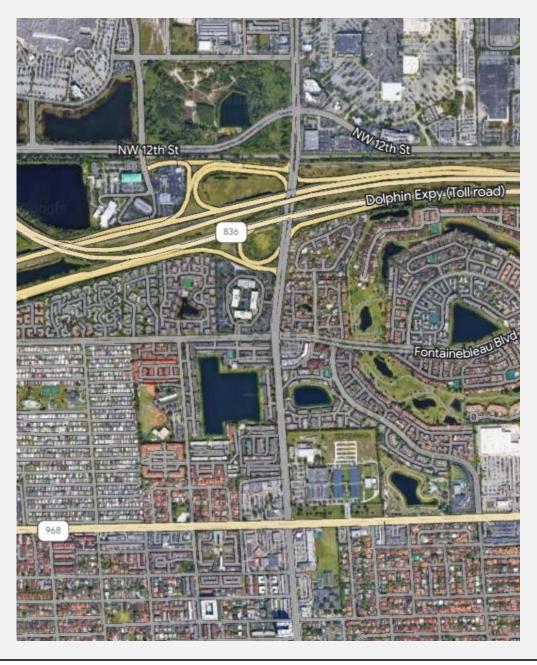
Districtwide Traffic Operations & Safety Studies FPID 250650-6-32-01 Contract C-AP24

June 2024

# SR 985/NW 107<sup>TH</sup> AVENUE

From North of Flagler Street to
North of SR 836/Dolphin Expressway
Section 87072000
(MP 6.827 to 7.604)





Resurfacing, Restoration, and Rehabilitation (RRR/3R)

# **SAFETY REVIEW**



**District Six Traffic Operations** 

District-Wide Traffic Operations & Safety Studies

FM: 250650-6-32-01

Contract No. C-AP24

Task Work Order No. 5

# SR 985/NW 107<sup>TH</sup> AVENUE FROM NORTH OF FLAGLER STREET TO NORTH OF SR 836/DOLPHIN EXPRESSWAY

Section 87072000 (MP 6.827 to 7.604)

FDOT Project Manager: Cristina Morales, P.E.

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### **ENGINEER'S CERTIFICATION**

I, Jeffrey Slawinski, PE, with Florida PE No. 90922, certify that I currently hold an active Professional Engineer's License in the State of Florida, and I am competent through education or experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions, and recommendations made herein are true and correct to the best of my knowledge and ability.

**Project Description:** 

3R SAFETY REVIEW
SR 985/NW 107<sup>TH</sup> AVENUE
FROM NORTH OF FLAGLER STREET TO NORTH OF SR 836/DOLPHIN EXPRESSWAY
SECTION 87072000 (MP 6.827 TO 7.604)

Jeffrey Slawinski, P.E. Florida Registration P.E. No. 90922 C. H. Perez & Associates Consulting Engineers, Inc. 9594 NW 41<sup>st</sup> Street, Suite 201 Doral, Florida 33178 CA No.25976

## 1 INTRODUCTION

SR 985/NW 107<sup>th</sup> Avenue segment from North of Flagler Street to North of SR 836/Dolphin Expressway was identified by the Department as a candidate for a Resurfacing, Restoration, and Rehabilitation (3R) project with FM No. 452560-1. This report has been prepared in response to the Department's request for a safety review for this project. The purpose of the safety review is to identify crash patterns, suggest a further review, and/or recommend safety countermeasures to enhance safety and operations. Some of the recommended improvements could potentially be implemented through the subject 3R Project. **Figure 1-1** depicts the locations of the 3R safety review project.

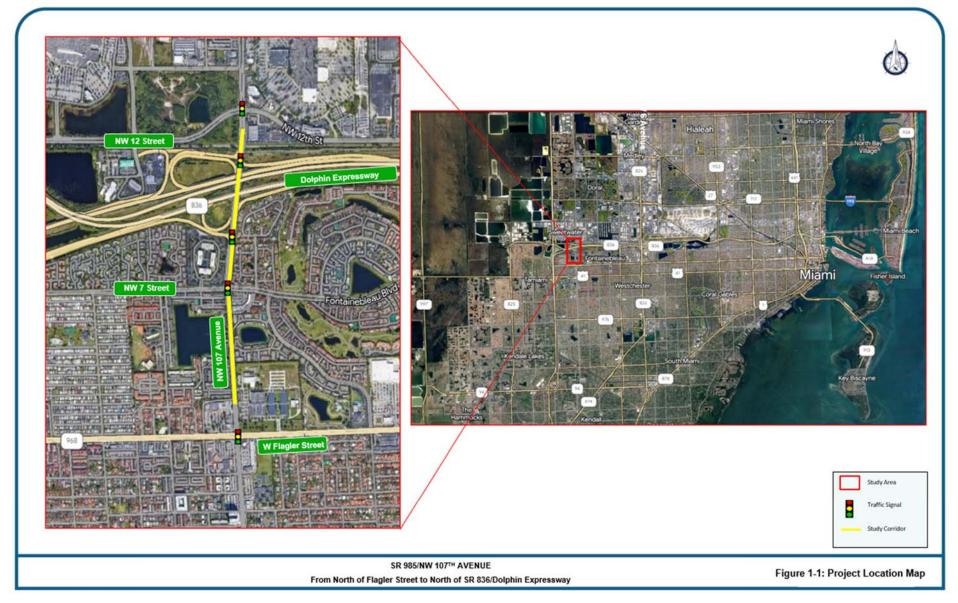


Figure 1-1: Project Location

### 2 EXISTING CONDITIONS

The study segment runs along SR 985/NW 107<sup>th</sup> Avenue from North of W. Flagler Street to North of SR 836/Dolphin Expressway in Miami-Dade County, Florida. SR 985/NW 107<sup>th</sup> Avenue is identified as section 87072000 on the State Highway System (SHS). Within the study limits, the study segment has a functional classification of "Urban Minor Arterial," a roadway access classification of 5, and a context classification of C4 – Urban General. SR 985/NW 107<sup>th</sup> Avenue runs in the north-south direction, and its typical section consists of three (3) travel lanes in each direction divided by raised medians and traffic separators. However, it is noted that the north direction from NW 7<sup>th</sup> Street to the SR 836 Eastbound On-Ramp and the south direction from the SR 836 Eastbound Off Ramp to the On-Ramp consist of four lanes. Within the study limits, SR 985/NW 107<sup>th</sup> Avenue has curbs and gutters along both sides and sidewalks along the east side of the segment. The posted speed limit throughout the segment is 40 MPH in both directions.

The land use along SR 985/NW 107<sup>th</sup> Avenue is primarily residential. However, some commercial land uses surround the corridor near NW 7<sup>th</sup> Street and W. Flagler Street intersections. Within the study limits are two (2) bus stops in the northbound direction and two (2) bus stops in the southbound direction. The bus stops serve Miami-Dade Transit Route 137 and the City of Doral Trolley. Miami-Dade Transit Route 137 travels from South Dade Government Center to Dolphin Mall Metrobus.

The straight-line diagrams for the roadway sections forming the study segments are included in **Appendix A**. The study segment includes three (3) signalized intersections as follows:

- SR 985/NW 107<sup>th</sup> Avenue at NW 7<sup>th</sup> Street (Signalized)
- SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound Off Ramp (Signalized)
- SR 836 Westbound Off Ramp to SR 985/NW 107<sup>th</sup> Avenue Northbound (Signalized)

The signal timing reports for the signalized locations within the segment are included in **Appendix B**. The following are descriptions of the existing characteristics for each of the signalized intersections:

### SR 985/NW 107<sup>th</sup> Avenue at NW 7<sup>th</sup> Street (Signalized)

This location is a four-legged intersection with mast arm-mounted signal heads. The northbound and southbound left-turn movements run under protective-only phasing. The eastbound and westbound movements run under split phasing. There are crosswalks (no high emphasis) at the south, east, and west legs of the intersection. There are countdown pedestrian signal heads with pushbuttons and pedestrian signs to cross the south leg of the intersection. There are internally illuminated street name signs facing all approaches. The existing lane configuration geometry at the intersection is as follows:

- Northbound Approach: An exclusive left-turn lane, two through lanes, and a shared through/right-turn lane.
- Southbound Approach: Two exclusive left-turn lanes, two through lanes, and an exclusive right-turn lane.
- Eastbound Approach: An exclusive left-turn lane, a shared left-turn/through lane, and a shared through/right-turn lane.
- Westbound Approach: An exclusive left-turn lane, two through lanes, and an exclusive right-turn lane.

### SR 985/NW 107th Avenue at SR 836 Eastbound Off Ramp (Signalized)

This three-legged intersection operates as a turbo lane, with mast arm-mounted signal heads controlling the eastbound and southbound movements and northbound lanes running continuously. Besides the sidewalk along the east side, the intersection has no pedestrian features. There are internally illuminated street name signs facing the eastbound and southbound approaches. The existing lane configuration geometry at the intersection is as follows:

Northbound approach: Four through lanes. The right lane is an exclusive lane to SR 836 Eastbound.

• Southbound approach: Three through lanes. The entrance to the SR 836 Southbound on-ramp from the southbound direction is approximately 300 feet north of the southbound stop bar.

Eastbound Approach: An exclusive left-turn lane and an exclusive channelized right-turn lane.

### SR 836 Westbound Off Ramp to SR 985/NW 107th Avenue Northbound (Signalized)

This location is a four-legged intersection with mast arm-mounted signal heads facing the northbound, southbound, and westbound directions. The west leg is the westbound on-ramp to SR 836 WB and HEFT. The east leg is the westbound off-ramp from SR 836 WB. There is no sidewalk along the west side of NW 107<sup>th</sup> Avenue. There is a crosswalk (no high emphasis) with no pedestrian signal heads at the east leg. There is only an internally illuminated street name sign facing the westbound approach. The existing lane configuration geometry at the intersection is as follows:

• Northbound Approach: An exclusive left-turn lane and three through lanes. A concrete traffic separator separates a part of the left-turn lane from the through lanes.

Southbound Approach: Three through lanes and an exclusive free-flow right-turn lane.

Westbound Approach: Two right-turn lanes.

### 3 WORK PROGRAM REVIEW

A review of the FIVE-YEAR FDOT Work Program and relevant studies revealed no planned or previous projects or studies within the project limits.

**FM No. 450046-1**. Rail Safety Improvements at the CSXT Railroad Crossing No. 631075R located on NW 107<sup>th</sup> Avenue between SR 836 WB On/Off Ramps and NW 12<sup>th</sup> Street: The safety project includes the installation of new cantilevers/bridges, new gates, LEDs, adding a new 8'x8' control house, crossing control equipment and new power service.

<u>FM No. 250629-4-32-01</u>. The project is a push button project which is extending the northbound left turn lane from SR 985/NW 107<sup>th</sup> Avenue by 200 feet. This project is currently under construction. An excerpt from the project plans in included in **Appendix C**.

### 4 CRASH ANALYSIS

The crash data for the latest five-year period (January 1, 2018 to December 31, 2022) was downloaded from the FDOT's Signal Four Analytics database, reviewed, and summarized for the study segment. The raw data for the segments included 576 crashes; however, upon reviewing the raw data and eliminating crashes that fell outside the study limits, 417 crashes remained and were used for this safety review. The following is a summary of the analysis for the entire segment:

- The segment experienced 417 crashes in the five years, with a yearly breakdown of 88, 123, 56,68, and 82 crashes from 2018 to 2022.
- The percentage of nighttime crashes (night/dusk/dawn) was 30.2% (126 crashes), slightly above the district-wide average of 28.5%.
- The percentage of crashes during wet/slippery pavement conditions was 12.5% (52 crashes), slightly above the district-wide average of 11.8%.
- Based on crash severity, 9.4% (39 crashes) were injury-type crashes, and 90.6% (378 crashes) were property damage-only crashes. <u>There were no fatal crashes during the three-year study period.</u>
- The leading crash types were rear-end with 191 and sideswipe with 132 crashes.
- Of the 191 rear-end crashes, 86 involved southbound vehicles, 52 involved northbound vehicles, 33 involved westbound vehicles, and 20 involved eastbound vehicles. According to the police reports, 'Careless or Negligent Manner', with 149 crashes (78%), was the leading cause of rear-end crashes. The peak period for rear-end crashes was from 3 PM to 6 PM.
- Of the 132 sideswipe crashes, 61 involved northbound vehicles, 46 involved southbound vehicles, 13 involved eastbound vehicles, and 12 involved westbound vehicles. According to the police reports, 'Failed To Keep In Proper Lane with 96 crashes (72.7%) was the leading cause of sideswipe crashes. The peak period for sideswipe crashes was 3 PM to 6 PM.
- Two (2) bicycle crashes and one (1) pedestrian crash occurred during the five-year study period.
  - o The first bicycle crash (Crash # 88254659) occurred on Saturday, November 23, 2019, at 2:30 PM. According to the police report, the crash occurred when a westbound bicyclist failed to obey traffic control devices, crossed at an undesignated location, approximately 10 feet north of NW 7<sup>th</sup> Street, and was struck by a southbound vehicle. The bicyclist was not injured in the crash. The crash occurred under daylight lighting, clear weather, and dry pavement conditions.
  - The second bicycle crash (Crash # 24352602) occurred on Monday, April 19, 2021, at 12:30 AM. According to the police report, the crash occurred when a southbound left-turn vehicle struck a bicyclist traveling southbound within the east leg crosswalk. The vehicle left the scene. The bicyclist suffered minor injuries. The crash occurred under nighttime, clear weather, and dry pavement conditions.
  - o The pedestrian crash (Crash # 24354689) occurred on Thursday, May 6, 2021, at 3:43 PM. According to the police report, the crash occurred when a southbound pedestrian crossed at an undesignated location, approximately 200 feet east of NW 107<sup>th</sup> Avenue, and was struck by a westbound vehicle. According to the police report, the bicyclist sustained lifethreatening injuries. The crash occurred under daylight lighting, clear weather, and dry pavement conditions.
- According to the Department's 2019 3-Year and 5-Year High Crash Lists for spots and segments, the right turn lane from SR 985/NW 107<sup>th</sup> Avenue to NW 7<sup>th</sup> Street (MP 7.170) is the only identified high crash location within the study area.

• A confidence level analysis could not be performed for the study corridor to determine whether the frequency of crashes recorded is abnormally high when compared to other segments of similar characteristics, as, there are currently no crash rates available for 2018, 2019, 2020, 2021, or 2022. According to the Highway Safety Improvement Program (HSIP), urban locations with a confidence level of 99.95% or higher can be considered to have an abnormally high number of crashes. **Table 4.1** presents the confidence level calculations for the study area.

**Table 4.1: Confidence Level Calculations** 

Year	2018	2019	2020	2021	2022
Number of Crashes	88	123	56	68	82
Average Daily Traffic (ADT)	65,500	61,500	58,500	55,500	62,000
Actual Crash Rate (ACR)	4.737	7.052	3.375	4.320	4.663
District 6 Average Crash Rate (A)	0.000	#N/A	#N/A	#N/A	#N/A
Average Vehicle Exposure (M)	18.576	17.442	16.591	15.740	17.584
Critical Crash Rate (CCR)	-0.027	#N/A	#N/A	#N/A	#N/A
Safety Ratio	0.000	#N/A	#N/A	#N/A	#N/A
Statistical Significance	-	-	-	-	-
Confidence Level	99.99%	99.99%	99.99%	99.99%	99.99%

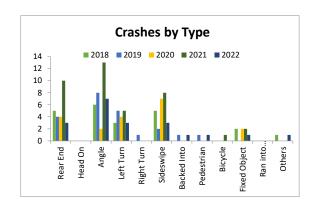
**Table 4.2** presents a summary by crash type for the segment, and **Table 4.3** presents a crash summary by different categories, such as lighting conditions, surface conditions, and weather conditions. The same information is depicted graphically in Figure 4-1 for visual comparison. **Table 4.4** and **Figure 4-2** present an overall perspective of the clustering and staggering crashes along the study segment. Collision Diagrams were prepared for the above locations for the analysis period of January 1, 2017, through December 31, 2022, and are presented in **Appendix D**.

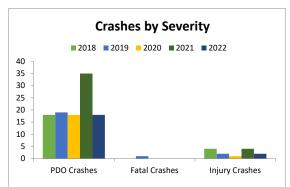
Table 4.2: Crash Summary by Type – Segment

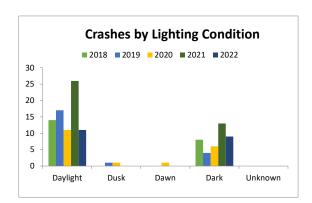
	SR 985/NW 107 Avenue		Numb	er of C	rashes				
	From N. of Flagler Street to N. of SR 836/Dolphin			Year			5 Year Total	Mean Crashes Per	%
	Expressway	2018	2019	2020	2021	2022	Crashes	Year	
	Rear End	43	52	31	29	36	191	39	45.8%
	Head On	0	0	0	0	0	0	0	0.0%
	Angle	3	2	1	3	2	11	2	2.6%
	Left Turn	4	19	7	6	8	44	9	10.6%
	Right Turn	3	6	3	3	1	16	4	3.8%
	Sideswipe	31	39	10	21	31	132	25	31.7%
	Backed Into	0	1	1	0	1	3	1	0.7%
	Pedestrian	0	0	0	1	0	1	0	0.2%
	Bicycle	0	1	0	1	0	2	1	0.5%
	Fixed Object	3	3	3	4	3	16	3	3.8%
	Impact Attenuator/Crash Cushion	0	0	0	0	0	0	0	0.0%
	Bridge Overhead Structure	0	0	0	0	0	0	0	0.0%
	Bridge Pier or Support	0	0	0	0	0	0	0	0.0%
	Bridge Rail	0	0	0	0	0	0	0	0.0%
	Culvert	0	0	0	0	0	0	0	0.0%
	Curb	1	2	2	1	1	7	2	1.7%
	Ditch	0	0	0	0	0	0	0	0.0%
	Embankment	0	0	0	0	0	0	0	0.0%
	Guardrail Face	0	0	0	1	0	1	0	0.2%
	Guardrail End	0	0	0	0	0	0	0	0.0%
	Cable Barrier	0	0	0	0	0	0	0	0.0%
	Concrete Traffic Barrier	0	0	0	0	0	0	0	0.0%
	Other Traffic Barrier	0	0	0	0	0	0	0	0.0%
	Tree (Standing)	0	0	0	0	1	1	0	0.2%
CRASH TYPE	Utility Pole/Light Support	0	0	1	0	0	1	0	0.2%
CRASH TYPE	Traffic Sign Support	0	0	0	0	0	0	0	0.0%
	Traffic Signal Support	0	0	0	0	1	1	0	0.2%
	Other Post, Pole Or Support	0	0	0	0	0	0	0	0.0%
	Fence	1	0	0	0	0	1	0	0.2%
	Mailbox	0	0	0	0	0	0	0	0.0%
	Other Fixed Object	1	1	0	2	0	4	1	1.0%
	Other Non Fixed Object Collisions	0	0	0	0	0	0	0	0.0%
	Railway Vehicle (Train, Engine)	0	0	0	0	0	0	0	0.0%
	Animal	0	0	0	0	0	0	0	0.0%
	Motor Vehicle in Transport	0	0	0	0	0	0	0	0.0%
	Parked Motor Vehicle	0		0			0	0	0.0%
	Work Zone/Maintenance Equip.	0		0	0	0	0	0	0.0%
	Struck by Falling/Shifting Cargo	0	0	0	0		0	0	0.0%
	Other Non-Fixed Object	0	0	0	0	0	0	0	0.0%
	Non-Collisions	1	0	0	0	0	1	0	0.2%
	Overturn/Rollover	0		0	0	0	0	0	0.0%
	Fire/Explosion	0	0	0	0	0	0	0	0.0%
	Immersion	0	-	0	0		0	0	0.0%
	Jackknife	0	0	0	0		0	0	0.0%
	Cargo/Equipment Loss or Shift	1	0	0	0		1	0	0.2%
	Fell/Jumped from Motor Vehicle	0		0	0	0	0	0	0.0%
	Thrown or Falling Object	0		0	0	0	0	0	0.0%
	Ran into Water/Canal	0		0	0		0	0	0.0%
	Other Non-Collision	0	-	0	0		0	0	0.0%
	Others	0	0	0	0		0	0	0.0%
	Total Crashes	88	123	56	68	82	417	84	100.0%

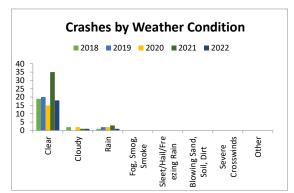
Table 4.3: Crash Summaries by Other Categories – Segment

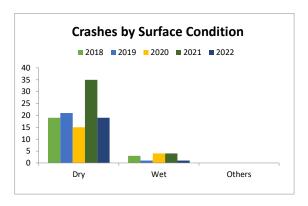
	SR 985/NW 107 Avenue		Numb	er of C	rashes		5 Year Total	Mean	
From N. of Flagler Street to N. of SR 836/Dolphin				Year			Crashes	<b>Crashes Per</b>	%
	Expressway	2018	2019	2020	2021	2022	Crasiles	Year	
	PDO Crashes	82	112	54	59	71	378	77	90.6%
SEVERITY	Fatal Crashes	0	0	0	0	0	0	0	0.0%
	Injury Crashes	6	11	2	9	11	39	7	9.4%
	Daylight	75	81	33	40	62	291	57	69.8%
	Dusk	2	7	1	2	2	14	3	3.4%
LIGHTING	Dawn	0	0	2	1	0	3	1	0.7%
	Dark	11	35	20	25	18	109	23	26.1%
	Unknown	0	0	0	0	0	0	0	0.0%
	Dry	78	110	39	61	77	365	72	87.5%
SURFACE	Wet	10	13	17	7	5	52	12	12.5%
	Others	0	0	0	0	0	0	0	0.0%
	January	6	11	10	4	7	38	8	9.1%
	February	7	10	6	5	7	35	7	8.4%
	March	7	11	4	4	2	28	7	6.7%
	April	8	4	1	6	6	25	5	6.0%
	May	2	12	3	5	5	27	6	6.5%
MONTH	June	9	9	1	4	10	33	6	7.9%
	July	12	11	6	7	5	41	9	9.8%
	August	12	13	5	6	4	40	9	9.6%
	September	9	9	6	5	11	40	7	9.6%
	October	4	6	6	3	7	26	5	6.2%
	November	6	15	8	9	8	46	10	11.0%
	December	6	12	0	10	10	38	7	9.1%
	Monday	14	22	2	8	12	58	12	13.9%
	Tuesday	10	17	7	7	18	59	10	14.1%
544	Wednesday	15	13	12	12	10	62	13	14.9%
DAY	Thursday	10	18	13	9	11	61	13	14.6%
	Friday	22	19	11	13	15	80	16	19.2%
	Saturday	7	19 15	6 5	11	7 9	50	11	12.0%
	Sunday	10			8 7		47	10	11.3%
	00:00-06:00	4	6	0		6	23	4	5.5%
	06:00-09:00	10	9	2	6	14	41	7	9.8%
	09:00-11:00 11:00-13:00	10 11	8 13	3 5	4 8	9 5	34 42	6 9	8.2% 10.1%
HOUR	13:00-15:00	18	22	7	6	14	67	13	16.1%
	15:00-13:00	18	23	15	15	16	87	18	20.9%
	18:00-21:00	15	25	15	11	10	76		18.2%
	21:00-24:00	2	17	9	11	8	47	10	11.3%
	Clear	67	96	40	56	71	330		79.1%
	Cloudy	16	18	40	12	9	59		14.1%
	Rain	5	8	12	0	2	27	6	6.5%
	Fog, Smog, Smoke	0	1	0	0	0	1	0	0.2%
WEATHER	Sleet/Hail/Freezing Rain	0	0	0	0	0	0		0.2%
	Blowing Sand, Soil, Dirt	0	0	0	0	0	0		0.0%
	Severe Crosswinds	0	0	0	0	0	0		0.0%
	Other	0	0	0	0	0			0.0%
	Other	0	0	0	0	0	0	0	0.0%

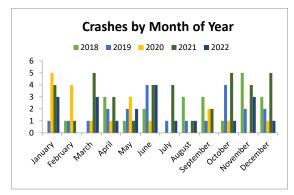


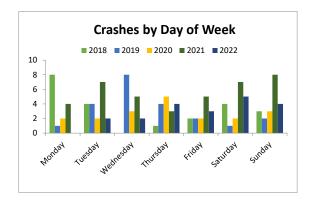












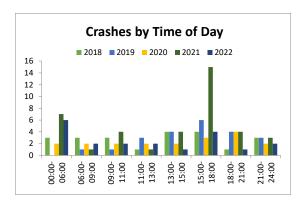


Figure 4-1: Histograms of Crash Summaries

**Table 4.4: Crash Distribution at Intersections** 

Location	2018	2019	2020	2021	2022	PDO	Injury	Fatal	Totals	Average
MP 6.827 to W. Lake Village S. Driveway	4	6	2	1	0	11	2	0	13	3
Bet. W. Lake Village S. and N. DWYs	3	1	1	0	2	6	1	0	7	1
NW 7 Street	42	62	24	30	42	183	17	0	200	40
SR 836 EB On/Off Ramps	20	23	13	14	21	85	6	0	91	18
SR 836 WB On/Off Ramps	19	31	16	23	17	93	13	0	106	21
Total	88	123	56	68	82	378	39	0	417	83

DWOs: Driveways, W:West, N.: North, S.: South

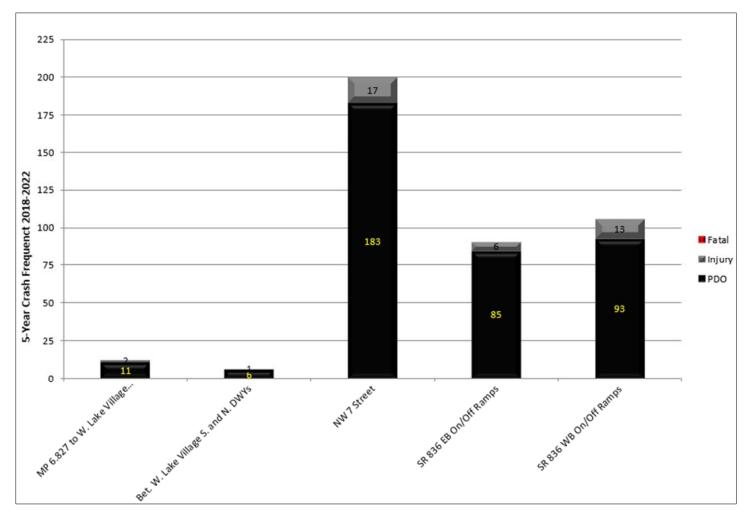


Figure 4-2: Crash Distribution by Intersection

From Table 4.4, Figure 4.2, the Collision Diagrams for the entire segment, the following locations are further investigated:

- SR 985/NW 107<sup>th</sup> Avenue at NW 7<sup>th</sup> Street
- SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps
- SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

### SR 985/NW 107th Avenue at NW 7th Street

• Given this intersection's geometric layout, an expected value analysis (EVA) was performed using the following layout: 6 Lane x 4 Lane, Signalized, 4 Leg Intersection, Divided. Based on the EVA analysis, sideswipe and right-turn crashes were identified as abnormal at the 95th percentile.

- There were 200 crashes in the five-year study period, with a yearly breakdown of 42, 62, 24, 30, and 42 crashes from 2018 to 2022.
- The percentage of crashes during nighttime (night/dusk/dawn) was 30.5% (61 crashes), above the district-wide average of 28.5%.
- The percentage of crashes during wet/slippery pavement conditions was 8.0% (16 crashes), below the district-wide average of 11.8%.
- Based on crash severity, 8.5% (17 crashes) were injury-type crashes, and 91.5% (183 crashes) were property damage-only crashes. *There were no fatal crashes during the five-year study period.*
- The peak period for all crashes was 3 PM to 6 PM, with 40 crashes.
- The leading crash types were sideswipe at 43.5% (87 crashes) and rear-end at 40% (80 crashes).
- Of the 87 sideswipe crashes, 38 involved northbound vehicles, 28 involved southbound vehicles, 13 involved eastbound vehicles, and eight (8) involved westbound vehicles. According to the police reports, 'Failed To Keep In Proper Lane' with 68 crashes (78.2%) was the leading cause of sideswipe crashes. Most crashes involving northbound vehicles seem associated with lane changes to access the right-turn lane that connects to the SR 836 EB On-Ramp. The peak period for sideswipe crashes was 3 PM to 6 PM.
- Of the 80 rear-end crashes, 32 involved southbound vehicles, 22 involved northbound vehicles, 15 involved eastbound vehicles, and 11 involved westbound vehicles. According to the police reports, 'Careless or Negligent Manner,' with 63 crashes (78.8%), was the leading cause of rear-end crashes. The peak period for rear-end crashes was from 3 PM to 6 PM.
- Of the 10 right-turn crashes, three (3) involved southbound right-turn vehicles violating the right-of-way of westbound vehicles, one (1) involved a westbound right-turn vehicle violating the right-of-way of a northbound vehicle, five (5) involved westbound right-turn vehicles exiting the plaza located at the southeast corner and violating the right-of-way in northbound vehicles, and one (1) involved an eastbound right-turn vehicle exiting the commercial property located at the northwest quadrant and violating the right-of-way if a southbound vehicle. There was no specific peak period for the right-turn crashes.
- Two (2) bicycle crashes and one (1) pedestrian crash occurred at the intersection during the five-year study period.
  - The first bicycle crash (Crash # 88254659) occurred on Saturday, November 23, 2019, at 2:30 PM. According to the police report, the crash occurred when a westbound bicyclist failed to obey traffic control devices, crossed at an undesignated location, approximately 10 feet north of NW 7<sup>th</sup> Street, and was struck by a southbound vehicle. The bicyclist was not injured in the crash. The crash occurred under daylight lighting, clear weather, and dry pavement conditions.
  - The second bicycle crash (Crash # 24352602) occurred on Monday, April 19, 2021, at 12:30 AM. According to the police report, the crash occurred when a southbound left-turn vehicle struck a bicyclist traveling southbound within the east leg crosswalk. The vehicle left the scene. The bicyclist suffered minor injuries. The crash occurred under nighttime, clear weather, and dry pavement conditions.

The pedestrian crash (Crash # 24354689) occurred on Thursday, May 6, 2021, at 3:43 PM. According to the police report, the crash occurred when a southbound pedestrian crossed at an undesignated location, approximately 200 feet east of NW 107<sup>th</sup> Avenue, and was struck by a westbound vehicle. According to the police report, the bicyclist sustained life-threatening injuries. The crash occurred under daylight lighting, clear weather, and dry pavement conditions.

**Table 4-5** summarizes the crash statistics of the intersection.

Table 4-5: Crash Statistics - SR 985/NW 107th Avenue at NW 7th Street

CD OOF /N	SR 985/NW 107 Avenue at NW 7 Street		Number of Crashes							Expected Annual Crash Value			
3N 903/N	Sk 963/NW 107 Aveilue at NW 7 Street			Year					%	Abnormally High Crashes per year		90 %ile	95 %ile
6 Lane x 4 Lane, Signalized, with Turn Lanes, 4 Leg Intersection		2018	2019	2020	2021	2022	Crashes	Per Year		90th percentile	95th percentile		
CRASH TYPE	Rear End	16	22	12	9	21	80	14.75	40.0%	45.88	50.22		
	Head On	0	0	0	0	0	0	0.00	0.0%	0.27	0.31		
	Angle	0	0	0	1	0	1	0.25	0.5%	13.89	15.11		
	Left Turn	2	5	0	2	2	11	2.25	5.5%	8.51	9.37		
	Right Turn	1	4	1	3	1	10	2.25	5.0%	0.99	1.11	Х	X
	Sideswipe	23	27	8	13	16	87	17.75	43.5%	13.37	14.65	X	X
	Backed Into	0	1	1	0	1	3	0.50	1.5%	0.54	0.61		
	Pedestrian	0	0	0	1	0	1	0.25	0.5%	1.75	1.96		
	Bicycle	0	1	0		0	2	0.50	1.0%	1.02	1.15		
	Fixed Object	0	2	2	0	1	5	1.00	2.5%	1.70	1.89		
	Other Non-Collisions	0	0	0	0	0	0	0.00	0.0%	1.65	1.85		
	Overturn/Rollover	0	0	0			0	0.00	0.0%	0.59	0.67		
	Others	0	0	0	0	0	0	0.00	0.0%	6.89	7.62		
	Total Crashes	42	62	24	30	42	200	39.50	100.0%	85.28	92.50		
SEVERITY	PDO Crashes	41	56	23	26	37	183	36.50	91.5%	70.33	76.51		
	Fatal Crashes	0	0	0	0	0	0	0.00	0.0%	0.46	0.52		
	Injury Crashes	1	6	1	4	5	17	3.00	8.5%	16.88	18.29		
LIGHTING	Daylight	37	40	14	16	32	139	26.75	69.5%	59.58	64.68		
CONDITIONS	Dusk	1	2	0	2	1	6	1.25	3.0%	2.23	2.46		
	Dawn	0	0	2	1	0	3	0.75	1.5%	1.32	1.46		
	Dark	4	20	8	11	9	52	10.75	26.0%	24.16	26.33		
	Unknown	0	0	0	0	0	0	0.00	0.0%	0.48	0.55		
SURFACE	Dry	41	56	19	28	40	184	36.00	92.0%	74.44	80.82		
CONDITIONS	Wet	1	6	5	2	2	16	3.50	8.0%	11.72	12.74		
	Others	0	0	0	0	0	0	0.00	0.0%	6.89	7.62		

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps

• Given this intersection's geometric layout, an expected value analysis (EVA) was not performed; instead, a frequency analysis

was conducted.

• There were 91 crashes in the five-year study period, with a yearly breakdown of 20, 23, 13, 14, and 21 crashes from 2018 to

2022

• The percentage of crashes during nighttime (night/dusk/dawn) was 24.2% (22 crashes), below the district-wide average of

28.5%.

• The percentage of crashes during wet/slippery pavement conditions was 16.5% (15 crashes), above the district-wide average

of 11.8%.

Based on crash severity, 6.6% (6 crashes) were injury-type crashes, and 93.4% (85 crashes) were property damage-only

crashes. There were no fatal crashes during the five-year study period.

There was no specific peak period for all crashes.

• The leading crash types were rear-end at 54.9% (50 crashes) and sideswipe at 30.8% (28 crashes).

Of the 50 rear-end crashes, 26 involved southbound vehicles, 18 involved northbound vehicles, five (5) involved eastbound

vehicles, and one (1) involved westbound vehicles accessing the eastbound on-ramp from the southbound approach. The peak

periods for rear-end crashes were from 3 PM to 6 PM and 6 PM to 9 PM, with 24.0% (12 crashes) each. 'Careless or Negligent

Manner' was the leading contributing cause of rear-end crashes.

Of the 28 sideswipe crashes, 19 involved northbound vehicles, and nine (9) involved southbound vehicles. The peak period for

sideswipe crashes was 6 AM to 9 AM, with nine (9) crashes (32.1%). Failing to keep in the proper lane was the leading cause

of sideswipe crashes.

There were no pedestrian or bicycle crashes.

**Table 4-6** summarizes the crash statistics of the intersection.

Table 4-6: Crash Statistics - SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps

SD ORE NIM 107 Avenue at FR Roma			Numb	er of Cr	ashes				
SR 985/I	NW 107 Avenue at EB Ramp			Year	5 Year Total	Mean Crashes	%		
Segment/S	Segment/Spot with No Expected Values Available		2019	2020	2021	2022	Crashes	Per Year	
CRASH TYPE	Rear End	9	14	11	10	6	50	11.00	54.9%
	Head On	0	0	0	0	0	0	0.00	0.0%
	Angle	3	2	0	1	2	8	1.50	8.8%
	Left Turn	0	0	0	0	0	0	0.00	0.0%
	Right Turn	1	1	0	0	0	2	0.50	2.2%
	Sideswipe	6	6	1	3	12	28	4.00	30.8%
	Backed Into	0	0	0	0	0	0	0.00	0.0%
	Pedestrian	0	0	0	0	0	0	0.00	0.0%
	Bicycle	0	0	0	0	0	0	0.00	0.0%
	Fixed Object	0	0	1	0	1	2	0.25	2.2%
	Other Non-Collisions	1	0	0	0	0	1	0.25	1.1%
	Overturn/Rollover	0	0	0	0	0	0	0.00	0.0%
	Others	0	0	0	0	0	0	0.00	0.0%
	Total Crashes	20	23	13	14	21	91	17.50	100.0%
SEVERITY	PDO Crashes	20	22	12	13	18	85	16.75	93.4%
	Fatal Crashes	0	0	0	0	0	0	0.00	0.0%
	Injury Crashes	0	1	1	1	3	6	0.75	6.6%
LIGHTING	Daylight	16	20	5	11	17	69	13.00	75.8%
CONDITIONS	Dusk	0	1	0	0	0	1	0.25	1.1%
	Dawn	0	0	0	0	0	0	0.00	0.0%
	Dark	4	2	8	3	4	21	4.25	23.1%
	Unknown	0	0	0	0	0	0	0.00	0.0%
SURFACE	Dry	15	21	7	14	19	76	14.25	83.5%
CONDITIONS	Wet	5	2	6	0	2	15	3.25	16.5%
	Others	0	0	0	0	0	0	0.00	0.0%

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

• Given this intersection's geometric layout, an expected value analysis (EVA) was not performed; instead, a frequency analysis was conducted.

• There were 106 crashes in the five-year study period, with a yearly breakdown of 19, 31, 16, 23, and 17 crashes from 2018 to 2022.

• The percentage of crashes during nighttime (night/dusk/dawn) was 34.9% (37 crashes), above the district-wide average of 28.5%.

• The percentage of crashes during wet/slippery pavement conditions was 18.9% (20 crashes), above the district-wide average of 11.8%.

- Based on crash severity, 12.3% (13 crashes) were injury-type crashes, and 87.7% (93 crashes) were property damage-only crashes. *There were no fatal crashes during the five-year study period.*
- The peak periods for all crashes were 3 PM to 6 PM, with 24 crashes, and the 6 PM to 9 PM, with 21 crashes.
- The leading crash types were rear-end at 50.0% (53 crashes) and left-turn at 28.3% (30 crashes).
- Of the 53 rear-end crashes, 23 involved southbound vehicles, 21 involved westbound vehicles, and nine (9) involved northbound vehicles. The peak periods for rear-end crashes were 6 PM to 9 AM, with 15 crashes (28.3%) and 3 PM to 6 PM, with 14 crashes (26.4%). "Careless or Negligent Manner" was the leading cause of rear-end crashes.
- All 30 left-turn crashes involved northbound left-turn vehicles. The peak period for left-turn crashes was 1 PM to 3 PM, with eight (8) crashes (26.7%). 'Failing to yield the right of way' was the contributing cause of 25 left-turn crashes, and Running the Red Light was the contributing cause of five (5) crashes.
- It is noted that there were 12 sideswipe crashes, with six (6) involving southbound vehicles, four (4) involving westbound vehicles, and two (2) involving northbound vehicles.

**Table 4-7** summarizes the crash statistics of the intersection.

Table 4-7: Crash Statistics - SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

CD 005 /NW 107 Avenue of MD Deve			Numb	er of Cr	ashes				
SR 985/N	IW 107 Avenue at WB Ramp			Year	5 Year Total	Mean Crashes	%		
Segment/S	Spot with No Expected Values Available	2018	2019	2020	2021	2022	Crashes	Per Year	
CRASH TYPE	Rear End	15	12	7	10	9	53	11.00	50.0%
	Head On	0	0	0	0	0	0	0.00	0.0%
	Angle	0	0	1	1	0	2	0.50	1.9%
	Left Turn	1	14	7	3	5	30	6.25	28.3%
	Right Turn	1	0	0	0	0	1	0.25	0.9%
	Sideswipe	0	4	1	5	2	12	2.50	11.3%
	Backed Into	0	0	0	0	0	0	0.00	0.0%
	Pedestrian	0	0	0	0	0	0	0.00	0.0%
	Bicycle	0	0	0	0	0	0	0.00	0.0%
	Fixed Object	2	1	0	4	1	8	1.75	7.5%
	Other Non-Collisions	0	0	0	0	0	0	0.00	0.0%
	Overturn/Rollover	0	0	0	0	0	0	0.00	0.0%
	Others	0	0	0	0	0	0	0.00	0.0%
	Total Crashes	19	31	16	23	17	106	22.25	100.0%
SEVERITY	PDO Crashes	16	28	16	19	14	93	19.75	87.7%
	Fatal Crashes	0	0	0	0	0	0	0.00	0.0%
	Injury Crashes	3	3	0	4	3	13	2.50	12.3%
LIGHTING	Daylight	16	18	11	12	12	69	14.25	65.1%
CONDITIONS	Dusk	1	4	1	0	1	7	1.50	6.6%
	Dawn	0	0	0	0	0	0	0.00	0.0%
	Dark	2	9	4	11	4	30	6.50	28.3%
	Unknown	0	0	0	0	0	0	0.00	0.0%
SURFACE	Dry	15	27	10	18	16	86	17.50	81.1%
CONDITIONS	Wet	4	4	6	5	1	20	4.75	18.9%
	Others	0	0	0	0	0	0	0.00	0.0%

### 5 FIELD REVIEW

The field reviews were conducted during the following periods:

- Tuesday, October 10<sup>th</sup>, 2023, from 7:00 AM to 9:00 AM
- Tuesday, October 25<sup>th</sup>, 2023, from 3:00 PM to 5:00 PM.
- Thursday, October 26<sup>th</sup>, 2023, from 8:00 AM to 9:00 AM

### SR 985/NW 107<sup>th</sup> Avenue Segmentwide

- Northbound and eastbound were the peak directions during the morning, and southbound and westbound during the afternoon.
- The lack of capacity of the northbound left-tun lane at the SR 836 WB On/Off Ramp signal generated heavy traffic congestion, long queues, blockage, and aggressive lane changes along NW 107<sup>th</sup> Avenue.
- There was low to moderate pedestrian activity along the segment. The highest pedestrian activities were observed at the south end of the corridor, close to Florida International University, Engineering Campus, and NW 7<sup>th</sup> Street.
- There was moderate to high bicycle activity along the east side of the segment during the field reviews. Most bicyclists, who
   seemed to be students, were observed riding electric bikes.
- There is no sidewalk along the west side of the segment from the southwest corner of the EB Off-Ramp signalized intersection to NW 12<sup>th</sup> Street.
- There is no visibility between northbound vehicles accessing the SR 836 EB On Ramp and pedestrians/bicyclists standing at the curb ramp to cross northbound.

### SR 985/NW 107th Avenue at NW 7th Street

- Northbound and eastbound were the peak directions during the morning, and southbound and westbound during the
  afternoon.
- Northbound queues extended close to NW 3<sup>rD</sup> Street (approximately 1000 feet from the NW 7<sup>th</sup> Street stop bar) but were cleared by the signal phase.
- During the morning, eastbound queues extended close and occasionally beyond NW 109th Avenue (approximately 1300 feet from the NW 107<sup>th</sup> Avenue stop bar). Cycle failures occurred during the morning period. As eastbound vehicles tried to get into the left-turn lanes, there were numerous lane changes.
- Southbound left-turn queues extended approximately 400 feet and 600 feet from the NW 7<sup>th</sup> Street stop bar during the morning and afternoon, respectively. However, queues were cleared by the signal phase.
- Westbound queues were short during the morning period and extended beyond NW 106<sup>th</sup> Avenue (approximately 500 feet from the NW 107<sup>th</sup> Avenue stop bar); however, queues were cleared by the signal phase.
- A high volume of westbound right-turns was observed. However, the westbound right-turn lane is a channelized free-flow lane. Numerous westbound vehicles drove over the concrete raised median, sidewalk, and solid white lane separating the receiving and outside lanes. The turning radius and receiving lane appear not wide enough to accommodate the turning vehicles.

 Numerous lane changes occurred during the morning and afternoon periods just north of the intersection as the westbound right-tun lane entered NW 107<sup>th</sup> Avenue, and the northbound vehicles switched to the outside lanes to access lanes to SR 836 EB.

• During all field reviews, there was moderate pedestrian, bicycle (most in E-bikes), and scooter activity at the intersection.

Many of the crossings occurred at undesignated locations, such as the north leg and the south leg, away from the crosswalk.

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps

- Eastbound queues extended approximately 1400 ft from the NW 107<sup>th</sup> Avenue stop bar during the morning. However, only
  a couple of cycle failures were observed.
- Eastbound vehicles occasionally get blocked by northbound queues from the SR 836 WB On/Off Ramps signal.

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

- Northbound queues extended to the SR 836 EB On/Off Ramp, occasionally eastbound traffic from that signal. The queues are longer in the inside lane due to the high volume of northbound left turns and the lack of capacity of the turn lane.
- The spillbacks from the northbound left-turn lane reduced the capacity of the northbound through lanes and generated numerous and aggressive lane change maneuvers.
- Westbound queues extended approximately 1000 ft from the NW 107<sup>th</sup> Avenue stop bar during the morning and afternoon.
   A few cycle failures were observed.
- Westbound vehicles standing in the left lane limit visibility between northbound vehicles and westbound vehicles standing in the right lane, which are allowed to turn on red.
- The northbound left turn lane to SR 836 Westbound On Ramp is currently being extended by 200 feet under FDOT project with FPID 250629-4-32-01.



Figure 5-1: Field Observations



Figure 5-2: Field Observations

RRR Safety Review



Figure 5-3: Field Observations



Figure 5-4: Field Observations

RRR Safety Review

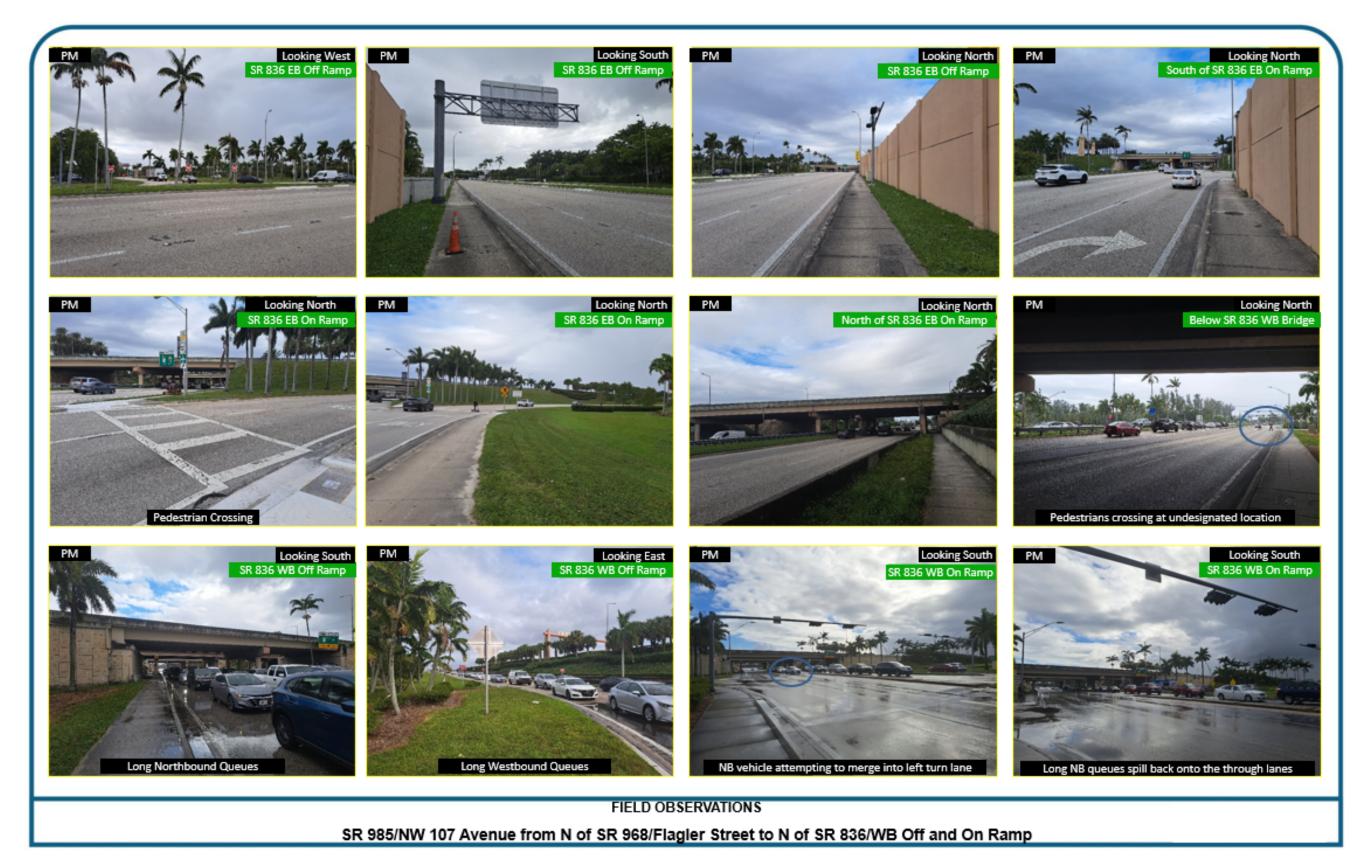


Figure 5-5: Field Observations

RRR Safety Review

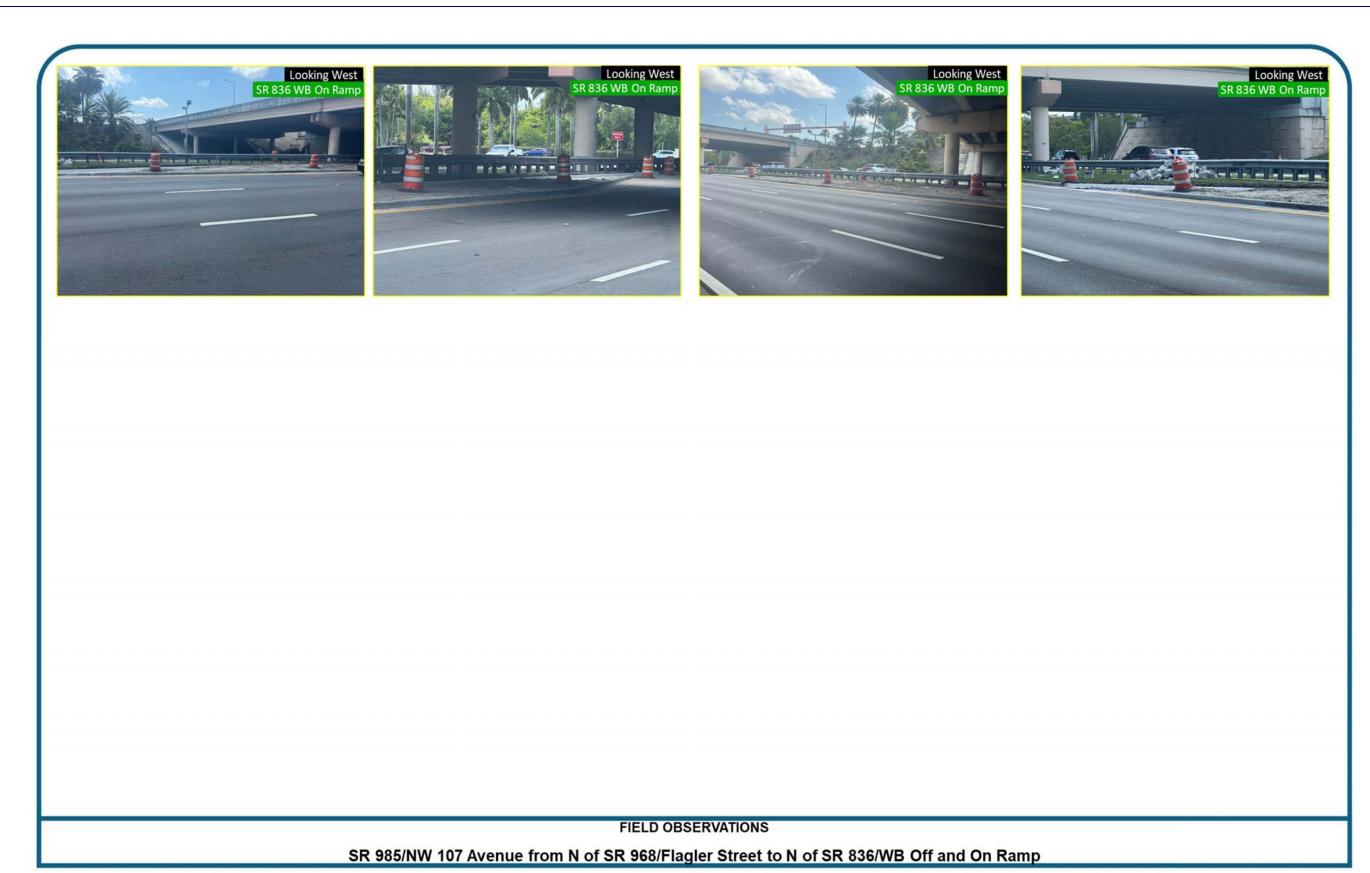


Figure 5-6: Field Observations

### **6 IMPROVEMENT DEVELOPMENT**

### 6.1 CRASH PATTERNS AND COUNTERMEASURES

### SR 985/NW 107<sup>TH</sup> Avenue at NW 7<sup>TH</sup> Street

### Crash Pattern:

- Rear-end Crashes
- Sideswipe Crashes

### Probable Cause:

- Traffic congestion along NW 7<sup>th</sup> Street.
- Lack of visibility to the signal heads facing northbound.
- Substandard turning radius for westbound right-turn movements.

### **Safety Improvements:**

- Consider improving signal timing during the morning to reduce traffic congestion and aggressive lane changes on the eastbound approach. The morning field review revealed opportunities to allocate additional green time to the eastbound phase by taking time from the westbound phase.
- Consider providing an overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.
- Consider installing an additional signal head facing the northbound approach.
- Consider converting the eastbound approach lane configuration to two (2) left-turn lanes and a shared through/right-turn lane.
- Consider redesigning the turn radius at the northeast corner. <u>Numerous sideswipe crashes occurred just north of the intersections</u>. <u>Although many hardcopy police reports did not provide details, based on the field review, many crashes should be associated with westbound failing to stay within the receiving lane and crashing against northbound vehicles traveling in the outside lane. As stated in the field review section, numerous westbound right-turn vehicles ran over the raised median or sidewalk and failed to stay within its lane.</u>

### Crash Pattern:

Pedestrian and bicycle crashes

### Probable Cause:

- High pedestrian and bicycle activities
- Lack of pedestrian and bicycle features

### **Safety Improvements:**

- Consider upgrading the existing crosswalks to high-emphasis.
- Consider providing a crosswalk at the north leg of the intersection.
- Consider installing countdown pedestrian signal heads, pushbuttons, and plaques to assist the east and west legs crossing.

• Consider installing 'Turning Vehicles Stop for Pedestrians' signs (R10-15a) facing all approaches. <u>The sign facing westbound</u> depends on the installation of the north-leg crosswalk.

 Consider installing NO PEDESTRIAN CROSSING (R9-3) signs supplemented with USE CROSSWALK plaques (R9-3bP) on NW 107<sup>th</sup> Avenue south of NW 7<sup>th</sup> Avenue.

### The above improvements require the following:

- An operational analysis to evaluate:
  - o Providing additional green time to the eastbound phase.
  - Providing the overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.
  - Providing a crosswalk at the north leg.
- Providing a 5-section signal head facing westbound and replacing the mast arm facing westbound to implement the overlap
  phase. This improvement may also require <u>right-of-way acquisition</u> at the northwest corner.
- Providing the additional signal head facing northbound and redesigning the northeast corner to improve the turning radius.
   This improvement requires an AUTO Turn analysis to evaluate its feasibility and right-of-acquisition extent at the northeast corner.

A Safety Study for this intersection is being conducted under FM: 434664-2-32-01, TWO 31 to evaluate the feasibility of implementing the above improvements. An excerpt with the Safety Study Improvements is included in Appendix E.

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps

### Crash Pattern:

- Rear-end Crashes
- Sideswipe Crashes

### **Probable Cause:**

- Traffic congestion along NW 7<sup>th</sup> Street.
- Lack of visibility to the signal heads facing southbound.

### **Safety Improvements:**

- Consider improving the capacity of the northbound left-turn lane at the SR 836 Westbound On/Off Ramps signal.
- Consider installing an additional signal head facing the southbound approach.
- Consider installing retroreflective signal head backplates facing the southbound approach.

Adding the additional signal head and backplates requires replacing the mast arm.

### Non-safety Improvements:

Consider installing a Pedestrian Crossing warning sign assembly (W11-2)/(W16-7a) with a rectangular rapid flashing beacon at the crosswalk on the SR 836 EB On-Ramp from NW 107<sup>th</sup> Avenue northbound, supplemented with a pedestrian ahead warning sign assembly (W11-2)/(W16-9P) with a rectangular rapid flashing beacon before the ramp. This improvement is to provide awareness of pedestrians crossing the ramp. Field reviews show moderate pedestrian/bicycle activity at the crosswalk and no visibility between northbound vehicles accessing the SR 836 EB On Ramp and pedestrians/bicyclists standing at the curb ramp to cross northbound. *Coordination with the Greater Miami Expressway Agency (GMX) is required for this improvement*.



A Safety Study for this intersection is being conducted under FM: 434664-2-32-01, TWO 31 to evaluate the feasibility of implementing the above improvements. An excerpt with the Safety Study Improvements is included in Appendix E.

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

### Crash Pattern:

- Rear-end Crashes
- Sideswipe Crashes
- Left-turn Crashes

### Probable Cause:

- Traffic congestion along NW 7<sup>th</sup> Street.
- Lack of capacity of the northbound left turn lane.
- Northbound left-turn vehicles failing to yield the right-of-way of southbound through vehicles.

### Safety Improvements:

- Consider providing an additional left-turn lane and extending the length of the proposed dual left-turn lanes to increase the
  capacity of the northbound left-turn lane. Based on the field and desktop review, providing the dual left-turn lane and
  extending the lanes is feasible. This improvement is anticipated to positively impact the SR 836 Westbound On/Off Ramp and
  SR 836 EB Off-Ramp signals.
- Consider converting the northbound left-turn phase from permissive to protected only. This improvement is required if the additional northbound left-tun lane is implemented.
- Consider realigning the westbound approach. This improvement is intended to improve the visibility of the westbound vehicles to the signal heads and between westbound vehicles traveling in the right lane and northbound vehicles traveling in the outside lane.
- Consider installing an additional signal head facing the northbound and southbound approaches.
- Consider installing retroreflective signal head backplates facing all approaches.

### The above improvements require the following:

- Replacing the mast arm facing northbound to accommodate a signal head for each left turn and through lane.
- Widening the westbound receiving lane for the new left-turn lane.
- Relocating and replacing the mast arm facing westbound to widen the westbound receiving lane and install backplates.
- Replacing the mast arm facing southbound to provide an additional signal head and backplates.

A Safety Study for this intersection is being conducted under FM: 434664-2-32-01, TWO 31 to evaluate the feasibility of implementing the above improvements. An excerpt with the Safety Study Improvements is included in Appendix E.

### 7 IMPROVEMENT RECOMMENDATIONS

Proposed Improvements are geared toward mitigating crash patterns identified at the cluster locations. <u>The proposed safety and non-safety improvements are as follows:</u>

### SR 985/NW 107<sup>TH</sup> Avenue at NW 7<sup>TH</sup> Street

### **Safety Improvements:**

- Consider improving signal timing during the morning to reduce traffic congestion and aggressive lane changes on the eastbound approach.
- Consider providing an overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.
- Consider installing an additional signal head facing the northbound approach.
- Consider converting the eastbound approach lane configuration to two (2) left-turn lanes and a shared through/right-turn lane.
- Consider redesigning the turn radius at the northeast corner.
- Consider upgrading the existing crosswalks to high-emphasis.
- Consider providing a crosswalk at the north leg of the intersection.
- Consider installing countdown pedestrian signal heads, pushbuttons, and plaques to assist the east and west legs crossing.
- Consider installing 'Turning Vehicles Stop for Pedestrians' signs (R10-15a) facing all approaches. <u>The sign facing westbound</u> <u>depends on the installation of the north-leg crosswalk.</u>
- Consider installing NO PEDESTRIAN CROSSING (R9-3) signs supplemented with USE CROSSWALK plaques (R9-3bP) on NW 107<sup>th</sup> Avenue south of NW 7<sup>th</sup> Avenue.

### The above improvements require the following:

- An operational analysis to evaluate:
  - o Providing additional green time to the eastbound phase.
  - Providing the overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.
  - o Providing a crosswalk at the north leg.
- Providing a 5-section signal head facing westbound and replacing the mast arm facing westbound to implement the overlap
  phase. This improvement may also require right-of-way acquisition at the northwest corner.
- Providing the additional signal head facing northbound and redesigning the northeast corner to improve the turning radius.
   This improvement requires an AUTO Turn analysis to evaluate its feasibility and right-of-acquisition extent at the northeast corner.

A Safety Study for this intersection is being conducted under FM: 434664-2-32-01, TWO 31 to evaluate the feasibility of implementing the above improvements. The study concluded that the proposed improvements will have an overall positive effect on the operation of the intersections within the study area and that the improvements would be economically viable.

### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Eastbound On/Off Ramps

### Safety Improvements:

- Consider installing an additional signal head facing the southbound approach.
- Consider installing retroreflective signal head backplates facing the southbound approach.

Adding the additional signal head and backplates requires replacing the mast arm.

### Non-safety Improvements:

• Consider installing a Pedestrian Crossing warning sign assembly (W11-2)/(W16-7a) with a rectangular rapid flashing beacon at the crosswalk on the SR 836 EB On-Ramp from NW 107<sup>th</sup> Avenue northbound, supplemented with a pedestrian ahead warning sign assembly (W11-2)/(W16-9P) with a rectangular rapid flashing beacon before the ramp. Coordination with the Greater Miami Expressway Agency (GMX) is required for this improvement.



### SR 985/NW 107<sup>th</sup> Avenue at SR 836 Westbound On/Off Ramps

### **Safety Improvements:**

- Consider providing an additional left-turn lane and extending the length of the proposed dual left-turn lanes.
- Consider converting the northbound left-turn phase from permissive to protected only. <u>This improvement is required if the</u> additional northbound left-tun lane is implemented.
- Consider realigning the westbound approach.
- Consider installing an additional signal head facing the northbound and southbound approaches.
- Consider installing retroreflective signal head backplates facing all approaches.

### The above improvements require the following:

- Replacing the mast arm facing northbound to accommodate a signal head for each left turn and through lane.
- Widening the westbound receiving lane for the new left-turn lane.
- Relocating and replacing the mast arm facing westbound to widen the westbound receiving lane and install backplates.
- Replacing the mast arm facing southbound to provide an additional signal head and backplates.

A Safety Study for this intersection is being conducted under FM: 434664-2-32-01, TWO 31 to evaluate the feasibility of implementing the above improvements. The study concluded that the proposed improvements will have an overall positive effect on the operation of the intersections within the study area and that the improvements would be economically viable.

In addition to the above improvements, the Safety Study recommended the following:

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#### SR 985/NW 107 Avenue Segmentwide

#### **Safety Improvements:**

• Improve signal timing at NW 7 Street, SR 836 Eastbound, and SR 836 Westbound. The implementation of signal timing improvement requires coordination with the Miami-Dade County Traffic Signal and Signs Office. Note that one of the signal timing improvements includes modifying the cycle length, which require adjustments at the signalized intersections of NW 12 Street, NW 14 Street, NW 17 Street, and NW 19 Street, which are not part of the State Highway System, but are part of the same traffic signal coordinated system.

#### Non-Safety Improvements:

Consider providing sidewalk connectivity along the west side of SR 985/NW 107th Avenue. The existing sidewalk ends just south of the SR 826 Eastbound Off-Ramp and continues at NW 12th Street. This improvement was discussed with the Department and will not be implemented at this time. Instead, improvements are proposed to enhance pedestrians, bicyclists, and scooter riders' safety along the east side of NW 107th Avenue.

Figure 7-1 on the next pages shows the conceptual diagram of the recommended improvements.

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RRR Safety Review

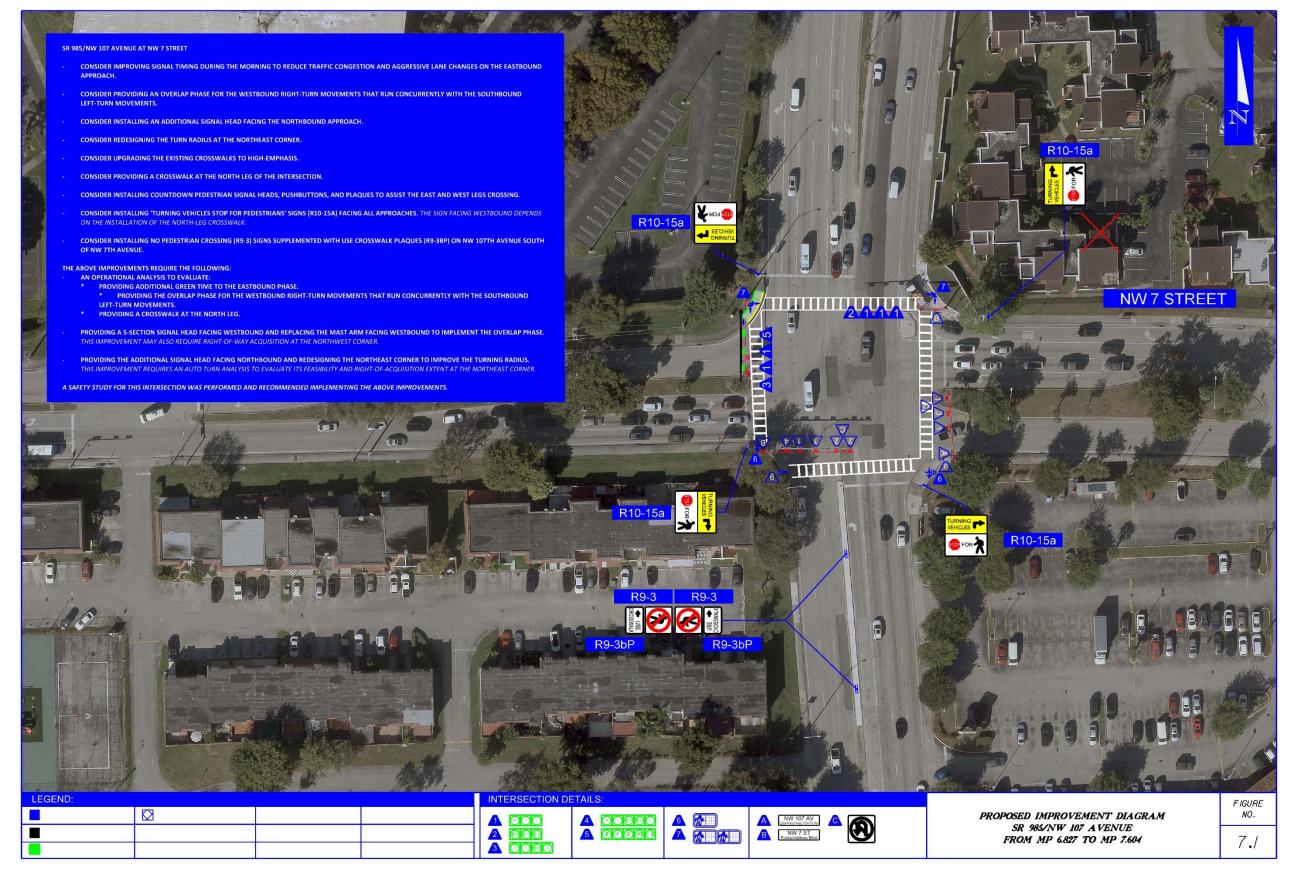
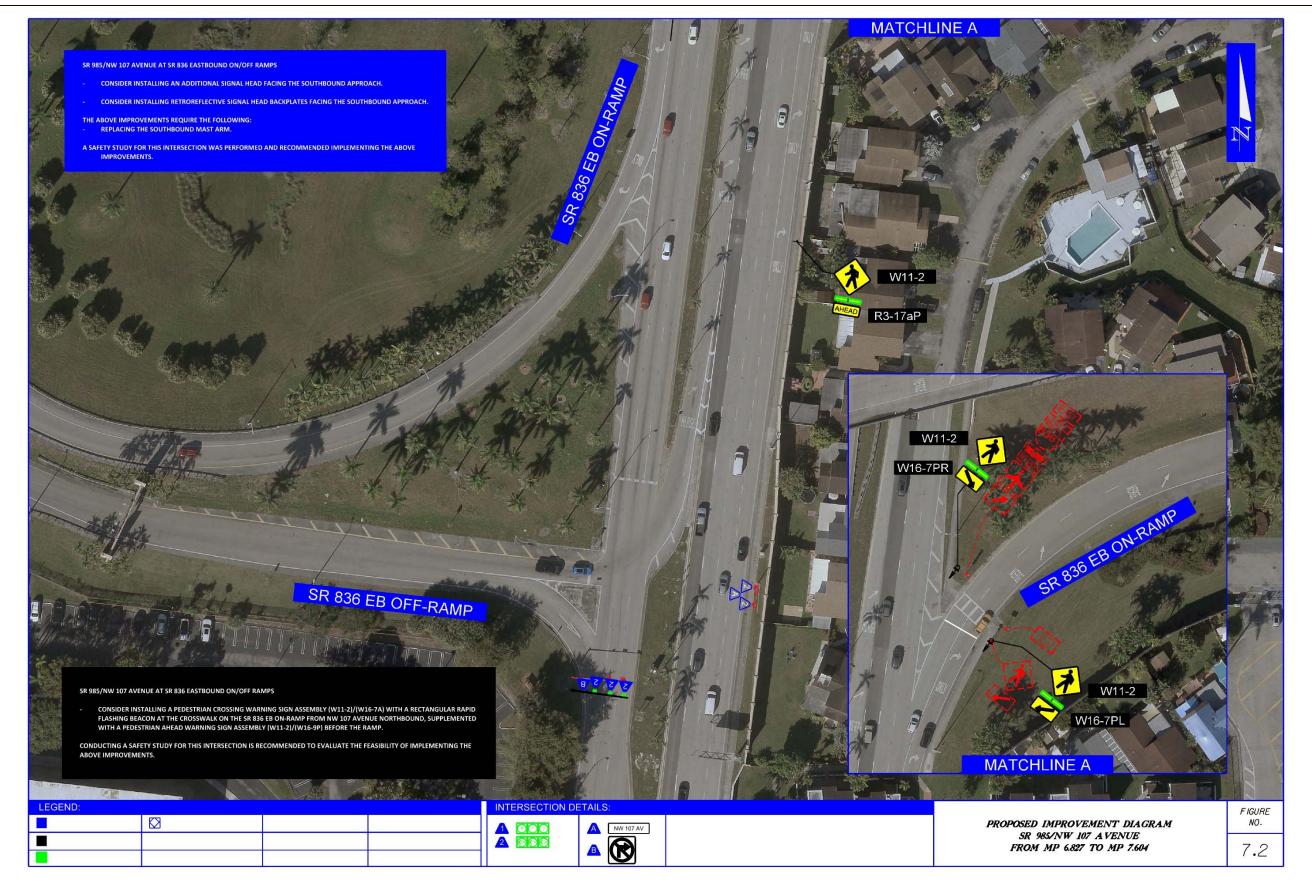


Figure 7-1: Proposed Improvement Diagram

SR 985/NW 107 Avenue from North of Flagler Street to North of SR 836/Dolphin Expressway

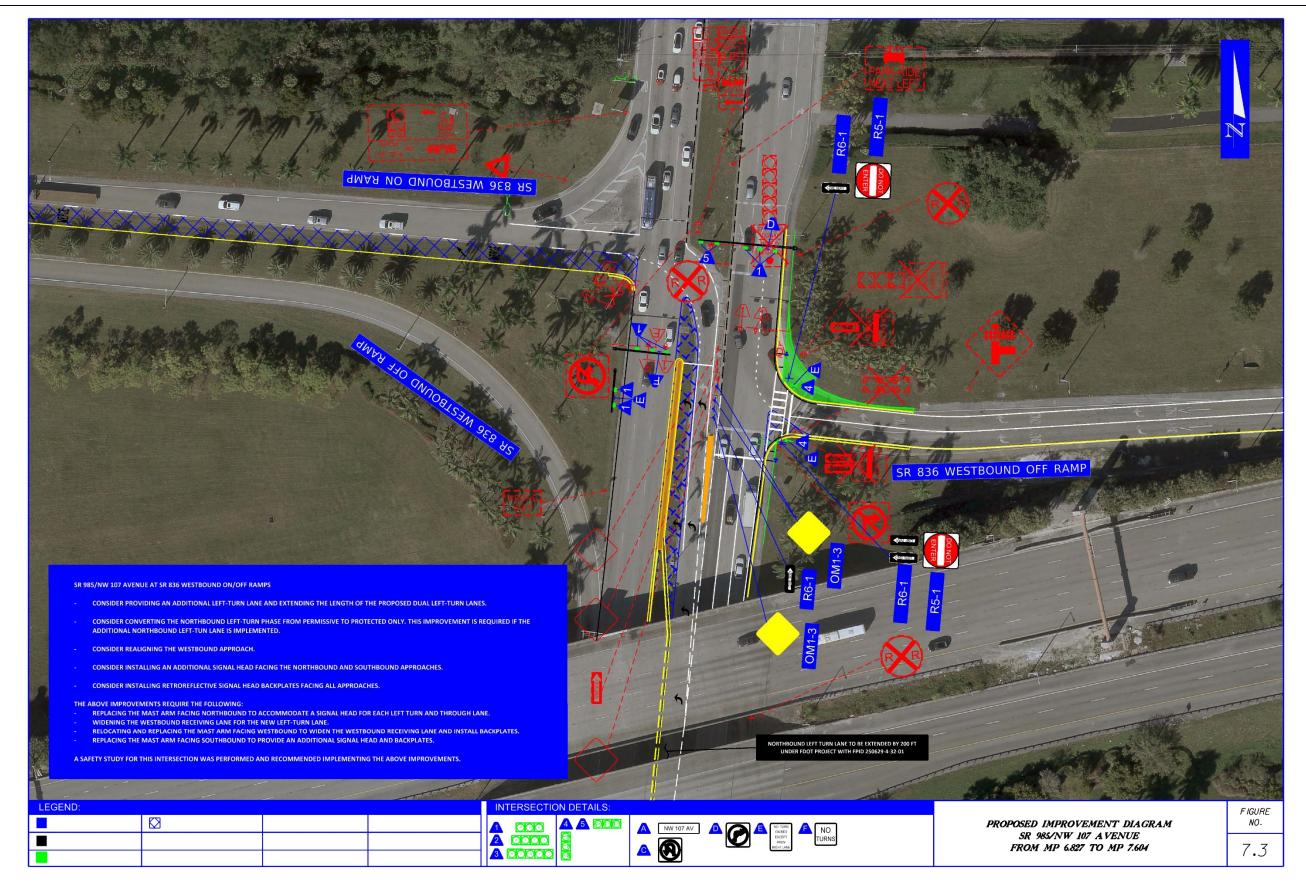
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SR 985/NW 107 Avenue from North of Flagler Street to North of SR 836/Dolphin Expressway

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SR 985/NW 107 Avenue from North of Flagler Street to North of SR 836/Dolphin Expressway

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#### 8 BENEFIT-COST ANALYSIS

A benefit-to-cost ratio analysis was conducted to evaluate the economic viability of the proposed improvements. A benefit-to-cost ratio of 1.0 and above implies that the derived benefits justify the cost expenditure for the project.

<u>Preliminary Cost Estimates</u>: Table 8.1 shows the preliminary construction cost estimates for the recommended improvements. The costs were prepared using FDOT's standard pay items and historical unit costs from previous construction projects recently completed in Area 13 (Miami Dade County). The cost estimates include pay items for roadway, signalization, signing and pavement marking, traffic control maintenance, preliminary engineering, mobilization, and a contingency amount to account for any unforeseen cost elements. It is estimated that the improvements will cost approximately \$2,569,000. The detailed cost estimate sheets are included in **Appendix F.** 

**Table 8.1: Construction Cost Estimates** 

SAFETY IMPROVEMENTS	COSTS
Roadway	\$ 265,976.77
Signalization	\$ 843,648.33
S&M	\$ 39,032.37
SUBTOTAL	\$ 1,148,657.47
20% Maintenance of Traffic	\$ 229,731.49
10% Mobilization	\$ 114,865.75
32% Preliminary Engineering	\$ 367,570.39
18% Construction Engineering & Inspection	\$ 206,758.34
Project Contigency	\$ 250,000.00
Right of Way Acquisition Estimate	\$ 251,000.00
GRAND TOTAL	\$ 2,568,583.44

<u>Crash Reduction:</u> Table 8.2 shows the potential number of crashes to be reduced by implementing the recommended improvements discussed in Section 7. The improvements would have a possible reduction of nearly five crashes per year. These crash reductions are estimated using crash modification factors found on the FHWA's Clearinghouse.

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**Table 8.2: Estimated Crash Reduction** 

PR	OPOSED IMPROVEMENTS	CRF	SOURCE	TARGETED CRASH TYPE	NUMBER OF CRASHES TARGETED	NUMBER OF REDUCED CRASHES
		35%		Angle	1.00	0.35
	Add 2nd LT lane in same direction as existing	6%	Florida Department of Transportation Crash Reduction Factors (as of 7/14/2020)	Rear End	7.00	0.42
SR 985/NW 107 Avenue at NW 7		29%		Left Turn	2.00	0.58
Street	Add 3-inch yellow retroreflective sheeting to signal backplates	15%	CMF Clearinghouse (CMF ID: 1410)	Rear End 62.58		9.39
	Install pedestrian countdown timers	9%	CMF Clearinghouse (CMF ID: 10119)	Pedestrian Bicyclist	2.00	0.18
SR 985/NW 107 Avenue at SR 836 Eastbound On/Off Ramps	Add 3-inch yellow retroreflective sheeting to signal backplates	15%	CMF Clearinghouse (CMF ID: 1410)	Rear End	15.00	2.25
SR 985/NW 107 Avenue at SR 836	Add 2nd LT lane in same direction as existing	6%	Florida Department of Transportation	Rear End	1.00	0.06
Westbound On/Off Ramps	Add 2nd L1 lane in same direction as existing	29%	Crash Reduction Factors (as of 7/14/2020)	Left Turn	31.00	8.99
	Add 3-inch yellow retroreflective sheeting to signal backplates	15% CMF Clearinghouse (CMF ID: 1410)		Rear End	19.00	2.85
	TOTAL CRASHES REDUCED IN 6-YEARS					25.07
	CRASHES REDUCED PER YEAR					5.01

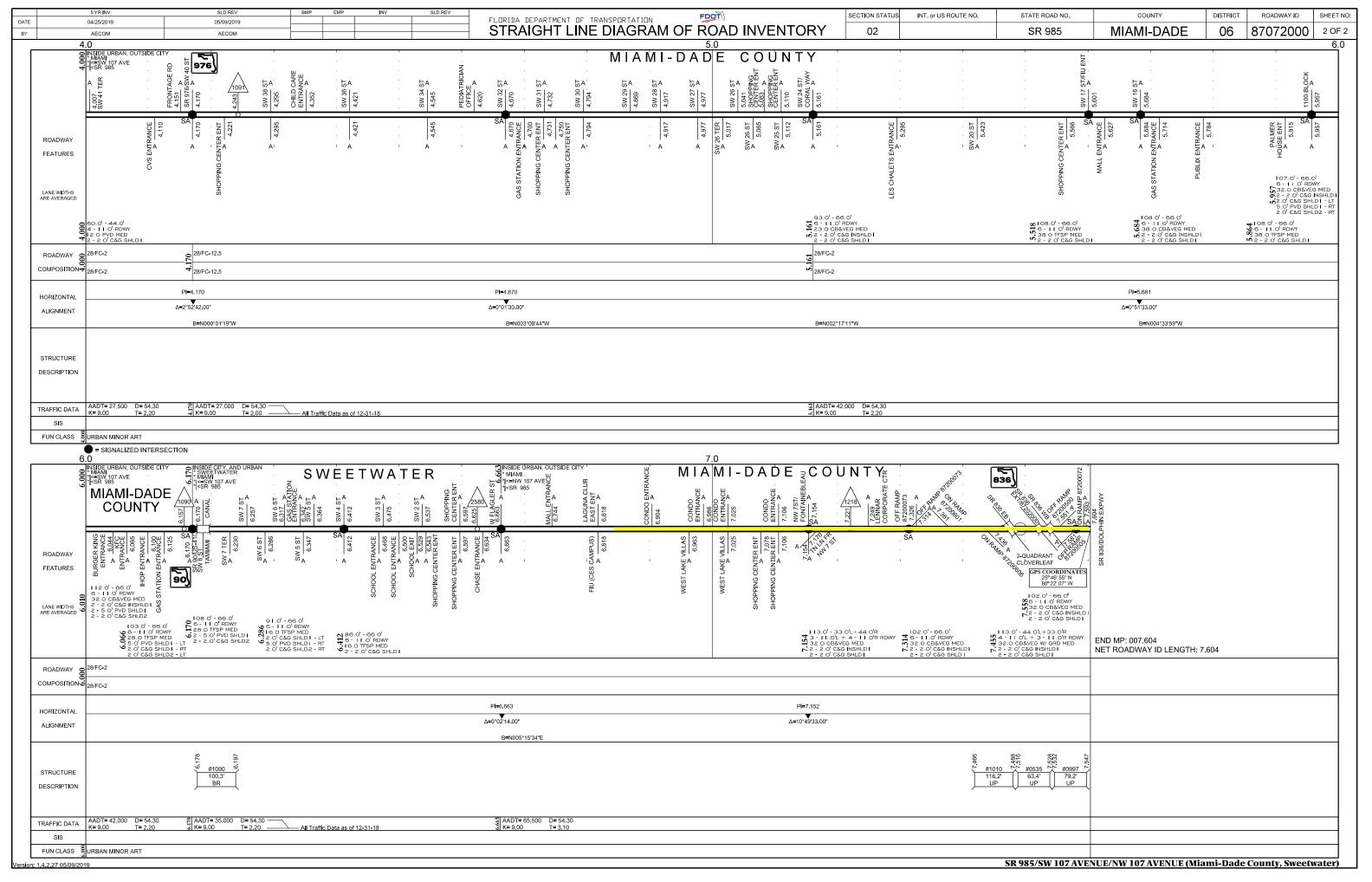
**B/C Calculation**: The benefit-cost ratio analysis was computed using the cost estimates above and monetizing the estimated crash reductions. A b/c ratio of **2.8** was calculated, as shown in **Table 8.3**. The computation sheets for the b/c ratio analyses are included in **Appendix G**, which also includes the Net Present Value (NPV) Analyses. A b/c ratio value of at least 1.0 indicates that the recommended improvement is economically viable.

Table 8.3: Benefit/Cost Ratio

DESCRIPTION	PROPOSED
Safety Benefits	\$ 544,745.83
Annualized Cost of Project	\$ 194,367.57
SAFETY B/C	2.8
NVP	\$ 3,730,379.55

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### for 4554: Fontainebleau Blvd&NW 107 Av&NW 7 St

Print Date:

10/4/2021

Print Time: 6:41 PM

Asset		Intersection	_		TOD Schedule	Op Mode	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	TOD Setting	Active Active PhaseBank Maximum
4554	Fontaineble	au Blvd&NW	107 Av&NW	/7 D	OW-2	TOD	[11] PM PEAK	170	83	N/A	1 Max 2
			<u>s</u>	<u>Splits</u>							
<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>				
NBL	SBT	EBT	WBT	SBL	NBT	-	-				
11	78	33	20	38	51	0	0				
4	1	$\rightarrow$	<b>←</b>	4	1						

Active Phase	Bank: Ph	ase Bank 1						
<u>Phase</u>	<u>Walk</u>	Don't Walk	Min Initial	Veh Ext	Max Limit	<u>Max 2</u>	<u>Yellow</u>	<u>Red</u>
	Phase Bank							
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2.5 -2.5 - 2.5	7 - 10 - 7	25 - 30 - 30	4.4	2.4
2 SBT	0 - 0 - 0	0 - 0 - 0	18 - 18 - 18	1 - 1 - 1	40 - 40 - 40	0 - 40 - 40	4.4	2.4
3 EBT	5 - 5 - 5	22 - 22 - 22	7 - 7 - 7	2.5 -2.5 - 2.5	18 - 24 - 18	48 - 25 - 25	4	2.7
4 WBT	0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	2.5 -2.5 - 2.5	10 - 39 - 10	25 - 25 - 25	4	2.9
5 SBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2.5 - 2 - 2	7 - 20 - 7	40 - 30 - 30	4.4	2.4
6 NBT	0 - 0 - 0	0 - 0 - 0	18 - 18 - 18	1 - 1 - 1	40 - 40 - 40	0 - 40 - 40	4.4	2.4
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
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 Permitted Phases

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 External Permit 1
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 External Permit 2
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Last In Service Date:

# Print Date: 10/4/2021

Print Time: 6:41 PM

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<u>Current</u>			1	2	3	4	5	6	7	8		
TOD Schedule Pla	<u>an</u>	<u>Cycle</u>	NBL	SBT	EBT	WBT	SBL	NBT	-	-	Ring Offset	<u>Offset</u>
2		140	10	55	33	14	10	55	0	0	0	44
3		170	9	72	46	15	9	72	0	0	0	132
4		160	6	68	43	15	9	65	0	0	0	105
5		130	7	60	23	12	19	48	0	0	0	108
7		150	7	76	27	12	20	63	0	0	0	145
8		160	11	70	32	19	35	46	0	0	0	75
9		160	11	69	32	20	35	45	0	0	0	67
10		130	9	55	23	15	27	37	0	0	0	118
11		170	11	78	33	20	38	51	0	0	0	83
12		140	9	64	24	15	28	45	0	0	0	128
14		120	20	40	18	14	25	35	0	0	0	104
20		115	9	46	20	12	19	36	0	0	0	104
21		150	20	63	24	15	32	51	0	0	0	46
22		115	9	46	20	12	19	36	0	0	0	104
24		110	9	35	27	11	16	28	0	0	0	73
25		150	17	62	28	15	21	58	0	0	0	119
26		160	20	64	28	20	32	52	0	0	0	53
27		110	9	35	27	11	16	28	0	0	0	73

Local TOD Schedule											
<u>Time</u>	<u>Plan</u>	<u>DOW</u>									
0000	Free	M T W Th	F								
0000	22										
0000	Free	Su	S								
0130	Free										
0545	2	M T W Th	F								
0630	3	M T W Th	F								
0700	24	Su	S								
0900	20										
1000	7	M T W Th	F								
1000	25	Su	S								
1030	21										
1130	8	M T W Th	F								
1530	11	M T W Th	F								
1600	26	Su	S								
2000	12	M T W Th	F								
2100	27	Su	S								
2300	Free	M T W Th	F								
2300	22										

Currer	Current Time of Day Function											
<u>Time</u>	<u>Function</u>	Settings *	Day of Week									
0000	TOD OUTPUTS	1	M T W ThF									
0545	TOD OUTPUTS		M T W ThF									
2300	TOD OUTPUTS	1	M T W ThF									

1	Local Time of Day Function											
	<u>Time</u>	<u>Function</u>	Settings *	Day of Week								
ı	0000	TOD OUTPUTS	1	Su S								
ı	0000	TOD OUTPUTS	1	M T W ThF								
ı	0545	TOD OUTPUTS		M T W ThF								
_	0700	TOD OUTPUTS		Su S								
	2300	TOD OUTPUTS	1	M T W ThF								

* 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

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	Di	rection		EB			WB			SB			NB	Ped	d Heads	.   N
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	t	(2+6)	<r< td=""><td>R</td><td></td><td><r< td=""><td>R</td><td>R</td><td>R</td><td>R</td><td>R</td><td>Υ</td><td>Υ</td><td></td><td>DW</td><td></td></r<></td></r<>	R		<r< td=""><td>R</td><td>R</td><td>R</td><td>R</td><td>R</td><td>Υ</td><td>Υ</td><td></td><td>DW</td><td></td></r<>	R	R	R	R	R	Υ	Υ		DW	
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for 4608: SR- 836 EB Off&NW 107 Av SB

**Print Date:** 10/4/2021

**Print Time:** 6:48 PM

Asset		Intersection	<u>.</u>	<u> </u>	TOD Schedule	Op Mode	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	TOD Setting	Active Active PhaseBank Maximum
4608	SR- 836	EB Off&NW	107 Av SB	DO	DW-2	TOD	[11] PM PEAK	170	73	N/A	1 Max 2
			<u>s</u>	plits							
<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>				
-	-	-	EBT	-	SBT	-	-				
0	0	0	37	0	121	0	0				
	$\rightarrow$			1							

Walk Don't Walk		Min Initial	Veh Ext	h Ext Max Limit		<u>Yellow</u>	Red
Phase Bank							
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
0 - 0 - 0	0 - 0 - 0	7 - 7 - 7	5 - 4 - 4	28 - 50 - 35	52 - 30 - 52	4.4	2
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
0 - 0 - 0	0 - 0 - 0	16 - 16 - 16	1 - 1 - 1	25 - 20 - 25	0 - 40 - 0	4.4	2
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
	Phase Bank  1 2 3  0 - 0 - 0  0 - 0 - 0  0 - 0 - 0  0 - 0 -	Phase Bank       1     2     3     1     2     3       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0       0     -     0     -     0     -     0     -     0	Phase Bank           1         2         3         1         2         3         1         2         3           0         -         0         0         0         -         0         0         -         0	Phase Bank           1         2         3         1         2         3         1         2         3           0         -         0	Phase Bank           1         2         3         1         2	Phase Bank           1         2         3         1         2	Phase Bank           1         2         3         3         1         2         3         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3         1         2         3

**Permitted Phases** <u>12345678</u> ---4-6--Default External Permit 0 External Permit 1 External Permit 2

unknown

Last In Service Date:

Print Time: 6:48 PM

			<u>Green Time</u>													
<u>Current</u>			1	2	3	4	5	6	7	8						
TOD Schedule	<u>Plan</u>	<u>Cycle</u>	-	-	-	EBT	-	SBT	-	-	Ring Offset	<u>Offset</u>				
	2	70	0	0	0	30	0	28	0	0	0	4				
	3	85	0	0	0	41	0	32	0	0	0	27				
	4	80	0	0	0	38	0	30	0	0	0	4				
	5	130	0	0	0	29	0	89	0	0	0	123				
	7	150	0	0	0	34	0	104	0	0	0	123				
	8	160	0	0	0	35	0	113	0	0	0	73				
	9	160	0	0	0	35	0	113	0	0	0	73				
	10	130	0	0	0	27	0	91	0	0	0	125				
	11	170	0	0	0	37	0	121	0	0	0	73				
	12	140	0	0	0	30	0	98	0	0	0	125				
	14	120	0	0	0	22	0	86	0	0	0	102				
	20	55	0	0	0	16	0	27	0	0	0	0				
	21	150	0	0	0	34	0	104	0	0	0	123				
	22	160	0	0	0	50	0	98	0	0	0	98				
	23	55	0	0	0	19	0	24	0	0	0	5				
	24	55	0	0	0	16	0	27	0	0	0	0				
	25	150	0	0	0	29	0	109	0	0	0	123				
	26	160	0	0	0	40	0	108	0	0	0	98				
	27	55	0	0	0	16	0	27	0	0	0	5				

Local TOD	Schedule	
<u>Time</u>	<u>Plan</u>	<u>DOW</u>
0000	Free	MTWThF
0000	Free	
0000	Free	
0000	Free	Su S
0530	Free	
0545	2	MTWThF
0545	4	
0630	3	MTWThF
0700	24	Su S
0800	Free	
0900	20	
1000	7	MTWThF
1000	25	Su S
1000	5	
1030	21	
1130	8	MTWThF
1430	9	
1530	11	MTWThF
1600	26	Su S
2000	10	
2000	12	MTWThF
2100	27	Su S
2200	Free	
2300	Free	MTWThF
2300	22	

Currer	Current Time of Day Function									
<u>Time</u>	<u>Function</u>	Settings *	Day of Week							
0000	TOD OUTPUTS	1	M T W ThF							
0500	TOD OUTPUTS		M T W ThF							
2200	TOD OUTPUTS	1	M T W ThF							

Time	<u>Function</u>	<u>Settings *</u>	Day of W	<u>eek</u>
0000	TOD OUTPUTS	1	MTW	ThF
0000	TOD OUTPUTS	1	Su	S
0500	TOD OUTPUTS		$MTW^{T}$	ThF
0700	TOD OUTPUTS		Su	S
2200	TOD OUTPUTS	1	MTW	ThF

* 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

Local Time of Day Function

Print Date:	101 4608: SR-	330 EB OTT&NW 107 AV SB	Print Time
10/4/2021			6:48 PM

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vn Ieranandez		Date 2/24/2	2003				SR	836 S 8	k NW 1	107 A	/			
				Placed	in Servi	<b>?</b> A	<u> </u>	Phae	ing No	· · · · · · · · · · · · · · · · · · ·	Asset Number			
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for 6048: SR- 836 WB On&NW 107 Av SB

Print Date:

10/4/2021

Print Time: 9:03 PM

Asset		Intersection	<u>1</u>	į	TOD Schedule	Op Mode	<u>Plan #</u>	<u>ŧ</u>	<u>Cycle</u>	<u>Offset</u>	TOD Setting	<u>Active</u> <u>PhaseBank</u>	Active Maximum
6048	SR- 836 \	WB On&NW	/ 107 Av SB	D	OW-2	TOD		N/A	0	0	N/A	0	Max 0
			<u> </u>	Splits_									
<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>						
NBL	SBT	-	-	-	NBT	-	-						
0	0	0	0	0	0	0	0						
4	<b>\</b>				lack								

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 NBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	3.5 - 2 - 2	15 - 15 - 10	57 - 25 - 25	4.4	2
2 SBT	0 - 0 - 0	0 - 0 - 0	16 - 16 - 16	1 - 1 - 1	40 - 30 - 30	0 - 30 - 30	4.4	2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 NBT	0 - 0 - 0	0 - 0 - 0	16 - 16 - 16	1 - 1 - 1	40 - 30 - 30	0 - 30 - 30	4.4	2
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

 Permitted Phases

 12345678

 Default
 12---6- 

 External Permit 0
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 External Permit 1
 -2---6- 

 External Permit 2
 -2---6-

unknown

Last In Service Date:

# Print Date: 10/4/2021

Print Time: 9:03 PM

	Green Time													
<u>Current</u>			1	2	3	4	5	6	7	8				
TOD Schedule	<u>Plan</u>	<u>Cycle</u>	NBL	SBT	-	-	-	NBT	-	-	Ring Offset	<u>Offset</u>		
	2	70	24	34	0	0	0	64	0	0	0	40		
	3	85	30	43	0	0	0	0	0	0	0	25		
	4	160	57	91	0	0	0	154	0	0	0	40		
	5	130	39	79	0	0	0	124	0	0	0	121		
	7	150	44	94	0	0	0	144	0	0	0	100		
	8	160	34	114	0	0	0	154	0	0	0	58		
	9	160	34	114	0	0	0	154	0	0	0	48		
	10	130	35	83	0	0	0	124	0	0	0	118		
	11	170	49	109	0	0	0	164	0	0	0	58		
	12	140	37	91	0	0	0	134	0	0	0	100		
	14	120	39	69	0	0	0	114	0	0	0	54		
	20	115	39	64	0	0	0	109	0	0	0	54		
	21	150	34	104	0	0	0	144	0	0	0	123		
	22	115	39	64	0	0	0	109	0	0	0	54		
	24	110	34	64	0	0	0	104	0	0	0	54		
	25	150	34	104	0	0	0	144	0	0	0	135		
	26	160	35	113	0	0	0	154	0	0	0	93		
	27	110	24	64	^	Λ	Λ	104	^	0	0	E 1		

Local TOD Schedule								
<u>Time</u>	<u>Plan</u>	<u>DOW</u>						
0000	Free	Su	S					
0000	Free	M T W Th F						
0545	2	M T W Th F						
0630	3	M T W Th F						
0700	24	Su	S					
1000	25	Su	S					
1000	7	M T W Th F						
1130	8	M T W Th F						
1530	11	M T W Th F						
1600	26	Su	S					
2000	12	M T W Th F						
2100	27	Su	S					
2300	Free	M T W Th F						

Current Time of Day Function									
<u>Time</u>	<u>Function</u>	Settings *	Day of Week						
0000	TOD OUTPUTS	1	M T W ThF						
0545	TOD OUTPUTS		M T W ThF						
2300	TOD OUTPUTS	1	M T W ThF						

l	Local	Time of Day Function			
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for 6097: SR- 836 WB Off&NW 107 Av NB

Print Date: 10/4/2021

. SN- 030 WE CHANN TOT AV NE

0

2

		<b>TOD</b>					<b>TOD</b>	<u>Active</u>	<b>Active</b>
<u>Asset</u>	<u>Intersection</u>	<b>Schedule</b>	Op Mode	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>Setting</u>	<b>PhaseBank</b>	<u>Maximum</u>
6097	SR- 836 WB Off&NW 107 Av NB	DOW-2	TOD	[12] HEAVY PM PEAK	140	55	N/A	1	Max 2

### **Splits**

<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>
-	NBT	-	-	-	-	-	WBT
Λ	8/	0	0	Λ	Ω	0	11

Phase Bank 1

0 - 0 - 0

0 - 0 - 0



0 - 0 - 0

0 - 0 - 0

**Active Phase Bank:** 

8 WBT



<u>Phase</u>	<u>Walk</u>	Don't Walk	Min Initial	<u>Veh Ext</u>	Max Limit	<u>Max 2</u>	<u>Yellow</u>	<u>Red</u>
	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
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0 - 0 - 0 | 0 - 0 - 0 | 0 - 0 - 0

7 - 7 - 7 3.5 - 5 - 5 15 - 15 - 15 72 - 80 - 75

Last In Service Date: unknown

Permitted Phases	
	<u>12345678</u>
Default	-28
External Permit 0	
External Permit 1	
External Permit 2	
External Permit 0 External Permit 1	

**Print Time:** 

9:06 PM

Print Time: 9:06 PM

						Green	Time_					
<u>Current</u>			1	2	3	4	5	6	7	8		
TOD Schedule	<u>Plan</u>	<u>Cycle</u>	-	NBT	-	-	-	-	-	WBT	Ring Offset	<u>Offset</u>
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	3	170	0	124	0	0	0	0	0	34	0	63
	4	160	0	126	0	0	0	0	0	22	0	16
	5	130	0	78	0	0	0	0	0	40	0	42
	7	150	0	94	0	0	0	0	0	44	0	42
	8	160	0	104	0	0	0	0	0	44	0	6
	9	160	0	104	0	0	0	0	0	44	0	6
	10	130	0	74	0	0	0	0	0	44	0	55
	11	170	0	114	0	0	0	0	0	44	0	6
	12	140	0	84	0	0	0	0	0	44	0	55
	14	120	0	74	0	0	0	0	0	34	0	117
	20	115	0	69	0	0	0	0	0	34	0	39
	21	150	0	91	0	0	0	0	0	47	0	46
	22	115	0	69	0	0	0	0	0	34	0	39
	23	115	0	39	0	0	0	0	0	64	0	39
	24	110	0	64	0	0	0	0	0	34	0	58
	25	150	0	95	0	0	0	0	0	43	0	36
	26	160	0	102	0	0	0	0	0	46	0	65
	27	110	0	64	0	0	0	0	0	34	0	72
	28	160	0	96	0	0	0	0	0	52	0	46
	29	150	0	69	0	0	0	0	0	69	0	134

Local TOD	Schedule		
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0530	Free		
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0630	3	M T W Th F	
0700	24	Su	S
0800	Free		
0900	20		
1000	7	M T W Th F	
1000	25	Su	S
1000	5		
1030	21		
1130	8	M T W Th F	
1430	9		
1530	11	M T W Th F	
1600	26	Su	S
2000	10		
2000	12	M T W Th F	
2100	27	Su	S
2300	Free		
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2300	22		

Current Time of Day Function				Local	Time of Day Function		
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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

\* Settings

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10/4/2021		9:06 PM

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# STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

# CONTRACT PLANS

#### INDEX OF ROADWAY PLANS

SHEET DESCRIPTION SHEET NO. KEY SHEET SUMMARY OF PAY ITEMS GENERAL NOTES TYPICAL SECTIONS ROADWAY PLAN SIGNING AND PAVEMENT MARKING PLAN

TEMPORARY TRAFFIC CONTROL PLANS

BEGIN PROJECT

SUMMARY OF QUANTITIES

FINANCIAL PROJECT ID 250629-4-32-01

MIAMI-DADE COUNTY (87072)

STATE ROAD NO. 985 NW 107 AVENUE AND SR 836

TO HIALEAH HIALEAH MIAMI SPRINGS T-53-9 T-54-S SWEETWATER Pop. 14.226 END PROJECT CORAL TO KENDALL GABLES LAKES Florida Department of Transportation, FY 2018-19 Design Standards eBook (DSeB) T0 KENDALL

### GOVERNING STANDARD SPECIFICATIONS:

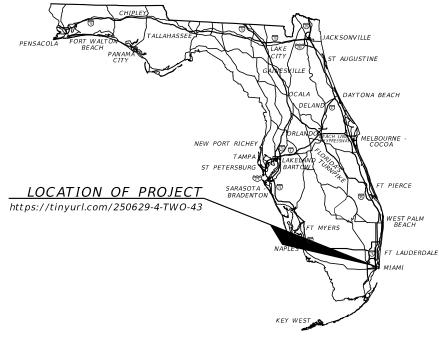
GOVERNING DESIGN STANDARDS:

http://www.fdot.gov/Design/Standardplans

Florida Department of Transportation, July 2018 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks

and applicable Design Standards Revisions (DSRs) at the following website:

90% SUBMITTAL MARCH 1, 2019



WAMON TESON No 56070

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

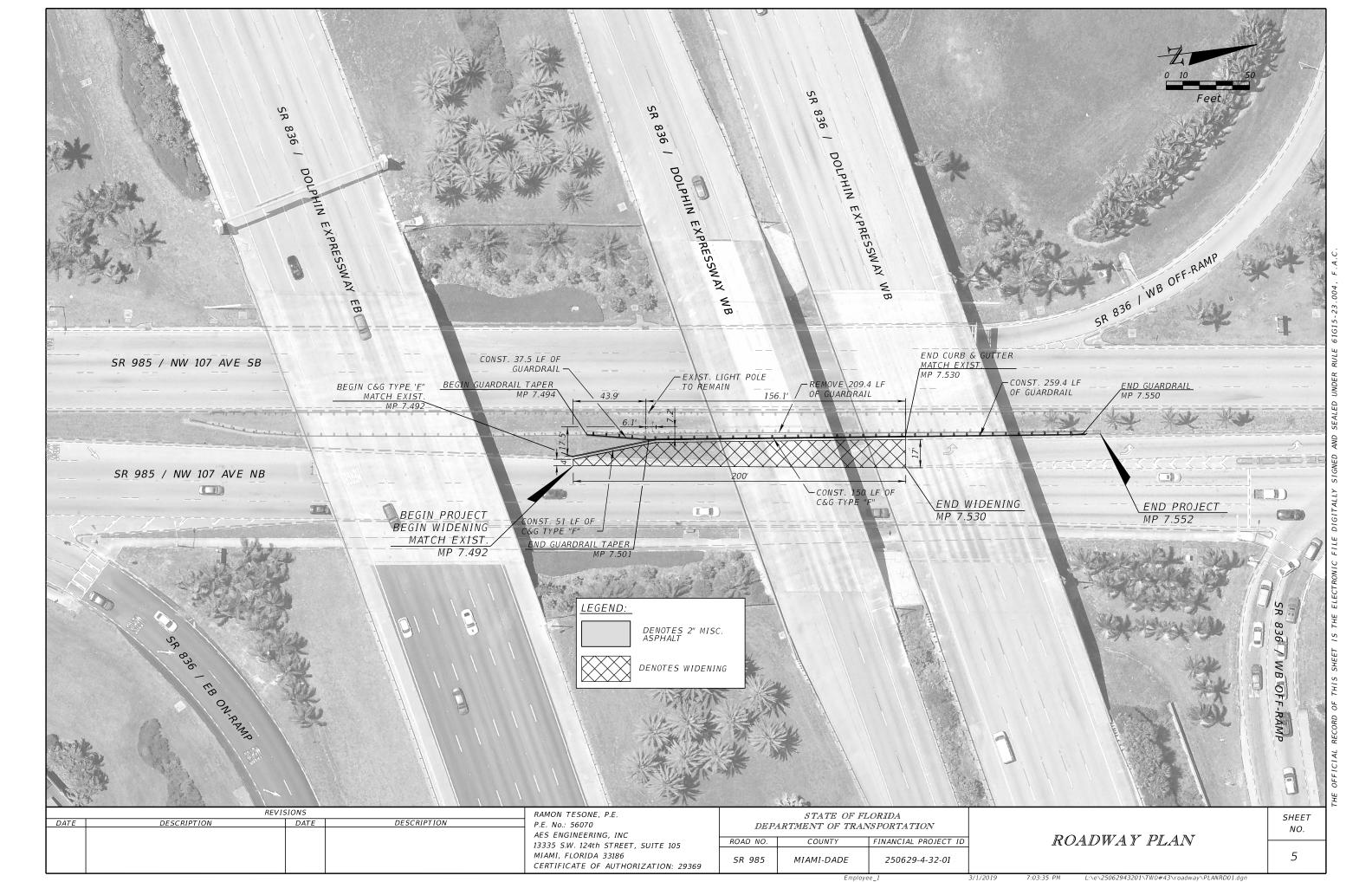
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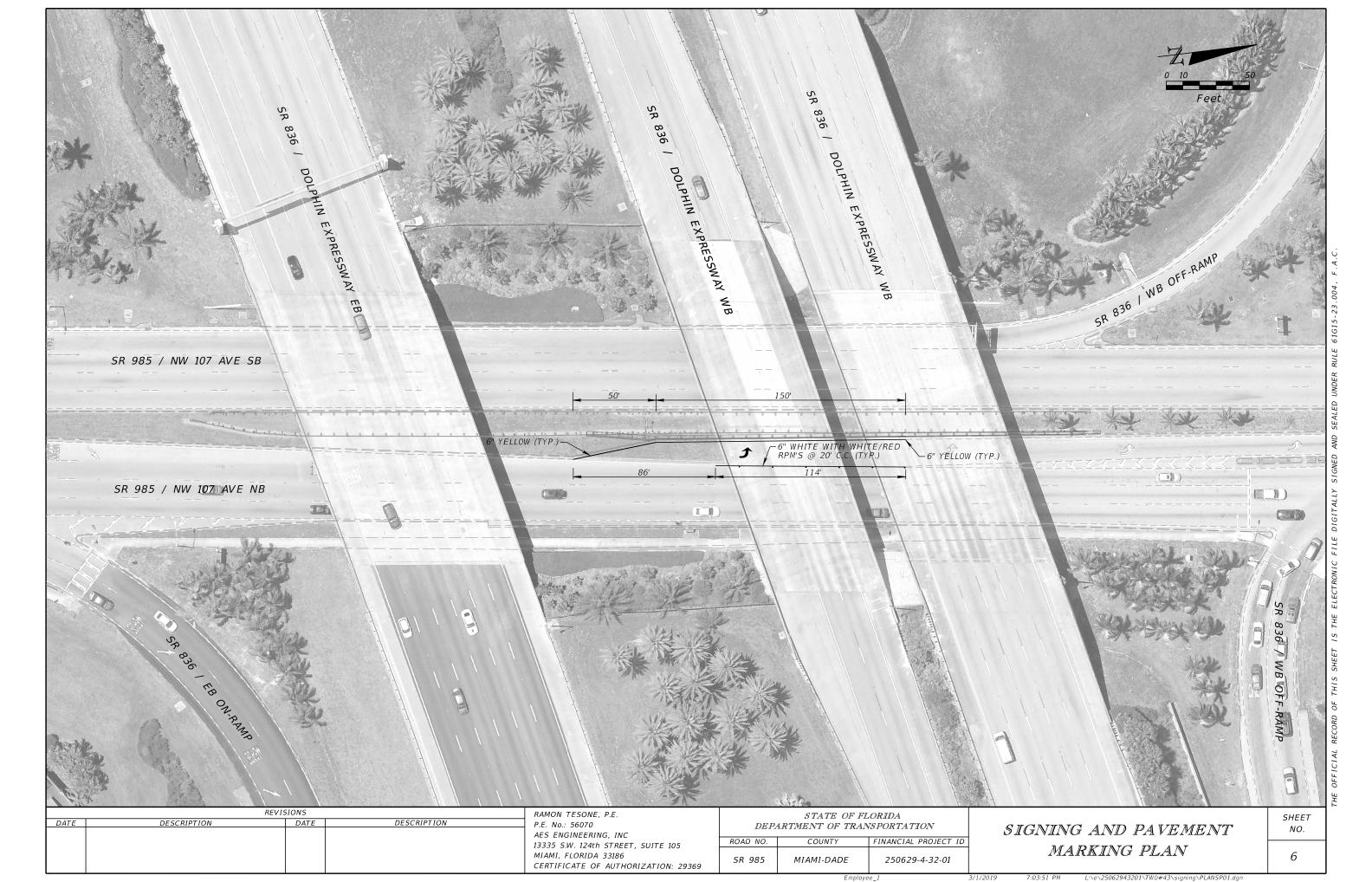
RAMON TESONE, P.E. P.E. NO.: 56070 AES ENGINEERING, INC 13335 S.W. 124th STREET, SUITE 105 MIAMI, FLORIDA 33186 (305) 964-7353 CONTRACT NO.: C-9G93 VENDOR NO.: F274343167-001 CERTIFICATE OF AUTHORIZATION NO.: 29369

#### FDOT PROJECT MANAGER:

LANSY PACHECO, P.E.

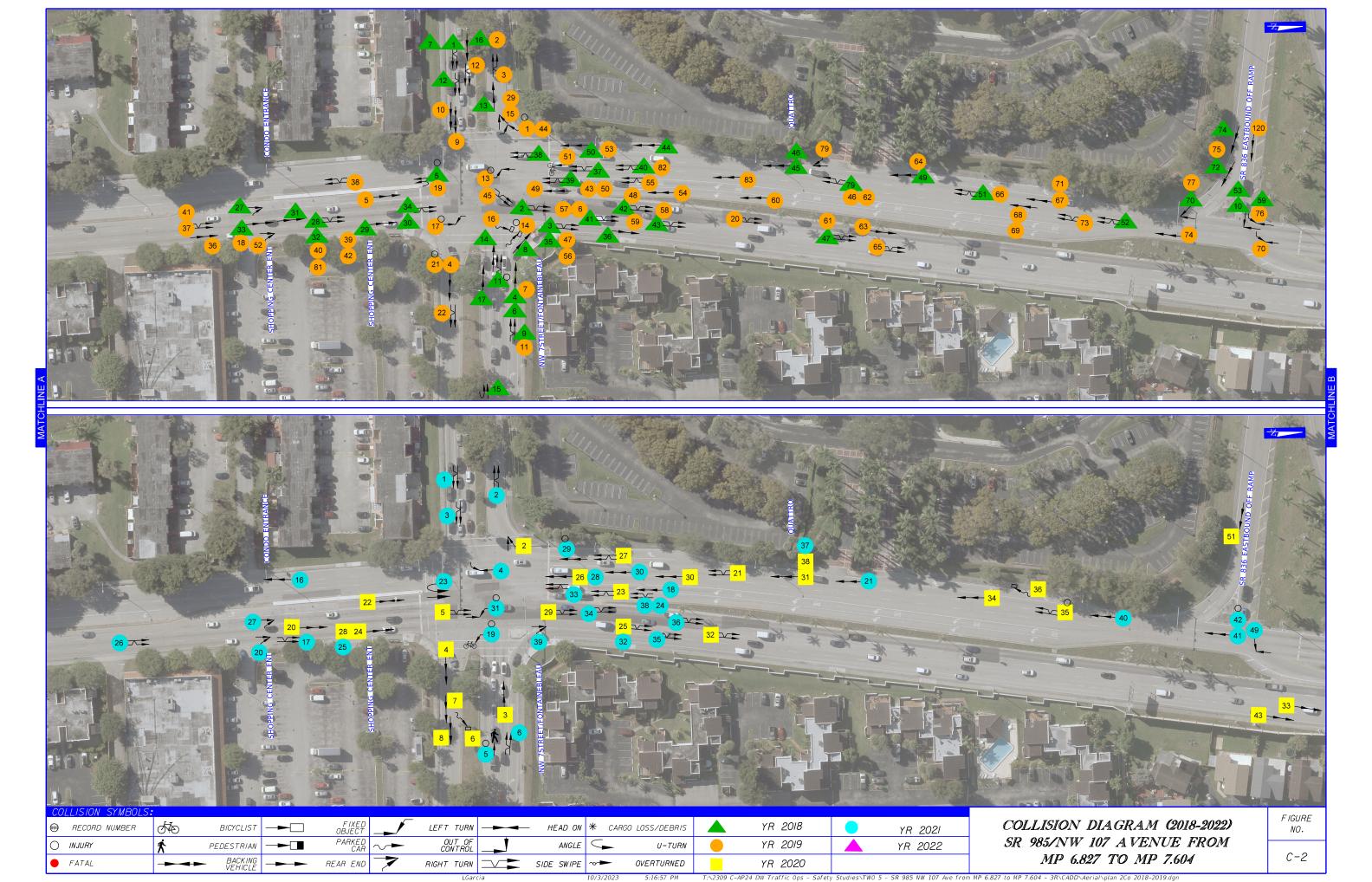
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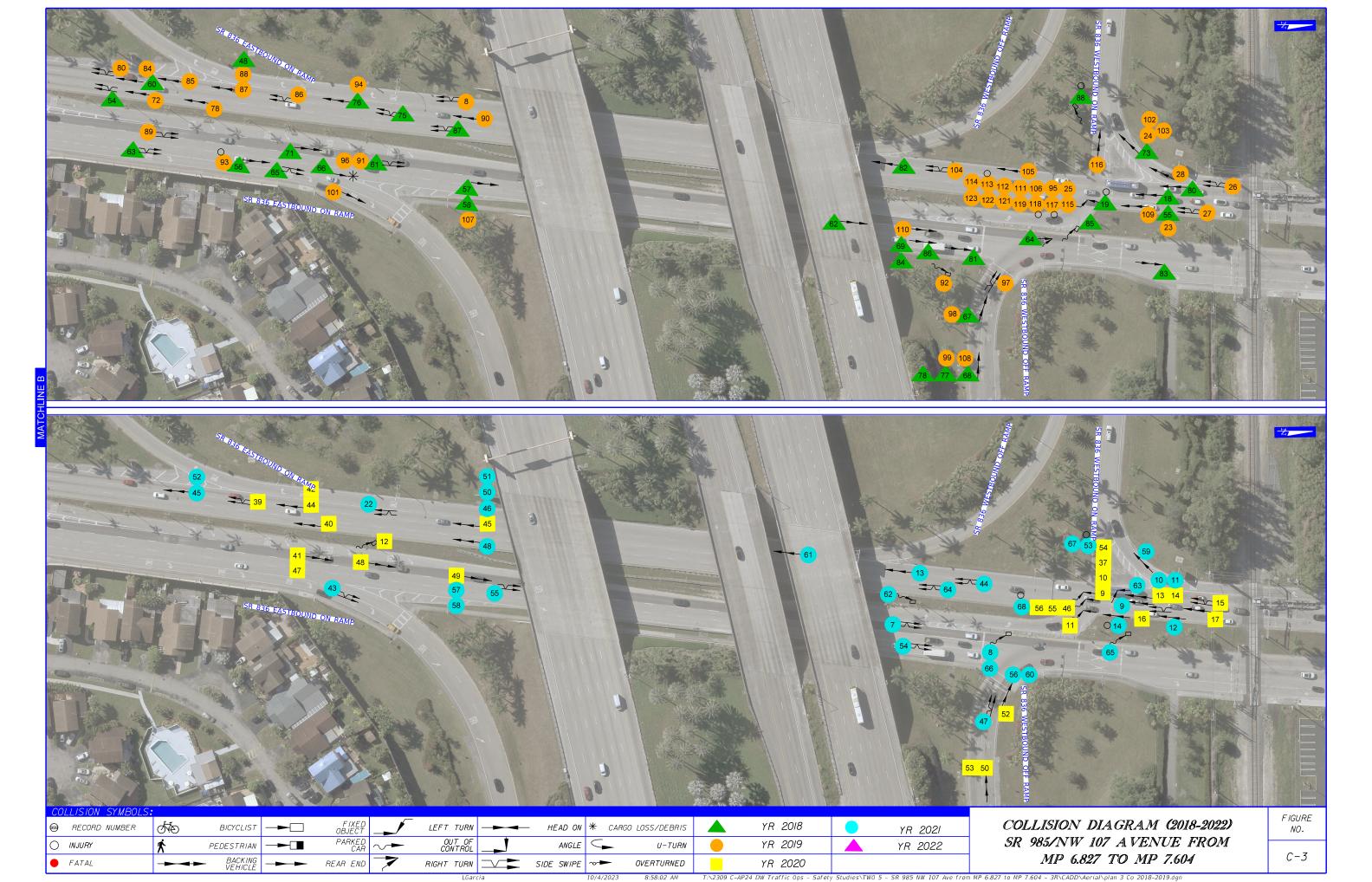








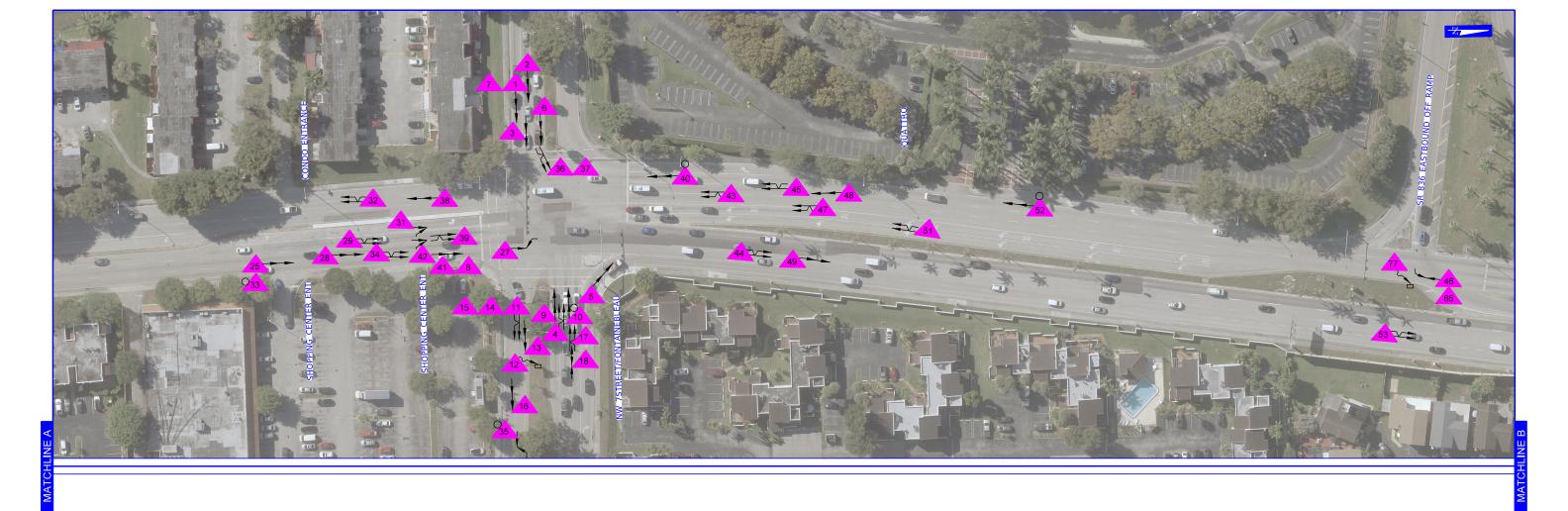






COLLISION SYMBOLS	:										
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○ INJURY	Ķ	PEDESTRIAN		PARKED CAR	$\sim$	OUT OF CONTROL	 ANGLE	<b>\</b>	U-TURN	YR 2019	YR 2022
FATAL		- BACKING		REAR END	7	RIGHT TURN	SIDE SWIPE	~	OVERTURNED	YR 2020	

COLLISION DIAGRAM (2018-2022) SR 985/NW 107 A VENUE FROM MP 6.827 TO MP 7.604 FIGURE NO.



COLLISION SYMBOLS:

© RECORD NUMBER

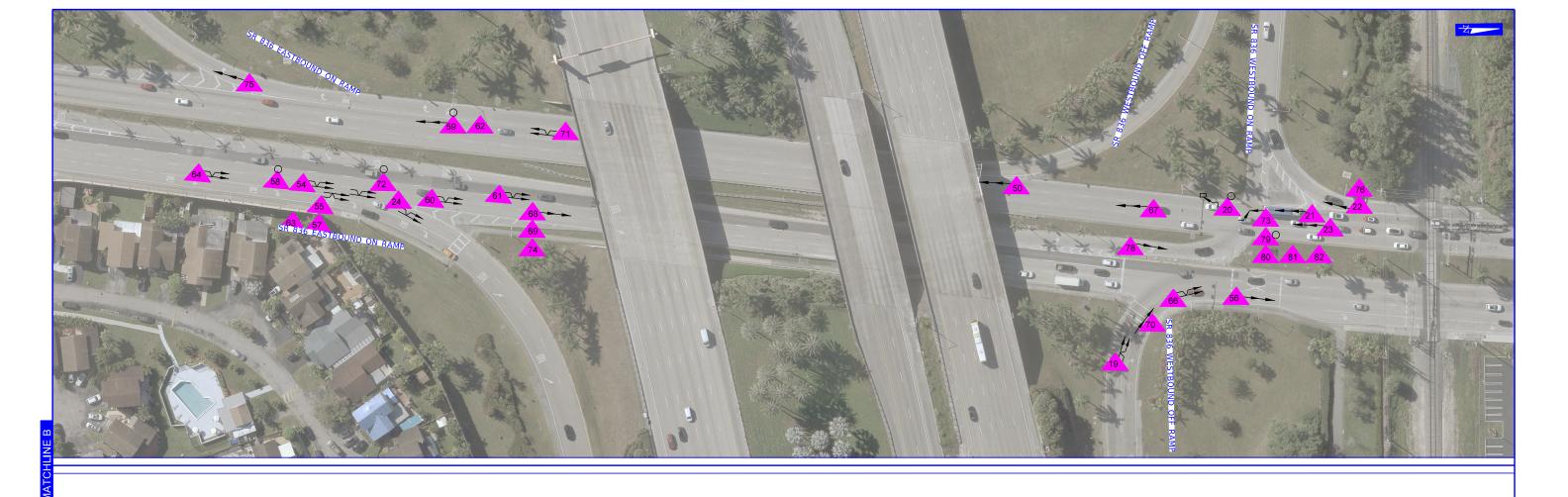
| FIXED OBJECT | LEFT TURN | HEAD ON | CARGO LOSS/DEBRIS | YR 2018 | YR 2021

| INJURY | PEDESTRIAN | PEDESTRIAN | PARKED CAR CAR CONTROL | ANGLE | U-TURN | YR 2019 | YR 2022

| FATAL | BACKING | PERKED | REAR END | RIGHT TURN | SIDE SWIPE | OVERTURNED | YR 2020

COLLISION DIAGRAM (2018-2022) SR 985/NW 107 AVENUE FROM MP 6.827 TO MP 7.604 FIGURE NO. C-5

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COLLISION DIAGRAM (2018-2022) SR 985/NW 107 AVENUE FROM MP 6.827 TO MP 7.604 FIGURE NO.

T:\2309 C-AP24 DW Traffic Ops - Safety Studies\TWO 5 - SR 985 NW 107 Ave from MP 6.827 to MP 7.604 - 3R\CADD\Aerial\Plan 3 202

						Stat			JMMAR	ransporta Y							
	SECTION: ROADWAY	LIMITS:		8707	/2000 From	MP 6.827 to	7.604		M.P.	6.827	STA <sup>-</sup> TO	TE ROUTE: <b>7.604</b>	ENGINEER:	985 : FDOT D6			
	STUDY PER	IOD: MILE		FROM		2018			ТО	-	PROP	DAY /	COUNTY:	CON	Miami-Dad		
Crash Number	No.	POST	DATE	DAY	TIME		CRASH TYPE		FATAL	INJURIES	DAM	NIGHT	DRY	()	VEHICLE ON	LY)	
87663970 87663098	2	0.930 0.997	12/07/18 11/29/18	Fri Thu	3:55 PM 2:29 PM		Sideswipe Sideswipe		0	0	1	Day Day	Dry Dry		o Keep In Pr o Keep In Pr	•	
87649231 87648413	3	0.997 0.997	08/22/18 08/12/18	Wed Sun	3:40 PM 6:22 PM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry		o Keep In Pr or Negliger	•	
88052605	5	0.997	12/14/18	Fri	6:32 AM		Left-Turn		0	1	0	Night	Dry	Failed t	o Yield Righ	t-Of-Way	
87645508 87663404	6 7	0.997 0.997	07/20/18 12/04/18	Fri Tue	1:37 PM 6:15 AM		Rear-End Sideswipe		0	0	1	Day Day	Dry Dry		or Negliger Keep In Pr		
87646028	8	0.997	09/22/18	Sat	2:53 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manner	
87631347 87233884	9	0.997 7.314	03/23/18 06/24/18	Fri Sun	10:20 AM 7:10 PM		Sideswipe Angle		0	0	1	Day Day	Dry Wet		o Keep In Pr Ran Red Ligl	•	
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87331200	13	0.997	01/19/18	Fri	5:20 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manner	
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87626020 87727741	17 18	1.006 7.500	02/12/18 06/28/18	Mon Thu	6:28 PM 10:50 AM		Rear-End Rear-End		0	0	1	Night Day	Dry Dry		or Negliger or Negliger		
87727980 87265503	19 20	0.019 6.828	10/19/18 09/24/18	Fri Mon	12:10 PM 9:35 AM		Left-Turn Sideswipe		0	1	0	Day	Dry Dry		o Yield Righ o Keep In Pr		
87265503	21	6.828	03/26/18	Mon	3:05 PM		Fence		0	0	1	Day Day	Dry		or Negliger	•	
88012173 87189792	22 23	6.853 6.905	11/23/18 04/11/18	Fri Wed	6:56 PM 8:35 AM		Rear-End Rear-End		0	0	0	Night Day	Dry Dry		or Negliger or Negliger		
87625681	24	7.032	02/06/18	Tue	12:50 PM		Left-Turn		0	1	0	Day	Dry	Failed t	o Yield Righ	t-Of-Way	
87187766 87268055	25 26	7.032 7.032	06/08/18 08/06/18	Fri Mon	12:22 PM 5:04 PM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry		o Keep In Pr or Negliger		
87727789	27	7.228	01/21/18	Sun	9:50 AM		Right-Turn		0	0	1	Day	Dry	Failed t	o Yield Righ	t-Of-Way	
87168179 87220305	28 29	7.228 7.228	06/11/18 06/01/18	Mon Fri	6:23 PM 12:12 PM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry	Careless	o Keep In Pr or Negliger	nt Mannei	
87651635 87262544	30 31	7.228 7.228	09/06/18 09/12/18	Thu Wed	11:33 AM 2:30 PM		Sideswipe Rear-End		0	0	1 1	Day Day	Dry Dry		o Keep In Pr or Negliger		
87210237	32	7.228	07/22/18	Sun	4:11 PM		Sideswipe		0	0	1	Day	Dry	Failed To	o Keep In Pr	oper Lane	
87183494 87630171	33 34	7.228 7.228	04/11/18 03/20/18	Wed Tue	11:20 AM 1:14 PM		Rear-End Sideswipe		0	0	1	Day Day	Dry Dry		or Negliger Keep In Pr		
87229844	35	7.228	07/13/18	Fri	2:47 PM		Sideswipe		0	0	1	Day	Dry	Failed To	o Keep In Pr	oper Lane	
87264361 87105486	36 37	7.228 7.228	09/26/18 01/08/18	Wed Mon	12:08 PM 11:28 PM		Rear-End Sideswipe		0	0	1	Day Night	Dry Dry		or Negliger Keep In Pr		
87210238	38 39	7.228 7.228	07/24/18	Tue	1:06 PM		Sideswipe		0	0	1	Day	Dry		o Keep In Pr		
87267316 87229982	40	7.228	08/08/18 08/25/18	Wed Sat	2:25 PM 4:50 PM		Sideswipe Sideswipe		0	0	1	Day Day	Dry Dry		o Keep In Pr o Keep In Pr	•	
87229623 88042100	41 42	7.228 7.228	06/23/18 12/22/18	Sat Sat	1:45 PM 8:06 AM		Sideswipe Sideswipe		0	0	1	Day Day	Dry Dry		o Keep In Pr		
88011429	43	7.228	11/24/18	Sat	10:51 PM		Sideswipe		0	0	1	Night	Dry	Failed To	o Keep In Pr	oper Lan	
87204327 87267313	44 45	7.228 7.228	04/19/18 08/02/18	Thu Thu	3:11 PM 5:24 PM		Rear-End Rear-End		0	0	1	Day Day	Dry Dry		or Negliger or Negliger		
87168178	46	7.228	06/11/18	Mon	3:36 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manne	
87657827 87132270	47 48	7.228 7.240	10/18/18 02/28/18	Thu Wed	4:10 PM 9:25 AM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry		o Keep In Pr or Negliger		
87172006 87168996	49 50	7.228 7.228	01/26/18	Fri Sun	4:12 PM 4:50 AM		Rear-End Rear-End		0	0	1	Day Night	Dry Dry		or Negliger or Negliger		
87176994	51	7.228	03/05/18	Mon	4:42 PM		Sideswipe		0	0	1	Day	Dry		o Keep In Pr		
87197314 87185280	52 53	7.228 7.314	04/04/18	Wed Sun	12:06 PM 8:45 AM		Sideswipe Angle		0	0	1	Day Day	Dry Dry		o Keep In Pr Ran Red Ligl		
87240917	54	7.343	08/02/18	Thu	12:45 PM		Sideswipe		0	0	1	Day	Dry	I	mproper Tu	ırn	
87103783 87220329	55 56	7.500 7.397	01/02/18 06/26/18	Tue Tue	8:16 AM 8:23 AM		Rear-End Rear-End		0	0	1	Day Day	Wet Dry		or Negliger or Negliger		
87287300	57 58	7.398 7.400	09/23/18	Sun	1:27 PM		Rear-End		0	0	1	Day	Dry		or Negliger		
87126679 87245095	59	7.400	01/02/18 07/25/18	Tue Wed	6:28 PM 6:41 AM		Rear-End Angle		0	0	1	Night Day	Wet Dry		Ran Red Ligi		
87168163 87201818	60 61	7.400 7.400	03/23/18	Fri Mon	3:51 PM 1:34 PM		Rear-End Sideswipe		0	0	1	Day Day	Dry Dry		or Negliger Keep In Pr		
87268050	62	7.500	08/04/18	Sat	2:21 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manne	
87268598 87168137	63 64	7.400 7.500	10/05/18 02/28/18	Fri Wed	2:32 PM 4:51 PM		Sideswipe Right-Turn		0	0	1	Day Day	Dry Dry		o Keep In Pr Ran Red Ligl		
87161637	65	7.430	02/16/18	Fri	2:15 PM	6 '	Sideswipe		0	0	1	Day	Dry	Failed To	o Keep In Pr	oper Lan	
87287229 88056738	66 67	7.458 7.525	09/20/18 12/26/18	Thu Wed	9:14 AM 6:08 PM	Cargo/Eq	uipment Lo Rear-End	ss or Shift	0	0	1	Day Night	Dry Dry		or Negliger or Negliger		
85580227 83220547	68 69	7.525 7.525	10/04/18 04/19/18	Thu Thu	9:05 AM 9:10 AM		Rear-End Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manne	
87134313	70	7.464	02/05/18	Mon	6:48 PM		Rear-End Right-Turn		0	0	1	Day Night	Dry Dry	Failed t	o Yield Righ	t-Of-Way	
87210240 87250879	71 72	7.464 7.464	07/27/18 09/02/18	Fri Sun	1:47 PM 8:22 PM		Rear-End Rear-End		0	0	1 1	Day Night	Wet Dry		or Negliger or Negliger		
88056728	73	7.535	12/19/18	Wed	4:23 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manne	
87211454 87150772	74 75	7.464 7.464	07/09/18 03/13/18	Mon Tue	8:58 AM 6:44 PM		Rear-End Sideswipe		0	0	1	Day Day	Dry Dry		or Negliger o Keep In Pr		
87241836	76	7.464	07/30/18	Mon	4:01 PM		Rear-End		0	0	1	Day	Wet	Careless	or Negliger	nt Manne	
87287967 87268044	77 78	7.525 7.525	08/20/18 07/23/18	Mon Mon	1:05 PM 6:16 PM		Rear-End Rear-End		0	0	1	Day Day	Dry Wet		or Negliger or Negliger		
87186801 87727764	79 80	7.226 7.547	05/11/18 07/11/18	Fri Wed	11:30 AM 5:10 PM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry		o Keep In Pr		
87639384	81	7.547	06/01/18	Fri	9:21 AM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Manne	
88026955 87648345	82 83	7.551 7.554	11/09/18 08/11/18	Fri Sat	6:20 PM 6:20 PM		Rear-End Rear-End		0	0	1	Day Day	Dry Dry		owed too Cl owed too Cl	•	
87242536	84	7.556	08/01/18	Wed	10:39 AM		Rear-End		0	1	0	Day	Wet	Foll	owed too Cl	losely	
87245622 87627580	85 86	7.567 7.572	08/05/18 02/25/18	Sun Sun	4:08 AM 12:08 PM		Curb Rear-End		0	0	1	Night Day	Wet Dry		oo Fast for C owed too Cl		
87200044 87727926	87 88	7.400 0.009	05/04/18 09/21/18	Fri Fri	12:50 AM 1:18 AM	Ori-	Sideswipe ner Fixed Ob		0	0	1 0	Night	Wet	In	nproper Pass	sing	
01121320	00	0.009	09/21/18	FII	1.10 AIVI	Oth	ici i ixea UD	nject	U	<u> </u>	Backed	Night	Dry Parked	Fixed	Ran into	Jonullion	
	Total No.	Fatal <b>0</b>	Injury 6	PDO <b>82</b>	Rear-End <b>43</b>	Head-On <b>0</b>	Angle <b>3</b>	Left-Turn 4	Right-Turn 3	Sideswipe <b>31</b>	Into 0	Ped/Bike 0	Car 0	Object 3	Water 0	Othe 0	
	Percent	0.00%	6.82%	93.18%	48.86%	0.00%	3.41%	4.55%	3.41%	35.23%	0.00%	0.00%	0.00%	3.41%	0.00%	0.00%	
	Contrib. Cause	Day	Night	Wet	Dry	Careless Driving	FTYRW	Improper Turn	Ran Red Light	Exceeded Speed	Improper Passing	Disreg Cntl Dev	Erratic/ Aggress	Ran off Road	DUI	Wron Way	
	Total	75	13	10	78	40	6	1	4	2	1	0	0	0	0	0	
	Percent	85.23%	14.77%	11.36%	88.64%	45.45%	6.82%	1.14% #VALUE!	4.55%	2.27% EGMENT CF	1.14%	0.00%	0.00%	0.00%	0.00%	0.00%	

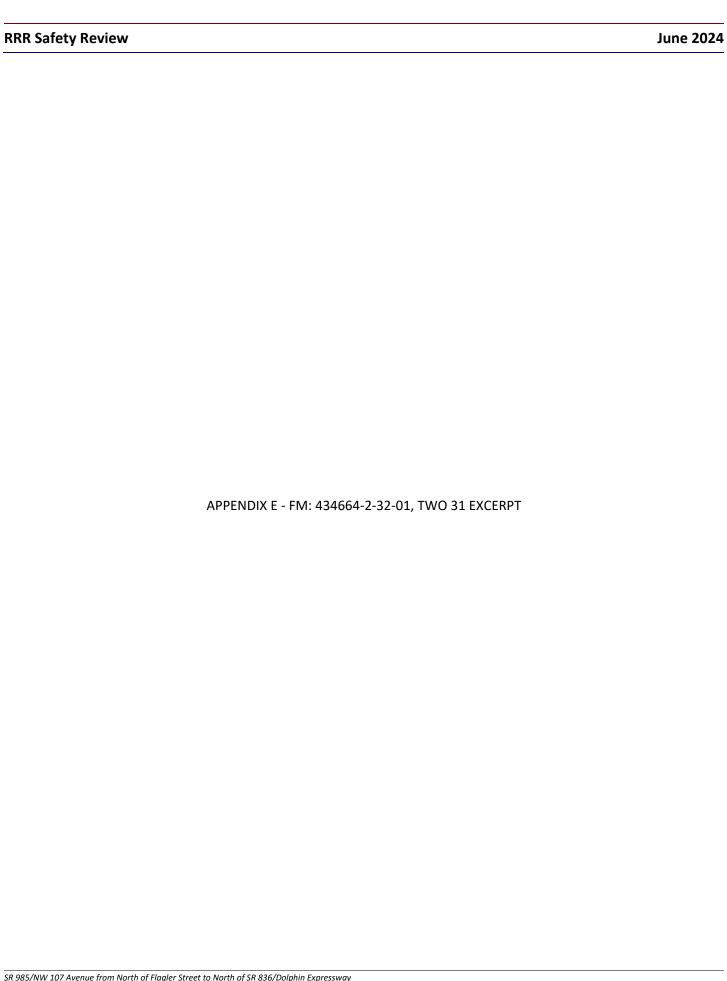
	State of Florida Department of Transportation  CRASH SUMMARY														
	SECTION:			8707	72000				STAT	TE ROUTE:	OUTE: 985				
	ROADWAY	LIMITS:				MP 6.827 to 7.604	M.P.	6.827	ТО		ENGINEER:	FDOT D6			
	STUDY PER	RIOD:		FROM	1/	2019	ТО	12/	2019		COUNTY:	Miami-Dade			
		MILE				00.4611.77/05			PROP	DAY /	WET /	CONTRIBUTING CAUSE			
Crash Number	No.	POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURIES	DAM	NIGHT	DRY	(VEHICLE ONLY)			
88862091	1	0.966	01/30/19	Wed	12:27 PM	Left-Turn	0	1	0	Day	Dry	Failed to Yield Right-Of-Way			
88859874	2	0.997	01/12/19	Sat	6:24 PM	Rear-End	0	0	1	Night	Dry	Careless or Negligent Manner			
88879086	3	0.997	09/17/19	Tue	11:14 PM	Sideswipe	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
88896716	4	0.997	12/09/19	Mon	7:47 AM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88886171	5	0.997	07/23/19	Tue	2:54 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88904592	6	0.997	11/25/19	Mon	9:21 PM	Sideswipe	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
88185610	7	0.997	11/07/19	Thu	12:10 PM	Rear-End	0	0	1	Night	Dry	Careless or Negligent Manner			
88889398	8	7.245	08/12/19	Mon	6:51 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88888296	9	0.997	08/10/19	Sat	6:55 PM	Backed Into	0	0	1	Day	Dry	Improper Backing			
88888390	10	0.997	08/10/19	Sat	6:54 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88880719	11	0.997	06/07/19	Fri	3:50 PM	Sideswipe	0	0	1	Day	Wet	Failed To Keep In Proper Lane			
88895914	12	0.997	09/30/19	Mon	10:58 AM	Sideswipe	0	0	1	Day	Dry	Careless or Negligent Manner			
88224222	13	0.997	11/16/19	Sat	10:15 PM	Left-Turn	0	4	0	Night	Dry	Ran Red Light			
88859167	14	0.997	01/13/19	Sun	8:05 AM	Curb	0	1	0	Day	Wet	Careless or Negligent Manner			
88878148	15	0.997	05/28/19	Tue	9:25 PM	Right-Turn	0	0	1	Day	Dry	Failed to Yield Right-Of-Way			
88249815	16	0.997	12/31/19	Tue	2:15 AM	Curb	0	0	1	Night	Dry	Careless or Negligent Manner			
88879231	17	0.997	08/14/19	Wed	9:36 PM	Left-Turn	0	1	0	Night	Dry	Ran Red Light			
88056747	18	0.999	01/07/19	Mon	6:48 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88129896	19	0.999	05/20/19	Mon	9:38 AM	Left-Turn	0	0	1	Day	Dry	Ran Red Light			
88225938	20	0.999	12/20/19	Fri	10:20 PM	Rear-End	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
89511552	21	1.052	12/20/19	Fri	11:38 AM	Rear-End	0	1	0	Day	Dry	Careless or Negligent Manner			
88860847	22	1.060	01/24/19	Thu	7:31 AM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
89028670	23	0.015	11/09/19	Sat	5:10 PM	Rear-End	0	0	1	Night	Wet	Careless or Negligent Manner			
89028762	24	0.018	12/12/19	Thu	3:10 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
87728276	25	0.019	02/15/19	Fri	2:04 AM	Left-Turn	0	0	1	Night	Dry	Failed to Yield Right-Of-Way			
89028718	26	0.022	11/24/19	Sun	5:43 PM	Sideswipe	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
89028139	27	0.038	03/22/19	Fri	3:05 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
89028622	28	0.039	10/14/19	Mon	3:15 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
87660699	29	7.224	01/13/19	Sun	11:12 PM	Right-Turn	0	0	1	Night	Dry	Failed to Yield Right-Of-Way			
88186335	30	6.829	10/17/19	Thu	10:01 PM	Sideswipe	0	2	0	Night	Dry	Failed To Keep In Proper Lane			
88858558	31	6.828	03/04/19	Mon	5:44 PM	Right-Turn	0	0	1	Day	Dry	Failed to Yield Right-Of-Way			
88884898	32	6.853	07/19/19	Fri	9:00 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88896400	33	6.930	09/30/19	Mon	3:31 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88196120	34	6.969	10/13/19	Sun	7:30 PM	Rear-End	0	0	1	Night	Dry	Careless or Negligent Manner			
88888950	35	6.959	08/09/19	Fri	8:00 PM	Rear-End	0	0	1	Night	Wet	Careless or Negligent Manner			
88194931	36	7.127	08/21/19	Wed	4:52 PM	Rear-End	0	0	1	Night	Dry	Careless or Negligent Manner			
88097786	37	7.136	05/03/19	Fri –	1:30 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88227137	38	7.139	11/19/19	Tue	1:37 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88118415	39	7.145	05/07/19	Tue	12:10 PM	Rear-End	0	1	0	Day	Dry	Careless or Negligent Manner			
88877500	40	7.145	05/18/19	Sat	6:43 AM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88208755	41	7.145	11/29/19	Fri	12:15 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88075522	42	7.155	03/14/19	Thu	6:00 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88876657	43	7.156	05/15/19	Wed	1:16 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88040955	44	7.157	03/23/19	Sat	9:20 PM	Left-Turn	0	0	1	Night	Dry	Failed to Yield Right-Of-Way			
88174197	45	7.157	09/30/19	Mon	10:10 AM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88174267	46	7.157	09/29/19	Sun	8:14 PM	Sideswipe	0	0	1	Night Night	Dry	Failed To Keep In Proper Lane			
88888465 88203909	47 48	7.157 7.158	08/11/19 12/11/19	Sun Wed	11:35 PM 1:30 AM	Sideswipe	0	0	1	Night Night	Dry	Failed To Keep In Proper Lane #N/A			
88203909 88900278	48	7.158	11/16/19	Sat	4:05 PM	Sideswipe Rear-End	0	0	1		Dry	#N/A Careless or Negligent Manner			
88900278 88860312	50	7.159	02/05/19	Tue	10:55 AM	Sideswipe	0	0	1	Day	Dry Dry	Failed To Keep In Proper Lane			
88850312 88254659	50	7.159	11/23/19	Sat	2:30 PM	Pedalcycle	0	0	1	Day	· ·	<u></u>			
88254659 88084533	51	7.161	03/15/19	Fri	1:33 PM	Right-Turn	0	0	1	Day Day	Dry Dry	Careless or Negligent Manner Failed to Yield Right-Of-Way			
88084533	53	7.161	03/13/19	Mon	3:04 PM	Right-Turn Rear-End	0	0	1	Day	Wet	Careless or Negligent Manner			
88160246	53	7.166	07/08/19	Wed	4:12 PM	Rear-End Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner  Careless or Negligent Manner			
88087718	55	7.166	11/05/19	Tue	2:17 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88075425	56	7.166	02/02/19	Sat	6:49 PM	Sideswipe	0	0	1	Night	Wet	Failed To Keep In Proper Lane			
88249812	57	7.170	12/28/19	Sat	10:20 PM	•	0	0	1			<u> </u>			
88150346	58	7.173	06/18/19	Tue	10:50 AM		0	0	1	Night Day	Dry Dry	Failed To Keep In Proper Lane Failed To Keep In Proper Lane			
88254676	59	7.173	12/14/19	Sat	6:52 PM	Sideswipe	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
88254676	60	7.183	10/24/19	Thu	12:40 PM	Rear-End	0	0	1	Day	Dry	Followed too Closely			
88174210	61	7.193	07/02/19	Tue	1:15 AM	Sideswipe	0	0	1	Night	Dry	Failed To Keep In Proper Lane			
88898633	62	7.203	10/18/19	Fri	1:15 AM 1:19 PM	Sideswipe	0	0	1		Dry	Failed To Keep In Proper Lane			
89028273	63	7.211	05/18/19	Sat	2:23 PM	Rear-End	0	0	1	Day Day	Dry	Careless or Negligent Manner			
88130619	64	7.211	06/03/19	Mon	5:53 PM	Rear-End Rear-End	0	0	1	Day	Dry	Failed To Keep In Proper Lane			
88075513	65	7.213	03/05/19	Tue	7:34 PM	Sideswipe	0	0	1	Night		Failed To Keep In Proper Lane			
88075513 88056760	66	7.225	03/05/19	Sun	6:03 PM	·	0	0	1		Dry	Failed To Keep In Proper Lane			
88056760	67		01/20/19		12:34 PM	Sideswipe		0		Night	Dry				
	l	7.225		Tue	7:14 PM	Rear-End	0	_	1	Day Night	Dry	Careless or Negligent Manner			
88235178	68	7.225	12/19/19	Thu		Rear-End	0	0	1	Night	Wet	Careless or Negligent Manner			
88160261	69	7.225	07/26/19	Fri	6:02 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88234089	70	7.254	11/28/19	Thu	1:56 PM	Angle	0	0	1	Day	Dry	Ran Red Light			
88117972	71	7.225	06/27/19	Thu	6:19 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
88131874	72	7.266	06/02/19	Sun	2:30 PM	Rear-End	0	0	1	Day	Dry	Careless or Negligent Manner			
87654740	73	7.225	01/14/19	Mon	12:31 PM	Sideswipe	0	0	1	Day	Dry	Failed To Keep In Proper Lane			

						Stat		la Departi		•	ation					
								RASH SU	<b>JMMAR</b>	Υ						
	SECTION:			8707	2000	_						ΓΕ ROUTE:		9	85	
	ROADWAY STUDY PER			FROM		MP 6.827 to 2019	7.604		M.P. TO		TO <b>2019</b>	7.604	ENGINEER: COUNTY:		FDOT D6 Miami-Dad	e
Crash Number	No	MILE	DATE	DAV	TINAE		CDACH TVDI	-	ΓΛΤΛΙ	INHIDIEC	PROP	DAY /	WET /	CONT	RIBUTING (	CAUSE
Crash Number	No.	POST	DATE	DAY	TIME		CRASH TYPI	_	FATAL	INJURIES	DAM	NIGHT	DRY	(\	EHICLE ON	LY)
88860008	74	7.306	03/16/19	Sat	12:57 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negligen	nt Manner
88870493	75	7.324	04/07/19	Sun	2:25 PM		Rear-End		0	0	1	Day	Dry	Follo	wed too Cl	losely
88085773	76	7.326	04/13/19	Sat	8:50 AM		Angle		0	0	1	Day	Dry		Ran Red Ligh	
89028446	77	7.333	08/03/19	Sat	12:40 PM		Right-Turn		0	0	1	Day	Dry		o Fast for C	
85510633	78	7.345	08/11/19	Sun	12:01 AM		Rear-End		0	0	1	Night	Dry		owed too Cl	
88189586	79	7.225	09/29/19	Sun	1:39 PM		Right-Turn		0	0	1	Day	Dry		Yield Right	
88132794	80	7.400	06/01/19	Sat	1:00 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	<u>'</u>
88095100	81	7.225	04/04/19	Thu	8:13 AM		Sideswipe		0	0	1	Day	Wet		Keep In Pro	
88160249	82 83	7.225	07/09/19	Tue Wed	4:14 PM 5:43 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	<u> </u>
88234078 88208151	83	7.225 7.400	11/20/19 09/06/19	Fri	8:08 PM		Rear-End Rear-End		0	0	1	Night Night	Dry		or Negligen or Negligen	
88130593	85	7.400	05/01/19	Wed	6:41 PM		Rear-End		0	0	1	Day	Dry Dry		or Negligen	
88189547	86	7.400	08/07/19	Wed	1:55 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
88148016	87	7.400	08/26/19	Mon	5:57 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88174270	88	7.400	10/07/19	Mon	5:34 PM		Rear-End		0	0	1	Night	Wet		or Negligen	
88225407	89	7.400	12/20/19	Fri	11:04 AM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
88148871	90	7.400	07/26/19	Fri	2:05 PM		Rear-End		0	0	1	Day	Dry		or Negligen	_
88139612	91	7.400	05/16/19	Thu	8:48 AM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
88088751	92	7.500	03/25/19	Mon	5:24 PM	Oth	er Fixed Ob	ject	0	0	1	Day	Dry		or Negligen	
88032159	93	7.428	02/21/19	Thu	8:08 AM		Rear-End		0	1	0	Day	Wet	Careless	or Negligen	nt Manner
88076473	94	7.447	01/24/19	Thu	9:04 AM		Rear-End		0	0	1	Day	Dry	Careless	or Negligen	nt Manner
88163712	95	7.520	08/05/19	Mon	10:48 PM		Left-Turn		0	0	1	Night	Dry	Failed to	Yield Right	t-Of-Way
87280891	96	7.464	03/04/19	Mon	8:40 AM		Sideswipe		0	0	1	Day	Dry	Failed To	Keep In Pr	oper Lane
88251511	97	7.525	12/07/19	Sat	10:01 PM		Sideswipe		0	0	1	Night	Dry	Failed To	Keep In Pr	oper Lane
88133631	98	7.525	05/17/19	Fri	2:55 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88160264	99	7.525	07/29/19	Mon	7:16 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88230458	100	6.959	11/23/19	Sat	7:57 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
88056756	101	7.464	01/15/19	Tue	3:10 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88160237	102	7.500	06/21/19	Fri	4:43 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88132823	103	7.500	07/11/19	Thu	11:06 AM		Rear-End		0	0	1	Day	Wet		or Negligen	
88142241	104	7.500	08/05/19	Mon	3:31 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	•
88070992 89028429	105 106	7.500 7.500	02/24/19 07/29/19	Sun Mon	7:15 PM 2:20 PM		Rear-End Left-Turn		0	0	1	Night	Dry Dry		or Negligen Yield Right	
88075503	107	7.463	02/27/19	Wed	5:09 PM		Rear-End		0	0	1	Day Day	Dry		or Negligen	
88160258	108	7.477	07/23/19	Tue	6:04 PM		Rear-End		0	0	1	Day	Wet		or Negligen	
88040003	109	7.548	01/01/19	Tue	7:20 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
88068425	110	7.555	02/14/19	Thu	2:58 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
89028138	111	7.575	03/22/19	Fri	1:55 PM		Left-Turn		0	0	1	Day	Dry		Yield Right	
89028538	112	7.583	09/16/19	Mon	2:00 PM		Left-Turn		0	0	1	Day	Dry		Yield Right	
89028761	113	7.584	12/12/19	Thu	8:01 PM		Left-Turn		0	1	0	Night	Wet		Yield Right	
89028734	114	7.584	11/28/19	Thu	6:10 PM		Left-Turn		0	0	1	Night	Dry	Failed to	Yield Right	t-Of-Way
89028687	115	7.585	11/15/19	Fri	2:46 PM		Left-Turn		0	0	1	Day	Dry	Failed to	Yield Right	t-Of-Way
87728287	116	0.000	02/21/19	Thu	5:02 AM		Rear-End		0	0	1	Night	Dry	Careless	or Negligen	nt Manner
89028343	117	0.000	06/18/19	Tue	9:15 AM		Left-Turn		0	1	0	Day	Dry		Ran Red Ligh	
87728301	118	0.000	02/27/19	Wed	10:10 PM		Left-Turn		0	1	0	Night	Dry		Yield Right	
89028356	119	0.000	06/23/19	Sun	3:10 PM		Left-Turn		0	0	1	Day	Dry		Yield Right	
88114715	120	7.450	05/29/19	Wed	2:31 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
89028261	121	0.032	05/12/19	Sun	10:50 AM		Left-Turn		0	0	1	Day	Dry		Yield Right	
89028232	122	0.034	04/14/19	Sun	10:30 PM		Left-Turn		0	0	1	Night	Dry		Yield Right	<u> </u>
89028510	123	0.036	09/04/19	Wed	9:55 PM		Left-Turn		0	0	1	Night	Dry		Yield Right	t-Of-Way
	Total No.	Fatal	Injury	PDO	Rear-End	Head-On	Angle	Left-Turn	Right- Turn	Sideswipe	Backed Into	Ped/Bike	Parked Car	Fixed Object	Ran into Water	Other
	123	0	11	112	52	0	2	19	6	39	1	1	0	3	0	0
	Percent	0.00%	8.94%	91.06%	42.28%	0.00%	1.63%	15.45%	4.88%	31.71%	0.81%	0.81%	0.00%	2.44%	0.00%	0.00%
	Contrib.					Careless		Improper	Ran Red	Exceeded	Improper	Disreg	Erratic/	Ran off		Wrong
	Cause	Day	Night	Wet	Dry	Driving	FTYRW	Turn	Light	Speed	Passing	Cntl Dev	Aggress	Road	DUI	Way
			43	10	110	52	20	0	6	1	0	0	0	0	0	0
	<b>Total</b> <i>Percent</i>	<b>81</b> 65.85%	<b>42</b> 34.15%	13 10.57%	89.43%	42.28%	16.26%	0.00%	4.88%	0.81%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

						State		da Departi CRASH SU			ation					
	SECTION:			9707	2000			MASH 30	JIVIIVIAN	A T	СТАТ	TE DOUTE.		0	or.	
		LINAITC		8/0/	<sup>2</sup> 2000	MD C 027 to	7.604		MD	6 927		TE ROUTE:	ENGINEER:	9	FDOT D6	
	ROADWAY			FDOM .		MP 6.827 to	7.604		M.P.		TO	7.604	•			
	STUDY PER	1	ı	FROM	1/	2020			TO	12/	2020	· · · /	COUNTY:		Miami-Dad	
Crash Number	No.	MILE POST	DATE	DAY	TIME	(	CRASH TYPI	Ξ	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WET / DRY		RIBUTING ( EHICLE ONI	
88377612	1	6.853	09/29/20	Tue	3:38 PM		Right-Turn		0	0	1	Day	Dry	Failed to	o Yield Right	t-Of-Way
89546413	2	0.992	11/29/20	Sun	11:15 PM		Right-Turn		0	0	1	Night	Dry	Failed to	yield Right	t-Of-Way
89513563	3	0.997	01/10/20	Fri	5:00 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negligen	nt Manner
89520700	4	0.997	03/04/20	Wed	7:30 PM		Rear-End		0	0	1	Night	Dry	Careless	or Negligen	nt Manner
89531147	5	0.999	07/16/20	Thu	9:57 AM		Sideswipe		0	0	1	Day	Dry	Failed To	Keep In Pro	oper Lane
89521182	6	1.016	04/05/20	Sun	9:48 PM		Curb		0	0	1	Night	Wet	Careless	or Negligen	nt Manner
89532437	7	1.045	10/07/20	Wed	10:44 PM		Rear-End		0	0	1	Night	Dry	Careless	or Negligen	nt Manner
89516067	8	1.088	01/23/20	Thu	9:05 PM		Rear-End		0	0	1	Night	Wet	Careless	or Negligen	nt Manner
24000913	9	0.009	06/05/20	Fri	9:34 PM		Left-Turn		0	0	1	Night	Dry	Failed to	yield Right	t-Of-Way
24001134	10	0.009	11/05/20	Thu	7:20 PM		Left-Turn		0	0	1	Night	Wet	Failed to	yield Right	t-Of-Way
24000982	11	0.011	08/05/20	Wed	12:10 PM		Left-Turn		0	0	1	Day	Wet	F	Ran Red Ligh	ht
24000890	12	7.325	05/14/20	Thu	10:14 PM		Curb		0	0	1	Night	Dry	Careless	or Negligen	nt Manner
24001163	13	0.014	11/21/20	Sat	5:57 PM		Rear-End		0	0	1	Night	Wet	Careless	or Negligen	nt Manner
24001048	14	0.024	09/24/20	Thu	6:40 PM		Rear-End		0	0	1	Day	Wet		or Negligen	
24001028	15	0.025	09/10/20	Thu	12:50 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
89028981	16	0.031	03/13/20	Fri	2:40 PM		Rear-End		0	0	1	Day	Dry		Keep In Pro	
24001007	17	0.039	01/22/20	Wed	6:14 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
89541861	18	6.828	10/27/20	Tue	5:20 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
89546735	19	6.997	11/25/20	Wed	12:41 PM		Right-Turn		0	0	1	Day	Dry		o Yield Right	
88288207	20	7.135	03/04/20	Wed	11:40 AM		Rear-End		0	0	1	Day	Dry		or Negligen	
89028863	21	7.137	01/23/20	Thu	5:20 PM		Sideswipe		0	0	1		Wet		Keep In Pro	
	22			Thu	2:30 PM				0			Day				
89531562		7.146	07/02/20				Backed Into	)		0	1	Day	Dry		proper Back	
88329906	23	7.153	08/28/20	Fri	5:03 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
88307983	24	7.155	08/14/20	Fri	4:02 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88269285	25	7.157	01/30/20	Thu	8:35 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	•
88402426	26	7.159	11/22/20	Sun	2:23 PM		Rear-End		0	0	1	Day	Wet		or Negligen	
89514276	27	7.160	01/10/20	Fri	7:01 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	•
89534205	28	7.163	08/06/20	Thu	6:43 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88338991	29	7.167	07/03/20	Fri	9:23 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	•
88332631	30	7.173	05/20/20	Wed	3:20 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negligen	nt Manner
89542447	31	7.184	10/16/20	Fri	5:30 PM		Rear-End		0	0	1	Night	Wet	Careless	or Negligen	nt Manner
88329417	32	7.198	09/18/20	Fri	10:45 AM		Sideswipe		0	0	1	Day	Dry	Failed To	Keep In Pro	oper Lane
88286085	33	7.249	02/04/20	Tue	11:01 PM		Rear-End		0	0	1	Night	Dry	Careless	or Negligen	nt Manner
88330695	34	7.225	08/17/20	Mon	5:17 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negligen	nt Manner
89544898	35	7.225	11/18/20	Wed	12:33 PM		Sideswipe		0	1	0	Day	Dry	Failed To	Keep In Pro	oper Lane
88285189	36	7.225	03/18/20	Wed	3:47 PM	Utility	Pole/Light S	Support	0	0	1	Day	Dry	Careless	or Negligen	nt Manner
88288022	37	7.500	07/18/20	Sat	1:25 PM	,	Left-Turn		0	0	1	Day	Dry		Yield Right	
88230057	38	7.225	01/08/20	Wed	6:18 AM		Rear-End		0	0	1	Night	Dry		or Negligen	
88330717	39	7.400	10/03/20	Sat	4:00 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
88343805	40	7.400	10/21/20	Wed	7:48 AM		Rear-End		0	0	1	Day	Wet		or Negligen	
88388391	41	7.400	10/02/20	Fri	11:26 PM		Rear-End		0	0	1	Night	Wet		or Negligen	
88332601	42	7.400	09/12/20	Sat	7:54 PM		Rear-End		0	0	1	Night	Wet		or Negligen	
88423315	43	7.400	11/10/20	Tue	1:19 PM		Rear-End		0	0	1	Day	Wet		or Negligen	
88276105	44	7.419	01/27/20	Mon	7:11 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
88331441	45	7.419	07/17/20	Fri	6:02 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88376976	45	7.427	09/27/20	Sun	1:58 PM		Left-Turn		0	0	1		Dry		or Negligen  O Yield Right	
										0		Day				
88231681	47	7.438	01/07/20	Tue	6:35 PM		Rear-End		0	_	1	Night	Dry		or Negligen	
88192307	48	7.447	02/15/20	Sat	7:18 PM		Rear-End		0	1	0	Night	Wet		or Negligen	
88281289	49	7.457	02/15/20	Sat	7:13 PM		Rear-End		0	0	1	Night	Wet		or Negligen	
88269300	50	7.530	02/20/20	Thu	6:26 PM		Rear-End		0	0	1	Night	Wet		or Negligen	
88290977	51	7.464	02/20/20	Thu	4:21 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88270062	52	7.500	02/11/20	Tue	1:22 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88331436	53	7.500	07/01/20	Wed	4:10 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
24001139	54	7.500	11/12/20	Thu	6:52 PM		Left-Turn		0	0	1	Night	Wet		Ran Red Ligh	
24000872	55	7.500	05/03/20	Sun	3:46 PM		Left-Turn		0	0	1	Day	Dry	Failed to	yield Right	t-Of-Way
89028856	56	7.500	01/21/20	Tue	9:30 AM		Angle		0	0	1	Day	Dry	Failed to	yield Right	t-Of-Way
									Right-		Backed		Parked	Fixed	Ran into	
	Total No.	Fatal	Injury	PDO	Rear-End	Head-On	Angle	Left-Turn	Turn	Sideswipe		Ped/Bike	Car	Object	Water	Other
	56	0	2	54	31	0	1	7	3	10	1	0	0	3	0	0
	Percent	0.00%	3.57%	96.43%	55.36%	0.00%	1.79%	12.50%	5.36%	17.86%	1.79%	0.00%	0.00%	5.36%	0.00%	0.00%
	Contrib.					Careless		Improper	Ran Red			Disreg	Erratic/	Ran off		Wrong
			N.C L. A.	Wet	Dry	Driving	FTYRW	Turn	Light	Speed	Passing	Cntl Dev	Aggress	Road	DUI	Way
	Cause	Day	Night	V V C I												,
	Cause <b>Total</b>	Day <b>33</b>	Night 23		,					-						0
	Total Percent	Day 33 58.93%	23 41.07%	<b>17</b> 30.36%	<b>39</b> 69.64%	<b>33</b> 58.93%	<b>9</b> 16.07%	<b>0</b>	<b>2</b> 3.57%	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

						Stat	te of Florio		ment of T	•	tion					
	SECTION:			8707	2000						STA	TE ROUTE:		9	85	
	ROADWAY			FDOM.		MP 6.827 to	7.604		M.P.	6.827	TO	7.604	ENGINEER:		FDOT D6	
	STUDY PERI		Π	FROM	1/	2021			ТО	12/	PROP	DAY /	COUNTY:		Miami-Dade RIBUTING C	
Crash Number	No.	MILE POST	DATE	DAY	TIME		CRASH TYPE		FATAL	INJURIES	DAM	NIGHT	WET / DRY		'EHICLE ONL	
24381584	1	0.968	12/07/21	Tue	11:06 AM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	•
24351066 24363208	3	0.980 0.986	04/05/21 07/09/21	Mon Fri	7:11 PM 2:38 PM		Sideswipe Sideswipe		0	0	1	Night Day	Dry Dry		Keep In Pro	<u> </u>
24353694	4	0.988	04/27/21	Tue	7:45 AM		Angle		0	0	1	Day	Dry		Ran Red Ligh	·
24354689	5	1.026	05/06/21	Thu	3:43 PM		Pedestrian		0	1	0	Day	Dry		o Yield Right	
24383397	6 7	1.045	12/13/21	Mon	6:41 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	-
24057215 24001598	8	0.000 0.004	10/14/21 07/03/21	Thu Sat	7:15 AM 2:15 AM		Sideswipe Curb		0	0	1	Day Night	Dry Dry		Keep In Pro or Negligen	•
24858921	9	0.014	12/08/21	Wed	10:40 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
24001676	10	0.014	08/12/21	Thu	3:20 PM		Rear-End		0	1	0	Day	Dry		or Negligen	
24001313 24001730	11	0.014 0.019	02/04/21 09/07/21	Thu Tue	2:00 PM 9:08 PM		Rear-End Rear-End		0	0	1	Day Night	Dry Dry		or Negligent or Negligent	
24001653	13	0.021	07/30/21	Fri	3:52 PM		Rear-End		0	0	1	Day	Dry		or Negligent	
24858925	14	0.022	12/10/21	Fri	6:50 PM		Rear-End		0	1	0	Night	Dry		or Negligen	
88464590 89584401	15 16	6.828 7.128	07/17/21 12/05/21	Sat Sun	5:05 PM 5:52 PM		Left-Turn Rear-End		0	0	1	Day	Dry		o Yield Right or Negligen	
24347908	17	7.126	03/11/21	Thu	2:30 PM		Sideswipe		0	0	1	Night Day	Dry Dry		Keep In Pro	
89573845	18	7.138	12/08/21	Wed	8:49 PM		Rear-End		0	0	1	Night	Dry		or Negligen	•
24352602	19	7.147	04/19/21	Mon	12:30 AM		Pedalcycle		0	1	0	Night	Dry		Yield Right	
24355772 88512886	20 21	7.147 7.147	05/11/21 06/21/21	Tue Mon	12:55 PM 2:15 AM		Right-Turn Rear-End		0	0	1	Day Night	Dry Dry		o Yield Right or Negligen	
88442332	22	7.147	03/15/21	Mon	12:07 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
89580258	23	7.148	12/10/21	Fri	8:25 AM		Left-Turn	_	0	0	1	Day	Dry	Failed to	o Yield Right	-Of-Way
24380891	24	7.149	11/29/21	Mon	8:14 AM		Sideswipe		0	0	1	Day	Dry		or Negligent	
88513915 88532199	25 26	7.150 7.157	08/24/21 07/15/21	Tue Thu	10:17 PM 5:52 AM		Rear-End Sideswipe		0	0	1	Night Night	Dry Wet		or Negligent Keep In Pro	
88512905	27	7.157	07/11/21	Sun	2:40 PM		Right-Turn		0	0	1	Day	Dry		Yield Right	·
24379702	28	7.159	11/03/21	Wed	4:39 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88461670 88445933	29 30	7.161 7.166	05/15/21 03/10/21	Sat Wed	1:41 PM 5:50 PM		Rear-End Rear-End		0	0	0	Day Night	Dry Dry		or Negligent or Negligent	
89554860	31	7.166	03/10/21	Sun	5:52 AM		Left-Turn		0	1	0	Night	Dry		o Yield Right	
88566975	32	7.167	11/10/21	Wed	8:37 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	
88423357	33	7.174	01/24/21	Sun	6:57 PM		Sideswipe		0	0	1	Day	Dry		Keep In Pro	
89554596 24365804	34 35	7.174 7.183	02/27/21 09/02/21	Sat Thu	10:53 AM 11:20 PM		Sideswipe Sideswipe		0	0	1	Day Night	Dry Wet		Keep In Pro	•
88432799	36	7.183	01/19/21	Tue	7:37 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	•
88441959	37	7.195	01/08/21	Fri	7:33 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
24381699 88473796	38 39	7.203 7.225	11/27/21 05/19/21	Sat Wed	1:25 PM 8:50 AM		Sideswipe Right-Turn		0	0	1	Day	Dry Dry		Keep In Pro Yield Right	•
24356380	40	7.225	05/22/21	Sat	9:00 AM		Rear-End		0	0	1	Day Day	Dry		or Negligent	
24001799	41	7.342	10/09/21	Sat	11:50 PM		Rear-End		0	0	1	Night	Dry		or Negligen	
88468746	42	7.345	04/16/21	Fri	11:10 PM		Rear-End		0	1	0	Night	Dry		or Negligen	
88549192 88464674	43 44	7.391 7.500	10/13/21 06/14/21	Wed Mon	12:19 PM 6:58 PM		Sideswipe Sideswipe		0	0	1	Day Day	Dry Wet		Keep In Pro	•
88463028	45	7.400	04/30/21	Fri	5:44 PM		Rear-End		0	0	1	Day	Dry		or Negligen	•
88524830	46	7.400	08/21/21	Sat	5:19 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88414340	47	7.500	02/24/21	Wed	10:45 AM		Sideswipe		0	0	1	Day	Wet		Keep In Pro	•
88552083 88493043	48 49	7.400 7.400	11/20/21 06/06/21	Sat Sun	5:17 PM 9:12 PM		Rear-End Angle		0	0	1	Day Night	Dry Dry		or Negligent Ran Red Ligh	
88583233	50	7.400	12/03/21	Fri	4:45 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
89588659	51	7.400	12/13/21	Mon	7:40 AM		Rear-End		0	0	1	Day	Dry		or Negligen	
88414313 88488386	52 53	7.400 7.500	01/01/21 08/01/21	Fri Sun	12:40 PM 4:50 PM		Rear-End Left-Turn		0	0	0	Day Day	Dry Dry		or Negligent o Yield Right	
88552072	54	7.500	09/09/21	Thu	10:38 PM		Sideswipe		0	0	1	Night	Dry		Keep In Pro	
88544602	55	7.400	11/14/21	Sun	12:30 PM		Sideswipe		0	0	1	Day	Dry	Failed To	Keep In Pro	per Lane
88534666	56	7.500	12/18/21	Sat	3:00 PM		Rear-End		0	0	1	Day	Dry		or Negligen	
88540454 88483431	57 58	7.464 7.464	11/02/21 04/29/21	Tue Thu	11:40 AM 9:30 AM		Rear-End Rear-End		0	0	1	Day Day	Dry Dry		owed too Clo	
88566844	59	7.525	11/03/21	Wed	6:03 PM		Rear-End		0	0	1	Day	Dry		owed too Clo	
88519456	60	7.525	08/15/21	Sun	12:59 PM		Rear-End		0	0	1	Day	Wet		owed too Clo	
24858868 88548672	61 62	7.532 7.555	11/19/21 09/22/21	Fri Wed	4:17 PM 9:00 PM		Rear-End		0	0	1	Day Night	Dry Wet		or Negligen	
24001543	63	7.562	09/22/21	Sat	1:10 AM		Guardrail Fac Angle	.e	0	0	1	Night	Dry		or Negligent eckless or A	
24001627	64	7.565	07/16/21	Fri	4:50 PM		Sideswipe		0	0	1	Day	Dry	Im	proper Pass	ing
24001681	65	7.581	08/13/21	Fri	10:45 PM		ner Fixed Ob		0	0	1	Night	Wet		eckless or A	
24366808 24001329	66 67	7.582 7.583	09/01/21 02/12/21	Wed Fri	4:10 AM 9:16 PM	Oth	ner Fixed Ob Left-Turn	ject	0	0	1	Night Night	Dry Dry		eckless or A  Yield Right	
24001329	68	7.583	02/12/21	Wed	7:30 PM		Left-Turn		0	1	0	Night	Dry		o Yield Right	
											Backed			Fixed	Ran into	
	Total No.	Fatal	Injury	PDO	Rear-End	Head-On	Angle		Right-Turn	•	Into	-	Parked Car	Object	Water	Other
	68 Percent	<b>0</b>	<b>9</b> 13.24%	<b>59</b> 86.76%	<b>29</b> 42.65%	<b>0</b>	<b>3</b> 4.41%	<b>6</b> 8.82%	<b>3</b> 4.41%	<b>21</b> 30.88%	<b>0</b>	<b>2</b> 2.94%	<b>0</b>	<b>4</b> 5.88%	<b>0</b>	0.00%
	Contrib.	0.00/6	13.24/0	30.70/0	42.03/0	Careless	7.41/0	Improper	Ran Red	Exceeded	Improper	Disreg Cntl	Erratic/	Ran off	0.00/6	Wrong
	Cause	Day	Night	Wet	Dry	Driving	FTYRW	Turn	Light	Speed	Passing	Dev	Aggress	Road	DUI	Way
							_									_
	Total Percent	<b>40</b> 58.82%	<b>28</b> 41.18%	<b>7</b> 10.29%	<b>61</b> 89.71%	<b>27</b> 39.71%	11 16.18%	<b>0</b>	<b>2</b> 2.94%	<b>0</b>	1.47%	<b>0</b>	<b>3</b> 4.41%	<b>0</b>	<b>0</b>	<b>0</b>

		State of Florida Department of Transportation  CRASH SUMMARY  STATE ROUTE: 985														
	SECTION: ROADWAY STUDY PER			FROM	From	MP 6.827 to	o 7.604		M.P.	6.827	TO <b>2022</b>		ENGINEER: COUNTY:		85 FDOT D6 Miami-Dad	Δ
Crash Number	No.	MILE POST	DATE	DAY	TIME		CRASH TYPI	<u> </u>	FATAL	INJURIES	PROP DAM	DAY / NIGHT	WET / DRY	CONT	RIBUTING (	CAUSE
24392000	1	0.921	02/19/22	Sat	1:20 PM		Rear-End		0	0	1	Day	Dry	,	or Negliger	
25197992	2	0.940	04/05/22	Tue	8:02 AM		Rear-End		0	0	1	Day	Dry		or Negliger	
25209952 24387524	3 4	0.969 0.983	07/04/22 02/14/22	Mon Mon	5:50 PM 5:16 PM		Rear-End Sideswipe		0	0	1	Day Day	Dry Dry		or Negliger proper Pass	
25038080	5	0.988	10/29/22	Sat	2:51 PM		Rear-End		0	0	1	Day	Dry	Im	proper Pass	sing
25208552	6	0.989	07/19/22 02/11/22	Tue	10:53 PM		Rear-End		0	0	1	Night	Dry		owed too Cl	
24390250 24987404	7 8	0.991	02/11/22	Fri Sat	8:02 AM 12:05 AM		Rear-End Rear-End		0	0	1	Day Night	Dry Dry		owed too Cl owed too Cl	
24387036	9	0.997	01/11/22	Tue	5:12 PM		Rear-End		0	0	1	Day	Wet		owed too Cl	•
24397646 25226821	10	0.997 0.999	06/15/22 11/17/22	Wed	5:40 PM 11:15 PM		Rear-End Sideswipe		0	0	0	Day	Dry		owed too Cl	•
25226821	11 12	1.002	07/08/22	Thu Fri	3:00 AM	Т	ree (Standir		0	0	1	Night Night	Dry Dry		proper Pass or Negliger	
24395647	13	1.007	03/23/22	Wed	2:37 PM		Rear-End	<u> </u>	0	0	1	Day	Dry	Careless	or Negliger	nt Mann
24947754 25218899	14 15	1.007 1.012	05/22/22 09/12/22	Sun Mon	2:02 PM 10:50 AM		Sideswipe Sideswipe		0	0	1	Day Day	Dry Dry		proper Pass proper Pass	
25218295	16	1.012	09/12/22	Mon	7:35 AM		Rear-End		0	0	1	Day	Dry		or Negliger	
24387361	17	1.026	01/11/22	Tue	5:32 PM		Sideswipe		0	0	1	Night	Dry		proper Pass	
25203219 25263472	18 19	1.036 0.002	05/24/22 12/08/22	Tue Thu	11:00 AM 4:03 PM		Backed Into		0	0	1	Day Day	Dry Dry		proper Back proper Pass	
24859606	20	0.002	08/28/22	Sun	3:28 AM	Trafi	fic Signal Su		0	1	0	Night	Dry		or Negliger	
24859416	21	0.011	06/24/22	Fri	12:35 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Mann
24859588 24859440	22 23	0.012	08/22/22 06/30/22	Mon Thu	5:35 PM 9:45 PM		Rear-End Rear-End		0	0	1	Day Night	Dry Dry		or Negliger owed too Cl	
24859440 25215347	23	7.381	08/25/22	Thu	9:45 PM 8:05 AM		Sideswipe		0	0	1	Day	Dry		proper Pass	
25230078	25	7.220	12/05/22	Mon	12:45 PM		Rear-End		0	0	1	Day	Dry	Careless	or Negliger	nt Mann
25225004 25060149	26 27	6.996 7.068	10/28/22 12/10/22	Fri Sat	5:11 PM 7:04 PM		Sideswipe Left-Turn		0	0	1	Day Night	Dry Dry		proper Pass o Yield Righ	
24391535	28	7.068	02/21/22	Mon	9:15 AM		Rear-End		0	0	1	Day	Dry		owed too Cl	
25223393	29	7.108	10/18/22	Tue	9:40 PM		Sideswipe		0	0	1	Night	Dry	Follo	owed too Cl	osely
25226957 24859692	30 31	6.996 7.108	11/15/22 09/29/22	Tue Thu	8:28 PM 2:09 PM		Left-Turn Right-Turn		0	0	1	Night Day	Dry Dry		o Yield Righ	
24903213	32	7.119	05/06/22	Fri	7:45 AM		Sideswipe		0	0	1	Day	Dry		proper Pass	
25216705	33	7.127	09/20/22	Tue	12:20 PM		Rear-End		0	1	0	Day	Wet		owed too Cl	
25232804 25231456	34 35	7.127 7.147	12/27/22 12/21/22	Tue Wed	8:35 PM 1:30 PM		Sideswipe Left-Turn		0	0	0	Night Day	Dry Dry		proper Pass o Yield Righ	
25059243	36	7.147	12/21/22	Sat	6:06 PM		Sideswipe		0	0	1	Night	Dry		proper Pass	
88549223	37	7.147	01/18/22	Tue	9:02 AM		Sideswipe		0	0	1	Day	Dry		yield Righ	
25206076 25217516	38 39	7.149 7.150	06/10/22 09/05/22	Fri Mon	6:43 PM 10:40 AM		Rear-End		0	0	1	Day	Dry		owed too Cl	•
25217316	40	7.150	09/03/22	Sun	9:59 PM		Sideswipe Rear-End		0	2	0	Day Night	Dry Dry		proper Pass owed too Cl	
24944266	41	7.163	07/24/22	Sun	9:34 AM		Rear-End		0	0	1	Day	Dry		owed too Cl	
24903688 24947752	42 43	7.174 7.176	04/14/22 05/17/22	Thu Tue	1:43 PM 6:39 PM		Rear-End Sideswipe		0	0	1	Day Day	Dry		owed too Cl	
24947752	45	7.178	05/17/22	Wed	5:23 PM		Sideswipe		0	0	1	Day	Dry Dry		proper Pass proper Pass	
24397307	45	7.184	04/11/22	Mon	4:00 PM		Sideswipe		0	0	1	Day	Dry		proper Pass	
24905223 89592235	46 47	7.240	04/08/22 02/22/22	Fri Tue	7:29 AM 4:05 PM		Angle Sideswipe		0	0	1	Day Day	Dry Dry		o Yield Right proper Pass	
25038101	48	7.203	11/23/22	Wed	5:45 PM		Rear-End		0	0	1	Day	Dry		owed too Cl	
25226145	49	7.203	11/04/22	Fri	1:30 PM		Rear-End		0	0	1	Day	Dry		or Negliger	
24915983 25226120	50 51	7.500 7.222	03/15/22 11/04/22	Tue Fri	1:00 AM 12:45 PM		Rear-End Sideswipe		0	0	1	Night Day	Wet Dry		proper Pass	
24963831	52	7.222	06/12/22	Sun	4:00 AM		Rear-End		0	3	0	Day	Dry		owed too Cl	
24388779	53	7.335	01/27/22	Thu	8:44 AM		Sideswipe		0	0	1	Day	Dry		proper Pass	
24387107 24974708	54 55	7.344 7.363	01/17/22 10/13/22	Mon Thu	1:29 PM 7:57 AM		Sideswipe		0	0	1	Day	Dry		or Negliger	
24974708	56	7.525	04/22/22	Fri	8:40 AM		Sideswipe Rear-End		0	0	1	Day Day	Dry Dry		proper Pass or Negliger	
89586943	57	7.382	01/28/22	Fri	8:47 AM		Sideswipe		0	0	1	Day	Dry	Im	proper Pass	sing
25039359 25230866	58 59	7.382 7.385	11/29/22 12/30/22	Tue Fri	8:57 AM 6:21 PM		Sideswipe Rear-End		0	2	0	Day Night	Dry Dry		proper Pass owed too Cl	
25040392	60	7.385	12/30/22	Fri	3:31 PM		Sideswipe		0	0	1	Day	Dry		proper Pass	
24903704	61	7.391	05/01/22	Sun	2:04 PM		Sideswipe		0	0	1	Day	Dry	Exce	ed Posted S	Speed
24859411 25047408	62 63	7.393 7.398	06/22/22 12/09/22	Wed Fri	10:10 PM 9:00 AM		Rear-End Sideswipe		0	0	1	Night Day	Dry Dry		proper Pass	
24905234	64	7.398	04/20/22	Wed	8:38 AM		Sideswipe		0	0	1	Day	Dry		proper Pass	
88567186	65	7.400	02/01/22	Tue	9:35 AM		Angle		0	0	1	Day	Dry	F	Ran Red Ligl	ht
24905267 24945702	66 67	7.525 7.525	06/21/22 06/23/22	Tue Thu	9:03 AM 8:01 PM		Sideswipe Rear-End		0	0	1	Day Night	Dry Dry		Keep In Proposed too Cl	
24945702	68	7.525	06/23/22	Wed	9:04 PM		Rear-End Rear-End		0	0	1	Night	Dry		owed too Cl	•
25020902	69	7.400	10/13/22	Thu	3:27 PM		Rear-End		0	0	1	Day	Wet	Follo	owed too Cl	osely
25021356 24938384	70 71	7.525 7.400	10/18/22 09/04/22	Tue Sun	5:52 PM 5:14 PM		Rear-End		0	0	1	Day	Dry		owed too Cl	
24938384 24974677	72	7.400	09/04/22	Wed	7:58 AM		Sideswipe Sideswipe		0	1	0	Day Day	Dry Dry		proper Pass	
24945701	73	7.525	06/23/22	Thu	1:14 PM		Left-Turn		0	0	1	Day	Dry	Failed to	Yield Righ	t-Of-Wa
25046829 24938391	74 75	7.464 7.464	11/20/22 09/17/22	Sun Sat	8:51 PM 1:17 PM		Rear-End Rear-End		0	0	1	Night Day	Wet Dry		owed too Cl owed too Cl	
24938391	75 76	7.464	10/17/22	Mon	6:00 PM		Rear-End Rear-End		0	0	1	Day	Dry		owed too Cl	
25263516	77	7.426	12/14/22	Wed	8:35 AM		Curb	_	0	0	1	Day	Dry	Erratic, R	eckless or A	Aggress
24859531 24859001	78 79	7.580 7.583	07/31/22 01/10/22	Sun Mon	2:40 PM 1:35 PM		Rear-End Left-Turn		0	2	0	Day Day	Dry Dry		owed too Cl Ran Red Ligi	•
24859001	80	7.583	01/10/22	Fri	9:21 PM		Left-Turn Left-Turn		0	1	0	Night	Dry		Yield Righ	
24859840	81	7.584	11/22/22	Tue	5:50 AM		Left-Turn		0	0	1	Day	Dry	F	Ran Red Ligl	ht
24859565	82	7.585	08/13/22	Sat	10:07 AM		Left-Turn		0	0	1	Day	Dry		Yield Righ	t-Of-Wa
	Total No.	Fatal	Injury	PDO	Rear-End	Head-On	Angle	Left-Turn	Right-Turn	Sideswipe	Backed Into	Ped/Bike	Parked Car	Fixed Object	Ran into Water	Oth
	82	0	11	<b>71</b>	<b>36</b>	0	2	8	1	31	1	<b>0</b>	0	4	0	0
	Percent	0.00%	13.41%	86.59%	43.90%	0.00%	2.44%	9.76%	1.22%	37.80%	1.22%	0.00%	0.00%	4.88%	0.00%	0.00
	Contrib.	Day	Night	Wet	Dry	Careless Driving	FTYRW	Improper Turn	Ran Red Light	Exceeded Speed	Improper Passing	Disreg Cntl Dev	Erratic/ Aggress	Ran off Road	DUI	Wro Wa
	LAILCE	Dav	INIKIIL	VVCL	DIY	BIIIAIIA	1 1 1 1 1 1 7 7 7	Turri	LIGIIL	Speed	i assilig	CHU DEV	1681 C33	Noau	וטט	vvd
	Cause Total	62	20	5	77	27	11	0	2	0	1	0	3	0	0	0

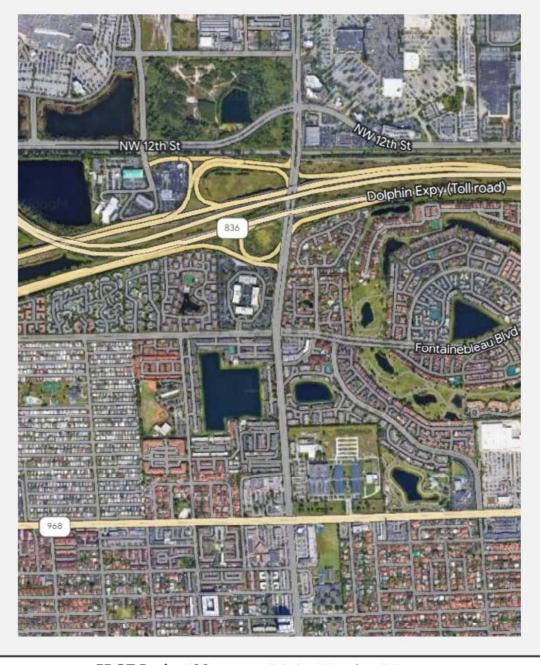


ODistrictwide Traffic Operations & Safety Studies FPID 434664-2-32-01 Contract C-AJ72

June 2024

# SR 985/NW 107<sup>TH</sup> AVENUE

From NW 7 Street
To SR 836/Dolphin Expressway Westbound On/Off Ramps
Section 87072000
(MP 7.154 to 7.381)





# District Six Traffic Operations District-Wide Traffic Operations & Safety Studies FM: 434664-2-32-01

Contract No. C-AJ72, Task Work Order No.31

# Location:

Section 87072000/SR 985/NW 107 Avenue
From NW 7 Street (MP 7.154)
To SR 836/Dolphin Expressway WB On/Off Ramps (MP 7.604)



FDOT Project Manager: Cristina Morales, PE.

#### **ENGINEER'S CERTIFICATION**

I, Jeffrey Slawinski, PE, with Florida PE No. 90922, certify that I currently hold an active Professional Engineer's License in the State of Florida, and I am competent through education or experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions, and recommendations made herein are true and correct to the best of my knowledge and ability.

Project Description:

Safety Study

SR 985/NW 107 Avenue from

From NW 7 Street To SR 836/Dolphin Expressway WB On/Off Ramps (MP 7.154 to MP 7.604)



This item has been digitally signed and sealed by Jeffrey A Slawinski, PE, on 6/18/2024. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jeffrey Slawinski, P.E.

Florida Registration P.E. No. 90922

C. H. Perez & Associates Consulting Engineers, Inc.

9594 NW 41st Street, Suite 201

Doral, Florida 33178

CA No.25976

#### 1 EXECUTIVE SUMMARY

C. H. Perez & Associates Consulting Engineers, Inc. (P&A) was retained by the Florida Department of Transportation (FDOT) District Six Traffic Operations Office to perform a Safety Study for a segment of SR 985/NW 107 Avenue from NW 7 Street to the signalized intersection the SR 836/Dolphin Expressway Westbound On and Off Ramps. The study was conducted as a follow-up to a Resurfacing, Restoration, and Rehabilitation (3R) Project Safety Review study for the same segment (see **Appendix A**). The segment begins at MP 7.154 and ends at MP 7.604 on the Straight Line Diagram (SLD) of SR 985/NW 107 Avenue (Roadway ID # 87072000).

SR 985/NW 107 Avenue is identified as Section 87072000 on the State Highway System (SHS). The highway is functionally classified as an "Urban Minor Arterial" with a posted speed limit of 40 MPH in both directions. It has a north-south orientation and consists of three travel lanes in each direction divided by a traffic separator. Within the study limits, the study segment has a context classification C4 – Urban General and a roadway access classification 5. Sidewalks are provided in each direction next to the Type F curb & gutter. The study segment includes four (4) signalized intersections, two (2) unsignalized on-ramps, and one (1) unsignalized off-ramp. The signalized intersections are:

- SR 985/NW 107 Avenue at NW 7 Street
- SR 985/NW 107 Avenue at SR 836 Eastbound Off-Ramp
- SR 985/NW 107 Avenue at SR 836 Westbound Off-Ramp
- SR 985/NW 107 Avenue at SR 836 Westbound On-Ramp

The crash analysis for the segment was completed during the preceding 3R Safety Review study. The analysis used crash data from a five-year period (January 1, 2018, to December 31, 2022), downloaded from the FDOT's Signal Four Analytics database, reviewed, and summarized for the study segment. The raw data for the segments included 576 crashes; however, upon reviewing the raw data and eliminating crashes that fell outside the study limits, 397 crashes remained and were used for the safety review. The leading crash types were rear-end with 184 and sideswipe with 126 crashes.

To address the crash issues/patterns identified during the crash analysis and other issues identified during the 3R Safety Review, proposed improvements were evaluated, as described below.

#### SR 985/NW 107 Avenue Segmentwide

#### Safety Improvements:

Improve signal timing at NW 7 Street, SR 836 eastbound, and SR 836 westbound. The implementation of signal timing improvement requires coordination with the Miami-Dade County Traffic Signal and Signs Office. Note that one of the signal timing improvements includes modifying the cycle length, which require adjustments at the signalized intersections of NW 12 Street, NW 14 Street, NW 17 Street, and NW 19 Street, which are not part of the State Highway System, but are part of the same traffic signal coordinated system.

#### Non-Safety Improvements:

Consider providing sidewalk connectivity along the west side of SR 985/NW 107<sup>th</sup> Avenue. The existing sidewalk ends just south of the SR 826 Eastbound Off-Ramp and continues at NW 12<sup>th</sup> Street. This improvement was discussed with the Department and will not be implemented at this time. Instead, improvements are proposed to enhance pedestrians, bicyclists, and scooter riders' safety along the east side of NW 107<sup>th</sup> Avenue.

#### SR 985/NW 107 Avenue at NW 7 Street

#### Safety Improvements:

- Consider improving signal timing during the morning to reduce traffic congestion and aggressive lane changes on the eastbound approach.
- Consider providing an overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.
- Consider converting the eastbound approach lane configuration to two (2) left-turn lanes and a shared through/right-turn lane.
- Consider installing an additional signal head facing the northbound approach.
- Consider redesigning the turn radius at the northeast corner. <u>Numerous sideswipe crashes occurred just north of the intersections</u>. <u>Although many hardcopy police reports did not provide details</u>, <u>based on the field review</u>, <u>many crashes should be associated with westbound failing to stay within the receiving lane and crashing against northbound vehicles traveling in the outside lane</u>. <u>As stated in the field review section</u>, <u>numerous westbound right-turn vehicles ran over the raised median or sidewalk and failed to stay within its lane</u>.
- Consider installing pole delineators on the concrete island located on the northeast corner. A few northbound vehicles driving
  on or very near the concrete island were observed during the field reviews.
- Consider upgrading the existing crosswalks to high-emphasis.
- Consider providing a crosswalk at the north leg of the intersection.
- Consider installing countdown pedestrian signal heads, pushbuttons, and plaques to assist the east and west legs crossing.
- Consider installing 'Turning Vehicles Stop for Pedestrians' signs (R10-15a) facing all approaches. <u>The sign facing westbound</u> depends on the installation of the north-leg crosswalk.
- Consider installing NO PEDESTRIAN CROSSING (R9-3) signs supplemented with USE CROSSWALK plaques (R9-3bP) on NW 107
   Avenue south of NW 7 Street.

#### The above improvements require the following:

- An operational analysis to evaluate:
  - Providing a dual left turn configuration for the eastbound approach.
  - Providing the overlap phase for the westbound right-turn movements that run concurrently with the southbound left-turn movements.

 Providing a crosswalk at the north leg. The crosswalk will have a length of 128 ft. At a walking speed of 3.5 ft/sec, the crosswalk will require approximately 37 seconds for the Pedestrian Clearance Interval.

- Providing a 5-section signal head facing westbound and replacing the mast arm facing westbound to implement the overlap
  phase. This improvement may also require <u>right-of-way acquisition</u> at the northwest corner.
- Providing the additional signal head facing northbound and redesigning the northeast corner to improve the turning radius.
   This improvement requires an AUTO Turn analysis to evaluate its feasibility and right-of-acquisition extent at the northeast corner.

#### SR 985/NW 107 Avenue at SR 836 Eastbound On/Off Ramps

#### Safety Improvements:

- Consider improving the capacity of the northbound left-turn lane at the SR 836 Westbound On/Off Ramps signal.
- Consider installing an additional signal head facing the southbound approach.
- Consider installing retroreflective signal head backplates facing the southbound approach.

### Adding the additional signal head and backplates requires replacing the mast arm.

#### Non-safety Improvements:

• Consider installing a Pedestrian Crossing warning sign assembly (W11-2)/(W16-7a) with a rectangular rapid flashing beacon at the crosswalk on the SR 836 EB On-Ramp from NW 107 Avenue northbound, supplemented with a pedestrian ahead warning sign assembly (W11-2)/(W16-9P) with a rectangular rapid flashing beacon before the ramp. This improvement is to provide awareness of pedestrians crossing the ramp. Field reviews show moderate pedestrian/bicycle activity at the crosswalk and no visibility between northbound vehicles



accessing the SR 836 EB On Ramp and pedestrians/bicyclists standing at the curb ramp to cross northbound. <u>Coordination</u> with the Greater Miami Expressway Agency (GMX) is required for this improvement.

# SR 985/NW 107 Avenue at SR 836 Westbound On/Off Ramps

#### Safety Improvements:

- Consider providing an additional left-turn lane and extending the length of the proposed dual left-turn lanes to increase the
  capacity of the northbound left-turn lane. Based on the field and desktop review, providing the dual left-turn lane and
  extending the lanes is feasible. This improvement is anticipated to positively impact the SR 836 Westbound On/Off Ramp and
  SR 836 EB Off-Ramp signals.
- Consider converting the northbound left-turn phase from permissive to protected only. This improvement is required if the additional northbound left-tun lane is implemented.

Consider realigning the westbound approach. This improvement is intended to improve the visibility of the westbound
vehicles to the signal heads and between westbound vehicles traveling in the right lane and northbound vehicles traveling in
the outside lane.

- Consider installing an additional signal head facing the northbound and southbound approaches.
- Consider installing retroreflective signal head backplates facing all approaches.
- Consider operating the SR 836 Westbound On-Ramp and Off-Ramp intersection under a single controller.

#### The above improvements require the following:

- Replacing the mast arm facing northbound to accommodate a signal head for each left turn and through lane.
- Widening the westbound receiving lane for the new left-turn lane.
- Relocating and replacing the mast arm facing westbound to widen the westbound receiving lane and install backplates.
- Replacing the mast arm facing southbound to provide an additional signal head and backplates.
- The proposed widening for the NW 107 Avenue dual left turn lanes to SR 836 westbound on-ramp, will require revisiting the pier protection requirements for bridges 870997 and 870535 during the design phase.
- Coordination with Greater Miami Expressway Agency (GMX).

An operational analysis was conducted to evaluate the impact of implementing the proposed improvements within the study area and the analysis did not reveal any major negative impacts. The operational analysis showed that implementing the proposed improvements will have an overall positive effect on the operation of the intersections within the study area, with the intersection delays and LOS improving or remaining unchanged.

The economic analysis showed that the recommended improvements would cost approximately \$2,569,000. The proposed improvements will potentially result in a crash reduction of nearly five crashes per year. The crash reduction was monetized and compared to the improvement costs to give a safety benefit/cost ratio. The benefit/cost ratios were calculated to be 2.8, which is higher than the minimum threshold of 1.0, thus indicating that the proposed safety improvements would be economically viable.

[THIS AREA WAS INTENTIONALLY LEFT BLANK]



		SR 985/NW 1	.07 Ave		Street To SR 836/Dolp On/Off Ramps	hin Exp	oressway
		Roadway ID:					87072000
		Date:					6/3/2024
		Produced By:		JS	QA/QC By:		КС
Pay Item	Description	Unit Measured		Avg. Unit Cost	Quantity		Total
0110 1 1	CLEARING & GRUBBING	AC	\$	190,514.17	0.27	\$	52,177.09
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	\$	34.09	295.89	\$	10,086.85
0160 4	TYPE B STABILIZATION	SY	\$	0.21	1,306.33	\$	274.33
0285709	OPTIONAL BASE,BASE GROUP 09	SY	\$	88.76	1,306.33	\$	115,950.15
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	\$	166.85	118.55		19,780.03
0337 7 83	ASPH CONC FC, TRAFFIC C, FC-12.5, PG 76-22	TN	\$	179.43	118.55		21,271.38
0520 1 10 0520 5 41	CONCRETE CURB & GUTTER, TYPE F TRAF SEP CONC-TYPE IV, 4' WIDE	LF LF	\$	40.92 54.93	659.00 141.00	•	26,966.28 7,745.13
0520 70	CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH	SY	\$	177.17	21.11		3,740.26
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	\$	67.08	86.89		5,828.51
0570 1 2	PERFORMANCE TURF, SOD	SY	\$	4.71	97.56		459.49
0705 11 1	DELINEATOR, FLEXIBLE TUBULAR	EA	\$	106.08	16.00		1,697.28
	· · · · · · · · · · · · · · · · · · ·				Roadway Subtotal	\$	265,976.77
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	\$	43.42	350.00	\$	15,197.00
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	\$	11,510.99	1.00	\$	11,510.99
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24"	EA	\$	1,565.39	19.00	\$	29,742.41
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	\$	2,359.09	7.00	\$	16,513.63
0649 21 1	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 30'	EA	\$	90,385.81	1.00		90,385.81
0649 21 3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA	\$	71,003.33	2.00	•	142,006.66
0649 21 10	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 60'	EA	\$	95,841.14	1.00		95,841.14
0649 21 15	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 70'	EA	\$	90,000.00	2.00	•	180,000.00
0649 26 5 0650 1 14	STEEL MAST ARM ASSEMBLY, REMOVE, DEEP FOUNDATION- BOLT ON ATTACHMENT VEHICULAR TRAFFIC SIGNAL, F&I, ALUMINUM, 3 SECTION, 1 WAY	EA AS	\$	3,606.50 1,665.66	4.00 22.00	•	14,426.00 36,644.52
0650 1 14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	\$	2.183.79	1.00		2,183.79
0650 1 18	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 5 SECTION STRAIGHT, 1 WAY	AS	\$	2,204.47	1.00	•	2,204.47
0650 2109	VEHICULAR SIGNAL AUXILIARIES, REPAIR/REPLACE/RETROFIT, F&I, BACKPLATE- FLEXIBLE REQUIRED	EA	\$	466.15	8.00		3,729.20
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	EA	\$	1,279.64	4.00		5,118.56
0653 1 12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	EA	\$	1,968.76	2.00	\$	3,937.52
0665 1 11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	\$	423.10	6.00	\$	2,538.60
0670 5140	TRAFFIC CONTROLLER ASSEMBLY, FURNISH & INSTALL MODEL 2070	AS	\$	48,620.74	3.00	•	145,862.22
0670 5600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	\$	1,254.02	4.00	•	5,016.08
0700444	CINCLE DOCT CICAL SQL CDOLIND MOUNT, UP TO 42 CF	46	۸.		nalization Subtotal		802,858.60
0700 1 11 0700 3201	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	AS EA	\$	530.45	9.00 7.00		4,774.05
0700 5 21	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	\$	1,014.87 4,524.33	2.00		7,104.09 9,048.66
0710 11124	PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID FOR CROSSWALK AND ROUNDABOUT, 12"	LF	\$	1.59	916.00	•	1,456.44
0710 11125	PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 24"	LF	\$	1.80	770.00		1,386.00
0710 11160	PAINTED PAVEMENT MARKINGS, STD, WHITE, MESSAGE	EA	\$	106.55	7.00		745.85
0710 11170	PAINTED PAVEMENT MARKINGS, STD, WHITE, ARROW	EA	\$	71.83	13.00		933.79
0710 11101	PAINTED PAVEMENT MARKINGS, STD-OP, WHITE, SOLID, 6"	GM	\$	1,530.21	0.33	•	498.19
0710 11201	PAINTED PAVEMENT MARKINGS, STD-OP, YELLOW, SOLID, 6"	GM	\$	1,520.87	0.27		413.05
0711 11123	THERMOPLASTIC, STD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	\$	2.62	916.00		2,399.92
0711 11125	THERMOPLASTIC, STD, WHITE, MESSACE	LF	\$	5.31	770.00		4,088.70
0711 11160 0711 11170	THERMOPLASTIC, STD, WHITE, MESSAGE THERMOPLASTIC, STD, WHITE, ARROW	EA EA	\$	184.30 116.72	7.00 13.00		1,290.10 1,517.36
0711 11170	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	GM	\$	5,614.38	0.33		1,827.86
0711 16101	THERMOPLASTIC, STD-OF, WHITE, SOLID, 6"	GM	\$	5,700.88	0.27		1,548.31
				- ,	S &M Subtotal		39,032.37
		Roadway				\$	265,976.77
		Signalization				\$	802,858.60
		S&M				\$	39,032.37
		Pre-Total				\$ 1	L,107,867.74
ĺ		% Maintenance of 1	Traffic	(MOT)		\$	221,573.55
ĺ		% Mobilization				\$	110,786.77
ĺ		2% Preliminary Engir	_			\$	354,517.68
	18	3% Construction Eng		ng & Inspection	1	\$	199,416.19
		Project Contigend		o Estimate		\$	250,000.00 251,000.00
		Right of Way Acq Grand-Total	uisitio	restimate		\$ \$ 2	2,495,161.93
						<del>y</del> 2	,,101.35

PROJECT #: UNKNOWN PROJECT NAME: MASTARMS @ NW 107AVE/NW 7 ST

SR # 985 COUNTY: MIAMI-DADE

LOCATION: NE AND NW CORNERS OF NW 107 AVE AND NW 7 STREET

ALTERNATE: 1 C.E. DATE: 2/13/24

**ESTIMATED NO OF PARCELS: 2** 

## **PHASE**

41 \$20,000

4B \$63,000

42

43 \$168,000

45

46

TOTAL: \$251,000

ESTIMATOR: Gary Cotroneo

COMMENTS: THE RIGHT OF WAY COST ESTIMATE FOR THIS PROJECT HAS BEEN ESTIMATED USING PRESENT DAY COSTS. DUE TO THE PRELIMANARY STAGE OF THIS ESTIMATE, DEMOLITION WAS NOT ADDRESSED. THIS COST ESTIMATE ADDRESSES COSTS FOR ACQUIRING RW ON THE NE AND NW CORNERS AT THE INTERSECTION OF NW 7 STREET AND NW 107 AVENUE FOR MAST ARMS. THE AREAS NEEDED ARE AS PER TRAFFIC OPERATIONS. THE IMPACTS ARE AS PROVIDED MAP. WP- NO



#### OPTION I- No Mast Arm Replacement

SAFETY 7/1/1991

		•												
				STATE	OF FLOR	IDA DE	PARTM	1ENT OF TRA	ansporta <sup>-</sup>	ΓΙΟΝ				
Τ	SUBMITTED BY	CH Perez & Associa	tes					WPA N				SAFETY PRIC	ORITY	
	DATE SUBMITTED	6/3/2024					ENVIR	ONMENTAL	STUDY	_		_		
	-, -	FM: 434664-2-32-01	- TWO	31			_					SKID (I.D.)		N/A
4	ALTERNATIVE NO.	I					SN		NA		SPEED	LIMIT		40
6	DISTRICT	VI COUNT	Ү міамі	-dade S	ECTION	8707	2000	STA	TE ROAD	976		U.S. ROAD		-
	BEGINNING MILE P	OST <b>6.827</b>	END	ING MII	LE POST	7.6	504	_	LENGTH	0.777	miles	NODE		-
8	DESCRIPTION OF L	LOCATION/FACILITY	TYPE	NW I	07 Avenu	ue fron	n Nort	h of Flagler	Street to N	orth of SR 8	36/Dolphi	n Expressway		
			•											
9		PROBLEMS (LIST AND	DISCU	SS)										
	REAR END													
	SIDESWIPE													
	LEFT TURN AND	ANGLE												
10		VEMENTS (LIST AND D		,										
	PROVIDING DUA	AL LEFT TURN LAN	ES AT	NW 7	STREET	AND	AT SR	836 WEST	BOUND O	N-RAMP				
	OPERATIONAL I	MPROVEMENTS												
			2018	2019	2020	2021	2022	AVG.	14	CRASH IN	FORMAT	ION FOR FACI	IITY	
П	NO. OF CRASHES		81	116	53	67	80	79.4	- ''	COST/CRAS			\$	123,598
		ENTIALLY REDUCED	4.5	6.4	2.9	3.7	4.4	4.4		CRASH CLE			\$	100
-		2.1						L		INTEREST R				4%
13	TYPE OF	NUMBER OF	CRA	SHES	TO BE	15			ANNUA	L COST OF	IMPROV	EMENTS		
	CRASH	CRASHES	R	EDUC	ED								AN	INUAL
	ĺ		1				TVDE			COST	LIEE	CDE	_	TOCT

TIFEOF	NOMBEROF	CRASHES TO BE
CRASH	CRASHES	REDUCED
	(5-year)	
Rear End	184	12.12
Head On	0	0.00
Angle	12	0.35
Left Turn	42	9.57
Right Turn	13	0.00
Sideswipe	126	0.00
Backed Into	3	0.00
Coll. w/ Parked Car	0	0.00
Coll. w/ Pedestrian	I	0.00
Coll. w/ Bicycle	2	0.00
Fixed Object	13	0.00
Ran Off Road	0	0.00
Overturned	0	0.00
Other	I	0.00
Total Crashes	397	22.04
Crashes Per Year	79.40	4.41
Wet/Slippery	0	0.00
Night Time	0	0.00

							ANNUAL
	TYPE	C	TZC	LIFE		CRF	COST
Α	R-O-W	\$	251,000	0	_	0.0000	\$ _
	P.E.C.E.I.	\$	553.934	15	-	0.0899	\$ 49.821.42
	DRAINAGE	\$	-	15	-	0.0899	\$ 
D.	ROADWAY	\$	848.337	20	-	0.0736	\$ 62,422.13
Ε.	S &M	-\$	39.032	15	-	0.0899	\$ 3,510.61
F.	SIGNALS	\$	802,859	15	-	0.0899	\$ 72,209.99
G.	SUBTOTAL	\$	2,495,162				\$ 187,964.15
Н.	CHANGE IN MAINTENANCE			-			\$ 
I.	CRASH CLEANUP						\$ -
J.	TOTAL						\$ 187,964.15
16			BENEF	ITS			
A.	CRASH REDUCTION		4.41	crash @	\$	123,598	\$ 544,745.83
В.	DELAY SAVINGS		0.00	veh-hrs (	\$	-	\$ -
	SUB TOTAL ANNUAL BEI	NEFI.	Γ				\$ 544,745.83
C.	OTHER BENEFIT		0		\$	-	\$ -
D.	TOTAL ANNUAL BENEFIT	Γ					\$ 544,745.83
ET E	BENEFIT/COST	\$	544,745.8	3 \$		187,964.15	2.9
AFE.	TY BENEFIT/COST	\$	544,745.8	3 \$		187,964.15	2.9

PREPARED BY RK APPROVED BY KC

COMMENTS/CRASH REDUCTION METHOD:

FHWA, FDOT

#### HIGH CRASH LISTINGS:

-

5	NW 107 Avenue from North of Flagler Street to North of SR			à		•		_		_	•		4.0		40	40	â
Project Name	836/Dolphin Expressway	Year #	0	1	2	3	4	5	6	/	8	9	10	11	12	13	1.
Current Year	2023	Calendar Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	203
Project Completion	2025	Estimated Cost	\$2,495,162														
Project Life	15	Estimated Benefits	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,746	544,74
Project Category		Calculation															
Discount Rate	0.04	Discount Factor	1.000	0.962	0.925	0.889	0.855	0.822	0.790	0.760	0.731	0.703	0.676	0.650	0.625	0.601	0.577
Project Ends	2039	Discounted Cost	-2,495,162	0	0	0	0	0	0	0	0	0	0	0	0	0	(
		Discounted Benefits	544,746	523,794	503,648	484,277	465,651	447,741	430,521	413,962	398,040	382,731	368,011	353,857	340,247	327,160	314,577
		NPV	3,803,801.07														