM2	Nonmotorized	SBR	RampR2	Signal near	375	1125	421875	0	15			0.1205	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
23	Nonmotorized		CrossNM1	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
24	Nonmotorized		CrossNM1	Nonmotorized	NBL	RampL1	Signal far	375	1125	421875	0	25			0.3207	0.925	0	0	0	0	1	40	0.778	1		2	1.438888889	1519651.9785
25	Nonmotorized		CrossNM1	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	1119872.143
26	Nonmotorized		CrossNM1	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
27	Nonmotorized		RampNM1	Nonmotorized	EBR	CrossR1	Cross right	375	1875	703125	0	15			0.1205	1	0	0	0	0	1	40	0.778		1	2	0.777777778	65898.65839
28	Nonmotorized		RampNM1	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027	0.505	0	0	0	0	1	40	0.778		1	2	0.392777778	55993.60717
29	Nonmotorized		RampNM1	Nonmotorized	NBL	RampL1	Signal near	375	1125	421875	0	15			0.1205	0.505	0	0	0	0	1	15	0.500		1	1	0.2525	12836.11725
30	Nonmotorized		RampNM1	Nonmotorized	NBR	RampR1	Signal near	375	1125	421875	0	15			0.1205	0.505	0	0	0	0	1	15	0.500		1	1	0.2525	12836.11725
31	Nonmotorized		CrossNM2	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512	0.505	0	0	0	0	1	40	0.778	1	1	2	0.785555556	829795.2952
32	Nonmotorized		CrossNM2	Nonmotorized	SBL	RampL2	Signal far	375	1125	421875	0	25			0.3207	0.505	0	0	0	0	1	40	0.778	1	1	2	0.785555556	1062714.6423
33	Nonmotorized		CrossNM2	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027	0.505	0	0	0	0	1	40	0.778	1	1	2	0.785555556	1119872.143
34	Nonmotorized		CrossNM2	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512	0.505	0	0	0	0	1	40	0.778	1	1	2	0.785555556	829795.2952
35	Nonmotorized		RampNM2	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027	0.505	0	0	0	0	1	40	0.778		1	2	0.392777778	55993.60717
36	Nonmotorized		RampNM2	Nonmotorized	WBR	CrossR2	Cross right	375	1875	703125	0	15			0.1205	1	0	0	0	0	1	40	0.778		1	2	0.777777778	65898.65839

Included in Mvmt1

CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
	1														
1															
					1										
1															
				1											
							1								
	1														
								1							
											1				
												1			
													1		
														1	
															1

Included in Mvmt2

CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
							1								
				1											
							1								
										1					
											1				
												1			
													1		
														1	
															1

*impact of median on complexity factors

#	Conflict Ty	Cross-street: No, Ramps: Yes MajC	MinC	MajM/P	MinM/P	Cross-street: Yes, Ramps: Yes MajC	MinC	MajM/P	MinM/P
1	Crossing -	1	0	1	0	1	0	0	0
2	Crossing -	1	0	0	0	1	0	0	0
3	Crossing -	1	0	1	0	1	0	0	0
4	Crossing -	1	0	1	0	1	0	0	0
5	Crossing -	1	0	1	0	1	0	0	0
6	Crossing -	1	0	0	0	1	0	0	0
7	Crossing -	1	0	1	0	1	0	0	0
8	Crossing -	1	0	1	0	1	0	0	0
9	Merging	0	0	1	0	0	0	1	0
10	Merging	0	0	0	1	0	0	0	1
11	Merging	0	0	1	0	0	0	1	0
12	Merging	1	0	1	0	0	0	1	0
13	Merging	0	0	1	0	0	0	1	0
14	Merging	0	0	0	1	0	0	0	1
15	Diverging	0	0	0	0	0	0	0	0
16	Diverging	0	0	0	0	0	0	0	0
17	Diverging	0	0	0	0	0	0	0	0
18	Diverging	0	0	0	0	0	0	0	0
19	Diverging	0	0	0	0	0	0	0	0
20	Diverging	0	0	0	0	0	0	0	0
21	Nonmoto	0	1	0	0	0	1	0	0
22	Nonmoto	0	1	0	0	0	1	0	0
23	Nonmoto	2	0	0	1	1	0	0	1
24	Nonmoto	2	0	0	1	1	0	0	1
25	Nonmoto	2	0	0	1	1	0	0	1
26	Nonmoto	2	0	0	1	1	0	0	1
27	Nonmoto	0	1	0	0	0	1	0	0
28	Nonmoto	0	1	0	0	0	1	0	0
29	Nonmoto	0	1	0	0	0	1	0	0
30	Nonmoto	0	1	0	0	0	1	0	0
31	Nonmoto	2	0	0	1	1	0	0	1
32	Nonmoto	2	0	0	1	1	0	0	1
33	Nonmoto	2	0	0	1	1	0	0	1
34	Nonmoto	2	0	0	1	1	0	0	1
35	Nonmoto	0	1	0	0	0	1	0	0
36	Nonmoto	0	1	0	0	0	1	0	0

Exposure Q1	Exposure Q2	Exposure I
3875	1250	4843750
7750	3875	30031250
3875	1250	4843750
7750	1250	9687500
3875	1250	4843750
7750	3875	30031250
3875	1250	4843750
7750	1250	9687500
9000	1250	11250000
3875	3875	15015625
7750	1250	9687500
7750	1250	9687500
9000	1250	11250000
3875	3875	15015625
1250	1250	1562500
7750	3875	30031250
7750	3875	30031250
1250	1250	1562500
7750	3875	30031250
7750	3875	30031250
425	1250	531250
425	1250	531250
425	7750	3293750
425	1250	531250
425	3875	1646875
425	7750	3293750
425	3875	1646875
425	3875	1646875
425	1250	531250
425	1250	531250
425	7750	3293750
425	1250	531250
425	3875	1646875
425	7750	3293750
425	3875	1646875
425	3875	1646875

Exposure-Severity-Complexity Product
410209.3023
779499.1257
15908.22921
168573.5629
410209.3023
779499.1257
15908.22921
168573.5629
34616.64554
4557.416751
20959.8813
20959.8813
34616.64554
4557.416751
1.000959189
48468.90415
106676.2531
1.000959189
48468.90415
106676.2531
16163.99949
16163.99949
1943564.98
245122.3433
262298.942
1943564.98
1543493.3021
131149.471
16163.99949
16163.99949
1943564.98
133823.5496
262298.942
1943564.98
131149.471
1543493.3021

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	3
Minor number thru lanes (one direction)	1

Optional Major Street Designation	
Select major street direction	E-W
Median Presence on Major Road	Yes
Median Presence on Minor Road	No

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	44,000	48,500
Minor	800	900

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADT (ped/day)	Activity Level	ADT Value (ped/day)
Open Year Total Intersection NM	Medium (700)	700
Design Year Total Intersection NM	Medium (700)	700

(or overwrite ped movement ADTs below)

Nonmotorized Movement ADT (ped/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	175	175
Major NM 2	175	175
Minor NM 1	175	175
Minor NM 2	175	175

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	21656.46	23871.32
Major Left Turn 1	193.8957	213.7259
Major Right Turn 1	149.6477	164.9526
Major Thru 2	21667.07	23883.02
Major Left Turn 2	199.2466	219.6241
Major Right Turn 2	133.6806	147.3524
Minor Thru 1	115.0463	129.4271
Minor Left Turn 1	233.1019	262.2396
Minor Right Turn 1	51.85185	58.33333
Minor Thru 2	261.5603	294.2553
Minor Left Turn 2	69.21986	77.87234
Minor Right Turn 2	69.21986	77.87234

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	EBT	2236	0.981132075	2077	0.987637	0.984384
Major Left Turn 1	EBL	25	0.010969724	14	0.006657	0.008813
Major Right Turn 1	EBR	18	0.007898201	12	0.005706	0.006802
Major Thru 2	WBT	1995	0.984213123	2271	0.985677	0.984945
Major Left Turn 2	WBL	20	0.009866798	19	0.008247	0.009057
Major Right Turn 2	WBR	12	0.005920079	14	0.006076	0.005998
Minor Thru 1	NBT	5	0.15625	6	0.111111	0.133681
Minor Left Turn 1	NBL	13	0.40625	41	0.759259	0.582755
Minor Right Turn 1	NBR	14	0.4375	7	0.12963	0.283565
Minor Thru 2	SBT	10	0.333333333	4	0.085106	0.20922
Minor Left Turn 2	SBL	4	0.133333333	10	0.212766	0.17305
Minor Right Turn 2	SBR	16	0.533333333	33	0.702128	0.61773

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.984384392
Major Left Turn 1	0.00881344
Major Right Turn 1	0.006802168
Major Thru 2	0.984866948
Major Left Turn 2	0.009056663
Major Right Turn 2	0.006076389
Minor Thru 1	0.287615741
Minor Left Turn 1	0.58275463
Minor Right Turn 1	0.12962963
Minor Thru 2	0.653900709
Minor Left Turn 2	0.173049645
Minor Right Turn 2	0.173049645

Turning movment proportions specified in **Table 2-C** (and by extension, the percentages determined in **Table 2-B**) are considered to be constant between the Open and Design years of the analysis.

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	30
Minor Posted Speed Limit	25
Major thru	30
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25
RAB entering	20
RAB circulating	25
RAB exiting	30
Nonmotorized	0

Collision Angles	deg
Crossing	90
Crossing - LT	230
Crossing - RAB	60
Merging	45
Diverging	10

P(FSI) Regression Parameters	
alpha	67.29
k	3.79

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Traffic Control Parameter (a_traffic control)	
Permitted	1
Protected/permitted	0.925
Protected	0.505
Stop-controlled	0.725

Driver Merging Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3+)	0.5

Nonmotorized Complexity	
Nonmotorized Turn Score Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3)	0.5

Calibration

Optional - Input locally-developed calibration factors for SPFs.

At-Grade Intersection SPFs

Traffic Control	Facility Type	# legs	1 way/ 2 way	# of lanes on arterial	Default Calibration Factor	Optional User Override	Use Value
Traffic Signal (For more information on determining signal type, refer to the "Definitions" worksheet)	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.92		0.92
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.45		0.45
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	2.50		2.50
		4 leg	2x2	5 or fewer	2.27		2.27
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Minor Road Stop	On Rural Two Lane Highway	3 leg	-	-	1.27		1.27
		4 leg	-	-	0.74		0.74
	On Rural Multilane Highway	3 leg	-	-	2.20		2.20
		4 leg	-	-	1.64		1.64
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	1.14		1.14
		4 leg	2x2	5 or fewer	1.87		1.87
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
All-Way Stop	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Roundabout	1-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	2-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00

Ramp Terminal Intersection SPFs

Control	Ramp and Intersection Type	SPF Calibration Factor	Optional User Override	Use Value
Signalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Diverging Diamond	All types	1.00		1.00
Single-Point Diamond	All types	1.00		1.00
Unsignalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Roundabout	1-lane roundabout with 4 legs	1.00		1.00
	2-lane roundabout with 4 legs	1.00		1.00
Signalized Tight Diamond		1.00		1.00

Local CMFs

Optional - Override default CMFs with locally-developed or new CMFs

Control	Default Base Intersection	Type of Crashes	Default CMF	Optional User Override	Use Value
Displaced Left Turn (DLT)	Traffic Signal	Total	0.88		0.88
		Fatal-Injury	0.88		0.88
Median U-Turn (MUT)	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.70		0.70
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.78		0.78
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn	Minor Road Stop (TWSC)	Total	0.65		0.65
		Fatal-Injury	0.46		0.46
Signalized Thru-Cut	Traffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Unsignalized Thru-Cut	Minor Road Stop (TWSC)	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Bowtie	Taffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Continuous Green-T Intersection	Traffic Signal	Total	0.96		0.96
		Fatal-Injury	0.85		0.85
Jughandles	Traffic Signal	Total	0.74		0.74
		Fatal-Injury	0.74		0.74
Partial Median U-Turn (PMUT)	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Other 2*	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Crossover Traffic Signal (of Diverging Diamond Interchange)	Traffic Signal	Total	0.67		0.67
		Fatal-Injury	0.59		0.59

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available? **Yes**
Number of years available: **5** (Up to 10) First Year Data is available: **2018**
Historical Intx Type: **4ST**

Historical Crash Counts		Year										
		2018	2019	2020	2021	2022	--	--	--	--	--	Total
Combined	Total	10	11	1	13	9	--	--	--	--	--	44
	Fatal/Injury	8	1	0	1	1						11
	PDO	2	10	1	12	8						33
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	1	0	0	0	0						1
Veh-Bike	Fatal/Injury	0	0	0	2	0						2
Total	All	11	11	1	15	9	--	--	--	--	--	47

Computations Only Below This Point

Empirical Bayes Computations (No Data Entry)

Combined Collisions	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	1.12	1.12	1.12	1.12	1.12	--	--	--	--	--	5.59
		PDO	1.18	1.18	1.18	1.18	1.18	--	--	--	--	--	5.89
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.60	0.60	0.60	0.60	0.60	--	--	--	--	--	--
		PDO	1.14	1.14	1.14	1.14	1.14	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.60	0.60	0.60	0.60	0.60	--	--	--	--	--	--
		PDO	0.43	0.43	0.43	0.43	0.43	--	--	--	--	--	--
	$N_{expected}$	Total	5.53	7.30	1.75	8.45	6.15	--	--	--	--	--	--
		Fatal/Injury	3.88	1.07	0.67	1.07	1.07	--	--	--	--	--	7.76
		PDO	1.65	6.23	1.08	7.37	5.08	--	--	--	--	--	21.41
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	1.39
												PDO	3.63
Multiple-Vehicle Only (When Applicable)	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury		--	--	--	--	--	--	--	--	--	--
		PDO		--	--	--	--	--	--	--	--	--	--
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	1.00
												PDO	1.00
Vehicle-Pedestrian	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury		--	--	--	--	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00
Vehicle-Bicyle	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury	0.09	0.09	0.09	0.09	0.09	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00

Dispersion Parameters			At-Grade Intersection Facility Type						
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials	Urban/Suburban Arterials w/ 6 or More Lanes			High Speed
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	0.54	0.46	--	--	--	--	--
		3SG	0.31	0.40	--	--	--	--	--
		4ST	0.24	0.49	--	--	--	--	--
		4SG	0.11	0.28	--	--	--	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	0.57	--	0.65	2.00	2.00	--
		3SG	--	1.15	--	0.52	0.95	0.95	--
		4ST	--	0.74	--	0.60	0.53	0.53	--
		4SG	--	0.22	--	0.56	1.33	1.33	--
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	0.75	1.03	1.03	--
		3SG	--	--	--	1.00	0.90	0.90	--
		4ST	--	--	--	1.14	0.96	0.96	--
		4SG	--	--	--	0.99	2.00	2.00	--
Single-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	1.14	--	--	--	0.69
		3SG	--	--	0.36	--	--	--	0.57
		4ST	--	--	0.65	--	--	--	1.12
		4SG	--	--	0.36	--	--	--	0.55
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	2.10
		3SG	--	--	0.24	--	--	--	1.04
		4ST	--	--	--	--	--	--	1.64
		4SG	--	--	0.09	--	--	--	0.98
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.29	--	--	--	0.75
		3SG	--	--	0.53	--	--	--	0.74
		4ST	--	--	0.54	--	--	--	1.40
		4SG	--	--	0.44	--	--	--	0.84
Multiple-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.80	--	--	--	0.85
		3SG	--	--	0.33	--	--	--	0.21
		4ST	--	--	0.40	--	--	--	0.91
		4SG	--	--	0.39	--	--	--	0.39
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.69	--	--	--	0.76
		3SG	--	--	0.30	--	--	--	0.09
		4ST	--	--	0.48	--	--	--	0.89
		4SG	--	--	0.33	--	--	--	0.31
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.77	--	--	--	1.11
		3SG	--	--	0.36	--	--	--	0.34
		4ST	--	--	0.40	--	--	--	0.94
		4SG	--	--	0.44	--	--	--	0.38
Veh-Pedestrian	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	--
		3SG	--	--	0.52	0.52	0.52	0.52	--
		4ST	--	--	--	--	--	--	--
		4SG	--	--	0.24	0.24	0.24	0.24	--

AWSC Dispersion Parameters 17-68 Report Update			Intersection Facility Type		
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	--
		4AWSC	0.39	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.07
		4AWSC	--	--	0.66
	PDO	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.37
		4AWSC	--	--	0.78

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	SR 934/NE 79th Street PD&E Study	**Intersection Type**	At-Grade Intersection
Intersection:	NE 79th Street at Pelican Harbor Drive	**Opening Year**	2030
Agency:	FDOT-6	**Design Year**	2050
Project Reference:	10348806	**Facility Type**	On Urban and Suburban Arterial
City:	North Bay Village	**Number of Legs**	4-leg
State:	Florida	**1-Way/2-Way**	2-way Intersecting 2-way
Date:	10/10/2023	**# of Major Street Lanes (both directions)**	6 or more
Analyst:	HDR	**Major Street Approach Speed**	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score Opening Year	SSI Score Design Year	SSI Score Rank
Traffic Signal	Total	5.09	5.40	110.15	3	Yes	Uncalibrated SPF	83	81	3
	Fatal & Injury	2.73	2.90	59.12						
2-lane Roundabout	Total	19.65	22.00	437.26	5	No	Uncalibrated SPF	78	76	4
	Fatal & Injury	3.74	4.24	83.75						
Median U-Turn (MUT)	Total	4.33	4.59	93.63	2	N/A	CMF	85	84	1
	Fatal & Injury	1.91	2.03	41.38						
Signalized RCUT	Total	11.49	13.39	261.09	1	No	Uncalibrated SPF	76	74	5
	Fatal & Injury	1.80	2.13	41.19						
Signalized Thru-Cut	Total	No SPF	No SPF	No SPF	--	N/A	N/A	83	81	2
	Fatal & Injury	No SPF	No SPF	No SPF						
Partial Median U-Turn (PMUT)	Total	5.09	5.40	110.15	3	N/A	CMF	--	--	--
	Fatal & Injury	2.73	2.90	59.12						

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Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Safe System for Intersection (SSI) Results

Summary of the safe system intersection results for each alternative

Conversion of Existing Intersection Type:	Traffic Signal

Select from Dropdown List

Opening Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	Trad_Sig	83	49	95	100	100	1.00	1.00	1.00	1.00	0.23	0.02	0.00	0.00	1.77	1.18	0.88	1.00
2-Lane Roundabout	RAB2x2	78	38	99	100	100	1.00	1.00	1.02	1.01	0.33	0.00	0.00	0.00	2.44	1.22	1.15	1.00
Median U-Turn (MUT)	MUT	85	54	98	100	100	1.02	0.52	2.66	2.02	0.23	0.01	0.00	0.00	1.00	1.01	0.84	1.00
Signalized RCUT	RCUT_Sig	76	35	98	100	100	1.01	0.27	3.50	2.58	0.21	0.03	0.00	0.00	1.61	1.01	0.84	1.00
Signalized Thru-Cut	ThruCut_Sig	83	49	96	100	100	1.01	0.48	2.77	2.12	0.23	0.02	0.00	0.00	1.69	1.58	1.07	1.00

Design Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	Trad_Sig	81	46	94	100	100	1.00	1.00	1.00	1.00	0.23	0.02	0.00	0.00	1.77	1.18	0.88	1.00
2-Lane Roundabout	RAB2x2	76	34	99	100	100	1.00	1.00	1.02	1.01	0.33	0.00	0.00	0.00	2.44	1.22	1.15	1.00
Median U-Turn (MUT)	MUT	84	50	98	100	100	1.02	0.53	2.64	2.04	0.23	0.01	0.00	0.00	1.00	1.01	0.84	1.00
Signalized RCUT	RCUT_Sig	74	31	98	100	100	1.01	0.27	3.50	2.61	0.21	0.03	0.00	0.00	1.61	1.01	0.84	1.00
Signalized Thru Cut	ThruCut_Sig	81	46	95	100	100	1.01	0.48	2.77	2.15	0.23	0.02	0.00	0.00	1.69	1.58	1.07	1.00

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms are to be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. **Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.**

Project Name	SR 934/NE 79th Street at Harbor Island Drive		FDOT Project #		
Submitted By		Agency/Company	HDR	Date	10/10/2023
Email		FDOT District	District 6	County	Miami-Dade
Project Locality (*City/Town/Village*)	North Bay Village				
Intersection Type	At-Grade Intersection	FDOT Context Classification	C5 - Urban Center		
Project Funding Source	Federal	Project Type	Corridor Improvement Project		
Project Purpose (*What is the catalyst for this project and why is it being undertaken?*)	The SR 934/NE 79th Street PD&E study is evaluating the rehabilitation or replacement of 2 sets of bridge pairs along NE 79th Street within North Bay Village. The study area includes this intersection. No roadway capacity improvements are expected as part of this project.				
Project Setting Description (*Describe the area surrounding the intersection*)	The two sets of bridge pairs on SR 934/NE 79th Street link developed islands (representing North Bay Village) situated between the mainland and the barrier island. Near Harbor Island Drive, land uses contain a mixture of residential, retail, and office typical of an urban setting.				
Multimodal Context (*Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns*)	Sidewalks are located on the north and south side of SR 934/NE 79th Street, as well as on the east and west side of Harbor Island Drive north and south of NE 79th Street. Marked pedestrian crosswalks are located on the all four approaches. Designated bicycle lanes on NE 79th Street are present in both directions of travel, while no explicitly marked bicycle lane is provided on Harbor Island Drive north or south of NE 79th Street.				

Major Street Information

Route #:	SR 934	Route Name(s)	NE 79th Street			Milepost	1.624
Existing Control Type	Signal		Existing AADT	42,000	Design Year AADT		48,500
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification	Urban Principal Arterial - Other				Design Speed (mph)		35
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]		

Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	172	Left	285
	Multi-Use Path?	No	Left-Through-Right	0	Through	2,067	Through	1,779
	Scheduled Bus Service?	Yes	Through-Right	0	Right	25	Right	47
	Bus Stop on Approach?	Yes	Right-Turn	1	Daily Truck %		4.8%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	26	Left	29
	Multi-Use Path?	No	Left-Through-Right	0	Through	1,699	Through	2,097
	Scheduled Bus Service?	Yes	Through-Right	0	Right	122	Right	167
	Bus Stop on Approach?	Yes	Right-Turn	1	Daily Truck %		4.8%	

Minor Street Information											
Route #:		Route Name(s)	Harbor Island Drive/North Bay Island					Milepost (if app.)			
Existing Control Type		Signal		Existing AADT		7,200		Design Year AADT		8,300	
Design Vehicle		Florida Interstate Semitrailer (WB-62FL)		Control Vehicle		Florida Interstate Semitrailer (WB-62FL)					
Primary Functional Classification		Urban Local						Design Speed (mph)		30	
Secondary Functional Classification (if app.)								Target Speed (mph) [if app.]			

Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:	Both sides of the approach	Left-Turn	1							
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?	No	Through	0	Left	45		Left	31		
	Multi-Use Path?	No	Left-Through-Right	0	Through	3		Through	9		
	Scheduled Bus Service?	No	Through-Right	1	Right	28		Right	14		
	Bus Stop on Approach?	No	Right-Turn	0	Daily Truck %			1.8%			
Approach #2	Direction	Southbound	Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:	Both sides of the approach	Left-Turn	1							
	Crosswalk on Approach?	Yes	Left-Through	1	Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?	No	Through	0	Left	151		Left	127		
	Multi-Use Path?	No	Left-Through-Right	0	Through	6		Through	7		
	Scheduled Bus Service?	No	Through-Right	0	Right	283		Right	173		
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %			1.8%			
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:		Left-Turn								
	Crosswalk on Approach?		Left-Through		Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?		Through		Left			Left			
	Multi-Use Path?		Left-Through-Right		Through			Through			
	Scheduled Bus Service?		Through-Right		Right			Right			
	Bus Stop on Approach?		Right-Turn		Daily Truck %						

Crash History (Existing Intersections Only)
Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:
Existing crash analysis is attached. The intersection is not listed on the FDOT-6 Five Year High Crash Location list.

Control Strategy Evaluation								
Provide a brief justification as to why each of the following control strategies should be advanced or not. Justification should consider potential environmental impacts.								
	CAP-X Outputs				SPICE Outputs			
	V/C Ratio							
Control Strategy	Weekday AM Peak	Weekday PM Peak	Ped Accom.	Bike Accom.	Crash Prediction Rank	SSI Rank	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	
All-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	
Signalized Control	0.72	0.79	5.20	4.37	3	2	Yes	Existing intersection is signalized, and future conditions indicate signalization will continue to provide adequate capacity through 2050 conditions
Roundabout (1-lane)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Roundabout (2-lane)	1.11	1.24	4.60	4.37	2	4	No	Insufficient ROW to accommodate multi-lane roundabout without impacting current developments. Likely capacity deficiencies as V/C ratios exceed 1.0
Median U-Turn	0.57	0.64	3.27	4.37	1	1	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Signalized)	0.55	0.57	3.15	4.00	5	5	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Jughandle					n/a	n/a	No	
Displaced Left-Turn	n/a	n/a	n/a	n/a	n/a	n/a	No	
Continuous Green Tee	n/a	n/a	n/a	n/a	n/a	n/a	No	
Quadrant Roadway	n/a	n/a	n/a	n/a			No	
Thru-Cut (Signalized)	0.62	0.69	3.95	4.32	n/a	3	No	NB-SB through movement would have to travel across bridges to downstream signalized intersections to complete U-turn
Thru-Cut (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Bowtie	n/a	n/a	n/a	n/a	n/a	n/a	No	
Partial Median U-Turn (PMUT)	0.63	0.54	3.10	4.37	3	n/a	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges

Resolution					
To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer					
Project Determination					
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 AM
Number of Intersection Legs	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	172	2067	25	2.40%	0.00%
Westbound	9	17	1699	122	2.40%	0.00%
Southbound	0	151	6	283	0.90%	0.00%
Northbound	0	45	3	28	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	

Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	176	2117	26
Westbound	9	17	1740	125
Southbound	0	152	6	286
Northbound	0	45	3	28

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Major Street Direction	East-West

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	1107	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.72	Pedestrian Accommodation	5.20	Bicycle Accommodation	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		No	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		Yes	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1
Signalized Restricted Crossing U-Turn	E-W				1				2	1	1	3	1	1	1	3	1
Median U-Turn	E-W			1	1			1	2	1		3	1	1		3	1
Partial Median U-Turn	E-W		1	1	0		2	1	0	2		3	1	1		3	1
Signalized ThruCut	E-W		1		1		2		1		1	3	1		1	3	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		45	31	0		152	292	0		176	2117	26		17	1740	125
Signalized Restricted Crossing U-Turn	E-W				28				286	0	176	2117	26	9	17	1740	125
Median U-Turn	E-W			3	28			6	286	0		2117	26	9		1740	125
Partial Median U-Turn	E-W		45	31	0		152	292	0	0		2117	26	9		1740	125
Signalized ThruCut	E-W		47		30		155		289		176	2117	26		17	1740	125

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	NE 79th Street at Harbor Island Drive	Number of Configurations			
Project Number:	10348806				
Location	North Bay Village, FL	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Date	2050 AM	5	0	0	1

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1107	0.72	0.72	5.20	4.37
Signalized Restricted Crossing U-Turn	E-W	859	0.48	849	0.47	690	0.38	982	0.55			0.55	3.15	4.00
Median U-Turn	E-W					907	0.50	996	0.55	1022	0.57	0.57	3.27	4.37
Partial Median U-Turn	E-W					740	0.41	806	0.45	1107	0.63	0.63	3.08	4.37
Signalized ThruCut	E-W									969	0.62	0.62	3.93	4.32

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions

- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions

- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Crosswalk Marking Legend

Conflicting Vehicle Type

- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type

- Marked
- Unmarked

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3				
					# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	FULL	5.20	No	Yes Crossing(s) with 2 stages	4	25	444	Stop/Signal Controlled	Marked	1	25	304	Stop/Signal Controlled	Marked	5	30	1891	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	E-W	3.15	Yes	Yes Crossing(s) with 3+ stages	3	25	334	Stop/Signal Controlled	Marked	1	30	128	Free Flowing	Marked	3	30	1794	Stop/Signal Controlled	Marked
Median U-Turn	E-W	3.27	Yes	Yes Crossing(s) with 3+ stages	2	25	9	Stop/Signal Controlled	Marked	1	30	301	Yield Controlled	Marked	3	30	1811	Stop/Signal Controlled	Marked
Partial Median U-Turn	E-W	3.08	Yes	Yes Crossing(s) with 3+ stages	4	25	161	Stop/Signal Controlled	Marked	1	30	301	Yield Controlled	Marked	3	30	1766	Stop/Signal Controlled	Marked
Signalized Thrucut	E-W	3.93	Yes	No	3	25	453	Stop/Signal Controlled	Marked	5	30	1891	Stop/Signal Controlled	Marked	3	30	2278	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	30	2306	Stop/Signal Controlled	Marked	3	25	76	Stop/Signal Controlled	Marked	1	25	49	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	2	25	65	Stop/Signal Controlled	Marked	3	30	2278	Stop/Signal Controlled	Marked	1	30	32	Free Flowing	Marked
Median U-Turn	3	30	2454	Stop/Signal Controlled	Marked	1	25	73	Yield Controlled	Marked	1	25	9	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	30	2454	Permissive Left	Marked	1	25	28	Yield Controlled	Marked	3	25	54	Stop/Signal Controlled	Marked
Signalized Thrucut	1	25	28	Yield Controlled	Marked	2	25	88	Stop/Signal Controlled	Marked	5	30	2319	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #7					Crossing #8					Crossing #9					Crossing #10				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	5	30	2319	Stop/Signal Controlled	Marked	3	30	2071	Stop/Signal Controlled	Marked										
Signalized Restricted Crossing U-Turn																				
Median U-Turn	1	30	43	Yield Controlled	Marked	3	30	2454	Stop/Signal Controlled	Marked	3	30	1811	Stop/Signal Controlled	Marked	2	25	438	Yield Controlled	Marked
Partial Median U-Turn	1	30	43	Yield Controlled	Marked	3	30	2302	Stop/Signal Controlled	Marked	3	30	1811	Permissive Left	Marked	1	25	286	Yield Controlled	Marked
Signalized Thrucut	3	30	1785	Stop/Signal Controlled	Marked	1	25	286	Yield Controlled	Marked										

TYPE OF INTERSECTION	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings
Traffic Signal								
Signalized Restricted Crossing U-Turn								
Median U-Turn								
Partial Median U-Turn								
Signalized Thrucut								

TYPE OF INTERSECTION	Score Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	5.20	4.25	5.00	3.75	4.25	4.50	5.00	3.75	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.15	4.50	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.27	4.75	4.50	4.25	4.25	5.00	5.00	4.75	4.25	4.25	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.08	4.25	4.50	4.25	3.25	5.00	4.50	4.75	4.25	3.50	4.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Thrucut	3.93	4.50	3.75	4.25	5.00	4.75	3.75	4.25	4.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2 X 2	4.60	No	Yes Crossing(s) with 2 stages	2	30	444	Yield Controlled	Marked	2	30	304	Free Flowing	Marked	2	30	1891	Yield Controlled	Marked	2	30	2306	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	76	Yield Controlled	Marked	2	30	49	Free Flowing	Marked	2	30	2319	Yield Controlled	Marked	2	30	2071	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #9	Crossing #10	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings
Two Lane Roundabout										

TYPE OF ROUNDABOUT	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.60	4.25	3.75	3.75	3.50	4.50	4.00	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1 – Crossing #18 (each: # Lanes / Veh Speed / Volume / Conflicting Veh Type(s) / Markings)	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

# lanes (FL)	Score
	5
	4
	3
	2
5+	1

*/#

Vehicle Speed	Score
< 25	5
26-34	4
35-40	3
41-50	2
51+	1

*/#

Volume (vph) (FV)	Conflicting vehicle type			
	Sto	Per	Yie	Free Flowing
< 225	5	5	5	[illegible]
226-450	4	4	4	[illegible]
451-1350	3	3	3	[illegible]
1351-2250	2	2	2	[illegible]
>2250	1	1	1	[illegible]

Markings (FM)	
Marked	5
Unmarked	1

Multistage	
	1
	1
	1

Out of Direction	
No	1
Yes	1

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single-point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	PULL	4.27	1	1378	Stop/Signal Controlled	No	No	No	1	8246	Stop/Signal Controlled	No	No	No	3	48398	Stop/Signal Controlled	No	No	No	3	46171	Stop/Signal Controlled	No	No	No
Signalized Restricted Crossing U-Turn	E-W	4.09	1	1378	Stop/Signal Controlled	Yes	No	No	2	8246	Stop/Signal Controlled	Yes	No	No	3	52080	Stop/Signal Controlled	No	No	No	3	47329	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	4.27	1	1378	Stop/Signal Controlled	No	No	No	1	8246	Stop/Signal Controlled	No	No	No	3	48398	Stop/Signal Controlled	No	No	No	3	46171	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	4.27	1	1378	Stop/Signal Controlled	No	No	No	1	8246	Stop/Signal Controlled	No	No	No	3	48398	Stop/Signal Controlled	No	No	No	3	46171	Stop/Signal Controlled	No	No	No
Signalized Thrucut	E-W	4.32	1	1279	Stop/Signal Controlled	No	No	No	2	8147	Stop/Signal Controlled	No	No	No	3	48398	Stop/Signal Controlled	No	No	No	3	46171	Stop/Signal Controlled	No	No	No

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	5.00	4.50	4.00	4.00				
4.09	4.33	3.67	4.00	4.00				
4.37	5.00	4.50	4.00	4.00				
4.37	5.00	4.50	4.00	4.00				
4.32	5.00	4.33	4.00	4.00				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.37	2	1378	Yield Controlled	No	No	No	2	8246	Yield Controlled	No	No	No	2	48398	Yield Controlled	No	No	No	2	46171	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	4.67	4.17	4.33	4.33				

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Northbound					Southbound					Northbound 2					Southbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	NB	SB	NB2	SB2				

Scores										
Facility Type	SUP	On-Street Lane				Shared with Veh				
Volume (AADT)	Speed									
	Any	25	30	40	50	25	30	40	50
3000	5	5	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes	
1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control	
Free Flowing	1
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel	
Yes	1
No	5

Riding/Staging Between Travel Lanes	
Yes	1
No	5

Riding Across Free-Flow Ramp	
Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

Volume (AADT)	Speed (All Speeds)
<= 3000	5
3001-7000	5
>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	4	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	3	3	2	2
3001-7000	3	2	2	1
>7000	2	2	1	1

North Leg AADT	8246
South Leg AADT	1378
East Leg AADT	46171
West Leg AADT	48398

Major/Minor Street Facility Type
Shared with Vehicles
On-Street Lane
Shared Use Path

Conflicting Control Type
Stop/Signal Controlled
Free Flowing
Yield Controlled

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	*0.68*	1.03		0.89	0.94		*0.35*	0.19		1.05	1.11		1.11	4.60	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	0.55	1	3.15	4.00
Median U-Turn E-W	0.57	2	3.27	4.37
Signalized ThruCut E-W	0.62	3	3.93	4.32
Partial Median U-Turn E-W	0.63	4	3.08	4.37
Traffic Signal	0.72	5	5.20	4.37
2 X 2	1.11	6	4.60	4.37
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Harbor Island Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	172	2067	25	2.40%	0.00%
Westbound	9	17	1699	122	2.40%	0.00%
Southbound	0	151	6	283	0.90%	0.00%
Northbound	0	45	3	28	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	**0.55**	**1**	**3.15**	**4.00**
Median U-Turn E-W	**0.57**	**2**	**3.27**	**4.37**
Signalized ThruCut E-W	**0.62**	**3**	**3.93**	**4.32**
Partial Median U-Turn E-W	**0.63**	**4**	**3.08**	**4.37**
Traffic Signal	**0.72**	**5**	**5.20**	**4.37**
2 X 2	**1.11**	**6**	**4.60**	**4.37**
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Harbor Island Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	4
Major Street Direction:	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	172	2067	25	2.40%	0.00%
Westbound	9	17	1699	122	2.40%	0.00%
Southbound	0	151	6	283	0.90%	0.00%
Northbound	0	45	3	28	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1
Signalized Restricted Crossing U-Turn	E-W				1				2	1	1	3	1	1	1	3	1
Median U-Turn	E-W			1	1			1	2	1		3	1	1		3	1
Partial Median U-Turn	E-W		1	1	0		2	1	0	2		3	1	1		3	1
Signalized ThruCut	E-W		1		1		2		1		1	3	1		1	3	1

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1107	0.72	0.72	5.20	4.37
Signalized Restricted Crossing U-Turn	E-W	859	0.48	849	0.47	690	0.38	982	0.55			0.55	3.15	4.00
Median U-Turn	E-W					907	0.50	996	0.55	1022	0.57	0.57	3.27	4.37
Partial Median U-Turn	E-W					740	0.41	806	0.45	1107	0.63	0.63	3.08	4.37
Signalized ThruCut	E-W									969	0.62	0.62	3.93	4.32

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.68	1.03		0.89	0.94		0.35	0.19		1.05	1.11		1.11	4.60	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 PM
Number of Intersection Legs	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	3	282	1779	47	2.40%	0.00%
Westbound	8	21	2097	167	2.40%	0.00%
Southbound	0	127	7	173	0.90%	0.00%
Northbound	0	0	9	14	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	3	289	1822	48
Westbound	8	22	2147	171
Southbound	0	128	7	175
Northbound	0	0	9	14

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Major Street Direction	East-West

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	1206	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.79	Pedestrian Accommodation	5.20	Bicycle Accommodation	4.37

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		No	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		Yes	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1
Signalized Restricted Crossing U-Turn	E-W				1				2	1	1	3	1	1	1	3	1
Median U-Turn	E-W			1	1			1	2	1		3	1	1		3	1
Partial Median U-Turn	E-W		1	1	0		2	1	0	2		3	1	1		3	1
Signalized ThruCut	E-W		1		1		2		1		1	3	1		1	3	1

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Harbor Island Drive*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	23	0		128	182	0		289	1822	48		22	2147	171
Signalized Restricted Crossing U-Turn	E-W				14				175	3	289	1822	48	8	22	2147	171
Median U-Turn	E-W			9	14			7	175	3		1822	48	8		2147	171
Partial Median U-Turn	E-W		0	23	0		128	182	0	3		1822	48	8		2147	171
Signalized ThruCut	E-W		5		19		132		179		289	1822	48		22	2147	171

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	NE 79th Street at Harbor Island Drive	Number of Configurations			
Project Number:	10348806				
Location	North Bay Village, FL	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Date	2050 PM	4	1	0	1

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1206	0.79	0.79	5.20	4.37
Signalized Restricted Crossing U-Turn	E-W	1024	0.57	680	0.38	798	0.44	899	0.50			0.57	3.15	4.00
Median U-Turn	E-W					1148	0.64	918	0.51	904	0.50	0.64	3.25	4.37
Partial Median U-Turn	E-W					965	0.54	758	0.42	909	0.52	0.54	3.10	4.37
Signalized ThruCut	E-W									1089	0.69	0.69	3.95	4.32

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Crosswalk Marking Legend

Conflicting Vehicle Type
- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type
- Marked
- Unmarked

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	FULL	5.20	No	Yes Crossing(s) with 2 stages	4	25	310	Stop/Signal Controlled	Marked	1	25	469	Stop/Signal Controlled	Marked	5	30	2348	Stop/Signal Controlled	Marked	3	30	1972	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	E-W	3.15	Yes	Yes Crossing(s) with 3+ stages	3	25	424	Stop/Signal Controlled	Marked	1	30	180	Free Flowing	Marked	3	30	2158	Stop/Signal Controlled	Marked	2	25	31	Stop/Signal Controlled	Marked
Median U-Turn	E-W	3.25	Yes	Yes Crossing(s) with 3+ stages	2	25	16	Stop/Signal Controlled	Marked	1	30	460	Yield Controlled	Marked	3	30	2180	Stop/Signal Controlled	Marked	3	30	2250	Stop/Signal Controlled	Marked
Partial Median U-Turn	E-W	3.10	Yes	Yes Crossing(s) with 3+ stages	4	25	144	Stop/Signal Controlled	Marked	1	30	460	Yield Controlled	Marked	3	30	2180	Stop/Signal Controlled	Marked	3	30	2250	Permissive Left	Marked
Signalized Thrucut	E-W	3.95	Yes	No	3	25	588	Stop/Signal Controlled	Marked	5	30	2348	Stop/Signal Controlled	Marked	3	30	1958	Stop/Signal Controlled	Marked	1	25	14	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	23	Stop/Signal Controlled	Marked	1	25	77	Stop/Signal Controlled	Marked	5	30	2162	Stop/Signal Controlled	Marked	3	30	2325	Stop/Signal Controlled	Marked
Signalized Restricted Crossing U-Turn	3	30	1961	Stop/Signal Controlled	Marked	1	30	55	Free Flowing	Marked										
Median U-Turn	1	25	14	Yield Controlled	Marked	1	25	16	Stop/Signal Controlled	Marked	1	30	70	Yield Controlled	Marked	3	30	2250	Stop/Signal Controlled	Marked
Partial Median U-Turn	1	25	14	Yield Controlled	Marked	3	25	16	Stop/Signal Controlled	Marked	1	30	70	Yield Controlled	Marked	3	30	2122	Stop/Signal Controlled	Marked
Signalized Thrucut	2	25	70	Stop/Signal Controlled	Marked	5	30	2162	Stop/Signal Controlled	Marked	3	30	2150	Stop/Signal Controlled	Marked	1	25	175	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #9					Crossing #10					Crossing #11					Crossing #12					Crossing #13				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																									
Signalized Restricted Crossing U-Turn																									
Median U-Turn	3	30	2180	Stop/Signal Controlled	Marked	2	25	303	Yield Controlled	Marked															
Partial Median U-Turn	3	30	2180	Permissive Left	Marked	1	25	175	Yield Controlled	Marked															
Signalized Thrucut																									

TYPE OF INTERSECTION	Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																									
Signalized Restricted Crossing U-Turn																									
Median U-Turn																									
Partial Median U-Turn																									
Signalized Thrucut																									

TYPE OF INTERSECTION	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	5.20	4.25	5.00	3.75	4.25	4.50	5.00	3.75	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.15	4.50	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.25	4.75	4.25	4.25	4.25	5.00	5.00	4.75	4.25	4.25	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.10	4.25	4.25	4.25	3.50	5.00	4.50	4.75	4.25	3.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Thrucut	3.95	4.50	3.75	4.25	5.00	4.75	3.75	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2 X 2	4.56	No	Yes Crossing(s) with 2 stages	2	30	310	Yield Controlled	Marked	2	30	469	Free Flowing	Marked	2	30	2348	Yield Controlled	Marked	2	30	1972	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	23	Yield Controlled	Marked	2	30	77	Free Flowing	Marked	2	30	2162	Yield Controlled	Marked	2	30	2325	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #9					Crossing #10					Crossing #11					Crossing #12					Crossing #13				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout																									

TYPE OF ROUNDABOUT	Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout																									

TYPE OF ROUNDABOUT	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.56	4.25	3.50	3.50	3.50	4.50	4.00	3.75	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #5					Crossing #6					Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #10					Crossing #11					Crossing #12					Crossing #13					Crossing #14				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #15					Crossing #16					Crossing #17					Crossing #18					Score	Individual Crossing Scores																	
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

	Score			
# lanes (FL)				
	5			
	4			
	3			
	2			
5+	1			
Vehicle Speed				
< 25	5			
26-34	4			
35-40	3			
41-50	2			
51+	1			
Volume (vph) (FV)	Conflicting vehicle type			
	Stop	Perm	Yield	Free Flowing
< 225	5	5	5	
226-450	5	4	4	
451-1350	5	3	3	
1351-2250	5	2	2	
>2250	5	1	1	
Markings (FM)				
Marked	5			
Unmarked	1			
Multistage				
	1			
	1			
	1			
Out of Direction				
No	1			
Yes	1			

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Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound					Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	F1&1	4.37	1	1102	Stop/Signal Controlled	No	No	No	1	8588	Stop/Signal Controlled	No	No	No	3	49434	Stop/Signal Controlled	No	No	No	3	47538	Stop/Signal Controlled	No	No	No
Signalized Restricted Crossing U-Turn	E-W	4.09	1	1102	Stop/Signal Controlled	Yes	No	No	2	8588	Stop/Signal Controlled	Yes	No	No	3	52621	Stop/Signal Controlled	No	No	No	3	47891	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	4.37	1	1102	Stop/Signal Controlled	No	No	No	1	8588	Stop/Signal Controlled	No	No	No	3	49434	Stop/Signal Controlled	No	No	No	3	47538	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	4.37	1	1102	Stop/Signal Controlled	No	No	No	1	8588	Stop/Signal Controlled	No	No	No	3	49434	Stop/Signal Controlled	No	No	No	3	47538	Stop/Signal Controlled	No	No	No
Signalized Thrucut	E-W	4.33	1	926	Stop/Signal Controlled	No	No	No	2	8412	Stop/Signal Controlled	No	No	No	3	49434	Stop/Signal Controlled	No	No	No	3	47538	Stop/Signal Controlled	No	No	No

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	5.00	4.50	4.00	4.00				
4.09	4.33	3.67	4.00	4.00				
4.37	5.00	4.50	4.00	4.00				
4.37	5.00	4.50	4.00	4.00				
4.33	5.00	4.33	4.00	4.00				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.37	2	1102	Yield Controlled	No	No	No	2	8588	Yield Controlled	No	No	No	2	49434	Yield Controlled	No	No	No	2	47538	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	4.67	4.17	4.33	4.33				

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Southbound					Northbound 2					Southbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	NB	SB	NB2	SB2				

Scores

Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	85	25	30	40	85
3000	5	5	4	4	3	4	3	3	3
7000	5	4	4	4	2	3	3	2	2
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control

Free Flowing	5
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

Volume (AADT)		Speed (mph) At Crossing
3000	<= 3000	5
3001	3001-7000	5
7000		
7001	>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

Volume (AADT)		Speed (mi/h)			
		<=25	26-30	31-35	>=40
3000	<=3000	5	4	4	2
3001	3001-7000	4	4	4	2
7000					
7001	>7000	3	2	2	1

	<=25	26-30	31-35	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

Volume (AADT)		Speed (mi/h)			
		<=25	26-30	31-35	>=40
3000	<=3000	5	4	3	2
3001	3001-7000	3	3	2	1
7000					
7001	>7000	2	1	1	1

	<=25	26-30	31-35	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

North Leg AADT	8588
South Leg AADT	1102
East Leg AADT	47538
West Leg AADT	49434

Major/Minor Street Facility Type
On-Street Bike Lanes
On-Street Lane
Shared Use Path

Controlling Control Type
Stop/Signal Controlled
Free Flowing
Yield Controlled

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.82	0.86		1.18	1.24		*0.06*	0.07		0.96	1.02		1.24	4.56	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Partial Median U-Turn E-W	0.54	1	3.10	4.37
Signalized Restricted Crossing U-Turn E-W	0.57	2	3.15	4.00
Median U-Turn E-W	0.64	3	3.25	4.37
Signalized ThruCut E-W	0.69	4	3.95	4.32
Traffic Signal	0.79	5	5.20	4.37
2 X 2	1.24	6	4.56	4.37
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Harbor Island Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	4
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	3	282	1779	47	2.40%	0.00%
Westbound	8	21	2097	167	2.40%	0.00%
Southbound	0	127	7	173	0.90%	0.00%
Northbound	0	0	9	14	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Partial Median U-Turn E-W	**0.54**	**1**	**3.10**	**4.37**
Signalized Restricted Crossing U-Turn E-W	**0.57**	**2**	**3.15**	**4.00**
Median U-Turn E-W	**0.64**	**3**	**3.25**	**4.37**
Signalized ThruCut E-W	**0.69**	**4**	**3.95**	**4.32**
Traffic Signal	**0.79**	**5**	**5.20**	**4.37**
2 X 2	**1.24**	**6**	**4.56**	**4.37**
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Harbor Island Drive
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	4
Major Street Direction:	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	3	282	1779	47	2.40%	0.00%
Westbound	8	21	2097	167	2.40%	0.00%
Southbound	0	127	7	173	0.90%	0.00%
Northbound	0	0	9	14	0.90%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		2	1	0		1	3	1		1	3	1
Signalized Restricted Crossing U-Turn	E-W				1				2	1	1	3	1	1	1	3	1
Median U-Turn	E-W			1	1			1	2	1		3	1	1		3	1
Partial Median U-Turn	E-W		1	1	0		2	1	0	2		3	1	1		3	1
Signalized ThruCut	E-W		1		1		2		1		1	3	1		1	3	1

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									1206	0.79	0.79	5.20	4.37
Signalized Restricted Crossing U-Turn	E-W	1024	0.57	680	0.38	798	0.44	899	0.50			0.57	3.15	4.00
Median U-Turn	E-W					1148	0.64	918	0.51	904	0.50	0.64	3.25	4.37
Partial Median U-Turn	E-W					965	0.54	758	0.42	909	0.52	0.54	3.10	4.37
Signalized ThruCut	E-W									1089	0.69	0.69	3.95	4.32

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.82	0.86		1.18	1.24		0.06	0.07		0.96	1.02		1.24	4.56	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Project Information	
Provide general project information for reference purposes only.	
Project Name:	SR 934/NE 79th Street PD&E Study
Intersection:	NE 79th Street at Harbor Island Drive
Agency:	FDOT-6
Project Reference:	10348806
City:	North Bay Village
State:	Florida
Date:	10/10/2023
Analyst:	HDR
Use this button to clear all inputs/outputs and reset the tool to its initial defaults	Reset SPICE Tool

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening and Design Year
Opening Year	2030
Design Year	2050
Facility Type	On Urban and Suburban Arterial
Number of Legs	4-leg
1-Way/2-Way	2-way Intersecting 2-way
# of Major Street Lanes (both directions)	6 or more
Major Street Approach Speed	Less than 55 mph
Opening Year - Major Road AADT	44,000
Opening Year - Minor Road AADT	7,500
Design Year - Major Road AADT	48,500
Design Year - Minor Road AADT	8,300

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
All Way Stop	No	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	No	--		Design Year AADT Outside of SPF Development Range
Signalized Thru-Cut*	Yes	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	No	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	No	Traffic Signal		
Jughandle	No	Traffic Signal		
Partial Median U-Turn (PMUT)	Yes	Traffic Signal	*Please Select	
Other 2*	No	Minor Road Stop	*Please Select	

At-Grade Intersection Inputs

Provide inputs needed to compute and apply Part C CMFs.

Input		Control Strategy										
		Traffic Signal	Traffic Signal (Alt)	1-lane Roundabout	2-lane Roundabout	Displaced Left Turn (DLT)	Median U-Turn (MUT)	Signalized RCUT	Signalized Thru-Cut	Unsignalized Thru-Cut	Bowtie	
Opening Year Major Road AADT	Optional AADT Overrides	44000	44000	44000	44000	44000	44000	44000	44000	44000	44000	All strategies will have the same AADT as the Base Conditions unless overridden by user.
Opening Year Minor Road AADT		7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	
Design Year Major Road AADT		48500	48500	48500	48500	48500	48500	48500	48500	48500	48500	
Design Year Minor Road AADT		8300	8300	8300	8300	8300	8300	8300	8300	8300	8300	
Number of Approaches with Left-Turn Lanes	Additional Required Control Strategy Inputs	0	4									Do not include stop controlled approaches for minor stop
Number of Approaches with Right-Turn Lanes		0	0									
Number of Uncontrolled Approaches with Left-Turn Lanes												
Number of Uncontrolled Approaches with Right-Turn Lanes												

Keep default values below here for planning-level analysis, override with actual values for full HSM Analysis

	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE										
Skew Angle	A yellow cell indicates the value may be used in the SPF computation	N/A	N/A	Scroll Down for Roundabout CMF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	Scroll Down for Signalized RCUT SPF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	All yellow cells will be automatically populated by a macro. If users want to do a planning-level analysis, they can leave the automatic inputs as-is
Lighting Present		Yes	Yes								
# of Approaches Permissive LT Signal Phasing		0	0								
# of Approaches Perm/Prot LT Signal Phasing		0	0								
# of Approaches Protected LT Signal Phasing		0	0								
Number of Approaches with Right-Turn-on-Red Prohibited		0	0								
Red Light Cameras Present		No	No								
Number of Major Street Through Lanes		0	0								
Number of Minor Street Lanes		0	0								
# of Major St Approaches w/ Right-Turn Channelization		0	0								
Number of Approaches with U-Turn Prohibited		0	0								
Pedestrian Volume by Activity Level		Low (50)	Low (50)								
User Specified Sum of all daily pedestrian crossing volumes		50	50								
Max # of Lanes Crossed by Pedestrians		5	5								
Number of Bus Stops within 1000' of Intersection		0	0								
Schools within 1000' of intersection		No	No								
Number of Alcohol Sales Establishments within 1000' of Intersection		0	0								

				Roundabout CMF Inputs							
Inscribed Circle Diameter (ft)				130							
Leg 1 (Major Leg #1)				Leg 1 (Major Leg #1)							
Opening Year Entering AADT				22,000	22,000						
Leg has Right-Turn Bypass				No	No						
# of Access Points within 250' of Yield Line				0							
Entering Width (ft)					29						
# of Entering Lanes					2						
# of Circulating Lanes					2						
Leg 2 (Major Leg #2)				Leg 2 (Major Leg #2)							
Opening Year Entering AADT				22,000	22,000						
Leg has Right-Turn Bypass				No	No						
# of Access Points within 250' of Yield Line				0							
Entering Width (ft)					29						
# of Entering Lanes					2						
# of Circulating Lanes	N/A	N/A	N/A		2	N/A	N/A	N/A	N/A	N/A	N/A
Leg 3 (Minor Leg #1)				Leg 3 (Minor Leg #1)							
Opening Year Entering AADT				3750	3750						
Leg has Right-Turn Bypass				No	No						
# of Access Points within 250' of Yield Line				0							
Entering Width (ft)					29						
# of Entering Lanes					2						
# of Circulating Lanes					2						
Leg 4 (Minor Leg #2)				Leg 4 (Minor Leg #2)							
Opening Year Entering AADT				3,750	3,750						
Leg has Right-Turn Bypass				No	No						
# of Access Points within 250' of Yield Line				0							
Entering Width (ft)					29						
# of Entering Lanes					2						
# of Circulating Lanes					2						

								Restricted Crossing U-Turn			
# U-Turns								2			
# of Major Roadway Lanes								2			
# of Minor Roadway Lanes								2			
Total Offset Distance (ft)								1250			
Number of Driveways								4			
Total Deceleration Lane Length (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	N/A	N/A	N/A
Total Acceleration Lane Length (ft)											
Number of Left-Turn Lanes From Major Road								1			
Major Road Speed Limit (mph)								<=50			
Total Median Width (ft)								65			
Maximum Median Width (ft)											

Ramp Terminal Inputs

Provide inputs needed to compute and apply Part C CMFs.

Alternative	Signalized Diamond		Signalized Diamond (Alt)		Unsignalized Diamond		1-lane Roundabout		2-lane Roundabout		Single-Point Diamond	Signalized Tight Diamond
	4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)			
Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	Both Ramps	Both Ramps
Opening Year AADT Crossroad - Inside Leg	12000	15000	12000	15000	12000	15000	12000	15000	12000	15000	--	--
Opening Year AADT Crossroad - Outside Leg	10000	15000	10000	15000	10000	15000	10000	15000	10000	15000	15000	15000
Opening Year AADT Exit Ramp	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	9000	9000
Opening Year AADT Entrance Ramp	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000
Design Year AADT Crossroad - Inside Leg	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	--	--
Design Year AADT Crossroad - Outside Leg	31000	29000	31000	29000	31000	29000	31000	29000	31000	29000	31000	31000
Design Year AADT Exit Ramp	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Design Year AADT Entrance Ramp	3250	3250	3250	3250	3250	3250	3250	3250	3250	3250	6500	6500
Number of Crossroad Lanes	4	4	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the inside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the outside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of free-flow right turns from exit ramp to crossroad	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A

CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Exit Ramp Skew Angle	N/A	N/A	N/A	N/A	0	0
Is a non-ramp public street leg present?	No	No	No	No	N/A	N/A
Exit ramp right turn control	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled
Effective number of lanes serving exit ramp	1	0.5	0.5	1.5	2	2.5
Number of unsignalized driveways on the outside crossroad leg within 250' of the interchange	0	0	0	0	N/A	N/A
Distance (mi) to the adjacent ramp terminal	0.10	0.10	0.10	0.10	0.10	0.10
Distance (mi) to the next public street intersection on the outside crossroad leg	0.15	0.15	0.15	0.15	0.15	0.15
# of unsignalized public street approaches on the outside crossroad leg within 250' (<0.05 mi) of the interchange	1	1	1	1	1	1
Median Width (ft)	12.00	12.00	12.00	12.00	12.00	12.00
Presence of right-turn lane/bay on outside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Presence of left-turn lane/bay on inside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Left-turn lane/bay Width for inside crossroad leg	12.00	12.00	12.00	12.00	12.00	12.00
Protected Left-turn operation for inside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for outside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for exit ramp	No	No	No	No	N/A	N/A

Roundabout CMF Inputs				
Inscribed Circle Diameter (ft)	130	130	125	125
Outbound Only Leg	Yes	Yes	Yes	Yes
Leg 1 (Crossroad Leg - Inside)	Leg 1 (Crossroad Leg - Inside)			
Opening Year Entering AADT	6,000	7,500	6,000	7,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2
Leg 2 (Crossroad Leg - Outside)	Leg 2 (Crossroad Leg - Outside)			
Opening Year Entering AADT	5,000	7,500	5,000	7,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2
Leg 3 (Exit Ramp Inside)	Leg 3 (Exit Ramp Leg)			
Opening Year Entering AADT	4,500	4,500	4,500	4,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2

Ramp Terminal Inputs						
Provide inputs needed to compute and apply Part C CMFs.						
Alternative	**Traffic Signal**		**Traffic Signal (Alt)**		**Minor Road (Ramp) Stop**	
	4 Leg Terminal w/ Diagonal Ramps (D4)		**4 Leg Terminal w/ Diagonal Ramps (D4)**		**4 Leg Terminal w/ Diagonal Ramps (D4)**	
Ramp Terminal	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
Crossroad AADT	18000	17000	18000	17000	18000	17000
Ramp AADT	5000	4500	5000	4500	5000	4500
Area Type	Urban		Urban		Urban	
# of Crossroad Lanes	2	2	2	2	2	2

2-6 (5,6 Urban only)

For signalized ramp terminals, the applicable values for $AADT_{in}$ and $AADT_{out}$ range from 14,000 to 60,000 veh/day. AADT volumes smaller than 14,000 should be set to 14,000 in Equation 19-51.

Table 19-11. Applicable AADT Volume Ranges for Crossroad Ramp Terminal SPFs

Site Type (w)	Control Type (x)	Applicable AADT Volume Range (veh/day)	
		Crossroad	Total All Ramps
Four-leg terminals with diagonal ramps ($D4$)	Stop control (ST)	0 to 18,000	0 to 10,000
	Signal control (SG)	0 to 47,000	0 to 31,000

Other CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Crossroad Left Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Crossroad Right Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Skew Angle	skew	Planning	Double	Not/ Applicable	Include in MRS	Include in MRS
Exit ramp right turn control	mergeRT	Planning	Merge/FF or Signal/Sto	Include in TS	Include in MRS	Include in MRS
Effective number of lanes serving exit ramp	nex	Planning	1-2, see graphic	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "in" leg	i_LTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "out" leg	i_LTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "in" leg	i_RTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "out" leg	i_RTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled public street approaches to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_ps	Planning	Integer	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled driveways to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_dw	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Distance between subject ramp terminal and adjacent ramp terminal (from terminal center to terminal center)	l_rmp	Planning	Double	Include in TS	Include in MRS	Include in MRS
distance between subject ramp terminal and nearest public road intersection in a direction away form the freeway	l_str	Planning	Double	Include in TS	Include in MRS	Include in MRS
Width of median adjacent to turn lane for crossroad leg	w_m	Planning	Double	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "in" crossroad leg	w_bkIn	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "out" crossroad leg	w_bkOut	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "in"	n_oppLTIn	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "out"	n_oppLTOut	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "in"	i_protLTIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "out"	i_protLTOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "in"	i_crtIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "out"	i_crtOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for exit ramp	i_crtEx	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Non-ramp public street leg indicator	i_ps	Planning	Boolean	Include in TS	Not Applicable	Not Applicable

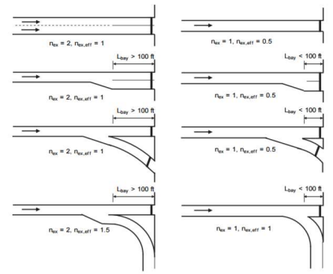

Figure 19-23. Effective Number of Lanes for Various Exit Ramp Configurations

The CMF is applicable to W_m values in the range of 0 to 50 ft. Similarly, it is applicable to W_{bk} values in the range of 0 to 26 ft.

#	Conflict Type	Mvmt1	Mvmt1_gen	Mvmt1_SpeedCat	Mvmt2	Mvmt2_gen	Mvmt2_SpeedCat	Exposure Q1	Q2	I	Severity Speed_V1	Speed_V2	Angle	delta_V	P_FSI
1	Crossing - LT	EBL	CrossL1	Cross left	NBL	RampL1	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
2	Crossing - LT	EBT	CrossT1	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
3	Crossing - LT	WBL	CrossL2	Cross left	NBL	RampL1	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
4	Crossing - LT	EBT	CrossT1	Cross thru	NBL	RampL1	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
5	Crossing - LT	WBL	CrossL2	Cross left	SBL	RampL2	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
6	Crossing - LT	WBT	CrossT2	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
7	Crossing - LT	EBL	CrossL1	Cross left	SBL	RampL2	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
8	Crossing - LT	WBT	CrossT2	Cross thru	SBL	RampL2	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
9	Merging	WBT,NBL	CrossT2,RampL1	Cross thru	SBR	RampR2	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
10	Merging	EBR	CrossR1	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
11	Merging	WBT	CrossT2	Cross thru	NBL	RampL1	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
12	Merging	EBT	CrossT1	Cross thru	SBL	RampL2	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
13	Merging	EBT,SBL	CrossT1,RampL2	Cross thru	NBR	RampR1	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
14	Merging	WBR	CrossR2	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
15	Diverging	SBR	RampR2	Signal near	SBL	RampL2	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
16	Diverging	EBT	CrossT1	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
17	Diverging	EBT	CrossT1	Cross thru	EBR	CrossR1	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
18	Diverging	NBR	RampR1	Signal near	NBL	RampL1	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
19	Diverging	WBT	CrossT2	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
20	Diverging	WBT	CrossT2	Cross thru	WBR	CrossR2	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
21	Nonmotorized		RampNM2	Nonmotorized	SBL	RampL2	Signal near	375	1125	421875	0	15			0.1205
22	Nonmotorized		RampNM2	Nonmotorized	SBR	RampR2	Signal near	375	1125	421875	0	15			0.1205
23	Nonmotorized		CrossNM1	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
24	Nonmotorized		CrossNM1	Nonmotorized	NBL	RampL1	Signal far	375	1125	421875	0	25			0.3207
25	Nonmotorized		CrossNM1	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
26	Nonmotorized		CrossNM1	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
27	Nonmotorized		RampNM1	Nonmotorized	EBR	CrossR1	Cross right	375	1875	703125	0	15			0.1205
28	Nonmotorized		RampNM1	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
29	Nonmotorized		RampNM1	Nonmotorized	NBL	RampL1	Signal near	375	1125	421875	0	15			0.1205
30	Nonmotorized		RampNM1	Nonmotorized	NBR	RampR1	Signal near	375	1125	421875	0	15			0.1205
31	Nonmotorized		CrossNM2	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
32	Nonmotorized		CrossNM2	Nonmotorized	SBL	RampL2	Signal far	375	1125	421875	0	25			0.3207
33	Nonmotorized		CrossNM2	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
34	Nonmotorized		CrossNM2	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
35	Nonmotorized		RampNM2	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
36	Nonmotorized		RampNM2	Nonmotorized	WBR	CrossR2	Cross right	375	1875	703125	0	15			0.1205

#	Conflicting Traffic Complexity: Traffic Control	Conflicting Lanes: CrossC	RampC	CrossM/P	RampM/P	Score	Conflicting Speed: Speed	Factor	Pedestrian Complexity: Indirect Paths Indicator	Non-intuitive movements indicator	Pedestrian Complexity factor	Total Complexity Multiplier	Exposure-Severity-Complexity Product
1	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
2	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
3	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
4	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
5	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
6	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
7	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
8	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
9	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
10	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
11	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
12	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
13	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
14	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
15	1	0	0	0	0	1		1.000			1	1	0.810776943
16	1	0	0	0	0	1		1.000			1	1	11348.31263
17	1	0	0	0	0	1		1.000			1	1	24976.22992
18	1	0	0	0	0	1		1.000			1	1	0.810776943
19	1	0	0	0	0	1		1.000			1	1	11348.31263
20	1	0	0	0	0	1		1.000			1	1	24976.22992
21	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
22	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
23	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
24	0.925	0	0	0	0	1	40	0.778	1		2	1.438888889	194655.9785
25	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
26	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
27	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839
28	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
29	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
30	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
31	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
32	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	106271.6423
33	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
34	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
35	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
36	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839

Included in Mvmt1

	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
		1														
	1															
					1											
	1															
					1											
				1												
		1														
				1												
				1				1								
			1													
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	1										1					
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														1		
														1		
														1		
														1		
																1
																1
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

Included in Mvmt2

	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
								1								
					1											
								1								
								1								
											1					
		1														
											1					
											1					
												1				
					1											
								1								
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	1															
			1													
					1											
								1								
									1							
	1															
											1					
					1											
				1												
		1														
						1										
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

*impact of median on complexity factors

#	Conflict Ty	Cross-street: No, Ramps: Yes MajC	MinC	MajM/P	MinM/P	Cross-street: Yes, Ramps: Yes MajC	MinC	MajM/P	MinM/P
1	Crossing -	1	0	1	0	1	0	0	0
2	Crossing -	1	0	0	0	1	0	0	0
3	Crossing -	1	0	1	0	1	0	0	0
4	Crossing -	1	0	1	0	1	0	0	0
5	Crossing -	1	0	1	0	1	0	0	0
6	Crossing -	1	0	0	0	1	0	0	0
7	Crossing -	1	0	1	0	1	0	0	0
8	Crossing -	1	0	1	0	1	0	0	0
9	Merging	0	0	1	0	0	0	1	0
10	Merging	0	0	0	1	0	0	0	1
11	Merging	1	0	1	0	0	0	1	0
12	Merging	1	0	1	0	0	0	1	0
13	Merging	0	0	1	0	0	0	1	0
14	Merging	0	0	0	1	0	0	0	1
15	Diverging	0	0	0	0	0	0	0	0
16	Diverging	0	0	0	0	0	0	0	0
17	Diverging	0	0	0	0	0	0	0	0
18	Diverging	0	0	0	0	0	0	0	0
19	Diverging	0	0	0	0	0	0	0	0
20	Diverging	0	0	0	0	0	0	0	0
21	Nonmotor	0	1	0	0	0	1	0	0
22	Nonmotor	0	1	0	0	0	1	0	0
23	Nonmotor	2	0	0	1	1	0	0	1
24	Nonmotor	2	0	0	1	1	0	0	1
25	Nonmotor	2	0	0	1	1	0	0	0
26	Nonmotor	2	0	0	1	1	0	0	0
27	Nonmotor	0	1	0	0	0	1	0	0
28	Nonmotor	0	1	0	0	0	1	0	0
29	Nonmotor	0	1	0	0	0	1	0	0
30	Nonmotor	0	1	0	0	0	1	0	0
31	Nonmotor	2	0	0	1	1	0	0	1
32	Nonmotor	2	0	0	1	1	0	0	1
33	Nonmotor	2	0	0	1	1	0	0	0
34	Nonmotor	2	0	0	1	1	0	0	0
35	Nonmotor	0	1	0	0	0	1	0	0
36	Nonmotor	0	1	0	0	0	1	0	0

Exposure Q1	Q2	I	Exposure-Severity-Complexity Product
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
7750	1250	9687500	20959.8813
7750	1250	9687500	20959.8813
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	245122.3433
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	154349.3021
425	3875	1646875	131149.471
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	133823.5496
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	131149.471
425	3875	1646875	154349.3021

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	3
Minor number thru lanes (one direction)	1

Optional Major Street Designation	
Select major street direction	E-W
Median Presence on Major Road	Yes
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	44,000	48,500
Minor	7,500	8,300

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADT (ped/day)	Activity Level	ADT Value (ped/day)
Open Year Total Intersection NM	Medium (700)	700
Design Year Total Intersection NM	Medium (700)	700

(or overwrite ped movement ADTs below)

Nonmotorized Movement ADT (ped/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	175	175
Major NM 2	175	175
Minor NM 1	175	175
Minor NM 2	175	175

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	19312.86	21288.04
Major Left Turn 1	2320.767	2558.118
Major Right Turn 1	366.3741	403.8441
Major Thru 2	20103.77	22159.83
Major Left Turn 2	293.9648	324.0293
Major Right Turn 2	1602.268	1766.136
Minor Thru 1	591.1915	654.2519
Minor Left Turn 1	2186.586	2419.822
Minor Right Turn 1	972.2222	1075.926
Minor Thru 2	911.7653	1009.02
Minor Left Turn 2	1419.117	1570.49
Minor Right Turn 2	1419.117	1570.49

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	EBT	2067	0.912985866	1779	0.842729	0.877857
Major Left Turn 1	EBL	172	0.075971731	285	0.135007	0.105489
Major Right Turn 1	EBR	25	0.011042403	47	0.022264	0.016653
Major Thru 2	WBT	1699	0.91987006	2097	0.914522	0.917196
Major Left Turn 2	WBL	26	0.014076881	29	0.012647	0.013362
Major Right Turn 2	WBR	122	0.066053059	167	0.07283	0.069442
Minor Thru 1	NBT	3	0.039473684	9	0.166667	0.10307
Minor Left Turn 1	NBL	45	0.592105263	31	0.574074	0.58309
Minor Right Turn 1	NBR	28	0.368421053	14	0.259259	0.31384
Minor Thru 2	SBT	6	0.013636364	7	0.022801	0.018219
Minor Left Turn 2	SBL	151	0.343181818	127	0.413681	0.378431
Minor Right Turn 2	SBR	283	0.643181818	173	0.563518	0.60335

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.877857215
Major Left Turn 1	0.105489419
Major Right Turn 1	0.016653366
Major Thru 2	0.913807612
Major Left Turn 2	0.013362034
Major Right Turn 2	0.072830353
Minor Thru 1	0.157651072
Minor Left Turn 1	0.583089669
Minor Right Turn 1	0.259259259
Minor Thru 2	0.2431374
Minor Left Turn 2	0.3784313
Minor Right Turn 2	0.3784313

Turning movment proportions specified in **Table 2-C** (and by extension, the percentages determined in **Table 2-B**) are considered to be constant between the Open and Design years of the analysis.

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	30
Minor Posted Speed Limit	25
Major thru	30
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25
RAB entering	20
RAB circulating	25
RAB exiting	30
Nonmotorized	0

Collision Angles	deg
Crossing	90
Crossing - LT	230
Crossing - RAB	60
Merging	45
Diverging	10

P(FSI) Regression Parameters	
alpha	67.29
k	3.79

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Traffic Control Parameter (a_traffic control)	
Permitted	1
Protected/permitted	0.925
Protected	0.505
Stop-controlled	0.725

Driver Merging Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3+)	0.5

Nonmotorized Complexity	
Nonmotorized Turn Score Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3)	0.5

Calibration

Optional - Input locally-developed calibration factors for SPFs.

At-Grade Intersection SPFs

Traffic Control	Facility Type	# legs	1 way/ 2 way	# of lanes on arterial	Default Calibration Factor	Optional User Override	Use Value
Traffic Signal (For more information on determining signal type, refer to the "Definitions" worksheet)	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.92		0.92
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.45		0.45
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	2.50		2.50
		4 leg	2x2	5 or fewer	2.27		2.27
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Minor Road Stop	On Rural Two Lane Highway	3 leg	-	-	1.27		1.27
		4 leg	-	-	0.74		0.74
	On Rural Multilane Highway	3 leg	-	-	2.20		2.20
		4 leg	-	-	1.64		1.64
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	1.14		1.14
		4 leg	2x2	5 or fewer	1.87		1.87
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
All-Way Stop	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Roundabout	1-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	2-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00

Ramp Terminal Intersection SPFs

Control	Ramp and Intersection Type	SPF Calibration Factor	Optional User Override	Use Value
Signalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Diverging Diamond	All types	1.00		1.00
Single-Point Diamond	All types	1.00		1.00
Unsignalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Roundabout	1-lane roundabout with 4 legs	1.00		1.00
	2-lane roundabout with 4 legs	1.00		1.00
Signalized Tight Diamond		1.00		1.00

Local CMFs

Optional - Override default CMFs with locally-developed or new CMFs

Control	Default Base Intersection	Type of Crashes	Default CMF	Optional User Override	Use Value
Displaced Left Turn (DLT)	Traffic Signal	Total	0.88		0.88
		Fatal-Injury	0.88		0.88
Median U-Turn (MUT)	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.70		0.70
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.78		0.78
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn	Minor Road Stop (TWSC)	Total	0.65		0.65
		Fatal-Injury	0.46		0.46
Signalized Thru-Cut	Traffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Unsignalized Thru-Cut	Minor Road Stop (TWSC)	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Bowtie	Taffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Continuous Green-T Intersection	Traffic Signal	Total	0.96		0.96
		Fatal-Injury	0.85		0.85
Jughandles	Traffic Signal	Total	0.74		0.74
		Fatal-Injury	0.74		0.74
Partial Median U-Turn (PMUT)	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Other 2*	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Crossover Traffic Signal (of Diverging Diamond Interchange)	Traffic Signal	Total	0.67		0.67
		Fatal-Injury	0.59		0.59

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2018
Historical Intx Type:	3ST		

Historical Crash Counts		Year										
		2018	2019	2020	2021	2022	--	--	--	--	--	Total
Combined	Total	17	18	3	10	12	--	--	--	--	--	60
	Fatal/Injury	2	2	0	1	1						6
	PDO	15	16	3	9	11						54
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	0	0	0	0	0						0
Total	All	17	18	3	10	12	--	--	--	--	--	60

Computations Only Below This Point

Empirical Bayes Computations (No Data Entry)

Combined Collisions	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	3.99	3.99	3.99	3.99	3.99	--	--	--	--	--	19.95
		PDO	5.78	5.78	5.78	5.78	5.78	--	--	--	--	--	28.90
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.65	0.65	0.65	0.65	0.65	--	--	--	--	--	--
		PDO	0.75	0.75	0.75	0.75	0.75	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.28	0.28	0.28	0.28	0.28	--	--	--	--	--	--
		PDO	0.19	0.19	0.19	0.19	0.19	--	--	--	--	--	--
	$N_{expected}$	Total	15.82	16.63	4.63	10.23	11.85	--	--	--	--	--	--
		Fatal/Injury	2.55	2.55	1.11	1.83	1.83	--	--	--	--	--	9.89
		PDO	13.27	14.08	3.52	8.39	10.02	--	--	--	--	--	49.28
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	0.50
												PDO	1.70
Multiple-Vehicle Only (When Applicable)	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury		--	--	--	--	--	--	--	--	--	--
		PDO		--	--	--	--	--	--	--	--	--	--
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	1.00
												PDO	1.00
Vehicle-Pedestrian	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury		--	--	--	--	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00
Vehicle-Bicyle	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury	0.38	0.38	0.38	0.38	0.38	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00

Dispersion Parameters			At-Grade Intersection Facility Type						
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials	Urban/Suburban Arterials w/ 6 or More Lanes			High Speed
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	0.54	0.46	--	--	--	--	--
		3SG	0.31	0.40	--	--	--	--	--
		4ST	0.24	0.49	--	--	--	--	--
		4SG	0.11	0.28	--	--	--	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	0.57	--	0.65	2.00	2.00	--
		3SG	--	1.15	--	0.52	0.95	0.95	--
		4ST	--	0.74	--	0.60	0.53	0.53	--
		4SG	--	0.22	--	0.56	1.33	1.33	--
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	0.75	1.03	1.03	--
		3SG	--	--	--	1.00	0.90	0.90	--
		4ST	--	--	--	1.14	0.96	0.96	--
		4SG	--	--	--	0.99	2.00	2.00	--
Single-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	1.14	--	--	--	0.69
		3SG	--	--	0.36	--	--	--	0.57
		4ST	--	--	0.65	--	--	--	1.12
		4SG	--	--	0.36	--	--	--	0.55
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	2.10
		3SG	--	--	0.24	--	--	--	1.04
		4ST	--	--	--	--	--	--	1.64
		4SG	--	--	0.09	--	--	--	0.98
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.29	--	--	--	0.75
		3SG	--	--	0.53	--	--	--	0.74
		4ST	--	--	0.54	--	--	--	1.40
		4SG	--	--	0.44	--	--	--	0.84
Multiple-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.80	--	--	--	0.85
		3SG	--	--	0.33	--	--	--	0.21
		4ST	--	--	0.40	--	--	--	0.91
		4SG	--	--	0.39	--	--	--	0.39
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.69	--	--	--	0.76
		3SG	--	--	0.30	--	--	--	0.09
		4ST	--	--	0.48	--	--	--	0.89
		4SG	--	--	0.33	--	--	--	0.31
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.77	--	--	--	1.11
		3SG	--	--	0.36	--	--	--	0.34
		4ST	--	--	0.40	--	--	--	0.94
		4SG	--	--	0.44	--	--	--	0.38
Veh-Pedestrian	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	--
		3SG	--	--	0.52	0.52	0.52	0.52	--
		4ST	--	--	--	--	--	--	--
		4SG	--	--	0.24	0.24	0.24	0.24	--

AWSC Dispersion Parameters 17-68 Report Update			Intersection Facility Type		
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	--
		4AWSC	0.39	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.07
		4AWSC	--	--	0.66
	PDO	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.37
		4AWSC	--	--	0.78

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	SR 934/NE 79th Street PD&E Study	**Intersection Type**	At-Grade Intersection
Intersection:	NE 79th Street at Harbor Island Drive	**Opening Year**	2030
Agency:	FDOT-6	**Design Year**	2050
Project Reference:	10348806	**Facility Type**	On Urban and Suburban Arterial
City:	North Bay Village	**Number of Legs**	4-leg
State:	Florida	**1-Way/2-Way**	2-way Intersecting 2-way
Date:	10/10/2023	**# of Major Street Lanes (both directions)**	6 or more
Analyst:	HDR	**Major Street Approach Speed**	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	9.02	9.56	195.16	3	Yes	Uncalibrated SPF	77	74	2
	Fatal & Injury	4.83	5.14	104.76						
2-lane Roundabout	Total	23.03	25.80	512.72	2	No	Uncalibrated SPF	74	72	4
	Fatal & Injury	4.46	5.05	99.80						
Median U-Turn (MUT)	Total	7.67	8.13	165.89	1	N/A	CMF	82	80	1
	Fatal & Injury	3.38	3.60	73.33						
Signalized RCUT	Total	28.78	33.48	653.29	5	Yes	Uncalibrated SPF	73	70	5
	Fatal & Injury	6.27	7.38	143.13						
Signalized Thru-Cut	Total	No SPF	No SPF	No SPF	--	N/A	N/A	75	72	3
	Fatal & Injury	No SPF	No SPF	No SPF						
Partial Median U-Turn (PMUT)	Total	9.02	9.56	195.16	3	N/A	CMF	--	--	--
	Fatal & Injury	4.83	5.14	104.76						

-- -- --
-- -- --

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Safe System for Intersection (SSI) Results

Summary of the safe system intersection results for each alternative

Conversion of Existing Intersection Type:	Traffic Signal

Select from Dropdown List

Opening Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	Trad_Sig	77	49	73	99	100	1.00	1.00	1.00	1.00	0.23	0.02	0.00	0.00	1.22	0.93	0.88	1.00
2-Lane Roundabout	RAB2x2	74	33	93	99	100	1.00	0.99	1.12	1.19	0.33	0.00	0.00	0.00	2.44	1.22	1.15	1.00
Median U-Turn (MUT)	MUT	82	51	93	97	100	1.12	0.35	2.28	2.35	0.23	0.01	0.00	0.00	1.00	1.01	0.84	1.00
Signalized RCUT	RCUT_Sig	73	34	87	97	100	1.03	0.29	2.30	2.64	0.21	0.03	0.00	0.00	1.61	1.01	0.84	1.00
Signalized Thru-Cut	ThruCut_Sig	75	47	71	97	100	1.03	0.67	1.54	1.74	0.23	0.02	0.00	0.00	1.69	1.58	1.07	1.00

Design Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	Trad_Sig	74	46	68	98	100	1.00	1.00	1.00	1.00	0.23	0.02	0.00	0.00	1.22	0.93	0.88	1.00
2-Lane Roundabout	RAB2x2	72	29	92	98	100	1.00	0.99	1.12	1.19	0.33	0.00	0.00	0.00	2.44	1.22	1.15	1.00
Median U-Turn (MUT)	MUT	80	47	92	96	99	1.12	0.35	2.27	2.35	0.23	0.01	0.00	0.00	1.00	1.01	0.84	1.00
Signalized RCUT	RCUT_Sig	70	30	85	96	99	1.03	0.29	2.30	2.64	0.21	0.03	0.00	0.00	1.61	1.01	0.84	1.00
Signalized Thru Cut	ThruCut_Sig	72	44	65	96	100	1.03	0.67	1.54	1.74	0.23	0.02	0.00	0.00	1.69	1.58	1.07	1.00

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms are to be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. **Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.**

Project Name	SR 934/NE 79th Street at WSVN Driveway		FDOT Project #		
Submitted By		Agency/Company	HDR	Date	10/10/2023
Email		FDOT District	District 6	County	
Project Locality (*City/Town/Village*)	North Bay Village				
Intersection Type	At-Grade Intersection	FDOT Context Classification	C5 - Urban Center		
Project Funding Source	Federal	Project Type	Corridor Improvement Project		
Project Purpose (*What is the catalyst for this project and why is it being undertaken?*)	The SR 934/NE 79th Street PD&E study is evaluating the rehabilitation or replacement of 2 sets of bridge pairs along NE 79th Street within North Bay Village. The study area includes this intersection. No roadway capacity improvements are expected as part of this project.				
Project Setting Description (*Describe the area surrounding the intersection*)	The two sets of bridge pairs on SR 934/NE 79th Street link developed islands (representing North Bay Village) situated between the mainland and the barrier island. Near WSVN Driveway, land uses contain a mixtire of residential, retail, and office typical of an urban setting.				
Multimodal Context (*Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns*)	Sidewalks are located on the north and south side of SR 934/NE 79th Street, but are not provided on the east and west side of WSVN Driveway north of NE 79th Street. Marked pedestrian crosswalks are not located on any intersection approach. Designated bicycle lanes on NE 79th Street are present in both directions of travel, while no explicitly marked bicycle lane is provided on WSVN Driveway north of NE 79th Street.				

Major Street Information

Route #:	SR 934	Route Name(s)	NE 79th Street			Milepost	1.862
Existing Control Type	Two-way Stop-Control		Existing AADT	39,500	Design Year AADT		46,000
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification	Urban Principal Arterial - Other				Design Speed (mph)		35
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]		

Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	32	Left	12
	Multi-Use Path?	No	Left-Through-Right	0	Through	2,223	Through	1,916
	Scheduled Bus Service?	Yes	Through-Right	0	Right	0	Right	0
	Bus Stop on Approach?	Yes	Right-Turn	0	Daily Truck %		4.8%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	0				
	Crosswalk on Approach?	No	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	0	Left	0
	Multi-Use Path?	No	Left-Through-Right	0	Through	1,803	Through	2,252
	Scheduled Bus Service?	Yes	Through-Right	0	Right	17	Right	7
	Bus Stop on Approach?	Yes	Right-Turn	0	Daily Truck %		4.8%	

Minor Street Information												
Route #:		Route Name(s)	WSVN Driveway						Milepost (if app.)			
Existing Control Type	Two-way Stop-Control			Existing AADT	600				Design Year AADT	700		
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)			Control Vehicle	Florida Interstate Semitrailer (WB-62FL)							
Primary Functional Classification	Urban Local								Design Speed (mph)	25		
Secondary Functional Classification (if app.)									Target Speed (mph) [if app.]			
Approach #1	Direction	Southbound		Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:	Neither side of the approach		Left-Turn	1							
	Crosswalk on Approach?	No		Left-Through	0	Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?	No		Through	0	Left	9		Left	9		
	Multi-Use Path?	No		Left-Through-Right	0	Through	0		Through	0		
	Scheduled Bus Service?	No		Through-Right	0	Right	41		Right	41		
	Bus Stop on Approach?	No		Right-Turn	0	Daily Truck %			5.4%			
Approach #2	Direction			Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:			Left-Turn								
	Crosswalk on Approach?			Left-Through		Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?			Through		Left			Left			
	Multi-Use Path?			Left-Through-Right		Through			Through			
	Scheduled Bus Service?			Through-Right		Right			Right			
	Bus Stop on Approach?			Right-Turn		Daily Truck %						
Approach #3	Direction			Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes			
	Sidewalks along:			Left-Turn								
	Crosswalk on Approach?			Left-Through		Weekday AM Peak			Weekday PM Peak			
	On-Street Bike Facilities?			Through		Left			Left			
	Multi-Use Path?			Left-Through-Right		Through			Through			
	Scheduled Bus Service?			Through-Right		Right			Right			
	Bus Stop on Approach?			Right-Turn		Daily Truck %						

Crash History (Existing Intersections Only)
Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:

Control Strategy Evaluation								
Provide a brief justification as to why each of the following control strategies should be advanced or not. Justification should consider potential environmental impacts.								
	CAP-X Outputs				SPICE Outputs			
	V/C Ratio							
Control Strategy	Weekday AM Peak	Weekday PM Peak	Ped Accom.	Bike Accom.	Crash Prediction Rank	SSI Rank	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	11.71	12.39	2.64	n/a	1	4	Yes	Currently a TWSC intersection. Receives traffic flow gaps due ot proximity to signalized intersections east and west of its location
All-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	
Signalized Control	0.51	0.52	4.04	n/a	5	1	No	Intersection is located 220 feet west of existing signal at Adventure Avenue. Such a distance does not support signal control
Roundabout (1-lane)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Roundabout (2-lane)	0.91	0.92	4.96	4.49	7	3	No	Insufficient ROW to accommodate multi-lane roundabout without impacting current developments. Potential capacity deficiencies as V/C ratios are 90+%
Median U-Turn	0.46	0.45	3.33	n/a	3	n/a	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Signalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
RCUT (Unsignalized)	0.96	2.00	2.51	n/a	2	5	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
Jughandle					n/a	n/a	No	
Displaced Left-Turn	n/a	n/a	n/a	n/a	n/a	n/a	No	
Continuous Green Tee	0.38	0.45	2.08	4.06	4	2	No	Insufficient space exists to accommodate SB-to-EB left turn movement acceleration lane due to bridges and Adventure Ave intersection
Quadrant Roadway	n/a	n/a	n/a	n/a			No	
Thru-Cut (Signalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Thru-Cut (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Bowtie	n/a	n/a	n/a	n/a	n/a	n/a	No	
Partial Median U-Turn (PMUT)	0.46	0.47	3.14	n/a	5	n/a	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges

Resolution					
To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer					
Project Determination					
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 AM
Number of Intersection Legs	3
Which leg is the minor street?	N

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	3	29	2223	0	2.40%	0.00%
Westbound	0	0	1803	17	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	3	30	2276	0
Westbound	0	0	1846	17
Southbound	0	9	0	42
Northbound	0	0	0	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Which leg is the minor street?	N

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Two-Way Stop Control	E-W	--	--	--	--	--	--	--	--	--	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.00	Pedestrian Accommodation	2.64	Bicycle Accommodation	#N/A

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		No	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		No	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		No	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		Yes	
2NS x 1EW		No	
2x2		No	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		1	0	0		1	3	0		0	3	0
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0
Continuous Green T Unsignalized Restricted Crossing U-Turn	N						1		1		1	3				3	0
	E-W				0				1	1	1	3	0	1	0	3	0
Median U-Turn	E-W			0	0			0	1	1		3	0	1		3	0
Partial Median U-Turn	E-W		0	0	0		1	0	0	1		3	0	1		3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		9	42	0		30	2276	0		0	1863	0
Two-Way Stop Control	E-W		0	0	0		9	42	0		30	2276	0		0	1863	0
Continuous Green T Unsignalized Restricted Crossing U-Turn	N						9		42		30	2276				1863	0
	E-W				0				42	3	30	2276	0	0	0	1863	0
Median U-Turn	E-W			0	0			0	42	3		2276	0	0		1863	0
Partial Median U-Turn	E-W		0	0	0		9	42	0	3		2276	0	0		1863	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	*NE 79th Street at WSVN Driveway*	Number of Configurations			
Project Number:	*10348806*	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	*North Bay Village, FL*	5	0	2	0
Date	2050 AM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									801	0.51	0.51	4.04	#N/A
Two-Way Stop Control	E-W									--	>10	0.00	2.64	#N/A
Continuous Green T	N									666	0.38	0.38	2.80	4.06
Unsignalized Restricted Crossing U-Turn	E-W	1858	0.96	2288	*0.00*	1863	*0.01*	2309	*0.06*			0.96	2.51	#N/A
Median U-Turn	E-W					662	*0.37*	781	*0.43*	830	0.46	0.46	3.33	#N/A
Partial Median U-Turn	E-W					662	*0.37*	770	*0.43*	812	0.46	0.46	3.14	#N/A

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
1NS X 2EW	*0.18*			0.85	0.91		*0.00*			*0.70*	0.75		0.91	4.96	4.49

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Crosswalk Marking Legend

Conflicting Vehicle Type
- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type
- Marked
- Unmarked

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	FULL	4.04	No	Yes Crossing(s) with 2 stages	3	30	51	Stop/Signal Controlled	Unmarked	1	30	47	Stop/Signal Controlled	Unmarked	5	25	1863	Stop/Signal Controlled	Unmarked	3	25	2285	Stop/Signal Controlled	Unmarked
Two-Way Stop Control	E-W	2.64	No	No	4	30	4197	Free Flowing	Unmarked	6	25	98	Permissive Left	Unmarked	0	30	4148	Free Flowing	Unmarked	7	25	0	Permissive Left	Unmarked
Continuous Green T	N	2.80	No	Yes Crossing(s) with 3+ stages	1	25	42	Yield Controlled	Marked	1	25	39	Stop/Signal Controlled	Marked	1	30	17	Yield Controlled	Marked	3	30	1846	Stop/Signal Controlled	Unmarked
Unsignalized Restricted Crossing U-Turn	E-W	2.51	Yes	Yes Crossing(s) with 3+ stages	1	25	30	Permissive Left	Marked	0	30	17	Yield Controlled	Marked	3	30	1849	Free Flowing	Unmarked	0	25	0	Yield Controlled	Marked
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages	2	25	0	Stop/Signal Controlled	Marked	1	30	47	Yield Controlled	Marked	3	30	1849	Stop/Signal Controlled	Marked	3	30	2318	Stop/Signal Controlled	Marked
Partial Median U-Turn	E-W	3.14	Yes	Yes Crossing(s) with 3+ stages	3	25	9	Stop/Signal Controlled	Marked	1	30	47	Yield Controlled	Marked	3	30	1849	Stop/Signal Controlled	Marked	3	30	2318	Permissive Left	Marked

TYPE OF INTERSECTION	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	30	0	Stop/Signal Controlled	Unmarked	1	30	0	Stop/Signal Controlled	Unmarked	5	25	2309	Stop/Signal Controlled	Unmarked	3	25	1891	Stop/Signal Controlled	Unmarked
Two-Way Stop Control																				
Continuous Green T	4	30	2285	Free Flowing	Unmarked	4	30	2309	Free Flowing	Unmarked	3	30	1849	Stop/Signal Controlled	Unmarked					
Unsignalized Restricted Crossing U-Turn	0	25	0	Permissive Left	Marked	3	30	2288	Free Flowing	Unmarked	0	30	0	Yield Controlled	Marked	1	25	51	Yield Controlled	Marked
Median U-Turn	1	25	0	Yield Controlled	Marked	1	25	0	Stop/Signal Controlled	Marked	1	30	0	Yield Controlled	Marked	3	30	2318	Stop/Signal Controlled	Marked
Partial Median U-Turn	1	25	0	Yield Controlled	Marked	3	25	0	Stop/Signal Controlled	Marked	1	30	0	Yield Controlled	Marked	3	30	2309	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #9					Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																				
Two-Way Stop Control																				
Continuous Green T																				
Unsignalized Restricted Crossing U-Turn																				
Median U-Turn	3	30	1849	Stop/Signal Controlled	Marked	1	25	51	Yield Controlled	Marked										
Partial Median U-Turn	3	30	1849	Permissive Left	Marked	1	25	42	Yield Controlled	Marked										

TYPE OF INTERSECTION	Crossing #13					Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																														
Two-Way Stop Control																														
Continuous Green T																														
Unsignalized Restricted Crossing U-Turn																														
Median U-Turn																														
Partial Median U-Turn																														

TYPE OF INTERSECTION	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	4.04	3.25	3.75	3.00	3.50	3.25	3.75	3.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Two-Way Stop Control	2.64	2.00	3.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Continuous Green T	2.80	5.00	5.00	4.75	3.25	2.00	2.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsignalized Restricted Crossing U-Turn	2.51	5.00	0.00	2.25	0.00	0.00	2.25	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.14	4.50	4.75	4.25	3.25	5.00	4.50	4.75	4.25	3.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)	1 X 2	4.96	No	Yes Crossing(s) with 2 stages	1	25	51	Yield Controlled	Marked	1	25	47	Free Flowing	Marked	2	30	1863	Yield Controlled	Marked	2	30	2285	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)	1	25	0	Yield Controlled	Marked	1	25	0	Free Flowing	Marked	2	30	2309	Yield Controlled	Marked	2	30	1891	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #9					Crossing #10					Crossing #11					Crossing #12					Crossing #13				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)																									

TYPE OF ROUNDABOUT	Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)																									

TYPE OF ROUNDABOUT	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Mixed Lane roundabout (1NSx2EW)	4.96	5.00	4.50	3.75	3.50	5.00	4.50	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3					Crossing #4					Crossing #5					Crossing #6				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

Crossing #7					Crossing #8					Crossing #9					Crossing #10					Crossing #11					Crossing #12				
# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

Crossing #13					Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

Score	Individual Crossing Scores																	
Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

	Score
# lanes (FL	
Vehicle Speed	
< 25	5
26-34	4
35-40	3
41-50	2
51+	1

Volume (vph) (FV)	Conflicting vehicle type			
	Sto	Per	Yie	Free Flowing
< 225	5	5	5	
226-450	5	4	4	
451-1350	5	3	3	
1351-2250	5	2	2	
>2250	5	1	1	

Markings (FM)	
Marked	5
Unmarked	1

Multistage

Out of Direction

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single-point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyzes bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	PULL	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	1080	Stop/Signal Controlled	No	No	No	3	46270	Stop/Signal Controlled	No	No	No	3	45730	Stop/Signal Controlled	No	No	No
Two-Way Stop Control	E-W	#N/A	0	0	Yield Controlled	No	No	Yes	0	1080	Yield Controlled	No	No	Yes	3	46270	Free Flowing	No	No	No	3	45730	Free Flowing	No	No	No
Continuous Green T	N	4.06							1	1080	Stop/Signal Controlled	No	No	Yes	3	46270	Stop/Signal Controlled	No	No	No	3	45730	Stop/Signal Controlled	No	No	No
Unsignalized Restricted Crossing U-Turn	E-W	#N/A	0	0	Free Flowing	Yes	No	Yes	1	1080	Free Flowing	Yes	No	Yes	3	46502	Stop/Signal Controlled	No	No	No	3	45736	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	1080	Stop/Signal Controlled	No	No	No	3	46270	Stop/Signal Controlled	No	No	No	3	45730	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	1080	Stop/Signal Controlled	No	No	No	3	46270	Stop/Signal Controlled	No	No	No	3	45730	Stop/Signal Controlled	No	No	No

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
#N/A	#N/A	#N/A	4.00	4.00				
#N/A	#N/A	#N/A	3.33	3.33				
4.06			4.17	4.00	4.00			
#N/A	#N/A	2.83	4.00	4.00				
#N/A	#N/A	#N/A	4.00	4.00				
#N/A	#N/A	#N/A	4.00	4.00				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Mixed Lane roundabout (1N/S×2E/W)	1 X 2	4.49	1	0	Yield Controlled	No	No	No	1	1080	Yield Controlled	No	No	No	2	46270	Yield Controlled	No	No	No	2	45730	Yield Controlled	No	No	No

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Eastbound						Westbound						Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.49	4.83	4.83	4.17	4.17				

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	EB	WB	EB2	WB2				

Scores

Facility Type	SUP1	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	85	25	30	40	85
3000	5	5	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control

Free Flowing	1
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

Volume (AADT)	Speed (Any Speed)
<= 3000	5
3001-7000	5
>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-35	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

North Leg AADT	1080
South Leg AADT	0
East Leg AADT	45730
West Leg AADT	46270

Major/Minor Street Facility Type
SUP
On-Street Lane
Shared Use Path

Conflicting Control Type
Stop/Signal Controlled
Free Flowing
Yield Controlled

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T N	0.38	1	2.80	4.06
Median U-Turn E-W	0.46	2	3.33	#N/A
Partial Median U-Turn E-W	0.46	2	3.14	#N/A
Traffic Signal	0.51	4	4.04	#N/A
1NS X 2EW	0.91	5	4.96	4.49
Unsignalized Restricted Crossing U-Turn E-W	0.96	6	2.51	#N/A
Two-Way Stop Control E-W	11.71	7	2.64	#N/A
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at WSVN Driveway
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	3
Which leg is the minor street?	N

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	3	29	2223	0	2.40%	0.00%
Westbound	0	0	1803	17	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T N	**0.38**	**1**	**2.80**	**4.06**
Median U-Turn E-W	**0.46**	**2**	**3.33**	**#N/A**
Partial Median U-Turn E-W	**0.46**	**2**	**3.14**	**#N/A**
Traffic Signal	**0.51**	**4**	**4.04**	**#N/A**
1NS X 2EW	**0.91**	**5**	**4.96**	**4.49**
Unsignalized Restricted Crossing U-Turn E-W	**0.96**	**6**	**2.51**	**#N/A**
Two-Way Stop Control E-W	**11.71**	**7**	**2.64**	**#N/A**
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--

Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at WSVN Driveway
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	3
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	3	29	2223	0	2.40%	0.00%
Westbound	0	0	1803	17	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		1	0	0		1	3	0		0	3	0
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0
Continuous Green T	N						1		1		1	3				3	0
Unsignalized Restricted Crossing U-Turn	E-W				0				1	1	1	3	0	1	0	3	0
Median U-Turn	E-W			0	0			0	1	1		3	0	1		3	0
Partial Median U-Turn	E-W		0	0	0		1	0	0	1		3	0	1		3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									801	0.51	0.51	4.04	#N/A
Two-Way Stop Control	E-W									--	>10	>10	2.64	#N/A
Continuous Green T	N									666	0.38	0.38	2.80	4.06
Unsignalized Restricted Crossing U-Turn	E-W	1858	0.96	2288	0.00	1863	0.01	2309	0.06			0.96	2.51	#N/A
Median U-Turn	E-W					662	0.37	781	0.43	830	0.46	0.46	3.33	#N/A
Partial Median U-Turn	E-W					662	0.37	770	0.43	812	0.46	0.46	3.14	#N/A

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
1NS X 2EW	0.18			0.85	0.91		0.00			0.70	0.75		0.91	4.96	4.49

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 PM
Number of Intersection Legs	3
Which leg is the minor street?	N

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	12	1916	0	2.40%	0.00%
Westbound	0	0	2252	7	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor	**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**	
Critical Lane Volume Threshold — 2-phase signal	**Suggested = 1800**	**1800**
Critical Lane Volume Threshold — 3-phase signal	**Suggested = 1750**	**1750**
Critical Lane Volume Threshold — 4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	12	1962	0
Westbound	0	0	2306	7
Southbound	0	9	0	42
Northbound	0	0	0	0

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Which leg is the minor street?	N

Existing Intersection Configuration	*Two-Way Stop Control*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Two-Way Stop Control	E-W	--	--	--	--	--	--	--	--	--	--	--	--

Existing Configuration Results

Overall v/c Ratio	0.00	Pedestrian Accommodation	2.64	Bicycle Accommodation	#N/A

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		Yes	
All-Way Stop Control		No	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		No	
Unsignalized Restricted Crossing U-Turn		Yes	
Median U-Turn		Yes	
Partial Median U-Turn		Yes	
Bowtie		No	
Signalized ThruCut		No	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		Yes	
2NS x 1EW		No	
2x2		No	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		1	0	0		1	3	0		0	3	0
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0
Continuous Green T Unsignalized Restricted Crossing U-Turn	N						1		0		1	3				3	0
	E-W				0				1	1	1	3	0	1	0	3	0
Median U-Turn	E-W			0	0			0	0	1		3	0	1		3	0
Partial Median U-Turn	E-W		0	0	0		1	0	0	1		3	0	1		3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at WSVN Driveway*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		9	42	0		12	1962	0		0	2313	0
Two-Way Stop Control	E-W		0	0	0		9	42	0		12	1962	0		0	2313	0
Continuous Green T Unsignalized Restricted Crossing U-Turn	N						9		0		12	1962				2313	0
	E-W				0				42	0	12	1962	0	0	0	2313	0
Median U-Turn	E-W			0	0			42	0	0		1962	0	0		2313	0
Partial Median U-Turn	E-W		0	0	0		9	42	0	0		1962	0	0		2313	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	NE 79th Street at WSVN Driveway	Number of Configurations			
Project Number:	10348806	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	North Bay Village, FL	5	0	1	1
Date	2050 PM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									826	0.52	0.52	4.04	#N/A
Two-Way Stop Control	E-W									--	>10	0.00	2.64	#N/A
Continuous Green T	N									793	0.45	0.45	2.80	4.06
Unsignalized Restricted Crossing U-Turn	E-W	2310	2.00	1971	*0.00*	2313	*0.00*	1974	*0.04*			2.00	2.51	#N/A
Median U-Turn	E-W					786	*0.44*	669	*0.37*	813	0.45	0.45	3.33	#N/A
Partial Median U-Turn	E-W					786	*0.44*	658	*0.37*	813	0.46	0.46	3.14	#N/A

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
1NS X 2EW	*0.27*			*0.73*	0.78		*0.00*			0.86	0.92		0.92	4.96	4.49

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Crosswalk Marking Legend
Conflicting Vehicle Type
Stop/Signal Controlled
Freeflowing
Yield Controlled (yield to vehicles downstream)
Permissive Left (unless exclusive pedestrian phase)
Marking Type
Marked / Unmarked

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Traffic Signal	FULL	4.04	No	Yes Crossing(s) with 2 stages
Two-Way Stop Control	E-W	2.64	No	No
Continuous Green T	N	2.80	No	Yes Crossing(s) with 3+ stages
Unsignalized Restricted Crossing U-Turn	E-W	2.51	Yes	Yes Crossing(s) with 3+ stages
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages
Partial Median U-Turn	E-W	3.14	Yes	Yes Crossing(s) with 3+ stages

TYPE OF INTERSECTION	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	30	51	Stop/Signal Controlled	Unmarked	1	30	19	Stop/Signal Controlled	Unmarked	5	25	2313	Stop/Signal Controlled	Unmarked
Two-Way Stop Control	4	30	4322	Free Flowing	Unmarked	6	25	70	Permissive Left	Unmarked	0	30	4284	Free Flowing	Unmarked
Continuous Green T	1	25	42	Yield Controlled	Marked	1	25	21	Stop/Signal Controlled	Marked	1	30	7	Yield Controlled	Marked
Unsignalized Restricted Crossing U-Turn	1	25	12	Permissive Left	Marked	0	30	7	Yield Controlled	Marked	3	30	2306	Free Flowing	Unmarked
Median U-Turn	2	25	0	Stop/Signal Controlled	Marked	1	30	19	Yield Controlled	Marked	3	30	2306	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	25	9	Stop/Signal Controlled	Marked	1	30	19	Yield Controlled	Marked	3	30	2306	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	1971	Stop/Signal Controlled	Unmarked	3	30	0	Stop/Signal Controlled	Unmarked	1	30	0	Stop/Signal Controlled	Unmarked
Two-Way Stop Control	7	25	0	Permissive Left	Unmarked										
Continuous Green T	3	30	2306	Stop/Signal Controlled	Unmarked	4	30	1971	Free Flowing	Unmarked	4	30	1974	Free Flowing	Unmarked
Unsignalized Restricted Crossing U-Turn	0	25	0	Yield Controlled	Marked	0	25	0	Permissive Left	Marked	3	30	1971	Free Flowing	Unmarked
Median U-Turn	3	30	1983	Stop/Signal Controlled	Marked	1	25	0	Yield Controlled	Marked	1	25	0	Stop/Signal Controlled	Marked
Partial Median U-Turn	3	30	1983	Permissive Left	Marked	1	25	0	Yield Controlled	Marked	3	25	0	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #7					Crossing #8					Crossing #9					Crossing #10				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	5	25	1974	Stop/Signal Controlled	Unmarked	3	25	2348	Stop/Signal Controlled	Unmarked										
Two-Way Stop Control																				
Continuous Green T	3	30	2306	Stop/Signal Controlled	Unmarked															
Unsignalized Restricted Crossing U-Turn	0	30	0	Yield Controlled	Marked	1	25	51	Yield Controlled	Marked										
Median U-Turn	1	30	0	Yield Controlled	Marked	3	30	1983	Stop/Signal Controlled	Marked	3	30	2306	Stop/Signal Controlled	Marked	1	25	51	Yield Controlled	Marked
Partial Median U-Turn	1	30	0	Yield Controlled	Marked	3	30	1974	Stop/Signal Controlled	Marked	3	30	2306	Permissive Left	Marked	1	25	42	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #11					Crossing #12					Crossing #13					Crossing #14				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																				
Two-Way Stop Control																				
Continuous Green T																				
Unsignalized Restricted Crossing U-Turn																				
Median U-Turn																				
Partial Median U-Turn																				

TYPE OF INTERSECTION	Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal																				
Two-Way Stop Control																				
Continuous Green T																				
Unsignalized Restricted Crossing U-Turn																				
Median U-Turn																				
Partial Median U-Turn																				

TYPE OF INTERSECTION	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	4.04	3.25	3.75	3.00	3.50	3.25	3.75	3.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Two-Way Stop Control	2.64	2.00	3.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Continuous Green T	2.80	5.00	5.00	4.75	3.25	2.00	2.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsignalized Restricted Crossing U-Turn	2.51	5.00	0.00	2.25	0.00	0.00	2.25	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Partial Median U-Turn	3.14	4.50	4.75	4.25	3.50	5.00	4.50	4.75	4.25	3.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Mixed Lane roundabout (1NSx2EW)	1 X 2	4.96	No	Yes Crossing(s) with 2 stages

TYPE OF ROUNDABOUT	Crossing #1					Crossing #2					Crossing #3					Crossing #4				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)	1	25	51	Yield Controlled	Marked	1	25	19	Free Flowing	Marked	2	30	2313	Yield Controlled	Marked	2	30	1971	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #5					Crossing #6					Crossing #7					Crossing #8				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)	1	25	0	Yield Controlled	Marked	1	25	0	Free Flowing	Marked	2	30	1974	Yield Controlled	Marked	2	30	2348	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #9					Crossing #10					Crossing #11					Crossing #12					Crossing #13				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)																									

TYPE OF ROUNDABOUT	Crossing #14					Crossing #15					Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Mixed Lane roundabout (1NSx2EW)																									

TYPE OF ROUNDABOUT	Score	Individual Crossing Scores																	
	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Mixed Lane roundabout (1NSx2EW)	4.96	5.00	4.50	3.50	3.50	5.00	4.50	3.75	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1	Crossing #2	Crossing #3	Crossing #4	Crossing #5	Crossing #6	Crossing #7	Crossing #8	Crossing #9	Crossing #10	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
					# Lanes / Veh Speed / Volume / Conflicting Veh Types / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Types / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings

Score	Individual Crossing Scores																	
Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

# lanes (FL)	Score
1	5
2	4
3	3
4	2
5+	1

Vehicle Speed	Score
< 25	5
26-34	4
35-40	3
41-50	2
51+	1

Volume (vph) (FV)	Conflicting vehicle type			
	Sto	Per	Yie	Free Flowing
< 225	5	5	5	
226-450	5	4	4	
451-1350	5	3	3	
1351-2250	5	2	2	
> 2250	5	1	1	

Markings (FM)	
Marked	5
Unmarked	1

Multistage	
1	
2	1
3	1
4	1

Out of Direction	
No	1
Yes	1

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions
- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions
- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	772	Stop/Signal Controlled	No	No	No	3	47648	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No
Two-Way Stop Control	E-W	#N/A	0	0	Yield Controlled	No	No	Yes	0	772	Yield Controlled	No	No	Yes	3	47648	Free Flowing	No	No	No	3	47230	Free Flowing	No	No	No
Continuous Green T	N	4.06							1	772	Stop/Signal Controlled	No	No	Yes	3	47648	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No
Unsignalized Restricted Crossing U-Turn	E-W	#N/A	0	0	Free Flowing	Yes	No	Yes	1	772	Free Flowing	Yes	No	Yes	3	47847	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	772	Stop/Signal Controlled	No	No	No	3	47648	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No
Partial Median U-Turn	E-W	#N/A	0	0	Stop/Signal Controlled	No	No	No	0	772	Stop/Signal Controlled	No	No	No	3	47648	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound 2						Southbound 2						Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	#N/A																								
Two-Way Stop Control	E-W	#N/A																								
Continuous Green T	N	4.06																								
Unsignalized Restricted Crossing U-Turn	E-W	#N/A																								
Median U-Turn	E-W	#N/A																								
Partial Median U-Turn	E-W	#N/A																								

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
#N/A	#N/A	#N/A	4.00	4.00				
#N/A	#N/A	#N/A	3.33	3.33				
4.06			4.17	4.00	4.00			
#N/A	#N/A	#N/A	2.83	4.00	4.00			
#N/A	#N/A	#N/A	#N/A	4.00	4.00			
#N/A	#N/A	#N/A	#N/A	4.00	4.00			

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Mixed Lane roundabout (1NBx2EW)	1 X 2	4.49	1	0	Yield Controlled	No	No	No	1	772	Yield Controlled	No	No	No	2	47648	Yield Controlled	No	No	No	2	47230	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.49	4.83	4.83	4.17	4.17				

TYPE OF INTERCHANGE	Sheet	Intersection Score	Eastbound					Westbound					Eastbound 2					Westbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	EB	WB	EB2	WB2				

Scores

Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	85	25	30	40	85
3000	5	5	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control

Free Flowing	1
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

	Volume (AADT)	Speed (mph)
		Any
3000	<= 3000	5
3001	3001-7000	5
7000		
7001	>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

	Volume (AADT)	Speed (mph)			
		<=25	26-30	31-35	>=40
3000	<=3000	5	4	4	2
3001	3001-7000	4	4	4	2
7000					
7001	>7000	3	2	2	1

<=3000 = 5 4 4 2
3001-7000 = 4 4 4 2
>7000 = 3 2 2 1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

	Volume (AADT)	Speed (mph)			
		<=25	26-30	31-35	>=40
3000	<=3000	5	4	3	2
3001	3001-7000	3	3	2	1
7000					
7001	>7000	2	1	1	1

<=3000 = 5 4 3 2
3001-7000 = 3 3 2 1
>7000 = 2 1 1 1

North Leg AADT	772
South Leg AADT	0
East Leg AADT	47230
West Leg AADT	47648

Major/Minor Street Facility Type
Major Street Facility Type
On-Street Lane
Minor Street Facility Type
Shared With Vehicles

Conflicting Control Type
Major Street Facility Type
Free Flowing
Minor Street Facility Type
Yield Controlled

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T N	0.45	1	2.80	4.06
Median U-Turn E-W	0.45	1	3.33	#N/A
Partial Median U-Turn E-W	0.46	3	3.14	#N/A
Traffic Signal	0.52	4	4.04	#N/A
1NS X 2EW	0.92	5	4.96	4.49
Unsignalized Restricted Crossing U-Turn E-W	2.00	6	2.51	#N/A
Two-Way Stop Control E-W	12.39	7	2.64	#N/A
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--

Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at WSVN Driveway
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	3
Which leg is the minor street?	N

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	12	1916	0	2.40%	0.00%
Westbound	0	0	2252	7	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T N	**0.45**	**1**	**2.80**	**4.06**
Median U-Turn E-W	**0.45**	**1**	**3.33**	**#N/A**
Partial Median U-Turn E-W	**0.46**	**3**	**3.14**	**#N/A**
Traffic Signal	**0.52**	**4**	**4.04**	**#N/A**
1NS X 2EW	**0.92**	**5**	**4.96**	**4.49**
Unsignalized Restricted Crossing U-Turn E-W	**2.00**	**6**	**2.51**	**#N/A**
Two-Way Stop Control E-W	**12.39**	**7**	**2.64**	**#N/A**
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--

Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at WSVN Driveway
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	3
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	12	1916	0	2.40%	0.00%
Westbound	0	0	2252	7	2.40%	0.00%
Southbound	0	9	0	41	2.70%	0.00%
Northbound	0	0	0	0	0.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		0	0	0		1	0	0		1	3	0		0	3	0
Two-Way Stop Control	E-W		0	0	0		1	0	0		1	3	0		0	3	0
Continuous Green T	N						1		0		1	3				3	0
Unsignalized Restricted Crossing U-Turn	E-W				0				1	1	1	3	0	1	0	3	0
Median U-Turn	E-W			0	0			0	0	1		3	0	1		3	0
Partial Median U-Turn	E-W		0	0	0		1	0	0	1		3	0	1		3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									826	0.52	0.52	4.04	#N/A
Two-Way Stop Control	E-W									--	>10	>10	2.64	#N/A
Continuous Green T	N									793	0.45	0.45	2.80	4.06
Unsignalized Restricted Crossing U-Turn	E-W	2310	2.00	1971	0.00	2313	0.00	1974	0.04			2.00	2.51	#N/A
Median U-Turn	E-W					786	0.44	669	0.37	813	0.45	0.45	3.33	#N/A
Partial Median U-Turn	E-W					786	0.44	658	0.37	813	0.46	0.46	3.14	#N/A

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
1NS X 2EW	0.27			0.73	0.78		0.00			0.86	0.92		0.92	4.96	4.49

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Project Information	
Provide general project information for reference purposes only.	
Project Name:	NE 79th Street PD&E Study
Intersection:	NE 79th Street at WSVN Driveway
Agency:	FDOT-6
Project Reference:	10348806
City:	North Bay Village
State:	Florida
Date:	10/10/2023
Analyst:	HDR
Use this button to clear all inputs/outputs and reset the tool to its initial defaults	Reset SPICE Tool

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening and Design Year
Opening Year	2030
Design Year	2050
Facility Type	On Urban and Suburban Arterial
Number of Legs	3-leg
1-Way/2-Way	2-way Intersecting 2-way
# of Major Street Lanes (both directions)	6 or more
Major Street Approach Speed	Less than 55 mph
Opening Year - Major Road AADT	41,500
Opening Year - Minor Road AADT	600
Design Year - Major Road AADT	46,000
Design Year - Minor Road AADT	700

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop	Yes	--		
All Way Stop	No	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Unsignalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Signalized Thru-Cut*	No	--	**SSI Only, No Crash Prediction Available*	
Unsignalized Thru-Cut*	No	--	**SSI Only, No Crash Prediction Available*	
Bowtie*	No	--	**SSI Only, No Crash Prediction Available*	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	No	Traffic Signal		
Partial Median U-Turn	Yes	Traffic Signal	**Please Select*	
Other 2*	No	Minor Road Stop	**Please Select*	

At-Grade Intersection Inputs

Provide inputs needed to compute and apply Part C CMFs.

Input		Control Strategy												
		Traffic Signal	Traffic Signal (Alt)	Minor Road Stop	1-lane Roundabout	2-lane Roundabout	Displaced Left Turn (DLT)	Median U-Turn (MUT)	Unsignalized RCUT	Signalized Thru-Cut	Unsignalized Thru-Cut	Bowtie	Continuous Green-T Intersection	
Opening Year Major Road AADT	Optional AADT Overrides	41500	41500	41500	41500	41500	41500	41500	41500	41500	41500	41500	41500	All strategies will have the same AADT as the Base Conditions unless overridden by user.
Opening Year Minor Road AADT		600	600	600	600	600	600	600	600	600	600	600	600	
Design Year Major Road AADT		46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	
Design Year Minor Road AADT		700	700	700	700	700	700	700	700	700	700	700	700	
Number of Approaches with Left-Turn Lanes	Additional Required Control Strategy Inputs	0	4											Do not include stop controlled approaches for minor stop
Number of Approaches with Right-Turn Lanes		0	0											
Number of Uncontrolled Approaches with Left-Turn Lanes				1										
Number of Uncontrolled Approaches with Right-Turn Lanes				0										

Keep default values below here for planning-level analysis, override with actual values for full HSM Analysis

	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE											
Skew Angle	A yellow cell indicates the value may be used in the SPF computation	N/A	N/A	0	Scroll Down for Roundabout CMF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	Scroll Down for Unsignalized RCUT SPF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	All yellow cells will be automatically populated by a macro. If users want to do a planning-level analysis, they can leave the automatic inputs as-is
Lighting Present		Yes	Yes	Yes									
# of Approaches Permissive LT Signal Phasing		0	0	N/A									
# of Approaches Perm/Prot LT Signal Phasing		0	0	N/A									
# of Approaches Protected LT Signal Phasing		0	0	N/A									
Number of Approaches with Right-Turn-on-Red Prohibited		0	0	N/A									
Red Light Cameras Present		No	No	N/A									
Number of Major Street Through Lanes		0	0	N/A									
Number of Minor Street Lanes		0	0										
# of Major St Approaches w/ Right-Turn Channelization		0	0	N/A									
Number of Approaches with U-Turn Prohibited		0	0	N/A									
Pedestrian Volume by Activity Level		Low (20)	Low (20)	N/A									
User Specified Sum of all daily pedestrian crossing volumes		20	20	N/A									
Max # of Lanes Crossed by Pedestrians		5	5	N/A									
Number of Bus Stops within 1000' of Intersection		0	0	N/A									
Schools within 1000' of intersection		No	No	N/A									
Number of Alcohol Sales Establishments within 1000' of Intersection		0	0	N/A									

		Roundabout CMF Inputs										
Inscribed Circle Diameter (ft)		130										
Leg 1 (Major Leg #1)		Leg 1 (Major Leg #1)										
Opening Year Entering AADT		20,750	20,750									
Leg has Right-Turn Bypass		No	No									
# of Access Points within 250' of Yield Line		0										
Entering Width (ft)			29									
# of Entering Lanes			2									
# of Circulating Lanes			2									
Leg 2 (Major Leg #2)		Leg 2 (Major Leg #2)										
Opening Year Entering AADT		20,750	20,750									
Leg has Right-Turn Bypass		No	No									
# of Access Points within 250' of Yield Line		0										
Entering Width (ft)			29									
# of Entering Lanes			2									
# of Circulating Lanes			2									
Leg 3 (Minor Leg #1)		Leg 3 (Minor Leg #1)										
Opening Year Entering AADT		300	300									
Leg has Right-Turn Bypass		No	No									
# of Access Points within 250' of Yield Line		0										
Entering Width (ft)			29									
# of Entering Lanes			2									
# of Circulating Lanes			2									
Leg 4 (Minor Leg #2)		Leg 4 (Minor Leg #2)										
Opening Year Entering AADT		300	300									
Leg has Right-Turn Bypass		No	No									
# of Access Points within 250' of Yield Line		0										
Entering Width (ft)			29									
# of Entering Lanes			2									
# of Circulating Lanes			2									

									Restricted Crossing U-Turn				
# U-Turns									2				
# of Major Roadway Lanes													
# of Minor Roadway Lanes													
Total Offset Distance (ft)									1250				
Number of Driveways									4				
Total Deceleration Lane Length (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	N/A	N/A	N/A	N/A
Total Acceleration Lane Length (ft)									750				
Number of Left-Turn Lanes From Major Road													
Major Road Speed Limit (mph)													
Total Median Width (ft)													
Maximum Median Width (ft)									40				

Ramp Terminal Inputs

Provide inputs needed to compute and apply Part C CMFs.

Alternative	Signalized Diamond		Signalized Diamond (Alt)		Unsignalized Diamond		1-lane Roundabout		2-lane Roundabout		Single-Point Diamond	Signalized Tight Diamond
	4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)			
Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	Both Ramps	Both Ramps
Opening Year AADT Crossroad - Inside Leg	12000	15000	12000	15000	12000	15000	12000	15000	12000	15000	--	--
Opening Year AADT Crossroad - Outside Leg	10000	15000	10000	15000	10000	15000	10000	15000	10000	15000	15000	15000
Opening Year AADT Exit Ramp	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	9000	9000
Opening Year AADT Entrance Ramp	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000
Design Year AADT Crossroad - Inside Leg	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	--	--
Design Year AADT Crossroad - Outside Leg	31000	29000	31000	29000	31000	29000	31000	29000	31000	29000	31000	31000
Design Year AADT Exit Ramp	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Design Year AADT Entrance Ramp	3250	3250	3250	3250	3250	3250	3250	3250	3250	3250	6500	6500
Number of Crossroad Lanes	4	4	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the inside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the outside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of free-flow right turns from exit ramp to crossroad	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A

CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Exit Ramp Skew Angle	N/A	N/A	N/A	N/A	0	0
Is a non-ramp public street leg present?	No	No	No	No	N/A	N/A
Exit ramp right turn control	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled
Effective number of lanes serving exit ramp	1	0.5	0.5	1.5	2	2.5
Number of unsignalized driveways on the outside crossroad leg within 250' of the interchange	0	0	0	0	N/A	N/A
Distance (mi) to the adjacent ramp terminal	0.10	0.10	0.10	0.10	0.10	0.10
Distance (mi) to the next public street intersection on the outside crossroad leg	0.15	0.15	0.15	0.15	0.15	0.15
# of unsignalized public street approaches on the outside crossroad leg within 250' (<0.05 mi) of the interchange	1	1	1	1	1	1
Median Width (ft)	12.00	12.00	12.00	12.00	12.00	12.00
Presence of right-turn lane/bay on outside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Presence of left-turn lane/bay on inside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Left-turn lane/bay Width for inside crossroad leg	12.00	12.00	12.00	12.00	12.00	12.00
Protected Left-turn operation for inside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for outside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for exit ramp	No	No	No	No	N/A	N/A

							Roundabout CMF Inputs					
Inscribed Circle Diameter (ft)	N/A	N/A	N/A	N/A	N/A	N/A	130	130	125	125	N/A	N/A
Outbound Only Leg							Yes	Yes	Yes	Yes		
Leg 1 (Crossroad Leg - Inside)							Leg 1 (Crossroad Leg - Inside)					
Opening Year Entering AADT							6,000	7,500	6,000	7,500		
Leg has Right-Turn Bypass							No	No	No	No		
# of Access Points within 250' of Yield Line							0	0	0	0		
Entering Width (ft)							29	29	29	29		
# of Entering Lanes							2	2	2	2		
# of Circulating Lanes							2	2	2	2		
Leg 2 (Crossroad Leg - Outside)							Leg 2 (Crossroad Leg - Outside)					
Opening Year Entering AADT							5,000	7,500	5,000	7,500		
Leg has Right-Turn Bypass							No	No	No	No		
# of Access Points within 250' of Yield Line							0	0	0	0		
Entering Width (ft)							29	29	29	29		
# of Entering Lanes							2	2	2	2		
# of Circulating Lanes							2	2	2	2		
Leg 3 (Exit Ramp Inside)							Leg 3 (Exit Ramp Leg)					
Opening Year Entering AADT							4,500	4,500	4,500	4,500		
Leg has Right-Turn Bypass							No	No	No	No		
# of Access Points within 250' of Yield Line							0	0	0	0		
Entering Width (ft)							29	29	29	29		
# of Entering Lanes							2	2	2	2		
# of Circulating Lanes							2	2	2	2		

Ramp Terminal Inputs						
Provide inputs needed to compute and apply Part C CMFs.						
Alternative	**Traffic Signal**		**Traffic Signal (Alt)**		**Minor Road (Ramp) Stop**	
	4 Leg Terminal w/ Diagonal Ramps (D4)		**4 Leg Terminal w/ Diagonal Ramps (D4)**		**4 Leg Terminal w/ Diagonal Ramps (D4)**	
Ramp Terminal	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
Crossroad AADT	18000	17000	18000	17000	18000	17000
Ramp AADT	5000	4500	5000	4500	5000	4500
Area Type	Urban		Urban		Urban	
# of Crossroad Lanes	2	2	2	2	2	2

2-6 (5,6 Urban only)

For signalized ramp terminals, the applicable values for $AADT_{in}$ and $AADT_{out}$ range from 14,000 to 60,000 veh/day. AADT volumes smaller than 14,000 should be set to 14,000 in Equation 19-51.

Table 19-11. Applicable AADT Volume Ranges for Crossroad Ramp Terminal SPFs

Site Type (w)	Control Type (x)	Applicable AADT Volume Range (veh/day)	
		Crossroad	Total All Ramps
Four-leg terminals with diagonal ramps ($D4$)	Stop control (ST)	0 to 18,000	0 to 10,000
	Signal control (SG)	0 to 47,000	0 to 31,000

Other CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Crossroad Left Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Crossroad Right Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Skew Angle	skew	Planning	Double	Not/ Applicable	Include in MRS	Include in MRS
Exit ramp right turn control	mergeRT	Planning	Merge/FF or Signal/Sto	Include in TS	Include in MRS	Include in MRS
Effective number of lanes serving exit ramp	nex	Planning	1-2, see graphic	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "in" leg	i_LTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "out" leg	i_LTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "in" leg	i_RTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "out" leg	i_RTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled public street approaches to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_ps	Planning	Integer	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled driveways to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_dw	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Distance between subject ramp terminal and adjacent ramp terminal (from terminal center to terminal center)	l_rmp	Planning	Double	Include in TS	Include in MRS	Include in MRS
distance between subject ramp terminal and nearest public road intersection in a direction away form the freeway	l_str	Planning	Double	Include in TS	Include in MRS	Include in MRS
Width of median adjacent to turn lane for crossroad leg	w_m	Planning	Double	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "in" crossroad leg	w_bkIn	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "out" crossroad leg	w_bkOut	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "in"	n_oppLTIn	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "out"	n_oppLTOut	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "in"	i_protLTIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "out"	i_protLTOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "in"	i_crtIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "out"	i_crtOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for exit ramp	i_crtEx	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Non-ramp public street leg indicator	i_ps	Planning	Boolean	Include in TS	Not Applicable	Not Applicable

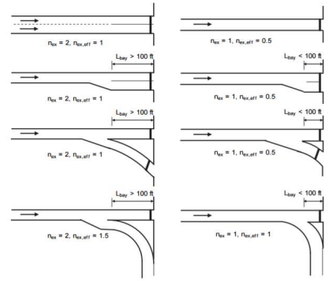

Figure 19-23. Effective Number of Lanes for Various Exit Ramp Configurations

The CMF is applicable to W_m values in the range of 0 to 50 ft. Similarly, it is applicable to W_{bk} values in the range of 0 to 26 ft.

#	Conflict Type	Mvmt1	Mvmt1_gen	Mvmt1_SpeedCat	Mvmt2	Mvmt2_gen	Mvmt2_SpeedCat	Exposure Q1	Q2	I	Severity Speed V1	Speed V2	Angle	delta V	P FSI
1	Crossing - LT	EBL	CrossL1	Cross left	NBL	RampL1	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
2	Crossing - LT	EBT	CrossT1	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
3	Crossing - LT	WBL	CrossL2	Cross left	NBL	RampL1	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
4	Crossing - LT	EBT	CrossT1	Cross thru	NBL	RampL1	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
5	Crossing - LT	WBL	CrossL2	Cross left	SBL	RampL2	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
6	Crossing - LT	WBT	CrossT2	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
7	Crossing - LT	EBL	CrossL1	Cross left	SBL	RampL2	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
8	Crossing - LT	WBT	CrossT2	Cross thru	SBL	RampL2	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
9	Merging	WBT,NBL	CrossT2,RampL1	Cross thru	SBR	RampR2	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
10	Merging	EBR	CrossR1	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
11	Merging	WBT	CrossT2	Cross thru	NBL	RampL1	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
12	Merging	EBT	CrossT1	Cross thru	SBL	RampL2	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
13	Merging	EBT,SBL	CrossT1,RampL2	Cross thru	NBR	RampR1	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
14	Merging	WBR	CrossR2	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
15	Diverging	SBR	RampR2	Signal near	SBL	RampL2	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
16	Diverging	EBT	CrossT1	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
17	Diverging	EBT	CrossT1	Cross thru	EBR	CrossR1	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
18	Diverging	NBR	RampR1	Signal near	NBL	RampL1	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
19	Diverging	WBT	CrossT2	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
20	Diverging	WBT	CrossT2	Cross thru	WBR	CrossR2	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
21	Nonmotorized		RampNM2	Nonmotorized	SBL	RampL2	Signal near	375	1125	421875	0	15			0.1205
22	Nonmotorized		RampNM2	Nonmotorized	SBR	RampR2	Signal near	375	1125	421875	0	15			0.1205
23	Nonmotorized		CrossNM1	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
24	Nonmotorized		CrossNM1	Nonmotorized	NBL	RampL1	Signal far	375	1125	421875	0	25			0.3207
25	Nonmotorized		CrossNM1	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
26	Nonmotorized		CrossNM1	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
27	Nonmotorized		RampNM1	Nonmotorized	EBR	CrossR1	Cross right	375	1875	703125	0	15			0.1205
28	Nonmotorized		RampNM1	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
29	Nonmotorized		RampNM1	Nonmotorized	NBL	RampL1	Signal near	375	1125	421875	0	15			0.1205
30	Nonmotorized		RampNM1	Nonmotorized	NBR	RampR1	Signal near	375	1125	421875	0	15			0.1205
31	Nonmotorized		CrossNM2	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
32	Nonmotorized		CrossNM2	Nonmotorized	SBL	RampL2	Signal far	375	1125	421875	0	25			0.3207
33	Nonmotorized		CrossNM2	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
34	Nonmotorized		CrossNM2	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
35	Nonmotorized		RampNM2	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
36	Nonmotorized		RampNM2	Nonmotorized	WBR	CrossR2	Cross right	375	1875	703125	0	15			0.1205

#	Conflicting Traffic Complexity: Traffic Control	Conflicting Lanes: CrossC	RampC	CrossM/P	RampM/P	Score	Conflicting Speed: Speed	Factor	Pedestrian Complexity: Indirect Paths Indicator	Non-intuitive movements indicator	Pedestrian Complexity factor	Total Complexity Multiplier	Exposure-Severity-Complexity Product
1	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
2	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
3	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
4	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
5	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
6	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
7	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
8	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
9	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
10	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
11	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
12	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
13	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
14	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
15	1	0	0	0	0	1		1.000			1	1	0.810776943
16	1	0	0	0	0	1		1.000			1	1	11348.31263
17	1	0	0	0	0	1		1.000			1	1	24976.22992
18	1	0	0	0	0	1		1.000			1	1	0.810776943
19	1	0	0	0	0	1		1.000			1	1	11348.31263
20	1	0	0	0	0	1		1.000			1	1	24976.22992
21	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
22	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
23	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
24	0.925	0	0	0	0	1	40	0.778	1		2	1.438888889	194655.9785
25	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
26	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
27	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839
28	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
29	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
30	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
31	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
32	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	106271.6423
33	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
34	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
35	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
36	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839

Included in Mvmt1

#	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
1		1														
2	1															
3					1											
4	1															
5					1											
6				1												
7		1														
8				1												
9				1				1								
10			1													
11				1												
12	1															
13	1										1					
14						1										
15												1				
16	1															
17	1															
18									1							
19				1												
20				1												
21																1
22																1
23													1			
24													1			
25													1			
26													1			
27															1	
28															1	
29															1	
30															1	
31														1		
32														1		
33														1		
34														1		
35																1
36																1
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

Included in Mvmt2

#	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
1								1								
2					1											
3								1								
4								1								
5											1					
6		1														
7											1					
8											1					
9												1				
10					1											
11								1								
12											1					
13									1							
14					1											
15											1					
16		1														
17			1													
18								1								
19					1											
20						1										
21											1					
22												1				
23				1												
24								1								
25		1														
26	1															
27			1													
28					1											
29								1								
30									1							
31	1															
32											1					
33					1											
34				1												
35		1														
36						1										
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

*impact of median on complexity factors

#	Conflict Ty	Cross-street: No, Ramps: Yes MajC	MinC	MajM/P	MinM/P	Cross-street: Yes, Ramps: Yes MajC	MinC	MajM/P	MinM/P
1	Crossing -	1	0	1	0	1	0	0	0
2	Crossing -	1	0	0	0	1	0	0	0
3	Crossing -	1	0	1	0	1	0	0	0
4	Crossing -	1	0	1	0	1	0	0	0
5	Crossing -	1	0	1	0	1	0	0	0
6	Crossing -	1	0	0	0	1	0	0	0
7	Crossing -	1	0	1	0	1	0	0	0
8	Crossing -	1	0	1	0	1	0	0	0
9	Merging	0	0	1	0	0	0	1	0
10	Merging	0	0	0	1	0	0	0	1
11	Merging	1	0	1	0	0	0	1	0
12	Merging	1	0	1	0	0	0	1	0
13	Merging	0	0	1	0	0	0	1	0
14	Merging	0	0	0	1	0	0	0	1
15	Diverging	0	0	0	0	0	0	0	0
16	Diverging	0	0	0	0	0	0	0	0
17	Diverging	0	0	0	0	0	0	0	0
18	Diverging	0	0	0	0	0	0	0	0
19	Diverging	0	0	0	0	0	0	0	0
20	Diverging	0	0	0	0	0	0	0	0
21	Nonmotoi	0	1	0	0	0	1	0	0
22	Nonmotoi	0	1	0	0	0	1	0	0
23	Nonmotoi	2	0	0	1	1	0	0	1
24	Nonmotoi	2	0	0	1	1	0	0	1
25	Nonmotoi	2	0	0	1	1	0	0	0
26	Nonmotoi	2	0	0	1	1	0	0	0
27	Nonmotoi	0	1	0	0	0	1	0	0
28	Nonmotoi	0	1	0	0	0	1	0	0
29	Nonmotoi	0	1	0	0	0	1	0	0
30	Nonmotoi	0	1	0	0	0	1	0	0
31	Nonmotoi	2	0	0	1	1	0	0	1
32	Nonmotoi	2	0	0	1	1	0	0	1
33	Nonmotoi	2	0	0	1	1	0	0	0
34	Nonmotoi	2	0	0	1	1	0	0	0
35	Nonmotoi	0	1	0	0	0	1	0	0
36	Nonmotoi	0	1	0	0	0	1	0	0

Exposure Q1	Q2	I	Exposure-Severity-Complexity Product
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
7750	1250	9687500	20959.8813
7750	1250	9687500	20959.8813
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	245122.3433
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	154349.3021
425	3875	1646875	131149.471
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	133823.5496
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	131149.471
425	3875	1646875	154349.3021

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	3
Minor number thru lanes (one direction)	1

Optional Major Street Designation	
Select major street direction	E-W
Median Presence on Major Road	Yes
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	41,500	46,000
Minor	600	700

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADT (ped/day)	Activity Level	ADT Value (ped/day)
Open Year Total Intersection NM	Medium (700)	700
Design Year Total Intersection NM	Medium (700)	700

(or overwrite ped movement ADTs below)

Nonmotorized Movement ADT (ped/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	233	233
Major NM 2	233	233
Minor NM 1	233	233
~~Minor NM 2~~	~~0~~	~~0~~

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	20628.3	22865.1
~~Major Left Turn 1~~	~~0~~	~~0~~
Major Right Turn 1	121.6997	134.896
Major Thru 2	20540.64	22767.94
Major Left Turn 2	209.3621	232.064
~~Major Right Turn 2~~	~~0~~	~~0~~
~~Minor Thru 1~~	~~191.8~~	~~212.1~~
Minor Left Turn 1	19.8	23.1
Minor Right Turn 1	98.4	114.8
~~Minor Thru 2~~	~~0~~	~~0~~
~~Minor Left Turn 2~~	~~0~~	~~0~~
~~Minor Right Turn 2~~	~~0~~	~~0~~

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	EBT	1803	0.9390625	2252	0.925226	0.932144
~~Major Left Turn 1~~	~~EBL~~	~~100~~	~~0.052083333~~	~~175~~	~~0.071898~~	~~0.061991~~
Major Right Turn 1	EBR	17	0.008854167	7	0.002876	0.005865
Major Thru 2	WBT	2223	0.975	1916	0.981055	0.978027
Major Left Turn 2	WBL	32	0.014035088	12	0.006144	0.01009
~~Major Right Turn 2~~	~~WBR~~	~~25~~	~~0.010964912~~	~~25~~	~~0.012801~~	~~0.011883~~
~~Minor Thru 1~~	~~NBT~~	~~100~~	~~0.666666667~~	~~75~~	~~0.6~~	~~0.633333~~
Minor Left Turn 1	NBL	9	0.06	9	0.072	0.066
Minor Right Turn 1	NBR	41	0.273333333	41	0.328	0.300667
~~Minor Thru 2~~	~~SBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~SBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~SBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.994134954
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.005865046
Major Thru 2	0.98991026
Major Left Turn 2	0.01008974
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.606~~
Minor Left Turn 1	0.066
Minor Right Turn 1	0.328
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

Turning movment proportions specified in **Table 2-C** (and by extension, the percentages determined in **Table 2-B**) are considered to be constant between the Open and Design years of the analysis.

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	30
Minor Posted Speed Limit	25
Major thru	30
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25
RAB entering	20
RAB circulating	25
RAB exiting	30
Nonmotorized	0

Collision Angles	deg
Crossing	90
Crossing - LT	230
Crossing - RAB	60
Merging	45
Diverging	10

P(FSI) Regression Parameters	
alpha	67.29
k	3.79

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Traffic Control Parameter (a_traffic control)	
Permitted	1
Protected/permitted	0.925
Protected	0.505
Stop-controlled	0.725

Driver Merging Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3+)	0.5

Nonmotorized Complexity	
Nonmotorized Turn Score Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3)	0.5

Calibration

Optional - Input locally-developed calibration factors for SPFs.

At-Grade Intersection SPFs

Traffic Control	Facility Type	# legs	1 way/ 2 way	# of lanes on arterial	Default Calibration Factor	Optional User Override	Use Value
Traffic Signal (For more information on determining signal type, refer to the "Definitions" worksheet)	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.92		0.92
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.45		0.45
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	2.50		2.50
		4 leg	2x2	5 or fewer	2.27		2.27
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Minor Road Stop	On Rural Two Lane Highway	3 leg	-	-	1.27		1.27
		4 leg	-	-	0.74		0.74
	On Rural Multilane Highway	3 leg	-	-	2.20		2.20
		4 leg	-	-	1.64		1.64
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	1.14		1.14
		4 leg	2x2	5 or fewer	1.87		1.87
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
All-Way Stop	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Roundabout	1-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	2-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00

Ramp Terminal Intersection SPFs

Control	Ramp and Intersection Type	SPF Calibration Factor	Optional User Override	Use Value
Signalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Diverging Diamond	All types	1.00		1.00
Single-Point Diamond	All types	1.00		1.00
Unsignalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Roundabout	1-lane roundabout with 4 legs	1.00		1.00
	2-lane roundabout with 4 legs	1.00		1.00
Signalized Tight Diamond		1.00		1.00

Local CMFs

Optional - Override default CMFs with locally-developed or new CMFs

Control	Default Base Intersection	Type of Crashes	Default CMF	Optional User Override	Use Value
Displaced Left Turn (DLT)	Traffic Signal	Total	0.88		0.88
		Fatal-Injury	0.88		0.88
Median U-Turn (MUT)	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.70		0.70
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.78		0.78
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn	Minor Road Stop (TWSC)	Total	0.65		0.65
		Fatal-Injury	0.46		0.46
Signalized Thru-Cut	Traffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Unsignalized Thru-Cut	Minor Road Stop (TWSC)	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Bowtie	Taffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Continuous Green-T Intersection	Traffic Signal	Total	0.96		0.96
		Fatal-Injury	0.85		0.85
Jughandles	Traffic Signal	Total	0.74		0.74
		Fatal-Injury	0.74		0.74
Partial Median U-Turn	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Other 2*	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Crossover Traffic Signal (of Diverging Diamond Interchange)	Traffic Signal	Total	0.67		0.67
		Fatal-Injury	0.59		0.59

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	No		
Number of years available:		(Up to 10)	First Year Data is available:
Historical Intx Type:			

Historical Crash Counts		Year										
		2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined	Total											
	Fatal/Injury											
	PDO											
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury											
Veh-Bike	Fatal/Injury											
Total	All											

One or more years has 0 total crashes.

Computations Only Below This Point

Empirical Bayes Computations (No Data Entry)

			Year	2016	2017	2018	2019	2020	--	--	--	--	--	Total
Combined Collisions	$N_{predicted}$	Total												
		Fatal/Injur												
		PDO												
	Dispersion Parameter (k)	Total												
		Fatal/Injur												
		PDO												
	Weighted Adjustment (w)	Total												
		Fatal/Injur												
		PDO												
	$N_{expected}$	Total												
		Fatal/Injur												
		PDO												
	$N_{expected}$ / $N_{predicted}$												Total	
													F/I	
													PDO	
Multiple-Vehicle Only (When Applicable)		Year		2016	2017	2018	2019	2020	--	--	--	--	--	Total
	$N_{predicted}$	Total												
		Fatal/Injury												
		PDO												
	Dispersion Parameter (k)	Total												
		Fatal/Injur												
		PDO												
	Weighted Adjustment (w)	Total												
		Fatal/Injur												
		PDO												
	$N_{expected}$	Total												
		Fatal/Injur												
		PDO												
	$N_{expected}$ / $N_{predicted}$												Total	
													F/I	
													PDO	
Vehicle-Pedestrian		Year		2016	2017	2018	2019	2020	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury												
	Disp. (k)	Fatal/Injur												
	Weight (w)	Fatal/Injur												
	$N_{expected}$	Fatal/Injur												
	$N_{expected}$ / $N_{predicted}$												F/I	
Vehicle-Bicyce		Year		2016	2017	2018	2019	2020	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injur												
	Disp. (k)	Fatal/Injur												
	Weight (w)	Fatal/Injur												
	$N_{expected}$	Fatal/Injur												
	$N_{expected}$ / $N_{predicted}$												F/I	

Dispersion Parameters			At-Grade Intersection Facility Type						High Speed
			Rural Two-Lane Highways	Rural Multilane Highways	burban Arterials w/ 5 or	Urban/Suburban Arterials w/ 6 or More Lanes			
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	0.54	0.46	--	--	--	--	--
		3SG	0.31	0.40	--	--	--	--	--
		4ST	0.24	0.49	--	--	--	--	--
		4SG	0.11	0.28	--	--	--	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	0.57	--	0.65	2.00	2.00	--
		3SG	--	1.15	--	0.52	0.95	0.95	--
		4ST	--	0.74	--	0.60	0.53	0.53	--
		4SG	--	0.22	--	0.56	1.33	1.33	--
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	0.75	1.03	1.03	--
		3SG	--	--	--	1.00	0.90	0.90	--
		4ST	--	--	--	1.14	0.96	0.96	--
		4SG	--	--	--	0.99	2.00	2.00	--
Single-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	1.14	--	--	--	0.69
		3SG	--	--	0.36	--	--	--	0.57
		4ST	--	--	0.65	--	--	--	1.12
		4SG	--	--	0.36	--	--	--	0.55
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	2.10
		3SG	--	--	0.24	--	--	--	1.04
		4ST	--	--	--	--	--	--	1.64
		4SG	--	--	0.09	--	--	--	0.98
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.29	--	--	--	0.75
		3SG	--	--	0.53	--	--	--	0.74
		4ST	--	--	0.54	--	--	--	1.40
		4SG	--	--	0.44	--	--	--	0.84
Multiple-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.80	--	--	--	0.85
		3SG	--	--	0.33	--	--	--	0.21
		4ST	--	--	0.40	--	--	--	0.91
		4SG	--	--	0.39	--	--	--	0.39
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.69	--	--	--	0.76
		3SG	--	--	0.30	--	--	--	0.09
		4ST	--	--	0.48	--	--	--	0.89
		4SG	--	--	0.33	--	--	--	0.31
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.77	--	--	--	1.11
		3SG	--	--	0.36	--	--	--	0.34
		4ST	--	--	0.40	--	--	--	0.94
		4SG	--	--	0.44	--	--	--	0.38
Veh-Pedestrian	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	--
		3SG	--	--	0.52	0.52	0.52	0.52	--
		4ST	--	--	--	--	--	--	--
		4SG	--	--	0.24	0.24	0.24	0.24	--

AWSC Dispersion Parameters 17-68 Report Update			Intersection Facility Type		
			Rural Two-Lane Highways	Rural Multilane Highways	burban Arterials w/ 5 or
Combined Multi and Single Vehicle	Total	3AWSC	--	--	--
		4AWSC	0.39	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.07
		4AWSC	--	--	0.66
	PDO	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.37
		4AWSC	--	--	0.78

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	**Intersection Type**	At-Grade Intersection
Intersection:	**Opening Year**	2030
Agency:	**Design Year**	2050
Project Reference:	**Facility Type**	On Urban and Suburban Arterial
City:	**Number of Legs**	3-leg
State:	**1-Way/2-Way**	2-way Intersecting 2-way
Date:	**# of Major Street Lanes (both directions)**	6 or more
Analyst:	**Major Street Approach Speed**	Less than 55 mph

Crash Prediction Summary				SSI Score		
Control Strategy	**Crash Prediction Rank**	**AADT Within SPF Prediction Range?**	**Source of Prediction**	**Opening Year**	**Design Year**	**Rank**
Traffic Signal	5	Yes	Uncalibrated SPF	82	80	1
Minor Road Stop	1	Yes	Calibrated SPF w/ EB	68	65	4
2-lane Roundabout	7	No	Uncalibrated SPF	74	72	3
Median U-Turn (MUT)	3	N/A	CMF	--	--	--
Unsignalized RCUT	2	Yes	Uncalibrated SPF	62	59	5
Continuous Green-T Intersection	4	N/A	CMF	82	80	2
Partial Median U-Turn	5	N/A	CMF	--	--	--

Florida Department of Transportation

Safety Performance for Intersection Control Evaluation Tool

Safe System for Intersection (SSI) Results

Summary of the safe system intersection results for each alternative

Conversion of Existing Intersection Type:	Traffic Signal

Select from Dropdown List

Opening Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	TradT_Sig	82	46	99	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	0.84	1.00
Minor Road Stop	TradT_MRSC	68	22	98	100	100	1.00	1.00	1.00	1.00	0.27	0.03	0.00	0.00	2.08	2.00	1.67	1.00
2-Lane Roundabout	T_2x2_RAB	74	30	100	100	100	1.00	1.00	1.00	1.00	0.33	0.00	0.00	0.00	2.44	1.22	1.12	1.00
Median U-Turn (MUT)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unsignalized RCUT	T_RCUT_Unsig	62	15	99	100	100	1.00	0.91	1.17	1.06	0.25	0.01	0.00	0.00	2.40	1.45	1.21	1.00
Continuous Green-T	CGT	82	46	99	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	1.09	1.00

Design Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	TradT_Sig	80	42	99	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	0.84	1.00
Minor Road Stop	TradT_MRSC	65	18	97	100	100	1.00	1.00	1.00	1.00	0.27	0.03	0.00	0.00	2.08	2.00	1.67	1.00
2-Lane Roundabout	T_2x2_RAB	72	26	100	100	100	1.00	1.00	1.00	1.00	0.33	0.00	0.00	0.00	2.44	1.22	1.12	1.00
Median U-Turn (MUT)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Unsignalized RCUT	T_RCUT_Unsig	59	12	99	100	100	1.00	0.91	1.17	1.06	0.25	0.01	0.00	0.00	2.40	1.45	1.21	1.00
Continuous Green-T	CGT	80	42	99	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	1.09	1.00

Florida Department of Transportation
Intersection Control Evaluation (ICE) Form
Stage 1: Screening

To fulfill the requirements of Stage 1 (Screening) of FDOT's ICE procedures, complete the following form and append all supporting documentation. Completed forms are to be submitted to the District Traffic Operations Engineer (DTOE) and District Design Engineer (DDE) for the project's approval. **Selections must be made in the "Intersection Type" and "Project Funding Source" cells below for the appropriate Stage 1 and Stage 2 forms to fully populate.**

Project Name	NE 79th Street at Adventure Avenue		FDOT Project #		
Submitted By		Agency/Company	HDR	Date	10/10/2023
Email		FDOT District	District 6	County	Miami-Dade
Project Locality (*City/Town/Village*)	North Bay Village				
Intersection Type	At-Grade Intersection	FDOT Context Classification	C5 - Urban Center		
Project Funding Source	Federal	Project Type	Corridor Improvement Project		
Project Purpose (*What is the catalyst for this project and why is it being undertaken?*)	The SR 934/NE 79th Street PD&E study is evaluating the rehabilitation or replacement of 2 sets of bridge pairs along NE 79th Street within North Bay Village. The study area includes this intersection. No roadway capacity improvements are expected as part of this project.				
Project Setting Description (*Describe the area surrounding the intersection*)	The two sets of bridge pairs on SR 934/NE 79th Street link developed islands (representing North Bay Village) situated between the mainland and the barrier island. Near Adventure Avenue, land uses contain a mixture of residential, retail, and office typical of an urban setting.				
Multimodal Context (*Describe the pedestrian, bicycle, and transit activity in the area and the potential for activity based on surrounding land uses and development patterns*)	Sidewalks are located on the north and south side of SR 934/NE 79th Street, as well as on the east and west side of Adventure Avenue south of NE 79th Street. Marked pedestrian crosswalks are located on the west and south approaches. Designated bicycle lanes on NE 79th Street are present in both directions of travel, while no explicitly marked bicycle lane is provided on Adventure Avenue south of NE 79th Street.				

Major Street Information

Route #:	SR 934	Route Name(s)	NE 79th Street			Milepost	1.909
Existing Control Type	Signal		Existing AADT	39,500	Design Year AADT		46,000
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)			
Primary Functional Classification	Urban Principal Arterial - Other				Design Speed (mph)		35
Secondary Functional Classification (if app.)					Target Speed (mph) [if app.]		

Approach #1	Direction	Eastbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	0				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	0	Left	0	Left	0
	Multi-Use Path?	No	Left-Through-Right	0	Through	2,143	Through	1,789
	Scheduled Bus Service?	Yes	Through-Right	3	Right	89	Right	136
	Bus Stop on Approach?	Yes	Right-Turn	0	Daily Truck %		4.8%	
Approach #2	Direction	Westbound	Number of Lanes		Study Period #1 Traffic Volumes		Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1				
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak		Weekday PM Peak	
	On-Street Bike Facilities?	Yes	Through	3	Left	56	Left	75
	Multi-Use Path?	No	Left-Through-Right	0	Through	1,673	Through	2,142
	Scheduled Bus Service?	Yes	Through-Right	0	Right	0	Right	0
	Bus Stop on Approach?	Yes	Right-Turn	0	Daily Truck %		4.8%	

Minor Street Information									
Route #:		Route Name(s)	Adventure Avenue				Milepost (if app.)		
Existing Control Type	Signal		Existing AADT	3,400			Design Year AADT	3,900	
Design Vehicle	Florida Interstate Semitrailer (WB-62FL)		Control Vehicle	Florida Interstate Semitrailer (WB-62FL)					
Primary Functional Classification	Urban Local						Design Speed (mph)	30	
Secondary Functional Classification (if app.)							Target Speed (mph) [if app.]		

Approach #1	Direction	Northbound	Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:	Both sides of the approach	Left-Turn	1					
	Crosswalk on Approach?	Yes	Left-Through	0	Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?	No	Through	0	Left	147		Left	117
	Multi-Use Path?	No	Left-Through-Right	0	Through	0		Through	0
	Scheduled Bus Service?	No	Through-Right	0	Right	62		Right	46
	Bus Stop on Approach?	No	Right-Turn	1	Daily Truck %			5.4%	
Approach #2	Direction		Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn						
	Crosswalk on Approach?		Left-Through		Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left			Left	
	Multi-Use Path?		Left-Through-Right		Through			Through	
	Scheduled Bus Service?		Through-Right		Right			Right	
	Bus Stop on Approach?		Right-Turn		Daily Truck %				
Approach #3	Direction		Number of Lanes		Study Period #1 Traffic Volumes			Study Period #2 Traffic Volumes	
	Sidewalks along:		Left-Turn						
	Crosswalk on Approach?		Left-Through		Weekday AM Peak			Weekday PM Peak	
	On-Street Bike Facilities?		Through		Left			Left	
	Multi-Use Path?		Left-Through-Right		Through			Through	
	Scheduled Bus Service?		Through-Right		Right			Right	
	Bus Stop on Approach?		Right-Turn		Daily Truck %				

Crash History (Existing Intersections Only)
Append the most recent five-years of crash data for the intersection from the CAR System. If the crash data evidences any issues relating to safety performance, discuss briefly here:
Existing crash analysis is attached. The intersection is not listed on the FDOT-6 Five Year High Crash Location list.

Control Strategy Evaluation								
Provide a brief justification as to why each of the following control strategies should be advanced or not. Justification should consider potential environmental impacts.								
	CAP-X Outputs				SPICE Outputs			
	V/C Ratio							
Control Strategy	Weekday AM Peak	Weekday PM Peak	Ped Accom.	Bike Accom.	Crash Prediction Rank	SSI Rank	Strategy to be Advanced?	Justification
Two-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	Existing intersection is signalized
All-Way Stop-Controlled	n/a	n/a	n/a	n/a	n/a	n/a	No	Existing intersection is signalized
Signalized Control	0.63	0.55	4.92	n/a	3	1	Yes	Existing intersection is signalized, and future conditions indicate signalization will continue to provide adequate capacity through 2050 conditions
Roundabout (1-lane)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Roundabout (2-lane)	0.94	0.99	4.68	4.37	4	3	No	Insufficient ROW to accommodate multi-lane roundabout without impacting current developments. Potential capacity deficiencies as V/C ratios are 99%
Median U-Turn	0.56	0.50	3.33	n/a	1	n/a	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Signalized)	0.55	0.50	3.18	n/a	5	4	No	Insufficient ROW to accommodate downstream U-turn movements due to bridges
RCUT (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Jughandle					n/a	n/a	No	
Displaced Left-Turn	n/a	n/a	n/a	n/a	n/a	n/a	No	
Continuous Green Tee	0.56	0.49	2.83	3.80	2	2	No	Insufficient space exists to accommodate NB-to-WB left turn movement acceleration lane due to bridges and WSVN intersection
Quadrant Roadway	n/a	n/a	n/a	n/a			No	
Thru-Cut (Signalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Thru-Cut (Unsignalized)	n/a	n/a	n/a	n/a	n/a	n/a	No	
Bowtie	n/a	n/a	n/a	n/a	n/a	n/a	No	
Other (Type)								

Resolution					
To be filled out by FDOT District Traffic Operations Engineer and District Design Engineer					
Project Determination					
Comments					
DTOE Name		Signature		Date	
DDE Name		Signature		Date	

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 AM
Number of Intersection Legs	3
Which leg is the minor street?	S

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	2143	89	2.40%	0.00%
Westbound	8	48	1673	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	147	0	62	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	2194	91
Westbound	8	49	1713	0
Southbound	0	0	0	0
Northbound	0	151	0	64

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Which leg is the minor street?	S

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	991	*0.63*	--	--

Existing Configuration Results

Overall v/c Ratio	0.63	Pedestrian Accommodation	4.92	Bicycle Accommodation	#N/A

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		No	
Bowtie		No	
Signalized ThruCut		No	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0
Continuous Green T	S		1		1							3	0		1	3	
Signalized Restricted Crossing U-Turn	E-W				1				0	1	0	3	0	1	1	3	0
Median U-Turn	E-W			1	1			0	0	1		3	0	1		3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 AM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		151	64	0		0	0	0		0	2285	0		49	1713	0
Continuous Green T	S		151		64							2285	0		49	1713	
Signalized Restricted Crossing U-Turn	E-W				64				0	0	0	2285	0	8	49	1713	0
Median U-Turn	E-W			0	64			0	0	0		2285	0	8		1713	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	*NE 79th Street at Adventure Avenue*	Number of Configurations			
Project Number:	*10348806*	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	*North Bay Village, FL*	4	0	1	0
Date	2050 AM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									991	0.63	0.63	4.92	#N/A
Continuous Green T	S									982	0.56	0.56	2.83	3.80
Signalized Restricted Crossing U-Turn	E-W	624	*0.35*	987	*0.55*	779	*0.43*	772	*0.43*			0.55	3.18	#N/A
Median U-Turn	E-W					779	*0.43*	833	*0.46*	1015	0.56	0.56	3.33	#N/A

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	*0.00*	*0.00*		*0.75*	0.79		0.89	0.31		0.88	0.94		0.94	4.68	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the intersection name cell. North is assumed up.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Crosswalk Marking Legend

Conflicting Vehicle Type
- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type
- Marked
- Unmarked

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Traffic Signal	FULL	4.92	No	Yes Crossing(s) with 2 stages
Continuous Green T	S	2.83	No	Yes Crossing(s) with 3+ stages
Signalized Restricted Crossing U-Turn	E-W	3.18	Yes	Yes Crossing(s) with 3+ stages
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages

TYPE OF INTERSECTION	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	30	0	Stop/Signal Controlled	Marked	1	30	0	Stop/Signal Controlled	Marked	5	25	1770	Stop/Signal Controlled	Unmarked
Continuous Green T	1	25	64	Yield Controlled	Marked	1	25	2	Stop/Signal Controlled	Marked	1	30	91	Yield Controlled	Marked
Signalized Restricted Crossing U-Turn	2	25	0	Stop/Signal Controlled	Marked	1	30	0	Free Flowing	Marked	3	30	1872	Stop/Signal Controlled	Marked
Median U-Turn	2	25	0	Stop/Signal Controlled	Marked	1	30	0	Yield Controlled	Marked	3	30	1921	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	2266	Stop/Signal Controlled	Unmarked	3	30	215	Stop/Signal Controlled	Marked	1	30	140	Stop/Signal Controlled	Marked
Continuous Green T	3	30	2194	Stop/Signal Controlled	Unmarked	3	30	1864	Free Flowing	Unmarked	4	30	1762	Free Flowing	Unmarked
Signalized Restricted Crossing U-Turn	2	25	200	Stop/Signal Controlled	Marked	3	30	2202	Stop/Signal Controlled	Marked	1	30	91	Free Flowing	Marked
Median U-Turn	3	30	2202	Stop/Signal Controlled	Marked	1	25	215	Yield Controlled	Marked	1	25	0	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	5	25	2285	Stop/Signal Controlled	Marked	3	25	1864	Stop/Signal Controlled	Marked					
Continuous Green T	3	30	2194	Stop/Signal Controlled	Unmarked										
Signalized Restricted Crossing U-Turn															
Median U-Turn	1	30	140	Yield Controlled	Marked	3	30	2202	Stop/Signal Controlled	Marked	3	30	1921	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Continuous Green T															
Signalized Restricted Crossing U-Turn															
Median U-Turn	1	25	0	Yield Controlled	Marked										

TYPE OF INTERSECTION	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Continuous Green T															
Signalized Restricted Crossing U-Turn															
Median U-Turn															

TYPE OF INTERSECTION	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal															
Continuous Green T															
Signalized Restricted Crossing U-Turn															
Median U-Turn															

TYPE OF INTERSECTION	Score: Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	4.92	4.25	4.75	3.00	3.50	4.25	4.75	4.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Continuous Green T	2.83	5.00	5.00	4.75	3.25	2.25	2.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.18	4.75	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing
Two Lane Roundabout	2 X 2	4.68	No	Yes Crossing(s) with 2 stages

TYPE OF ROUNDABOUT	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	0	Yield Controlled	Marked	2	30	0	Free Flowing	Marked	2	30	1770	Yield Controlled	Marked

TYPE OF ROUNDABOUT	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	2266	Free Flowing	Marked	2	30	215	Yield Controlled	Marked	2	30	140	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	2285	Yield Controlled	Marked	2	30	1864	Free Flowing	Marked					

TYPE OF ROUNDABOUT	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout															

TYPE OF ROUNDABOUT	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.68	4.50	4.00	3.75	3.50	4.50	4.00	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing

TYPE OF INTERCHANGE	Crossing #1					Crossing #2					Crossing #3				
	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #7					Crossing #8					Crossing #9				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #10					Crossing #11					Crossing #12				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #13					Crossing #14					Crossing #15				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Crossing #16					Crossing #17					Crossing #18				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings

TYPE OF INTERCHANGE	Combined	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

	Score
# lanes (P)	
Vehicle Speed	
< 25	5
26-34	4
35-40	3
41-50	2
51+	1
Volume (vph) (FV)	Conflicting vehicle type
< 225	5
226-450	5
451-1350	4
1351-2250	[illegible]
>2250	[illegible]
Markings (PM)	
Marked	5
Unmarked	1
Multistage	
Out of Direction	
No	1
Yes	1

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the *bicycle segment (approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Westbound						Eastbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	#N/A	1	3914	Stop/Signal Controlled	No	No	No	0	0	Stop/Signal Controlled	No	No	No	3	45741	Stop/Signal Controlled	No	No	No	3	44407	Stop/Signal Controlled	No	No	No
Continuous Green T	8	3.89	1	2911	Stop/Signal Controlled	No	No	No							3	45741	Free Flowing	No	No	No	3	43613	Free Flowing	No	No	No
Signalized Restricted Crossing U-Turn	E-W	#N/A	1	3914	Stop/Signal Controlled	Yes	No	No	0	0	Stop/Signal Controlled	Yes	No	No	3	45918	Stop/Signal Controlled	No	No	No	3	47825	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	#N/A	1	3914	Stop/Signal Controlled	No	No	No	0	0	Stop/Signal Controlled	No	No	No	3	45741	Stop/Signal Controlled	No	No	No	3	44407	Stop/Signal Controlled	No	No	No

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound 2						Southbound 2						Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	P3/L1	#N/A																								
Continuous Green T	8	3.89																								
Signalized Restricted Crossing U-Turn	E-W	#N/A																								
Median U-Turn	E-W	#N/A																								

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
#N/A	4.83	#N/A	4.00	4.00				
3.80	4.83		3.33	3.33				
#N/A	4.17	#N/A	4.00	4.00				
#N/A	4.83	#N/A	4.00	4.00				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Northbound					Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.17	2	3914	Yield Controlled	No	No	No	2	0	Yield Controlled	No	No	No	2	45741	Yield Controlled	No	No	No	2	44407	Yield Controlled	No	No	No

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	4.50	4.67	4.17	4.17				

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Eastbound					Westbound					Eastbound 2					Westbound 2				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	EB	WB	EB2	WB2				

Scores								
Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	85	25	30	40	85
3000	6	6	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes	
1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control	
Free Flowing	1
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel	
Yes	1
No	5

Riding/Staging Between Travel Lanes	
Yes	1
No	5

Riding Across Free-Flow Ramp	
Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

Volume (AADT)	Speed (mph)
	All Speeds
<= 3000	5
3001-7000	5
>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

Volume (AADT)	Speed (mph)			
	<=25	26-30	31-35	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

	<=25	26-30	31-35	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

Volume (AADT)	Speed (mph)			
	<=25	26-30	31-35	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

	<=25	26-30	31-35	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

North Leg AADT	0
South Leg AADT	3914
East Leg AADT	44407
West Leg AADT	45741

Major/Minor Street Facility Type
Shared with Vehicles
On-Street Lane
Shared Use Path

Conflicting Control Type
Stop/Signal Controlled
Free Flowing
Yield Controlled

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	0.55	1	3.18	#N/A
Continuous Green T S	0.56	2	2.83	3.80
Median U-Turn E-W	0.56	2	3.33	#N/A
Traffic Signal	0.63	4	4.92	#N/A
2 X 2	0.94	5	4.68	4.37
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Adventure Avenue
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	3
Which leg is the minor street?	S

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	0	2143	89	2.40%	0.00%
Westbound	8	48	1673	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	147	0	62	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report - Page 2 of 2

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Signalized Restricted Crossing U-Turn E-W	**0.55**	**1**	**3.18**	**#N/A**
Continuous Green T S	**0.56**	**2**	**2.83**	**3.80**
Median U-Turn E-W	**0.56**	**2**	**3.33**	**#N/A**
Traffic Signal	**0.63**	**4**	**4.92**	**#N/A**
2 X 2	**0.94**	**5**	**4.68**	**4.37**
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Adventure Avenue
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 AM
Number of Intersection Legs:	3
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	0	2143	89	2.40%	0.00%
Westbound	8	48	1673	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	147	0	62	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0
Continuous Green T	S		1		1							3	0		1	3	
Signalized Restricted Crossing U-Turn	E-W				1				0	1	0	3	0	1	1	3	0
Median U-Turn	E-W			1	1			0	0	1		3	0	1		3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Detailed Report - Page 3 of 4

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									991	0.63	0.63	4.92	#N/A
Continuous Green T	S									982	0.56	0.56	2.83	3.80
Signalized Restricted Crossing U-Turn	E-W	624	0.35	987	0.55	779	0.43	772	0.43			0.55	3.18	#N/A
Median U-Turn	E-W					779	0.43	833	0.46	1015	0.56	0.56	3.33	#N/A

Capacity Analysis for Planning of Junctions

Detailed Report - Page 4 of 4

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.00	0.00		0.75	0.79		0.89	0.31		0.88	0.94		0.94	4.68	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Input Worksheet 1

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location	*North Bay Village, FL*
Date	2050 PM
Number of Intersection Legs	3
Which leg is the minor street?	S

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	0	1789	136	2.40%	0.00%
Westbound	21	54	2142	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	117	0	46	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn	**Left**	**Thru**	**Right**
Eastbound	0	0	1832	139
Westbound	22	55	2193	0
Southbound	0	0	0	0
Northbound	0	120	0	47

Notes:	
Left-Turn Adjustment Factor	*Conversion of left-turning vehicles to equivalent through vehicles*
Right-turn Adjustment Factor	*Conversion of right-turning vehicles to equivalent through vehicles*
U-turn Adjustment Factor	*Conversion of U-turning vehicles to equivalent through vehicles*
Truck to PCE Factor	*1 truck = X Passenger Car Equivalents*
Critical Lane Volume Sum Limit	*Saturation Value for Critical Lane Volume Sum at an intersection*

Capacity Analysis for Planning of Junctions

Step 2A: Base Conditions Analysis

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Which leg is the minor street?	S

Existing Intersection Configuration	*Traffic Signal*

Number of Lanes for Existing Configuration
(Can be edited in "3- Alt Num Lanes Input" as needed)

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0

Results for Existing Configuration

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)			
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
Traffic Signal	FULL	--	--	--	--	--	--	--	--	875	*0.56*	--	--

Existing Configuration Results

Overall v/c Ratio	0.56	Pedestrian Accommodation	4.92	Bicycle Accommodation	#N/A

Step 2B: Alternative Selection

Rankings Inclusion		Yes/No	Comment
At-Grade Non-Roundabout Intersections?		Yes	
Traffic Signal		Yes	
Two-Way Stop Control		No	
All-Way Stop Control		No	
Continuous Green T		Yes	
Quadrant Roadway	S-W	No	
	N-E	No	
	S-E	No	
	N-W	No	
Partial Displaced Left Turn		No	
Displaced Left Turn		No	
Signalized Restricted Crossing U-Turn		Yes	
Unsignalized Restricted Crossing U-Turn		No	
Median U-Turn		Yes	
Partial Median U-Turn		No	
Bowtie		No	
Signalized ThruCut		No	
Unsignalized ThruCut		No	
Roundabouts?		Yes	
50 ICD Miniroundabout		No	
75 ICD Miniroundaobut		No	
1x1		No	
1NS x 2EW		No	
2NS x 1EW		No	
2x2		Yes	
Grade Separated Interchanges?		No	
Diamond			
Partial Cloverleaf A			
Partial Cloverleaf B			
Displaced Left Turn Interchange			
Diverging Diamond Interchange			
Single Point			

Continue to Step 3 Step 3

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0
Continuous Green T	S		1		1							3	0		1	3	
Signalized Restricted Crossing U-Turn	E-W				1				0	1	0	3	0	1	1	3	0
Median U-Turn	E-W			1	1			0	0	1		3	0	1		3	0

For shared lanes, enter "0" in L or R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

Input Worksheet 2

Project Name:	*NE 79th Street at Adventure Avenue*
Project Number:	*10348806*
Location:	*North Bay Village, FL*
Date:	2050 PM
Analysis Type:	At-Grade Intersections and Interchanges

Volume Echo with Shared Lane Adjustment for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		120	47	0		0	0	0		0	1971	0		55	2193	0
Continuous Green T	S		120		47							1971	0		55	2193	
Signalized Restricted Crossing U-Turn	E-W				47				0	0	0	1971	0	22	55	2193	0
Median U-Turn	E-W			0	47			0	0	0		1971	0	22		2193	0

Capacity Analysis for Planning of Junctions

Results Worksheet

		Estimated Volume-to-Capacity Ratio			
Project Name:	*NE 79th Street at Adventure Avenue*	Number of Configurations			
Project Number:	*10348806*	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Location	*North Bay Village, FL*	4	0	1	0
Date	2050 PM				

Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									875	0.56	0.56	4.92	#N/A
Continuous Green T	S									869	0.50	0.50	2.83	3.80
Signalized Restricted Crossing U-Turn	E-W	778	0.43	814	0.45	907	0.50	685	0.38			0.50	3.18	#N/A
Median U-Turn	E-W					907	0.50	753	0.42	953	0.53	0.53	3.33	#N/A

Capacity Analysis for Planning of Junctions

Results Worksheet

Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	*0.00*	*0.00*		0.93	0.99		*0.52*	0.17		0.78	0.83		0.99	4.68	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Pedestrian Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Pedestrian Crossings

Pedestrian Framework Instructions
- Use this worksheet to configure the *pedestrian crossing* information for all intersection alternatives included in the analysis.
- The user should input the roadway speeds in the roadway speed table.
- The user may adjust the out of direction travel and multistage crossing. Note when modifying the multistage crossing to something other than the assumed value, the user must also manually adjust the respective crossing data entries.
- The number of lanes, vehicle speed, and vehicles volumes are automatically calculated from prior user inputs. The user may adjust these as needed
- The user may adjust the conflicting vehicle type and marking pattern.
- The user may use the reset button to return the crossing values to their default assumptions.

Pedestrian Framework Assumptions
- Each intersection and interchange type has assumed crosswalk assignments as found in the note of the intersection name cell. Reference the crosswalk marking legend as necessary. North is assumed up.
- Multistage crossing does not account for crossings of unsignalized channelized turn lanes.
- For each crossing, the number of lanes, vehicle speed, and volume are automatically gathered from prior inputs. The conflicting vehicle type and marking pattern are as noted in the note of the intersection name cell. North is assumed up.

Crosswalk Marking Legend

Conflicting Vehicle Type
- Stop/Signal Controlled
- Freeflowing
- Yield Controlled (yield to vehicles downstream)
- Permissive Left (unless exclusive pedestrian phase)

Marking Type
- Marked
- Unmarked

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Ramp Speeds (Only for Interchanges)	
Diagonal Ramps	20
Loop Ramps	20
DDI Ramps	20
Single Point Ramps	30

Pedestrian Crossing Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3				
					# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	FULL	4.92	No	Yes Crossing(s) with 2 stages	3	30	0	Stop/Signal Controlled	Marked	1	30	0	Stop/Signal Controlled	Marked	5	25	2270	Stop/Signal Controlled	Unmarked
Continuous Green T	S	2.83	No	Yes Crossing(s) with 3+ stages	1	25	47	Yield Controlled	Marked	1	25	2	Stop/Signal Controlled	Marked	1	30	139	Yield Controlled	Marked
Signalized Restricted Crossing U-Turn	E-W	3.18	Yes	Yes Crossing(s) with 3+ stages	2	25	0	Stop/Signal Controlled	Marked	1	30	0	Free Flowing	Marked	3	30	2335	Stop/Signal Controlled	Marked
Median U-Turn	E-W	3.33	Yes	Yes Crossing(s) with 3+ stages	2	25	0	Stop/Signal Controlled	Marked	1	30	0	Yield Controlled	Marked	3	30	2390	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	3	25	1901	Stop/Signal Controlled	Unmarked	3	30	167	Stop/Signal Controlled	Marked	1	30	194	Stop/Signal Controlled	Marked
Continuous Green T	3	30	1832	Stop/Signal Controlled	Unmarked	3	30	2313	Free Flowing	Unmarked	4	30	2248	Free Flowing	Unmarked
Signalized Restricted Crossing U-Turn	2	25	175	Stop/Signal Controlled	Marked	3	30	1854	Stop/Signal Controlled	Marked	1	30	139	Free Flowing	Marked
Median U-Turn	3	30	1854	Stop/Signal Controlled	Marked	1	25	167	Yield Controlled	Marked	1	25	0	Stop/Signal Controlled	Marked

TYPE OF INTERSECTION	Crossing #7					Crossing #8					Crossing #9					Crossing #10				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Traffic Signal	5	25	1971	Stop/Signal Controlled	Marked	3	25	2313	Stop/Signal Controlled	Marked										
Continuous Green T	3	30	1832	Stop/Signal Controlled	Unmarked															
Signalized Restricted Crossing U-Turn																				
Median U-Turn	1	30	194	Yield Controlled	Marked	3	30	1854	Stop/Signal Controlled	Marked	3	30	2390	Stop/Signal Controlled	Marked	1	25	0	Yield Controlled	Marked

TYPE OF INTERSECTION	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings
Traffic Signal								
Continuous Green T								
Signalized Restricted Crossing U-Turn								
Median U-Turn								

TYPE OF INTERSECTION	Score Combined	Individual Crossing Scores #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Traffic Signal	4.92	4.25	4.75	3.00	3.50	4.25	4.75	4.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Continuous Green T	2.83	5.00	5.00	4.75	3.25	2.25	2.00	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Signalized Restricted Crossing U-Turn	3.18	4.75	4.25	4.25	4.75	4.25	4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median U-Turn	3.33	4.75	4.75	4.25	4.25	5.00	5.00	4.75	4.25	4.25	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1					Crossing #2					Crossing #3				
					# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Types	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2 X 2	4.68	No	Yes Crossing(s) with 2 stages	2	30	0	Yield Controlled	Marked	2	30	0	Free Flowing	Marked	2	30	2270	Yield Controlled	Marked

TYPE OF ROUNDABOUT	Crossing #4					Crossing #5					Crossing #6				
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings
Two Lane Roundabout	2	30	1901	Free Flowing	Marked	2	30	167	Yield Controlled	Marked	2	30	194	Free Flowing	Marked

TYPE OF ROUNDABOUT	Crossing #7					Crossing #8					Crossing #9	Crossing #10	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes	Veh Speed	Volume	Conflicting Veh Type	Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings
Two Lane Roundabout	2	30	1971	Yield Controlled	Marked	2	30	2313	Free Flowing	Marked										

TYPE OF ROUNDABOUT	Combined	Individual Crossing Scores #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18
Two Lane Roundabout	4.68	4.50	4.00	3.50	3.50	4.50	4.00	3.75	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossing Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Out of Direction Travel	Multistage Crossing	Crossing #1	Crossing #2	Crossing #3	Crossing #4	Crossing #5	Crossing #6	Crossing #7	Crossing #8	Crossing #9
					# Lanes / Veh Speed / Volume / Conflicting Veh Types / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Types / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings

TYPE OF INTERCHANGE	Crossing #10	Crossing #11	Crossing #12	Crossing #13	Crossing #14	Crossing #15	Crossing #16	Crossing #17	Crossing #18
	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings	# Lanes / Veh Speed / Volume / Conflicting Veh Type / Markings

TYPE OF INTERCHANGE	Combined	Individual Crossing Scores #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18

Score

lanes (FL

Vehicle Speed	
< 25	5
26-34	
35-40	3
41-50	2
51+	1

Volume (vph) (FV) — Conflicting vehicle type

	Sto	Per	Yie	Free Flowing
< 225	5	5	5	
226-450				
451-1350	5	3	3	
1351-2250	5	2	2	
>2250	5	1	1	

Markings (FM)

Multistage

Out of Directio

Capacity Analysis for Planning of Junctions

Multimodal Intersection Configuration for Bicycle Segments

Bicycle Framework Instructions

- Use this worksheet to configure the bicycle segment *(approach to intersection and crossing of other roadway)* information for all intersection alternatives included in the analysis.
- Roadway speeds are carried over from inputs on the Multimodal Ped worksheet.
- The user needs to input the bicycle facility type.
- The user may adjust the conflicting control type, out of direction travel, riding between lanes, and riding across free-flow ramp inputs but defaults are provided for each intersection type.
- The number of adjacent through lanes and adjacent volume refer to the direction of the segment approaching the intersection and are automatically calculated from prior user inputs. The user may adjust these as needed.
- The user may use the reset button to return the segment values to their default assumptions.

Bicycle Framework Assumptions

- Most intersection types have four approaches - northbound, southbound, eastbound, and westbound. Intersections with more than four approaches have cell notes in the Type of Intersection column describing the location of the additional approaches.
- At interchanges, bicycle travel along ramps is not analyzed. Interchanges with one ramp terminal intersection (e.g. single-point) have two segments, representing the two major street approaches. Interchanges with two ramp terminal intersections (e.g. diamond) have four segments, representing the two major street approaches external to the interchange the two major street approaches within the interchange.
- The methodology analyses bicycle conditions for through movements.

Roadway Operating Speeds	
Major Street Speed Limit	30
Minor Street Speed Limit	25
Mini Roundabout Entry & Exit Speed	20
1-Lane Roundabout Entry & Exit Speed	25
2-Lane Roundabout Entry & Exit Speed	30

Facility Type	
Major Street Facility Type	On-Street Lane
Minor Street Facility Type	Shared with Vehicles

Bicycle Segment Configurations for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound						Southbound						Eastbound						Westbound					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	PULL	#N/A	1	3980	Stop/Signal Controlled	No	No	No	0	0	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No	3	45741	Stop/Signal Controlled	No	No	No
Continuous Green T	S	3.89	1	2447	Stop/Signal Controlled	No	No	No							3	47230	Free Flowing	No	No	No	3	44980	Free Flowing	No	No	No
Signalized Restricted Crossing U-Turn	S-W	#N/A	1	3980	Stop/Signal Controlled	Yes	No	No	0	0	Stop/Signal Controlled	Yes	No	No	3	47715	Stop/Signal Controlled	No	No	No	3	48630	Stop/Signal Controlled	No	No	No
Median U-Turn	E-W	#N/A	1	3980	Stop/Signal Controlled	No	No	No	0	0	Stop/Signal Controlled	No	No	No	3	47230	Stop/Signal Controlled	No	No	No	3	45741	Stop/Signal Controlled	No	No	No

TYPE OF INTERSECTION	Sheet	Intersection Score	Northbound 2						Southbound 2						Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Traffic Signal	PULL	#N/A																								
Continuous Green T	S	3.89																								
Signalized Restricted Crossing U-Turn	S-W	#N/A																								
Median U-Turn	E-W	#N/A																								

Bicycle Multimodal Scoring for Non-Roundabout Intersections

Score	Individual Segment Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
#N/A	4.83	#N/A	4.00	4.00				
3.89	4.83		3.33	3.33				
#N/A	4.17	#N/A	4.00	4.00				
#N/A	4.83	#N/A	4.00	4.00				

Bicycle Segment Configurations for Roundabouts

TYPE OF ROUNDABOUT	Sheet	Intersection Score	Southbound					Eastbound					Westbound				
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp
Two Lane Roundabout	2 X 2	4.27	2	3980	Yield Controlled	No	No	No	2	0	Yield Controlled	No	No	No	2	47230	Yield Controlled	No	No	No	2	45741	Yield Controlled	No	No	No

Bicycle Segment Configurations for Interchanges

TYPE OF INTERCHANGE	Sheet	Intersection Score	Eastbound						Westbound						Eastbound 2						Westbound 2					
			# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp	# Adjacent Thru Lanes	Leg AADT	Conflicting Control Type	Out of Direction	Riding Between Opposing Direction	Riding Across Free-Flow Ramp

Bicycle Multimodal Scoring for Roundabouts

Score	Individual Crossing Scores							
Combined	NB	SB	EB	WB	NB2	SB2	EB2	WB2
4.37	4.50	4.67	4.17	4.17				

Bicycle Multimodal Scoring for Interchanges

Score	Individual Crossing Scores							
Combined	EB	WB	EB2	WB2				

Scores

Facility Type	SUP	On-Street Lane				Shared with Veh			
Volume (AADT)	Speed								
	Any	25	30	40	85	25	30	40	85
3000	5	5	4	4	2	5	4	3	2
7000	5	4	4	4	2	3	3	2	1
99999	5	3	2	2	1	2	1	1	1

Number of Adjacent Thru Lanes

1	5
2	4
3	2
4	1

*4 or more lanes

Conflicting Movement Crossing Control

Free Flowing	1
Yield Controlled	4
Stop/Signal Controlled	5

Out of Direction Travel

Yes	1
No	5

Riding/Staging Between Travel Lanes

Yes	1
No	5

Riding Across Free-Flow Ramp

Yes	1
No	5

Leg AADT and Roadway Speed Score for SUP Facility

Volume (AADT)	Speed (mi/hour)	Score (1=Severe, 5=Severe)
3000	<= 3000	5
3001	3001-7000	5
7000		
7001	>7000	5

Leg AADT and Roadway Speed Score for On-Street Lane Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-39	>=40
3000	<=3000	5	4	4	2
3001	3001-7000	4	4	4	2
7000					
7001	>7000	3	2	2	1

	Speed (mi/h)			
	<=25	26-30	31-39	>=40
<=3000	5	4	4	2
3001-7000	4	4	4	2
>7000	3	2	2	1

Leg AADT and Roadway Speed Score for Shared With Vehicles Facility

Volume (AADT)	Speed (mi/h)			
	<=25	26-30	31-39	>=40
3000	<=3000	5	4	3	2
3001	3001-7000	3	3	2	1
7000					
7001	>7000	2	1	1	1

	Speed (mi/h)			
	<=25	26-30	31-39	>=40
<=3000	5	4	3	2
3001-7000	3	3	2	1
>7000	2	1	1	1

North Leg AADT	0
South Leg AADT	3980
East Leg AADT	45741
West Leg AADT	47230

Major/minor street facility type
SHARED WITH VEHICLES
ON-STREET LANE
SHARED USE PATH

Conflicting control type
STOP/SIGNAL CONTROLLED
FREE FLOWING
YIELD CONTROLLED

TYPE OF INTERSECTION	Overall V/C Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T S	0.50	1	2.83	3.80
Signalized Restricted Crossing U-Turn E-W	0.50	1	3.18	#N/A
Median U-Turn E-W	0.53	3	3.33	#N/A
Traffic Signal	0.56	4	4.92	#N/A
2 X 2	0.99	5	4.68	4.37
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--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
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Capacity Analysis for Planning of Junctions

Summary Report - Page 1 of 2

Project Name:	NE 79th Street at Adventure Avenue
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	3
Which leg is the minor street?	S

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	0	1789	136	2.40%	0.00%
Westbound	21	54	2142	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	117	0	46	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone	**C5-Urban Center**		
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

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TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Continuous Green T S	**0.50**	**1**	**2.83**	**3.80**
Signalized Restricted Crossing U-Turn E-W	**0.50**	**1**	**3.18**	**#N/A**
Median U-Turn E-W	**0.53**	**3**	**3.33**	**#N/A**
Traffic Signal	**0.56**	**4**	**4.92**	**#N/A**
2 X 2	**0.99**	**5**	**4.68**	**4.37**
--	--	--	--	--
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Capacity Analysis for Planning of Junctions

Detailed Report - Page 1 of 4

Project Name:	NE 79th Street at Adventure Avenue
Project Number:	10348806
Location:	North Bay Village, FL
Date:	2050 PM
Number of Intersection Legs:	3
Major Street Direction:	North-South

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	Left	Thru	Right	Heavy Vehicles	Volume Growth
Eastbound	0	0	1789	136	2.40%	0.00%
Westbound	21	54	2142	0	2.40%	0.00%
Southbound	0	0	0	0	2.70%	0.00%
Northbound	0	117	0	46	2.70%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
FDOT Context Zone		**C5-Urban Center**	
E-W / Crossing East-West Legs	**Low**	**Low**	**Low**
N-S / Crossing North-South Legs	**Low**	**Low**	**Low**
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800**	**1800**
	3-phase signal	**Suggested = 1750**	**1750**
	4-phase signal	**Suggested = 1700**	**1700**

Capacity Analysis for Planning of Junctions

Detailed Report - Page 2 of 4

Number of Lanes for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Traffic Signal	FULL		1	1	0		0	0	0		0	3	0		1	3	0
Continuous Green T	S		1		1							3	0		1	3	
Signalized Restricted Crossing U-Turn	E-W				1				0	1	0	3	0	1	1	3	0
Median U-Turn	E-W			1	1			0	0	1		3	0	1		3	0

Number of Lanes for Interchanges

TYPE OF INTERCHANGE	Sheet	Northbound				Southbound				Eastbound				Westbound			
		U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R

Capacity Analysis for Planning of Junctions

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Results for Non-roundabout Intersections

TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			
Traffic Signal	FULL									875	0.56	0.56	4.92	#N/A
Continuous Green T	S									869	0.50	0.50	2.83	3.80
Signalized Restricted Crossing U-Turn	E-W	778	0.43	814	0.45	907	0.50	685	0.38			0.50	3.18	#N/A
Median U-Turn	E-W					907	0.50	753	0.42	953	0.53	0.53	3.33	#N/A

Capacity Analysis for Planning of Junctions

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Results for Roundabouts

TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3			
2 X 2	0.00	0.00		0.93	0.99		0.52	0.17		0.78	0.83		0.99	4.68	4.37

Results for Interchanges

TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ped Accommodations	Bicycle Accommodations
		CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C			

Project Information	
Provide general project information for reference purposes only.	
Project Name:	NE 79th Street PD&E Study
Intersection:	NE 79th Street at Adventure Avenue
Agency:	FDOT-6
Project Reference:	10348806
City:	North Bay Village
State:	Florida
Date:	10/10/2023
Analyst:	HDR
Use this button to clear all inputs/outputs and reset the tool to its initial defaults	Reset SPICE Tool

Control Strategy Selection and Inputs

Specify the Facility Level Inputs and the Control Strategies to be included in the SPICE Analysis.

Intersection Type	At-Grade Intersection
Analysis Year	Opening and Design Year
Opening Year	2030
Design Year	2050
Facility Type	On Urban and Suburban Arterial
Number of Legs	3-leg
1-Way/2-Way	2-way Intersecting 2-way
# of Major Street Lanes (both directions)	6 or more
Major Street Approach Speed	Less than 55 mph
Opening Year - Major Road AADT	41,500
Opening Year - Minor Road AADT	3,600
Design Year - Major Road AADT	46,000
Design Year - Minor Road AADT	3,900

For more information on how to determine these values, see the "Definitions" worksheet

Control Strategy	Include	Base Intersection		
Traffic Signal	Yes	--		
Traffic Signal (Alternative Configuration)	No	--		
Minor Road Stop	No	--		
All Way Stop	No	--	No SPF Available	No SPF
1-Lane Roundabout	No	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
2-Lane Roundabout	Yes	--	Opening Year AADT Outside of SPF Development Range	Design Year AADT Outside of SPF Development Range
Displaced Left Turn (DLT)	No	Traffic Signal		
Median U-Turn (MUT)	Yes	Traffic Signal		
Signalized Restricted Crossing U-Turn (RCUT)	Yes	--		
Unsignalized Restricted Crossing U-Turn (RCUT)	No	--		
Signalized Thru-Cut*	No	--	*SSI Only, No Crash Prediction Available	
Unsignalized Thru-Cut*	No	--	*SSI Only, No Crash Prediction Available	
Bowtie*	No	--	*SSI Only, No Crash Prediction Available	
Continuous Green-T Intersection	Yes	Traffic Signal		
Jughandle	No	Traffic Signal		
Other 1*	No	Traffic Signal	*Please Select	
Other 2*	No	Minor Road Stop	*Please Select	

At-Grade Intersection Inputs

Provide inputs needed to compute and apply Part C CMFs.

Input		Control Strategy											
		Traffic Signal	Traffic Signal (Alt)	1-lane Roundabout	2-lane Roundabout	Displaced Left Turn (DLT)	Median U-Turn (MUT)	Signalized RCUT	Signalized Thru-Cut	Unsignalized Thru-Cut	Bowtie	Continuous Green-T Intersection	
Opening Year Major Road AADT	Optional AADT Overrides	41500	41500	41500	41500	41500	41500	41500	41500	41500	41500	41500	All strategies will have the same AADT as the Base Conditions unless overridden by user.
Opening Year Minor Road AADT		3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	
Design Year Major Road AADT		46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	46000	
Design Year Minor Road AADT		3900	3900	3900	3900	3900	3900	3900	3900	3900	3900	3900	
Number of Approaches with Left-Turn Lanes	Additional Required Control Strategy Inputs	0	4										Do not include stop controlled approaches for minor stop
Number of Approaches with Right-Turn Lanes		0	0										
Number of Uncontrolled Approaches with Left-Turn Lanes													
Number of Uncontrolled Approaches with Right-Turn Lanes													

Keep default values below here for planning-level analysis, override with actual values for full HSM Analysis

		Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE											
Skew Angle	A yellow cell indicates the value may be used in the SPF computation	N/A	N/A	Scroll Down for Roundabout CMF Inputs		CMF - No Inputs Required	CMF - No Inputs Required	Scroll Down for Signalized RCUT SPF Inputs	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	CMF - No Inputs Required	All yellow cells will be automatically populated by a macro. If users want to do a planning-level analysis, they can leave the automatic inputs as-is
Lighting Present		Yes	Yes										
# of Approaches Permissive LT Signal Phasing		0	0										
# of Approaches Perm/Prot LT Signal Phasing		0	0										
# of Approaches Protected LT Signal Phasing		0	0										
Number of Approaches with Right-Turn-on-Red Prohibited		0	0										
Red Light Cameras Present		No	No										
Number of Major Street Through Lanes		0	0										
Number of Minor Street Lanes		0	0										
# of Major St Approaches w/ Right-Turn Channelization		0	0										
Number of Approaches with U-Turn Prohibited		0	0										
Pedestrian Volume by Activity Level		Low (20)	Low (20)										
User Specified Sum of all daily pedestrian crossing volumes		20	20										
Max # of Lanes Crossed by Pedestrians		5	5										
Number of Bus Stops within 1000' of Intersection		0	0										
Schools within 1000' of intersection		No	No										
Number of Alcohol Sales Establishments within 1000' of Intersection		0	0										

				Roundabout CMF Inputs								
Inscribed Circle Diameter (ft)				130								
Leg 1 (Major Leg #1)				Leg 1 (Major Leg #1)								
Opening Year Entering AADT				20,750	20,750							
Leg has Right-Turn Bypass				No	No							
# of Access Points within 250' of Yield Line				0								
Entering Width (ft)					29							
# of Entering Lanes					2							
# of Circulating Lanes					2							
Leg 2 (Major Leg #2)				Leg 2 (Major Leg #2)								
Opening Year Entering AADT				20,750	20,750							
Leg has Right-Turn Bypass				No	No							
# of Access Points within 250' of Yield Line				0								
Entering Width (ft)					29							
# of Entering Lanes					2							
# of Circulating Lanes	N/A	N/A	N/A		2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Leg 3 (Minor Leg #1)				Leg 3 (Minor Leg #1)								
Opening Year Entering AADT				1800	1800							
Leg has Right-Turn Bypass				No	No							
# of Access Points within 250' of Yield Line				0								
Entering Width (ft)					29							
# of Entering Lanes					2							
# of Circulating Lanes					2							
Leg 4 (Minor Leg #2)				Leg 4 (Minor Leg #2)								
Opening Year Entering AADT				1,800	1,800							
Leg has Right-Turn Bypass				No	No							
# of Access Points within 250' of Yield Line				0								
Entering Width (ft)					29							
# of Entering Lanes					2							
# of Circulating Lanes					2							

								Restricted Crossing U-Turn				
# U-Turns								2				
# of Major Roadway Lanes								2				
# of Minor Roadway Lanes								2				
Total Offset Distance (ft)								1250				
Number of Driveways								4				
Total Deceleration Lane Length (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	750	N/A	N/A	N/A	N/A
Total Acceleration Lane Length (ft)												
Number of Left-Turn Lanes From Major Road								1				
Major Road Speed Limit (mph)								<=50				
Total Median Width (ft)								65				
Maximum Median Width (ft)												

Ramp Terminal Inputs

Provide inputs needed to compute and apply Part C CMFs.

Alternative	Signalized Diamond		Signalized Diamond (Alt)		Unsignalized Diamond		1-lane Roundabout		2-lane Roundabout		Single-Point Diamond	Signalized Tight Diamond
	4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)		4 Leg Terminal w/ Diagonal Ramps (D4)			
Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	NB Ramp Terminal	SB Ramp Terminal	Both Ramps	Both Ramps
Opening Year AADT Crossroad - Inside Leg	12000	15000	12000	15000	12000	15000	12000	15000	12000	15000	--	--
Opening Year AADT Crossroad - Outside Leg	10000	15000	10000	15000	10000	15000	10000	15000	10000	15000	15000	15000
Opening Year AADT Exit Ramp	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	9000	9000
Opening Year AADT Entrance Ramp	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	6000	6000
Design Year AADT Crossroad - Inside Leg	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	--	--
Design Year AADT Crossroad - Outside Leg	31000	29000	31000	29000	31000	29000	31000	29000	31000	29000	31000	31000
Design Year AADT Exit Ramp	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Design Year AADT Entrance Ramp	3250	3250	3250	3250	3250	3250	3250	3250	3250	3250	6500	6500
Number of Crossroad Lanes	4	4	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the inside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of through traffic lanes that oppose the left-turn movement on the outside crossroad leg	2	2	2	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Number of free-flow right turns from exit ramp to crossroad	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A

CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Exit Ramp Skew Angle	N/A	N/A	N/A	N/A	0	0
Is a non-ramp public street leg present?	No	No	No	No	N/A	N/A
Exit ramp right turn control	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled	Signal/Stop/yield-controlled
Effective number of lanes serving exit ramp	1	0.5	0.5	1.5	2	2.5
Number of unsignalized driveways on the outside crossroad leg within 250' of the interchange	0	0	0	0	N/A	N/A
Distance (mi) to the adjacent ramp terminal	0.10	0.10	0.10	0.10	0.10	0.10
Distance (mi) to the next public street intersection on the outside crossroad leg	0.15	0.15	0.15	0.15	0.15	0.15
# of unsignalized public street approaches on the outside crossroad leg within 250' (<0.05 mi) of the interchange	1	1	1	1	1	1
Median Width (ft)	12.00	12.00	12.00	12.00	12.00	12.00
Presence of right-turn lane/bay on outside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Presence of left-turn lane/bay on inside crossroad leg	Yes	Yes	Yes	Yes	Yes	Yes
Left-turn lane/bay Width for inside crossroad leg	12.00	12.00	12.00	12.00	12.00	12.00
Protected Left-turn operation for inside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for outside crossroad leg	No	No	No	No	N/A	N/A
Right turn channelization for exit ramp	No	No	No	No	N/A	N/A

	Roundabout CMF Inputs			
Inscribed Circle Diameter (ft)	130	130	125	125
Outbound Only Leg	Yes	Yes	Yes	Yes
Leg 1 (Crossroad Leg - Inside)	Leg 1 (Crossroad Leg - Inside)			
Opening Year Entering AADT	6,000	7,500	6,000	7,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2
Leg 2 (Crossroad Leg - Outside)	Leg 2 (Crossroad Leg - Outside)			
Opening Year Entering AADT	5,000	7,500	5,000	7,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2
Leg 3 (Exit Ramp Inside)	Leg 3 (Exit Ramp Leg)			
Opening Year Entering AADT	4,500	4,500	4,500	4,500
Leg has Right-Turn Bypass	No	No	No	No
# of Access Points within 250' of Yield Line	0	0	0	0
Entering Width (ft)	29	29	29	29
# of Entering Lanes	2	2	2	2
# of Circulating Lanes	2	2	2	2

Ramp Terminal Inputs						
Provide inputs needed to compute and apply Part C CMFs.						
Alternative	**Traffic Signal**		**Traffic Signal (Alt)**		**Minor Road (Ramp) Stop**	
	4 Leg Terminal w/ Diagonal Ramps (D4)		**4 Leg Terminal w/ Diagonal Ramps (D4)**		**4 Leg Terminal w/ Diagonal Ramps (D4)**	
Ramp Terminal	**NB**	**SB**	**NB**	**SB**	**NB**	**SB**
Crossroad AADT	18000	17000	18000	17000	18000	17000
Ramp AADT	5000	4500	5000	4500	5000	4500
Area Type	Urban		Urban		Urban	
# of Crossroad Lanes	2	2	2	2	2	2

2-6 (5,6 Urban only)

For signalized ramp terminals, the applicable values for $AADT_{in}$ and $AADT_{out}$ range from 14,000 to 60,000 veh/day. AADT volumes smaller than 14,000 should be set to 14,000 in Equation 19-51.

Table 19-11. Applicable AADT Volume Ranges for Crossroad Ramp Terminal SPFs

Site Type (w)	Control Type (x)	Applicable AADT Volume Range (veh/day)	
		Crossroad	Total All Ramps
Four-leg terminals with diagonal ramps ($D4$)	Stop control (ST)	0 to 18,000	0 to 10,000
	Signal control (SG)	0 to 47,000	0 to 31,000

Other CMF Inputs	Part C CMFs Optional For Stage 1 ICE, Required for Stage 2 ICE					
Crossroad Left Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Crossroad Right Turn Lane Present?	Yes	Yes	Yes	Yes	Yes	Yes
Skew Angle	skew	Planning	Double	Not/ Applicable	Include in MRS	Include in MRS
Exit ramp right turn control	mergeRT	Planning	Merge/FF or Signal/Sto	Include in TS	Include in MRS	Include in MRS
Effective number of lanes serving exit ramp	nex	Planning	1-2, see graphic	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "in" leg	i_LTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of left-turn bay on "out" leg	i_LTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "in" leg	i_RTBayIn	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Presence of right-turn bay on "out" leg	i_RTBayOut	Planning	Yes/No (<100 ft?)	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled public street approaches to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_ps	Planning	Integer	Include in TS	Include in MRS	Include in MRS
Number of Stop-controlled driveways to the crossroad leg outside of the interchange and within 250 feet of the ramp terminal	n_dw	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Distance between subject ramp terminal and adjacent ramp terminal (from terminal center to terminal center)	l_rmp	Planning	Double	Include in TS	Include in MRS	Include in MRS
distance between subject ramp terminal and nearest public road intersection in a direction away form the freeway	l_str	Planning	Double	Include in TS	Include in MRS	Include in MRS
Width of median adjacent to turn lane for crossroad leg	w_m	Planning	Double	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "in" crossroad leg	w_bkIn	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Left-turn lane width for "out" crossroad leg	w_bkOut	Planning	Double (0.0 if not pres	Include in TS	Include in MRS	Include in MRS
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "in"	n_oppLTIn	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Number of through traffic lanes that oppose the left-turn movement on the crossroad leg "out"	n_oppLTOut	Planning	Integer	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "in"	i_protLTIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Protected Left-turn operation indicator for crossroad leg "out"	i_protLTOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "in"	i_crtIn	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for crossroad leg "out"	i_crtOut	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Right turn channelization indicator for exit ramp	i_crtEx	Planning	Boolean	Include in TS	Not Applicable	Not Applicable
Non-ramp public street leg indicator	i_ps	Planning	Boolean	Include in TS	Not Applicable	Not Applicable

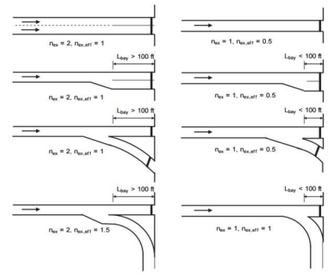


Figure 19-23. Effective Number of Lanes for Various Exit Ramp Configurations

The CMF is applicable to W_m values in the range of 0 to 50 ft. Similarly, it is applicable to W_{bk} values in the range of 0 to 26 ft.

#	Conflict Type	Mvmt1	Mvmt1_gen	Mvmt1_SpeedCat	Mvmt2	Mvmt2_gen	Mvmt2_SpeedCat	Exposure Q1	Q2	I	Severity Speed_V1	Speed_V2	Angle	delta_V	P_FSI
1	Crossing - LT	EBL	CrossL1	Cross left	NBL	RampL1	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
2	Crossing - LT	EBT	CrossT1	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
3	Crossing - LT	WBL	CrossL2	Cross left	NBL	RampL1	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
4	Crossing - LT	EBT	CrossT1	Cross thru	NBL	RampL1	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
5	Crossing - LT	WBL	CrossL2	Cross left	SBL	RampL2	Signal far	1875	1125	2109375	20	25	230	20.42	0.0216
6	Crossing - LT	WBT	CrossT2	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	230	27.52	0.0661
7	Crossing - LT	EBL	CrossL1	Cross left	SBL	RampL2	Signal near	1875	1125	2109375	20	15	230	15.90	0.0084
8	Crossing - LT	WBT	CrossT2	Cross thru	SBL	RampL2	Signal near	3750	1125	4218750	40	15	230	25.48	0.0496
9	Merging	WBT,NBL	CrossT2,RampL1	Cross thru	SBR	RampR2	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
10	Merging	EBR	CrossR1	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
11	Merging	WBT	CrossT2	Cross thru	NBL	RampL1	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
12	Merging	EBT	CrossT1	Cross thru	SBL	RampL2	Signal far	3750	1125	4218750	40	25	45	14.24	0.0055
13	Merging	EBT,SBL	CrossT1,RampL2	Cross thru	NBR	RampR1	Signal near	4875	1125	5484375	40	15	45	15.62	0.0078
14	Merging	WBR	CrossR2	Cross right	WBL	CrossL2	Cross left	1875	1875	3515625	15	20	45	7.08	0.0004
15	Diverging	SBR	RampR2	Signal near	SBL	RampL2	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
16	Diverging	EBT	CrossT1	Cross thru	EBL	CrossL1	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
17	Diverging	EBT	CrossT1	Cross thru	EBR	CrossR1	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
18	Diverging	NBR	RampR1	Signal near	NBL	RampL1	Signal near	1125	1125	1265625	15	15	10	1.31	0.0000
19	Diverging	WBT	CrossT2	Cross thru	WBL	CrossL2	Cross left	3750	1875	7031250	40	20	10	10.30	0.0016
20	Diverging	WBT	CrossT2	Cross thru	WBR	CrossR2	Cross right	3750	1875	7031250	40	15	10	12.68	0.0036
21	Nonmotorized		RampNM2	Nonmotorized	SBL	RampL2	Signal near	375	1125	421875	0	15			0.1205
22	Nonmotorized		RampNM2	Nonmotorized	SBR	RampR2	Signal near	375	1125	421875	0	15			0.1205
23	Nonmotorized		CrossNM1	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
24	Nonmotorized		CrossNM1	Nonmotorized	NBL	RampL1	Signal far	375	1125	421875	0	25			0.3207
25	Nonmotorized		CrossNM1	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
26	Nonmotorized		CrossNM1	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
27	Nonmotorized		RampNM1	Nonmotorized	EBR	CrossR1	Cross right	375	1875	703125	0	15			0.1205
28	Nonmotorized		RampNM1	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
29	Nonmotorized		RampNM1	Nonmotorized	NBL	RampL1	Signal near	375	1125	421875	0	15			0.1205
30	Nonmotorized		RampNM1	Nonmotorized	NBR	RampR1	Signal near	375	1125	421875	0	15			0.1205
31	Nonmotorized		CrossNM2	Nonmotorized	EBT	CrossT1	Cross thru	375	3750	1406250	0	40			0.7512
32	Nonmotorized		CrossNM2	Nonmotorized	SBL	RampL2	Signal far	375	1125	421875	0	25			0.3207
33	Nonmotorized		CrossNM2	Nonmotorized	WBL	CrossL2	Cross left	375	1875	703125	0	20			0.2027
34	Nonmotorized		CrossNM2	Nonmotorized	WBT	CrossT2	Cross thru	375	3750	1406250	0	40			0.7512
35	Nonmotorized		RampNM2	Nonmotorized	EBL	CrossL1	Cross left	375	1875	703125	0	20			0.2027
36	Nonmotorized		RampNM2	Nonmotorized	WBR	CrossR2	Cross right	375	1875	703125	0	15			0.1205

#	Conflicting Traffic Complexity: Traffic Control	Conflicting Lanes: CrossC	RampC	CrossM/P	RampM/P	Score	Conflicting Speed: Speed	Factor	Pedestrian Complexity: Indirect Paths Indicator	Non-intuitive movements indicator	Pedestrian Complexity factor	Total Complexity Multiplier	Exposure-Severity-Complexity Product
1	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
2	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
3	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
4	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
5	0.505	0	0	0	0	1	40	0.778			1	0.392777778	17858.88971
6	0.505	0	0	0	0	1	40	0.778			1	0.392777778	182504.9982
7	0.505	0	0	0	0	1	40	0.778			1	0.392777778	6927.777237
8	0.505	0	0	0	0	1	40	0.778			1	0.392777778	82120.74512
9	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
10	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
11	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
12	0.505	0	0	0	0	1	40	0.778			1	0.392777778	9127.690242
13	0.505	0	0	0	0	1	40	0.778			1	0.392777778	16875.6147
14	1	0	0	0	0	1	40	0.778			1	0.777777778	1067.033058
15	1	0	0	0	0	1		1.000			1	1	0.810776943
16	1	0	0	0	0	1		1.000			1	1	11348.31263
17	1	0	0	0	0	1		1.000			1	1	24976.22992
18	1	0	0	0	0	1		1.000			1	1	0.810776943
19	1	0	0	0	0	1		1.000			1	1	11348.31263
20	1	0	0	0	0	1		1.000			1	1	24976.22992
21	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
22	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
23	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
24	0.925	0	0	0	0	1	40	0.778	1		2	1.438888889	194655.9785
25	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
26	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
27	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839
28	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
29	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
30	0.505	0	0	0	0	1	15	0.500			1	0.2525	12836.11725
31	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
32	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	106271.6423
33	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	111987.2143
34	0.505	0	0	0	0	1	40	0.778	1		2	0.785555556	829795.2952
35	0.505	0	0	0	0	1	40	0.778			1	0.392777778	55993.60717
36	1	0	0	0	0	1	40	0.778			1	0.777777778	65898.65839

Included in Mvmt1

#	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
1		1														
2	1															
3					1											
4	1															
5					1											
6				1												
7		1														
8				1												
9				1				1								
10			1													
11				1												
12	1															
13	1										1					
14						1										
15												1				
16	1															
17	1															
18									1							
19				1												
20				1												
21																1
22																1
23													1			
24													1			
25													1			
26													1			
27															1	
28															1	
29															1	
30															1	
31														1		
32														1		
33														1		
34														1		
35																1
36																1
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

Included in Mvmt2

#	CrossT1	CrossL1	CrossR1	CrossT2	CrossL2	CrossR2	RampT1	RampL1	RampR1	RampT2	RampL2	RampR2	CrossNM1	CrossNM2	RampNM1	RampNM2
1								1								
2					1											
3								1								
4								1								
5											1					
6		1														
7											1					
8											1					
9												1				
10					1											
11								1								
12											1					
13									1							
14					1											
15											1					
16		1														
17			1													
18								1								
19					1											
20						1										
21											1					
22												1				
23				1												
24								1								
25		1														
26	1															
27			1													
28					1											
29								1								
30									1							
31	1															
32											1					
33					1											
34				1												
35		1														
36						1										
O	3750	1875	1875	3750	1875	1875	2250	1125	1125	2250	1125	1125	375	375	375	375
D	7750	3875	3875	7750	3875	3875	2500	1250	1250	2500	1250	1250	425	425	425	425

*impact of median on complexity factors

#	Conflict Ty	Cross-street: No, Ramps: Yes MajC	MinC	MajM/P	MinM/P	Cross-street: Yes, Ramps: Yes MajC	MinC	MajM/P	MinM/P
1	Crossing -	1	0	1	0	1	0	0	0
2	Crossing -	1	0	0	0	1	0	0	0
3	Crossing -	1	0	1	0	1	0	0	0
4	Crossing -	1	0	1	0	1	0	0	0
5	Crossing -	1	0	1	0	1	0	0	0
6	Crossing -	1	0	0	0	1	0	0	0
7	Crossing -	1	0	1	0	1	0	0	0
8	Crossing -	1	0	1	0	1	0	0	0
9	Merging	0	0	1	0	0	0	1	0
10	Merging	0	0	0	1	0	0	0	1
11	Merging	1	0	1	0	0	0	1	0
12	Merging	1	0	1	0	0	0	1	0
13	Merging	0	0	1	0	0	0	1	0
14	Merging	0	0	0	1	0	0	0	1
15	Diverging	0	0	0	0	0	0	0	0
16	Diverging	0	0	0	0	0	0	0	0
17	Diverging	0	0	0	0	0	0	0	0
18	Diverging	0	0	0	0	0	0	0	0
19	Diverging	0	0	0	0	0	0	0	0
20	Diverging	0	0	0	0	0	0	0	0
21	Nonmotor	0	1	0	0	0	1	0	0
22	Nonmotor	0	1	0	0	0	1	0	0
23	Nonmotor	2	0	0	1	1	0	0	1
24	Nonmotor	2	0	0	1	1	0	0	1
25	Nonmotor	2	0	0	1	1	0	0	0
26	Nonmotor	2	0	0	1	1	0	0	0
27	Nonmotor	0	1	0	0	0	1	0	0
28	Nonmotor	0	1	0	0	0	1	0	0
29	Nonmotor	0	1	0	0	0	1	0	0
30	Nonmotor	0	1	0	0	0	1	0	0
31	Nonmotor	2	0	0	1	1	0	0	1
32	Nonmotor	2	0	0	1	1	0	0	1
33	Nonmotor	2	0	0	1	1	0	0	0
34	Nonmotor	2	0	0	1	1	0	0	0
35	Nonmotor	0	1	0	0	0	1	0	0
36	Nonmotor	0	1	0	0	0	1	0	0

Exposure Q1	Q2	I	Exposure-Severity-Complexity Product
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
3875	1250	4843750	41009.3023
7750	3875	30031250	779499.1257
3875	1250	4843750	15908.22921
7750	1250	9687500	188573.5629
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
7750	1250	9687500	20959.8813
7750	1250	9687500	20959.8813
9000	1250	11250000	34616.64554
3875	3875	15015625	4557.416751
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
1250	1250	1562500	1.000959189
7750	3875	30031250	48469.90415
7750	3875	30031250	106676.2531
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	245122.3433
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	154349.3021
425	3875	1646875	131149.471
425	1250	531250	16163.99949
425	1250	531250	16163.99949
425	7750	3293750	1943564.98
425	1250	531250	133823.5496
425	3875	1646875	262298.942
425	7750	3293750	1943564.98
425	3875	1646875	131149.471
425	3875	1646875	154349.3021

Safe System for Intersection (SSI) Inputs

Specify the geomtric, exposure, severity, and conflicting traffic complexity inputs required for an SSI analysis.

1. Roadway Geometry	Lanes
Major number thru lanes (one direction)	3
Minor number thru lanes (one direction)	1

Optional Major Street Designation	
Select major street direction	E-W
Median Presence on Major Road	Yes
Median Presence on Minor Road	Yes

	Required Inputs
	Default Available, Override Optional
	Planning-Level Default Input
	Computed Value, Override Optional
	Computed Value - No Override
	Disabled Cell (Often based on input selections)

2. Complete the "Exposure" inputs. These inputs will apply to all interesections selected for analysis.
3. Complete the "Severity" inputs
4. Complete the "Conflicting Traffic Complexity" inputs

2. Exposure - All Intersections

Average Daily Traffic (veh/day)	Open	Design
Major	41,500	46,000
Minor	3,600	3,900

ADT Directional Split	
Major	0.50
Minor	0.50

Nonmotorized Total ADT (ped/day)	Activity Level	ADT Value (ped/day)
Open Year Total Intersection NM	Medium (700)	700
Design Year Total Intersection NM	Medium (700)	700

(or overwrite ped movement ADTs below)

Nonmotorized Movement ADT (ped/day)	Open	Design
Major NM 1 (NM mvmt crossing Maj1)	233	233
Major NM 2	233	233
Minor NM 1	233	233
~~Minor NM 2~~	~~0~~	~~0~~

Are turning movement ADT values are available?	No	If "Yes", input values in Table 2-A
Are peak hour turning movement counts available?	Yes	If "Yes", input values in Table 2-B

If no turning movment volumes or counts are available, a user can optionally override the planning-level default turning movment proportions in Table 2-C

Table 2-A: Turning Movement (vol/day)

	Open	Design
Major Thru 1	19682.14	21816.34
~~Major Left Turn 1~~	~~0~~	~~0~~
Major Right Turn 1	1067.863	1183.656
Major Thru 2	20071.69	22248.14
Major Left Turn 2	678.3102	751.8619
~~Major Right Turn 2~~	~~0~~	~~0~~
~~Minor Thru 1~~	~~581.5085~~	~~629.9676~~
Minor Left Turn 1	870.5923	943.1417
Minor Right Turn 1	347.8992	376.8908
~~Minor Thru 2~~	~~0~~	~~0~~
~~Minor Left Turn 2~~	~~0~~	~~0~~
~~Minor Right Turn 2~~	~~0~~	~~0~~

Table 2-B: Turning Movement Counts (Optional)

	Mvmt	AM Peak	AM %	PM Peak	PM %	Avg %
Major Thru 1	EBT	2143	0.918953688	1789	0.851905	0.885429
~~Major Left Turn 1~~	~~EBL~~	~~100~~	~~0.042881647~~	~~175~~	~~0.083333~~	~~0.063107~~
Major Right Turn 1	EBR	89	0.038164666	136	0.064762	0.051463
Major Thru 2	WBT	1673	0.95381984	2142	0.955397	0.954608
Major Left Turn 2	WBL	56	0.031927024	75	0.033452	0.03269
~~Major Right Turn 2~~	~~WBR~~	~~25~~	~~0.014253136~~	~~25~~	~~0.011151~~	~~0.012702~~
~~Minor Thru 1~~	~~NBT~~	~~100~~	~~0.323624595~~	~~75~~	~~0.315126~~	~~0.319375~~
Minor Left Turn 1	NBL	147	0.475728155	117	0.491597	0.483662
Minor Right Turn 1	NBR	62	0.200647249	46	0.193277	0.196962
~~Minor Thru 2~~	~~SBT~~	~~75~~	~~0.428571429~~	~~100~~	~~0.5~~	~~0.464286~~
~~Minor Left Turn 2~~	~~SBL~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~
~~Minor Right Turn 2~~	~~SBR~~	~~50~~	~~0.285714286~~	~~50~~	~~0.25~~	~~0.267857~~

Table 2-C: Turning Proportions (optional)

	Decimal
Major Thru 1	0.948536715
~~Major Left Turn 1~~	~~0~~
Major Right Turn 1	0.051463285
Major Thru 2	0.967310351
Major Left Turn 2	0.032689649
~~Major Right Turn 2~~	~~0~~
~~Minor Thru 1~~	~~0.323060292~~
Minor Left Turn 1	0.483662397
Minor Right Turn 1	0.193277311
~~Minor Thru 2~~	~~0~~
~~Minor Left Turn 2~~	~~0~~
~~Minor Right Turn 2~~	~~0~~

Turning movment proportions specified in **Table 2-C** (and by extension, the percentages determined in **Table 2-B**) are considered to be constant between the Open and Design years of the analysis.

3. Severity

Vehicle Speeds	mph
Major Posted Speed Limit	30
Minor Posted Speed Limit	25
Major thru	30
Major left	20
Major right	15
Minor thru	21.25
Minor left	20
Minor right	15
Stop near	15
Stop far	25
Signal near	15
Signal far	25
RAB entering	20
RAB circulating	25
RAB exiting	30
Nonmotorized	0

Collision Angles	deg
Crossing	90
Crossing - LT	230
Crossing - RAB	60
Merging	45
Diverging	10

P(FSI) Regression Parameters	
alpha	67.29
k	3.79

4. Conflicting Traffic Complexity

Traffic Control	Decimal
Base Traffic Control Adjustment Value (BTCAV) for permitted	1
Base Traffic Control Adjustment Value (BTCAV) for protected/permitted	0.85
Base Traffic Control Adjustment Value (BTCAV) for protected	0.01
Base Traffic Control Adjustment Value (BTCAV) for stop-controlled	0.45
Weight, f, for permitted	0.5
Weight, f, for protected/permitted	0.5
Weight, f, for protected	0.5
Weight, f, for stop-controlled	0.5
Major LT signal phasing (drop-down)	Protected
Minor LT signal phasing (drop-down)	Protected
Exclusive Pedestrian phasing (drop-down)	No

Traffic Control Parameter (a_traffic control)	
Permitted	1
Protected/permitted	0.925
Protected	0.505
Stop-controlled	0.725

Driver Merging Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3+)	0.5

Nonmotorized Complexity	
Nonmotorized Turn Score Weights (W)	
Lane 1 (W1)	1
Lane 2 (W2)	0.75
Lane 3+ (W3)	0.5

Calibration

Optional - Input locally-developed calibration factors for SPFs.

At-Grade Intersection SPFs

Traffic Control	Facility Type	# legs	1 way/ 2 way	# of lanes on arterial	Default Calibration Factor	Optional User Override	Use Value
Traffic Signal (For more information on determining signal type, refer to the "Definitions" worksheet)	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.92		0.92
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	0.45		0.45
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	2.50		2.50
		4 leg	2x2	5 or fewer	2.27		2.27
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Minor Road Stop	On Rural Two Lane Highway	3 leg	-	-	1.27		1.27
		4 leg	-	-	0.74		0.74
	On Rural Multilane Highway	3 leg	-	-	2.20		2.20
		4 leg	-	-	1.64		1.64
	On Urban and Suburban Arterial	3 leg	2x2	5 or fewer	1.14		1.14
		4 leg	2x2	5 or fewer	1.87		1.87
		3 leg	2x2	6 or more	1.00		1.00
		4 leg	2x2	6 or more	1.00		1.00
		3 leg	1x2	-	1.00		1.00
		4 leg	1x2	-	1.00		1.00
		3 leg	1x1	-	1.00		1.00
		4 leg	1x1	-	1.00		1.00
	On High Speed (50+ MPH) Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
All-Way Stop	On Rural Two Lane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Rural Multilane Highway	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	On Urban and Suburban Arterial	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Roundabout	1-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
	2-lane roundabout	3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn		3 leg	-	-	1.00		1.00
		4 leg	-	-	1.00		1.00

Ramp Terminal Intersection SPFs

Control	Ramp and Intersection Type	SPF Calibration Factor	Optional User Override	Use Value
Signalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Diverging Diamond	All types	1.00		1.00
Single-Point Diamond	All types	1.00		1.00
Unsignalized Diamond	Four-leg terminals with diagonal ramps (D4)	1.00		1.00
Roundabout	1-lane roundabout with 4 legs	1.00		1.00
	2-lane roundabout with 4 legs	1.00		1.00
Signalized Tight Diamond		1.00		1.00

Local CMFs

Optional - Override default CMFs with locally-developed or new CMFs

Control	Default Base Intersection	Type of Crashes	Default CMF	Optional User Override	Use Value
Displaced Left Turn (DLT)	Traffic Signal	Total	0.88		0.88
		Fatal-Injury	0.88		0.88
Median U-Turn (MUT)	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.70		0.70
Signalized Restricted Crossing U-Turn (RCUT), also known Superstreet	Traffic Signal	Total	0.85		0.85
		Fatal-Injury	0.78		0.78
Unsignalized Restricted Crossing U-Turn (RCUT), also known as J-Turn	Minor Road Stop (TWSC)	Total	0.65		0.65
		Fatal-Injury	0.46		0.46
Signalized Thru-Cut	Traffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Unsignalized Thru-Cut	Minor Road Stop (TWSC)	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Bowtie	Taffic Signal	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Continuous Green-T Intersection	Traffic Signal	Total	0.96		0.96
		Fatal-Injury	0.85		0.85
Jughandles	Traffic Signal	Total	0.74		0.74
		Fatal-Injury	0.74		0.74
Other 1*	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Other 2*	User Selection	Total	1.00		1.00
		Fatal-Injury	1.00		1.00
Crossover Traffic Signal (of Diverging Diamond Interchange)	Traffic Signal	Total	0.67		0.67
		Fatal-Injury	0.59		0.59

Historical Crash Data Input

Note: In order to use Empirical Bayes (EB), the historical intersection type must be a traffic signal or a minor road stop. Additionally, this alternative must be selected to be included in the analysis, and the historical intersection specified below. Up to 10 years of historical data can be used to perform the EB adjustment.

Is historical crash data available?	Yes		
Number of years available:	5	(Up to 10)	First Year Data is available: 2018
Historical Intx Type:	4ST		

Historical Crash Counts		Year										
		2018	2019	2020	2021	2022	--	--	--	--	--	Total
Combined	Total	6	5	3	3	3	--	--	--	--	--	20
	Fatal/Injury	2	2	0	0	0						4
	PDO	4	3	3	3	3						16
Single-Vehicle	Total											
	Fatal/Injury											
	PDO											
Multiple-Vehicle	Total											
	Fatal/Injury											
	PDO											
Veh-Ped	Fatal/Injury	0	0	0	0	0						0
Veh-Bike	Fatal/Injury	1	0	0	0	0						1
Total	All	7	5	3	3	3	--	--	--	--	--	21

Computations Only Below This Point

Empirical Bayes Computations (No Data Entry)

			2018	2019	2020	2021	2022	--	--	--	--	--	Total
Combined Collisions	Year												
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	2.27	2.27	2.27	2.27	2.27	--	--	--	--	--	11.35
		PDO	1.69	1.69	1.69	1.69	1.69	--	--	--	--	--	8.43
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.60	0.60	0.60	0.60	0.60	--	--	--	--	--	--
		PDO	1.14	1.14	1.14	1.14	1.14	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	0.42	0.42	0.42	0.42	0.42	--	--	--	--	--	--
		PDO	0.34	0.34	0.34	0.34	0.34	--	--	--	--	--	--
	$N_{expected}$	Total	5.32	4.66	3.51	3.51	3.51	--	--	--	--	--	--
		Fatal/Injury	2.11	2.11	0.96	0.96	0.96	--	--	--	--	--	7.12
		PDO	3.21	2.55	2.55	2.55	2.55	--	--	--	--	--	13.41
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	0.63
												PDO	1.59
Multiple-Vehicle Only (When Applicable)	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Total		--	--	--	--	--	--	--	--	--	--
		Fatal/Injury		--	--	--	--	--	--	--	--	--	--
		PDO		--	--	--	--	--	--	--	--	--	--
	Dispersion Parameter (k)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	Weighted Adjustment (w)	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Total	--	--	--	--	--	--	--	--	--	--	--
		Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
		PDO	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											Total	1.00
												F/I	1.00
												PDO	1.00
Vehicle-Pedestrian	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury		--	--	--	--	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00
Vehicle-Bicyle	Year		2018	2019	2020	2021	2022	--	--	--	--	--	Total
	$N_{predicted}$	Fatal/Injury	0.19	0.19	0.19	0.19	0.19	--	--	--	--	--	--
	Disp. (k)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	Weight (w)	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$	Fatal/Injury	--	--	--	--	--	--	--	--	--	--	--
	$N_{expected}$ / $N_{predicted}$											F/I	1.00

Dispersion Parameters			At-Grade Intersection Facility Type						
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials	Urban/Suburban Arterials w/ 6 or More Lanes			High Speed
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	0.54	0.46	--	--	--	--	--
		3SG	0.31	0.40	--	--	--	--	--
		4ST	0.24	0.49	--	--	--	--	--
		4SG	0.11	0.28	--	--	--	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	0.57	--	0.65	2.00	2.00	--
		3SG	--	1.15	--	0.52	0.95	0.95	--
		4ST	--	0.74	--	0.60	0.53	0.53	--
		4SG	--	0.22	--	0.56	1.33	1.33	--
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	0.75	1.03	1.03	--
		3SG	--	--	--	1.00	0.90	0.90	--
		4ST	--	--	--	1.14	0.96	0.96	--
		4SG	--	--	--	0.99	2.00	2.00	--
Single-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	1.14	--	--	--	0.69
		3SG	--	--	0.36	--	--	--	0.57
		4ST	--	--	0.65	--	--	--	1.12
		4SG	--	--	0.36	--	--	--	0.55
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	2.10
		3SG	--	--	0.24	--	--	--	1.04
		4ST	--	--	--	--	--	--	1.64
		4SG	--	--	0.09	--	--	--	0.98
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.29	--	--	--	0.75
		3SG	--	--	0.53	--	--	--	0.74
		4ST	--	--	0.54	--	--	--	1.40
		4SG	--	--	0.44	--	--	--	0.84
Multiple-Vehicle	Total	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.80	--	--	--	0.85
		3SG	--	--	0.33	--	--	--	0.21
		4ST	--	--	0.40	--	--	--	0.91
		4SG	--	--	0.39	--	--	--	0.39
	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.69	--	--	--	0.76
		3SG	--	--	0.30	--	--	--	0.09
		4ST	--	--	0.48	--	--	--	0.89
		4SG	--	--	0.33	--	--	--	0.31
	PDO	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	0.77	--	--	--	1.11
		3SG	--	--	0.36	--	--	--	0.34
		4ST	--	--	0.40	--	--	--	0.94
		4SG	--	--	0.44	--	--	--	0.38
Veh-Pedestrian	Fatal / Injury	Intx	R2L	RML	U/S Art.	2x2	1x2	1x1	U/S Art.
		3ST	--	--	--	--	--	--	--
		3SG	--	--	0.52	0.52	0.52	0.52	--
		4ST	--	--	--	--	--	--	--
		4SG	--	--	0.24	0.24	0.24	0.24	--

AWSC Dispersion Parameters 17-68 Report Update			Intersection Facility Type		
			Rural Two-Lane Highways	Rural Multilane Highways	Urban/Suburban Arterials
Combined Multi and Single Vehicle	Total	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	--
		4AWSC	0.39	--	--
	Fatal / Injury	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.07
		4AWSC	--	--	0.66
	PDO	Intx	R2L	RML	U/S Art.
		3AWSC	--	--	0.37
		4AWSC	--	--	0.78

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Results

Summary of crash prediction results for each alternative

Project Information

Project Name:	NE 79th Street PD&E Study	**Intersection Type**	At-Grade Intersection
Intersection:	NE 79th Street at Adventure Avenue	**Opening Year**	2030
Agency:	FDOT-6	**Design Year**	2050
Project Reference:	10348806	**Facility Type**	On Urban and Suburban Arterial
City:	North Bay Village	**Number of Legs**	3-leg
State:	Florida	**1-Way/2-Way**	2-way Intersecting 2-way
Date:	10/10/2023	**# of Major Street Lanes (both directions)**	6 or more
Analyst:	HDR	**Major Street Approach Speed**	Less than 55 mph

Crash Prediction Summary

Control Strategy	Crash Type	Opening Year	Design Year	Total Project Life Cycle	Crash Prediction Rank	AADT Within SPF Prediction Range?	Source of Prediction	SSI Score: Opening Year	SSI Score: Design Year	SSI Score: Rank
Traffic Signal	Total	5.62	6.05	122.58	3	Yes	Uncalibrated SPF	81	79	1
	Fatal & Injury	2.95	3.20	64.54						
2-lane Roundabout	Total	14.63	16.39	325.72	4	No	Uncalibrated SPF	73	71	3
	Fatal & Injury	2.98	3.40	66.95						
Median U-Turn (MUT)	Total	4.78	5.14	104.19	1	N/A	CMF	--	--	--
	Fatal & Injury	2.06	2.24	45.18						
Signalized RCUT	Total	19.87	23.27	452.62	5	Yes	Uncalibrated SPF	71	69	4
	Fatal & Injury	3.89	4.61	89.08						
Continuous Green-T Intersection	Total	5.40	5.81	117.67	2	N/A	CMF	81	79	2
	Fatal & Injury	2.50	2.72	54.86						
			--	--						
			--	--						

Florida Department of Transportation
Safety Performance for Intersection Control Evaluation Tool

Safe System for Intersection (SSI) Results

Summary of the safe system intersection results for each alternative

Conversion of Existing Intersection Type:	Traffic Signal

Select from Dropdown List

Opening Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	TradT_Sig	81	46	94	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	0.84	1.00
2-Lane Roundabout	T_2x2_RAB	73	29	99	100	100	1.00	0.98	1.02	1.02	0.33	0.00	0.00	0.00	2.44	1.22	1.12	1.00
Median U-Turn (MUT)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Signalized RCUT	T_RCUT_Sig	71	27	99	100	100	1.01	0.43	1.71	1.51	0.25	0.01	0.00	0.00	1.68	1.01	0.84	1.00
Continuous Green-T	CGT	81	46	94	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	1.09	1.00

Design Year Results

Control Strategy	SSI Ref Worksheet Name	SSI Score	SSI Conflict Type Score				Exposure (Relative to Existing)				Average P(FSI)				Average Complexity			
			Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging	Nonmotorized	Crossing	Merging	Diverging
Traffic Signal	TradT_Sig	79	43	93	100	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	0.84	1.00
2-Lane Roundabout	T_2x2_RAB	71	25	99	100	100	1.00	0.98	1.02	1.02	0.33	0.00	0.00	0.00	2.44	1.22	1.12	1.00
Median U-Turn (MUT)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Signalized RCUT	T_RCUT_Sig	69	23	98	99	100	1.01	0.44	1.71	1.50	0.25	0.01	0.00	0.00	1.68	1.01	0.84	1.00
Continuous Green-T	CGT	79	43	93	99	100	1.00	1.00	1.00	1.00	0.27	0.02	0.00	0.00	1.15	1.01	1.09	1.00

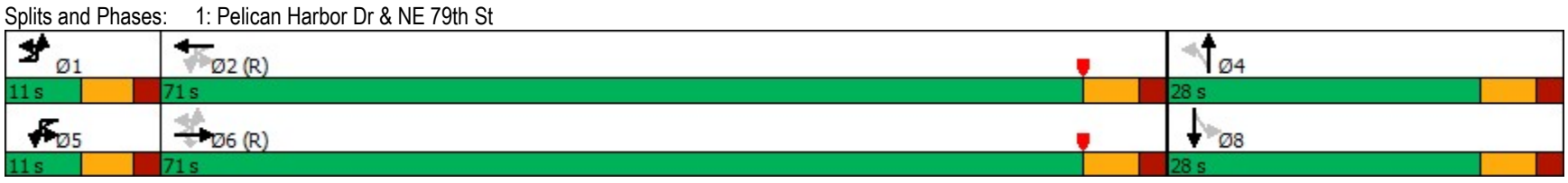
Appendix H.

Future Intersection Capacity Analyses

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	21	2000	16	9	9	1784	12	4	4	9
Future Volume (vph)	2	21	2000	16	9	9	1784	12	4	4	9
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	1	6		5	5	2		4		8
Permitted Phases	6	6		6	2	2		4		8	
Detector Phase	1	1	6	6	5	5	2	4	4	8	8
Switch Phase											
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%	25.5%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Act Effct Green (s)		91.1	91.2	91.2		90.0	89.0	10.1	10.1	10.1	10.1
Actuated g/C Ratio		0.83	0.83	0.83		0.82	0.81	0.09	0.09	0.09	0.09
v/c Ratio		0.11	0.50	0.01		0.10	0.46	0.10	0.11	0.03	0.14
Control Delay		4.5	6.7	0.0		4.6	6.9	44.0	23.4	41.5	26.2
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.5	6.7	0.0		4.6	6.9	44.0	23.4	41.5	26.2
LOS	A	A	A		A	A	D	C	D	C	
Approach Delay		6.6				6.9		32.0		28.4	
Approach LOS		A				A		C		C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



1: Pelican Harbor Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases	1	1	6		5	5	2		4		8
Permitted Phases	6	6		6	2	2		4		8	
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%	25.5%
Maximum Green (s)	5.3	5.3	65.0	65.0	5.3	5.3	65.0	22.0	22.0	22.0	22.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			4	1	1	1	1
90th %ile Green (s)	5.3	5.3	64.6	64.6	5.3	5.3	64.6	22.4	22.4	22.4	22.4
90th %ile Term Code	Max	Max	Coord	Coord	Max	Max	Coord	Ped	Ped	Ped	Ped
70th %ile Green (s)	5.0	5.0	80.3	80.3	5.0	5.0	80.3	7.0	7.0	7.0	7.0
70th %ile Term Code	Min	Min	Coord	Coord	Min	Min	Coord	Min	Min	Min	Min
50th %ile Green (s)	5.0	5.0	91.0	91.0	0.0	0.0	80.3	7.0	7.0	7.0	7.0
50th %ile Term Code	Min	Min	Coord	Coord	Skip	Skip	Coord	Min	Min	Min	Min
30th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	2105	17	18	1890	13	18	4	24
v/c Ratio	0.11	0.50	0.01	0.10	0.46	0.10	0.11	0.03	0.14
Control Delay	4.5	6.7	0.0	4.6	6.9	44.0	23.4	41.5	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	6.7	0.0	4.6	6.9	44.0	23.4	41.5	26.2
Queue Length 50th (ft)	2	119	0	2	181	9	3	3	6
Queue Length 95th (ft)	13	415	0	11	350	25	22	12	28
Internal Link Dist (ft)		977			2612		419		426
Turn Bay Length (ft)	200		200	200		250		50	
Base Capacity (vph)	218	4218	1295	187	4115	277	337	278	347
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.50	0.01	0.10	0.46	0.05	0.05	0.01	0.07

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	2	21	2000	16	9	9	1784	11	12	4	13	4	9	14
Future Volume (veh/h)	2	21	2000	16	9	9	1784	11	12	4	13	4	9	14
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No			No	
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		22	2105	17		9	1878	12	13	4	14	4	9	15
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2	2	2
Cap, veh/h		255	3934	1218		201	3974	25	126	21	73	131	36	60
Arrive On Green		0.02	0.77	0.77		0.01	0.76	0.76	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h		1781	5106	1581		1781	5235	33	1381	363	1271	1388	628	1047
Grp Volume(v), veh/h		22	2105	17		9	1221	669	13	0	18	4	0	24
Grp Sat Flow(s),veh/h/ln		1781	1702	1581		1781	1702	1864	1381	0	1634	1388	0	1676
Q Serve(g_s), s		0.3	17.7	0.3		0.1	14.8	14.8	1.0	0.0	1.2	0.3	0.0	1.5
Cycle Q Clear(g_c), s		0.3	17.7	0.3		0.1	14.8	14.8	2.5	0.0	1.2	1.5	0.0	1.5
Prop In Lane		1.00		1.00		1.00		0.02	1.00		0.78	1.00		0.63
Lane Grp Cap(c), veh/h		255	3934	1218		201	2584	1415	126	0	94	131	0	97
V/C Ratio(X)		0.09	0.54	0.01		0.04	0.47	0.47	0.10	0.00	0.19	0.03	0.00	0.25
Avail Cap(c_a), veh/h		301	3934	1218		268	2584	1415	323	0	327	329	0	335
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		0.75	0.75	0.75	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh		3.8	4.9	2.9		4.2	5.0	5.0	50.7	0.0	49.4	50.1	0.0	49.6
Incr Delay (d2), s/veh		0.1	0.5	0.0		0.0	0.5	0.9	0.3	0.0	0.7	0.1	0.0	1.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln		0.2	8.8	0.1		0.1	7.4	8.2	0.6	0.0	0.9	0.2	0.0	1.2
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		3.8	5.5	2.9		4.2	5.4	5.8	51.0	0.0	50.1	50.1	0.0	50.5
LnGrp LOS		A	A	A		A	A	A	D	A	D	D	A	D
Approach Vol, veh/h			2144				1899			31			28	
Approach Delay, s/veh			5.4				5.6			50.5			50.5	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	8.1	89.5	12.3	6.9	90.8	12.3
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	65.0	22.0	* 5.3	65.0	22.0
Max Q Clear Time (g_c+I1), s	2.3	16.8	4.5	2.1	19.7	3.5
Green Ext Time (p_c), s	0.0	6.5	0.0	0.0	9.6	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

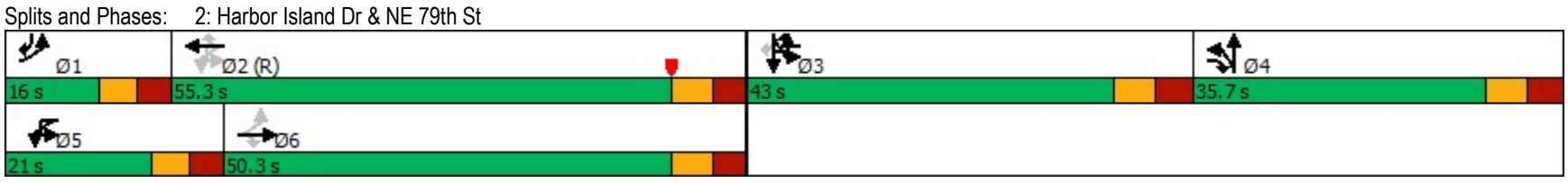
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	1850	22	8	15	1520	109	40	3	135	5	253
Future Volume (vph)	154	1850	22	8	15	1520	109	40	3	135	5	253
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Detector Phase	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase												
Minimum Initial (s)	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)	103.4	95.4	106.9		84.9	79.1	92.6	13.9	13.9	13.9	13.9	31.6
Actuated g/C Ratio	0.69	0.64	0.71		0.57	0.53	0.62	0.09	0.09	0.09	0.09	0.21
v/c Ratio	0.55	0.60	0.02		0.17	0.60	0.12	0.25	0.20	0.47	0.46	0.80
Control Delay	26.0	21.6	5.7		18.4	26.0	8.4	64.5	63.0	72.2	71.8	59.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	21.6	5.7		18.4	26.0	8.4	64.5	63.0	72.2	71.8	59.3
LOS	C	C	A		B	C	A	E	E	E	E	E
Approach Delay		21.8				24.8			63.9		63.8	
Approach LOS		C				C			E		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Minimum Initial (s)	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Maximum Green (s)	9.0	43.0	28.0	14.0	14.0	48.0	35.3	28.0	28.0	35.3	35.3	9.0
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)		4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)		36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)		3	8			2	6	8	8	6	6	
90th %ile Green (s)	16.3	57.3	28.0	7.0	7.0	48.0	28.0	28.0	28.0	28.0	28.0	16.3
90th %ile Term Code	Max	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Max
70th %ile Green (s)	19.1	90.1	11.3	5.5	5.5	76.5	13.4	11.3	11.3	13.4	13.4	19.1
70th %ile Term Code	Gap	Coord	Gap	Gap	Gap	Coord	Gap	Gap	Gap	Gap	Gap	Gap
50th %ile Green (s)	17.2	93.8	10.0	5.1	5.1	81.7	11.4	10.0	10.0	11.4	11.4	17.2
50th %ile Term Code	Gap	Coord	Min	Gap	Gap	Coord	Gap	Min	Min	Gap	Gap	Gap
30th %ile Green (s)	16.5	107.8	10.0	0.0	0.0	84.3	9.5	10.0	10.0	9.5	9.5	16.5
30th %ile Term Code	Gap	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Gap
10th %ile Green (s)	15.9	128.0	0.0	0.0	0.0	105.1	7.0	0.0	0.0	7.0	7.0	15.9
10th %ile Term Code	Gap	Coord	Skip	Skip	Skip	Coord	Min	Skip	Skip	Min	Min	Gap

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow

Control Type: Actuated-Coordinated

! Phase conflict between lane groups.

2: Harbor Island Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	162	1947	23	24	1600	115	42	29	74	73	266
v/c Ratio	0.55	0.60	0.02	0.17	0.60	0.12	0.25	0.20	0.47	0.46	0.80
Control Delay	26.0	21.6	5.7	18.4	26.0	8.4	64.5	63.0	72.2	71.8	59.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	21.6	5.7	18.4	26.0	8.4	64.5	63.0	72.2	71.8	59.3
Queue Length 50th (ft)	48	402	3	7	397	45	40	28	74	73	199
Queue Length 95th (ft)	174	#818	15	17	#684	81	72	55	117	116	180
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	292	3234	1191	240	2682	1190	333	297	399	401	333
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.60	0.02	0.10	0.60	0.10	0.13	0.10	0.19	0.18	0.80

Intersection Summary

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

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	154	1850	22	8	15	1520	109	40	3	25	135	5	253
Future Volume (vph)	154	1850	22	8	15	1520	109	40	3	25	135	5	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Lane Util. Factor	1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00	0.99	1.00	0.98		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.87		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1544		1770	5085	1563	1787	1592		1698	1708	1584
Flt Permitted	0.09	1.00	1.00		0.08	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)	160	5085	1544		144	5085	1563	1787	1592		1698	1708	1584
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	162	1947	23	8	16	1600	115	42	3	26	142	5	266
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	162	1947	23	0	24	1600	115	42	29	0	74	73	266
Confl. Peds. (#/hr)	2		3		3		2			8			6
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4		3	3	1
Permitted Phases	6		6	2	2		2						3
Actuated Green, G (s)	101.5	91.0	102.9		81.0	77.5	91.4	11.9	11.9		13.9	13.9	30.9
Effective Green, g (s)	101.5	91.0	102.9		81.0	77.5	91.4	11.9	11.9		13.9	13.9	30.9
Actuated g/C Ratio	0.68	0.61	0.69		0.54	0.52	0.61	0.08	0.08		0.09	0.09	0.21
Clearance Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Vehicle Extension (s)	2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0		2.5	2.5	2.0
Lane Grp Cap (vph)	290	3084	1059		115	2627	952	141	126		157	158	326
v/s Ratio Prot	0.06	c0.38	0.00		0.00	0.31	0.01	c0.02	0.02		0.04	0.04	c0.09
v/s Ratio Perm	0.31		0.01		0.11		0.06						0.08
v/c Ratio	0.56	0.63	0.02		0.21	0.61	0.12	0.30	0.23		0.47	0.46	0.82
Uniform Delay, d1	19.0	18.8	7.5		17.3	25.6	12.4	65.1	64.8		64.6	64.5	56.8
Progression Factor	1.00	1.00	1.00		1.09	0.90	0.72	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.3	0.3	0.0		0.3	1.0	0.0	1.6	1.3		1.6	1.6	13.8
Delay (s)	20.3	19.1	7.5		19.1	24.0	8.9	66.7	66.0		66.2	66.1	70.6
Level of Service	C	B	A		B	C	A	E	E		E	E	E
Approach Delay (s)		19.1				22.9			66.4			69.0	
Approach LOS		B				C			E			E	

Intersection Summary			
HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	3	26	1989	1612	15	8	37
Future Vol, veh/h	3	26	1989	1612	15	8	37
Conflicting Peds, #/hr	0	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	70	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	3	3
Mvmt Flow	3	27	2094	1697	16	8	39

Major/Minor	Major1			Major2		Minor2	
Conflicting Flow All	1250	1721	0	-	0	2611	865
Stage 1	-	-	-	-	-	1713	-
Stage 2	-	-	-	-	-	898	-
Critical Hdwy	5.64	5.34	-	-	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	-	6.06	-
Follow-up Hdwy	2.32	3.12	-	-	-	3.83	3.93
Pot Cap-1 Maneuver	319	173	-	-	-	43	253
Stage 1	-	-	-	-	-	86	-
Stage 2	-	-	-	-	-	322	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	179	179	-	-	-	35	251
Mov Cap-2 Maneuver	-	-	-	-	-	35	-
Stage 1	-	-	-	-	-	71	-
Stage 2	-	-	-	-	-	319	-

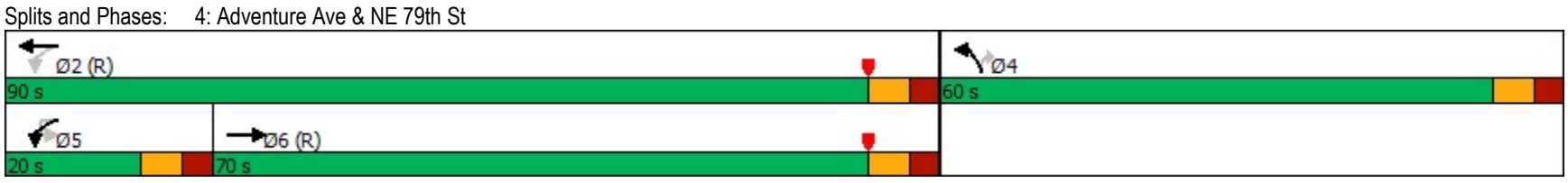
Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	53.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	179	-	-	-	120
HCM Lane V/C Ratio	0.171	-	-	-	0.395
HCM Control Delay (s)	29.2	-	-	-	53.3
HCM Lane LOS	D	-	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	1.7

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1917	7	43	1496	131	55
Future Volume (vph)	1917	7	43	1496	131	55
Turn Type	NA	custom	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	4	
Permitted Phases		5	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	106.5		116.8	116.8	19.2	19.2
Actuated g/C Ratio	0.71		0.78	0.78	0.13	0.13
v/c Ratio	0.59		0.35	0.40	0.62	0.23
Control Delay	16.5		11.7	6.4	72.2	13.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	16.5		11.7	6.4	72.2	13.7
LOS	B	B	A	E	B	
Approach Delay	16.5		6.6	54.9		
Approach LOS	B		A	D		

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 60.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6		5	2	4	
Permitted Phases		5	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Maximum Green (s)	63.0	13.0	13.0	83.0	53.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	2				3	3
90th %ile Green (s)	86.7	7.3	7.3	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	103.7	5.8	5.8	116.5	19.5	19.5
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	106.8	5.4	5.4	119.2	16.8	16.8
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	109.8	5.0	5.0	121.8	14.2	14.2
30th %ile Term Code	Coord	Min	Min	Coord	Gap	Gap
10th %ile Green (s)	125.6	0.0	0.0	125.6	10.4	10.4
10th %ile Term Code	Coord	Skip	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	2102	52	1575	138	58
v/c Ratio	0.59	0.35	0.40	0.62	0.23
Control Delay	16.5	11.7	6.4	72.2	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	11.7	6.4	72.2	13.7
Queue Length 50th (ft)	241	9	143	132	0
Queue Length 95th (ft)	543	31	280	181	38
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3587	229	3960	619	591
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.23	0.40	0.22	0.10

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	1917	80	7	43	1496	131	55
Future Volume (veh/h)	1917	80	7	43	1496	131	55
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1856	1856
Adj Flow Rate, veh/h	2018	84		45	1575	138	58
Peak Hour Factor	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2		2	2	3	3
Cap, veh/h	3714	154		242	4155	164	146
Arrive On Green	1.00	1.00		0.03	0.81	0.09	0.09
Sat Flow, veh/h	5196	209		1781	5274	1767	1572
Grp Volume(v), veh/h	1365	737		45	1575	138	58
Grp Sat Flow(s),veh/h/ln	1702	1832		1781	1702	1767	1572
Q Serve(g_s), s	0.0	0.0		0.9	12.5	11.5	5.2
Cycle Q Clear(g_c), s	0.0	0.0		0.9	12.5	11.5	5.2
Prop In Lane		0.11		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2515	1354		242	4155	164	146
V/C Ratio(X)	0.54	0.54		0.19	0.38	0.84	0.40
Avail Cap(c_a), veh/h	2515	1354		346	4155	624	556
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		3.7	3.8	66.9	64.1
Incr Delay (d2), s/veh	0.8	1.6		0.1	0.3	8.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	1.1		0.5	6.9	9.5	8.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.8	1.6		3.9	4.0	75.2	65.4
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	2102				1620	196	
Approach Delay, s/veh	1.1				4.0	72.3	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	129.1	20.9	11.2	117.8
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	83.0	53.0	13.0	63.0
Max Q Clear Time (g_c+I1), s	14.5	13.5	2.9	2.0
Green Ext Time (p_c), s	5.8	0.4	0.0	8.1

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

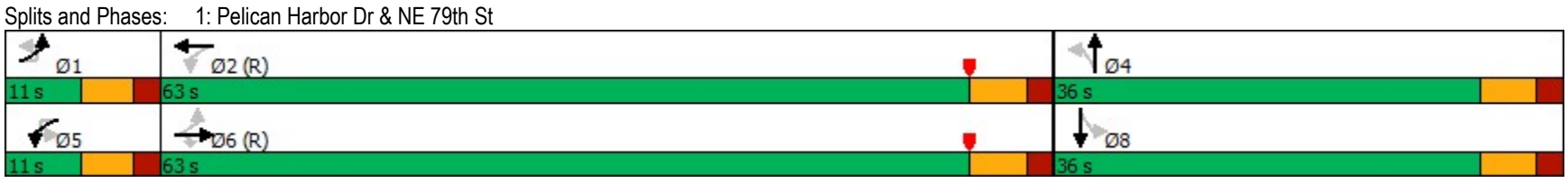
Notes

User approved ignoring U-Turning movement.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	5	7	1858	11	15	2	2033	37	5	9	4
Future Volume (vph)	5	7	1858	11	15	2	2033	37	5	9	4
Turn Type	custom	pm+pt	NA	Perm	custom	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Detector Phase	1	1	6	6	5	5	2	4	4	8	8
Switch Phase											
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Act Effct Green (s)		88.9	88.9	88.9		90.0	91.1	12.3	12.3	12.3	12.3
Actuated g/C Ratio		0.81	0.81	0.81		0.82	0.83	0.11	0.11	0.11	0.11
v/c Ratio		0.07	0.48	0.01		0.09	0.51	0.26	0.06	0.06	0.17
Control Delay		5.9	8.1	0.0		5.8	7.7	45.0	26.8	38.3	15.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		5.9	8.1	0.0		5.8	7.7	45.0	26.8	38.3	15.9
LOS	A	A	A		A	A	D	C	D	B	
Approach Delay		8.0				7.7		41.0		20.4	
Approach LOS		A				A		D		C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 8.4	Intersection LOS: A
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



1: Pelican Harbor Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Maximum Green (s)	5.3	5.3	57.0	57.0	5.3	5.3	57.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			6	1	1	0	0
90th %ile Green (s)	5.3	5.3	57.0	57.0	5.3	5.3	57.0	30.0	30.0	30.0	30.0
90th %ile Term Code	Max	Max	Coord	Coord	Max	Max	Coord	Ped	Ped	Hold	Hold
70th %ile Green (s)	0.0	0.0	77.7	77.7	5.0	5.0	88.4	9.6	9.6	9.6	9.6
70th %ile Term Code	Skip	Skip	Coord	Coord	Min	Min	Coord	Gap	Gap	Hold	Hold
50th %ile Green (s)	0.0	0.0	90.0	90.0	0.0	0.0	90.0	8.0	8.0	8.0	8.0
50th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Gap	Gap	Hold	Hold
30th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

1: Pelican Harbor Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	12	1956	12	18	2154	39	11	9	36
v/c Ratio	0.07	0.48	0.01	0.09	0.51	0.26	0.06	0.06	0.17
Control Delay	5.9	8.1	0.0	5.8	7.7	45.0	26.8	38.3	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	8.1	0.0	5.8	7.7	45.0	26.8	38.3	15.9
Queue Length 50th (ft)	1	113	0	2	133	27	3	6	3
Queue Length 95th (ft)	10	440	0	13	515	48	17	17	27
Internal Link Dist (ft)		977			2612		419		426
Turn Bay Length (ft)	200		200	200		250		50	
Base Capacity (vph)	177	4111	1264	202	4205	372	467	380	463
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.48	0.01	0.09	0.51	0.10	0.02	0.02	0.08

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	5	7	1858	11	15	2	2033	13	37	5	6	9	4	30
Future Volume (veh/h)	5	7	1858	11	15	2	2033	13	37	5	6	9	4	30
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No			No	
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		7	1956	12		2	2140	14	39	5	6	9	4	32
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2	2	2
Cap, veh/h		191	3909	1209		208	3975	26	133	55	66	156	13	101
Arrive On Green		0.01	0.77	0.77		0.00	0.76	0.76	0.07	0.07	0.07	0.07	0.07	0.07
Sat Flow, veh/h		1781	5106	1579		1781	5234	34	1367	772	927	1398	178	1428
Grp Volume(v), veh/h		7	1956	12		2	1391	763	39	0	11	9	0	36
Grp Sat Flow(s),veh/h/ln		1781	1702	1579		1781	1702	1864	1367	0	1699	1398	0	1606
Q Serve(g_s), s		0.1	16.0	0.2		0.0	18.3	18.3	3.1	0.0	0.7	0.7	0.0	2.3
Cycle Q Clear(g_c), s		0.1	16.0	0.2		0.0	18.3	18.3	5.4	0.0	0.7	1.3	0.0	2.3
Prop In Lane		1.00		1.00		1.00		0.02	1.00		0.55	1.00		0.89
Lane Grp Cap(c), veh/h		191	3909	1209		208	2585	1416	133	0	120	156	0	114
V/C Ratio(X)		0.04	0.50	0.01		0.01	0.54	0.54	0.29	0.00	0.09	0.06	0.00	0.32
Avail Cap(c_a), veh/h		261	3909	1209		289	2585	1416	409	0	463	438	0	438
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		0.29	0.29	0.29	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh		4.5	4.9	3.0		4.2	5.4	5.4	51.1	0.0	47.8	48.4	0.0	48.6
Incr Delay (d2), s/veh		0.0	0.5	0.0		0.0	0.2	0.4	0.9	0.0	0.2	0.1	0.0	1.2
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		0.1	8.2	0.1		0.0	7.4	8.1	1.9	0.0	0.5	0.4	0.0	1.8
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		4.6	5.4	3.1		4.2	5.6	5.8	52.0	0.0	48.0	48.5	0.0	49.7
LnGrp LOS		A	A	A		A	A	A	D	A	D	D	A	D
Approach Vol, veh/h			1975				2156			50			45	
Approach Delay, s/veh			5.3				5.7			51.2			49.5	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	6.7	89.5	13.8	6.0	90.2	13.8
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	57.0	30.0	* 5.3	57.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	20.3	7.4	2.0	18.0	4.3
Green Ext Time (p_c), s	0.0	8.1	0.1	0.0	8.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

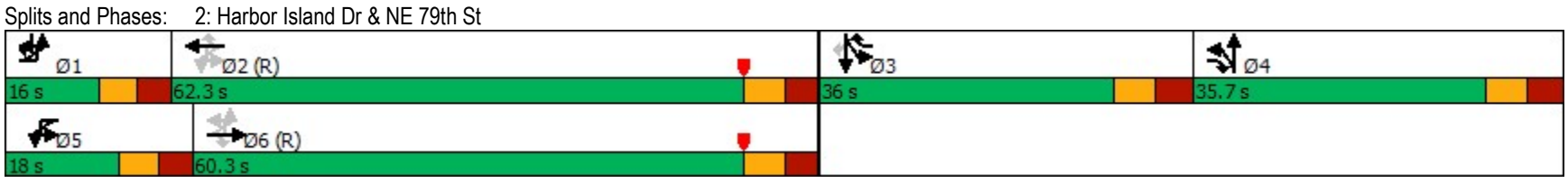
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	3	252	1591	42	7	19	1877	149	28	8	114	6	155
Future Volume (vph)	3	252	1591	42	7	19	1877	149	28	8	114	6	155
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Detector Phase	1	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase													
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	60.3	35.7	18.0	18.0	62.3	36.0	35.7	35.7	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	40.2%	23.8%	12.0%	12.0%	41.5%	24.0%	23.8%	23.8%	24.0%	24.0%	10.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		100.1	93.0	104.2		66.0	60.1	76.1	13.6	13.6	16.4	16.4	50.9
Actuated g/C Ratio		0.67	0.62	0.69		0.44	0.40	0.51	0.09	0.09	0.11	0.11	0.34
v/c Ratio		0.60	0.53	0.04		0.16	0.97	0.20	0.18	0.14	0.34	0.34	0.30
Control Delay		42.2	22.2	6.5		15.0	60.1	18.8	62.6	61.7	63.2	63.4	25.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		42.2	22.2	6.5		15.0	60.1	18.8	62.6	61.7	63.2	63.4	25.4
LOS	D	C	A		B	E	B		E	E	E	E	C
Approach Delay		24.6				56.5			62.2		41.9		
Approach LOS		C				E			E		D		

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 41.5	Intersection LOS: D
Intersection Capacity Utilization 95.9%	ICU Level of Service F
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	60.3	35.7	18.0	18.0	62.3	36.0	35.7	35.7	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	40.2%	23.8%	12.0%	12.0%	41.5%	24.0%	23.8%	23.8%	24.0%	24.0%	10.7%
Maximum Green (s)	9.0	9.0	53.0	28.0	11.0	11.0	55.0	28.3	28.0	28.0	28.3	28.3	9.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	2.0	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)			4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)			36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)			2	5			13	11	5	5	11	11	
90th %ile Green (s)	9.3	9.3	57.1	28.0	7.2	7.2	55.0	28.0	28.0	28.0	28.0	28.0	9.3
90th %ile Term Code	Max	Max	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Max
70th %ile Green (s)	27.3	27.3	76.5	10.0	5.8	5.8	55.0	28.0	10.0	10.0	28.0	28.0	27.3
70th %ile Term Code	Max	Max	Coord	Min	Gap	Gap	Coord	Ped	Min	Min	Ped	Ped	Max
50th %ile Green (s)	32.4	32.4	94.7	10.0	5.1	5.1	67.4	10.5	10.0	10.0	10.5	10.5	32.4
50th %ile Term Code	Gap	Gap	Coord	Min	Gap	Gap	Coord	Gap	Min	Min	Gap	Gap	Gap
30th %ile Green (s)	39.0	39.0	108.6	10.0	0.0	0.0	62.6	8.7	10.0	10.0	8.7	8.7	39.0
30th %ile Term Code	Gap	Gap	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Gap
10th %ile Green (s)	60.6	60.6	128.0	0.0	0.0	0.0	60.4	7.0	0.0	0.0	7.0	7.0	60.6
10th %ile Term Code	Gap	Gap	Coord	Skip	Skip	Skip	Coord	Min	Skip	Skip	Min	Min	Gap

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

! Phase conflict between lane groups.

2: Harbor Island Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	268	1675	44	27	1976	157	29	22	62	64	163
v/c Ratio	0.60	0.53	0.04	0.16	0.97	0.20	0.18	0.14	0.34	0.34	0.30
Control Delay	42.2	22.2	6.5	15.0	60.1	18.8	62.6	61.7	63.2	63.4	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	22.2	6.5	15.0	60.1	18.8	62.6	61.7	63.2	63.4	25.4
Queue Length 50th (ft)	175	313	6	9	699	92	27	21	63	65	95
Queue Length 95th (ft)	#535	618	24	m18	#872	138	54	45	103	104	124
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	448	3152	1169	231	2036	908	333	313	320	322	536
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.53	0.04	0.12	0.97	0.17	0.09	0.07	0.19	0.20	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	3	252	1591	42	7	19	1877	149	28	8	13	114	6	155
Future Volume (vph)	3	252	1591	42	7	19	1877	149	28	8	13	114	6	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Lane Util. Factor		1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		0.95	0.95	1.00
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.97	1.00	0.99		1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)		1770	5085	1548		1770	5085	1543	1787	1680		1698	1710	1584
Flt Permitted		0.06	1.00	1.00		0.13	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)		114	5085	1548		251	5085	1543	1787	1680		1698	1710	1584
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	265	1675	44	7	20	1976	157	29	8	14	120	6	163
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	268	1675	44	0	27	1976	157	29	22	0	62	64	163
Confl. Peds. (#/hr)		13		2		2		13			5			11
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4		3	3	1!
Permitted Phases	6!	6		6	2	2		2						3
Actuated Green, G (s)		99.3	88.7	100.3		62.2	58.6	75.0	11.6	11.6		16.4	16.4	50.1
Effective Green, g (s)		99.3	88.7	100.3		62.2	58.6	75.0	11.6	11.6		16.4	16.4	50.1
Actuated g/C Ratio		0.66	0.59	0.67		0.41	0.39	0.50	0.08	0.08		0.11	0.11	0.33
Clearance Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Vehicle Extension (s)		2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0		2.5	2.5	2.0
Lane Grp Cap (vph)		447	3006	1035		140	1986	771	138	129		185	186	529
v/s Ratio Prot		c0.13	0.33	0.00		0.00	c0.39	0.02	c0.02	0.01		0.04	c0.04	0.07
v/s Ratio Perm		0.26		0.03		0.08		0.08						0.03
v/c Ratio		0.60	0.56	0.04		0.19	0.99	0.20	0.21	0.17		0.34	0.34	0.31
Uniform Delay, d1		39.9	18.7	8.5		26.1	45.6	20.9	64.9	64.7		61.8	61.8	37.1
Progression Factor		1.00	1.00	1.00		0.79	1.09	1.16	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		1.4	0.8	0.0		0.2	17.9	0.1	1.0	0.9		0.8	0.8	0.1
Delay (s)		41.4	19.4	8.5		20.7	67.4	24.4	65.9	65.6		62.5	62.6	37.2
Level of Service		D	B	A		C	E	C	E	E		E	E	D
Approach Delay (s)			22.2				63.7			65.8			48.3	
Approach LOS			C				E			E			D	

Intersection Summary			
HCM 2000 Control Delay	44.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	95.9%	ICU Level of Service	F
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	1714	2015	6	8	37
Future Vol, veh/h	11	1714	2015	6	8	37
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	12	1804	2121	6	8	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2133	0	-	0	2876	1070
Stage 1	-	-	-	-	2130	-
Stage 2	-	-	-	-	746	-
Critical Hdwy	5.34	-	-	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	6.06	-
Follow-up Hdwy	3.12	-	-	-	3.83	3.93
Pot Cap-1 Maneuver	107	-	-	-	30	185
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	388	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	106	-	-	-	26	184
Mov Cap-2 Maneuver	-	-	-	-	26	-
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	386	-

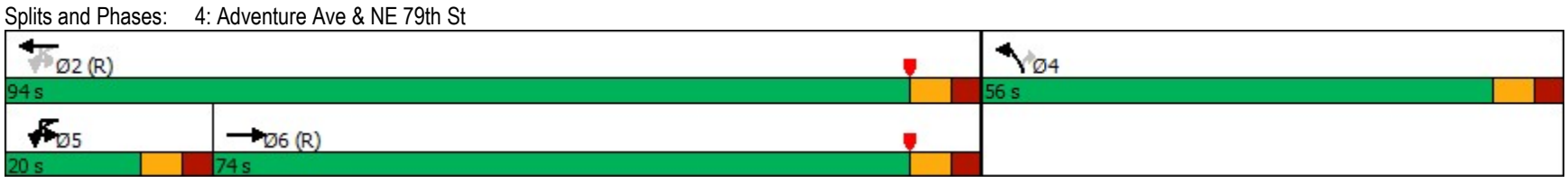
Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	85.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	106	-	-	-	88
HCM Lane V/C Ratio	0.109	-	-	-	0.538
HCM Control Delay (s)	43.1	-	-	-	85.9
HCM Lane LOS	E	-	-	-	F
HCM 95th %tile Q(veh)	0.4	-	-	-	2.4

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1600	19	48	1916	105	41
Future Volume (vph)	1600	19	48	1916	105	41
Turn Type	NA	pm+pt	pm+pt	NA	Prot	Perm
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	105.3		118.6	118.6	17.4	17.4
Actuated g/C Ratio	0.70		0.79	0.79	0.12	0.12
v/c Ratio	0.51		0.36	0.50	0.55	0.20
Control Delay	29.0		9.8	7.0	70.4	15.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	29.0		9.8	7.0	70.4	15.3
LOS	C		A	A	E	B
Approach Delay	29.0			7.1	55.0	
Approach LOS	C			A	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Maximum Green (s)	67.0	13.0	13.0	87.0	49.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	10				4	4
90th %ile Green (s)	84.5	9.5	9.5	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	106.0	6.2	6.2	119.2	16.8	16.8
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	108.9	5.6	5.6	121.5	14.5	14.5
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	111.7	5.2	5.2	123.9	12.1	12.1
30th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
10th %ile Green (s)	115.2	5.0	5.0	127.2	8.8	8.8
10th %ile Term Code	Coord	Min	Min	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1812	71	2017	111	43
v/c Ratio	0.51	0.36	0.50	0.55	0.20
Control Delay	29.0	9.8	7.0	70.4	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	9.8	7.0	70.4	15.3
Queue Length 50th (ft)	423	12	191	107	0
Queue Length 95th (ft)	715	40	404	148	34
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3522	270	4019	572	541
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.26	0.50	0.19	0.08

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	1600	122	19	48	1916	105	41
Future Volume (veh/h)	1600	122	19	48	1916	105	41
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		0.99		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1856	1856
Adj Flow Rate, veh/h	1684	128		51	2017	111	43
Peak Hour Factor	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2		2	2	3	3
Cap, veh/h	3645	277		295	4235	136	121
Arrive On Green	1.00	1.00		0.03	0.83	0.08	0.08
Sat Flow, veh/h	5007	367		1781	5274	1767	1572
Grp Volume(v), veh/h	1184	628		51	2017	111	43
Grp Sat Flow(s),veh/h/ln	1702	1801		1781	1702	1767	1572
Q Serve(g_s), s	0.0	0.0		0.9	16.7	9.3	3.9
Cycle Q Clear(g_c), s	0.0	0.0		0.9	16.7	9.3	3.9
Prop In Lane		0.20		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2565	1357		295	4235	136	121
V/C Ratio(X)	0.46	0.46		0.17	0.48	0.81	0.35
Avail Cap(c_a), veh/h	2565	1357		397	4235	577	514
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		3.2	3.6	68.1	65.7
Incr Delay (d2), s/veh	0.6	1.1		0.1	0.4	8.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.8		0.5	8.4	8.0	6.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.6	1.1		3.3	4.0	76.5	67.0
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	1812				2068	154	
Approach Delay, s/veh	0.8				4.0	73.8	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	131.4	18.6	11.4	120.0
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	87.0	49.0	13.0	67.0
Max Q Clear Time (g_c+I1), s	18.7	11.3	2.9	2.0
Green Ext Time (p_c), s	8.9	0.3	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

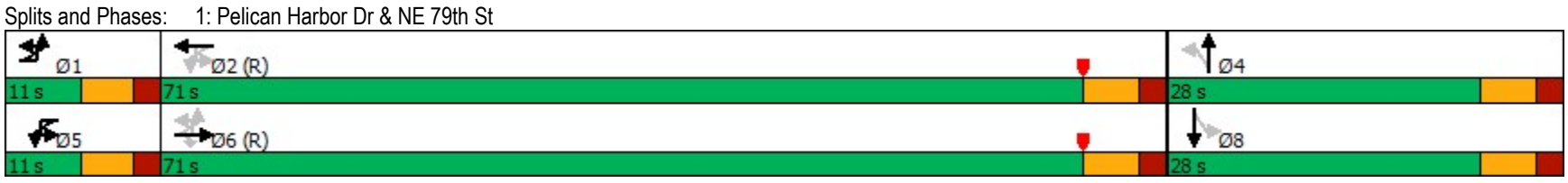
Notes

User approved ignoring U-Turning movement.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	23	2236	18	10	10	1995	13	5	4	10
Future Volume (vph)	2	23	2236	18	10	10	1995	13	5	4	10
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	1	1	6		5	5	2		4		8
Permitted Phases	6	6		6	2	2		4		8	
Detector Phase	1	1	6	6	5	5	2	4	4	8	8
Switch Phase											
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%	25.5%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Act Effct Green (s)		91.2	91.3	91.3		90.1	89.1	10.0	10.0	10.0	10.0
Actuated g/C Ratio		0.83	0.83	0.83		0.82	0.81	0.09	0.09	0.09	0.09
v/c Ratio		0.14	0.56	0.01		0.14	0.51	0.11	0.12	0.03	0.17
Control Delay		5.0	7.4	0.0		5.5	7.5	44.5	23.6	41.5	26.4
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		5.0	7.4	0.0		5.5	7.5	44.5	23.6	41.5	26.4
LOS	A	A	A		A	A	D	C	D	C	
Approach Delay		7.3				7.5		32.2		28.3	
Approach LOS		A				A		C		C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



1: Pelican Harbor Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases	1	1	6		5	5	2		4		8
Permitted Phases	6	6		6	2	2		4		8	
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	71.0	71.0	11.0	11.0	71.0	28.0	28.0	28.0	28.0
Total Split (%)	10.0%	10.0%	64.5%	64.5%	10.0%	10.0%	64.5%	25.5%	25.5%	25.5%	25.5%
Maximum Green (s)	5.3	5.3	65.0	65.0	5.3	5.3	65.0	22.0	22.0	22.0	22.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			4	1	1	1	1
90th %ile Green (s)	5.3	5.3	65.0	65.0	5.3	5.3	65.0	22.0	22.0	22.0	22.0
90th %ile Term Code	Max	Max	Coord	Coord	Max	Max	Coord	Ped	Ped	Ped	Ped
70th %ile Green (s)	5.0	5.0	80.3	80.3	5.0	5.0	80.3	7.0	7.0	7.0	7.0
70th %ile Term Code	Min	Min	Coord	Coord	Min	Min	Coord	Min	Min	Min	Min
50th %ile Green (s)	5.0	5.0	91.0	91.0	0.0	0.0	80.3	7.0	7.0	7.0	7.0
50th %ile Term Code	Min	Min	Coord	Coord	Skip	Skip	Coord	Min	Min	Min	Min
30th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 32 (29%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	26	2354	19	22	2113	14	20	4	28
v/c Ratio	0.14	0.56	0.01	0.14	0.51	0.11	0.12	0.03	0.17
Control Delay	5.0	7.4	0.0	5.5	7.5	44.5	23.6	41.5	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	7.4	0.0	5.5	7.5	44.5	23.6	41.5	26.4
Queue Length 50th (ft)	2	145	0	2	218	10	3	3	7
Queue Length 95th (ft)	13	499	0	12	413	26	24	12	31
Internal Link Dist (ft)		977			2612		419		426
Turn Bay Length (ft)	200		200	200		250		50	
Base Capacity (vph)	184	4218	1295	156	4115	275	339	276	349
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.56	0.01	0.14	0.51	0.05	0.06	0.01	0.08

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	2	23	2236	18	10	10	1995	12	13	5	14	4	10	16
Future Volume (veh/h)	2	23	2236	18	10	10	1995	12	13	5	14	4	10	16
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No			No	
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		24	2354	19		11	2100	13	14	5	15	4	11	17
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2	2	2
Cap, veh/h		222	3914	1212		173	3958	24	126	24	73	132	39	61
Arrive On Green		0.02	0.77	0.77		0.01	0.76	0.76	0.06	0.06	0.06	0.06	0.06	0.06
Sat Flow, veh/h		1781	5106	1581		1781	5236	32	1376	410	1231	1386	660	1021
Grp Volume(v), veh/h		24	2354	19		11	1365	748	14	0	20	4	0	28
Grp Sat Flow(s),veh/h/ln		1781	1702	1581		1781	1702	1864	1376	0	1642	1386	0	1681
Q Serve(g_s), s		0.3	22.0	0.3		0.2	18.0	18.0	1.1	0.0	1.3	0.3	0.0	1.8
Cycle Q Clear(g_c), s		0.3	22.0	0.3		0.2	18.0	18.0	2.8	0.0	1.3	1.6	0.0	1.8
Prop In Lane		1.00		1.00		1.00		0.02	1.00		0.75	1.00		0.61
Lane Grp Cap(c), veh/h		222	3914	1212		173	2573	1409	126	0	98	132	0	100
V/C Ratio(X)		0.11	0.60	0.02		0.06	0.53	0.53	0.11	0.00	0.20	0.03	0.00	0.28
Avail Cap(c_a), veh/h		265	3914	1212		236	2573	1409	319	0	328	327	0	336
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		0.64	0.64	0.64	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh		4.4	5.6	3.0		5.1	5.5	5.5	50.8	0.0	49.2	50.0	0.0	49.5
Incr Delay (d2), s/veh		0.1	0.7	0.0		0.0	0.5	0.9	0.3	0.0	0.8	0.1	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		0.2	10.6	0.2		0.1	8.4	9.3	0.7	0.0	1.0	0.2	0.0	1.4
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		4.5	6.3	3.1		5.1	6.0	6.4	51.1	0.0	50.0	50.1	0.0	50.6
LnGrp LOS		A	A	A		A	A	A	D	A	D	D	A	D
Approach Vol, veh/h			2397				2124			34			32	
Approach Delay, s/veh			6.2				6.1			50.5			50.5	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	8.3	89.1	12.6	7.1	90.3	12.6
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	65.0	22.0	* 5.3	65.0	22.0
Max Q Clear Time (g_c+I1), s	2.3	20.0	4.8	2.2	24.0	3.8
Green Ext Time (p_c), s	0.0	8.0	0.1	0.0	11.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

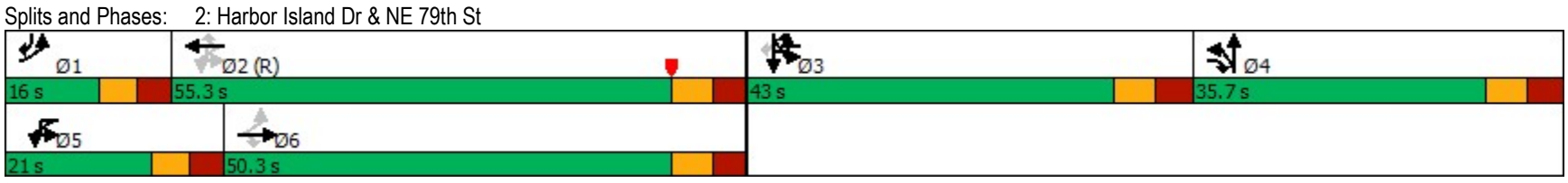
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	2067	25	9	17	1699	122	45	3	151	6	283
Future Volume (vph)	172	2067	25	9	17	1699	122	45	3	151	6	283
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Detector Phase	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase												
Minimum Initial (s)	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)	102.7	94.7	106.3		80.9	75.0	89.0	14.0	14.0	14.4	14.4	35.5
Actuated g/C Ratio	0.68	0.63	0.71		0.54	0.50	0.59	0.09	0.09	0.10	0.10	0.24
v/c Ratio	0.61	0.68	0.02		0.23	0.70	0.14	0.28	0.22	0.51	0.50	0.80
Control Delay	42.4	23.4	5.8		25.3	28.7	8.1	65.1	63.4	73.4	72.9	55.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	23.4	5.8		25.3	28.7	8.1	65.1	63.4	73.4	72.9	55.8
LOS	D	C	A		C	C	A	E	E	E	E	E
Approach Delay		24.7				27.3			64.4		62.0	
Approach LOS		C				C			E		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1	6	4	5	5	2	3!	4	4	3	3	1
Permitted Phases	6		6	2	2		2					3
Minimum Initial (s)	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	50.3	35.7	21.0	21.0	55.3	43.0	35.7	35.7	43.0	43.0	16.0
Total Split (%)	10.7%	33.5%	23.8%	14.0%	14.0%	36.9%	28.7%	23.8%	23.8%	28.7%	28.7%	10.7%
Maximum Green (s)	9.0	43.0	28.0	14.0	14.0	48.0	35.3	28.0	28.0	35.3	35.3	9.0
Yellow Time (s)	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)		4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)		36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)		3	8			2	6	8	8	6	6	
90th %ile Green (s)	16.3	57.1	28.0	7.2	7.2	48.0	28.0	28.0	28.0	28.0	28.0	16.3
90th %ile Term Code	Max	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Max
70th %ile Green (s)	21.2	88.6	11.8	5.6	5.6	73.0	14.3	11.8	11.8	14.3	14.3	21.2
70th %ile Term Code	Gap	Coord	Gap	Gap	Gap	Coord	Gap	Gap	Gap	Gap	Gap	Gap
50th %ile Green (s)	20.0	92.7	10.3	5.1	5.1	77.8	12.2	10.3	10.3	12.2	12.2	20.0
50th %ile Term Code	Gap	Coord	Gap	Gap	Gap	Coord	Gap	Gap	Gap	Gap	Gap	Gap
30th %ile Green (s)	20.6	107.1	10.0	0.0	0.0	79.5	10.2	10.0	10.0	10.2	10.2	20.6
30th %ile Term Code	Gap	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Gap
10th %ile Green (s)	23.9	127.8	0.0	0.0	0.0	96.9	7.2	0.0	0.0	7.2	7.2	23.9
10th %ile Term Code	Gap	Coord	Skip	Skip	Skip	Coord	Gap	Skip	Skip	Gap	Gap	Gap

Intersection Summary

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 106 (71%), Referenced to phase 2:WBTL, Start of Yellow
Control Type: Actuated-Coordinated
! Phase conflict between lane groups.

2: Harbor Island Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	181	2176	26	27	1788	128	47	32	83	82	298
v/c Ratio	0.61	0.68	0.02	0.23	0.70	0.14	0.28	0.22	0.51	0.50	0.80
Control Delay	42.4	23.4	5.8	25.3	28.7	8.1	65.1	63.4	73.4	72.9	55.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	23.4	5.8	25.3	28.7	8.1	65.1	63.4	73.4	72.9	55.8
Queue Length 50th (ft)	106	496	4	6	490	30	45	30	84	83	219
Queue Length 95th (ft)	#256	#987	16	m25	#823	83	78	59	129	129	204
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	296	3208	1184	215	2543	1148	333	296	399	401	374
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.68	0.02	0.13	0.70	0.11	0.14	0.11	0.21	0.20	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	172	2067	25	9	17	1699	122	45	3	28	151	6	283
Future Volume (vph)	172	2067	25	9	17	1699	122	45	3	28	151	6	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Lane Util. Factor	1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00	0.99	1.00	0.98		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.86		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1544		1770	5085	1563	1787	1589		1698	1708	1585
Flt Permitted	0.05	1.00	1.00		0.05	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)	102	5085	1544		101	5085	1563	1787	1589		1698	1708	1585
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	181	2176	26	9	18	1788	128	47	3	29	159	6	298
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	181	2176	26	0	27	1788	128	47	32	0	83	82	298
Confl. Peds. (#/hr)	2		3		3		2	6		8	8		6
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1	6	4	5	5	2	3!	4	4		3	3	1
Permitted Phases	6		6	2	2		2						3
Actuated Green, G (s)	100.9	90.3	102.3		77.1	73.5	87.9	12.0	12.0		14.4	14.4	34.8
Effective Green, g (s)	100.9	90.3	102.3		77.1	73.5	87.9	12.0	12.0		14.4	14.4	34.8
Actuated g/C Ratio	0.67	0.60	0.68		0.51	0.49	0.59	0.08	0.08		0.10	0.10	0.23
Clearance Time (s)	7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Vehicle Extension (s)	2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0		2.5	2.5	2.0
Lane Grp Cap (vph)	295	3061	1053		91	2491	915	142	127		163	163	367
v/s Ratio Prot	0.08	c0.43	0.00		0.01	0.35	0.01	c0.03	0.02		0.05	0.05	c0.11
v/s Ratio Perm	0.33		0.01		0.14		0.07						0.08
v/c Ratio	0.61	0.71	0.02		0.30	0.72	0.14	0.33	0.25		0.51	0.50	0.81
Uniform Delay, d1	38.2	20.8	7.7		20.2	30.1	14.0	65.2	64.8		64.4	64.4	54.5
Progression Factor	1.00	1.00	1.00		1.35	0.86	0.64	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.7	0.7	0.0		0.6	1.7	0.0	1.9	1.4		1.8	1.8	12.2
Delay (s)	40.9	21.4	7.7		27.9	27.6	9.0	67.1	66.2		66.3	66.2	66.7
Level of Service	D	C	A		C	C	A	E	E		E	E	E
Approach Delay (s)		22.8				26.4			66.7			66.5	
Approach LOS		C				C			E			E	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.5

Movement	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	3	29	2223	1803	17	9	41
Future Vol, veh/h	3	29	2223	1803	17	9	41
Conflicting Peds, #/hr	0	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	70	-	-	-	0	-
Veh in Median Storage, #	-	-	0	0	-	0	-
Grade, %	-	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	3	3
Mvmt Flow	3	31	2340	1898	18	9	43

Major/Minor	Major1			Major2		Minor2	
Conflicting Flow All	1399	1924	0	-	0	2919	966
Stage 1	-	-	-	-	-	1915	-
Stage 2	-	-	-	-	-	1004	-
Critical Hdwy	5.64	5.34	-	-	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	-	6.06	-
Follow-up Hdwy	2.32	3.12	-	-	-	3.83	3.93
Pot Cap-1 Maneuver	263	137	-	-	-	29	217
Stage 1	-	-	-	-	-	64	-
Stage 2	-	-	-	-	-	282	-
Platoon blocked, %			-	-	-		
Mov Cap-1 Maneuver	141	141	-	-	-	22	215
Mov Cap-2 Maneuver	-	-	-	-	-	22	-
Stage 1	-	-	-	-	-	48	-
Stage 2	-	-	-	-	-	280	-

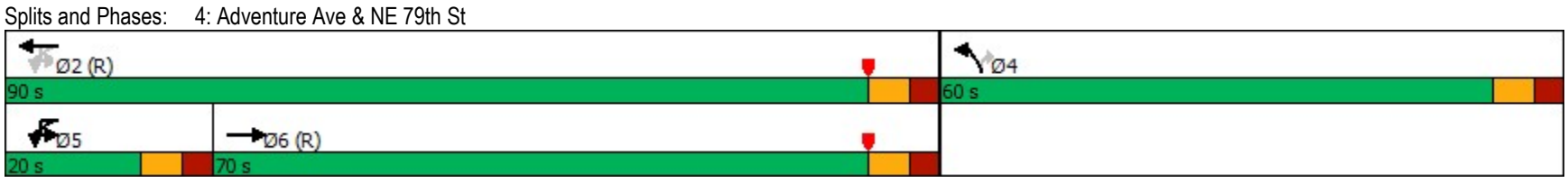
Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	104.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	83
HCM Lane V/C Ratio	0.239	-	-	-	0.634
HCM Control Delay (s)	38.4	-	-	-	104.4
HCM Lane LOS	E	-	-	-	F
HCM 95th %tile Q(veh)	0.9	-	-	-	2.9

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2143	8	48	1673	147	62
Future Volume (vph)	2143	8	48	1673	147	62
Turn Type	NA	pm+pt	pm+pt	NA	Prot	Perm
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	105.2		115.7	115.7	20.3	20.3
Actuated g/C Ratio	0.70		0.77	0.77	0.14	0.14
v/c Ratio	0.66		0.48	0.45	0.65	0.24
Control Delay	18.0		25.6	7.2	73.1	12.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	18.0		25.6	7.2	73.1	12.9
LOS	B		C	A	E	B
Approach Delay	18.0			7.8	55.3	
Approach LOS	B			A	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	70.0	20.0	20.0	90.0	60.0	60.0
Total Split (%)	46.7%	13.3%	13.3%	60.0%	40.0%	40.0%
Maximum Green (s)	63.0	13.0	13.0	83.0	53.0	53.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	2				3	3
90th %ile Green (s)	86.3	7.7	7.7	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	101.7	6.1	6.1	114.8	21.2	21.2
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	105.1	5.6	5.6	117.7	18.3	18.3
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	108.4	5.1	5.1	120.5	15.5	15.5
30th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
10th %ile Green (s)	124.5	0.0	0.0	124.5	11.5	11.5
10th %ile Term Code	Coord	Skip	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 106 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	2350	59	1761	155	65
v/c Ratio	0.66	0.48	0.45	0.65	0.24
Control Delay	18.0	25.6	7.2	73.1	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	25.6	7.2	73.1	12.9
Queue Length 50th (ft)	246	11	180	148	0
Queue Length 95th (ft)	640	58	328	200	41
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3543	204	3922	619	596
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.29	0.45	0.25	0.11

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	2143	89	8	48	1673	147	62
Future Volume (veh/h)	2143	89	8	48	1673	147	62
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1856	1856
Adj Flow Rate, veh/h	2256	94		51	1761	155	65
Peak Hour Factor	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2		2	2	3	3
Cap, veh/h	3660	152		211	4105	182	162
Arrive On Green	1.00	1.00		0.03	0.80	0.10	0.10
Sat Flow, veh/h	5196	208		1781	5274	1767	1572
Grp Volume(v), veh/h	1524	826		51	1761	155	65
Grp Sat Flow(s),veh/h/ln	1702	1833		1781	1702	1767	1572
Q Serve(g_s), s	0.0	0.0		1.0	15.5	12.9	5.8
Cycle Q Clear(g_c), s	0.0	0.0		1.0	15.5	12.9	5.8
Prop In Lane		0.11		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2478	1334		211	4105	182	162
V/C Ratio(X)	0.61	0.62		0.24	0.43	0.85	0.40
Avail Cap(c_a), veh/h	2478	1334		313	4105	624	556
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		4.1	4.4	66.2	63.0
Incr Delay (d2), s/veh	1.2	2.2		0.2	0.3	8.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	1.4		0.7	8.5	10.4	8.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1.2	2.2		4.3	4.7	74.4	64.2
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	2350				1812	220	
Approach Delay, s/veh	1.5				4.7	71.4	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	127.6	22.4	11.4	116.2
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	83.0	53.0	13.0	63.0
Max Q Clear Time (g_c+I1), s	17.5	14.9	3.0	2.0
Green Ext Time (p_c), s	7.0	0.5	0.0	10.1

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

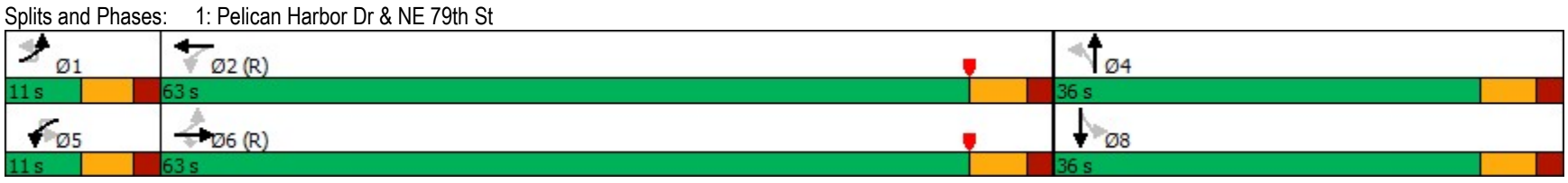
Notes

User approved ignoring U-Turning movement.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	6	8	2077	12	17	2	2271	41	6	10	4
Future Volume (vph)	6	8	2077	12	17	2	2271	41	6	10	4
Turn Type	custom	pm+pt	NA	Perm	custom	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Detector Phase	1	1	6	6	5	5	2	4	4	8	8
Switch Phase											
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.7	6.0	6.0		5.7	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Act Effct Green (s)		86.1	85.0	85.0		86.1	85.0	12.5	12.5	12.5	12.5
Actuated g/C Ratio		0.78	0.77	0.77		0.78	0.77	0.11	0.11	0.11	0.11
v/c Ratio		0.09	0.56	0.01		0.12	0.61	0.28	0.07	0.07	0.18
Control Delay		6.4	9.5	0.0		6.6	10.5	45.6	26.4	38.8	15.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		6.4	9.5	0.0		6.6	10.5	45.6	26.4	38.8	15.5
LOS	A	A	A		A	B	D	C	D	B	
Approach Delay		9.5				10.5		41.1		20.6	
Approach LOS		A				B		D		C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 97 (88%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Pelican Harbor Dr & NE 79th St



1: Pelican Harbor Dr & NE 79th St

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		1	6			5	2		4		8
Permitted Phases	1	6		6	5	2		4		8	
Minimum Initial (s)	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	10.7	10.7	28.0	28.0	10.7	10.7	28.0	38.0	38.0	38.0	38.0
Total Split (s)	11.0	11.0	63.0	63.0	11.0	11.0	63.0	36.0	36.0	36.0	36.0
Total Split (%)	10.0%	10.0%	57.3%	57.3%	10.0%	10.0%	57.3%	32.7%	32.7%	32.7%	32.7%
Maximum Green (s)	5.3	5.3	57.0	57.0	5.3	5.3	57.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Vehicle Extension (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Minimum Gap (s)	2.0	2.0	1.0	1.0	2.0	2.0	1.0	2.5	2.5	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Min	C-Min	None	None	C-Min	None	None	None	None
Walk Time (s)			5.0	5.0			5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)			17.0	17.0			17.0	27.0	27.0	27.0	27.0
Pedestrian Calls (#/hr)			2	2			6	1	1	0	0
90th %ile Green (s)	5.3	5.3	57.0	57.0	5.3	5.3	57.0	30.0	30.0	30.0	30.0
90th %ile Term Code	Max	Max	Coord	Coord	Max	Max	Coord	Ped	Ped	Hold	Hold
70th %ile Green (s)	5.0	5.0	77.3	77.3	5.0	5.0	77.3	10.0	10.0	10.0	10.0
70th %ile Term Code	Min	Min	Coord	Coord	Min	Min	Coord	Gap	Gap	Hold	Hold
50th %ile Green (s)	0.0	0.0	89.6	89.6	0.0	0.0	89.6	8.4	8.4	8.4	8.4
50th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Gap	Gap	Hold	Hold
30th %ile Green (s)	0.0	0.0	91.0	91.0	0.0	0.0	91.0	7.0	7.0	7.0	7.0
30th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Min	Min	Hold	Hold
10th %ile Green (s)	0.0	0.0	104.0	104.0	0.0	0.0	104.0	0.0	0.0	0.0	0.0
10th %ile Term Code	Skip	Skip	Coord	Coord	Skip	Skip	Coord	Skip	Skip	Skip	Skip

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 97 (88%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Control Type: Actuated-Coordinated

1: Pelican Harbor Dr & NE 79th St

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	2186	13	20	2406	43	13	11	39
v/c Ratio	0.09	0.56	0.01	0.12	0.61	0.28	0.07	0.07	0.18
Control Delay	6.4	9.5	0.0	6.6	10.5	45.6	26.4	38.8	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	9.5	0.0	6.6	10.5	45.6	26.4	38.8	15.5
Queue Length 50th (ft)	1	140	0	2	168	30	4	7	3
Queue Length 95th (ft)	11	528	0	14	627	52	18	20	28
Internal Link Dist (ft)		977			2612		419		426
Turn Bay Length (ft)	200		200	200		250		50	
Base Capacity (vph)	155	3928	1212	166	3924	372	468	380	464
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.56	0.01	0.12	0.61	0.12	0.03	0.03	0.08

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (veh/h)	6	8	2077	12	17	2	2271	14	41	6	7	10	4	33
Future Volume (veh/h)	6	8	2077	12	17	2	2271	14	41	6	7	10	4	33
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No			No	
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		8	2186	13		2	2391	15	43	6	7	11	4	35
Peak Hour Factor		0.95	0.95	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2	2	2
Cap, veh/h		162	3881	1200		173	3942	25	138	60	70	162	13	110
Arrive On Green		0.01	0.76	0.76		0.00	0.75	0.75	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h		1781	5106	1579		1781	5236	33	1364	785	916	1396	165	1440
Grp Volume(v), veh/h		8	2186	13		2	1554	852	43	0	13	11	0	39
Grp Sat Flow(s),veh/h/ln		1781	1702	1579		1781	1702	1864	1364	0	1701	1396	0	1604
Q Serve(g_s), s		0.1	19.8	0.2		0.0	22.8	22.9	3.4	0.0	0.8	0.8	0.0	2.5
Cycle Q Clear(g_c), s		0.1	19.8	0.2		0.0	22.8	22.9	5.9	0.0	0.8	1.6	0.0	2.5
Prop In Lane		1.00		1.00		1.00		0.02	1.00		0.54	1.00		0.90
Lane Grp Cap(c), veh/h		162	3881	1200		173	2563	1404	138	0	130	162	0	122
V/C Ratio(X)		0.05	0.56	0.01		0.01	0.61	0.61	0.31	0.00	0.10	0.07	0.00	0.32
Avail Cap(c_a), veh/h		230	3881	1200		254	2563	1404	406	0	464	436	0	438
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		0.27	0.27	0.27	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh		5.6	5.5	3.2		4.9	6.2	6.2	50.9	0.0	47.3	48.0	0.0	48.1
Incr Delay (d2), s/veh		0.0	0.6	0.0		0.0	0.3	0.5	0.9	0.0	0.2	0.1	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		0.1	9.8	0.1		0.0	9.0	9.9	2.1	0.0	0.6	0.5	0.0	1.9
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh		5.7	6.1	3.2		4.9	6.5	6.7	51.8	0.0	47.5	48.2	0.0	49.2
LnGrp LOS		A	A	A		A	A	A	D	A	D	D	A	D
Approach Vol, veh/h			2207				2408			56			50	
Approach Delay, s/veh			6.1				6.6			50.8			49.0	
Approach LOS			A				A			D			D	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	6.8	88.8	14.4	6.0	89.6	14.4
Change Period (Y+Rc), s	* 5.7	6.0	6.0	* 5.7	6.0	6.0
Max Green Setting (Gmax), s	* 5.3	57.0	30.0	* 5.3	57.0	30.0
Max Q Clear Time (g_c+I1), s	2.1	24.9	7.9	2.0	21.8	4.5
Green Ext Time (p_c), s	0.0	9.7	0.1	0.0	9.9	0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

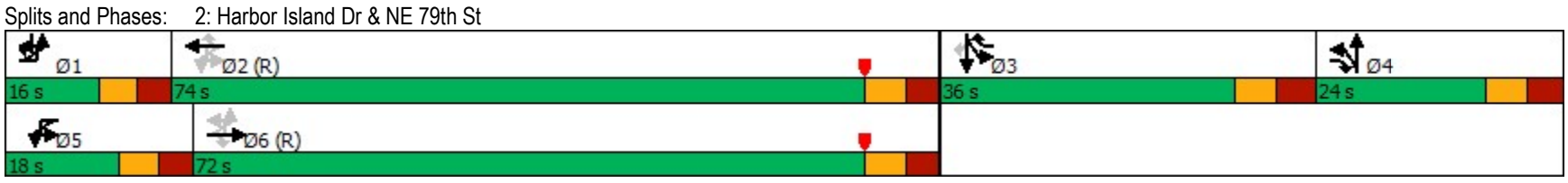
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	3	282	1779	47	8	21	2097	167	31	9	127	7	173
Future Volume (vph)	3	282	1779	47	8	21	2097	167	31	9	127	7	173
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA	Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Detector Phase	1	1	6	4	5	5	2	3	4	4	3	3	1
Switch Phase													
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	72.0	24.0	18.0	18.0	74.0	36.0	24.0	24.0	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	48.0%	16.0%	12.0%	12.0%	49.3%	24.0%	16.0%	16.0%	24.0%	24.0%	10.7%
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7	7.7	7.7	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		102.1	94.9	103.9		72.6	66.7	83.0	11.4	11.4	16.7	16.7	46.4
Actuated g/C Ratio		0.68	0.63	0.69		0.48	0.44	0.55	0.08	0.08	0.11	0.11	0.31
v/c Ratio		0.77	0.58	0.05		0.20	0.98	0.21	0.24	0.19	0.37	0.38	0.37
Control Delay		54.1	21.3	6.5		12.7	54.1	16.4	68.8	67.3	64.2	64.3	29.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		54.1	21.3	6.5		12.7	54.1	16.4	68.8	67.3	64.2	64.3	29.9
LOS	D	C	A		B	D	B		E	E	E	E	C
Approach Delay		25.4				50.9			68.2		44.9		
Approach LOS		C				D			E		D		

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 39.4	Intersection LOS: D
Intersection Capacity Utilization 103.0%	ICU Level of Service G
Analysis Period (min) 15	

! Phase conflict between lane groups.

Splits and Phases: 2: Harbor Island Dr & NE 79th St



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	1!	1	6	4	5	5	2	3	4	4	3	3	1!
Permitted Phases	6!	6		6	2	2		2					3
Minimum Initial (s)	5.0	5.0	4.0	10.0	5.0	5.0	4.0	7.0	10.0	10.0	7.0	7.0	5.0
Minimum Split (s)	12.0	12.0	47.3	35.7	12.0	12.0	47.3	35.7	35.7	35.7	35.7	35.7	12.0
Total Split (s)	16.0	16.0	72.0	24.0	18.0	18.0	74.0	36.0	24.0	24.0	36.0	36.0	16.0
Total Split (%)	10.7%	10.7%	48.0%	16.0%	12.0%	12.0%	49.3%	24.0%	16.0%	16.0%	24.0%	24.0%	10.7%
Maximum Green (s)	9.0	9.0	64.7	16.3	11.0	11.0	66.7	28.3	16.3	16.3	28.3	28.3	9.0
Yellow Time (s)	3.7	3.7	4.0	4.0	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0	3.7
All-Red Time (s)	3.3	3.3	3.3	3.7	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.3
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	1.0	4.0	2.0	2.0	1.0	2.5	4.0	4.0	2.5	2.5	2.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	None	None	None	C-Min	None	None	None	None	None	None
Walk Time (s)			4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	
Flash Dont Walk (s)			36.0	24.0			36.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)			2	5			13	11	5	5	11	11	
90th %ile Green (s)	9.0	9.0	68.7	16.6	7.0	7.0	66.7	28.0	16.6	16.6	28.0	28.0	9.0
90th %ile Term Code	Max	Max	Coord	Ped	Gap	Gap	Coord	Ped	Ped	Ped	Ped	Ped	Max
70th %ile Green (s)	15.2	15.2	75.9	10.4	6.0	6.0	66.7	28.0	10.4	10.4	28.0	28.0	15.2
70th %ile Term Code	Max	Max	Coord	Gap	Gap	Gap	Coord	Ped	Gap	Gap	Ped	Ped	Max
50th %ile Green (s)	32.5	32.5	94.0	10.0	5.2	5.2	66.7	11.1	10.0	10.0	11.1	11.1	32.5
50th %ile Term Code	Max	Max	Coord	Min	Gap	Gap	Coord	Gap	Min	Min	Gap	Gap	Max
30th %ile Green (s)	34.4	34.4	108.1	10.0	0.0	0.0	66.7	9.2	10.0	10.0	9.2	9.2	34.4
30th %ile Term Code	Max	Max	Coord	Min	Skip	Skip	Coord	Gap	Min	Min	Gap	Gap	Max
10th %ile Green (s)	54.3	54.3	128.0	0.0	0.0	0.0	66.7	7.0	0.0	0.0	7.0	7.0	54.3
10th %ile Term Code	Max	Max	Coord	Skip	Skip	Skip	Coord	Min	Skip	Skip	Min	Min	Max

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 97 (65%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

! Phase conflict between lane groups.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	300	1873	49	30	2207	176	33	24	70	71	182
v/c Ratio	0.77	0.58	0.05	0.20	0.98	0.21	0.24	0.19	0.37	0.38	0.37
Control Delay	54.1	21.3	6.5	12.7	54.1	16.4	68.8	67.3	64.2	64.3	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	21.3	6.5	12.7	54.1	16.4	68.8	67.3	64.2	64.3	29.9
Queue Length 50th (ft)	217	377	7	9	833	108	31	23	70	71	107
Queue Length 95th (ft)	#606	631	26	m10	#890	49	65	52	112	114	163
Internal Link Dist (ft)		2612			1173			426		437	
Turn Bay Length (ft)	180		125	180		120					
Base Capacity (vph)	392	3218	1111	214	2261	975	195	183	320	322	489
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.58	0.04	0.14	0.98	0.18	0.17	0.13	0.22	0.22	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations														
Traffic Volume (vph)	3	282	1779	47	8	21	2097	167	31	9	14	127	7	173
Future Volume (vph)	3	282	1779	47	8	21	2097	167	31	9	14	127	7	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Lane Util. Factor		1.00	0.91	1.00		1.00	0.91	1.00	1.00	1.00		0.95	0.95	1.00
Frpb, ped/bikes		1.00	1.00	0.98		1.00	1.00	0.97	1.00	0.99		1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)		1770	5085	1547		1770	5085	1542	1787	1684		1698	1710	1582
Flt Permitted		0.06	1.00	1.00		0.10	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)		103	5085	1547		191	5085	1542	1787	1684		1698	1710	1582
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	3	297	1873	49	8	22	2207	176	33	9	15	134	7	182
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	300	1873	49	0	30	2207	176	33	24	0	70	71	182
Confl. Peds. (#/hr)		13		2		2		13			5			11
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	pm+pt	NA	pm+ov	Split	NA		Split	NA	pm+ov
Protected Phases	1!	1	6	4	5	5	2	3	4	4		3	3	1!
Permitted Phases	6!	6		6	2	2		2						3
Actuated Green, G (s)		101.2	90.6	100.0		68.7	65.1	81.8	9.4	9.4		16.7	16.7	45.8
Effective Green, g (s)		101.2	90.6	100.0		68.7	65.1	81.8	9.4	9.4		16.7	16.7	45.8
Actuated g/C Ratio		0.67	0.60	0.67		0.46	0.43	0.55	0.06	0.06		0.11	0.11	0.31
Clearance Time (s)		7.0	7.3	7.7		7.0	7.3	7.7	7.7	7.7		7.7	7.7	7.0
Vehicle Extension (s)		2.0	1.0	4.0		2.0	1.0	2.5	4.0	4.0		2.5	2.5	2.0
Lane Grp Cap (vph)		392	3071	1031		125	2206	840	111	105		189	190	483
v/s Ratio Prot		c0.15	0.37	0.00		0.01	c0.43	0.02	c0.02	0.01		0.04	0.04	c0.07
v/s Ratio Perm		0.37		0.03		0.10		0.09						0.04
v/c Ratio		0.77	0.61	0.05		0.24	1.00	0.21	0.30	0.23		0.37	0.37	0.38
Uniform Delay, d1		46.6	18.6	8.6		22.5	42.5	17.5	67.1	66.9		61.8	61.8	40.9
Progression Factor		1.00	1.00	1.00		0.74	1.02	1.26	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		7.8	0.9	0.0		0.3	17.8	0.1	2.0	1.5		0.9	0.9	0.2
Delay (s)		54.4	19.5	8.6		16.9	61.0	22.2	69.2	68.4		62.7	62.7	41.1
Level of Service		D	B	A		B	E	C	E	E		E	E	D
Approach Delay (s)			24.0				57.6			68.8			50.5	
Approach LOS			C				E			E			D	

Intersection Summary			
HCM 2000 Control Delay	42.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	29.7
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	1916	2252	7	9	41
Future Vol, veh/h	12	1916	2252	7	9	41
Conflicting Peds, #/hr	6	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	70	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	13	2017	2371	7	9	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2384	0	-	0	3214	1195
Stage 1	-	-	-	-	2381	-
Stage 2	-	-	-	-	833	-
Critical Hdwy	5.34	-	-	-	5.76	7.16
Critical Hdwy Stg 1	-	-	-	-	6.66	-
Critical Hdwy Stg 2	-	-	-	-	6.06	-
Follow-up Hdwy	3.12	-	-	-	3.83	3.93
Pot Cap-1 Maneuver	79	-	-	-	19	152
Stage 1	-	-	-	-	32	-
Stage 2	-	-	-	-	349	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	79	-	-	-	16	151
Mov Cap-2 Maneuver	-	-	-	-	16	-
Stage 1	-	-	-	-	27	-
Stage 2	-	-	-	-	347	-

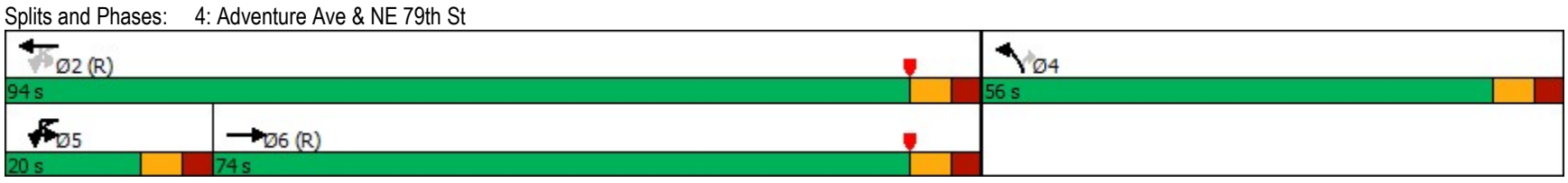
Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	193.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	79	-	-	-	60
HCM Lane V/C Ratio	0.16	-	-	-	0.877
HCM Control Delay (s)	59.1	-	-	-	193.7
HCM Lane LOS	F	-	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	4

Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1789	21	54	2142	117	46
Future Volume (vph)	1789	21	54	2142	117	46
Turn Type	NA	pm+pt	pm+pt	NA	Prot	Perm
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Detector Phase	6	5	5	2	4	4
Switch Phase						
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0		7.0	7.0	7.0	7.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	None	None	C-Min	None	None
Act Effct Green (s)	104.2		117.8	117.8	18.2	18.2
Actuated g/C Ratio	0.69		0.79	0.79	0.12	0.12
v/c Ratio	0.58		0.47	0.56	0.58	0.21
Control Delay	24.3		16.4	7.9	71.2	14.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	24.3		16.4	7.9	71.2	14.7
LOS	C		B	A	E	B
Approach Delay	24.3			8.2	55.4	
Approach LOS	C			A	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Adventure Ave & NE 79th St



Lane Group	EBT	WBU	WBL	WBT	NBL	NBR
Protected Phases	6	5	5	2	4	
Permitted Phases		2	2			4
Minimum Initial (s)	7.0	5.0	5.0	7.0	7.0	7.0
Minimum Split (s)	46.0	12.0	12.0	46.0	42.0	42.0
Total Split (s)	74.0	20.0	20.0	94.0	56.0	56.0
Total Split (%)	49.3%	13.3%	13.3%	62.7%	37.3%	37.3%
Maximum Green (s)	67.0	13.0	13.0	87.0	49.0	49.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lead/Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	1.0	2.0	2.0	1.0	2.5	2.5
Minimum Gap (s)	1.0	2.0	2.0	1.0	2.5	2.5
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Min	None	None	C-Min	None	None
Walk Time (s)	7.0				7.0	7.0
Flash Dont Walk (s)	32.0				28.0	28.0
Pedestrian Calls (#/hr)	10				4	4
90th %ile Green (s)	83.6	10.4	10.4	101.0	35.0	35.0
90th %ile Term Code	Coord	Gap	Gap	Coord	Ped	Ped
70th %ile Green (s)	104.5	6.5	6.5	118.0	18.0	18.0
70th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
50th %ile Green (s)	107.7	5.8	5.8	120.5	15.5	15.5
50th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
30th %ile Green (s)	110.7	5.3	5.3	123.0	13.0	13.0
30th %ile Term Code	Coord	Gap	Gap	Coord	Gap	Gap
10th %ile Green (s)	114.5	5.0	5.0	126.5	9.5	9.5
10th %ile Term Code	Coord	Min	Min	Coord	Gap	Gap

Intersection Summary
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 84 (56%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Control Type: Actuated-Coordinated

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	2026	79	2255	123	48
v/c Ratio	0.58	0.47	0.56	0.58	0.21
Control Delay	24.3	16.4	7.9	71.2	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	16.4	7.9	71.2	14.7
Queue Length 50th (ft)	451	13	242	118	0
Queue Length 95th (ft)	553	54	487	162	36
Internal Link Dist (ft)	150		1273	429	
Turn Bay Length (ft)		150			400
Base Capacity (vph)	3487	238	3993	572	544
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.33	0.56	0.22	0.09

Intersection Summary

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (veh/h)	1789	136	21	54	2142	117	46
Future Volume (veh/h)	1789	136	21	54	2142	117	46
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)		0.99		1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No				No	No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1856	1856
Adj Flow Rate, veh/h	1883	143		57	2255	123	48
Peak Hour Factor	0.95	0.95		0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2		2	2	3	3
Cap, veh/h	3608	273		258	4199	149	132
Arrive On Green	1.00	1.00		0.03	0.82	0.08	0.08
Sat Flow, veh/h	5008	366		1781	5274	1767	1572
Grp Volume(v), veh/h	1322	704		57	2255	123	48
Grp Sat Flow(s),veh/h/ln	1702	1802		1781	1702	1767	1572
Q Serve(g_s), s	0.0	0.0		1.0	21.1	10.3	4.3
Cycle Q Clear(g_c), s	0.0	0.0		1.0	21.1	10.3	4.3
Prop In Lane		0.20		1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2538	1343		258	4199	149	132
V/C Ratio(X)	0.52	0.52		0.22	0.54	0.83	0.36
Avail Cap(c_a), veh/h	2538	1343		359	4199	577	514
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0		3.5	4.2	67.6	64.9
Incr Delay (d2), s/veh	0.8	1.5		0.2	0.5	8.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	1.0		0.6	10.4	8.7	7.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.8	1.5		3.6	4.7	75.9	66.1
LnGrp LOS	A	A		A	A	E	E
Approach Vol, veh/h	2026				2312	171	
Approach Delay, s/veh	1.0				4.7	73.2	
Approach LOS	A				A	E	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	130.4	19.6	11.5	118.8
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0
Max Green Setting (Gmax), s	87.0	49.0	13.0	67.0
Max Q Clear Time (g_c+I1), s	23.1	12.3	3.0	2.0
Green Ext Time (p_c), s	11.2	0.4	0.0	7.6

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

Appendix I.

Future Arterial Analyses

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	6.7	32.1	0.20	22.5	C
Harbor Island Dr	III	30	64.8	21.6	86.4	0.51	21.2	C
Adventure Ave	III	30	35.7	16.5	52.2	0.28	19.4	C
Total	III		125.9	44.8	170.7	0.99	20.9	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	6.4	38.9	0.26	23.7	C
Harbor Island Dr	III	30	35.7	26.0	61.7	0.28	16.4	D
Pelican Harbor Dr	III	30	64.8	6.9	71.7	0.51	25.6	B
Total	III		133.0	39.3	172.3	1.05	21.9	C

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	8.1	33.5	0.20	21.5	C
Harbor Island Dr	III	30	64.8	22.2	87.0	0.51	21.1	C
Adventure Ave	III	30	35.7	29.0	64.7	0.28	15.6	D
Total	III		125.9	59.3	185.2	0.99	19.3	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	7.0	39.5	0.26	23.4	C
Harbor Island Dr	III	30	35.7	60.1	95.8	0.28	10.6	E
Pelican Harbor Dr	III	30	64.8	7.7	72.5	0.51	25.3	B
Total	III		133.0	74.8	207.8	1.05	18.1	C

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	7.4	32.8	0.20	22.0	C
Harbor Island Dr	III	30	64.8	23.4	88.2	0.51	20.8	C
Adventure Ave	III	30	35.7	18.0	53.7	0.28	18.8	C
Total	III		125.9	48.8	174.7	0.99	20.4	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	7.2	39.7	0.26	23.2	C
Harbor Island Dr	III	30	35.7	28.7	64.4	0.28	15.7	D
Pelican Harbor Dr	III	30	64.8	7.5	72.3	0.51	25.4	B
Total	III		133.0	43.4	176.4	1.05	21.4	C

Arterial Level of Service: EB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Pelican Harbor Dr	III	30	25.4	9.5	34.9	0.20	20.6	C
Harbor Island Dr	III	30	64.8	21.3	86.1	0.51	21.3	C
Adventure Ave	III	30	35.7	24.3	60.0	0.28	16.9	D
Total	III		125.9	55.1	181.0	0.99	19.7	C

Arterial Level of Service: WB NE 79th St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Adventure Ave	III	30	32.5	7.9	40.4	0.26	22.8	C
Harbor Island Dr	III	30	35.7	54.1	89.8	0.28	11.3	E
Pelican Harbor Dr	III	30	64.8	10.5	75.3	0.51	24.4	B
Total	III		133.0	72.5	205.5	1.05	18.3	C

Appendix J.

Future Safety Analysis Memorandum (April 2024)

SR 934/NE 79th Street (John F. Kennedy Causeway) from West of Pelican Harbor Drive to East of Adventure Avenue

Project Development and Environment (PD&E) Study

Future Safety Analysis

FM# 449007-1-22-01

Miami-Dade County

April 4, 2024

Contents

Tables

Figures

1 Future Safety Analysis

A Crash Modification Factors (CMFs) analysis was performed for the Build Alternative. The Build alternative aims to extend the westbound and eastbound bike lanes westwardly, create safety improvements for pedestrians such as pedestrian and bicycle railings on both bridges within the project area, and closing the directional median west of the WSVN television station. This analysis method measures the effectiveness of a safety treatment by quantifying the change in average crash frequency as a result of a proposed design alternative.

Crash Modification Factors (CMFs) are applied to the historical number of crashes for an area to determine what the expected number of crashes will be after an engineering countermeasure is applied. Conversely, the crash reduction factor (CRF) is the percentage of historical crashes that would be expected to be corrected, or reduced, if an engineering countermeasure were applied to a location. CMFs and CRFs are derived from before and after studies associated with the respective roadway countermeasures.

The anticipated crash reduction from implementation of the proposed improvements is based on published CRFs from the *Federal Highway Administration's (FHWA) Crash Modification Factor (CMF) Clearinghouse* and from *FDOT's State Safety Office Crash Reduction Factors*. The evaluation of potential overall crash reduction for the proposed recommendations at the study intersections and segments is summarized in the following sections.

1.1 Crash Modification Factor Analysis - Build Alternatives

The evaluation of potential overall crash reductions for the Build Alternative are summarized in the following tables. Detail sheets of applied CMFs are provided in **Appendix A**.

Results from the crash reduction analysis for potential build improvements will improve safety and reduce the total number of crashes by approximately 21 crashes, or by an average 4 crashes per year. The lane width reduction due to extending the bicycle lanes will see a negligible increase in vehicle crashes. See **Table 1** and **Table 2** for details. Furthermore, segmentation of the project area can be found in **Figure 1**.

It should be noted that a detailed review of applied CMFs was performed prior to usage in the analysis to ensure applicability of the CMF. In general, a quality star rating of "3" was preferred in the selection of CMFs along with CMF applicability conditions similar to those present in this project. Out of the five (5) CMFs used in this analysis, only one (1) CMF has a quality star rating of "2", which is the "Install High-Visibility Crosswalks", CMF ID: 4123. CMF ID: 4123 was still selected for use since other similar safety treatments also had low star quality ratings and applicability conditions not similar to our project area. In addition, two (2) CMFs with AADT applicability conditions lower than the project's experienced AADT were also utilized based on the lack of similar available CMFs. These CMFs include CMF ID: 7730, "Install Left Turn Flashing Yellow Arrow" with an AADT of 37,500 and CMF ID: 8154 "Lane Width Reduction" with an AADT of 19,480.

Table 1 Intersection Crash Reduction – Build Improvements

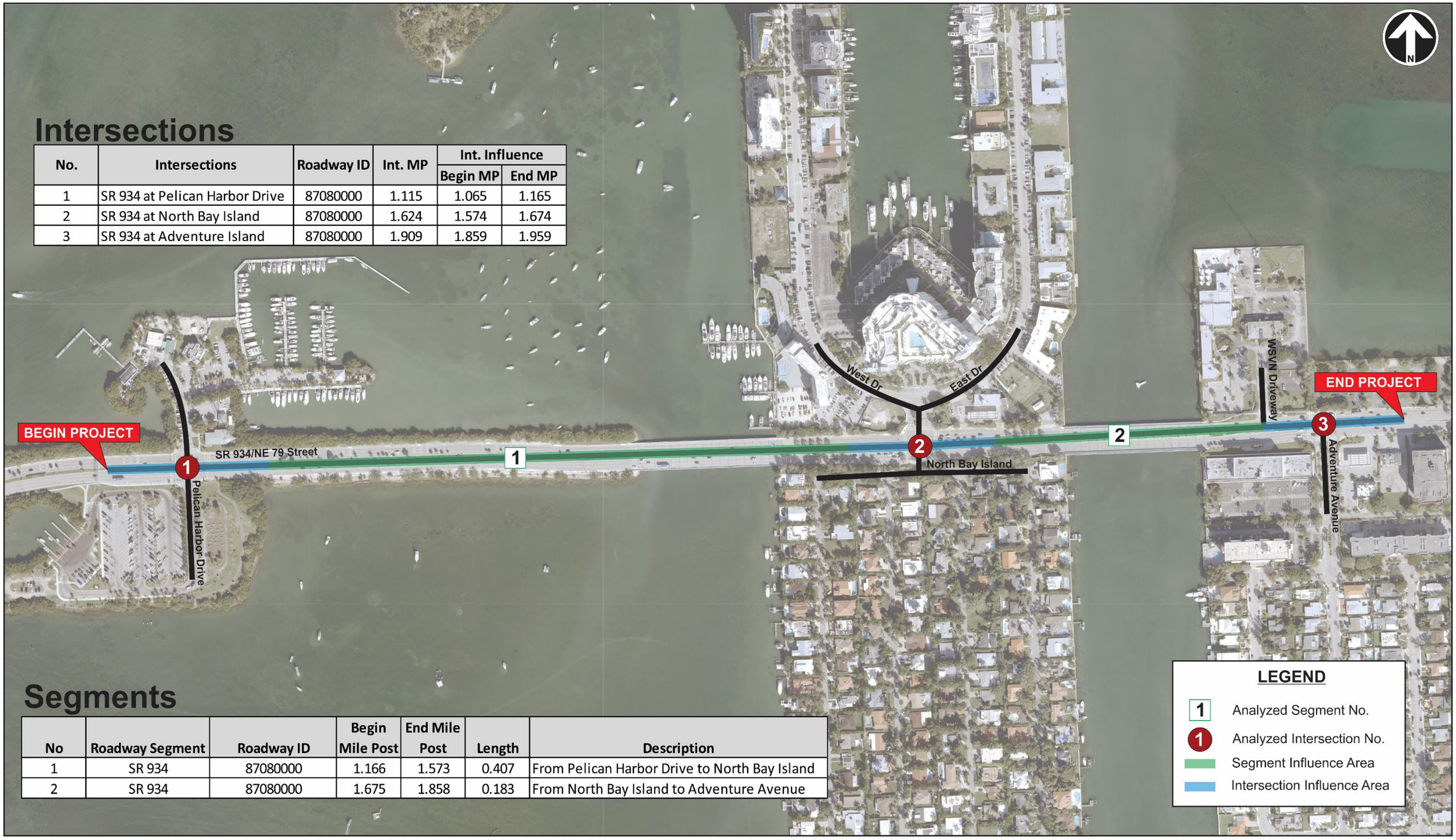
Intersection	Proposed Improvement	Crash Type	CMF	CRF (%)	Net Targeted Crashes	Crashes Reduced
SR 934 at Pelican Harbor Drive	Install Backplates	All	0.85	15%	47	7.05
	Install High-Visibility Crosswalks	Pedestrian	0.60	40%	1	0.40
	Install Left Turn Flashing Yellow Arrow	Left Turn	0.857	14.3%	1	0.14
SR 934 at North Bay Island	Install Backplates	All	0.85	15%	60	9.00
	Install High-Visibility Crosswalks	Pedestrian	0.81	40%	0	0.00
	Install Left Turn Flashing Yellow Arrow	Left Turn	0.857	14.3%	7	1.00
SR 934 at Adventure Avenue	Install Backplates	All	0.85	15%	21	3.15
	Install High-Visibility Crosswalks	Pedestrian	0.81	40%	0	0.00
	Install Left Turn Flashing Yellow Arrow	Left Turn	0.857	14.3%	0	0.00
					Total	**20.74**
					Per Year (Total/5)	**4.15**

Table 2 Segment Crash Reduction - Build Improvements

Intersection	Proposed Improvement	Crash Type	CMF	CRF (%)	Net Targeted Crashes	Crashes Reduced
SR 934 from Pelican Harbor Drive to North Bay Island	Installing Bike Lanes	Bicycle	0.86	14%	0	0.00
	Lane Width Reduction	Sideswipe	1.02	-2%	6	-0.12
SR 934 from North Bay Island to Adventure Avenue*	-	-	-	-	-	-
					Total	**-0.12**
					Per Year (Total/5)	**-0.02**

*****Proposed improvements from the Build Alternative do not impact this segment.

Figure 1 Crash Analysis Segmentation



Appendix A. Crash Modifications Factors

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 1410

CMF Name: Add 3-inch yellow retroreflective sheeting to signal backplates

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection traffic control

Study ID: *Safety Impact of Increased Traffic Signal Backboards Conspicuity*, Sayed et al. 2005

Star Quality Rating	
Star Quality Rating:	4 Stars

Crash Modification Factor (CMF)	
Value:	0.85
Adjusted Standard Error:	
Unadjusted Standard Error:	0.005

Crash Reduction Factor	
Value:	15
Adjusted Standard Error:	
Unadjusted Standard Error:	0.5

Applicability	
Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All
If countermeasure is intersection-based.	
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Average Major Road Volume:	
Average Minor Road Volume:	

Development Details

Date Range of Data Used:	
Municipality:	
State:	notusa
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (sites):	17 sites after

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Dec 01, 2009
Comments:	The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a beneift of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggragate dataset used for CMF development.

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 7730

CMF Name: Install left turn flashing yellow arrow signals and supplemental traf

Description: Install left turn flashing yellow arrow signals with supplemental tra

Prior Condition: Permissive phase of the PPLT control operated with a circular

Category: Intersection traffic control

Study ID: *Safety Effects of Traffic Signing for Left Turn Flashing Yellow Arrow Signals*, Schattler et al. 2015

Star Quality Rating	
Star Quality Rating:	4 Stars

Crash Modification Factor (CMF)	
Value:	0.857
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor	
Value:	14.3
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability	
Crash Type:	Left turn
Crash Severity:	All
Roadway Types:	All
Minimum Number of Lanes:	2
Maximum Number of Lanes:	7
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	All
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All
If countermeasure is intersection-based.	
Intersection Type:	
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 3250 to Maximum of 37500 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 63 to Maximum of 14700 Average Daily Traffic (ADT)

Average Major Road Volume:	17215 Average Daily Traffic (ADT)
Average Minor Road Volume:	4576 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	2007 to 2013
Municipality:	Peoria
State:	IL
Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size (crashes):	216 crashes before, 52.62 crashes after
Sample Size (sites):	90 sites before, 90 sites after
Sample Size (site-years):	**site-years before**

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Mar 08, 2016
Comments:	CMFs of left-turn related crashed on signalized intersections, including not interchange related and interchange related intersections. Applies to approaches with dedicated left turn lanes and PPLT phasing before and after.

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 4123

CMF Name: Install high-visibility crosswalk

Description: High-visibility crosswalks aim to increase awareness of pedestrian

Prior Condition: High visibility crosswalks aim to increase awareness of pedest

Category: Pedestrians

Study ID: *The Relative Effectiveness of Pedestrian Safety Countermeasures at Urban Intersections - Lessons from a New York City Experience*, Li Chen, Cynthia Chen, and Reid Ewing 2012

Star Quality Rating	
Star Quality Rating:	2 Stars

Crash Modification Factor (CMF)	
Value:	0.6
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor	
Value:	40
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability	
Crash Type:	Vehicle/pedestrian
Crash Severity:	All
Roadway Types:	Not Specified
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	All
If countermeasure is intersection-based.	
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Not specified
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Average Major Road Volume:	
Average Minor Road Volume:	

Development Details

Date Range of Data Used:	1998 to 2008
Municipality:	New York City
State:	NY
Country:	USA
Type of Methodology Used:	Simple before/after
Sample Size (crashes):	63 crashes before, 15 crashes after

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Nov 01, 2012
Comments:	The treatment group included both signalized and unsignalized intersections. The corresponding change in crashes in the comparison group was an 18 percent reduction in pedestrian-vehicle crashes. This could be used to adjust the treatment effect to account for other factors not related to the treatment.

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 9244

CMF Name: Install bicycle lanes

Description:

Prior Condition: No bicycle lane

Category: Bicyclists

Study ID: *Statewide Analysis of Bicycle Crashes*, Alluri et al. 2017

Star Quality Rating	
Star Quality Rating:	4 Stars

Crash Modification Factor (CMF)	
Value:	0.86
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor	
Value:	14
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability	
Crash Type:	Vehicle/bicycle
Crash Severity:	All
Roadway Types:	Principal Arterial Other
Minimum Number of Lanes:	4
Maximum Number of Lanes:	4
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	Divided by Median
Minimum Speed Limit:	
Maximum Speed Limit:	
Speed Unit:	
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	Minimum of 600 to Maximum of 120000 Annual Average Daily Traffic (AADT)
Average Traffic Volume:	
Time of Day:	Not specified
If countermeasure is intersection-based.	
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:	2011 to 2014
Municipality:	
State:	FL
Country:	
Type of Methodology Used:	Regression cross-section
Sample Size (crashes):	1764 crashes
Sample Size (miles):	2329 miles

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Jun 17, 2018
Comments:	Minor arterial, major collector, and minor collector facility types were also included.

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CMF / CRF Details

CMF ID: 8154

CMF Name: Reduce lane width from 12 ft to 11 ft

Description: Reduce lane width from 12 ft to 11 ft

Prior Condition: 12-ft lane width

Category: Roadway

Study ID: *Estimating the safety effects of lane widths on urban streets in Nebraska using the propensity scores-potential outcomes framework*, Wood et al. 2015

Star Quality Rating	
Star Quality Rating:	4 Stars

Crash Modification Factor (CMF)	
Value:	1.02
Adjusted Standard Error:	
Unadjusted Standard Error:	0.089

Crash Reduction Factor	
Value:	-2
Adjusted Standard Error:	
Unadjusted Standard Error:	8.9

Applicability	
Crash Type:	Sideswipe
Crash Severity:	All
Roadway Types:	All
Minimum Number of Lanes:	2
Maximum Number of Lanes:	12
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	All
Minimum Speed Limit:	20
Maximum Speed Limit:	60
Speed Unit:	mph
Speed Limit Comment:	
Area Type:	Urban
Traffic Volume:	Minimum of 100 to Maximum of 19480 Annual Average Daily Traffic (AADT)
Average Traffic Volume:	
Time of Day:	Not specified
If countermeasure is intersection-based.	
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:	2003 to 2012
Municipality:	
State:	NE
Country:	USA
Type of Methodology Used:	Regression cross-section
Sample Size (crashes):	3384 crashes
Sample Size (sites):	15177 sites
Sample Size (site-years):	151770 site-years
Sample Size (miles):	5873 miles

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Nov 10, 2016
Comments:	CMF for changing from 12ft to 11ft lane width. Applies to urban principal arterials, minor arterials, and collectors.

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