FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT IV

OFFICE OF PLANNING & ENVIRONMENTAL MANAGEMENT

I-95 at Hallandale Beach Boulevard

Interchange Operational Analysis Report (IOAR)

August 11, 2016

Interchange Operational Analysis Report (IOAR)

I-95 at Hallandale Beach Boulevard

Broward County, FL

FM No. 436111-1

Florida Department of Transportation

Determination of Engineering and Operational Acceptability

Acceptance of this document indicates successful completion of the review and determination of engineering and operational acceptability of the Interchange Access Request. Approval of the access request is contingent upon compliance with applicable Federal requirements, specifically the National Environmental Policy Act (NEPA) or Department's Project Development and Environment (PD&E) Procedures. Completion of the NEPA/PD&E process is considered approval of the project location design concept described in the environmental document.

N/A

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Appendix G – Excerpt from FDOT 5-Year Work Program

Appendix H – FDOT Traffic Operations Office Long Range Cost Estimate

Appendix I – Benefit-Cost Analysis

Companion Documents

1. Interchange Concept Development Report – I-95 at Hallandale Beach Boulevard, January 2016.

2. I-95 Corridor Planning Study, 2009.

3. 95 Express Phase 3 Report, 2014.

4. Safety Study: SR 858 (Hallandale Beach Boulevard) at I-95 Off-Ramps, May 2013

1 Introduction

Florida Department of Transportation (FDOT) District 4 is seeking to enhance the traffic operation and safety at the interchange of I-95 and Hallandale Beach Boulevard. The interchange is located in the City of Hallandale Beach to the east and the Town of Pembroke Park to the west, both of which are in Broward County. An assessment of the interchange was initiated by the Department in 2014 via an Interchange Concept Development Report (ICDR) regarding its operations. A concurrent safety evaluation at the ramp termini intersections was performed by the District's Traffic Operations Office in 2013. Both evaluations identified deficiencies, and in an effort to address these concerns, FDOT initiated this Interchange Operational Analysis Report (IOAR) to assess alternatives for improving traffic operations and safety. The IOAR was prepared to document the need, cost and benefits to support the implementation of safety and operational improvements at this interchange under FM No. 436111-1.

Overall, these IOAR improvements are intended to provide short-term relief for the interchange. Long term improvements will be identified as part of FDOT's Project Development and Environment (PD&E) Study planned for I-95 between Hallandale Beach Boulevard and Hollywood Boulevard. This PD&E Study is funded for fiscal year 2017.

1.1 Project Need

Currently, motorists at the I-95 northbound off-ramp termini experience excessive delays and queuing during the morning and afternoon peak hours of operation. During peak hours, the maximum queue from the signalized northbound ramp termini intersection extends beyond the storage area allocated for the right-turn movement. Enhancements to the northbound exit ramp termini are intended to add capacity and vehicular storage for the northbound right-turn movement, as well as improve safety.

The District's Traffic Operations Office identified the I-95 southbound ramp termini intersection as a candidate to improve safety. Crash analysis revealed a high potential for crash reduction associated with the southbound right-turn movement, which currently operates under yield control. The proposed signalization of the southbound right-turn movement and lengthening of the right-turn lane storage area are intended to improve traffic safety at the I-95 southbound off-ramp.

Based on turn lane and signalization improvements to the northbound and southbound exit ramp termini intersections, FDOT determined that an IOAR was required to evaluate the proposed improvements. This document is consistent with the requirements outlined in the FDOT Interchange Access Request User's Guide. The purpose of this IOAR is to provide the necessary documentation to obtain approval for the various proposed improvements at the interchange's northbound and southbound ramp termini intersections. These improvements were evaluated assuming an opening year of 2020 with a design year of 2040. Preliminary engineering plans were developed to address safety and operational deficiencies within existing right-of-way to minimize impacts and costs. Conceptual design plans prepared by the District's Traffic Operations Office for the proposed improvements are provided in Appendix A of this report.

Proposed improvements are noted below.

a) Add a second right-turn lane at the I-95 northbound exit ramp termini intersection with Hallandale Beach Boulevard, lengthen the storage area to approximately 525 feet, and signalize the northbound right-turn movement. The two right-turn lanes would operate under signal control at the ramp termini intersection, and vehicular storage on the northbound exit ramp would be increased.

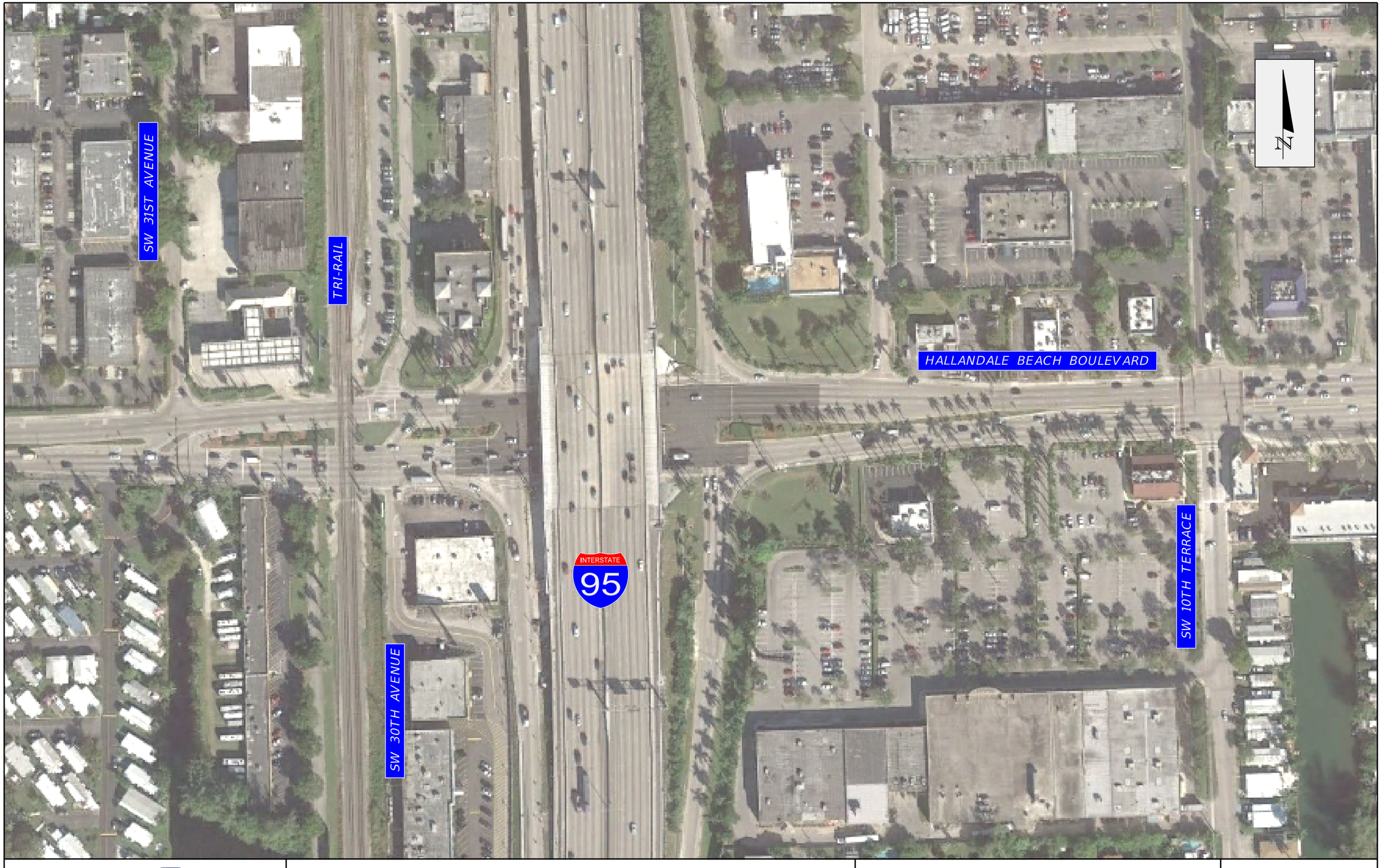
b) Signalize the right-turn lane at the I-95 southbound exit ramp termini intersection and lengthen the right-turn lane to approximately 700 feet. In addition to adding vehicular storage on the southbound exit ramp, signalizing the right-turn movement is intended to mitigate rear end crashes that occur at the ramp termini intersection that are correctable by a traffic signal.

2 Project Location

Hallandale Beach Boulevard/SR 858 is an east-west arterial within Broward County. An interchange is provided at I-95 that provides access to the north-south interstate facility. The interchange's area of influence includes the signalized intersections at SW 31st Avenue, which is west of the interchange, and SW 10th Terrace, which is located east of the interchange. The area of influence for the interchange is depicted in Figure 1.

The City of Hallandale Beach has zoned the land northeast of the interchange as Business General (B-G), Business Industrial (B-1), and Light Industrial and Manufacturing (I-L). The southeast quadrant of the interchange is zoned for Business General (B-G) and Residential Multi-Family Medium Density (RM-18).

The Town of Pembroke Park designated the northwest portion of the interchange with zoning that permits Business Industrial (B-1), Industrial (M-1), and Trail Park (T-1). The land in the southwest quadrant of the interchange is zoned for General Industrial (I) development, while land in the northwest quadrant is zoned for Business Industrial (B-1), Business Adult Entertainment Establishment Overlay (B-1A), Industrial (M-1), and Trailer Park (T-1).



FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	Project Location	Figure 1

3 Existing Conditions

3.1 Roadway & Intersection Characteristics

3.1.1 Geometry

Existing intersection and roadway geometry is depicted in Figure 2. Hallandale Beach Boulevard is a 6-lane divided urban principal arterial beginning at SW 31st Avenue and extending east of I-95. It is a 4-lane divided urban principal arterial west of SW 31st Avenue. Unmarked bicycle lanes are present along both sides of Hallandale Beach Boulevard.

At the signalized ramp terminus for the southbound I-95 off-ramp, the southbound approach consists of an exclusive right-turn lane operating under yield control and two signalized left-turn lanes. The northbound I-95 off-ramp terminus is signalized at Hallandale Beach Boulevard. It currently consists of two left-turn lanes and a single, channelized right-turn lane that also operates under yield control.

Immediately east of the interchange is the signalized intersection at SW 10th Terrace. Located approximately 720 feet from the I-95 northbound ramp terminus, the SW 10th Terrace intersection includes a single exclusive left-turn lane and a shared through-right lane for both the northbound and southbound approaches. The eastbound approach consists of a single exclusive left-turn lane and three through lanes, one of which is shared with the eastbound right-turn movement. The westbound approach includes one exclusive left-turn lane, three through lanes, and one exclusive right-turn lane.

West of the interchange is the intersection of Hallandale Beach Boulevard and SW 31st Avenue. This intersection is situated approximately 500 feet west of the I-95 southbound ramp terminus, and approximately 220 feet west of the railroad crossing. The SW 31st Avenue intersection is partially signalized to control the eastbound traffic flow, the westbound left-turn movement, and the northbound right-turn. The westbound through movement is free flow, while the southbound movement is stop-controlled.

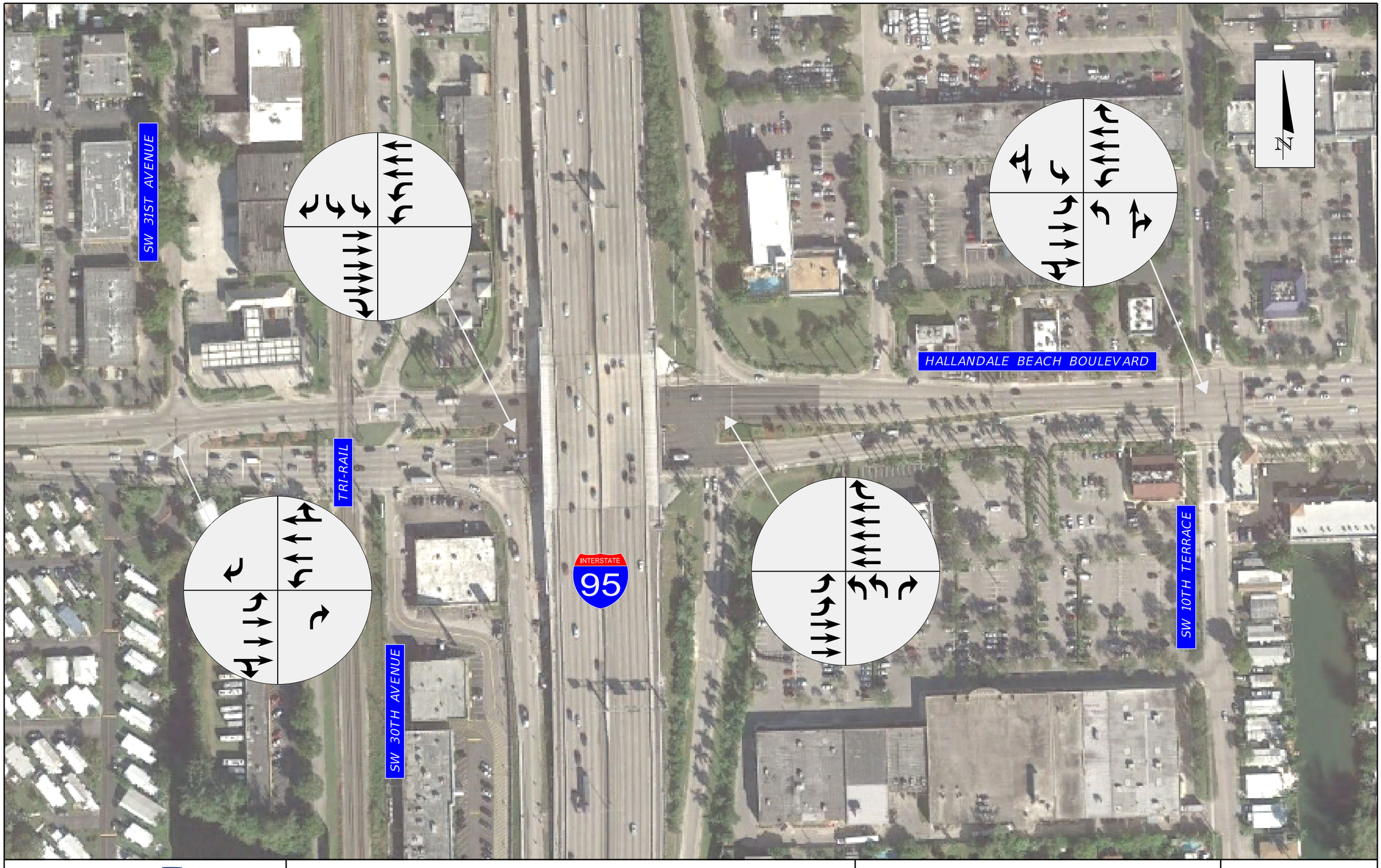
The existing lane geometry is depicted in Figure 2.

3.1.2 Functional Classification

Hallandale Beach Boulevard is a 6-lane divided state urban principal arterial east of I-95, and a 4-lane divided state urban principal arterial west of I-95. I-95 is a limited access, urban principal arterial-interstate that traverses Broward County.

3.1.3 Design Speed & Posted Speed Limit

Hallandale Beach Boulevard east I-95 has a posted speed limit of 40 miles per hour, while west of I-95 the posted speed limit reduces to 35 miles per hour. I-95 has a posted speed limit near the Hallandale Beach Boulevard interchange of 65 miles per hour.



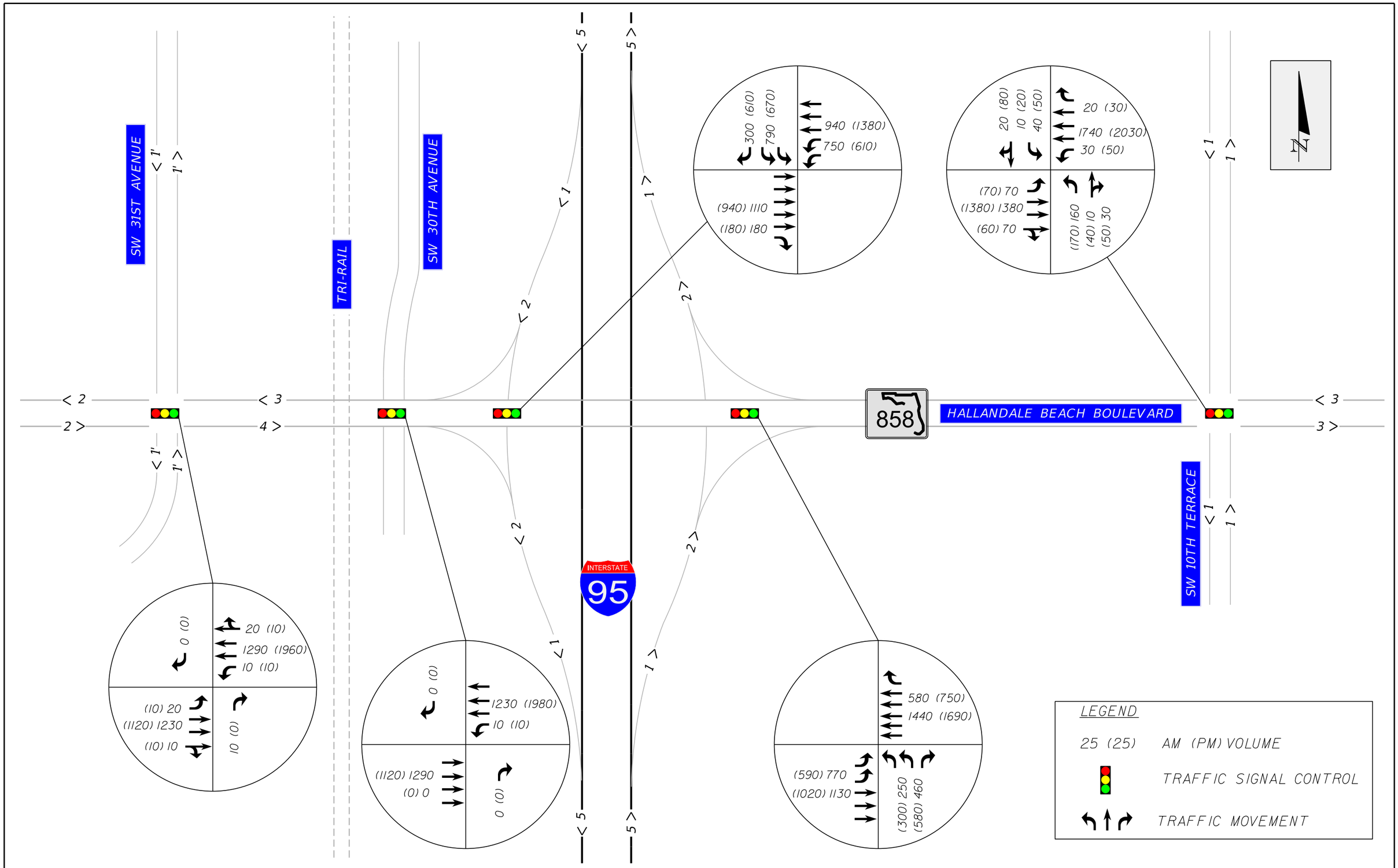
FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	Existing Lane Geometry	Figure 2

3.2 Existing Traffic Volumes

Existing (2014) Average Annual Daily Traffic (AADT) link volumes collected and published by FDOT Florida Traffic Online were used for this report. In addition, AM and PM peak hour turning movement counts utilized in the ICDR were used for each of the intersections within the study area

Existing year traffic volume data indicates that the current daily traffic volume on Hallandale Beach Boulevard east of I-95 is 64,200 vehicles per day, while west of I-95 the daily volume is 43,500 vehicles per day. On I-95 north of Hallandale Beach Boulevard, the current daily volume is 246,000 vehicles per day, while south of Hallandale Beach Boulevard it is 229,000 vehicles per day.

The daily volume data and the peak hour intersection turning movement volumes reported in the ICDR are referenced herein as a companion document, included in Appendix B, and depicted in Figure 3.



FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	Existing Traffic Volumes from ICDR	Figure 3

3.3 Traffic Signals

The Hallandale Beach Boulevard interchange with I-95 is a diamond interchange that operates as an actuated-uncoordinated signals. The traffic controller includes a pre-emption plan to account for the adjacent railroad crossing on the west side of the interchange.

Along eastbound Hallandale Beach Boulevard at the I-95 northbound exit ramp termini intersection, there is a mast arm with a traffic signal that controls the eastbound through movement and the northbound left-turn. At the northbound exit ramp termini intersection, there is single mast arm that controls the eastbound through and left-turn movements, and a double mast arm that controls the westbound through and northbound left-turn movements. At the southbound exit ramp termini intersection, there is a double mast arm in the southwest corner of the intersection and single mast arm on the northwest corner of the intersection.

A traffic signal is present on westbound Hallandale Beach Boulevard west of the I-95 southbound exit ramp that controls the westbound through movement and the southbound left turn. The southbound right-turn is a channelized movement that operates under yield control.

Along the I-95 northbound exit ramp, the existing mast arm structure is located immediately behind the sidewalk that controls the eastbound through movement. With the proposed improvements to the I-95 northbound exit ramp, a new mast arm and traffic signal will be required to control the eastbound through and northbound right-turn movements at the ramp termini intersection.

The southbound right-turn currently operates under yield control, while two mast arms supporting traffic signals are strategically located west of the I-95 southbound bridge to provide control for the southbound left-turn movement. One mast arm is located on the north side of Hallandale Beach Boulevard west of the I-95 southbound exit ramp, which provides signal control for the westbound through movement. The proposed improvement to signalize the southbound right-turn movement requires a new mast arm and new signal control equipment. The proposed new mast arm and signal control equipment would provide signal control for the southbound right-turn.

At the intersection with SW 31st Avenue west of the interchange, there is a single mast arm in the southeast corner of the intersection. This intersection allows directional left turns from the crossroad to the side street (SW 31st Avenue). The signal operates as an actuated-uncoordinated signal.

At SW 10th Terrace, there are four mast arms present in each corner of the intersection. The signal currently operates in an actuated-coordinated manner.

The signal timings for each intersection within the study area are reported in the ICDR and referenced herein as a companion document.

3.4 Existing Traffic Operational Analysis

3.4.1 Intersection Analysis

Existing AM and PM peak hour traffic operations analysis of the intersections within the study area are provided from the ICDR, which was finalized in January 2016. The intersections were analyzed using Synchro 8 and the Highway Capacity Manual 2000 methodology. This analysis was performed to evaluate current traffic operational conditions. A summary from the ICDR[1] analysis of the intersections is included in Appendix B.

Results of the existing (2012) operational analysis reveal that I-95 northbound exit ramp currently functions at Level of Service (LOS) E during the AM peak hour with vehicular delays in excess of 66 seconds. Similarly, during the PM peak hour the I-95 northbound exit ramp operates at LOS F with more than 82 seconds of delay. The I-95 southbound exit ramp operates at LOS D during the AM peak hour with delays of approximately 35 seconds per vehicle, and LOS C during the PM peak hour with delays of 22 seconds per vehicle.

Estimated queues from the operational analysis indicate the northbound right-turn movement has a queue of approximately 475 feet during the AM peak hour, and 660 feet during the PM peak hour. This queue length extends beyond the available right-turn lane storage of approximately 300 feet and affects operations on the ramp, although it does not spillback onto the I-95 mainline. The I-95 southbound exit ramp right turn has a queue of about 160 feet during the AM peak hour, and 545 feet during the PM peak hour. The calculated southbound right turn queue length during the PM peak hour exceeds the available storage provided on the I-95 southbound exit ramp, and impacts entry into the southbound left-turn lanes. A summary of the queuing analysis of existing conditions as reported in the ICDR is included in Appendix C.

[1] *Interchange Concept Development Report – I-95 at Hallandale Beach Boulevard, January 2016*

3.5 Crash Information

Available information from the FDOT-maintained Crash Analysis Reporting System (CARS) between 2008 and 2012 was reported in the ICDR[2] for the I-95 ramps at Hallandale Beach Boulevard. The southbound and northbound off-ramp terminal intersections were identified as high crash locations. Excerpted crash statistics reported in the ICDR are included in Appendix D.

A total of 193 crashes were reported at the interchange ramps of Hallandale Beach Boulevard and I-95 during the five-year period of analysis, with 35 reported in 2008, 31 crashes in 2009, 35 crashes in 2010, 41 crashes in 2011, and 51 crashes in 2012. Of the 5-year total, rear end crashes represent nearly 75% (or 144 crashes) of all crashes at the ramps. There were no fatalities reported at the ramps in the study area, although 52% (or 102 crashes) were classified as injury crashes.

There were 59 reported crashes occurring during night/dusk/dawn conditions, which is 31% of the total crashes reported. This percentage of nighttime crashes is equal to the statewide average for all roadways. In addition, 32 crashes were reported under roadway conditions classified as wet or slippery. This equates to 17% of the total crashes, which is also equal to the statewide average for all roadways.

Among the contributing causes of the reported crashes at the I-95 ramps is Careless Driving (73 crashes or 38%), Followed Too Closely (14 crashes or 7%), Exceeded Safe/Stated Speed Limit (7 crashes or 4%), and Other (89 crashes or 46%).

In May 2013, the FDOT District Four Traffic Operations Office prepared a safety study of Hallandale Beach Boulevard at the I-95 off-ramps. Using crash data collected from 2009 through 2011, it was concluded in this study that 48 rear-end crashes involved right-turn vehicles from the northbound and southbound off-ramps[3].

It was noted in the safety study that the northbound and southbound right-turn movements are channelized movements (a raised island separates the left-turn and right-turn lanes) controlled by Yield signs. The study's findings identified that this channelization may incorrectly appear to right-turn motorists as a free-flow lane, which results in drivers making abrupt stops. Thus, trailing vehicle may not be able to react in time to avoid rear-ending the lead vehicle. It was concluded that this condition combined with driver error contributes to rear end crashes at the I-95 northbound and southbound off-ramp termini intersections.

[2] *Interchange Concept Development Report – I-95 at Hallandale Beach Boulevard, January 2016*
[3] *Safety Study: SR 858 (Hallandale Beach Boulevard) at I-95 Off-Ramps, May 2013*

4 Future Conditions

4.1 Land Use Changes

The future land use information from the City of Hallandale Beach indicates the northeast quadrant of the interchange zoned as General Commercial and Light Industrial. The southeast quadrant is shown as General Commercial with Residential Low-medium Density.

The Town of Pembroke Park has the northwest area of the interchange of I-95 and Hallandale Beach Boulevard zoned for Commercial, Industrial, and Medium Density Residential, while the southwest quadrant is zoned in the future land use map as Commercial, Industrial, and Low Medium Density Residential. Overall, no significant future land use changes were identified in the project area.

4.2 Future Traffic Volumes

To evaluate the future traffic operations of the I-95 at Hallandale Beach Boulevard interchange, travel demand forecasts are needed for the turning movements at each intersection. Future year analyses are needed for the Opening Year (2020), Interim Year (2030), and Design Year (2040). These forecasts were prepared by the Florida Department of Transportation during the I-95 Corridor Planning Study (CPS) in 2009, and refined and finalized by the ICDR in 2016.

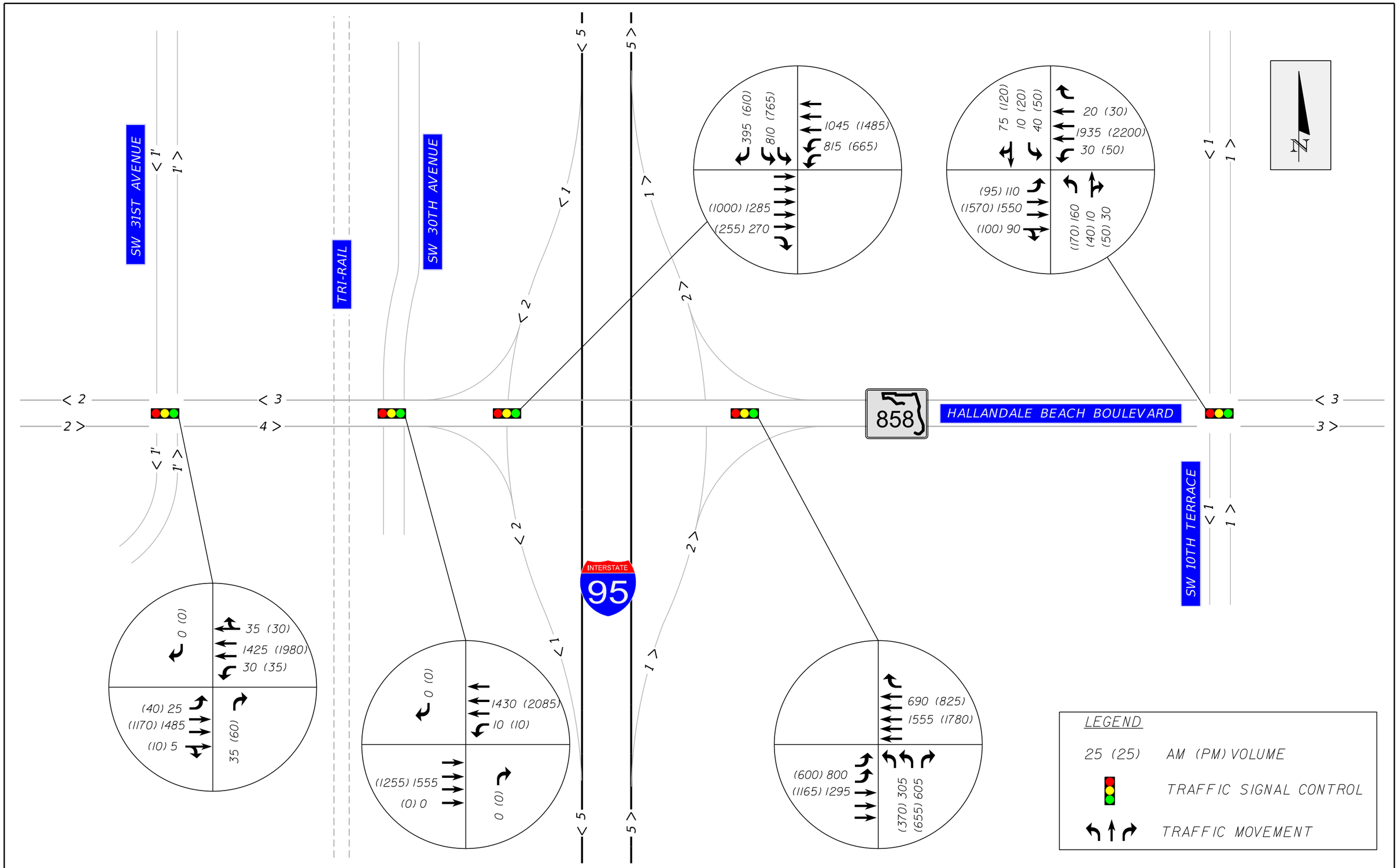
Traffic projections were developed for the I-95 CPS using an enhanced version of SERPM 6.5 capable of time-of-day modeling and toll choice modeling. The I-95 CPS was improved upon by the I-95 PD&E Study throughout this portion of Broward County in 2013 and the I-95 Express Lanes Phase III project. The use of these traffic projections ensures a consistent traffic volume is used along I-95. The future year traffic projections[4] are reported in the ICDR and referenced herein as a companion document. These excerpted volumes are also included in Appendix B and depicted in Figures 4, 5, and 6 for convenience.

4.2.1 Directional Design Hour Volumes

As noted in the ICDR, a subarea model validation analysis was performed for the interchange's study area. The 2010 model traffic volume results were compared against existing 2010 traffic data. The time-of-day model output was verified through the validation effort to confirm that the traffic forecasts within the study area were reasonable.

The I-95 PD&E Study applied diurnal factors to the model estimated peak period volumes. These diurnal factors, developed for the entire study area, were used to estimate AM and PM peak hour volumes. Finally, peak hour volumes were smoothed and balanced for the I-95 mainline, Hallandale Beach Boulevard, and I-95 ramps. The resultant peak hour traffic forecasts used for the I-95 PD&E Study and the ICDR, were also utilized for this IOAR.

[4] *Interchange Concept Development Report – I-95 at Hallandale Beach Boulevard, January 2016*



FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	2020 Future Traffic Volumes from ICDR	Figure 4

SW 31ST AVENUE

SW 30TH AVENUE

TRI-RAIL

HALLANDALE BEACH BOULEVARD

858

SW 10TH TERRACE

INTERSTATE 95

< 2
2 >
< 3
4 >
< 1'
1' >
< 1
1 >
< 2
2 >
< 5
5 >
< 1
1 >
< 2
2 >
< 1
1 >
< 5
5 >
< 3
3 >
< 1
1 >

510 (610)
835 (880)
1175 (1615)
898 (733)
(1078) 1503
(348) 385

145 (168)
15 (20)
40 (50)
20 (30)
2183 (2415)
33 (50)
(123) 163
(1805) 1760
(145) 118
(170) 160
(40) 13
(50) 30

0 (0)
53 (40)
1595 (2083)
65 (78)
(53) 33
(1293) 1805
(20) 15
68 (135)

0 (0)
1638 (2163)
48 (63)
(1348) 1875
(33) 15
0 (0)

825 (918)
1698 (1893)
(610) 835
(1350) 1503
(453) 375
(753) 565

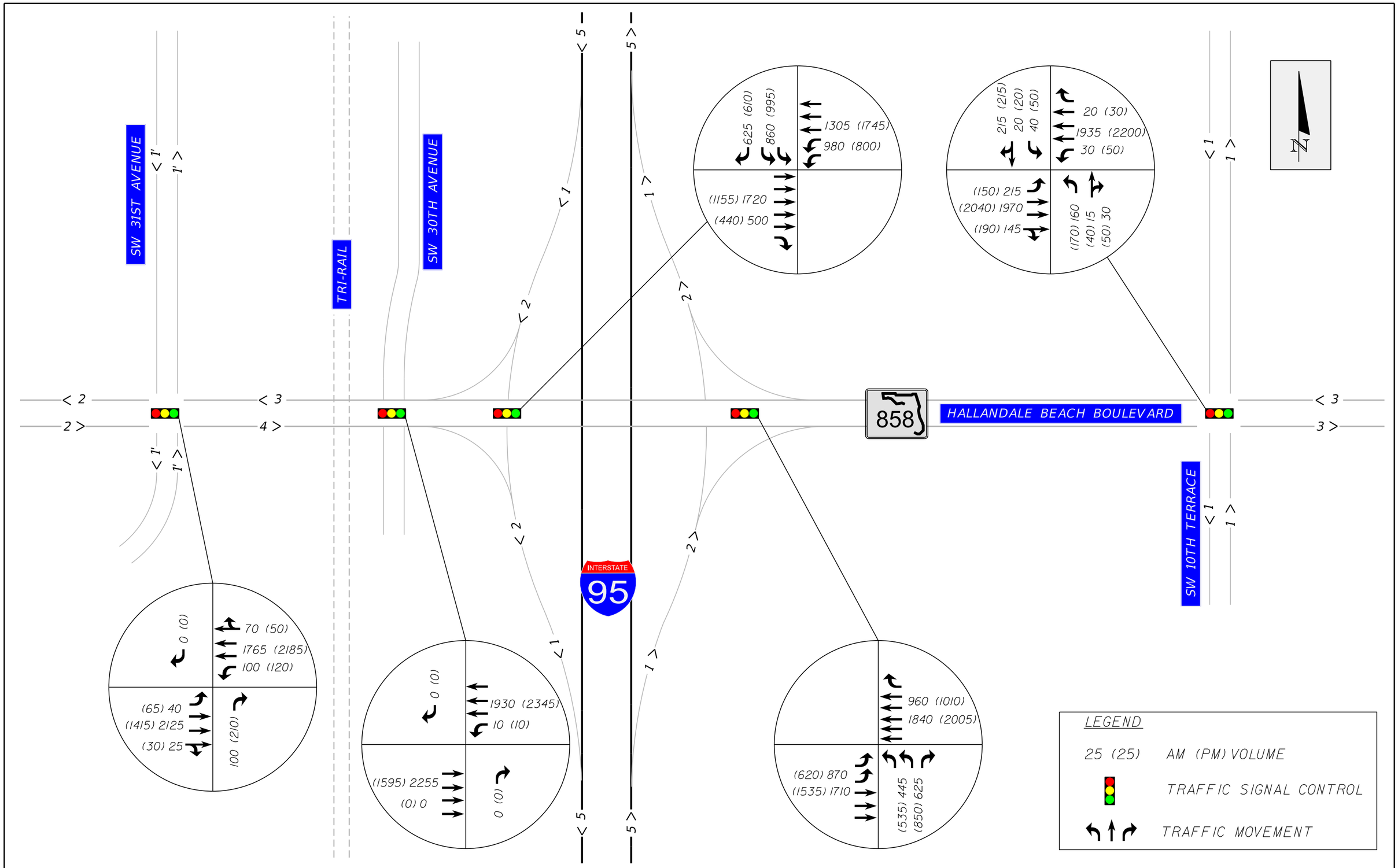
LEGEND

25 (25) AM (PM) VOLUME

TRAFFIC SIGNAL CONTROL

TRAFFIC MOVEMENT

FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	2030 Future Traffic Volumes from ICDR	Figure 5



FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	2040 Future Traffic Volumes from ICDR	Figure 6

4.3 Future Traffic Operational Analysis

4.3.1 Intersection Analysis

Traffic operations analysis was conducted for the Opening Year (2020), Interim Year (2030), and Design Year (2040) for both the No Build and Build scenarios using Synchro 9 and Highway Capacity Manual 2000 methodology. The No Build analyses were previously prepared under the ICDR, and is reported herein unchanged from that document.

Future year analyses of both the No Build[5] and Build scenarios included an optimization of each intersection's signal timing phases, while retaining the cycle length, phasing, and actuated-uncoordinated signalization of the corridor. Such optimization may improve the overall intersection's operation at the expense of adding more delay to a singular movement. However, excessive optimization was minimized to present a realistic traffic operations assessment of the interchange study area.

Build scenario traffic operational analyses were conducted given the proposed improvement to add a second northbound right-turn lane at the I-95 northbound exit ramp termini intersection. Also, this movement is proposed to be signalized. Further, the southbound right-turn lane movement at the I-95 southbound exit ramp termini intersection is proposed to be signalized and its storage area lengthened to approximately 700 feet. The results of the traffic operations analysis are summarized below. The proposed lane geometry is depicted in Figure 6.

No Build Scenario

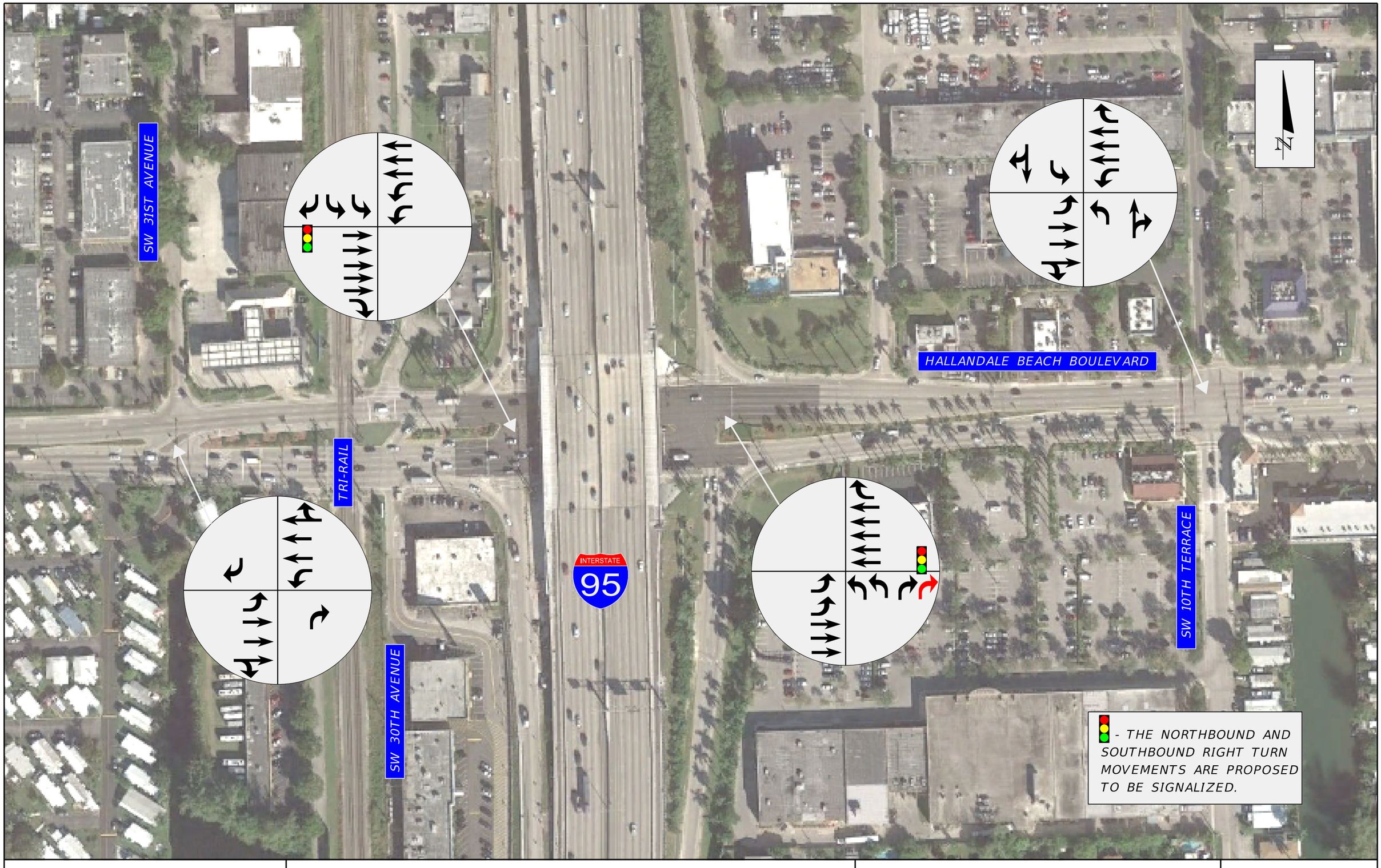
I-95 Northbound Exit Ramp Termini Intersection - Measures of Effectiveness (MOEs) reported include delay, level of service, and queue length. A summary of the MOEs is provided in Tables 1, 2, and 3, and includes analysis of 2020, 2030, and 2040 conditions. The HCM intersection analysis worksheets of the future No Build conditions traffic operational analyses, as reported in the ICDR, are excerpted and provided in Appendix E.

Results indicate that without capacity improvements at the ramp termini intersections, AM and PM peak hour operations by 2040 would degrade as compared to current conditions. Analysis of the No Build scenario (2040) indicates that the I-95 northbound exit ramp right-turn movement will operate at LOS F during the AM and PM peak hours with delays of approximately 580 and 320 seconds per vehicle, respectively. Queue lengths for the northbound right turn are expected to surpass 750 feet during the AM peak hour and 1,050 feet during the PM peak hour. Such queues far exceed the available storage of 250 feet currently provided. If realized, such a queue would extend upstream along the ramp approaching the gore where motorists exit I-95. This would result in significant delay and safety concerns for drivers stopped on the I-95 northbound exit ramp.

[5] *Interchange Concept Development Report – I-95 at Hallandale Beach Boulevard, January 2016*

I-95 Southbound Exit Ramp Termini Intersection - At the I-95 southbound exit ramp termini intersection in the No Build scenario, the right-turn movement will operate at LOS E with delays of about 64 seconds per vehicle during the 2040 AM peak hour, and at LOS D with about 43 seconds of delay per vehicle during the 2040 PM peak hour. Forecasted queues are expected to exceed 570 feet during the AM peak hour, and only about 120 feet during the PM peak hour. Excerpts from the ICDR No Build condition traffic operational analyses are included in Appendix E.

During the morning peak period, such queues would extend upstream on the ramp just beyond the existing right-turn lane storage area. As a result, the spillback of right-turning vehicles would begin to impact the southbound left-turn movement. Without improvements, the southbound right-turn queue would begin to block entry into the adjacent turn lane.



FDOT	I-95 at SR-858/Hallandale Beach Boulevard IOAR Broward County, Florida	Proposed Lane Geometry	Figure 7

Table 1

AM Peak Hour Delay and Level of Service Summary (No Build and Build Lane Geometry)

I-95 at Hallandale Beach Boulevard IOAR

Intersection	Appr.	Mvmt.	No Build (2020)				Build (2020)				No Build (2030)				Build (2030)				No Build (2040)				Build (2040)			
			Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-95 NB Off/On-Ramp at Hallandale Beach Blvd.	EB	LT	88.6	F	90.0	F	88.6	F	78.5	E	111.0	F	115.9	F	111.0	F	99.7	F	157.8	F	128.0	F	157.8	F	101.7	F
		TH	11.4	B			11.4	B			10.1	B			10.1	B			8.4	A			8.4	A		
	WB	TH	157.6	F			157.6	F			207.7	F			207.7	F			137.4	F			137.4	F		
		RT	11.7	B			11.7	B			17.4	B			17.4	B			30.2	C			30.2	C		
	NB	LT	35.1	D			35.1	D			37.6	D			37.6	D			61.8	E			61.8	E		
		RT	225.9	F			108.7	F			324.0	F			158.3	F			582.8	F			312.2	F		
SW 31st Ave at Hallandale Beach Blvd.	EB	LT	2.0	A	11.9	B					2.3	A	15.0	B					2.5	A	20.8	C				
		TH/RT	22.1	C							27.3	C							38.3	D						
	WB	LT	12.0	B							12.7	B							9.8	A						
		TH/RT	1.5	A							1.6	A							1.6	A						
	NB	RT	14.8	B							15.0	B							17.4	B						
SW 30th Ave at Hallandale Beach Blvd.	EB	TH/RT	37.8	D	20.5	C					127.0	F	68.1	E					42.4	D	23.7	C				
	WB	LT	14.5	B							13.3	B							17.8	B						
		TH	1.5	A							1.6	A							1.6	A						
I-95 SB Off/On-Ramp at Hallandale Beach Blvd.	EB	TH	63.2	E	54.6	D	63.2	E	54.6	D	147.0	F	88.6	F	147.5	F	88.6	F	51.1	D	66.9	E	51.1	D	66.9	E
		RT	4.4	A			4.4	A			4.7	A			4.7	A			4.3	A			4.3	A		
	WB	LT	160.0	F			160.0	F			219.8	F			219.8	F			231.6	F			231.6	F		
		TH	12.3	B			12.3	B			13.8	B			13.8	B			15.4	B			15.4	B		
	SB	LT	22.5	C			22.5	C			22.8	C			22.8	C			27.4	C			27.4	C		
		RT	21.6	C			21.6	C			27.2	C			27.2	C			63.9	E			63.9	E		
SW 10th Ter. at Hallandale Beach Blvd.	EB	LT	13.7	B	14.5	B					49.9	D	22.6	C					86.8	F	34.4	C				
		TH/RT	10.3	B							15.6	B							20.7	C						
	WB	LT	7.7	A							12.8	B							19.4	B						
		TH	12.1	B							21.1	C							38.3	D						
		RT	7.0	A							10.9	B							16.2	B						
	NB	LT	69.9	E							73.4	E							76.2	E						
		TH/RT	59.2	E							52.4	D							48.0	D						
	SB	LT	61.7	E							54.6	D							50.2	D						
		TH/RT	59.4	E							55.4	E							52.7	D						

Notes:

1) Build improvements represent Traffic Operations improvements (and include adding a 2nd NB right-turn lane)

2) Level of Service and delay results based on Highway Capacity Manual Signalized Intersecction Capacity Analysis (HCM 2000) methodology.

3) All 2020 No-Builds and 2040 No-Builds are referenced from ICDR 2012

4) Intersection SW 10th Terrace at Hallandale Beach Boulevard's 2020 No-Build, 2030 No-Build and 2040 No-Build level of service and delay results are based on Highway Capacity Manual 2010 (HCM 2010) methodology

5) 2030 Build and No-Build analyses are developed from 2020 No-Build data

6) 2040 Build analyses are developed from 2040 No-Build Synchro files form ICDR

Table 2

PM Peak Hour Delay and Level of Service Summary (No Build and Build Lane Geometry)

I-95 at Hallandale Beach Boulevard IOAR

Intersection	Appr.	Mvmt.	No Build (2020)				Build (2020)				No Build (2030)				Build (2030)				No Build (2040)				Build (2040)			
			Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection		Approach		Overall Intersection	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
I-95 NB Off/On-Ramp at Hallandale Beach Blvd.	EB	LT	37.7	D	59.8	E	37.7	D	38.2	D	38.2	D	80.1	F	38.2	D	48.7	D	48.4	D	103.7	F	48.4	D	72.1	E
		TH	12.7	B			12.5	B			12.7	B			12.7	B			16.1	B			16.1	B		
	WB	TH	54.9	D			54.9	D			69.2	E			69.2	E			150.9	F			150.9	F		
		RT	14.9	B			14.9	B			21.0	C			21.0	C			30.8	C			30.8	C		
	NB	LT	34.6	C			34.9	C			35.9	D			35.9	D			31.7	C			31.7	C		
		RT	247.7	F			70.4	E			360.8	F			112.2	F			323.1	F			79.4	E		
SW 31st Ave at Hallandale Beach Blvd.	EB	LT	2.6	A	11.4	B					4.7	A	12.3	B					26.0	C	16.6	B				
		TH/RT	28.4	C							29.9	C							40.7	D						
	WB	LT	6.8	A							8.4	A							4.6	A						
		TH/RT	1.6	A							1.6	A							1.7	A						
	NB	RT	13.5	B							14.1	B							12.3	B						
SW 30th Ave at Hallandale Beach Blvd.	EB	TH	12.6	B	5.9	A					25.8	C	11.2	B					33.8	C	14.6	B				
	WB	LT	18.3	B							16.0	B							7.9	A						
		TH	1.6	A							1.6	A							1.7	A						
I-95 SB Off/On-Ramp at Hallandale Beach Blvd.	EB	TH	17.2	B	25.1	C	17.3	B	25.1	C	19.1	B	31.7	C	19.1	B	31.7	C	22.0	C	43.8	D	22.0	C	43.8	D
		RT	1.5	A			1.5	A			1.9	A			1.9	A			4.9	A			4.9	A		
	WB	LT	53.7	D			53.7	D			91.8	F			91.8	F			163.3	F			163.3	F		
		TH	15.5	B			15.5	B			18.9	B			18.9	B			24.4	C			24.4	C		
	SB	LT	24.6	C			24.6	C			26.3	C			26.3	C			24.5	C			24.5	C		
		RT	40.4	D			40.4	D			40.4	D			40.4	D			43.0	D			43.0	D		
SW 10th Ter. at Hallandale Beach Blvd.	EB	LT	27.8	C	21.5	C					49.6	D	26.8	C					68.6	E	33.8	C				
		TH/RT	15.1	B							18.6	B							19.3	B						
	WB	LT	11.8	B							16.3	B							19.7	B						
		TH	19.4	B							25.9	C							32.3	C						
		RT	10.0	B							12.0	B							12.7	B						
	NB	LT	74.8	E							86.0	F							187.3	F						
		TH/RT	53.1	D							50.3	D							52.1	D						
	SB	LT	57.4	E							54.4	D							56.4	E						
		TH/RT	54.4	D							53.6	D							59.3	E						

Notes:

1) Build improvements represent Traffic Operations improvements (and include adding a 2nd NB right-turn lane)

2) Level of Service and delay results based on Highway Capacity Manual Signalized Intersecction Capacity Analysis (HCM 2000) methodology.

3) All 2020 No-Builds and 2040 No-Builds are referenced from ICDR 2012

4) Intersection SW 10th Terrace at Hallandale Beach Boulevard's 2020 No-Build, 2030 No-Build and 2040 No-Build level of service and delay results are based on Highway Capacity Manual 2010 (HCM 2010) methodology

5) 2030 Build and No-Build analyses are developed from 2020 No-Build data

6) 2040 Build analyses are developed from 2040 No-Build Synchro files form ICDR

Table 3
Queuing Analysis (No Build and Build Lane Geometry Comparison)
I-95 at Hallandale Beach Boulevard IOAR

Intersection	Movement	Storage (ft)	95th Percentile Queue Length (ft)												
			AM							PM					
			Existing (2012)	No Build 2020	Build 2020	No Build 2030	Build 2030	No Build 2040	Build 2040	No Build 2020	Build 2020	No Build 2030	Build 2030	No Build 2040	Build 2040
I-95 NB Off/On Ramp at Hallandale Beach Blvd.	EBL	210	m#281	m#262	m#262	m225	m225	m#358	m#358	#347	#347	m#337	m#337	m#304	m#304
	EBT		m138	m143	m143	m119	m119	m120	m102	230	230	269	269	m314	m314
	WBT		#330	#384	#384	#433	#433	#473	#473	#330	#330	#367	#367	#433	#433
	WBR	170	277	358	358	#556	#556	#870	#870	552	552	#846	#846	#987	#987
	NBL	310	117	131	131	160	160	#245	#245	165	165	203	203	223	223
	NBR	250	#478	#491	#312	#577	#360	#752	#463	#780	#407	#945	#500	#1053	#525
SW 31st Ave. at Hallandale Beach Blvd.	EBL	110	0	0	0	0	0	0	0	0	0	0	0	#28	#28
	EBT		269	319	319	428	428	#632	#632	310	310	354	354	434	434
	WBL	140	0	4	4	10	10	20	20	1	1	9	9	12	12
	WBT		0	0	0	0	0	0	0	0	0	0	0	0	0
	NBR		0	0	0	11	11	34	34	12	12	52	52	85	85
SW 30th Ave. at Hallandale Beach Blvd.	EBT/R		19	#656	#656	#851	#851	m#666	m#666	85	85	#629	#629	#551	#551
	WBL	100	m1	m5	m5	m4	m4	m2	m2	m4	m4	m2	m2	m1	m1
	WBT		0	0	0	0	0	0	0	32	32	32	32	33	33
I-95 SB Off/On Ramp at Hallandale Beach Blvd.	EBT		#360	m#252	m#252	m#200	m#200	m#225	m#225	m171	172	m155	m155	m143	m143
	EBR	230	0	m1	m1	m1	m1	m3	m3	m0	m0	m0	m0	m0	m0
	WBL		m#289	m#234	m#234	m#238	m#238	m#361	m#361	m#310	m#310	m#329	m#329	m#287	m#287
	WBT		m66	m68	m68	m80	m80	m109	m109	m115	m115	m134	m134	m462	m462
	SBL	450	259	240	240	248	248	294	294	259	259	309	309	337	337
	SBR	620	159	210	210	317	317	#571	#571	114	114	114	114	120	120
SW 10th Ter. at Hallandale Beach Blvd.	EBL	210	39	108	108	#249	#249	#378	#378	121	121	#193	#193	#265	#265
	EBT		338	393	393	483	483	622	622	404	404	514	514	623	623
	WBL	180	20	20	20	23	23	26	26	31	31	31	31	54	54
	WBT		462	599	599	760	760	956	956	701	701	832	832	957	957
	WBR	400	0	0	0	0	0	0	0	1	1	1	1	1	1
	NBL	425	255	248	248	#294	#294	#334	#334	#306	#306	#345	#345	#401	#401
	NBT		46	45	45	48	48	50	50	105	105	105	105	107	107
	SBL	175	76	74	74	73	73	72	72	88	88	88	88	90	90
	SBT		41	60	60	118	118	215	215	148	148	216	216	290	290

Notes:

1) 95th percentile queue length based on Synchro 8 methodology

- 95th percentile volume exceeds capacity, queue may be longer

m - volume for 95th percentil queue is metered by upstream signal

Build Scenario

I-95 Northbound Exit Ramp Termini Intersection - The Build scenario includes the proposed improvement to signalize the I-95 northbound exit ramp termini right-turn movement and add a second northbound right-turn lane, as depicted in the District's concept plan in Appendix A. These IOAR improvements are intended to provide short-term relief for the interchange in lieu of the No Build condition. Long term improvements will be identified as part of FDOT's Project Development and Environment (PD&E) Study planned for I-95 between Hallandale Beach Boulevard and Hollywood Boulevard. This PD&E Study is funded for fiscal year 2017.

Traffic operations results indicate that with such an improvement, the northbound right turn would still operate at Level of Service F in 2020, 2030, and 2040 during the AM peak hour. The northbound right turn would operate at LOS E in 2020, LOS F in 2030, and LOS E in 2040 during the PM peak hour. However, in 2020 there is an anticipated reduction in delay during the AM peak hour from 225 seconds per vehicle to 109 seconds per vehicle, which is a 52% reduction. During the 2020 PM peak hour, the delay will be reduced from 248 seconds per vehicle to 70 seconds, which equates to a 72% reduction. Traffic operational analyses of future year Build conditions are summarized in Tables 1, 2, and 3, and are included in Appendix F.

Delays for the northbound right-turn movement are also substantially reduced during 2030 peak hour conditions due to the proposed improvement. Results indicate that vehicular delays during the 2030 AM peak hour are reduced from 320 seconds per vehicle to 158 seconds per vehicle. This represents a 51% delay reduction. During 2030 PM peak hour conditions delays for the northbound right turn will be reduced from 360 seconds per vehicle to 112 seconds per vehicle, which is a 69% reduction.

Finally, vehicular delays in 2040 for the northbound right-turn movement will be reduced from 582 seconds per vehicle to 312 seconds per vehicle during the AM peak hour. Although the movement will continue to operate at LOS F, the AM peak hour delays will be reduced by 46%. Delays during the 2040 PM peak hour would decrease from 323 seconds per vehicle to 79 seconds per vehicle, which is a 75% reduction. Traffic operational analyses of future year Build conditions are summarized in Tables 1, 2, and 3, and are included in Appendix F.

Most importantly, queue lengths for the northbound right-turn movement are projected to be reduced to approximately 465 feet during the 2040 AM peak hour and 525 feet during the 2040 PM peak hour. Given that the available storage length for the proposed two right-turn lanes is about 525 feet, the proposed improvement can sufficiently store the queued vehicles without impacting ramp operations or the I-95 mainline through 2040.

I-95 Southbound Exit Ramp Termini Intersection - At the I-95 southbound exit ramp, improvements proposed under the Build scenario include signalizing the right-turn movement and lengthening the right-turn lane storage to approximately 700 feet. Results of traffic operations analysis indicate that the southbound right-turn movement would operate similarly to the No Build condition during the 2020, 2030, and 2040 AM and PM

peak hours. Levels of service and vehicular delay are nearly identical when compared to the No Build results. During 2020 and 2030 conditions, the southbound right-turn is expected to operate at LOS C during the AM peak hour, and LOS D during the PM peak hour. By 2040, the southbound right-turn is expected to operate at LOS E during the AM peak hour and LOS D during the PM peak period.

Queue lengths for the southbound right-turn movement will remain unchanged when compared to the No Build results. Results indicate that the estimated southbound right-turn queue length during the 2040 AM peak hour will be approximately 570 feet, while during the 2040 PM peak hour it will be only 120 feet. With the proposed lengthening of the southbound right-turn storage to approximately 700 feet, the additional vehicular storage will accommodate ramp vehicles without affecting the I-95 southbound mainline or the adjacent lane on the I-95 southbound exit ramp through 2040. Traffic operational analyses of future year Build conditions are included in Appendix F.

4.4 Related Plans and Projects

4.4.1 Metropolitan Planning Organization Plans

The Broward MPO has not identified any projects in its 2040 Long Range Transportation Plan (LRTP) that include Hallandale Beach Boulevard within the study area.

4.4.2 County and Local Agency Plans and Projects

The City of Hallandale Beach and the Town of Pembroke Park have not identified this portion of Hallandale Beach Boulevard or I-95 for any roadway improvements in their current Transportation Improvement Plans (TIP).

4.4.3 Department Plans and Projects

The current FDOT 5-Year Work Program includes the traffic safety project for Hallandale Beach Boulevard from east of the railroad crossing to west of Ansin Boulevard (Project No. 436111-1). This project incorporates traffic signal updates and safety enhancements, which are identified and analyzed herein. The engineering design for those improvements is funded for 2017, while their construction is funded for 2019.

Additionally, a PD&E Study for I-95 from south of Hallandale Beach Boulevard to north of Hollywood Boulevard is programmed in the FDOT 5-Year Work Program. This study is funded for 2017. Excerpts of Project No. 436111-1 and the I-95 PD&E Study from the FDOT 5-Year Work Program are included in Appendix G.

5 Assessment of FHWA's Policy on Access to Interstate System

The FHWA's Policy on Access to the Interstate System provides the requirements for the justification and documentation necessary to substantiate any proposed changes in access to the Interstate System. The policy is published under the Federal Register, Volume 74, Number 165, dated August 27, 2009. The responses provided herein for each of the eight policy statements demonstrate compliance with these requirements and justification for the proposed interchange improvements at I-95 and Hallandale Beach Boulevard in Broward County, Florida.

Policy:

It is in the national interest to preserve and enhance the Interstate System to meet the needs of the 21st Century by assuring that it provides the highest level of service in terms of safety and mobility. Full control of access along the Interstate mainline and ramps, along with control of access on the crossroad at interchanges, is critical to providing such service. Therefore, FHWA's decision to approve new or revised access points to the Interstate System must be supported by substantiated information justifying and documenting that decision. The FHWA's decision to approve a request is dependent on the proposal satisfying and documenting the following requirements.

Considerations and Requirements:

1. ***The need being addressed by the request cannot be adequately satisfied by existing interchanges to the Interstate, and/or local roads and streets in the corridor can neither provide the desired access, nor can they be reasonably improved (such as access control along surface streets, improving traffic control, modifying ramp terminals and intersections, adding turn bays or lengthening storage) to satisfactorily accommodate the design-year traffic demands (23 CFR 625.2(a)).***

   The Interchange Operational Access Report (IOAR) was developed to support the design-year traffic demands, operations and engineering acceptability of proposed turn lanes, traffic signal modifications, and lengthening of storage at the I-95 at Hallandale Beach Boulevard interchange. The IOAR is the culmination of a traffic analysis process that examined numerous design concepts for improvements at the interchange and within the interchange influence area to meet the future traffic forecast and provide congestion relief at the off-ramps. The recommended interchange improvements contained in the report would enhance access and regional mobility. This need cannot be adequately satisfied by other network improvements.

   The IOAR performed an operations analysis of the No Build Alternative. The analysis demonstrated that the No Build Alternative will not provide acceptable traffic operations to adequately serve the future transportation demand. In the future year (2040) analysis, the No Build Alternative would produce operational failures at intersections within the interchange influence area that would impact I-95 northbound off-ramp movements. The northbound right-turn movement at the ramp termini

intersection is projected to operate at Level of Service F with more than 580 seconds of delay during the 2040 AM peak hour. Northbound exist ramp queues for the right-turn movement are projected to exceed 1,050 feet if no improvements are constructed. Such a queue would impact I-95 northbound exit ramp operations and approach the gore area near the I-95 mainline.

FDOT District Four Traffic Operations Office prepared a safety study of Hallandale Beach Boulevard at the I-95 off-ramps. Using crash data collected from 2009 through 2011, it was concluded that 48 rear-end crashes involved right-turn vehicles from the northbound and southbound off-ramps. It was noted in the safety study that the northbound and southbound right-turn movements are channelized movements controlled by Yield signs. The study's findings indicated this channelization may incorrectly appear to right-turn motorists as a free-flow lane, which results in drivers making abrupt stops. Consequently, trailing vehicles may not be able to react in time to avoid rear-ending the lead vehicle. Signalizing the right turn movements at the northbound and southbound off-ramp termini intersections is calculated to result in 14.1 fewer crashes per year, based on benefit analysis incorporating crash reduction factors.

2. ***The need being addressed by the request cannot be adequately satisfied by reasonable transportation system management (such as ramp metering, mass transit, and HOV facilities), geometric design, and alternative improvements to the Interstate without the proposed change(s) in access (23 CFR 625.2(a)).***

There is no proposed change in access to the interstate, and all ramp gores and connections to the interstate will remain in the current configuration. Rather, transportation system management techniques, such as adding turn lanes and signalizing movements at the ramp termini intersections, are sufficient to address the traffic operational and safety deficiencies within the interchange influence area. Since the northbound right-turn volume discharged from the I-95 at Hallandale Beach Boulevard interchange exceeds the current and future capacity for the movement, substantial delays and queues are the result. Signalizing this northbound right-turn movement and adding a second northbound right-turn lane will alleviate the congestion at the ramp termini intersection and reduce the peak hour queues such that they do not approach the gore area near the I-95 mainline. Further, signalizing the southbound right turn movement will reduce expected rear end crashes and create a safer driving environment. The improvement will minimize driver error associated with the misperception that the right turn is a free-flow movement, which causes motorists to abruptly stop at the ramp termini intersection with Hallandale Beach Boulevard.

The current transit system is not planned to be expanded within the influence area. Since land uses within the area lack concentrated employment centers, there are no defined termini or corridor trip destinations worthy of consideration for substantial transit improvements.

Overall, traffic management and alternative mode strategies would not be effective in fully addressing the mobility needs at the I-95 and Hallandale Beach Boulevard interchange and its influence area.

3. ***An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis shall, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (23 CFR 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, shall be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access must include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request must also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).***

   The operational analysis conducted for the IOAR confirmed that the proposed improvements to the off-ramp termini intersections are not expected to have any significant adverse impacts on safety and operations on the interstate facility (I-95). On the contrary, the improvements are expected to alleviate congestion and queues to improve operations and safety at the intersections of the off-ramps with the crossroad. The construction of a second right turn lane at the I-95 northbound off-ramp and placing the right turn movement under signal control will reduce peak hour delays and queues over the long term. The I-95 southbound off-ramp improvement will signalize the right-turn movement and lengthen the vehicular storage area. Under the Build Alternative, the peak hour queues will be accommodated within the proposed storage areas, and will not affect the operation of the adjacent lane on the I-95 southbound exit ramp, nor will it impact the operations of the I-95 northbound exit ramp.

   In addition, the proposed interchange improvements to signalize the southbound right-turn movement and lengthen the storage lane will enhance safety within the study area. Crashes correctable through signalization involve interactions between vehicles on Hallandale Beach Boulevard and vehicles attempting to enter the intersection from the I-95 southbound exit ramp. Signalizing the movement will reduce these potential rear end crashes and provide an orderly progression of traffic flow through the study area.

   The preliminary design plans indicate that the Build Alternative can be designed and implemented in accordance with all applicable safety standards, as dictated by FDOT and FHWA Highway Design Standards. The proposed project will not introduce any adverse safety conditions along I-95. Furthermore, with the proposed improvements at the off-ramp terminal intersections (turn lane addition and signalization of right turn movements), it is anticipated that the I-95 interchange will experience a corresponding reduction in crashes – particularly as it relates to angle crashes and sideswipes experienced during peak periods with substantial congestion.

The Concept Plan for I-95 at Hallandale Beach Boulevard does include a comprehensive signing plan for the affected interchange movements. The conceptual signing plan is presented under Appendix A.

4. ***The proposed access connects to a public road only and will provide for all traffic movements. Less than ``full interchanges'' may be considered on a case-by-case basis for applications requiring special access for managed lanes (e.g., transit, HOVs, HOT lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)).***

   The existing interchange at I-95 and Hallandale Beach Boulevard will continue to provide and maintain all connections between the interstate travel lanes and the crossroad. The proposed improvements only involve the addition of a right turn lane, lengthening of storage, and signalization of right turn movements at the off-ramp intersections. The improvements will be designed using the latest design criteria and safety techniques which will meet or exceed current FDOT standards and FHWA Design Standards for Interstate Systems. All existing and proposed connections involve public roads only.

5. ***The proposal considers and is consistent with local and regional land use and transportation plans. Prior to receiving final approval, all requests for new or revised access must be included in an adopted Metropolitan Transportation Plan, in the adopted Statewide or Metropolitan Transportation Improvement Program (STIP or TIP), and the Congestion Management Process within transportation management areas, as appropriate, and as specified in 23 CFR part 450, and the transportation conformity requirements of 40 CFR parts 51 and 93.***

   The current FDOT 5-Year Work Program includes the traffic safety project for Hallandale Beach Boulevard from east of the railroad crossing to west of Ansin Boulevard (Project No. 436111-1). This project incorporates the traffic signal updates and safety enhancements within the interchange influence area analyzed by this IOAR. The engineering design for those improvements is funded for 2017, while their construction is funded for 2019.

   The proposed interchange improvements are consistent with the development plans that have been adopted by the Broward County Metropolitan Planning Organization (MPO) and the Broward County MPO Long Range Transportation Plan (LRTP). Further, the proposed interchange improvements are consistent with the City of Hallandale Beach's and the Town of Pembroke Park's TIP.

   The proposed improvements to Hallandale Beach Boulevard are also consistent with congestion management objectives as outlined in Broward County Congestion Management Plan and its LRTP.

6. ***In corridors where the potential exists for future multiple interchange additions, a comprehensive corridor or network study must accompany all requests for new or revised access with recommendations that address all of the proposed and desired access changes within the context of a longer-range system or network plan (23 U.S.C. 109(d), 23 CFR 625.2(a), 655.603(d), and 771.111).***

   The IOAR addresses the existing and future interchange needs along I-95 within the study area. The proposed interchange improvements at I-95 and Hallandale Beach Boulevard were developed, in part, based upon a comprehensive I-95 corridor master plan study and I-95 Express Phase 2 Project Development and Environment (PD&E) study. These were prepared consistent with the long-term vision for the corridor.

   There are no additional planned interstate access points within the study area. Further, the interchange improvement plans at I-95 and Hallandale Beach Boulevard will not affect potential improvements to adjacent interchanges.

7. ***When a new or revised access point is due to a new, expanded, or substantial change in current or planned future development or land use, requests must demonstrate appropriate coordination has occurred between the development and any proposed transportation system improvements (23 CFR 625.2(a) and 655.603(d)). The request must describe the commitments agreed upon to assure adequate collection and dispersion of the traffic resulting from the development with the adjoining local street network and Interstate access point (23 CFR 625.2(a) and 655.603(d)).***

   The I-95 at Hallandale Beach Boulevard interchange improvements are proposed to primarily serve regional mobility needs, and is not being driven by a proposed development or land use change. Regional mobility needs have steadily increased due to population and employment growth in the area and the resulting congestion on other regional roadways. No agreements regarding the completion of connecting facilities or other funding provisions affect the implementation of this project.

8. ***The proposal can be expected to be included as an alternative in the required environmental evaluation, review and processing. The proposal should include supporting information and current status of the environmental processing (23 CFR 771.111).***

   The proposed interchange improvements at I-95 and Hallandale Beach Boulevard were developed, in part, based upon a comprehensive I-95 corridor master plan study and the I-95 Express Phase 2 Project Development and Environment (PD&E) study from Miami-Dade County line to Broward Boulevard. To date, no significant and adverse environmental impacts have been identified from a planning and environmental perspective concerning the proposed interim improvements at I-95 at Hallandale Beach Boulevard interchange. The proposed improvements will be constructed within the existing right-of-way. Extensive multi-agency environmental permit coordination will occur between state and local agencies during this project.

6 Conclusions and Recommendations

Florida Department of Transportation (FDOT) District 4 initiated an assessment of the I-95 at Hallandale Beach Boulevard interchange in 2014 by commissioning an Interchange Concept Development Report (ICDR). In addition, a safety evaluation at the ramp termini intersections of the interchange was performed by the District's Traffic Operations Office in 2013. Both evaluations identified deficiencies, and in an effort to address these concerns, FDOT initiated this Interchange Operational Analysis Report (IOAR) to assess alternatives for improving traffic operations and safety.

Currently, motorists at the I-95 northbound off-ramp termini experience excessive delays and queuing during the morning and afternoon peak hours of operation. During peak hours, the maximum queue from the signalized northbound ramp termini intersection extends beyond the storage area allocated for the right-turn movement. Enhancements to the northbound exit ramp termini are intended to add capacity and vehicular storage for the northbound right-turn movement.

The District's Traffic Operations Office identified the I-95 southbound ramp termini intersection as a candidate to improve safety. Crash analysis revealed a large number of correctable crashes associated with the southbound right-turn movement, which currently operates under yield control. The safety study prepared in May 2013 found that this channelization may incorrectly appear to right-turn motorists as a free-flow lane, which causes drivers to abruptly stop. This results in an increase in potential rear end crashes with vehicles traveling on westbound Hallandale Beach Boulevard. It was concluded that the yield control combined with driver error contributes to rear end crashes at the I-95 southbound off-ramp termini intersection. The proposed signalization of the southbound right-turn movement and lengthening of the right-turn lane storage area are intended to improve traffic safety at the I-95 southbound off-ramp.

Overall, these IOAR improvements are intended to provide short-term relief for the interchange in lieu of the No Build condition. Long term improvements will be identified as part of FDOT's Project Development and Environment (PD&E) Study planned for I-95 between Hallandale Beach Boulevard and Hollywood Boulevard. This PD&E Study is funded for fiscal year 2017. The proposed short term IOAR improvements are summarized below.

a) Add a second right-turn lane at the I-95 northbound exit ramp termini intersection with Hallandale Beach Boulevard, lengthen the storage area to approximately 525 feet, and signalize the northbound right-turn movement.

b) Signalize the right-turn lane at the I-95 southbound exit ramp termini intersection and lengthen the right-turn lane to approximately 700 feet.

The proposed improvements reduce vehicular delay and queue lengths on the I-95 northbound exit ramp. Motorists will be safely stored in the respective right and left-turn

storage areas and their impact upon I-95 northbound mainline operations and the I-95 northbound exit ramp serving Hallandale Beach Boulevard will be mitigated.

The signalization of the I-95 southbound right-turn movement and the lengthening of the right-turn lane storage area creates a safer driving environment for motorists as they enter the intersection at Hallandale Beach Boulevard. It also ensures that vehicles will be stored in the right-turn lane, and not spillback onto the adjacent lanes of the I-95 southbound exit ramp.

6.1 Schedule

This concept has been implemented into the Work Program for the next phases of design for Fiscal Year 2017 and construction in Fiscal Year 2019. FPID 436111-1 has been assigned to the improvements at the southbound and northbound ramps.

6.2 Funding and Construction Costs

Funding for the concepts proposed herein for design and construction will come from Safety Funds. A Long Range Estimate (LRE) of the construction cost indicated $1,883,454.50 was necessary to build the improvements. Cost estimates were prepared by the District's Traffic Operations Office based on an engineer's probable opinion of cost using current LRE base costs. The District's LRE is included in Appendix H.

6.3 Benefit-Cost Analysis

At the I-95 and Hallandale Beach Boulevard northbound and southbound exit ramp termini intersections, motorists negotiate excessive congestion on a daily basis. Northbound and southbound queues routinely back-up on the exit ramps causing vehicular delay. Current northbound capacity and turn lane storage areas are anticipated to be insufficient in accommodating future year volumes for the off-ramp movements.

By constructing a second northbound right-turn lane at the I-95 northbound exit ramp termini intersection, additional storage area and capacity will be provided. These short term improvements result in reduced congestion and delay for motorists, as well as reduce the potential of queues impacting the I-95 mainline.

Signalizing the southbound right-turn movement is expected to reduce the number of rear end crashes on the southbound exit ramp. The improvement will minimize the driver misconception that the southbound right turn is a free flow movement, which results in abrupt stops at the exit ramp termini intersection.

A quantitative benefit-cost analysis was performed to assess the value of reducing delay and congestion at the interchange of I-95 and Hallandale Beach Boulevard. The cost of AM and PM peak hour delay calculated for the interchange under the 2040 No Build Condition and the Build Condition was compared.

Additionally, the District's Traffic Operations Office's safety study prepared in May 2013 quantified the safety benefit associated with the expected reduction in crashes due to

signalizing the northbound and southbound right-turn movements at the exit ramp termini intersections. It was concluded in that study that these improvements will result in 14.1 fewer crashes each year. The findings from the safety study's benefit-cost analysis indicate that the expected crash reduction because of the improvements will result in a monetary benefit of $1,517,978 per year. An excerpt of the benefit-cost analysis from the safety study is included in Appendix I.

Results indicate that the travel time savings because of the recommended Build Condition would save $4.75 million in 2040. This is based on a conservative estimate of the monetized value of delay of $16.80 per vehicle-hour for South Florida commuters[6]. Coupled with the expected crash reduction safety benefit, the combined safety and travel time savings benefits total approximately $6.27 million in 2040. Given that the estimated cost of the project is $1.89 million, the monetary benefits of the Build Condition exceed the cost of the improvements. The benefit analysis is included in Appendix I.

The Net Present Value (NPV) of these benefits was also calculated relative to the current cost of the proposed improvements. Given a discount rate of 7%, consistent with the NPV analysis conducted by FDOT, and assuming an opening year of 2020, the 2040 travel time savings and crash reduction benefits were calculated for each year between 2020 and 2040. These combined savings were amortized to a present day value of $41.5 million in benefits, which equates to a benefit-cost ratio of approximately 22.1. The resultant NPV, which reflects the difference between the net present value of the project's benefits and costs, is $39.7 million. The NPV analysis is included in Appendix I.

Overall, the recommended improvements will facilitate the safe and efficient flow of vehicles through the I-95 interchange with Hallandale Beach Boulevard, and improve operations and safety within the study area for the near future.

[6] *Southeast Florida Road and Transit User Cost Study – 2014 Update*

Appendix A

FDOT Traffic Operations Office

Conceptual Design Plan

ADDITIONAL IMPROVEMENTS:
1. INSTALL RPM'S AND YELLOW PAINT ON ALL ISLANDS
2. REPAIR LIGHTS ON THE GUIDE SIGN FACING WB TRAFFIC.
3. INSTALL BACK PLATES WITH RETRO- REFLECTIVE YELLOW TAPE ON SIGNAL HEADS FACING EB AND WB TRAFFIC.
4. REPLACE EXISTING PEDESTRAIN SIGNALS WITH COUNTDOWN PEDESTRIAN SIGNALS.
5. MILL AND RESURFACE THE INTERSECTION AT THE SB OFF-RAMP

ALTERNATE DESIGN

N.T.S.

RELOCATE TREES

R/W LINE

INSTALL WALL PACK LIGHTS FACING EASTBOUND TRAFFIC IN EXISTING BRIDGE PIER

RELOCATE SIGNS AND PEDESTRAIN SIGNAL

TRIM LANDSCAPING TO IMPROVE SIGHT DISTANCE

INSTALL GUARDRAIL

RELOCATE CURB INLET

RELOCATE LIGHT POLE

SR 9 (I-95)

REFURBISH PAVEMENT MARKINGS

INSTALL WALL PACK LIGHTS FACING WESTBOUND TRAFFIC IN EXISTING BRIDGE PIER

INSTALL GUARDRAIL AND SHOULDER GUTTER

REMOVE OR RELOCATE PALM TREES

RELOCATE LIGHT POLE

EXTEND CROSS DRAIN

RELOCATE LIGHT POLE

EXTEND CROSS DRAIN

RELOCATE CURB INLET

RELOCATE LIGHT POLE

REMOVE AND INSTALL NEW MAST ARM ASSEMBLY

REPAIR EXISTING STREET LIGHTS

SR 858

NOTES:
1. LOCATIONS OF PROPOSED SIGNAL HEADS/POLES AND LIGHT POLES SHOWN ARE APPROXIMATE. EXACT LOCATION OF PROPOSED SIGNAL POLES/HEADS AND LIGHT POLES TO BE DETERMINED DURING DESIGN PHASE IN ACCORDANCE WITH APPLICABLE VISIBILITY REQUIRMENTS AND FDOT AND MUTCD STANDARDS.

2. CROSSWALK AND STOP BAR PLACEMENT NEEDS TO BE ADJUSTED BASED ON TURNING RADII FOR LEFT TURN VEHICLES AND OTHER APPLICABLE STANDARDS.

LEGEND:

PROPOSED LIGHT POLE	WIDENING	SODDED AREA
PROPOSED SIGNAL HEAD	CONCRETE SIDEWALK	

AECOM
13450 W SUNRISE BLVD., SUITE 200
SUNRISE, FL. 33323
TEL: (954) 745-7201 or 745-7200
FAX: (954) 745-7294

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

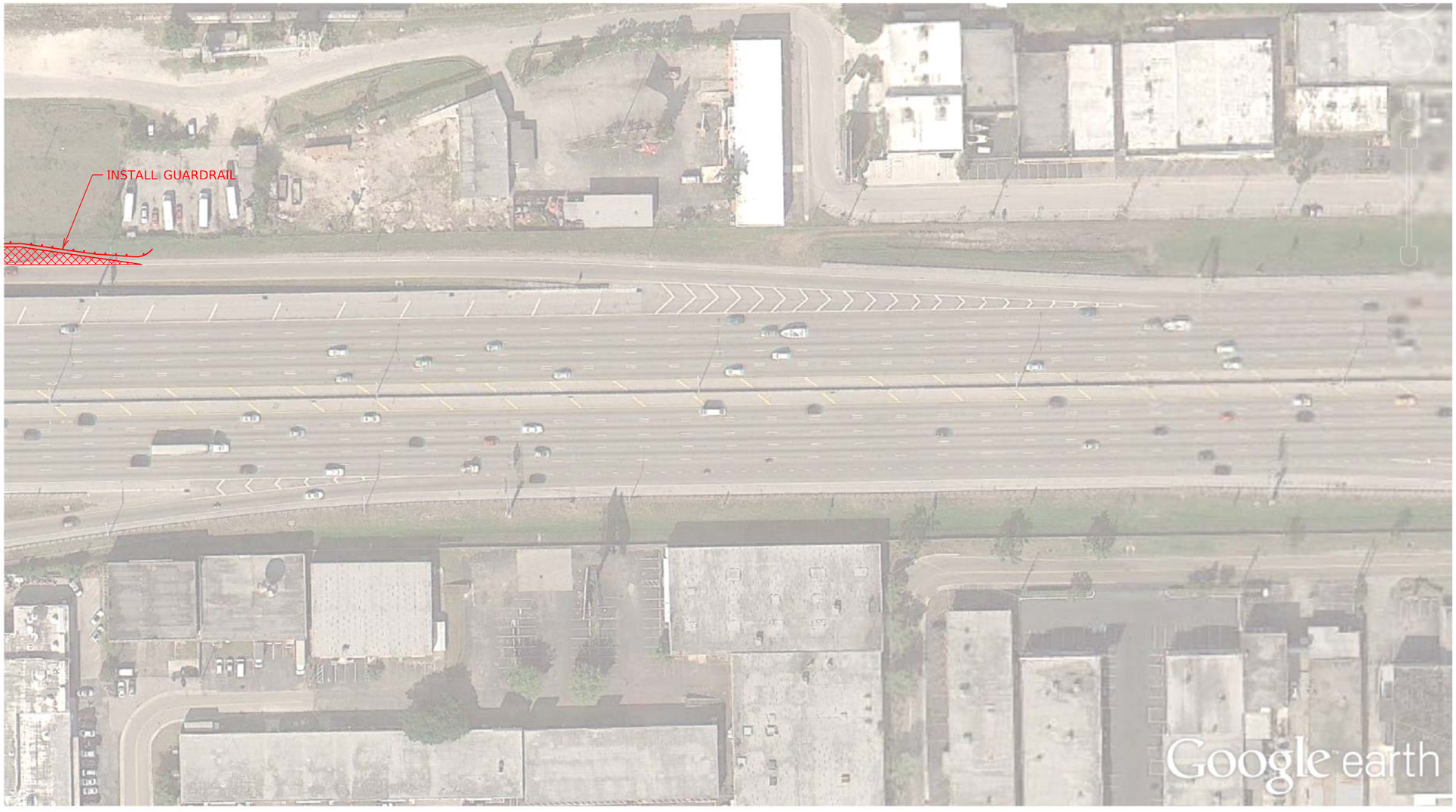
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 858	BROWARD	N/A

PROPOSED IMPROVEMENTS SKETCH

SR 9 (I-95) AT SR 858 (HALLANDALE BEACH BLVD)

SHEET NO. 1

$FILE$ $DATE$ $TIME$



LEGEND:

PROPOSED LIGHT POLE	WIDENING	SODDED AREA
PROPOSED SIGNAL HEAD	CONCRETE SIDEWALK	

AECOM
13450 W SUNRISE BLVD., SUITE 200
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TEL: (954) 745-7201 or 745-7200
FAX: (954) 745-7294

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 858	BROWARD	N/A

PROPOSED IMPROVEMENTS SKETCH

SR 9 (I-95) AT SR 858 (HALLANDALE BEACH BLVD)

SHEET NO. 2

$FILE$ $DATE$ $TIME$

Appendix B

Excerpts from ICDR's

Existing and Future Traffic Volumes

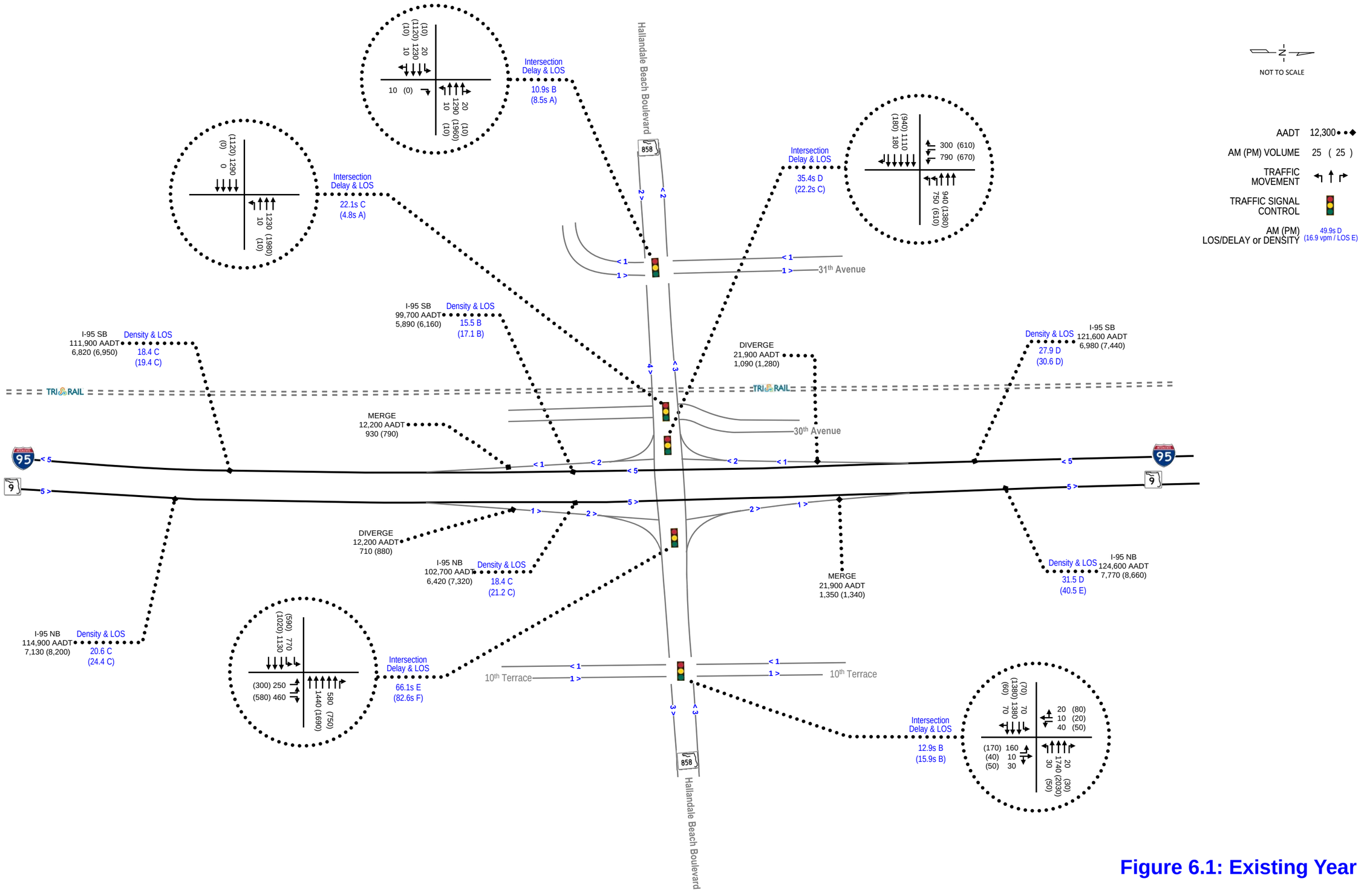


Figure 6.1: Existing Year

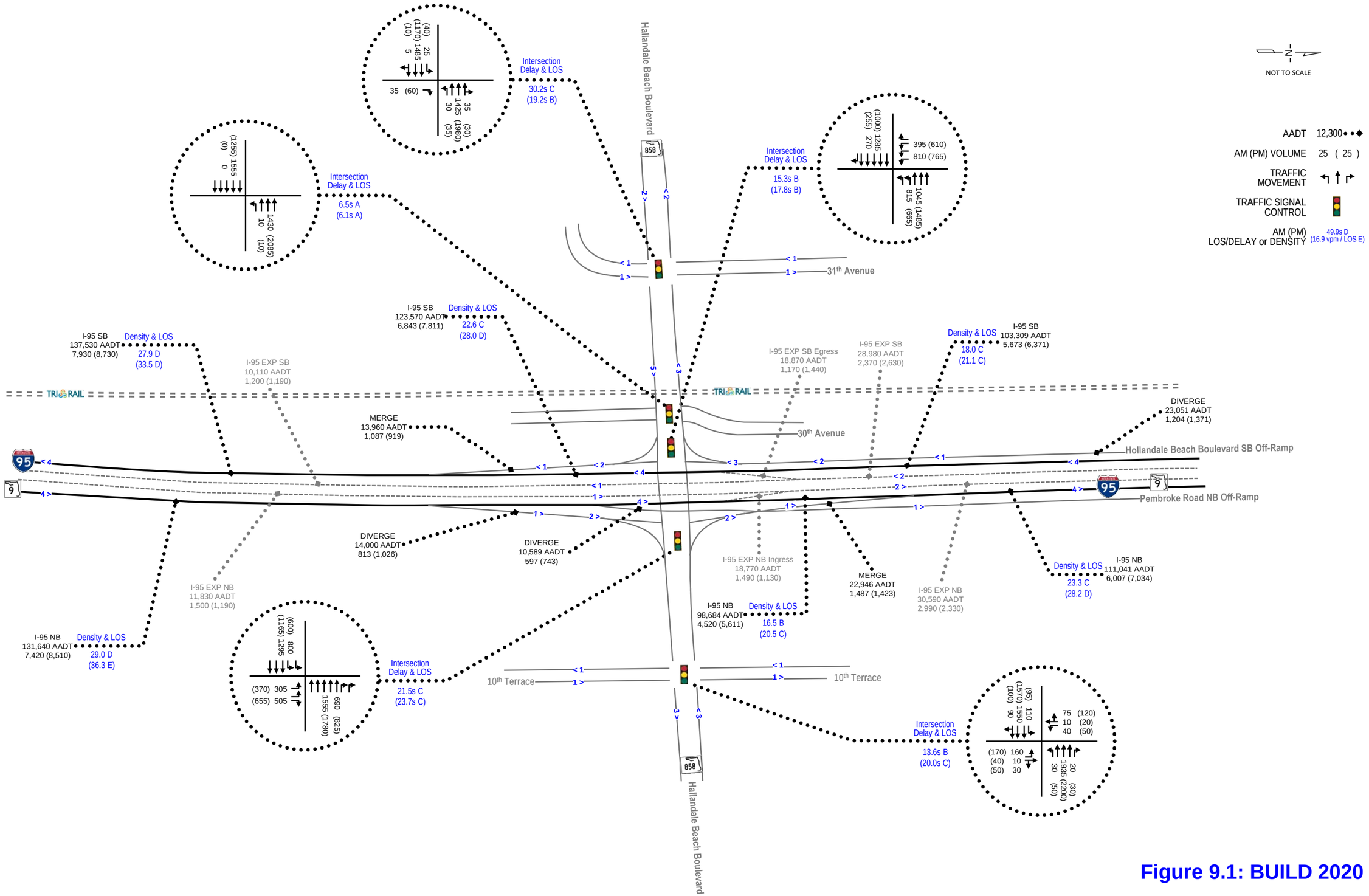
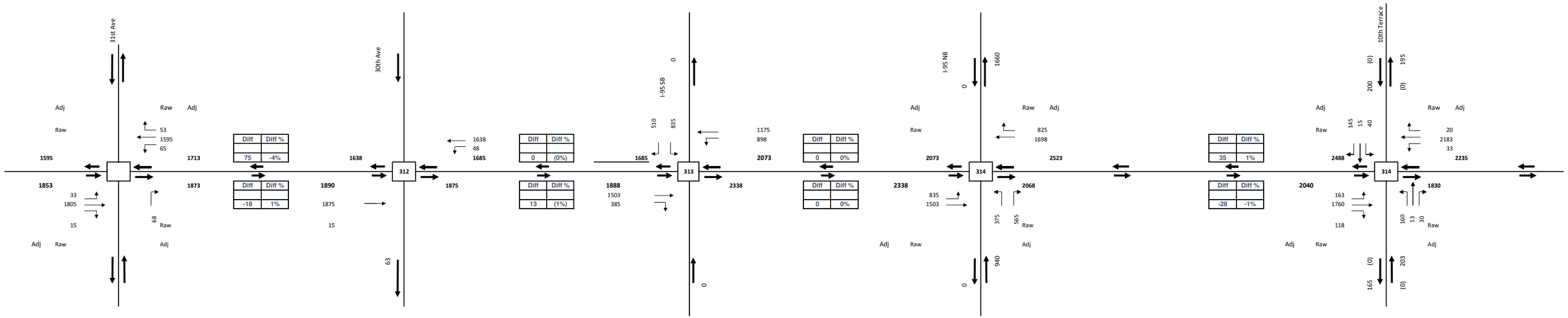
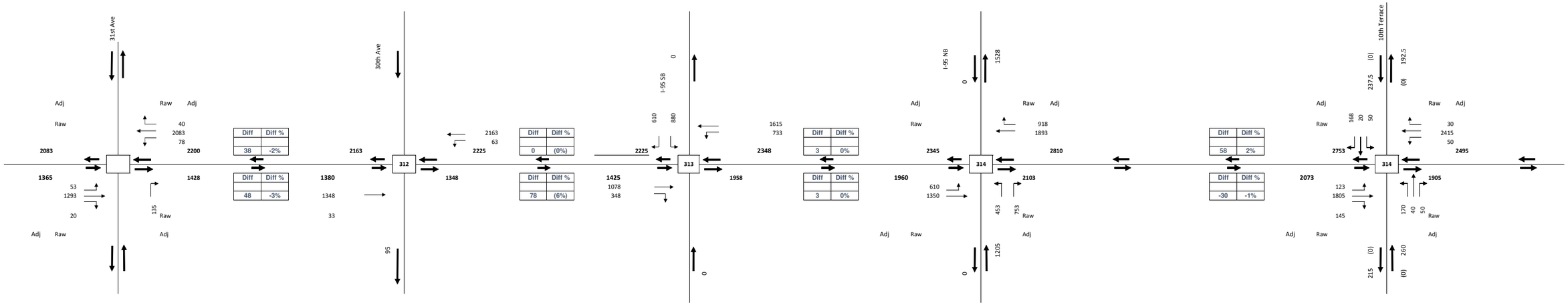


Figure 9.1: BUILD 2020

2030 AM PEAK HOUR TRAFFIC VOLUME PROJECTION
I-95 AT HALLANDALE BEACH BOULEVARD IOAR



2030 PM PEAK HOUR TRAFFIC VOLUME PROJECTIONS
I-95 AT HALLANDALE BEACJ BOULEVARD IOAR



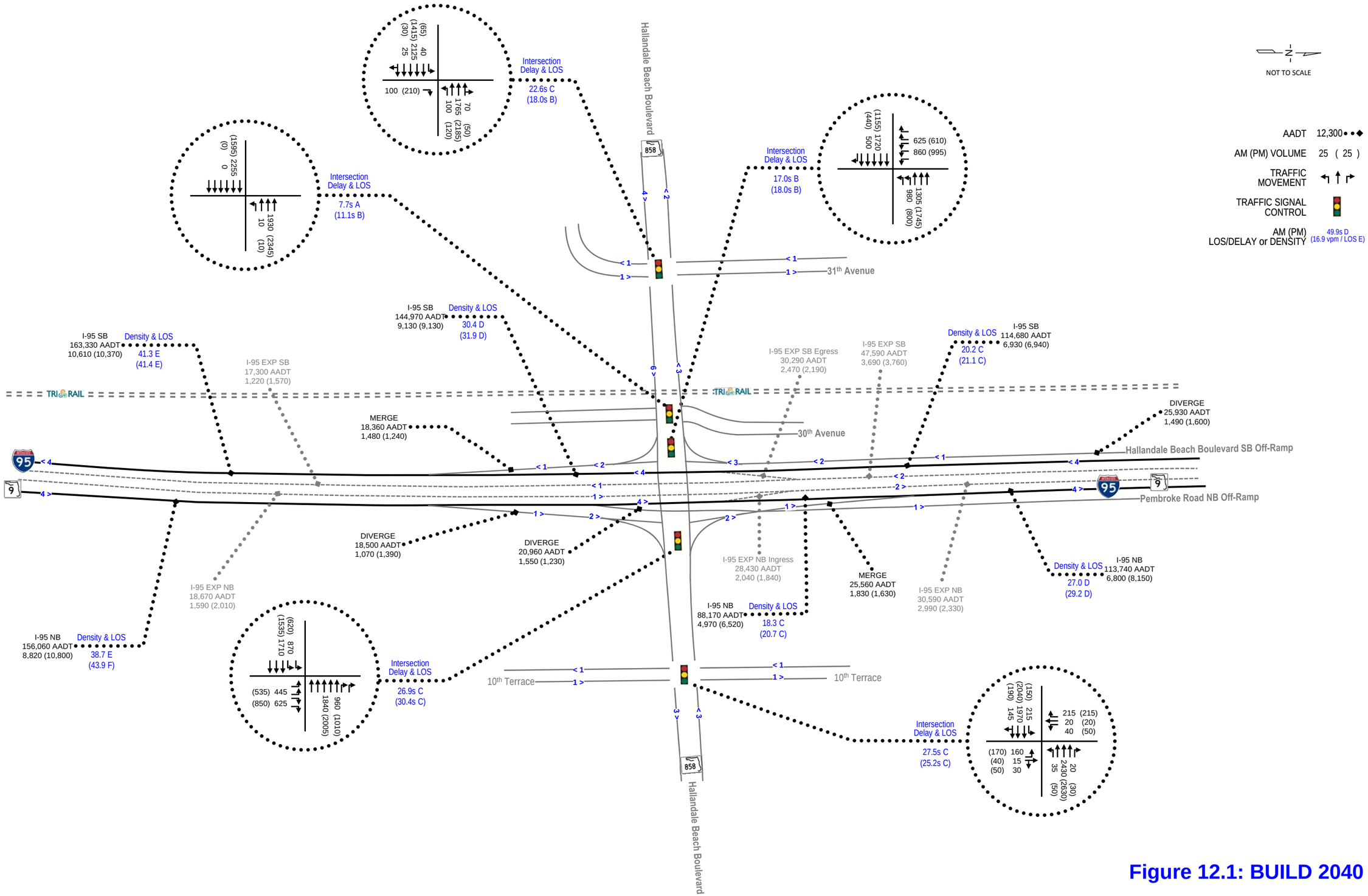


Figure 12.1: BUILD 2040

Appendix C

Excerpts from ICDR's

Existing Conditions Traffic Operations Analysis

Table 6.3 – Existing Year (2012/2013) Intersection Analysis Results

Intersection	Approach Movement			Intersection Summary	
	Lane Group	AM	PM	AM	PM
Hallandale Beach Boulevard (SR 858) at SW 31st Avenue(1)	EB L	1.9 / A	2.0 / A	10.9 / B	8.5 / A
	EB T/R	21.0 / C	20.1 / C		
	WB L	12.1 / B	9.3 / A		
	WB T/R	1.5 / A	1.8 / A		
	NB R	14.9 / B	-		
Hallandale Beach Boulevard (SR 858) at SW 30th Avenue(1)	EB T	42.0 / D	8.7 / A	22.3 / C	4.4 / A
	WB L	13.9 / B	10.5 / B		
	WB T	1.4 / A	1.8 / A		
Hallandale Beach Boulevard (SR 858) at I-95 SB Ramps(1)	EB T	44.9 / D	17.8 / B	35.4 / D	22.5 / C
	EB R(3)	4.5 / A	1.0 / A		
	WB L	75.9 / E	22.6 / C		
	WB T	10.9 / B	10.8 / B		
	SB L	25.1 / C	23.3 / C		
	SB R(3)	21.8 / C	61.9 / E		
Hallandale Beach Boulevard (SR 858) at I-95 NB Ramps(1)	EB L	89.1 / F	26.1 / C	66.1 / E	82.6 / F
	EB T	11.9 / B	5.8 / A		
	WB T	68.9 / E	56.1 / E		
	WB R(3)	9.8 / A	14.6 / B		
	NB L	36.6 / D	38.1 / D		
	NB R(3)	238.8 / F	463.8 / F		
Hallandale Beach Boulevard (SR 858) at SW/NW 10th Terrace(2)	EB L	9.3 / A	14.8 / B	14.0 / B	17.1 / B
	EB T	9.4 / A	10.8 / B		
	EB R	9.8 / A	11.1 / B		
	WB L	7.0 / A	8.3 / A		
	WB T	10.9 / B	14.0 / B		
	WB R	6.6 / A	7.6 / A		
	NB L	73.9 / E	76.0 / E		
	NB T/R	59.3 / D	58.6 / E		
	SB L	61.8 / D	63.6 / E		
	SB T/R	59.3 / D	57.3 / E		

(1) Delay and LOS reported from Synchro-HCM 2000
(2) Delay and LOS reported from Synchro-HCM 2010
(3) Yield Control

It should be noted that that the SW 31st Avenue, SW 30th Avenue, I-95 NB ramps, and I-95 SB ramps intersections along Hallandale Beach Boulevard run on a single controller. These intersections essentially operate in free mode, with different maximum split times depending on the time of day. The interchange intersections have no fixed cycle length, nor are they coordinated with adjacent signals. The adjacent intersection of Hallandale Beach Boulevard and SW/NW 10th Terrace is coordinated away from I-95.

Table 6.4 summarizes the results of the off-ramp signals back-of-queue analyses for the AM and PM peak hours. Queues were calculated using Synchro since the Synchro implementation of the HCM 2010 methodology does not support clustered intersections. The results present the queue lengths in feet for each lane group movement. The analysis accounts for additional vehicles that may queue up in back while the front of the queue dissipates after the signal turns green. Therefore, the queue length results are not necessarily a multiple of 25 (length of vehicles including the space between). The analysis and field observations show that although the right-turn lanes may exceed storage length, the queues on the off-ramps do not back up to the I-95 mainline through lanes.

Table 6.4 – Existing Year (2012/2013) Off-Ramp Signals Queuing Analysis Results

Intersection	Approach	Movement	Average Storage Length per Lane (ft)	Queue (ft)	
				AM	PM
Hallandale Beach Boulevard (SR 858) at I-95 SB Off-Ramps	Southbound	L	1,205(1)	259(5)	212(5)
		R	480(2)	159(5)	546(5)
Hallandale Beach Boulevard (SR 858) at I-95 NB Off-Ramps	Northbound	L	1,010(3)	117(5)	139(5)
		R	300(4)	478(5)	662(5)

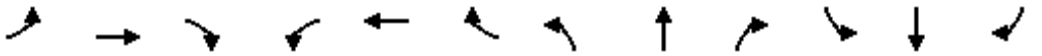
(1) Available storage length measured from the stop bar to the end of dual SB left-turn lanes (Full two lane width) plus single lane to gore divided by two lanes to provide average storage length per lane.

(2) Available storage length measured from the pedestrian crosswalk to end of SB right-turn lane (Full lane width).

(3) Available storage length measured from the stop bar to the end of dual NB left-turn lanes (Full two lane width) plus single lane to gore divided by two lanes to provide average storage length per lane.

(4) Available storage length measured from the pedestrian crosswalk to end of NB right-turn lane (Full lane width).

(5) Queues calculated using Synchro. The HCM 2010 methodology within Synchro does not support clustered intersections.

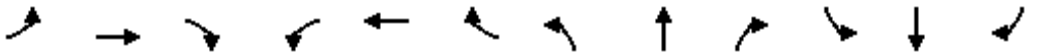


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1230	10	10	1290	20	0	0	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5079		1770	5074				1611			
Flt Permitted	0.18	1.00		0.11	1.00				1.00			
Satd. Flow (perm)	327	5079		213	5074				1611			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1337	11	11	1402	22	0	0	11	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	6	0	0	0
Lane Group Flow (vph)	22	1347	0	11	1424	0	0	0	5	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	94.5	41.0		82.5	94.5				41.5			
Effective Green, g (s)	76.5	41.0		76.5	80.5				41.5			
Actuated g/C Ratio	0.81	0.43		0.81	0.85				0.44			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	264	2203		856	4322				707			
v/s Ratio Prot		c0.27		0.01	c0.28				0.00			
v/s Ratio Perm	0.07			0.00								
v/c Ratio	0.08	0.61		0.01	0.33				0.01			
Uniform Delay, d1	1.8	20.6		6.8	1.4				14.9			
Progression Factor	1.00	1.00		1.77	1.00				1.00			
Incremental Delay, d2	0.0	0.4		0.0	0.0				0.0			
Delay (s)	1.9	21.0		12.1	1.5				14.9			
Level of Service	A	C		B	A				B			
Approach Delay (s)		20.7			1.5			14.9			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

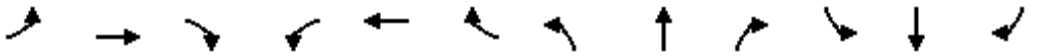
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1280	10	35	1205	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.42		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3126		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3126		213	5085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1391	11	38	1310	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1401	0	38	1310	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	41.0		82.5	94.5		
Effective Green, g (s)	41.0		76.5	80.5		
Actuated g/C Ratio	0.43		0.81	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1356		856	4331		
v/s Ratio Prot	c0.45		0.02	c0.26		
v/s Ratio Perm			0.02			
v/c Ratio	1.03		0.04	0.30		
Uniform Delay, d1	26.8		6.9	1.4		
Progression Factor	0.40		2.00	1.00		
Incremental Delay, d2	31.2		0.0	0.0		
Delay (s)	42.0		13.9	1.4		
Level of Service	D		B	A		
Approach Delay (s)	42.0			1.8	0.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



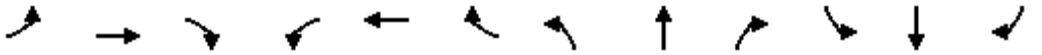
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1110	180	750	940	0	0	0	0	790	0	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.58	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5402	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5402	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1207	196	815	1022	0	0	0	0	859	0	326
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	68
Lane Group Flow (vph)	0	1207	181	815	1022	0	0	0	0	859	0	258
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		20.0	62.0	20.0	46.0					36.0		36.0
Effective Green, g (s)		20.0	60.0	20.0	40.0					36.0		36.0
Actuated g/C Ratio		0.21	0.63	0.21	0.42					0.38		0.38
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1143	1005	726	2152					1307		603
v/s Ratio Prot		c0.22		c0.24	0.20					c0.25		
v/s Ratio Perm			0.11									0.16
v/c Ratio		1.06	0.18	1.12	0.47					0.66		0.43
Uniform Delay, d1		37.2	7.1	37.2	19.7					24.2		21.6
Progression Factor		0.46	0.63	0.50	0.55					1.00		1.00
Incremental Delay, d2		27.6	0.0	57.1	0.0					0.9		0.2
Delay (s)		44.9	4.5	75.9	10.9					25.1		21.8
Level of Service		D	A	E	B					C		C
Approach Delay (s)		39.2			39.7			0.0			24.2	
Approach LOS		D			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	770	1130	0	0	1440	580	250	0	460	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.77	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			7172	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			7172	1583	3433		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	837	1228	0	0	1565	630	272	0	500	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	14	0	0	151	0	0	0
Lane Group Flow (vph)	837	1228	0	0	1565	616	272	0	349	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.0	67.0			20.0	62.0	15.0		15.0			
Effective Green, g (s)	20.0	55.0			20.0	62.0	15.0		15.0			
Actuated g/C Ratio	0.21	0.58			0.21	0.66	0.16		0.16			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	726	2959			1517	1038	544		251			
v/s Ratio Prot	c0.24	0.24			c0.22		0.08					
v/s Ratio Perm						c0.39			c0.22			
v/c Ratio	1.15	0.42			1.03	0.59	0.50		1.39			
Uniform Delay, d1	37.2	10.9			37.2	9.2	36.3		39.8			
Progression Factor	0.50	1.10			1.00	1.00	1.00		1.00			
Incremental Delay, d2	70.4	0.0			31.6	0.6	0.3		199.0			
Delay (s)	89.1	11.9			68.9	9.8	36.6		238.8			
Level of Service	F	B			E	A	D		F			
Approach Delay (s)		43.2			51.9			167.5			0.0	
Approach LOS		D			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	66.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	1380	70	30	1740	20	160	10	30	40	10	20
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	1500	73	33	1891	14	174	11	3	43	11	1
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	3576	174	274	3635	1132	236	201	55	234	239	22
Arrive On Green	0.02	0.72	0.72	0.02	0.71	0.71	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1774	4968	242	1774	5085	1583	1397	1410	385	1394	1683	153
Grp Volume(v), veh/h	76	1023	550	33	1891	14	174	0	14	43	0	12
Grp Sat Flow(s),veh/h/ln	1774	1695	1820	1774	1695	1583	1397	0	1795	1394	0	1836
Q Serve(g_s), s	1.9	19.4	19.4	0.8	27.0	0.4	19.7	0.0	1.1	4.4	0.0	0.9
Cycle Q Clear(g_c), s	1.9	19.4	19.4	0.8	27.0	0.4	20.6	0.0	1.1	5.5	0.0	0.9
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.21	1.00		0.08
Lane Grp Cap(c), veh/h	216	2440	1310	274	3635	1132	236	0	255	234	0	261
V/C Ratio(X)	0.35	0.42	0.42	0.12	0.52	0.01	0.74	0.00	0.05	0.18	0.00	0.05
Avail Cap(c_a), veh/h	284	2440	1310	350	3635	1132	286	0	320	284	0	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.1	9.0	9.0	7.0	10.4	6.6	68.1	0.0	59.3	61.7	0.0	59.2
Incr Delay (d2), s/veh	0.3	0.4	0.8	0.1	0.5	0.0	5.7	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.1	9.9	0.4	12.8	0.2	8.0	0.0	0.5	1.7	0.0	0.5
LnGrp Delay(d),s/veh	9.3	9.4	9.8	7.0	10.9	6.6	73.9	0.0	59.3	61.8	0.0	59.3
LnGrp LOS	A	A	A	A	B	A	E		E	E		E
Approach Vol, veh/h		1649			1938			188			55	
Approach Delay, s/veh		9.5			10.8			72.8			61.3	
Approach LOS		A			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	120.9		29.3	9.1	121.7		29.3
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	10.0	102.5		28.5	10.0	102.5		28.5
Max Q Clear Time (g_c+I1), s	3.9	29.0		22.6	2.8	21.4		7.5
Green Ext Time (p_c), s	0.0	61.2		0.2	0.0	66.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	22	1348	11	1424	11
v/c Ratio	0.07	0.61	0.01	0.28	0.01
Control Delay	0.4	22.1	0.9	0.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	22.1	0.9	0.1	0.0
Queue Length 50th (ft)	0	221	1	0	0
Queue Length 95th (ft)	0	269	0	0	0
Internal Link Dist (ft)		178		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	328	2205	858	5075	757
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.61	0.01	0.28	0.01

Intersection Summary

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1402	38	1310
v/c Ratio	1.03	0.04	0.26
Control Delay	45.3	1.2	0.1
Queue Delay	17.1	0.0	0.0
Total Delay	62.3	1.2	0.1
Queue Length 50th (ft)	~256	1	0
Queue Length 95th (ft)	#696	m4	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1356	858	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	56	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.08	0.04	0.26

Intersection Summary

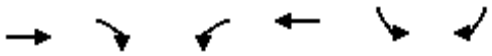
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1207	196	815	1022	859	326
v/c Ratio	1.06	0.19	1.12	0.41	0.59	0.44
Control Delay	47.7	3.3	79.0	8.9	23.0	14.7
Queue Delay	18.0	0.8	0.4	1.1	0.0	0.0
Total Delay	65.7	4.1	79.3	10.0	23.0	14.7
Queue Length 50th (ft)	~261	1	~305	65	198	86
Queue Length 95th (ft)	m#207	m1	m#289	m66	259	159
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1143	1052	726	2475	1453	733
Starvation Cap Reductn	0	605	39	1137	0	0
Spillback Cap Reductn	106	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.16	0.44	1.19	0.76	0.59	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	837	1228	1565	630	272	500
v/c Ratio	1.15	0.34	1.03	0.60	0.50	1.25
Control Delay	92.1	6.0	69.0	11.5	39.9	154.5
Queue Delay	0.4	0.9	27.1	0.0	0.0	0.0
Total Delay	92.5	6.9	96.2	11.5	39.9	154.5
Queue Length 50th (ft)	~315	163	~263	178	77	~280
Queue Length 95th (ft)	m#281	m138	#330	277	117	#478
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	726	3605	1517	1052	544	401
Starvation Cap Reductn	39	1955	0	0	0	0
Spillback Cap Reductn	0	0	133	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.74	1.13	0.60	0.50	1.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hallandale Beach Boulevard

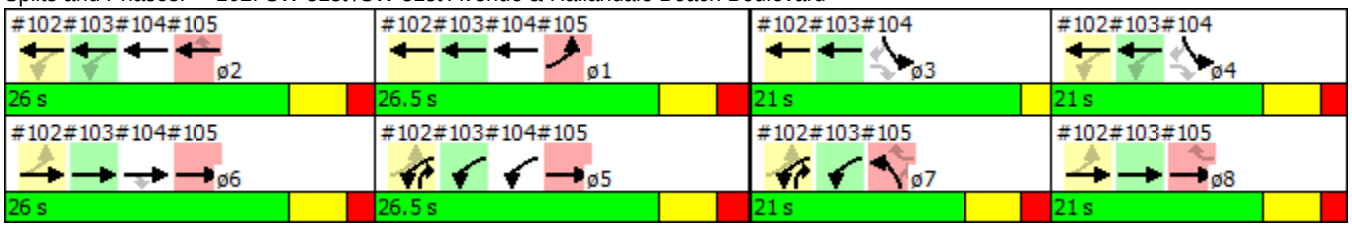
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	1576	33	1891	22	174	44	43	33
v/c Ratio	0.43	0.44	0.15	0.54	0.02	0.82	0.16	0.21	0.12
Control Delay	13.3	11.3	7.3	14.0	0.1	93.3	23.0	58.6	27.0
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	11.5	7.3	14.0	0.1	93.3	23.0	58.6	27.0
Queue Length 50th (ft)	17	246	7	337	0	179	10	40	10
Queue Length 95th (ft)	39	338	20	462	0	255	46	76	41
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	216	3588	279	3518	1115	253	331	250	327
Starvation Cap Reductn	0	1074	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.63	0.12	0.54	0.02	0.69	0.13	0.17	0.10

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	NBR	ø1	ø2	ø3	ø4	ø5	ø6	ø7
Lane Configurations												
Volume (vph)	20	1230	10	1290	10							
Turn Type	custom	NA	custom	NA	pt+ov							
Protected Phases		6 8	5 7	1 2 3 4	5 7	1	2	3	4	5	6	7
Permitted Phases	5 6 7 8		2 4									
Detector Phase	5 6 7 8	6 8	5 7	1 2 3 4	5 7							
Switch Phase												
Minimum Initial (s)						5.0	10.0	6.0	1.0	5.0	10.0	6.0
Minimum Split (s)						12.5	25.0	21.0	7.0	11.5	25.0	12.0
Total Split (s)						26.5	26.0	21.0	21.0	26.5	26.0	21.0
Total Split (%)						28%	28%	22%	22%	28%	28%	22%
Yellow Time (s)						4.0	4.0	2.0	4.0	4.0	4.0	4.0
All-Red Time (s)						2.5	2.0	0.0	2.0	2.5	2.0	2.0
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag						Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode						None	None	None	None	None	Max	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

Splits and Phases: 102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard



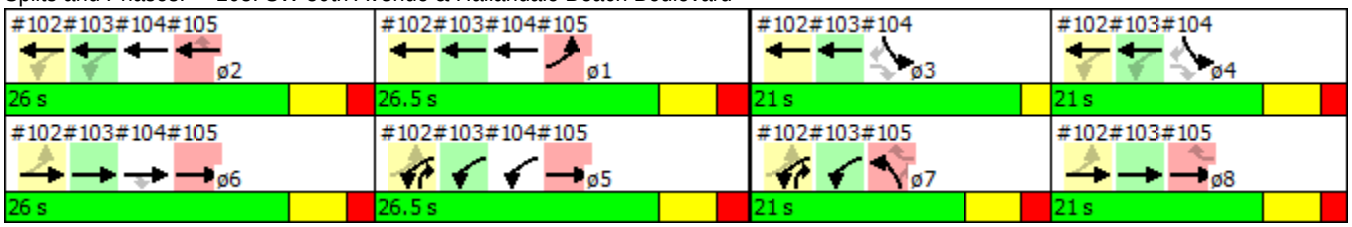
Lane Group	ø8
Lane Configurations	
Volume (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	10.0
Minimum Split (s)	16.0
Total Split (s)	21.0
Total Split (%)	22%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None

Intersection Summary

Lane Group	EBT	WBL	WBT	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
Lane Configurations											
Volume (vph)	1280	35	1205								
Turn Type	NA	custom	NA								
Protected Phases	6 8	5 7	1 2 3 4	1	2	3	4	5	6	7	8
Permitted Phases		2 4									
Detector Phase	6 8	5 7	1 2 3 4								
Switch Phase											
Minimum Initial (s)				5.0	10.0	6.0	1.0	5.0	10.0	6.0	10.0
Minimum Split (s)				12.5	25.0	21.0	7.0	11.5	25.0	12.0	16.0
Total Split (s)				26.5	26.0	21.0	21.0	26.5	26.0	21.0	21.0
Total Split (%)				28%	28%	22%	22%	28%	28%	22%	22%
Yellow Time (s)				4.0	4.0	2.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)				2.5	2.0	0.0	2.0	2.5	2.0	2.0	2.0
Lost Time Adjust (s)											
Total Lost Time (s)											
Lead/Lag				Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode				None	None	None	None	None	Max	None	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

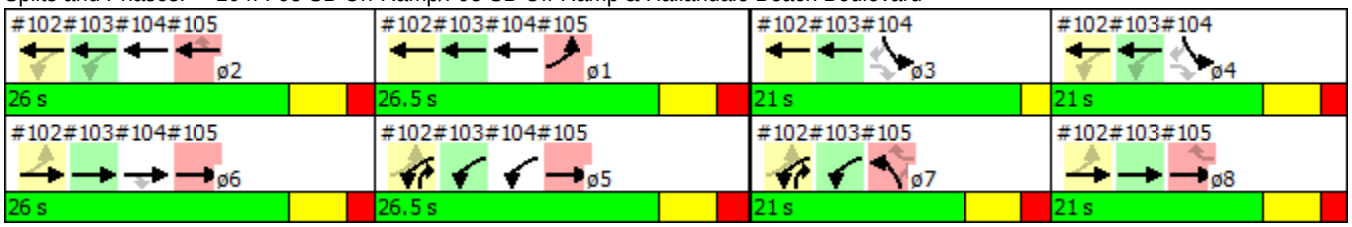
Splits and Phases: 103: SW 30th Avenue & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR	ø1	ø2	ø3	ø4	ø7	ø8
Lane Configurations												
Volume (vph)	1110	180	750	940	790	300						
Turn Type	NA	custom	Prot	NA	Prot	Perm						
Protected Phases	6		5	1 2	3 4		1	2	3	4	7	8
Permitted Phases		6 3 4				3 4						
Detector Phase	6	6 3 4	5	1 2	3 4	3 4						
Switch Phase												
Minimum Initial (s)	10.0		5.0				5.0	10.0	6.0	1.0	6.0	10.0
Minimum Split (s)	25.0		11.5				12.5	25.0	21.0	7.0	12.0	16.0
Total Split (s)	26.0		26.5				26.5	26.0	21.0	21.0	21.0	21.0
Total Split (%)	27.5%		28.0%				28%	28%	22%	22%	22%	22%
Yellow Time (s)	4.0		4.0				4.0	4.0	2.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.5				2.5	2.0	0.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.5									
Lead/Lag	Lead		Lag				Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes		Yes				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max		None				None	None	None	None	None	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

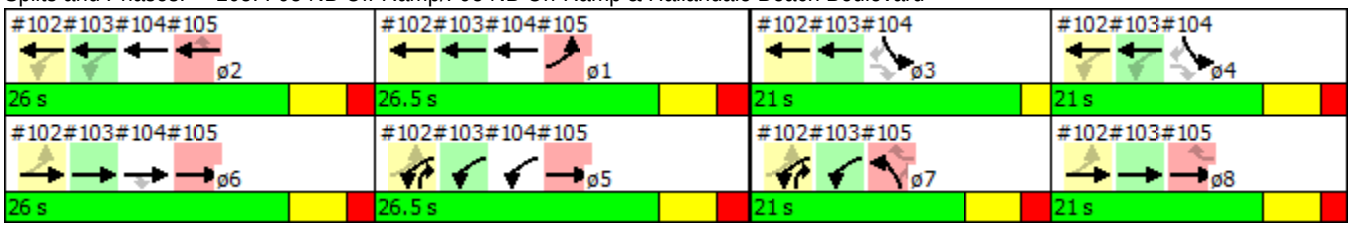
Splits and Phases: 104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR	ø3	ø4	ø5	ø6	ø8
Lane Configurations											
Volume (vph)	770	1130	1440	580	250	460					
Turn Type	Prot	NA	NA	custom	Prot	Perm					
Protected Phases	1	5 6 8	2		7		3	4	5	6	8
Permitted Phases				2 7 8		7					
Detector Phase	1	5 6 8	2	2 7 8	7	7					
Switch Phase											
Minimum Initial (s)	5.0		10.0		6.0	6.0	6.0	1.0	5.0	10.0	10.0
Minimum Split (s)	12.5		25.0		12.0	12.0	21.0	7.0	11.5	25.0	16.0
Total Split (s)	26.5		26.0		21.0	21.0	21.0	21.0	26.5	26.0	21.0
Total Split (%)	28.0%		27.5%		22.2%	22.2%	22%	22%	28%	28%	22%
Yellow Time (s)	4.0		4.0		4.0	4.0	2.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5		2.0		2.0	2.0	0.0	2.0	2.5	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0					
Total Lost Time (s)	6.5		6.0		6.0	6.0					
Lead/Lag	Lag		Lead		Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None		None		None	None	None	None	None	Max	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

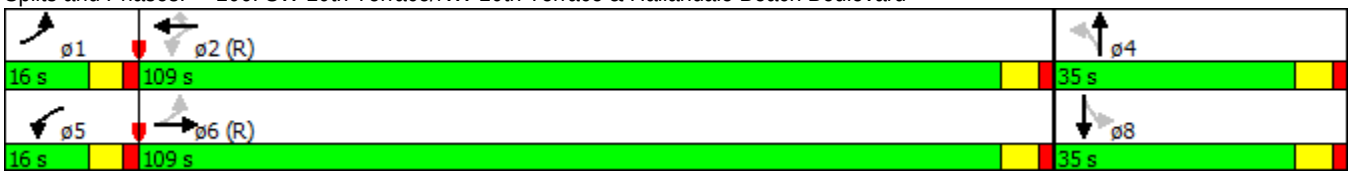
Splits and Phases: 105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

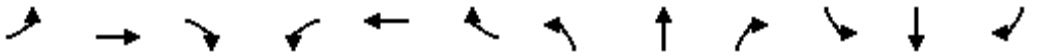


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	70	1380	30	1740	20	160	10	40	10
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	34.5	10.0	34.5	34.5	34.5	34.5	34.5	34.5
Total Split (s)	16.0	109.0	16.0	109.0	109.0	35.0	35.0	35.0	35.0
Total Split (%)	10.0%	68.1%	10.0%	68.1%	68.1%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	C-Min	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 124 (78%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard



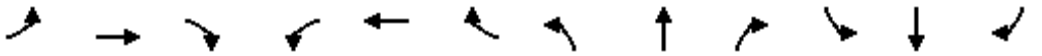


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1120	10	10	1960	10	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5							
Lane Util. Factor	1.00	0.91		1.00	0.91							
Frt	1.00	1.00		1.00	1.00							
Flt Protected	0.95	1.00		0.95	1.00							
Satd. Flow (prot)	1770	5078		1770	5081							
Flt Permitted	0.08	1.00		0.11	1.00							
Satd. Flow (perm)	143	5078		213	5081							
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1217	11	11	2130	11	0	0	0	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	11	1227	0	11	2141	0	0	0	0	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	94.5	41.0		82.5	94.5							
Effective Green, g (s)	76.5	41.0		76.5	80.5							
Actuated g/C Ratio	0.81	0.43		0.81	0.85							
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	115	2203		856	4328							
v/s Ratio Prot		c0.24		0.01	c0.42							
v/s Ratio Perm	0.08			0.00								
v/c Ratio	0.10	0.56		0.01	0.49							
Uniform Delay, d1	1.9	20.0		6.8	1.8							
Progression Factor	1.00	1.00		1.35	1.00							
Incremental Delay, d2	0.1	0.2		0.0	0.0							
Delay (s)	2.0	20.1		9.3	1.8							
Level of Service	A	C		A	A							
Approach Delay (s)		20.0			1.9			0.0			0.0	
Approach LOS		B			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	43.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

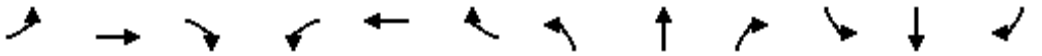
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1055	25	55	1935	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.47		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3490		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3490		213	5085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1147	27	60	2103	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1172	0	60	2103	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	41.0		82.5	94.5		
Effective Green, g (s)	41.0		76.5	80.5		
Actuated g/C Ratio	0.43		0.81	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1514		856	4331		
v/s Ratio Prot	c0.34		0.03	c0.41		
v/s Ratio Perm			0.03			
v/c Ratio	0.77		0.07	0.49		
Uniform Delay, d1	22.8		7.0	1.8		
Progression Factor	0.30		1.49	1.00		
Incremental Delay, d2	1.9		0.0	0.0		
Delay (s)	8.7		10.5	1.8		
Level of Service	A		B	A		
Approach Delay (s)	8.7			2.0	0.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	4.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



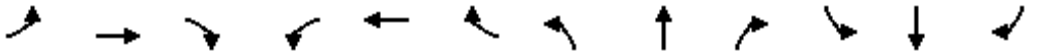
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	940	180	610	1380	0	0	0	0	670	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.64	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5961	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5961	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1022	196	663	1500	0	0	0	0	728	0	663
RTOR Reduction (vph)	0	0	16	0	0	0	0	0	0	0	0	68
Lane Group Flow (vph)	0	1022	180	663	1500	0	0	0	0	728	0	595
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									3 4
Actuated Green, G (s)		20.0	62.0	20.0	46.0					36.0		36.0
Effective Green, g (s)		20.0	56.0	20.0	40.0					36.0		36.0
Actuated g/C Ratio		0.21	0.59	0.21	0.42					0.38		0.38
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1261	938	726	2152					1307		603
v/s Ratio Prot		c0.17		c0.19	0.29					0.21		
v/s Ratio Perm			0.11									c0.38
v/c Ratio		0.81	0.19	0.91	0.70					0.56		0.99
Uniform Delay, d1		35.4	8.8	36.4	22.3					23.0		29.0
Progression Factor		0.39	0.11	0.49	0.47					1.00		1.00
Incremental Delay, d2		3.9	0.0	4.7	0.3					0.3		32.8
Delay (s)		17.8	1.0	22.6	10.8					23.3		61.9
Level of Service		B	A	C	B					C		E
Approach Delay (s)		15.1			14.4			0.0			41.7	
Approach LOS		B			B			A			D	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	590	1020	0	0	1690	750	300	0	580	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.94	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			8755	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			8755	1583	3433		1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	641	1109	0	0	1837	815	326	0	630	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	14	0	0	151	0	0	0
Lane Group Flow (vph)	641	1109	0	0	1837	801	326	0	479	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.0	67.0			20.0	62.0	15.0		15.0			
Effective Green, g (s)	20.0	67.0			20.0	62.0	15.0		15.0			
Actuated g/C Ratio	0.21	0.71			0.21	0.66	0.16		0.16			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	726	3605			1852	1038	544		251			
v/s Ratio Prot	c0.19	0.22			c0.21		0.09					
v/s Ratio Perm						c0.51			c0.30			
v/c Ratio	0.88	0.31			0.99	0.77	0.60		1.91			
Uniform Delay, d1	36.1	5.1			37.2	11.3	37.0		39.8			
Progression Factor	0.52	1.12			1.00	1.00	1.00		1.00			
Incremental Delay, d2	7.3	0.0			18.9	3.3	1.2		424.0			
Delay (s)	26.1	5.8			56.1	14.6	38.1		463.8			
Level of Service	C	A			E	B	D		F			
Approach Delay (s)		13.2			43.3			318.6			0.0	
Approach LOS		B			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	82.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	24.5
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	1380	60	50	2030	30	170	40	50	50	20	80
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	1500	63	54	2207	21	185	43	24	54	22	9
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	3488	146	271	3535	1101	247	182	102	216	203	83
Arrive On Green	0.02	0.70	0.70	0.02	0.70	0.70	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	5006	210	1774	5085	1583	1373	1124	628	1329	1258	514
Grp Volume(v), veh/h	76	1016	547	54	2207	21	185	0	67	54	0	31
Grp Sat Flow(s),veh/h/ln	1774	1695	1826	1774	1695	1583	1373	0	1752	1329	0	1772
Q Serve(g_s), s	2.0	20.8	20.8	1.4	37.4	0.7	21.3	0.0	5.3	5.9	0.0	2.4
Cycle Q Clear(g_c), s	2.0	20.8	20.8	1.4	37.4	0.7	23.6	0.0	5.3	11.2	0.0	2.4
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.36	1.00		0.29
Lane Grp Cap(c), veh/h	167	2362	1272	271	3535	1101	247	0	283	216	0	287
V/C Ratio(X)	0.45	0.43	0.43	0.20	0.62	0.02	0.75	0.00	0.24	0.25	0.00	0.11
Avail Cap(c_a), veh/h	279	2362	1272	386	3535	1101	269	0	312	237	0	316
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	10.5	10.5	8.1	13.1	7.5	67.3	0.0	58.4	63.3	0.0	57.2
Incr Delay (d2), s/veh	0.4	0.3	0.6	0.1	0.8	0.0	8.7	0.0	0.2	0.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	9.7	10.5	0.7	17.6	0.3	8.7	0.0	2.6	2.2	0.0	1.2
LnGrp Delay(d),s/veh	14.8	10.8	11.1	8.3	14.0	7.6	76.0	0.0	58.6	63.6	0.0	57.3
LnGrp LOS	B	B	B	A	B	A	E		E	E		E
Approach Vol, veh/h		1639			2282			252			85	
Approach Delay, s/veh		11.1			13.8			71.4			61.3	
Approach LOS		B			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	117.7		32.4	9.6	118.0		32.4
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	14.0	98.5		28.5	14.0	98.5		28.5
Max Q Clear Time (g_c+I1), s	4.0	39.4		25.6	3.4	22.8		13.2
Green Ext Time (p_c), s	0.0	53.9		0.2	0.0	67.4		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Lane Group	EBL	EBT	WBL	WBT
Lane Group Flow (vph)	11	1228	11	2141
v/c Ratio	0.08	0.56	0.01	0.42
Control Delay	1.0	21.1	0.7	0.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.0	21.1	0.7	0.3
Queue Length 50th (ft)	0	195	0	0
Queue Length 95th (ft)	0	239	m1	0
Internal Link Dist (ft)		178		186
Turn Bay Length (ft)	125		175	
Base Capacity (vph)	143	2205	858	5080
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.08	0.56	0.01	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

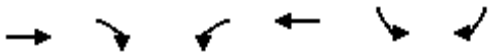
Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1174	60	2103
v/c Ratio	0.77	0.07	0.41
Control Delay	10.2	1.1	0.2
Queue Delay	0.0	0.0	0.0
Total Delay	10.2	1.1	0.2
Queue Length 50th (ft)	90	1	0
Queue Length 95th (ft)	106	m1	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1516	858	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.77	0.07	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1022	196	663	1500	728	663
v/c Ratio	0.81	0.18	0.91	0.61	0.50	0.90
Control Delay	18.0	0.7	25.4	8.8	21.4	39.3
Queue Delay	0.3	0.5	5.5	16.0	0.0	0.0
Total Delay	18.3	1.2	30.9	24.8	21.4	39.3
Queue Length 50th (ft)	103	0	224	78	160	313
Queue Length 95th (ft)	169	m0	m226	m80	212	#546
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1261	1117	726	2475	1453	733
Starvation Cap Reductn	0	593	39	995	0	0
Spillback Cap Reductn	31	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.37	0.97	1.01	0.50	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	641	1109	1837	815	326	630
v/c Ratio	0.88	0.31	0.99	0.77	0.60	1.57
Control Delay	29.2	5.7	57.0	17.2	42.1	291.6
Queue Delay	3.4	0.5	7.3	0.0	0.0	0.0
Total Delay	32.6	6.2	64.3	17.2	42.1	291.6
Queue Length 50th (ft)	215	133	235	291	94	~447
Queue Length 95th (ft)	m#285	156	#299	469	139	#662
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	726	3632	1852	1052	544	401
Starvation Cap Reductn	39	1867	0	4	0	0
Spillback Cap Reductn	0	0	51	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.63	1.02	0.78	0.60	1.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	1565	54	2207	33	185	97	54	109
v/c Ratio	0.54	0.45	0.24	0.65	0.03	0.92	0.30	0.25	0.31
Control Delay	29.5	12.2	8.6	17.6	0.2	108.1	39.3	60.0	18.2
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	12.5	8.6	17.6	0.2	108.1	39.3	60.0	18.2
Queue Length 50th (ft)	21	287	15	510	0	186	56	48	19
Queue Length 95th (ft)	68	306	26	570	2	#340	117	95	78
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	213	3487	315	3379	1073	215	338	226	369
Starvation Cap Reductn	0	999	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.63	0.17	0.65	0.03	0.86	0.29	0.24	0.30

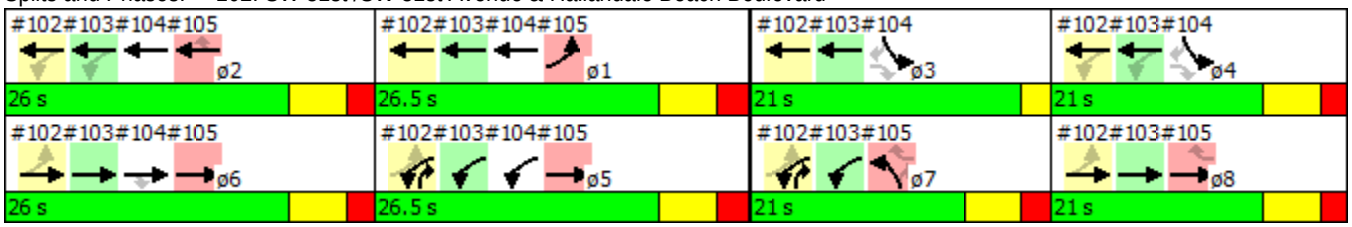
Intersection Summary

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

Lane Group	EBL	EBT	WBL	WBT	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
Lane Configurations												
Volume (vph)	10	1120	10	1960								
Turn Type	custom	NA	custom	NA								
Protected Phases		6 8	5 7	1 2 3 4	1	2	3	4	5	6	7	8
Permitted Phases	5 6 7 8		2 4									
Detector Phase	5 6 7 8	6 8	5 7	1 2 3 4								
Switch Phase												
Minimum Initial (s)					5.0	10.0	6.0	1.0	5.0	10.0	6.0	10.0
Minimum Split (s)					12.5	25.0	21.0	7.0	11.5	25.0	12.0	16.0
Total Split (s)					26.5	26.0	21.0	21.0	26.5	26.0	21.0	21.0
Total Split (%)					28%	28%	22%	22%	28%	28%	22%	22%
Yellow Time (s)					4.0	4.0	2.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)					2.5	2.0	0.0	2.0	2.5	2.0	2.0	2.0
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag					Lag	Lead	Lead	Lag			Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode					None	None	Max	None	None	Max	None	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

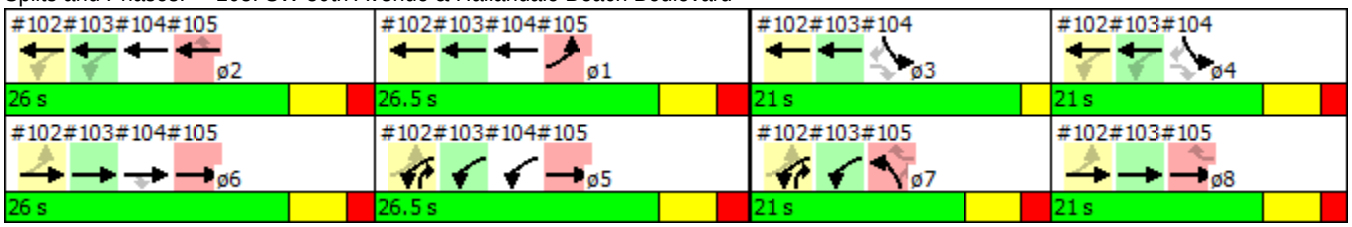
Splits and Phases: 102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard



Lane Group	EBT	WBL	WBT	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
Lane Configurations											
Volume (vph)	1055	55	1935								
Turn Type	NA	custom	NA								
Protected Phases	6 8	5 7	1 2 3 4	1	2	3	4	5	6	7	8
Permitted Phases		2 4									
Detector Phase	6 8	5 7	1 2 3 4								
Switch Phase											
Minimum Initial (s)				5.0	10.0	6.0	1.0	5.0	10.0	6.0	10.0
Minimum Split (s)				12.5	25.0	21.0	7.0	11.5	25.0	12.0	16.0
Total Split (s)				26.5	26.0	21.0	21.0	26.5	26.0	21.0	21.0
Total Split (%)				28%	28%	22%	22%	28%	28%	22%	22%
Yellow Time (s)				4.0	4.0	2.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)				2.5	2.0	0.0	2.0	2.5	2.0	2.0	2.0
Lost Time Adjust (s)											
Total Lost Time (s)											
Lead/Lag				Lag	Lead	Lead	Lag			Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode				None	None	Max	None	None	Max	None	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

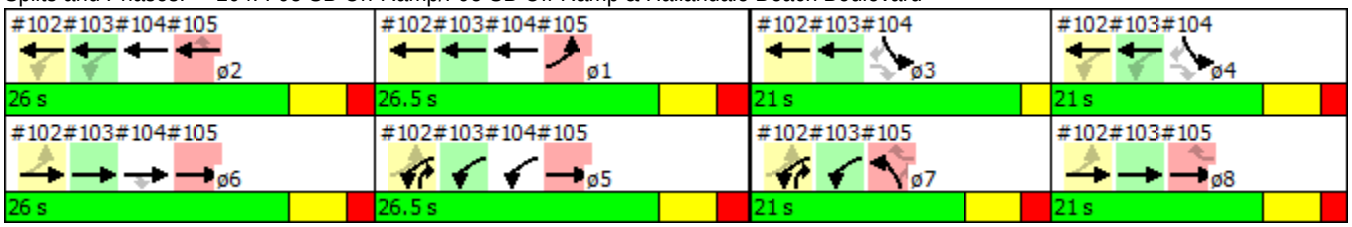
Splits and Phases: 103: SW 30th Avenue & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR	ø1	ø2	ø3	ø4	ø7	ø8
Lane Configurations												
Volume (vph)	940	180	610	1380	670	610						
Turn Type	NA	custom	Prot	NA	Prot	Perm						
Protected Phases	6		5	1 2	3 4		1	2	3	4	7	8
Permitted Phases		3 4 6				3 4						
Detector Phase	6	3 4 6	5	1 2	3 4	3 4						
Switch Phase												
Minimum Initial (s)	10.0		5.0				5.0	10.0	6.0	1.0	6.0	10.0
Minimum Split (s)	25.0		11.5				12.5	25.0	21.0	7.0	12.0	16.0
Total Split (s)	26.0		26.5				26.5	26.0	21.0	21.0	21.0	21.0
Total Split (%)	27.5%		28.0%				28%	28%	22%	22%	22%	22%
Yellow Time (s)	4.0		4.0				4.0	4.0	2.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.5				2.5	2.0	0.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0									
Total Lost Time (s)	6.0		6.5									
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max		None				None	None	Max	None	None	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

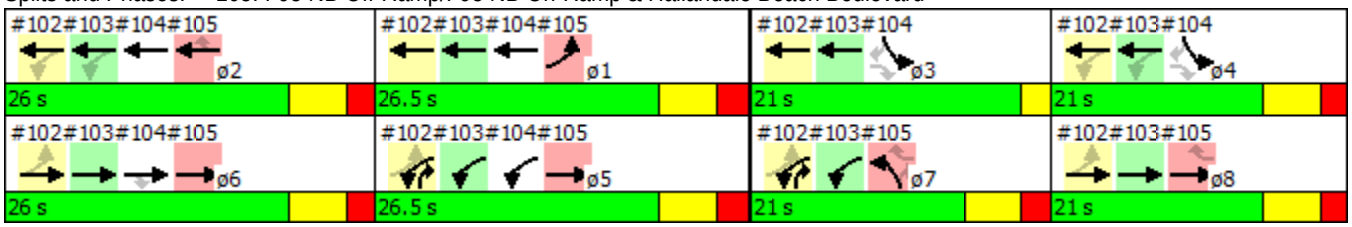
Splits and Phases: 104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBL	EBT	WBT	WBR	NBL	NBR	ø3	ø4	ø5	ø6	ø8
Lane Configurations											
Volume (vph)	590	1020	1690	750	300	580					
Turn Type	Prot	NA	NA	custom	Prot	Perm					
Protected Phases	1	6 5 8	2		7		3	4	5	6	8
Permitted Phases				2 7 8		7					
Detector Phase	1	6 5 8	2	2 7 8	7	7					
Switch Phase											
Minimum Initial (s)	5.0		10.0		6.0	6.0	6.0	1.0	5.0	10.0	10.0
Minimum Split (s)	12.5		25.0		12.0	12.0	21.0	7.0	11.5	25.0	16.0
Total Split (s)	26.5		26.0		21.0	21.0	21.0	21.0	26.5	26.0	21.0
Total Split (%)	28.0%		27.5%		22.2%	22.2%	22%	22%	28%	28%	22%
Yellow Time (s)	4.0		4.0		4.0	4.0	2.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5		2.0		2.0	2.0	0.0	2.0	2.5	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0					
Total Lost Time (s)	6.5		6.0		6.0	6.0					
Lead/Lag	Lag		Lead		Lead	Lead	Lead	Lag			Lag
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes	Yes			Yes
Recall Mode	None		None		None	None	Max	None	None	Max	None

Intersection Summary
Cycle Length: 94.5
Actuated Cycle Length: 94.5
Natural Cycle: 100
Control Type: Semi Act-Uncoord

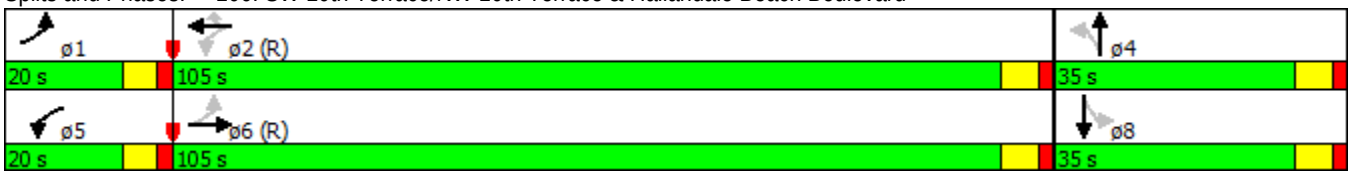
Splits and Phases: 105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	70	1380	50	2030	30	170	40	50	20
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm	NA
Protected Phases	1	6	5	2			4		8
Permitted Phases	6		2		2	4		8	
Detector Phase	1	6	5	2	2	4	4	8	8
Switch Phase									
Minimum Initial (s)	4.0	12.0	4.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.0	28.5	10.0	28.5	28.5	34.5	34.5	34.5	34.5
Total Split (s)	20.0	105.0	20.0	105.0	105.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	65.6%	12.5%	65.6%	65.6%	21.9%	21.9%	21.9%	21.9%
Yellow Time (s)	4.0	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	6.0	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	C-Min	None	None	None	None

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 17 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard



Broward County

Signal Timing Sheets

BROWARD COUNTY TRAFFIC ENGINEERING

ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3069	**Initial Operation Date**	7/3/57
Controller Type	2070 LN	**System Number**	3069
Modification Number	21	**Modification Date**	11/07/2013
Drawing/Project No	228259-2-52-01	**FPL Grid Number**	87470740903
Intersection	HALLANDALE BEACH BLVD. and I-95 INTERCHANGE (SR 9)		
Municipality	PEMBROKE PARK		

Controller Phase	1	2	3	4	5	6	7	8
Face Number								
Direction	EBL	WB	SB		WBL	EB	NB	SB
Initial Green(MIN)	5	10	6		5	10	6	6
Vehicle Ext.(GAP)	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Maximum Green I	20	20	15		20	20	15	15
Maximum Green II								
Yellow Clearance	4.0	4.0	4.0		4.0	4.0	4.0	4.0
All Red Clearance	2.5	2.0	2.0		2.5	2.0	2.0	2.0
Phase Recall	OFF	SOFT	OFF		OFF	SOFT	OFF	OFF
Detector Delay								
Walk		7				7		
Pedestrian Clearance		12				12		
Permissive	DUAL				DUAL			
Flash Operation	RED	RED	RED		RED	RED	RED	RED
Green Return								

Attachment **Hallandale and I-95 SOP.pdf,Hallandale and I-95 Channel Map.pdf**

Channel/Drop / **IP Address**

NOTES:

1. IP: 192.168.000.010, MASK: 255.255.255.000, GWAY: 192.168.000.001, PORT: 5004
2. SEQUENCE OF OPERATION, PRE-EMPTION AND CHANNEL MAP ATTACHED.
3. DOUBLE CLEARANCE HEADS 6A (EB AT SB OFF RAMP): 3 GREEN, 4.5 YELLOW.
4. RAIL ROAD PREEMPTION (PHASES 9, 10 AND 11):
   (A) TIME BEFOR PREEMPTION = 0 SECONDS.
   (B) TRACK CLEARANCE = 10 SECONDS GREEN, 4 SECONDS YELLOW.
   (C) FIRST DWELL = 15 GREEN, 4 YELLOW (WBL CLEAR).
   (D) SECOND DWELL = SOUTHBOUND OFF RAMP.
   (E) RETURN TO PHASES 2+6 (EAST/WEST).
5. 3-SECTION GROUND MOUNTED WBL SIGNALS DISPLAY FLASHING RED WHEN NOT DISPLAYING GREEN OR YELLOW ARROW DURING NORMAL OPERATION.
6. RING AND BARRIER: 2 1 | 3
   ---
   6 5 | 7 8
7. MOD. 21 DEPLOYS SIGNAL ONTO ATMS.NOW.

Submitted By _____ **Approved By** _____

Broward County | Timing Sheet | 5/8/2014 3:15:33 PM

Station : 3069 - Hallandale Beach Blvd. & I-95 (Standard File)

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Walk		7				7										
Ped Clearance		12				12										
Min Green	5	10	6		5	10	6	6		15						
Passage									1	1						
Max1	20	20	15		20	20	13	13								
Max2																
Yellow	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Red	2.5	2	2		2.5	2	2	2	2	2	2	2	2	2	2	2
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON	ON		ON	ON	ON	ON								
Auto Entry								ON								
Auto Exit		ON				ON										
Non Act1																
Non Act2																
Lock Call	ON	ON	ON		ON	ON	ON									
Min Recall											ON					
Max Recall	ON	ON	ON	ON	ON	ON	ON	ON			ON					
Ped Recall																
Soft Recall		ON				ON										
Dual Entry																
Sim Gap Enable	ON				ON				ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash						
Override Higher						
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green	6	6	6	6	6	6
Min Walk						
Ped Clear						
Track Green	10					
Min Dwell	6	6	8	8	8	8
Max Presence		180	180	180	180	180
Track R1	9					
Track R2						
Track R3						
Track R4						
Dwell Ped1						
Exit R1	2	1	2	3	2	3
Exit R2	6	5	6	7	6	7
Exit R3						
Exit R4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Type				
Lockout Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Priority P5				
Priority P6				
Priority P7				
Priority P8				
Priority P9				
Priority P10				
Priority P11				
Priority P12				
Max Lockout				

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County | Timing Sheet | 5/8/2014 3:15:33 PM

Station : 3069 - Hallandale Beach Blvd. & I-95 (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
7		22	22			22	1		17		20	20	15		20	20	15	20								
9		100	254																							
16		24	24			24	1		17		20	25	15		20	25	15	15								
18		100	254																							
Day Plan 2											**Easy**															
Day Plan 3											**Easy**															

Broward County | Timing Sheet | 5/8/2014 3:15:33 PM

Station : 3069 - Hallandale Beach Blvd. & I-95 (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											Easy															

Scheduler

	Month											Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2																																																		1
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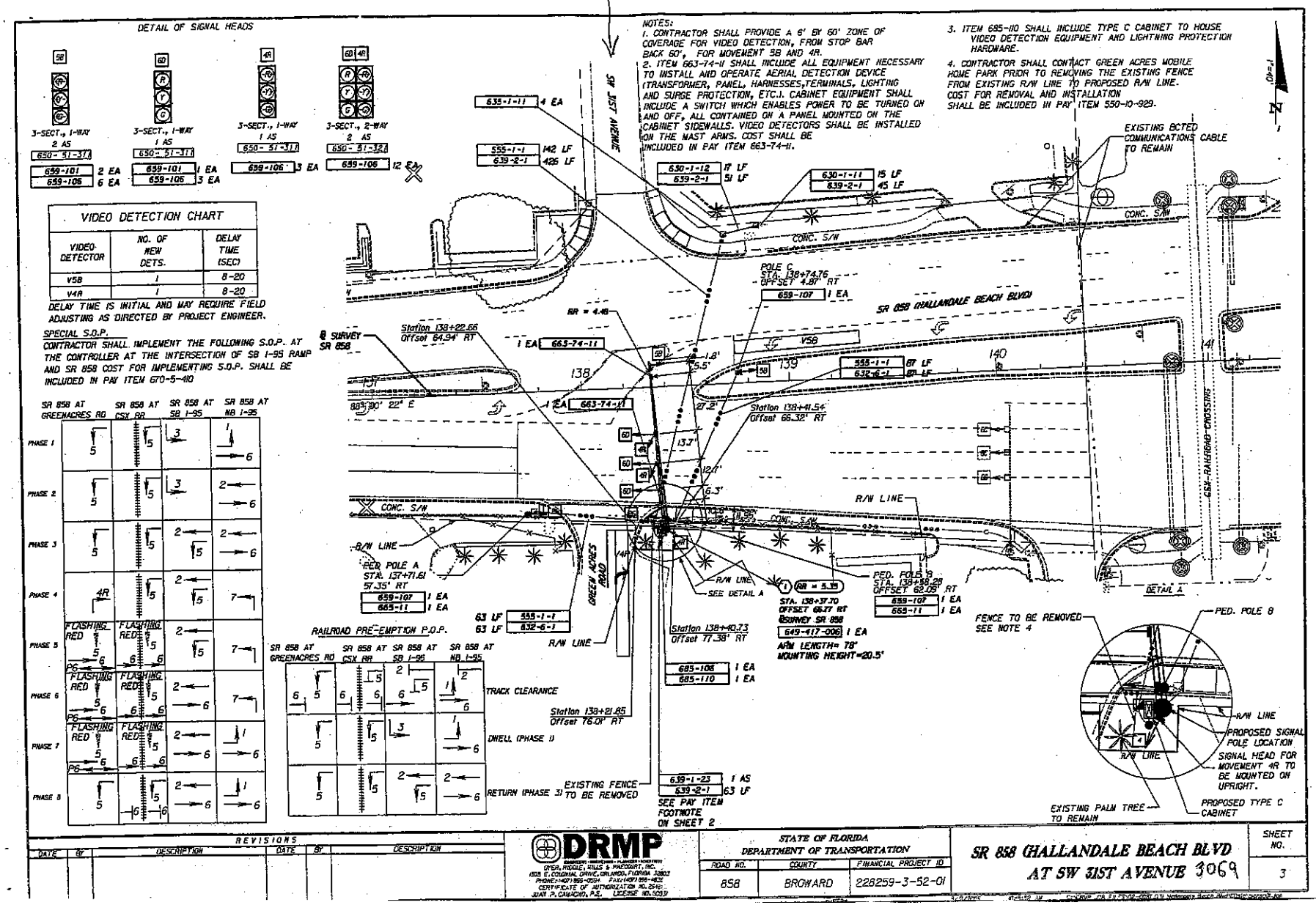
31																																																		1
32																																																		1

User Comments:

SW 31 Ave

RXR



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRMP
OYER, RIDDLE, KILLS & PASCOURT, INC.
1505 E. COLONIAL DRIVE, ORLANDO, FLORIDA 32803
PHONE: (407) 895-2531 FAX: (407) 896-4832
CERTIFICATE OF AUTHORIZATION NO. 2646
JUAN P. CAMACHO, P.E. LICENSE NO. 52037

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
858	BROWARD	228259-3-52-01

SR 858 (HALLANDALE BEACH BLVD) AT SW 31ST AVENUE 3069

SHEET NO. 3

TRAFFIC ENGINEERING DIVISION
SIGNALIZED INTERSECTION

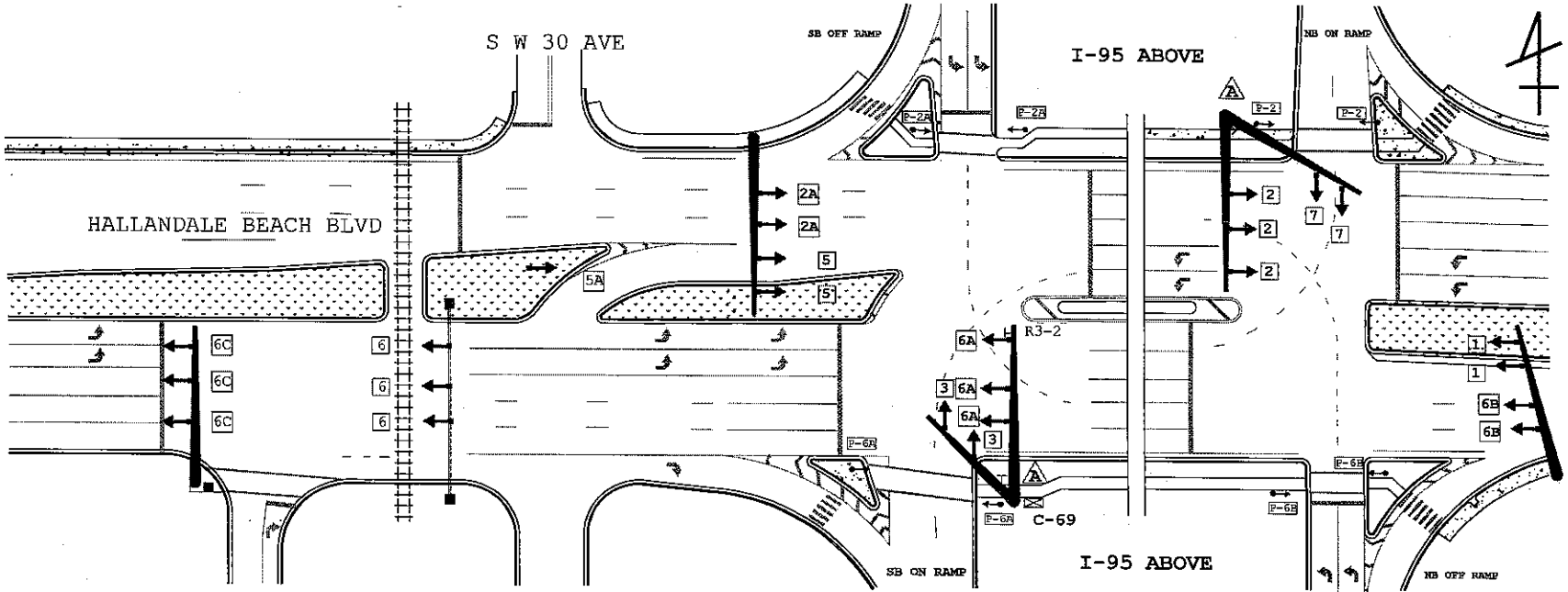
LOCATION **HALLANDALE BEACH BLVD AND I95**

ORDER NO _____ ISSUE DATE _____ REV NO. 5 COMPLETION DATE _____

DWG. NO. 06-07-19-01 FILE NO. C-69 CITY PEMBROKE PARK SCALE: 1" = 50'

DRAWN BY: DALRIO

OLD CAD NO 01-06-02-01



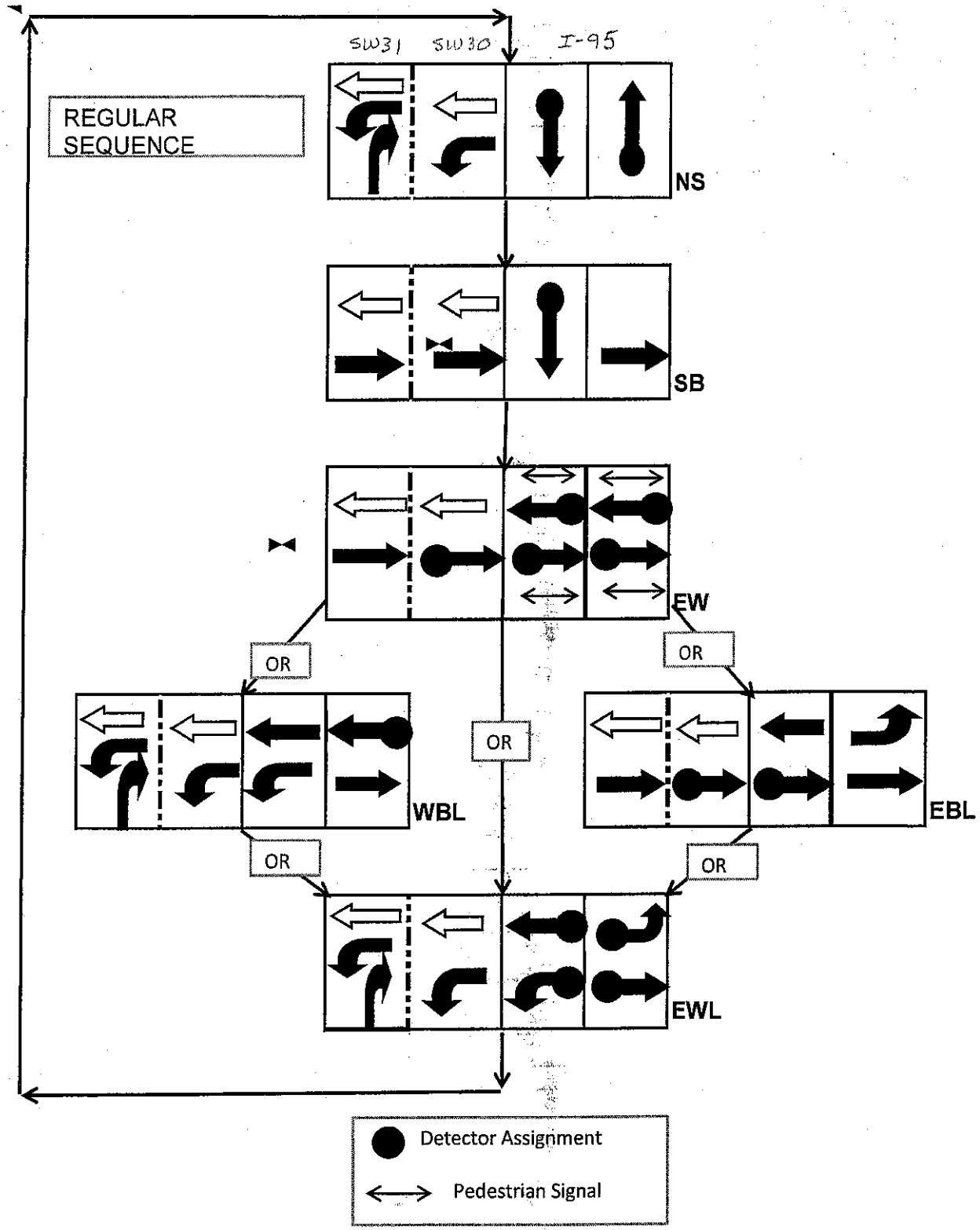
A — Illuminated Street name — 2-REQ'D

FLASHING 5A — 3-SECT 1-WAY 1-REQ'D

1 3 5 7 — 3-SECT 1-WAY 8-REQ'D

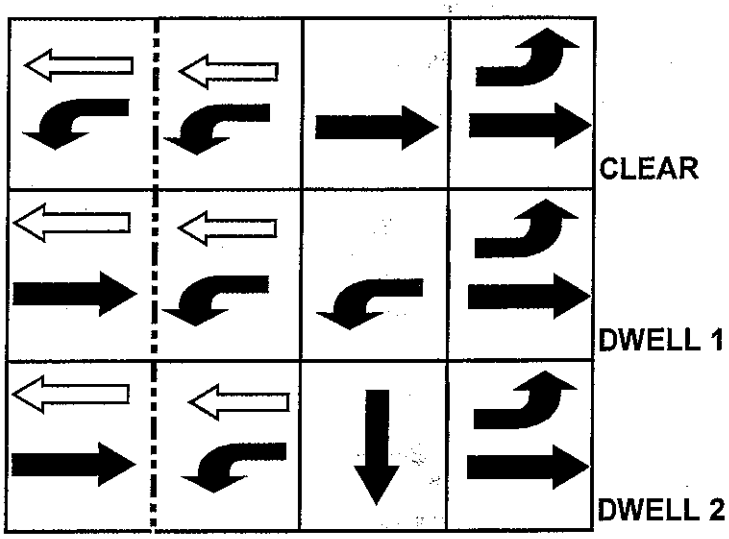
6 6C 2 2A 5A 6B — 3-SECT 1-WAY 16-REQ'D

1. VIDEO DETECTION
2. REBUILT UNDER FDOT PROJ NO 231731-1-52-01
3. THIS REVISION INSTALLS RED ARROW HEAD 5A


SW31
SW30
I-95
REGULAR SEQUENCE
NS
SB
EW
OR
OR
OR
OR
OR
WBL
EBL
EWL
Detector Assignment
Pedestrian Signal

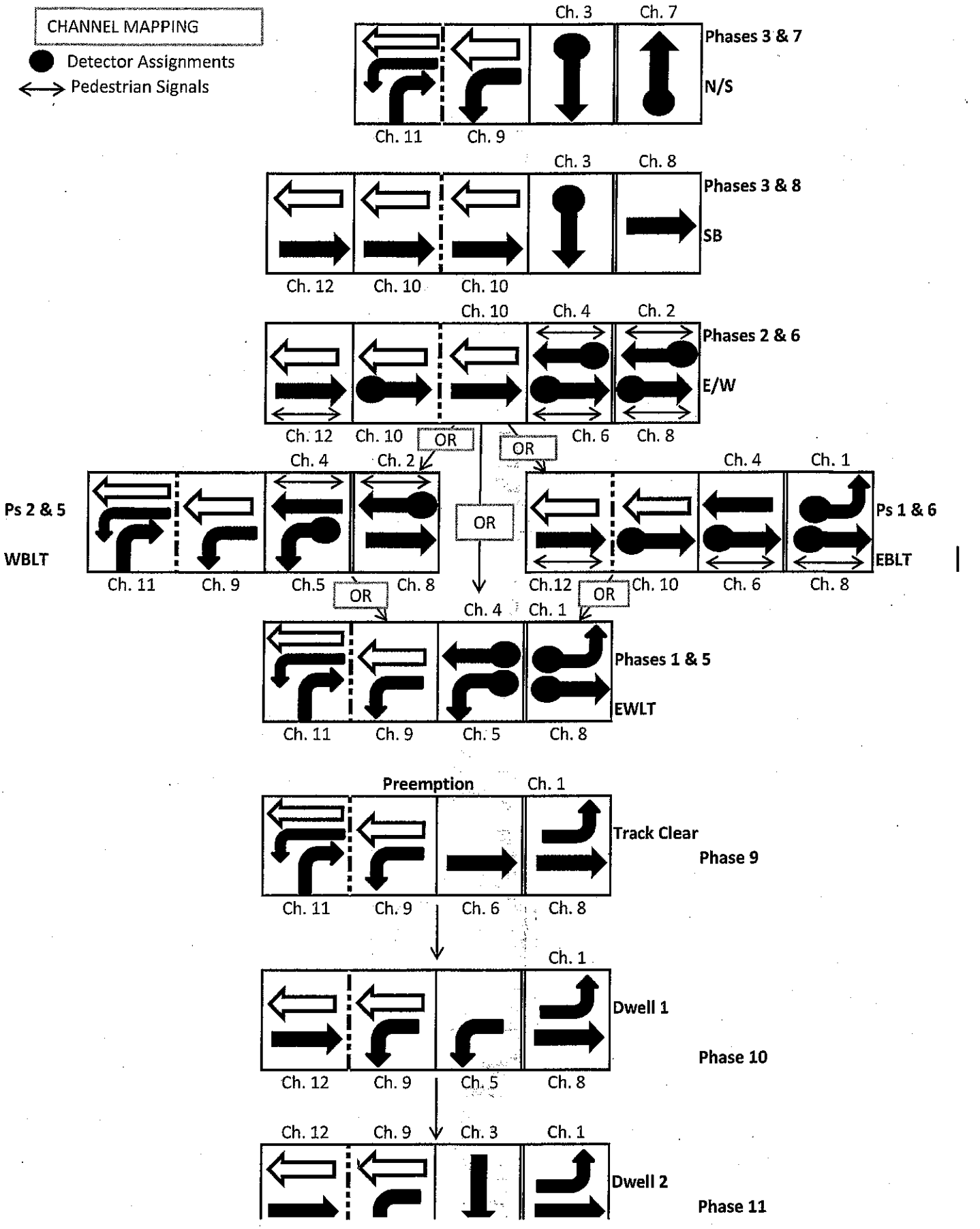
C-069 HBB + I-95

PRE-EMPTION SEQUENCE



RETURN TO EAST/WEST

C-069 HBB + I-95


CHANNEL MAPPING
Detector Assignments
Pedestrian Signals
Ch. 3
Ch. 7
Phases 3 & 7
N/S
Ch. 11
Ch. 9
Ch. 3
Ch. 8
Phases 3 & 8
SB
Ch. 12
Ch. 10
Ch. 10
Ch. 10
Ch. 4
Ch. 2
Phases 2 & 6
E/W
Ch. 12
Ch. 10
OR
OR
Ch. 6
Ch. 8
Ch. 4
Ch. 2
Ch. 4
Ch. 1
Ps 2 & 5
WBLT
OR
Ps 1 & 6
EBLT
Ch. 11
Ch. 9
Ch.5
OR
Ch. 8
Ch.12
OR
Ch. 10
Ch. 6
Ch. 8
Ch. 4
Ch. 1
Phases 1 & 5
EWLT
Ch. 11
Ch. 9
Ch. 5
Ch. 8
Preemption
Ch. 1
Track Clear
Phase 9
Ch. 11
Ch. 9
Ch. 6
Ch. 8
Ch. 1
Dwell 1
Phase 10
Ch. 12
Ch. 9
Ch. 5
Ch. 8
Ch. 12
Ch. 9
Ch. 3
Ch. 1
Dwell 2
Phase 11

C-069 HBB + I95

NOTES:
1. CONTRACTOR SHALL PULL BACK EXISTING SIGNAL CABLE FROM THE MAST ARM SIGNAL JUST WEST OF THE RAILROAD CROSSING TO THE PULL BOX JUST EAST OF THE RAILROAD CROSSING (APPROX. STA. 141+25) NOTED. WHEN PULLING THIS CABLE OUT CONTRACTOR SHALL PULL THREE PULL CHORDS BACK TO THE SAME PULL BOX NOTED FROM THE MAST ARM SIGNAL.

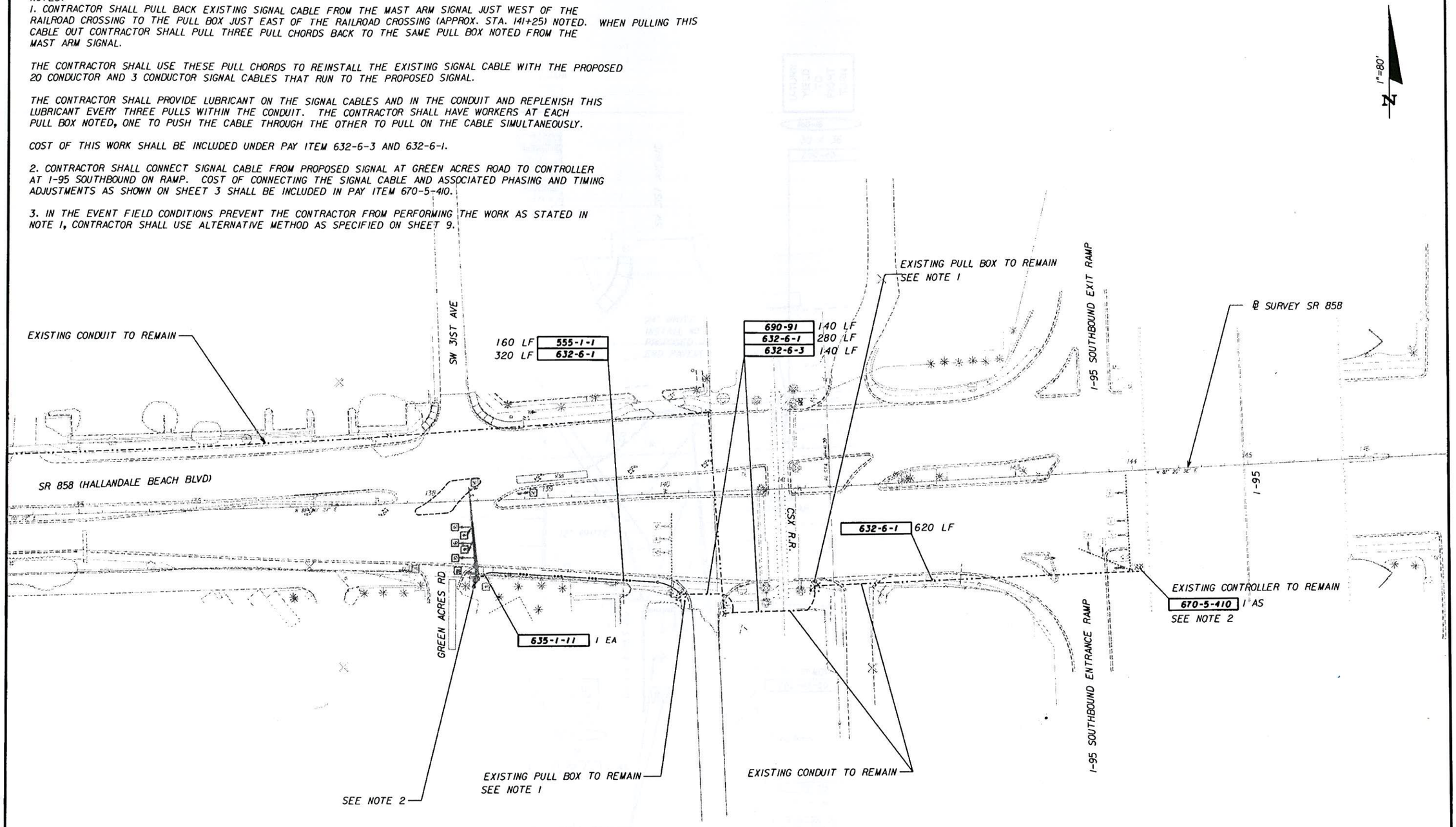
THE CONTRACTOR SHALL USE THESE PULL CHORDS TO REINSTALL THE EXISTING SIGNAL CABLE WITH THE PROPOSED 20 CONDUCTOR AND 3 CONDUCTOR SIGNAL CABLES THAT RUN TO THE PROPOSED SIGNAL.

THE CONTRACTOR SHALL PROVIDE LUBRICANT ON THE SIGNAL CABLES AND IN THE CONDUIT AND REPLENISH THIS LUBRICANT EVERY THREE PULLS WITHIN THE CONDUIT. THE CONTRACTOR SHALL HAVE WORKERS AT EACH PULL BOX NOTED, ONE TO PUSH THE CABLE THROUGH THE OTHER TO PULL ON THE CABLE SIMULTANEOUSLY.

COST OF THIS WORK SHALL BE INCLUDED UNDER PAY ITEM 632-6-3 AND 632-6-1.

2. CONTRACTOR SHALL CONNECT SIGNAL CABLE FROM PROPOSED SIGNAL AT GREEN ACRES ROAD TO CONTROLLER AT I-95 SOUTHBOUND ON RAMP. COST OF CONNECTING THE SIGNAL CABLE AND ASSOCIATED PHASING AND TIMING ADJUSTMENTS AS SHOWN ON SHEET 3 SHALL BE INCLUDED IN PAY ITEM 670-5-410.

3. IN THE EVENT FIELD CONDITIONS PREVENT THE CONTRACTOR FROM PERFORMING THE WORK AS STATED IN NOTE 1, CONTRACTOR SHALL USE ALTERNATIVE METHOD AS SPECIFIED ON SHEET 9.



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRMP
ENGINEERS · SURVEYORS · PLANNERS · SCIENTISTS
DYER, RIDDLE, MILLS & PRECOURT, INC.
1505 E. COLONIAL DRIVE, ORLANDO, FLORIDA 32803
PHONE: (407) 896-0594 FAX: (407) 896-4836
CERTIFICATE OF AUTHORIZATION NO. 2648
JUAN P. CAMACHO, P.E. LICENSE NO. 60031

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
858	BROWARD	228259-2-52-01

INTERCONNECT PLAN

SHEET NO. 4

$USER$ 6/20/2006 4:03:16 PM C:\DRMP_JOB_FILES\02-0087.03_Hallandale_Beach_Blvd\00sig\plansg03.dgn

BROWARD COUNTY TRAFFIC ENGINEERING
ACTUATED TRAFFIC SIGNAL TIMING SHEET

Intersection Number	3091	**Initial Operation Date**	UNK
Controller Type	2070 LN	**System Number**	3091
Modification Number	9	**Modification Date**	11/25/2013
Drawing/Project No	413791-1-52-01	**FPL Grid Number**	87470981005
Intersection	HALLANDALE BEACH BLVD. and NW/SW 10 TERRACE		
Municipality	HALLANDALE BEACH		

Controller Phase	1	2	3	4	5	6	7	8
Face Number	1	2		4	5	6		8
Direction	EBL	WB		NB	WBL	EB		SB
Initial Green(MIN)	4	12		6	4	12		6
Vehicle Ext.(GAP)	1.5	3.0		2.0	1.5	3.0		2.0
Maximum Green I	12	50		25	12	50		25
Maximum Green II								
Yellow Clearance	4.0	4.5		4.5	4.0	4.5		4.5
All Red Clearance	2.0	2.0		2.0	2.0	2.0		2.0
Phase Recall	OFF	MIN		OFF	OFF	MIN		OFF
Detector Delay								
Walk		7		7		7		7
Pedestrian Clearance		15		21		15		21
Permissive	YES				YES			
Flash Operation		YELLOW		RED		YELLOW		RED
Green Return	7	1		5	8	2		6

Attachment

Channel/Drop **104 / 4** **IP Address**

NOTES:

1. ANTI-BACKDOWN DIODES EAST/WEST.
2. DUAL ENTRY HARDWIRED NORTH/SOUTH.
3. VIDEO DETECTION.
4. PHOTO ENFORCEMENT, CITY OF HALLANDALE.
5. MOD. 9 UPDATES CLEARANCES PER FDOT PHOTO ENFORCEMENT GUIDELINES.

Submitted By _____ **Approved By** _____

Broward County | Timing Sheet | 3/19/2014 8:48:50 AM

Station : 3091 - Hallandale Beach Blvd & NW / SW 10 Terr (Standard File)

Phase	1 (EL)	2 (WT)	3	4 (NT)	5 (WL)	6 (ET)	7	8 (ST)	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		15		21		15		21								
Min Green	4	12		6	4	12		12								
Passage	10	3		2	1.5	3		2								
Max1	12	50		25	12	50		25								
Max2																
Yellow	4	4.5	4	4.5	4	4.5	4	4.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON		ON								
Auto Entry				ON				ON								
Auto Exit		ON				ON										
Non Act1																
Non Act2																
Lock Call									ON	ON	ON	ON	ON	ON	ON	ON
Min Recall	ON	ON				ON		ON								
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry				ON				ON								
Sim Gap Enable									ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk		ON				ON										
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash			ON		ON	
Override Higher			ON		ON	
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green	6	6		6		6
Min Walk						
Ped Clear						
Track Green				1		1
Min Dwell	8	8		8		8
Max Presence	180	180		180		180
Track R1				9		9
Track R2						
Track R3						
Track R4						
Dwell Ped1						
Exit R1	1	4		2		2
Exit R2	5	8		6		6
Exit R3						
Exit R4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock in Mins				
Headway in Mins				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Prepared By	Date Implemented
Reviewed By	Traffic Engineer

Broward County | Timing Sheet | 3/19/2014 8:48:50 AM

Station : 3091 - Hallandale Beach Blvd & NW / SW 10 Terr (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Sequc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		100	254																							
6		2	2	160	124	2	1	10	50		16	109		35	16	109		35								
9		3	3	160	10	3	1	10	50		20	105		35	20	105		35								
15		4	4	160	17	4	1	10	50		20	105		35	20	105		35								
20		3	3	160	10	3	1	10	50		20	105		35	20	105		35								
Day Plan 2											**Easy**															
		3	3	160	10	3	1	10	50		20	105		35	20	105		35								
1		100	254																							
6	30	3	3	160	10	3	1	10	50		20	105		35	20	105		35								
Day Plan 3											**Easy**															
		3	3	160	10	3	1	10	50		20	105		35	20	105		35								
1		100	254																							
6	30	3	3	160	10	3	1	10	50		20	105		35	20	105		35								
23		100	254																							

Broward County Timing Sheet 3/19/2014 8:48:50 AM

Station : 3091 - Hallandale Beach Blvd & NW / SW 10 Terr (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	Seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Week							Day of Month																															
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1													1	1	1	1	1		1																															2
5	1													1							1																														2
6					1									1																														1	1	1	1	1	1	1	2
7							1											1				1																													2
8							1							1	1	1	1	1					1																												2
9							1							1										1																											2
10									1					1						1	1	1	1	1	1	1																									2
11											1						1																								1	1	1	1	1	1	1				2
12											1							1																								1	1	1	1	1	1	1			2
13												1		1				1																									1								2
14												1		1	1	1	1	1																										1							2
15												1		1																															1						2
16												1		1				1																																1	2
17																																																			1
18																																																			1
19																																																			1
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28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
TRAFFIC SIGNAL LOCATION SKETCH

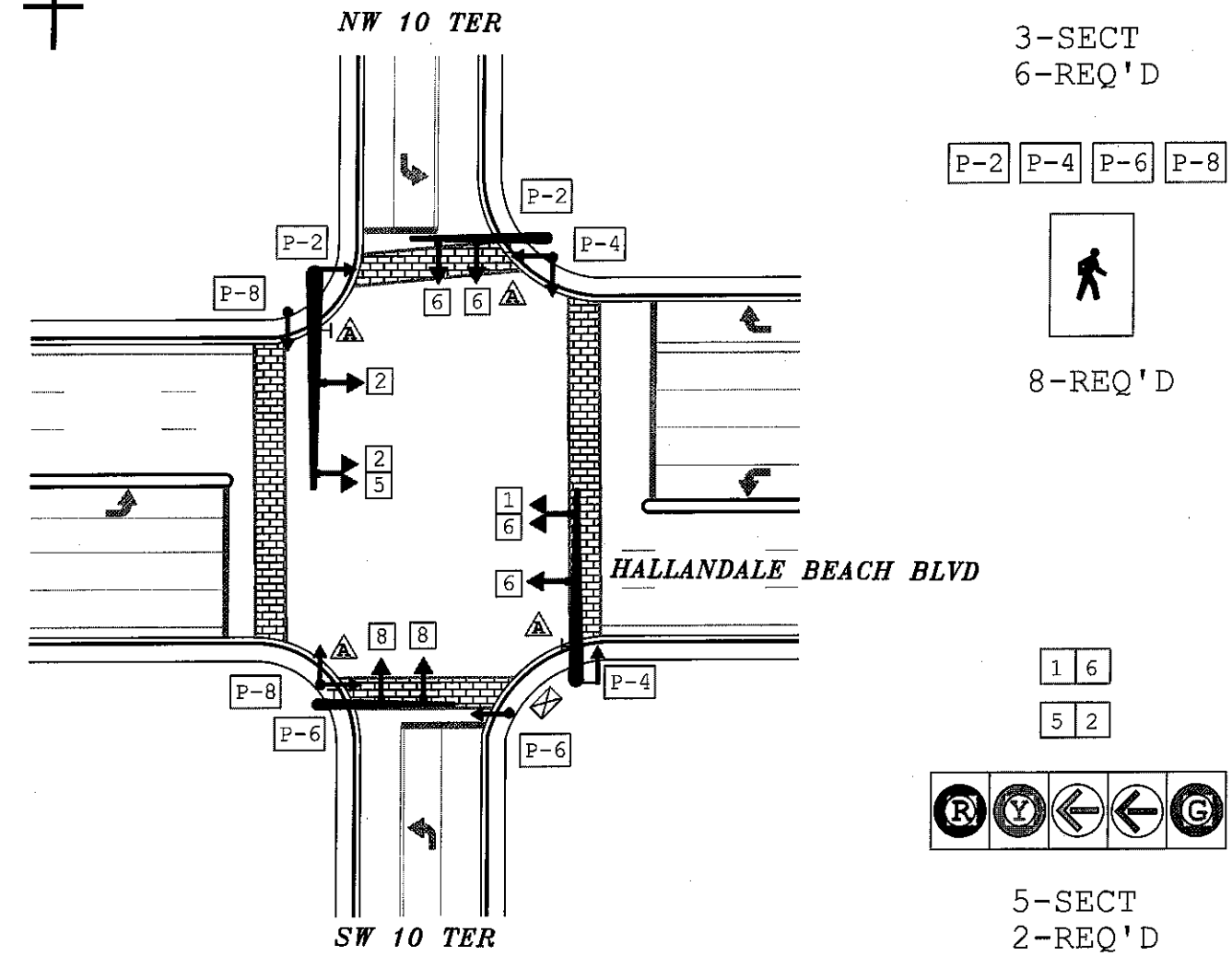
LOCATION **HALLANDALE BEACH BLVD & NW/SW 10 TERRACE**

ORDER NO **FDOT** ISSUE DATE ---- REVISION NO. **2** COMPLETION DATE **3-25-09**

DWG. NO. **12-06-08-01** FILE NO. **3091** CITY **HALLANDALE BEACH** SCALE: 1" = 50'

DWN BY: LARRY

NORTH



A
Illuminated Street name
4-REQ'D

2 4 6 8

R Y G

3-SECT
6-REQ'D

P-2 P-4 P-6 P-8

8-REQ'D

1 6
5 2

R Y ← ← G

5-SECT
2-REQ'D

1. *VIDEO DETECTION*
2. *REBUILT THIS REVISION UNDER FPID #4137911*

CONTROLLER TIMINGS								
TIMING FUNCTION								
MOVEMENT NUMBER	1	2	4	5	6	8		
MINIMUM GREEN	4	12	6	4	6	8		
EXTENSION	1.5	3.0	2.0	1.5	3.0	2.0		
MAXIMUM GREEN 1	12	50	25	12	50	25		
MAXIMUM GREEN 2								
YELLOW CLEARANCE	4	4	4	4	4	4		
ALL RED	1.5	1.5	2.0	1.5	1.5	2.0		
PEDESTRIAN WALK		7	7		7	7		
PED. CLEARANCE		15	21		15	21		
RECALL	OFF	MIN	OFF	OFF	MIN	OFF		

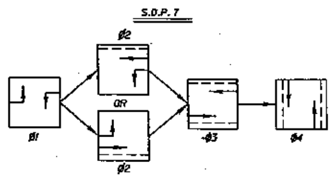
TIMINGS ARE PROVIDED BY BCTE AND ARE CURRENTLY IN USE. CONTRACTOR SHALL VERIFY TIMINGS AND ANY CHANGES REQUIRED BY BCTED AT THE TIME OF CONSTRUCTION.

VIDEO DETECTOR CHART	
DETECTOR No.	MOVEMENTS
V-1	2,5
V-2	4
V-3	1,6
V-4	8

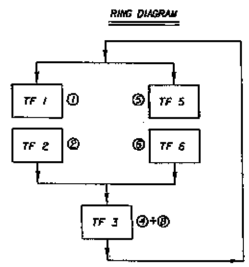
NOTES:

1. THE MAJOR STREET IS S.R. 858 (HALLANDALE BEACH BLVD.). THE MINOR STREET IS NW/SW 10TH TERRACE.
2. TYPE OF CONTROLLER: D-4-4 OPERATING S.O.P. 7 AS SHOWN AND THE FOLLOWING:
   A.) PEDESTRIAN MOVEMENTS ON TF2, 4, 6 & 8 (TO BE DISPLAYED UPON ACTUATION ONLY).
   B.) S.R. 858 TO FLASH YELLOW. NW/SW 10TH TERRACE TO FLASH RED.
   C.) INTERNAL TIME BASED COORDINATION.
3. ALL SYSTEMS AUXILIARY EQUIPMENT MUST BE COMPATIBLE WITH THE BROWARD COUNTY CENTRAL COMPUTER SYSTEM.
4. ALL EXISTING INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE REMOVED FROM THE EXISTING STRAIN POLES, STORED, AND PLACED ON THE MAST ARMS AS SHOWN.

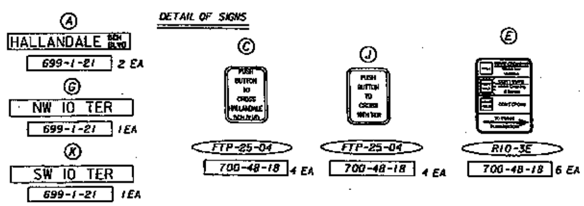
S.O.P. 7



RING DIAGRAM



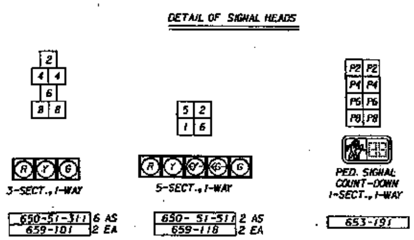
DETAIL OF SIGNS

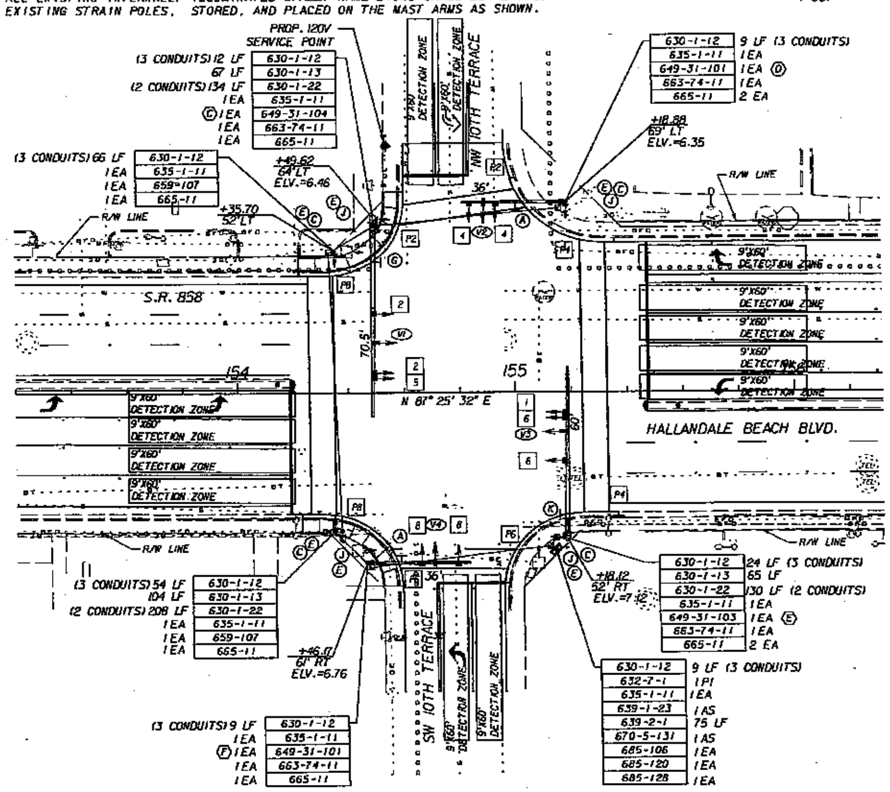


REMOVAL PAY ITEMS

690-10	8 EA
690-20	8 EA
690-32-1	4 EA
690-50	1 EA
690-60	13 EA
690-70	8 EA
690-80	4 EA
690-90	1 PI
690-100	1 PI

DETAIL OF SIGNAL HEADS





REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ARCADIS U.S., INC.
2081 VISTA PARKWAY, WEST PALM BEACH, FL 33411
(561) 697-7000, FAX (561) 697-7751
CERTIFICATION OF AUTHORIZATION NO. 7917
PATRICIA BARR, P.E. P.E. NO. 58525

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 858	BROWARD	413791-1-52-01

3091 3091

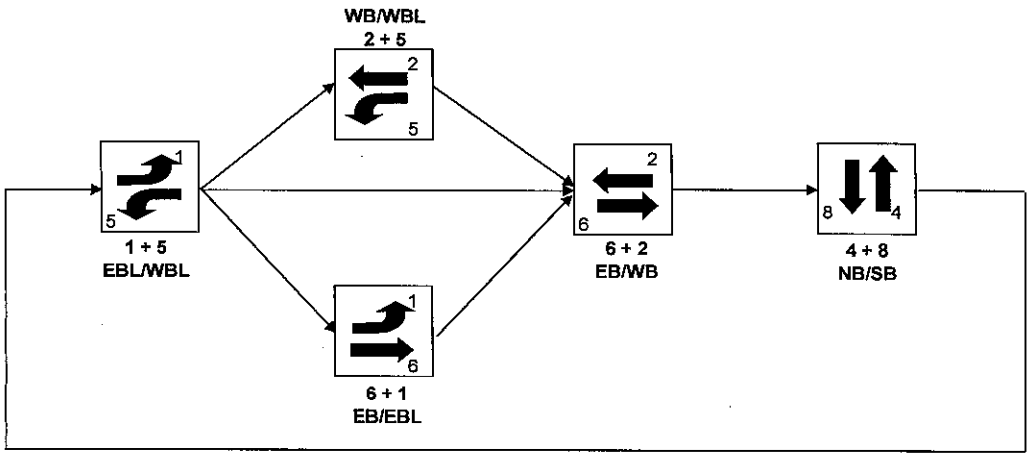
SIGNALIZATION PLAN

SHEET NO. T-9

10/23/2007 9:17:40 AM

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Sequence of Operation for (3091) Hallandale Beach Blvd. and NW/SW 10 Terrace Hallandale Beach



Appendix D

Excerpts from ICDR's

Crash Analysis

6.1.3 Hallandale Beach Boulevard Existing Bicycle, Pedestrian, and Bus Operational Analysis

Arterial Bicycle, Pedestrian, and Bus operational analyses were performed utilizing FDOT's ArtPlan software based on HCM procedures. **Table 6.5** summarizes the results of the arterial bicycle, pedestrian, and bus operational analyses. The analysis indicates Bus deficiencies in the eastbound direction due to the bus frequency.

Table 6.5 – Existing Year (2012/2013) Bicycle, Pedestrian, and Bus Operational Analysis Results

Score / Level Of Service						
Arterial	Eastbound AM (PM)			Westbound AM (PM)		
	Bicycle	Pedestrian	Bus	Bicycle	Pedestrian	Bus
Hallandale Beach Boulevard	2.33 / B (2.41 / B)	2.99 / C (3.14 / C)	1.41 / E (1.55 / E)	2.33 / B (2.43 / B)	3.08 / C (3.40 / C)	2.45 / D (2.05 / D)

6.2 Crash Analysis

The calculated spot safety ratios and confidence levels for the years 2008 through 2012 indicate that the study segments of I-95 and Hallandale Beach Boulevard have experienced greater overall number of crashes than what would typically be anticipated on similar facilities. A review of the crash data presented in the following sections indicates that rear end, sideswipe, and angle type crashes would be susceptible to correction by traffic operational roadway improvements. It should be noted that police crash reports were not reviewed; therefore, the accuracy of crash types could not be verified.

Table 6.6 – Safety Ratios and Confidence Levels 2008-2012

SR-9 (I-95) Mainline					
Year	2008	2009	2010	2011	2012
Safety Ratio	1.007	1.422	1.328	1.774	1.914
Confidence Level	99.96%	99.99%	99.99%	99.99%	99.99%
Hallandale Beach Boulevard (SR 858)					
Year	2008	2009	2010	2011	2012
Safety Ratio	1.646	1.776	1.972	1.614	2.410
Confidence Level	99.99%	99.99%	99.99%	99.99%	99.99%

Notes: The statistical analysis for the I-95 ramps could not be conducted because baseline statewide average crash data for the ramps is not available. In lieu of 2012 Districtwide Average Crash Rates, 2011 values were used.

Based on FDOT's high crash location reports, I-95 and Hallandale Beach Boulevard, within the AOI, appeared as a high crash location/segment as follows:

Table 6.7 – I-95 Mainline Crash Data Summary

Crash Type	2008	2009	2010	2011	2012	Total	Average	Percent
Rear End	32	59	53	53	48	245	49.00	44.4%
Head On	0	0	1	0	1	2	0.40	0.4%
Angle	7	9	6	8	6	36	7.20	6.5%
Left Turn	0	0	0	0	0	0	0.00	0.0%
Right Turn	0	0	0	0	0	0	0.00	0.0%
Sideswipe	11	20	20	0	0	51	10.20	9.2%
Backed Into	0	0	0	0	0	0	0.00	0.0%
Coll. w/ Parked Car	0	0	0	0	1	1	0.20	0.2%
Coll. w/ Pedestrian	1	0	0	0	0	1	0.20	0.2%
Coll. w/ Bicycle	0	0	0	0	0	0	0.00	0.0%
Fixed Object	11	12	5	16	18	62	12.40	11.2%
Ran Off Road	0	0	1	0	0	1	0.20	0.2%
Overturned	0	1	0	1	1	3	0.60	0.5%
Other	14	10	16	49	61	150	30.00	27.2%
Total Crashes	**76**	**111**	**102**	**127**	**136**	**552**	**110.40**	**100.0%**
PDO Crashes	36	54	51	58	64	263	52.60	47.6%
Fatal Crashes	2	0	1	0	0	3	0.60	0.5%
Injury Crashes	38	57	50	69	72	286	57.20	51.8%
Daylight	53	66	70	86	87	362	72.40	65.6%
Dusk	3	4	1	2	2	12	2.40	2.2%
Dawn	0	0	1	7	1	9	1.80	1.6%
Dark	20	41	30	31	46	168	33.60	30.4%
Unknown	0	0	0	1	0	1	0.20	0.2%
Dry	57	79	74	79	100	389	77.80	70.5%
Wet	19	32	28	47	36	162	32.40	29.3%
Others	0	0	0	1	0	1	0.20	0.2%

Note: Increase in crashes during the years 2011 and 2012 possibly caused by new reporting guidelines and/or I-95 Express construction.
Source: FDOT CARS Database

6.2.2 Crash Analysis – I-95 Ramps

The crash data for the five most recent years (from January 2008 to December 2012) along the I-95 ramps at the Hallandale Beach Blvd interchange was downloaded from the FDOT's CARS. Based on the crash data, crash summaries and collision diagrams were developed for the five years. Review of the crash summaries provides insight into the historical crash patterns along the study roadway segment. The crash summaries and the collision diagrams are included in **Appendix D**. Based on the crash data reviewed, a total of 193 crashes were documented along the study roadway segment during the referenced five year period with 35 crashes in 2008, 31 crashes in 2009, 35 crashes in 2010, 41 crashes in 2011, and 51 crashes in 2012.

Based on crash severity, of the 193 crashes reported, 91 (47%) were property damage only crashes, and 102 (53%) were injury type crashes. There were a total of 59 (31%) night/dusk/dawn crashes reported, which is equal to the statewide average for all roadways of 31 percent; and 32 (17%) of the total crashes reported occurred under wet/slippery pavement conditions, which is equal to the statewide average for all roadways of 17 percent. Among the contributing causes documented in the crash data, Careless Driving (73 crashes - 38%), Followed Too Closely (14 crashes - 7%), Exceeded Safe/Stated Speed Limit (7 crashes – 4%), and Other (89 crashes - 46%) were among the highest.

Table 6.8 – I-95 Ramps Crash Data Summary

Crash Type	2008	2009	2010	2011	2012	Total	Average	Percent
Rear End	23	29	31	26	35	144	28.80	74.6%
Head On	0	0	0	0	0	0	0.00	0.0%
Angle	1	0	1	2	2	6	1.20	3.1%
Left Turn	0	0	0	0	0	0	0.00	0.0%
Right Turn	0	0	0	0	0	0	0.00	0.0%
Sideswipe	3	1	3	0	0	7	1.40	3.6%
Backed Into	1	0	0	0	1	2	0.40	1.0%
Coll. w/ Parked Car	0	0	0	0	0	0	0.00	0.0%
Coll. w/ Pedestrian	0	0	0	0	0	0	0.00	0.0%
Coll. w/ Bicycle	0	0	0	0	0	0	0.00	0.0%
Fixed Object	3	0	0	1	3	7	1.40	3.6%
Ran Off Road	0	0	0	0	0	0	0.00	0.0%
Overturned	0	0	0	1	0	1	0.20	0.5%
Other	4	1	0	11	10	26	5.20	13.5%
Total Crashes	**35**	**31**	**35**	**41**	**51**	**193**	**38.60**	**100.0%**
PDO Crashes	15	15	19	19	23	91	18.20	47.2%
Fatal Crashes	0	0	0	0	0	0	0.00	0.0%
Injury Crashes	20	16	16	22	28	102	20.40	52.8%
Daylight	26	22	25	26	35	134	26.80	69.4%
Dusk	0	1	0	2	2	5	1.00	2.6%
Dawn	0	0	0	0	1	1	0.20	0.5%
Dark	9	8	10	13	13	53	10.60	27.5%
Unknown	0	0	0	0	0	0	0.00	0.0%
Dry	31	23	32	30	45	161	32.20	83.4%
Wet	4	8	3	11	6	32	6.40	16.6%
Others	0	0	0	0	0	0	0.00	0.0%

Source: FDOT CARS Database

Table 6.9 – Hallandale Beach Boulevard Crash Data Summary

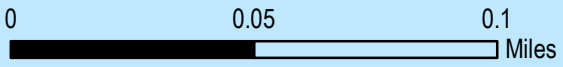
Crash Type	2008	2009	2010	2011	2012	Total	Average	Percent
Rear End	29	38	47	41	64	219	43.80	45.0%
Head On	4	1	1	2	1	9	1.80	1.8%
Angle	20	19	22	14	21	96	19.20	19.7%
Left Turn	9	7	5	1	1	23	4.60	4.7%
Right Turn	3	1	2	0	3	9	1.80	1.8%
Sideswipe	7	9	12	0	0	28	5.60	5.7%
Backed Into	0	1	2	1	0	4	0.80	0.8%
Coll. w/ Parked Car	1	0	0	0	0	1	0.20	0.2%
Coll. w/ Pedestrian	1	1	1	0	3	6	1.20	1.2%
Coll. w/ Bicycle	0	1	0	0	2	3	0.60	0.6%
Fixed Object	1	3	5	0	4	13	2.60	2.7%
Ran Off Road	0	0	0	0	0	0	0.00	0.0%
Overturned	0	0	0	0	0	0	0.00	0.0%
Other	8	7	9	22	30	76	15.20	15.6%
Total Crashes	**83**	**88**	**106**	**81**	**129**	**487**	**97.40**	**100.0%**
PDO Crashes	44	49	68	55	91	307	61.40	63.0%
Fatal Crashes	0	0	0	0	0	0	0.00	0.0%
Injury Crashes	39	39	38	26	38	180	36.00	37.0%
Daylight	52	59	61	55	92	319	63.80	65.5%
Dusk	1	3	4	3	4	15	3.00	3.1%
Dawn	2	0	3	2	2	9	1.80	1.8%
Dark	27	24	37	21	31	140	28.00	28.7%
Unknown	1	2	1	0	0	4	0.80	0.8%
Dry	71	80	95	67	112	425	85.00	87.3%
Wet	11	7	6	14	17	55	11.00	11.3%
Others	1	1	5	0	0	7	1.40	1.4%

Source: FDOT CARS Database

6.2.4 Crash Analysis – Countermeasures

Based on the crash analysis, the following countermeasures address the number of crashes for the Hallandale Beach Boulevard interchange are recommended:

- Extend EB outside through and right-turn lanes west of I-95
- Provide a second WB right-turn lane at I-95 NB on-ramp and extend the existing right-turn lane to NW/SW 10th Terrace
- Provide a second NB right-turn lane on I-95 NB off-ramp
- Provide a second and third SB right-turn lane on I-95 SB off-ramp
- Provide a braided ramp for the Pembroke Road NB off-ramp from I-95



CRASH TYPE	2008	2009	2010	2011	2012	Total
Rear end	84	126	131	120	147	608
Angle	28	28	29	24	29	138
Left turn	9	7	5	1	1	23
Right turn	3	1	2	0	3	9
Sideswipe	21	30	35	0	0	86
Pedestrian	2	1	1	0	3	7
Bicycle	0	1	0	0	2	3
Fixed Object	15	15	10	17	25	82
ROR/Overturned	0	1	1	2	1	5
Other	32	20	29	85	105	271
TOTAL	**194**	**230**	**243**	**249**	**316**	1232

Notes: Crash location is approximate;
Crash type is based on information contained in the electronic database

I-95 Interchange Master Plan
Broward County

2008 Collision Diagram
I-95 at Hallandale Beach Boulevard

FDOT

N

0 0.05 0.1 Miles

I-95

NB I-95 FR WB SR 858

SB I-95 TO SR 858

HALLANDALE BCH BLVD

NB I-95 TO SR 858

SB I-95 FR SR 858

CRASH TYPE	2008	2009	2010	2011	2012	Total
Rear end	84	126	131	120	147	608
Angle	28	28	29	24	29	138
Left turn	9	7	5	1	1	23
Right turn	3	1	2	0	3	9
Sideswipe	21	30	35	0	0	86
Pedestrian	2	1	1	0	3	7
Bicycle	0	1	0	0	2	3
Fixed Object	15	15	10	17	25	82
ROR/Overturned	0	1	1	2	1	5
Other	32	20	29	85	105	271
TOTAL	**194**	**230**	**243**	**249**	**316**	1232

Crash Type

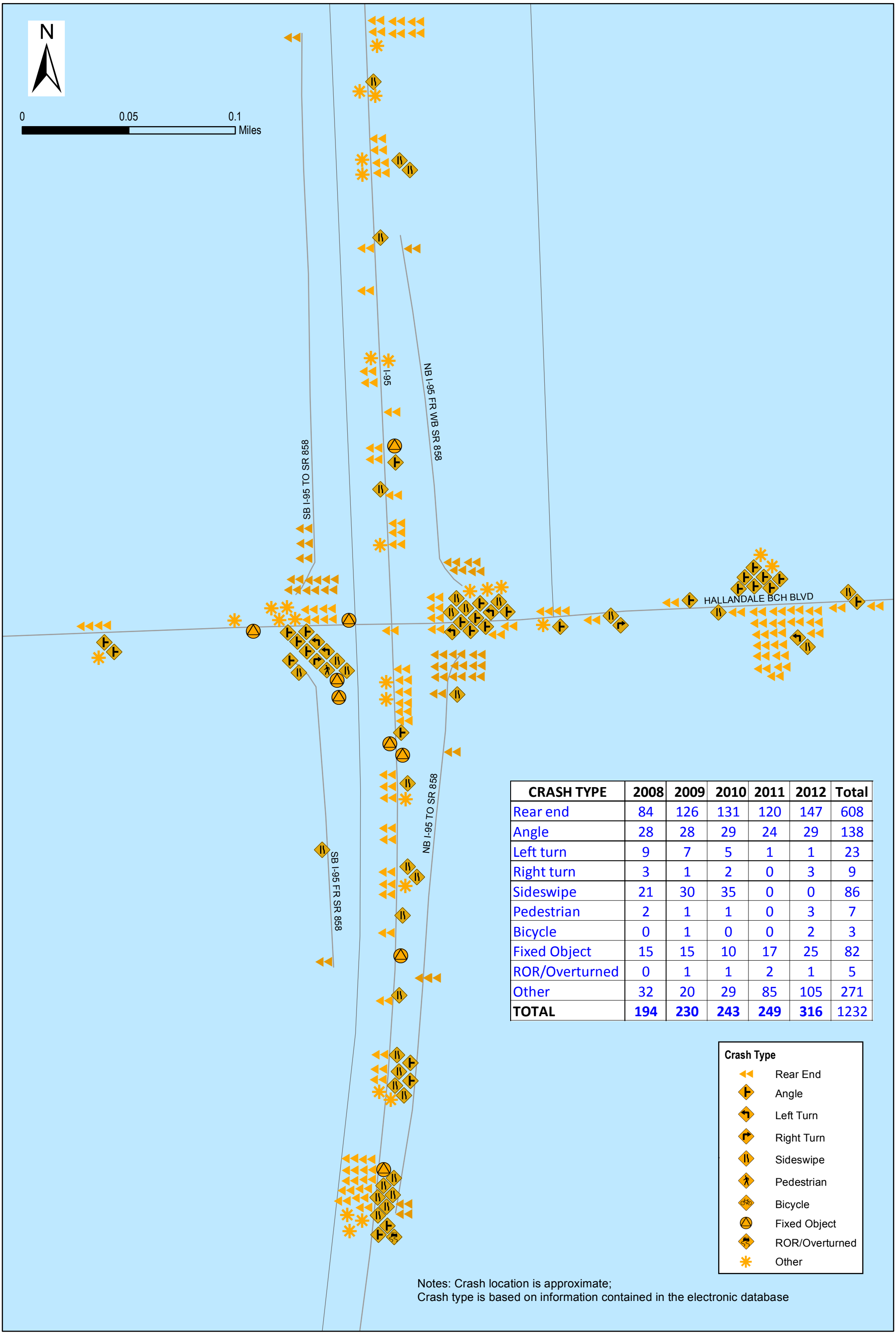
- Rear End
- Angle
- Left Turn
- Right Turn
- Sideswipe
- Pedestrian
- Bicycle
- Fixed Object
- ROR/Overturned
- Other

Notes: Crash location is approximate;
Crash type is based on information contained in the electronic database

I-95 Interchange Master Plan
Broward County

2009 Collision Diagram
I-95 at Hallandale Beach Boulevard

FDOT



CRASH TYPE	2008	2009	2010	2011	2012	Total
Rear end	84	126	131	120	147	608
Angle	28	28	29	24	29	138
Left turn	9	7	5	1	1	23
Right turn	3	1	2	0	3	9
Sideswipe	21	30	35	0	0	86
Pedestrian	2	1	1	0	3	7
Bicycle	0	1	0	0	2	3
Fixed Object	15	15	10	17	25	82
ROR/Overturned	0	1	1	2	1	5
Other	32	20	29	85	105	271
TOTAL	**194**	**230**	**243**	**249**	**316**	1232

Crash Type

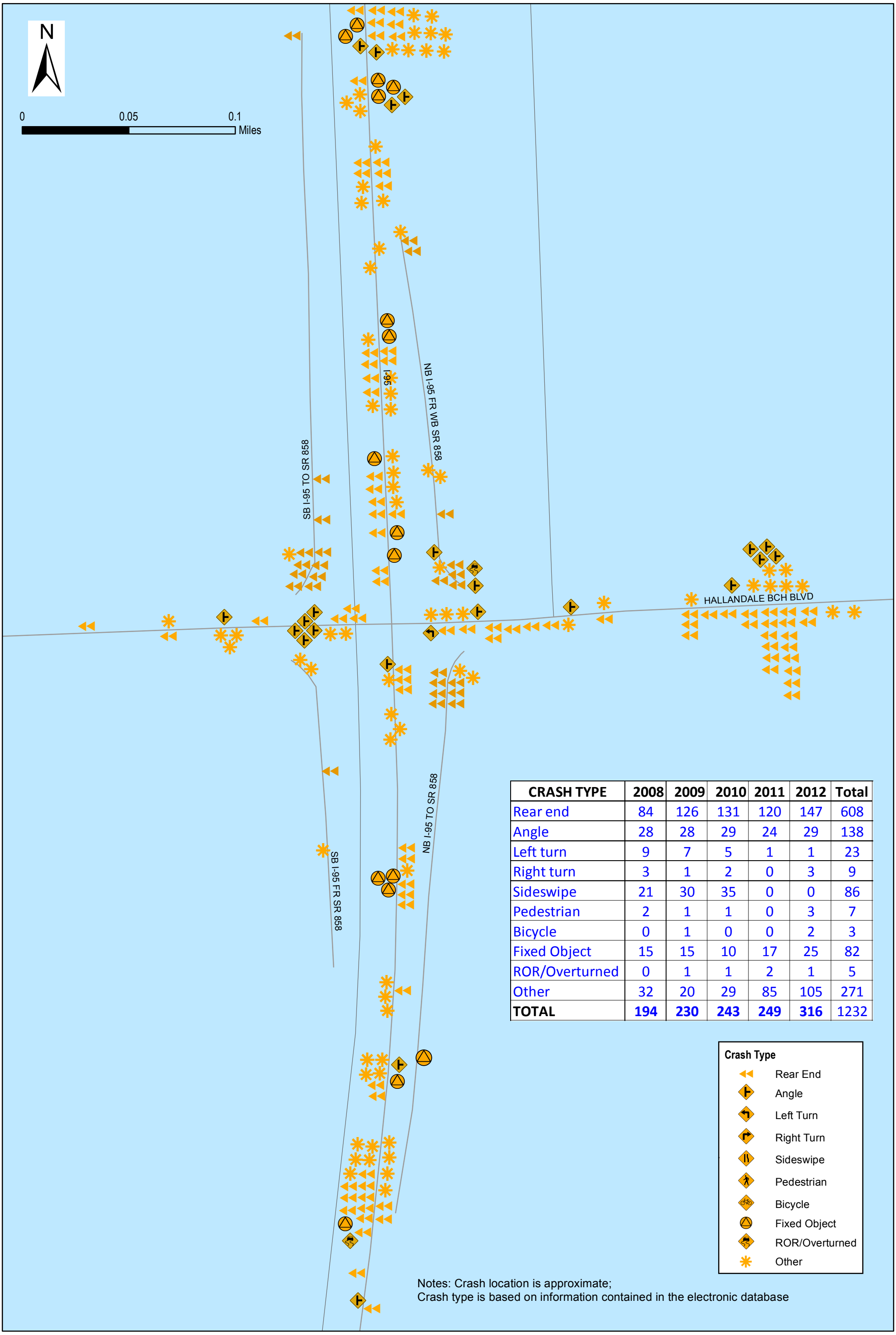
- Rear End
- Angle
- Left Turn
- Right Turn
- Sideswipe
- Pedestrian
- Bicycle
- Fixed Object
- ROR/Overturned
- Other

Notes: Crash location is approximate;
Crash type is based on information contained in the electronic database

I-95 Interchange Master Plan
Broward County

2010 Collision Diagram
I-95 at Hallandale Beach Boulevard

FDOT



CRASH TYPE	2008	2009	2010	2011	2012	Total
Rear end	84	126	131	120	147	608
Angle	28	28	29	24	29	138
Left turn	9	7	5	1	1	23
Right turn	3	1	2	0	3	9
Sideswipe	21	30	35	0	0	86
Pedestrian	2	1	1	0	3	7
Bicycle	0	1	0	0	2	3
Fixed Object	15	15	10	17	25	82
ROR/Overturned	0	1	1	2	1	5
Other	32	20	29	85	105	271
TOTAL	**194**	**230**	**243**	**249**	**316**	1232

Crash Type

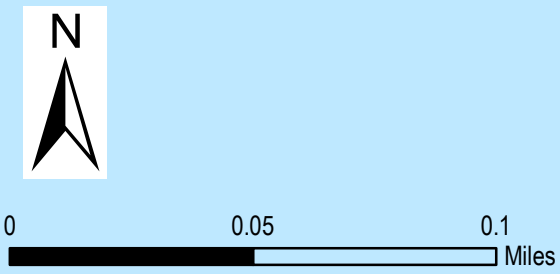
- Rear End
- Angle
- Left Turn
- Right Turn
- Sideswipe
- Pedestrian
- Bicycle
- Fixed Object
- ROR/Overturned
- Other

Notes: Crash location is approximate;
Crash type is based on information contained in the electronic database

I-95 Interchange Master Plan
Broward County

2011 Collision Diagram
I-95 at Hallandale Beach Boulevard

FDOT



CRASH TYPE	2008	2009	2010	2011	2012	Total
Rear end	84	126	131	120	147	608
Angle	28	28	29	24	29	138
Left turn	9	7	5	1	1	23
Right turn	3	1	2	0	3	9
Sideswipe	21	30	35	0	0	86
Pedestrian	2	1	1	0	3	7
Bicycle	0	1	0	0	2	3
Fixed Object	15	15	10	17	25	82
ROR/Overturned	0	1	1	2	1	5
Other	32	20	29	85	105	271
TOTAL	**194**	**230**	**243**	**249**	**316**	1232

Crash Type

- Rear End
- Angle
- Left Turn
- Right Turn
- Sideswipe
- Pedestrian
- Bicycle
- Fixed Object
- ROR/Overturned
- Other

Notes: Crash location is approximate;
Crash type is based on information contained in the electronic database

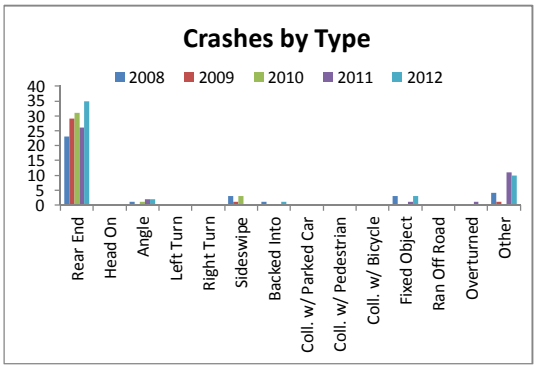
I-95 Interchange Master Plan
Broward County

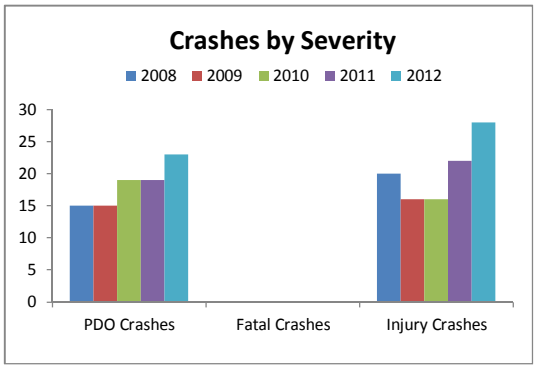
2012 Collision Diagram
I-95 at Hallandale Beach Boulevard

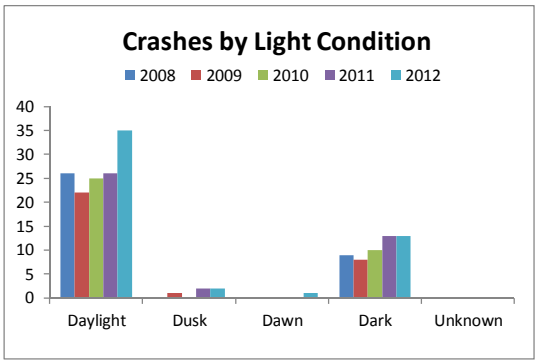
FDOT

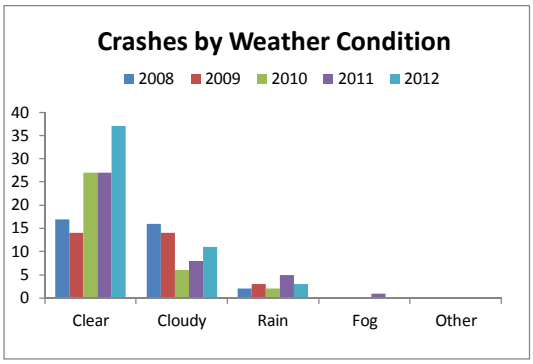
CRASH HISTOGRAMS

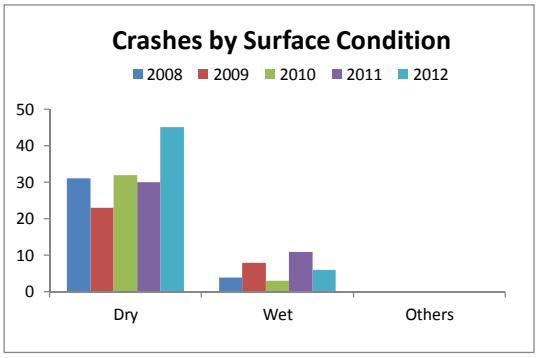
I-95 Ramps at Hallandale Bch Blvd

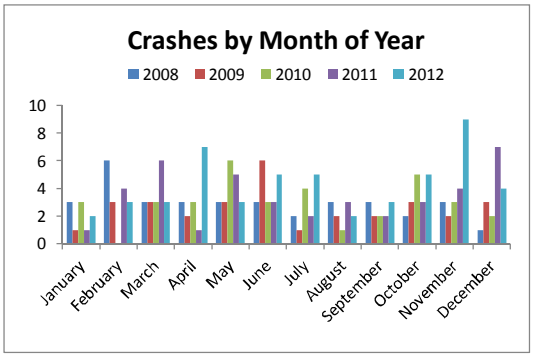


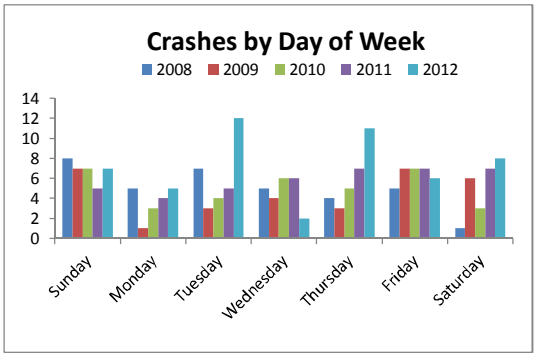


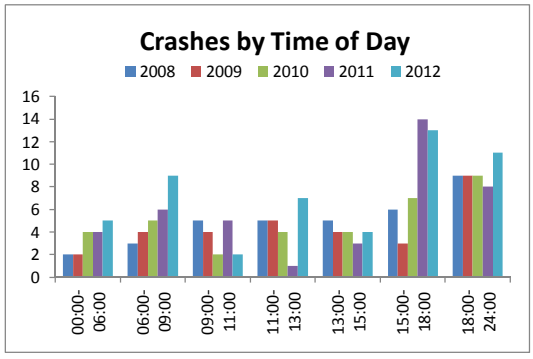












FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Ramps** M.P. **0.000** TO **0.000** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 08** TO **12/ 08** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.000	11/25/08	Tue	0300	Hit Guardrail	0	0	1	Night	Wet	Unknown/Not Coded
2	0.150	01/02/08	Wed	1900	Rear-End	0	2	0	Night	Dry	Unknown/Not Coded
3	0.150	03/05/08	Wed	1300	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
4	0.150	11/02/08	Sun	1800	All Other	0	0	1	Night	Wet	Unknown/Not Coded
5	0.000	02/16/08	Sat	1900	Rear-End	0	4	0	Night	Dry	Exceeded Safe Speed Limit
6	0.000	02/28/08	Thu	1300	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
7	0.000	06/19/08	Thu	0900	Rear-End	0	1	0	Day	Wet	No Improper Driving/Act
8	0.000	09/03/08	Wed	1500	Rear-End	0	0	1	Day	Dry	Careless Driving
9	0.000	09/16/08	Tue	1400	Rear-End	0	1	0	Day	Dry	Careless Driving
10	0.171	10/20/08	Mon	0800	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
11	0.171	12/21/08	Sun	0000	Angle	0	3	0	Night	Dry	Fleeing Police
12	0.252	08/27/08	Wed	0900	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
13	0.257	06/29/08	Sun	1100	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
14	0.266	02/10/08	Sun	1800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
15	0.266	02/12/08	Tue	0800	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
16	0.266	03/30/08	Sun	2300	All Other	0	4	0	Night	Dry	Unknown/Not Coded
17	0.266	04/28/08	Mon	1700	Backed Into	0	0	1	Day	Dry	Improper Backing
18	0.266	08/15/08	Fri	1200	Rear-End	0	1	0	Day	Dry	Careless Driving
19	0.000	07/06/08	Sun	1200	All Other	0	1	0	Day	Dry	Careless Driving
20	0.170	01/16/08	Wed	1000	Rear-End	0	1	0	Day	Dry	Careless Driving
21	0.170	01/28/08	Mon	1500	Hit Tree/Shrubbery	0	0	1	Day	Dry	Careless Driving
22	0.170	02/15/08	Fri	1400	Rear-End	0	0	1	Day	Dry	Careless Driving
23	0.170	06/23/08	Mon	1500	Concrete Barrier Wall	0	0	1	Day	Dry	No Improper Driving/Act
24	0.170	10/07/08	Tue	2200	Sideswipe	0	1	0	Night	Dry	Unknown/Not Coded
25	0.170	11/28/08	Fri	2300	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
26	0.000	02/17/08	Sun	1800	Rear-End	0	2	0	Night	Wet	Unknown/Not Coded
27	0.000	03/24/08	Mon	1900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
28	0.000	04/17/08	Thu	1500	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
29	0.241	04/29/08	Tue	0700	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
30	0.241	07/04/08	Fri	1200	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
31	0.241	08/14/08	Thu	1000	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
32	0.249	05/27/08	Tue	1000	Rear-End	0	4	0	Day	Dry	No Improper Driving/Act
33	0.250	05/02/08	Fri	1200	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
34	0.250	05/11/08	Sun	1500	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
35	0.250	09/02/08	Tue	1300	All Other	0	1	0	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
35		**0**	**20**	**15**	**1**	**0**	**0**	**23**	**3**	**0**	
		0.00%	*57.14%*	*42.86%*	*2.86%*	*0.00%*	*0.00%*	*65.71%*	*8.57%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
1		**26**	**9**	**4**	**31**	**2**	**0**	**2**			
2.86%		*74.29%*	*25.71%*	*11.43%*	*88.57%*	*5.71%*	*0.00%*	*5.71%*			

TOTAL ENTERING VEHICLES/ADT: **0**

SEGMENT CRASH RATE: **#DIV/0!**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Ramps** M.P. **0.000** TO **0.000** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 09** TO **12/ 09** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.047	12/19/09	Sat	2300	All Other	0	0	1	Night	Dry	Improper Passing
2	0.148	03/15/09	Sun	0100	Rear-End	0	0	1	Night	Dry	Careless Driving
3	0.150	07/01/09	Wed	0000	Rear-End	0	1	0	Night	Wet	Unknown/Not Coded
4	0.100	02/27/09	Fri	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
5	0.171	12/03/09	Thu	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
6	0.252	08/15/09	Sat	1000	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
7	0.257	10/29/09	Thu	2000	Rear-End	0	1	0	Night	Wet	Careless Driving
8	0.260	09/05/09	Sat	1900	Rear-End	0	1	0	Day	Wet	Exceed Stated Speed Limit
9	0.262	06/14/09	Sun	2200	Rear-End	0	0	1	Night	Dry	Careless Driving
10	0.263	05/22/09	Fri	1400	Rear-End	0	0	1	Day	Wet	Exceeded Safe Speed Limit
11	0.264	06/21/09	Sun	2000	Rear-End	0	0	1	Night	Dry	Exceeded Safe Speed Limit
12	0.266	03/19/09	Thu	1900	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
13	0.266	04/12/09	Sun	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
14	0.001	11/06/09	Fri	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
15	0.004	09/18/09	Fri	1400	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
16	0.005	03/15/09	Sun	1100	Rear-End	0	0	1	Day	Dry	Careless Driving
17	0.019	02/11/09	Wed	0900	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
18	0.019	06/27/09	Sat	0600	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
19	0.170	04/21/09	Tue	0800	Rear-End	0	1	0	Day	Wet	No Improper Driving/Act
20	0.000	06/17/09	Wed	2100	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
21	0.000	11/20/09	Fri	2100	Rear-End	0	5	0	Night	Dry	Careless Driving
22	0.001	08/05/09	Wed	1800	Rear-End	0	1	0	Day	Dry	Followed Too Closely
23	0.155	06/06/09	Sat	1600	Rear-End	0	2	0	Day	Wet	Careless Driving
24	0.231	06/30/09	Tue	1300	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
25	0.231	10/25/09	Sun	1200	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
26	0.231	10/30/09	Fri	1200	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
27	0.241	02/16/09	Mon	0800	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
28	0.243	01/27/09	Tue	1000	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
29	0.248	05/29/09	Fri	1200	Rear-End	0	1	0	Day	Wet	Followed Too Closely
30	0.248	05/31/09	Sun	1500	Rear-End	0	0	1	Day	Dry	Careless Driving
31	0.250	12/19/09	Sat	0900	Rear-End	0	0	1	Day	Dry	Careless Driving

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
31		**0**	**16**	**15**	**0**	**0**	**0**	**29**	**1**	**0**	
		0.00%	*51.61%*	*48.39%*	*0.00%*	*0.00%*	*0.00%*	*93.55%*	*3.23%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
0		**22**	**9**	**8**	**23**	**3**	**0**	**0**			
0.00%		*70.97%*	*29.03%*	*25.81%*	*74.19%*	*9.68%*	*0.00%*	*0.00%*			

TOTAL ENTERING VEHICLES/ADT: **0** SEGMENT CRASH RATE: **#DIV/0!**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Ramps** M.P. **0.000** TO **0.000** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 10** TO **12/ 10** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.000	07/25/10	Sun	0800	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
2	0.006	07/04/10	Sun	0300	Sideswipe	0	1	0	Night	Wet	Failed To Yield Right-Of-Way
3	0.095	01/05/10	Tue	1100	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
4	0.150	05/17/10	Mon	1900	Rear-End	0	1	0	Day	Wet	Careless Driving
5	0.002	05/12/10	Wed	1800	Rear-End	0	2	0	Day	Dry	Careless Driving
6	0.232	08/11/10	Wed	0800	Rear-End	0	1	0	Day	Dry	Careless Driving
7	0.238	07/11/10	Sun	0000	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
8	0.247	03/03/10	Wed	1100	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
9	0.262	10/28/10	Thu	0400	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
10	0.264	05/07/10	Fri	1100	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
11	0.265	05/13/10	Thu	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
12	0.266	04/02/10	Fri	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
13	0.266	06/03/10	Thu	2100	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
14	0.266	06/22/10	Tue	1400	Rear-End	0	1	0	Day	Dry	Careless Driving
15	0.000	12/17/10	Fri	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
16	0.003	05/30/10	Sun	0700	Rear-End	0	0	1	Day	Dry	Careless Driving
17	0.004	12/10/10	Fri	1500	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
18	0.005	03/25/10	Thu	2100	Rear-End	0	0	1	Night	Dry	Careless Driving
19	0.165	01/08/10	Fri	0700	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
20	0.000	10/11/10	Mon	1500	Rear-End	0	1	0	Day	Dry	Careless Driving
21	0.000	10/26/10	Tue	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
22	0.100	01/26/10	Tue	1800	Rear-End	0	0	1	Night	Dry	Careless Driving
23	0.100	11/17/10	Wed	1100	Rear-End	0	3	0	Day	Dry	Fleeing Police
24	0.212	06/14/10	Mon	1000	Rear-End	0	3	0	Day	Dry	Unknown/Not Coded
25	0.241	09/15/10	Wed	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
26	0.241	10/02/10	Sat	2000	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
27	0.247	04/09/10	Fri	1700	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
28	0.248	09/29/10	Wed	1900	Rear-End	0	0	1	Night	Wet	Careless Driving
29	0.248	10/02/10	Sat	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
30	0.248	11/11/10	Thu	0900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
31	0.249	03/06/10	Sat	0400	Rear-End	0	0	1	Night	Dry	Careless Driving
32	0.250	04/11/10	Sun	1500	Rear-End	0	0	1	Day	Dry	Careless Driving
33	0.250	05/14/10	Fri	1400	Rear-End	0	1	0	Day	Dry	Careless Driving
34	0.250	07/11/10	Sun	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
35	0.250	11/28/10	Sun	1400	Rear-End	0	1	0	Day	Dry	Careless Driving

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
35		**0**	**16**	**19**	**1**	**0**	**0**	**31**	**3**	**0**	
		0.00%	*45.71%*	*54.29%*	*2.86%*	*0.00%*	*0.00%*	*88.57%*	*8.57%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
0		**25**	**10**	**3**	**32**	**0**	**2**	**0**			
0.00%		*71.43%*	*28.57%*	*8.57%*	*91.43%*	*0.00%*	*5.71%*	*0.00%*			

TOTAL ENTERING VEHICLES/ADT: **15,514**

SEGMENT CRASH RATE: **#DIV/0!**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Ramps** M.P. **0.000** TO **0.000** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 11** TO **12/ 11** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.004	06/30/11	Thu	1700	All Other	0	0	1	Day	Wet	Unknown/Not Coded
2	0.009	07/26/11	Tue	1700	All Other	0	0	1	Day	Dry	Unknown/Not Coded
3	0.057	12/15/11	Thu	1500	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
4	0.095	11/16/11	Wed	0900	All Other	0	2	0	Day	Dry	Unknown/Not Coded
5	0.000	02/22/11	Tue	1500	Rear-End	0	1	0	Day	Dry	Careless Driving
6	0.077	09/18/11	Sun	0200	All Other	0	0	1	Night	Dry	Unknown/Not Coded
7	0.209	03/09/11	Wed	1700	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
8	0.228	12/13/11	Tue	1700	Rear-End	0	1	0	Night	Dry	Careless Driving
9	0.247	05/06/11	Fri	0600	Rear-End	0	2	0	Night	Wet	Careless Driving
10	0.247	11/21/11	Mon	0900	Rear-End	0	0	1	Day	Dry	Careless Driving
11	0.258	08/30/11	Tue	0800	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
12	0.261	11/13/11	Sun	0000	Rear-End	0	0	1	Night	Dry	Careless Driving
13	0.262	12/03/11	Sat	1800	Rear-End	0	0	1	Night	Dry	Followed Too Closely
14	0.265	05/05/11	Thu	1600	Rear-End	0	0	1	Day	Wet	Followed Too Closely
15	0.266	03/25/11	Fri	1600	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
16	0.266	06/24/11	Fri	2000	Rear-End	0	1	0	Night	Wet	Careless Driving
17	0.266	12/28/11	Wed	1700	All Other	0	0	1	Night	Dry	Unknown/Not Coded
18	0.000	02/05/11	Sat	1000	Rear-End	0	0	1	Day	Dry	Careless Driving
19	0.000	03/09/11	Wed	1800	Rear-End	0	1	0	Night	Dry	No Improper Driving/Act
20	0.000	05/05/11	Thu	1600	Rear-End	0	1	0	Day	Wet	No Improper Driving/Act
21	0.002	05/15/11	Sun	0800	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
22	0.005	03/28/11	Mon	1800	Overturned	0	1	0	Night	Wet	No Improper Driving/Act
23	0.005	08/01/11	Mon	1600	Rear-End	0	1	0	Day	Wet	Exceeded Safe Speed Limit
24	0.009	10/06/11	Thu	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
25	0.019	02/04/11	Fri	1400	Angle	0	1	0	Day	Dry	Careless Driving
26	0.038	01/19/11	Wed	0600	Rear-End	0	1	0	Day	Wet	Careless Driving
27	0.057	08/28/11	Sun	0200	All Other	0	1	0	Night	Dry	Unknown/Not Coded
28	0.057	10/29/11	Sat	0600	All Other	0	0	1	Day	Wet	Unknown/Not Coded
29	0.170	03/08/11	Tue	1600	Rear-End	0	1	0	Day	Dry	Followed Too Closely
30	0.170	12/08/11	Thu	2000	All Other	0	1	0	Night	Dry	No Improper Driving/Act
31	0.170	12/12/11	Mon	1000	Rear-End	0	0	1	Day	Dry	Careless Driving
32	0.061	11/19/11	Sat	0300	Hit Guardrail	0	0	1	Night	Dry	Careless Driving
33	0.241	03/19/11	Sat	2100	Rear-End	0	1	0	Night	Dry	Careless Driving
34	0.244	02/25/11	Fri	1000	All Other	0	1	0	Day	Dry	Unknown/Not Coded
35	0.248	10/26/11	Wed	1300	Rear-End	0	1	0	Day	Dry	Careless Driving
36	0.249	05/27/11	Fri	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
37	0.249	07/03/11	Sun	1600	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	No Improper Driving/Act
38	0.249	12/31/11	Sat	2200	Rear-End	0	1	0	Night	Dry	Careless Driving
39	0.250	04/14/11	Thu	2200	Rear-End	0	2	0	Night	Dry	Careless Driving
40	0.250	06/11/11	Sat	1500	Rear-End	0	0	1	Day	Dry	Careless Driving
41	0.250	09/02/11	Fri	1400	Rear-End	0	0	1	Day	Wet	Followed Too Closely

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
41		**0**	**22**	**19**	**2**	**0**	**0**	**26**	**0**	**0**	
		0.00%	*53.66%*	*46.34%*	*4.88%*	*0.00%*	*0.00%*	*63.41%*	*0.00%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
4		**26**	**15**	**11**	**30**	**1**	**1**	**1**			
9.76%		*63.41%*	*36.59%*	*26.83%*	*73.17%*	*2.44%*	*2.44%*	*2.44%*			

TOTAL ENTERING VEHICLES/ADT: **19,134**

SEGMENT CRASH RATE: **#DIV/0!**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Ramps** M.P. **0.000** TO **0.000** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 12** TO **12/ 12** COUNTY: **Broward**

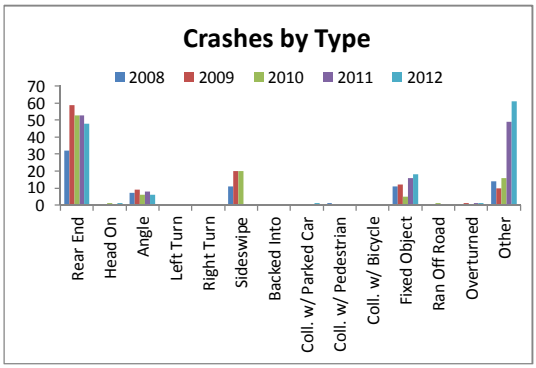
No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.075	08/17/12	Fri	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
2	0.150	01/17/12	Tue	0800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
3	0.150	02/26/12	Sun	1500	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
4	0.000	03/05/12	Mon	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
5	0.077	09/15/12	Sat	0200	Coll. W/Crash Attenuators	0	0	1	Night	Wet	Careless Driving
6	0.077	10/16/12	Tue	1400	Rear-End	0	1	0	Day	Dry	Careless Driving
7	0.114	11/13/12	Tue	1700	Rear-End	0	4	0	Night	Dry	Careless Driving
8	0.152	11/15/12	Thu	1800	All Other	0	1	0	Night	Dry	Unknown/Not Coded
9	0.209	11/24/12	Sat	1900	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
10	0.247	04/07/12	Sat	1700	Rear-End	0	3	0	Day	Dry	Careless Driving
11	0.252	02/06/12	Mon	0400	All Other	0	0	1	Night	Dry	Unknown/Not Coded
12	0.263	11/01/12	Thu	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
13	0.263	11/16/12	Fri	1900	Rear-End	0	1	0	Night	Wet	Unknown/Not Coded
14	0.264	06/12/12	Tue	1100	Rear-End	0	1	0	Day	Dry	Careless Driving
15	0.266	05/18/12	Fri	1500	All Other	0	0	1	Day	Wet	Disregarded Traffic Signal
16	0.266	12/04/12	Tue	1800	All Other	0	0	1	Night	Dry	Unknown/Not Coded
17	0.001	07/07/12	Sat	1500	Rear-End	0	1	0	Day	Dry	Careless Driving
18	0.002	10/12/12	Fri	0600	All Other	0	0	1	Night	Dry	Unknown/Not Coded
19	0.003	12/01/12	Sat	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
20	0.005	02/25/12	Sat	1800	Rear-End	0	1	0	Night	Dry	Careless Driving
21	0.076	07/30/12	Mon	1200	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
22	0.095	10/23/12	Tue	1100	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
23	0.100	04/05/12	Thu	0300	Hit Guardrail	0	0	1	Night	Dry	Careless Driving
24	0.000	09/27/12	Thu	0900	Rear-End	0	0	1	Day	Wet	Careless Driving
25	0.001	07/14/12	Sat	1900	Coll. W/ Mv On Roadway	0	1	0	Night	Dry	Careless Driving
26	0.050	01/17/12	Tue	0400	Hit Guardrail	0	1	0	Night	Dry	Careless Driving
27	0.057	05/29/12	Tue	1000	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
28	0.174	03/23/12	Fri	1800	Rear-End	0	1	0	Night	Dry	Careless Driving
29	0.212	06/17/12	Sun	0000	Angle	0	1	0	Night	Wet	Exceeded Safe Speed Limit
30	0.222	06/28/12	Thu	1100	Rear-End	0	1	0	Day	Dry	Careless Driving
31	0.231	07/08/12	Sun	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
32	0.241	06/06/12	Wed	1300	Backed Into	0	0	1	Day	Dry	Improper Backing
33	0.241	10/18/12	Thu	0600	All Other	0	0	1	Day	Dry	Unknown/Not Coded
34	0.241	11/18/12	Sun	1200	All Other	0	1	0	Day	Dry	Unknown/Not Coded
35	0.241	12/02/12	Sun	1300	All Other	0	1	0	Day	Dry	Unknown/Not Coded
36	0.245	06/28/12	Thu	0800	Rear-End	0	1	0	Day	Dry	Careless Driving
37	0.247	09/24/12	Mon	1200	Rear-End	0	1	0	Day	Dry	Careless Driving
38	0.248	04/12/12	Thu	1900	Rear-End	0	1	0	Day	Dry	Careless Driving
39	0.248	04/26/12	Thu	0700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
40	0.248	04/26/12	Thu	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
41	0.248	05/09/12	Wed	1600	Rear-End	0	2	0	Day	Wet	Unknown/Not Coded
42	0.248	10/09/12	Tue	0800	Rear-End	0	1	0	Day	Dry	Careless Driving
43	0.248	11/10/12	Sat	1500	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
44	0.248	11/13/12	Tue	1800	Rear-End	0	0	1	Night	Dry	Careless Driving
45	0.248	11/20/12	Tue	1600	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
46	0.249	04/15/12	Sun	1900	Rear-End	0	2	0	Day	Dry	Careless Driving
47	0.249	07/24/12	Tue	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
48	0.249	08/02/12	Thu	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
49	0.250	03/19/12	Mon	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
50	0.250	04/01/12	Sun	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
51	0.250	12/07/12	Fri	1800	Angle	0	0	1	Night	Dry	Careless Driving

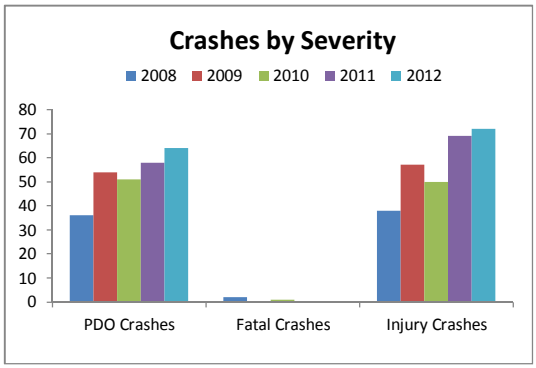
Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
51		**0**	**28**	**23**	**2**	**0**	**0**	**35**	**0**	**0**	
		0.00%	*54.90%*	*45.10%*	*3.92%*	*0.00%*	*0.00%*	*68.63%*	*0.00%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
3		**35**	**16**	**6**	**45**	**1**	**0**	**0**			
5.88%		*68.63%*	*31.37%*	*11.76%*	*88.24%*	*1.96%*	*0.00%*	*0.00%*			

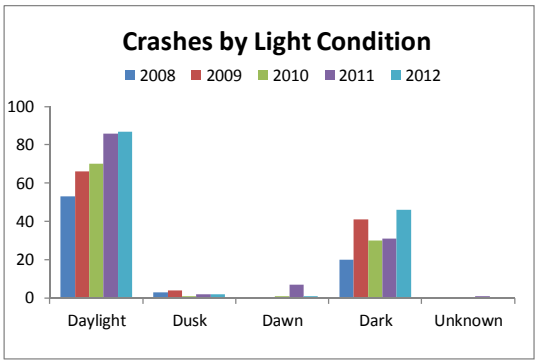
TOTAL ENTERING VEHICLES/ADT: **16,520** SEGMENT CRASH RATE: **#DIV/0!**

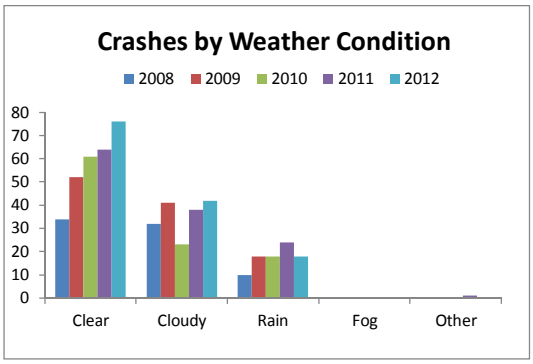
CRASH HISTOGRAMS

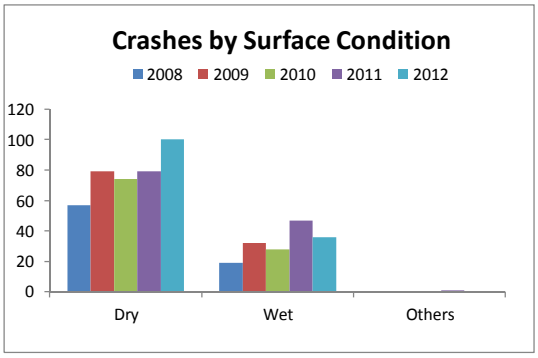
I-95 Mainline at Hallandale Beach Blvd

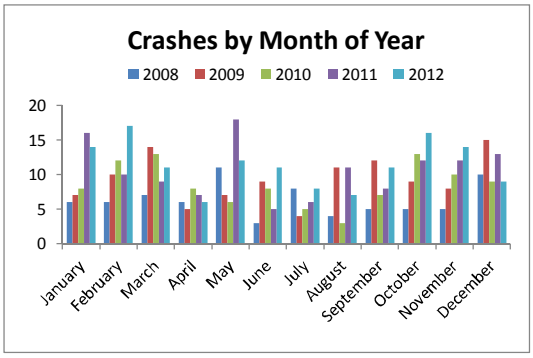


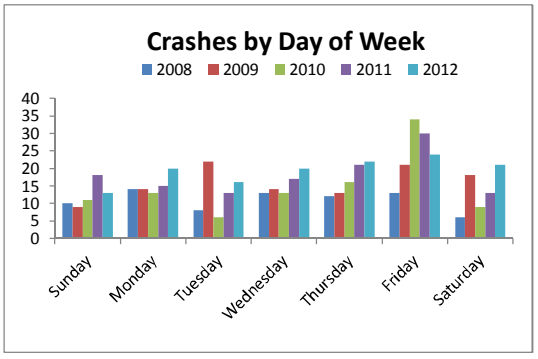


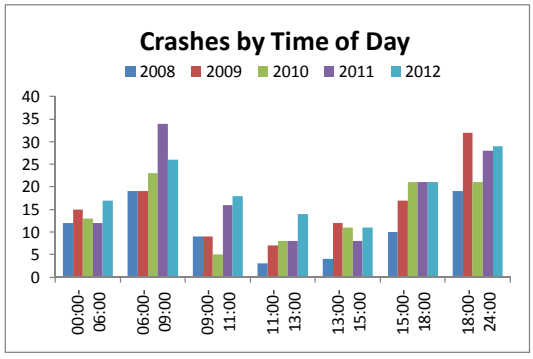












FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86070000 STATE ROUTE: 9
ROADWAY LIMITS: I-95 Mainline M.P. 0.350 TO 1.200 ENGINEER: N.J.
STUDY PERIOD: FROM 1/ 08 TO 12/ 08 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.497	01/23/08	Wed	0600	Rear-End	0	0	1	Night	Dry	Careless Driving
2	0.497	02/01/08	Fri	1800	Rear-End	0	4	0	Night	Dry	Careless Driving
3	0.497	02/27/08	Wed	0700	Hit Guardrail	0	4	0	Day	Wet	No Improper Driving/Act
4	0.497	02/29/08	Fri	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
5	0.497	07/23/08	Wed	0800	Coll. W/Mvble Obj On Road	0	0	1	Day	Dry	No Improper Driving/Act
6	0.497	09/12/08	Fri	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
7	0.497	11/07/08	Fri	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
8	0.497	11/19/08	Wed	1600	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
9	0.508	01/11/08	Fri	0800	Angle	0	5	0	Day	Dry	Improper Lane Change
10	0.515	04/16/08	Wed	0500	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
11	0.558	05/22/08	Thu	0800	Sideswipe	0	1	0	Day	Dry	Careless Driving
12	0.558	05/23/08	Fri	0800	Rear-End	0	0	1	Day	Dry	Improper Lane Change
13	0.558	05/30/08	Fri	1100	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
14	0.558	07/07/08	Mon	0900	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
15	0.558	07/23/08	Wed	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
16	0.558	09/06/08	Sat	0200	Rear-End	0	0	1	Night	Dry	No Improper Driving/Act
17	0.558	09/14/08	Sun	0800	Bridge/Pier/Abutment/Rail	0	0	1	Day	Dry	Unknown/Not Coded
18	0.595	07/08/08	Tue	1500	Sideswipe	0	3	0	Day	Dry	Improper Lane Change
19	0.595	09/02/08	Tue	0500	Coll. W/ Pedestrian	1	0	0	Night	Dry	Obstructing Traffic
20	0.595	12/09/08	Tue	1900	Rear-End	0	0	1	Night	Dry	Exceeded Safe Speed Limit
21	0.605	03/10/08	Mon	1900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
22	0.605	04/02/08	Wed	1600	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
23	0.614	03/10/08	Mon	1900	All Other	0	0	1	Day	Dry	Improper Lane Change
24	0.614	12/01/08	Mon	1800	Rear-End	0	1	0	Night	Dry	Exceeded Safe Speed Limit
25	0.644	01/23/08	Wed	0500	Angle	2	5	0	Night	Dry	Failed To Yield Right-Of-Way
26	0.647	12/11/08	Thu	1800	Rear-End	0	1	0	Night	Wet	Unknown/Not Coded
27	0.652	02/24/08	Sun	0600	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
28	0.652	03/13/08	Thu	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
29	0.652	04/01/08	Tue	0000	All Other	0	0	1	Night	Dry	Improper Lane Change
30	0.652	05/09/08	Fri	1000	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
31	0.652	08/14/08	Thu	1400	Angle	0	3	0	Day	Wet	Careless Driving
32	0.652	10/04/08	Sat	2000	Coll. W/Mvble Obj On Road	0	1	0	Night	Wet	Unknown/Not Coded
33	0.652	12/17/08	Wed	1900	All Other	0	0	1	Night	Dry	Improper Lane Change
34	0.652	12/23/08	Tue	1800	Rear-End	0	1	0	Night	Dry	Exceeded Safe Speed Limit
35	0.652	12/29/08	Mon	0400	Rear-End	0	5	0	Night	Dry	Unknown/Not Coded
36	0.671	04/01/08	Tue	0000	Angle	0	1	0	Night	Dry	Improper Lane Change
37	0.671	08/30/08	Sat	1800	Rear-End	0	0	1	Day	Dry	Careless Driving
38	0.704	01/05/08	Sat	2000	All Other	0	1	0	Night	Wet	Improper Lane Change
39	0.719	08/14/08	Thu	1400	Rear-End	0	0	1	Day	Wet	Careless Driving
40	0.719	11/24/08	Mon	0700	Angle	0	1	0	Day	Dry	No Improper Driving/Act
41	0.728	02/09/08	Sat	1300	Rear-End	0	3	0	Day	Wet	Exceeded Safe Speed Limit
42	0.728	06/12/08	Thu	1800	Concrete Barrier Wall	0	0	1	Day	Wet	No Improper Driving/Act
43	0.802	02/24/08	Sun	1400	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
44	0.812	12/22/08	Mon	2000	All Other	0	2	0	Night	Dry	Improper Lane Change
45	0.821	10/23/08	Thu	0700	Concrete Barrier Wall	0	3	0	Day	Wet	No Improper Driving/Act
46	0.821	11/10/08	Mon	1800	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
47	0.821	12/28/08	Sun	1000	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
48	0.831	12/15/08	Mon	1800	Rear-End	0	1	0	Night	Dry	Exceeded Safe Speed Limit
49	0.850	03/13/08	Thu	0800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
50	0.888	12/01/08	Mon	0900	All Other	0	3	0	Day	Wet	Improper Lane Change
51	0.893	07/16/08	Wed	1700	Rear-End	0	2	0	Day	Wet	Careless Driving
52	0.926	06/08/08	Sun	0200	Hit Guardrail	0	0	1	Night	Wet	Careless Driving
53	0.935	05/25/08	Sun	0000	Hit Guardrail	0	0	1	Night	Wet	No Improper Driving/Act
54	0.968	05/29/08	Thu	0600	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
55	0.968	06/15/08	Sun	0800	Hit Tree/Shrubbery	0	2	0	Day	Dry	Exceeded Safe Speed Limit
56	0.982	01/07/08	Mon	1500	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
57	0.982	09/29/08	Mon	0500	Angle	0	1	0	Day	Dry	Unknown/Not Coded
58	0.993	05/04/08	Sun	0100	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
59	0.997	03/25/08	Tue	0800	Cargo Loss Or Shift	0	2	0	Day	Dry	Unknown/Not Coded
60	1.017	05/09/08	Fri	2100	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
61	1.017	05/21/08	Wed	0900	All Other	0	0	1	Day	Dry	No Improper Driving/Act
62	1.017	05/23/08	Fri	1900	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
63	1.017	07/22/08	Tue	0000	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
64	1.017	10/04/08	Sat	0700	Concrete Barrier Wall	0	4	0	Day	Wet	No Improper Driving/Act
65	1.017	10/29/08	Wed	1700	All Other	0	0	1	Day	Dry	Unknown/Not Coded
66	1.020	05/30/08	Fri	0900	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
67	1.020	07/07/08	Mon	1100	All Other	0	0	1	Day	Dry	No Improper Driving/Act
68	1.043	03/02/08	Sun	0600	Hit Guardrail	0	1	0	Day	Dry	Careless Driving
69	1.043	03/28/08	Fri	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
70	1.043	04/07/08	Mon	0900	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**

ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**

STUDY PERIOD: FROM **1/ 08** TO **12/ 08** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	1.043	07/16/08	Wed	1500	Angle	0	0	1	Day	Wet	Improper Lane Change
72	1.043	08/28/08	Thu	0800	Rear-End	0	2	0	Day	Dry	Improper Lane Change
73	1.043	10/17/08	Fri	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
74	1.043	11/27/08	Thu	0900	All Other	0	2	0	Day	Dry	Improper Lane Change
75	1.044	01/13/08	Sun	0900	Sideswipe	0	1	0	Day	Dry	Improper Lane Change
76	1.091	04/17/08	Thu	1600	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
76		**2**	**38**	**36**	**7**	**0**	**0**	**32**	**11**	**1**	
		2.63%	*50.00%*	*47.37%*	*9.21%*	*0.00%*	*0.00%*	*42.11%*	*14.47%*	*1.32%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
9		**53**	**23**	**19**	**57**	**6**	**1**	**2**			
11.84%		*69.74%*	*30.26%*	*25.00%*	*75.00%*	*7.89%*	*1.32%*	*2.63%*			

TOTAL ENTERING VEHICLES/ADT: **237,353**

SEGMENT CRASH RATE: **1.032**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86070000 STATE ROUTE: 9
ROADWAY LIMITS: I-95 Mainline M.P. 0.350 TO 1.200 ENGINEER: N.J.
STUDY PERIOD: FROM 1/ 09 TO 12/ 09 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.368	02/07/09	Sat	1800	Rear-End	0	2	0	Night	Dry	Unknown/Not Coded
2	0.368	05/11/09	Mon	0700	Angle	0	0	1	Day	Dry	Failed To Maintain Equipment
3	0.497	01/05/09	Mon	1900	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
4	0.497	02/07/09	Sat	1900	Rear-End	0	1	0	Night	Dry	Careless Driving
5	0.497	02/10/09	Tue	1400	Hit Sign/Sign Post	0	1	0	Day	Dry	Unknown/Not Coded
6	0.497	02/28/09	Sat	0000	Concrete Barrier Wall	0	1	0	Night	Dry	Careless Driving
7	0.497	06/06/09	Sat	0000	Rear-End	0	1	0	Night	Wet	Careless Driving
8	0.497	06/27/09	Sat	1000	Concrete Barrier Wall	0	0	1	Day	Dry	Careless Driving
9	0.497	08/14/09	Fri	0000	Angle	0	0	1	Night	Dry	Unknown/Not Coded
10	0.497	09/01/09	Tue	2000	Concrete Barrier Wall	0	1	0	Night	Wet	Careless Driving
11	0.497	09/01/09	Tue	2000	Rear-End	0	3	0	Night	Wet	Careless Driving
12	0.497	09/01/09	Tue	2100	Rear-End	0	1	0	Night	Wet	Unknown/Not Coded
13	0.497	09/19/09	Sat	1400	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
14	0.497	09/27/09	Sun	2100	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
15	0.497	09/28/09	Mon	0400	Overturned	0	1	0	Night	Dry	No Improper Driving/Act
16	0.497	11/11/09	Wed	1500	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
17	0.497	11/24/09	Tue	2100	Jackknifed	0	0	1	Night	Dry	No Improper Driving/Act
18	0.497	12/10/09	Thu	1400	Angle	0	0	1	Day	Dry	Improper Lane Change
19	0.497	12/28/09	Mon	1500	Sideswipe	0	1	0	Day	Dry	Improper Lane Change
20	0.517	02/02/09	Mon	0000	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
21	0.547	09/15/09	Tue	0700	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
22	0.558	01/17/09	Sat	2200	Angle	0	1	0	Night	Dry	No Improper Driving/Act
23	0.558	08/21/09	Fri	1200	Concrete Barrier Wall	0	6	0	Day	Dry	Unknown/Not Coded
24	0.558	12/18/09	Fri	0700	Rear-End	0	3	0	Day	Wet	Unknown/Not Coded
25	0.577	03/23/09	Mon	2200	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
26	0.595	08/11/09	Tue	2200	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
27	0.614	08/07/09	Fri	1000	Concrete Barrier Wall	0	1	0	Day	Wet	Unknown/Not Coded
28	0.633	02/19/09	Thu	1800	Rear-End	0	1	0	Night	Dry	Driver Distraction
29	0.633	07/03/09	Fri	2300	Angle	0	1	0	Night	Wet	Improper Lane Change
30	0.633	10/24/09	Sat	1300	Rear-End	0	0	1	Day	Wet	Exceeded Safe Speed Limit
31	0.633	11/13/09	Fri	1500	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
32	0.647	01/05/09	Mon	2000	Hit Guardrail	0	2	0	Night	Dry	Unknown/Not Coded
33	0.647	01/23/09	Fri	1600	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
34	0.647	03/12/09	Thu	1400	Angle	0	0	1	Day	Dry	Improper Lane Change
35	0.647	12/27/09	Sun	1200	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
36	0.649	12/30/09	Wed	1300	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
37	0.652	02/13/09	Fri	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
38	0.652	09/01/09	Tue	2100	Rear-End	0	4	0	Night	Wet	Careless Driving
39	0.652	09/01/09	Tue	2200	All Other	0	0	1	Night	Wet	Improper Lane Change
40	0.652	09/15/09	Tue	1100	Sideswipe	0	0	1	Day	Dry	Careless Driving
41	0.652	10/09/09	Fri	0300	Hit Tree/Shrubbery	0	0	1	Night	Dry	Careless Driving
42	0.652	10/15/09	Thu	0800	Sideswipe	0	0	1	Night	Dry	Careless Driving
43	0.652	10/24/09	Sat	1300	Rear-End	0	1	0	Day	Wet	Exceeded Safe Speed Limit
44	0.652	11/07/09	Sat	0300	Rear-End	0	7	0	Day	Dry	Unknown/Not Coded
45	0.652	11/26/09	Thu	0000	All Other	0	1	0	Night	Wet	Improper Lane Change
46	0.671	06/03/09	Wed	1700	Rear-End	0	3	0	Day	Dry	Exceeded Safe Speed Limit
47	0.690	03/16/09	Mon	0800	Rear-End	0	2	0	Day	Dry	No Improper Driving/Act
48	0.690	06/06/09	Sat	0000	Hit Guardrail	0	1	0	Night	Wet	Careless Driving
49	0.690	06/06/09	Sat	0000	Sideswipe	0	0	1	Night	Wet	Followed Too Closely
50	0.690	10/04/09	Sun	1900	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
51	0.697	03/30/09	Mon	1700	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
52	0.700	08/22/09	Sat	2000	Rear-End	0	1	0	Night	Wet	Careless Driving
53	0.709	05/22/09	Fri	1800	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
54	0.709	07/30/09	Thu	1400	Coll. W/ Mv On Roadway	0	0	1	Day	Wet	Improper Lane Change
55	0.709	10/27/09	Tue	1200	Rear-End	0	0	1	Day	Dry	Followed Too Closely
56	0.709	12/04/09	Fri	1100	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
57	0.709	12/07/09	Mon	2000	Angle	0	0	1	Night	Dry	Improper Lane Change
58	0.719	03/25/09	Wed	0800	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
59	0.719	07/11/09	Sat	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
60	0.719	10/21/09	Wed	1700	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
61	0.719	12/11/09	Fri	1800	All Other	0	0	1	Night	Dry	Improper Lane Change
62	0.719	12/13/09	Sun	2300	All Other	0	1	0	Night	Dry	Careless Driving
63	0.728	02/06/09	Fri	2100	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
64	0.728	06/28/09	Sun	1500	Angle	0	0	1	Day	Wet	Careless Driving
65	0.728	08/07/09	Fri	0900	Rear-End	0	2	0	Day	Wet	Unknown/Not Coded
66	0.728	12/06/09	Sun	1800	Rear-End	0	3	0	Night	Wet	Careless Driving
67	0.738	04/10/09	Fri	1800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
68	0.795	04/20/09	Mon	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
69	0.795	08/15/09	Sat	1200	Rear-End	0	0	1	Day	Wet	Careless Driving
70	0.812	09/03/09	Thu	1700	Sideswipe	0	2	0	Day	Wet	Unknown/Not Coded

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**
STUDY PERIOD: FROM **1/ 09** TO **12/ 09** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	0.812	11/22/09	Sun	0400	Rear-End	0	2	0	Night	Dry	Careless Driving
72	0.821	03/24/09	Tue	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
73	0.821	03/24/09	Tue	1800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
74	0.821	03/25/09	Wed	1600	Rear-End	0	2	0	Day	Dry	Unknown/Not Coded
75	0.821	05/26/09	Tue	1300	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
76	0.831	03/27/09	Fri	1400	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
77	0.831	05/27/09	Wed	0600	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
78	0.840	10/24/09	Sat	1400	All Other	0	2	0	Day	Wet	Improper Lane Change
79	0.847	03/18/09	Wed	0900	Sideswipe	0	0	1	Day	Wet	Careless Driving
80	0.850	04/18/09	Sat	1800	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
81	0.850	06/17/09	Wed	1000	Rear-End	0	3	0	Day	Dry	Driver Distraction
82	0.888	01/27/09	Tue	1800	Rear-End	0	3	0	Night	Dry	Exceeded Safe Speed Limit
83	0.888	02/10/09	Tue	0800	Sideswipe	0	0	1	Day	Dry	Careless Driving
84	0.888	05/26/09	Tue	0600	All Other	0	1	0	Night	Dry	Improper Lane Change
85	0.888	12/15/09	Tue	0800	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
86	0.888	12/17/09	Thu	1000	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
87	0.888	12/17/09	Thu	1600	Rear-End	0	1	0	Night	Wet	Careless Driving
88	0.935	08/21/09	Fri	1900	Rear-End	0	1	0	Night	Dry	Careless Driving
89	0.968	04/14/09	Tue	1600	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
90	0.968	07/01/09	Wed	0800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
91	0.968	08/31/09	Mon	0800	Hit Tree/Shrubbery	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
92	1.006	06/04/09	Thu	1400	Sideswipe	0	0	1	Day	Dry	Improper Passing
93	1.017	03/26/09	Thu	1600	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
94	1.017	09/09/09	Wed	0600	Rear-End	0	2	0	Night	Wet	Careless Driving
95	1.017	11/02/09	Mon	1000	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
96	1.017	11/30/09	Mon	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
97	1.043	01/16/09	Fri	1900	Angle	0	2	0	Night	Dry	Unknown/Not Coded
98	1.043	01/27/09	Tue	1700	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
99	1.043	03/18/09	Wed	0800	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
100	1.043	04/05/09	Sun	0500	Sideswipe	0	0	1	Night	Dry	Alc & Drugs-Under Infl
101	1.043	05/14/09	Thu	1600	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
102	1.043	06/19/09	Fri	1800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
103	1.043	08/14/09	Fri	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
104	1.043	08/26/09	Wed	0400	Sideswipe	0	0	1	Night	Wet	Improper Lane Change
105	1.043	10/01/09	Thu	0300	Concrete Barrier Wall	0	0	1	Night	Dry	Unknown/Not Coded
106	1.043	12/08/09	Tue	0600	Sideswipe	0	0	1	Day	Dry	Careless Driving
107	1.044	03/21/09	Sat	1000	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
108	1.063	05/17/09	Sun	0000	Concrete Barrier Wall	0	0	1	Night	Dry	Unknown/Not Coded
109	1.077	03/18/09	Wed	0800	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
110	1.138	12/04/09	Fri	0900	Rear-End	0	1	0	Day	Wet	Careless Driving
111	1.172	02/10/09	Tue	1800	All Other	0	0	1	Night	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
111		**0**	**57**	**54**	**9**	**0**	**0**	**59**	**20**	**0**	
		0.00%	*51.35%*	*48.65%*	*8.11%*	*0.00%*	*0.00%*	*53.15%*	*18.02%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
12		**66**	**45**	**32**	**79**	**9**	**1**	**3**			
10.81%		*59.46%*	*40.54%*	*28.83%*	*71.17%*	*8.11%*	*0.90%*	*2.70%*			

TOTAL ENTERING VEHICLES/ADT: **234,234**

SEGMENT CRASH RATE: **1.527**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86070000 STATE ROUTE: 9
ROADWAY LIMITS: I-95 Mainline M.P. 0.350 TO 1.200 ENGINEER: N.J.
STUDY PERIOD: FROM 1/ 10 TO 12/ 10 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.494	02/23/10	Tue	1800	Sideswipe	0	0	1	Night	Wet	Improper Lane Change
2	0.494	03/07/10	Sun	0900	Cargo Loss Or Shift	0	0	1	Day	Wet	No Improper Driving/Act
3	0.494	03/29/10	Mon	1800	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
4	0.494	04/13/10	Tue	0400	Sideswipe	0	0	1	Night	Dry	Careless Driving
5	0.494	04/14/10	Wed	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
6	0.494	04/18/10	Sun	1700	Sideswipe	0	0	1	Day	Wet	Improper Lane Change
7	0.494	06/20/10	Sun	1600	Concrete Barrier Wall	0	1	0	Day	Dry	No Improper Driving/Act
8	0.494	07/18/10	Sun	0600	All Other	0	0	1	Night	Dry	Unknown/Not Coded
9	0.494	08/11/10	Wed	1400	All Other	0	0	1	Day	Dry	Careless Driving
10	0.494	09/15/10	Wed	0900	Rear-End	0	3	0	Day	Dry	Unknown/Not Coded
11	0.494	10/01/10	Fri	0500	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
12	0.494	10/14/10	Thu	1700	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
13	0.494	10/15/10	Fri	0800	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
14	0.494	10/16/10	Sat	0400	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
15	0.494	10/23/10	Sat	1000	Rear-End	0	0	1	Day	Dry	Careless Driving
16	0.494	10/29/10	Fri	0700	Angle	0	0	1	Day	Dry	Unknown/Not Coded
17	0.494	11/04/10	Thu	1800	Angle	0	0	1	Night	Wet	Unknown/Not Coded
18	0.494	11/05/10	Fri	1900	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
19	0.494	11/08/10	Mon	0700	Sideswipe	0	0	1	Day	Dry	Careless Driving
20	0.494	11/12/10	Fri	0700	Rear-End	0	2	0	Day	Wet	Careless Driving
21	0.494	11/26/10	Fri	0000	Rear-End	0	0	1	Night	Dry	Followed Too Closely
22	0.494	12/13/10	Mon	0900	Rear-End	0	0	1	Day	Dry	Improper Lane Change
23	0.494	12/15/10	Wed	1400	Rear-End	0	1	0	Day	Dry	Careless Driving
24	0.494	12/17/10	Fri	1400	Ran In Ditch/Culvert	0	1	0	Day	Dry	No Improper Driving/Act
25	0.544	10/08/10	Fri	2200	Coll. W/Mvble Obj On Road	0	1	0	Night	Dry	No Improper Driving/Act
26	0.555	02/17/10	Wed	0800	Angle	0	0	1	Day	Dry	Unknown/Not Coded
27	0.555	04/18/10	Sun	0800	Rear-End	0	3	0	Day	Dry	Unknown/Not Coded
28	0.555	05/21/10	Fri	0700	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
29	0.555	06/03/10	Thu	0700	Angle	0	2	0	Day	Dry	Improper Lane Change
30	0.555	06/13/10	Sun	0800	Sideswipe	0	1	0	Day	Wet	Careless Driving
31	0.555	06/20/10	Sun	0200	Sideswipe	0	2	0	Night	Wet	Unknown/Not Coded
32	0.555	10/29/10	Fri	0700	Sideswipe	0	2	0	Day	Dry	Unknown/Not Coded
33	0.555	11/02/10	Tue	0700	Rear-End	0	1	0	Day	Dry	Improper Lane Change
34	0.555	12/29/10	Wed	1000	All Other	0	1	0	Day	Dry	Unknown/Not Coded
35	0.563	08/11/10	Wed	1500	Rear-End	0	3	0	Day	Dry	Careless Driving
36	0.591	05/31/10	Mon	1700	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
37	0.592	09/17/10	Fri	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
38	0.611	03/10/10	Wed	0800	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
39	0.621	05/14/10	Fri	1200	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
40	0.630	02/12/10	Fri	2000	Sideswipe	0	0	1	Night	Wet	Improper Lane Change
41	0.640	02/12/10	Fri	2000	Rear-End	0	1	0	Night	Wet	Careless Driving
42	0.644	09/13/10	Mon	1800	Rear-End	0	5	0	Day	Dry	Careless Driving
43	0.649	01/08/10	Fri	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
44	0.649	04/15/10	Thu	1100	Sideswipe	0	0	1	Day	Dry	No Improper Driving/Act
45	0.649	05/05/10	Wed	0100	Sideswipe	0	0	1	Night	Dry	Unknown/Not Coded
46	0.649	06/20/10	Sun	0000	All Other	0	0	1	Night	Wet	Improper Lane Change
47	0.668	03/12/10	Fri	1700	Rear-End	0	0	1	Day	Wet	Exceeded Safe Speed Limit
48	0.668	11/12/10	Fri	0600	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
49	0.687	03/22/10	Mon	1100	Rear-End	0	2	0	Day	Wet	Unknown/Not Coded
50	0.687	03/26/10	Fri	0400	Sideswipe	0	1	0	Night	Wet	No Improper Driving/Act
51	0.687	07/28/10	Wed	2300	All Other	1	1	0	Night	Dry	Careless Driving
52	0.687	11/26/10	Fri	1800	Rear-End	0	0	1	Night	Dry	Careless Driving
53	0.695	04/08/10	Thu	0800	Rear-End	0	1	0	Day	Dry	Careless Driving
54	0.706	06/30/10	Wed	0800	Hit Guardrail	0	1	0	Day	Dry	Followed Too Closely
55	0.710	12/17/10	Fri	0300	Hit Guardrail	0	0	1	Night	Dry	Careless Driving
56	0.716	07/26/10	Mon	1900	Angle	0	0	1	Day	Dry	Unknown/Not Coded
57	0.725	02/11/10	Thu	1800	All Other	0	0	1	Night	Dry	Improper Lane Change
58	0.725	02/12/10	Fri	1700	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
59	0.725	03/01/10	Mon	1700	Rear-End	0	2	0	Day	Dry	Careless Driving
60	0.727	02/27/10	Sat	1700	Rear-End	0	3	0	Day	Wet	Careless Driving
61	0.727	04/08/10	Thu	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
62	0.729	06/26/10	Sat	1100	Coll. W/Mvble Obj On Road	0	2	0	Day	Dry	No Improper Driving/Act
63	0.735	05/28/10	Fri	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
64	0.742	10/28/10	Thu	0700	Rear-End	0	2	0	Day	Wet	Unknown/Not Coded
65	0.799	07/23/10	Fri	1100	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
66	0.803	06/19/10	Sat	1300	All Other	0	2	0	Day	Dry	Improper Lane Change
67	0.809	12/10/10	Fri	1800	Rear-End	0	1	0	Night	Dry	Followed Too Closely
68	0.810	12/06/10	Mon	1700	Rear-End	0	1	0	Night	Dry	Followed Too Closely
69	0.828	01/11/10	Mon	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
70	0.828	03/18/10	Thu	0000	Sideswipe	0	1	0	Night	Dry	Improper Lane Change

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**
STUDY PERIOD: FROM **1/ 10** TO **12/ 10** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	0.847	01/01/10	Fri	1800	Angle	0	3	0	Night	Wet	Failed To Maintain Equipment
72	0.847	02/18/10	Thu	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
73	0.847	03/25/10	Thu	1600	Concrete Barrier Wall	0	0	1	Day	Dry	Unknown/Not Coded
74	0.847	09/03/10	Fri	1400	Rear-End	0	0	1	Day	Wet	Careless Driving
75	0.866	10/08/10	Fri	1600	Rear-End	0	2	0	Day	Dry	Careless Driving
76	0.885	01/03/10	Sun	1900	Rear-End	0	1	0	Night	Dry	Careless Driving
77	0.885	02/01/10	Mon	0800	Rear-End	0	1	0	Day	Wet	No Improper Driving/Act
78	0.885	04/29/10	Thu	1200	Coll. W/Mvble Obj On Road	0	0	1	Day	Dry	Unknown/Not Coded
79	0.890	12/18/10	Sat	1300	All Other	0	0	1	Day	Wet	Unknown/Not Coded
80	0.923	03/26/10	Fri	1200	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
81	0.942	08/26/10	Thu	0700	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
82	0.948	09/15/10	Wed	0800	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
83	0.979	02/18/10	Thu	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
84	0.979	02/19/10	Fri	2300	All Other	0	1	0	Night	Dry	Improper Lane Change
85	0.979	03/31/10	Wed	1300	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
86	0.979	07/30/10	Fri	0700	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
87	0.979	10/31/10	Sun	2200	Sideswipe	0	0	1	Night	Wet	Improper Lane Change
88	0.979	11/11/10	Thu	1800	All Other	0	1	0	Night	Dry	Improper Lane Change
89	0.986	03/26/10	Fri	0500	Rear-End	0	1	0	Night	Wet	Disregarded Other Traffic Control
90	0.990	09/17/10	Fri	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
91	1.017	02/12/10	Fri	1800	All Other	0	1	0	Night	Wet	Improper Lane Change
92	1.017	03/29/10	Mon	1300	Coll. W/ Mv On Roadway	0	0	1	Day	Wet	Improper Lane Change
93	1.017	10/16/10	Sat	0500	Sideswipe	0	1	0	Night	Dry	Improper Lane Change
94	1.040	01/05/10	Tue	1600	Rear-End	0	2	0	Day	Dry	Careless Driving
95	1.040	01/12/10	Tue	1800	Rear-End	0	2	0	Night	Dry	Careless Driving
96	1.040	01/19/10	Tue	1400	Rear-End	0	0	1	Day	Dry	Careless Driving
97	1.040	05/08/10	Sat	1500	Head-On	0	1	0	Day	Wet	Unknown/Not Coded
98	1.040	09/19/10	Sun	1300	Rear-End	0	3	0	Day	Dry	Careless Driving
99	1.040	12/03/10	Fri	0300	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
100	1.044	10/28/10	Thu	0700	Rear-End	0	1	0	Day	Wet	Careless Driving
101	1.090	11/13/10	Sat	1800	Rear-End	0	2	0	Night	Dry	Improper Lane Change
102	1.198	01/18/10	Mon	1100	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
102		**1**	**50**	**51**	**6**	**0**	**0**	**53**	**20**	**0**	
		0.98%	*49.02%*	*50.00%*	*5.88%*	*0.00%*	*0.00%*	*51.96%*	*19.61%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
8		**70**	**32**	**28**	**74**	**2**	**0**	**1**			
7.84%		*68.63%*	*31.37%*	*27.45%*	*72.55%*	*1.96%*	*0.00%*	*0.98%*			

TOTAL ENTERING VEHICLES/ADT: **237,818**

SEGMENT CRASH RATE: **1.382**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86070000 STATE ROUTE: 9
ROADWAY LIMITS: I-95 Mainline M.P. 0.350 TO 1.200 ENGINEER: N.J.
STUDY PERIOD: FROM 1/ 11 TO 12/ 11 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.444	02/07/11	Mon	0600	Angle	0	0	1	Day	Dry	No Improper Driving/Act
2	0.444	09/29/11	Thu	0700	Rear-End	0	0	1	Day	Wet	No Improper Driving/Act
3	0.460	12/05/11	Mon	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
4	0.484	05/15/11	Sun	0000	Rear-End	0	2	0	Night	Wet	Unknown/Not Coded
5	0.494	01/21/11	Fri	1000	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
6	0.494	03/10/11	Thu	0600	All Other	0	0	1	Day	Dry	No Improper Driving/Act
7	0.494	03/25/11	Fri	0200	All Other	0	0	1	Night	Dry	Unknown/Not Coded
8	0.494	05/05/11	Thu	0800	Rear-End	0	2	0	Day	Wet	Careless Driving
9	0.494	05/29/11	Sun	1000	Overturned	0	1	0	Day	Dry	Unknown/Not Coded
10	0.494	06/23/11	Thu	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
11	0.494	06/29/11	Wed	0900	Rear-End	0	0	1	Day	Wet	Careless Driving
12	0.494	07/17/11	Sun	2000	Occupant Fell From Veh	0	1	0	Night	Wet	Unknown/Not Coded
13	0.494	07/22/11	Fri	1700	Rear-End	0	1	0	Day	Dry	Followed Too Closely
14	0.494	08/04/11	Thu	2000	Rear-End	0	2	0	Night	Dry	Careless Driving
15	0.494	09/24/11	Sat	0300	Rear-End	0	1	0	Night	Dry	Careless Driving
16	0.494	09/29/11	Thu	0600	Rear-End	0	4	0	Night	Wet	Careless Driving
17	0.494	10/07/11	Fri	0900	Rear-End	0	2	0	Day	Wet	Careless Driving
18	0.494	10/08/11	Sat	0900	All Other	0	0	1	Day	Wet	Unknown/Not Coded
19	0.494	11/04/11	Fri	0400	All Other	0	0	1	Unknown	Unknown	Unknown/Not Coded
20	0.494	11/23/11	Wed	0800	Rear-End	0	5	0	Day	Dry	Careless Driving
21	0.494	11/23/11	Wed	1800	All Other	0	0	1	Night	Dry	Unknown/Not Coded
22	0.494	12/13/11	Tue	0000	Concrete Barrier Wall	0	3	0	Night	Wet	Careless Driving
23	0.494	12/14/11	Wed	0800	All Other	0	0	1	Day	Wet	Unknown/Not Coded
24	0.508	03/22/11	Tue	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
25	0.508	11/21/11	Mon	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
26	0.544	09/29/11	Thu	0700	Rear-End	0	0	1	Night	Wet	No Improper Driving/Act
27	0.555	01/19/11	Wed	1900	Angle	0	0	1	Night	Dry	Careless Driving
28	0.555	08/19/11	Fri	1800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
29	0.555	08/24/11	Wed	1400	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
30	0.555	10/07/11	Fri	0500	All Other	0	0	1	Night	Dry	Unknown/Not Coded
31	0.555	11/22/11	Tue	1000	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
32	0.555	11/30/11	Wed	0500	All Other	0	0	1	Night	Dry	Unknown/Not Coded
33	0.555	12/10/11	Sat	0600	All Other	0	1	0	Night	Wet	Unknown/Not Coded
34	0.584	02/15/11	Tue	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
35	0.592	10/17/11	Mon	0000	All Other	0	0	1	Night	Wet	Unknown/Not Coded
36	0.594	01/31/11	Mon	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
37	0.594	12/07/11	Wed	1800	All Other	0	0	1	Night	Dry	Unknown/Not Coded
38	0.644	04/05/11	Tue	2300	Concrete Barrier Wall	0	0	1	Night	Wet	Exceeded Safe Speed Limit
39	0.644	05/14/11	Sat	2300	Rear-End	0	3	0	Night	Wet	Careless Driving
40	0.644	05/14/11	Sat	2300	Rear-End	0	3	0	Night	Wet	Careless Driving
41	0.644	09/30/11	Fri	2200	Rear-End	0	3	0	Night	Dry	Careless Driving
42	0.644	09/30/11	Fri	2200	Concrete Barrier Wall	0	1	0	Night	Wet	Careless Driving
43	0.649	05/12/11	Thu	0700	All Other	0	1	0	Day	Dry	Unknown/Not Coded
44	0.649	10/23/11	Sun	0600	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
45	0.656	08/22/11	Mon	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
46	0.656	08/25/11	Thu	1400	Rear-End	0	0	1	Day	Wet	Careless Driving
47	0.716	01/21/11	Fri	1000	Coll. W/ Mv On Roadway	0	2	0	Day	Wet	Unknown/Not Coded
48	0.716	05/01/11	Sun	2200	All Other	0	0	1	Night	Wet	Unknown/Not Coded
49	0.725	01/08/11	Sat	0600	Coll. W/ Mv On Roadway	0	1	0	Night	Dry	No Improper Driving/Act
50	0.736	02/03/11	Thu	1400	Rear-End	0	0	1	Day	Dry	Exceeded Safe Speed Limit
51	0.742	02/18/11	Fri	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
52	0.742	11/02/11	Wed	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
53	0.744	02/07/11	Mon	1700	Rear-End	0	0	1	Night	Dry	Careless Driving
54	0.744	03/19/11	Sat	1700	Angle	0	0	1	Day	Dry	Careless Driving
55	0.791	04/15/11	Fri	1000	Rear-End	0	2	0	Day	Dry	Careless Driving
56	0.792	02/03/11	Thu	0800	Rear-End	0	1	0	Day	Dry	Careless Driving
57	0.799	05/05/11	Thu	1500	Concrete Barrier Wall	0	0	1	Day	Wet	Unknown/Not Coded
58	0.809	04/30/11	Sat	0400	Concrete Barrier Wall	0	1	0	Night	Dry	No Improper Driving/Act
59	0.809	12/01/11	Thu	1600	Rear-End	0	0	1	Day	Dry	Followed Too Closely
60	0.818	01/18/11	Tue	2100	Rear-End	0	1	0	Night	Dry	Careless Driving
61	0.818	06/23/11	Thu	1100	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
62	0.818	07/13/11	Wed	1700	All Other	0	1	0	Day	Dry	Unknown/Not Coded
63	0.828	01/28/11	Fri	1900	Rear-End	0	1	0	Day	Dry	Careless Driving
64	0.828	02/09/11	Wed	0800	Rear-End	0	3	0	Day	Dry	Careless Driving
65	0.828	07/01/11	Fri	1600	Rear-End	0	0	1	Day	Wet	Exceeded Safe Speed Limit
66	0.837	11/11/11	Fri	1500	All Other	0	0	1	Day	Dry	Unknown/Not Coded
67	0.839	02/18/11	Fri	1100	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	No Improper Driving/Act
68	0.847	07/27/11	Wed	0800	All Other	0	1	0	Day	Dry	No Improper Driving/Act
69	0.847	10/08/11	Sat	2300	Concrete Barrier Wall	0	2	0	Night	Wet	Careless Driving
70	0.882	01/13/11	Thu	1700	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**
STUDY PERIOD: FROM **1/ 11** TO **12/ 11** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	0.885	01/21/11	Fri	0900	All Other	0	1	0	Day	Wet	Unknown/Not Coded
72	0.885	04/18/11	Mon	1300	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	No Improper Driving/Act
73	0.885	05/29/11	Sun	1800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
74	0.885	08/29/11	Mon	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
75	0.885	12/23/11	Fri	0700	All Other	0	1	0	Day	Wet	Unknown/Not Coded
76	0.890	02/25/11	Fri	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
77	0.890	03/06/11	Sun	1300	Hit Guardrail	0	1	0	Day	Dry	Careless Driving
78	0.890	08/09/11	Tue	1600	Rear-End	0	0	1	Day	Wet	Careless Driving
79	0.890	10/19/11	Wed	1800	Concrete Barrier Wall	0	2	0	Day	Wet	No Improper Driving/Act
80	0.890	10/24/11	Mon	0800	Rear-End	0	4	0	Day	Dry	Careless Driving
81	0.890	12/12/11	Mon	1600	Rear-End	0	0	1	Day	Wet	Careless Driving
82	0.890	12/22/11	Thu	1700	Rear-End	0	1	0	Night	Dry	Careless Driving
83	0.933	10/25/11	Tue	0700	All Other	0	3	0	Day	Dry	Unknown/Not Coded
84	0.942	08/19/11	Fri	0600	All Other	0	0	1	Day	Dry	Unknown/Not Coded
85	0.979	01/18/11	Tue	0800	All Other	0	2	0	Day	Wet	Unknown/Not Coded
86	0.979	02/23/11	Wed	1700	Rear-End	0	0	1	Night	Dry	Careless Driving
87	0.979	04/16/11	Sat	1200	Rear-End	0	0	1	Day	Wet	Followed Too Closely
88	0.979	05/26/11	Thu	0800	Rear-End	0	1	0	Day	Dry	Followed Too Closely
89	0.979	08/03/11	Wed	0900	All Other	0	1	0	Day	Dry	No Improper Driving/Act
90	0.979	11/18/11	Fri	1500	Rear-End	0	0	1	Day	Wet	Careless Driving
91	0.979	11/18/11	Fri	1800	Rear-End	0	0	1	Night	Wet	Careless Driving
92	0.990	03/28/11	Mon	1300	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	Improper Passing
93	1.017	01/21/11	Fri	1500	Angle	0	0	1	Day	Wet	Unknown/Not Coded
94	1.017	03/06/11	Sun	0700	Concrete Barrier Wall	0	1	0	Day	Wet	No Improper Driving/Act
95	1.017	03/29/11	Tue	0000	Hit Guardrail	0	1	0	Night	Wet	Unknown/Not Coded
96	1.017	05/15/11	Sun	0800	All Other	0	1	0	Day	Wet	Unknown/Not Coded
97	1.017	05/15/11	Sun	0800	Coll. W/ Mv On Roadway	0	0	1	Day	Wet	Failed To Yield Right-Of-Way
98	1.017	06/12/11	Sun	1400	Angle	0	1	0	Day	Dry	No Improper Driving/Act
99	1.017	07/20/11	Wed	1700	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
100	1.017	10/15/11	Sat	0900	Hit Guardrail	0	1	0	Day	Dry	No Improper Driving/Act
101	1.017	11/06/11	Sun	2300	All Other	0	0	1	Night	Dry	No Improper Driving/Act
102	1.040	01/08/11	Sat	1900	Rear-End	0	2	0	Night	Dry	Careless Driving
103	1.040	01/09/11	Sun	0900	Angle	0	3	0	Day	Dry	Careless Driving
104	1.040	01/09/11	Sun	0000	Rear-End	0	4	0	Night	Dry	Careless Driving
105	1.040	03/21/11	Mon	1300	All Other	0	0	1	Day	Dry	No Improper Driving/Act
106	1.040	04/01/11	Fri	2300	Angle	0	0	1	Night	Dry	Careless Driving
107	1.040	05/01/11	Sun	2200	All Other	0	0	1	Night	Wet	Unknown/Not Coded
108	1.040	05/01/11	Sun	2200	Coll. W/ Mv On Roadway	0	1	0	Night	Wet	Unknown/Not Coded
109	1.040	05/06/11	Fri	0600	All Other	0	0	1	Night	Wet	Unknown/Not Coded
110	1.040	05/26/11	Thu	0900	Rear-End	0	0	1	Day	Wet	Followed Too Closely
111	1.040	05/26/11	Thu	0800	Rear-End	0	1	0	Day	Wet	Followed Too Closely
112	1.040	06/05/11	Sun	0200	Concrete Barrier Wall	0	1	0	Night	Dry	No Improper Driving/Act
113	1.040	08/22/11	Mon	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
114	1.040	08/24/11	Wed	0800	Rear-End	0	0	1	Day	Wet	Careless Driving
115	1.040	09/16/11	Fri	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
116	1.040	09/27/11	Tue	0700	Rear-End	0	0	1	Day	Wet	Followed Too Closely
117	1.040	10/01/11	Sat	1100	All Other	0	0	1	Day	Dry	Unknown/Not Coded
118	1.040	10/06/11	Thu	2300	Concrete Barrier Wall	0	1	0	Night	Dry	Unknown/Not Coded
119	1.040	12/06/11	Tue	1800	Rear-End	0	1	0	Night	Dry	Followed Too Closely
120	1.040	12/08/11	Thu	2000	All Other	0	0	1	Day	Dry	Unknown/Not Coded
121	1.044	12/30/11	Fri	1000	All Other	0	0	1	Day	Dry	Unknown/Not Coded
122	1.063	01/21/11	Fri	0900	Rear-End	0	1	0	Day	Wet	Careless Driving
123	1.074	04/22/11	Fri	1100	Hit Fence	0	1	0	Day	Dry	Unknown/Not Coded
124	1.090	01/21/11	Fri	1500	Angle	0	1	0	Day	Wet	Unknown/Not Coded
125	1.139	12/12/11	Mon	0900	All Other	0	0	1	Day	Dry	Unknown/Not Coded
126	1.190	05/29/11	Sun	1500	All Other	0	3	0	Day	Dry	Unknown/Not Coded
127	1.190	11/22/11	Tue	1800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
127		**0**	**69**	**58**	**8**	**0**	**0**	**53**	**0**	**0**	
		0.00%	*54.33%*	*45.67%*	*6.30%*	*0.00%*	*0.00%*	*41.73%*	*0.00%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
23		**86**	**40**	**47**	**79**	**4**	**1**	**3**			
18.11%		*67.72%*	*31.50%*	*37.01%*	*62.20%*	*3.15%*	*0.79%*	*2.36%*			

TOTAL ENTERING VEHICLES/ADT: **235,157** SEGMENT CRASH RATE: **1.741**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86070000 STATE ROUTE: 9
ROADWAY LIMITS: I-95 Mainline M.P. 0.350 TO 1.200 ENGINEER: N.J.
STUDY PERIOD: FROM 1/ 12 TO 12/ 12 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	0.390	12/24/12	Mon	1400	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	No Improper Driving/Act
2	0.444	11/20/12	Tue	2000	Concrete Barrier Wall	0	0	1	Night	Dry	No Improper Driving/Act
3	0.444	11/28/12	Wed	2100	Coll. W/Mvble Obj On Road	0	0	1	Night	Wet	Unknown/Not Coded
4	0.494	01/06/12	Fri	1300	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
5	0.494	01/10/12	Tue	0700	Angle	0	1	0	Day	Dry	Unknown/Not Coded
6	0.494	01/28/12	Sat	0500	Angle	0	0	1	Night	Dry	No Improper Driving/Act
7	0.494	02/05/12	Sun	0500	Rear-End	0	1	0	Night	Wet	Careless Driving
8	0.494	02/05/12	Sun	0600	All Other	0	1	0	Day	Wet	Unknown/Not Coded
9	0.494	02/05/12	Sun	0400	All Other	0	1	0	Night	Dry	Unknown/Not Coded
10	0.494	02/08/12	Wed	1800	Rear-End	0	7	0	Night	Dry	Careless Driving
11	0.494	02/18/12	Sat	0800	Concrete Barrier Wall	0	3	0	Day	Dry	No Improper Driving/Act
12	0.494	04/04/12	Wed	2100	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
13	0.494	04/16/12	Mon	1700	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	No Improper Driving/Act
14	0.494	04/19/12	Thu	1100	Rear-End	0	0	1	Day	Dry	Followed Too Closely
15	0.494	05/02/12	Wed	2200	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Careless Driving
16	0.494	05/11/12	Fri	2100	Rear-End	0	0	1	Night	Wet	No Improper Driving/Act
17	0.494	05/11/12	Fri	2200	Concrete Barrier Wall	0	1	0	Night	Wet	Unknown/Not Coded
18	0.494	05/11/12	Fri	1700	All Other	0	0	1	Day	Dry	Unknown/Not Coded
19	0.494	06/06/12	Wed	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
20	0.494	06/06/12	Wed	1300	Rear-End	0	1	0	Day	Dry	Followed Too Closely
21	0.494	06/07/12	Thu	0500	Concrete Barrier Wall	0	1	0	Night	Wet	Unknown/Not Coded
22	0.494	06/07/12	Thu	1000	All Other	0	1	0	Day	Dry	Unknown/Not Coded
23	0.494	06/07/12	Thu	1000	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
24	0.494	07/02/12	Mon	0700	All Other	0	1	0	Day	Dry	Unknown/Not Coded
25	0.494	07/22/12	Sun	1000	Hit Guardrail	0	0	1	Day	Wet	No Improper Driving/Act
26	0.494	08/17/12	Fri	0900	Rear-End	0	2	0	Day	Dry	Careless Driving
27	0.494	08/17/12	Fri	1000	All Other	0	0	1	Day	Dry	Unknown/Not Coded
28	0.494	09/12/12	Wed	0000	All Other	0	0	1	Night	Dry	Unknown/Not Coded
29	0.494	09/22/12	Sat	0000	Concrete Barrier Wall	0	6	0	Night	Wet	No Improper Driving/Act
30	0.494	09/28/12	Fri	0800	Coll. W/ Mv On Roadway	0	3	0	Day	Dry	No Improper Driving/Act
31	0.494	09/28/12	Fri	1800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
32	0.494	10/01/12	Mon	0900	Coll. W/ Parked Car	0	3	0	Day	Wet	Unknown/Not Coded
33	0.494	10/01/12	Mon	0900	Rear-End	0	1	0	Day	Dry	Followed Too Closely
34	0.494	10/04/12	Thu	2000	Rear-End	0	0	1	Night	Dry	Careless Driving
35	0.494	10/10/12	Wed	1700	All Other	0	0	1	Day	Dry	Unknown/Not Coded
36	0.494	10/15/12	Mon	0900	All Other	0	0	1	Day	Wet	Unknown/Not Coded
37	0.494	10/16/12	Tue	1700	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Improper Passing
38	0.494	10/23/12	Tue	2200	Rear-End	0	0	1	Night	Wet	Careless Driving
39	0.494	10/23/12	Tue	2300	All Other	0	0	1	Night	Wet	Unknown/Not Coded
40	0.494	11/15/12	Thu	0000	Concrete Barrier Wall	0	1	0	Night	Wet	Unknown/Not Coded
41	0.494	11/21/12	Wed	1000	Rear-End	0	2	0	Day	Dry	Careless Driving
42	0.494	11/30/12	Fri	0600	Hit Guardrail	0	0	1	Day	Dry	No Improper Driving/Act
43	0.508	03/11/12	Sun	2300	All Other	0	0	1	Night	Wet	Unknown/Not Coded
44	0.517	04/28/12	Sat	2100	Concrete Barrier Wall	0	2	0	Night	Dry	No Improper Driving/Act
45	0.517	11/30/12	Fri	1800	Rear-End	0	2	0	Night	Dry	Careless Driving
46	0.544	09/05/12	Wed	0600	Coll. W/ Mv On Roadway	0	1	0	Night	Dry	Unknown/Not Coded
47	0.544	11/24/12	Sat	0400	Rear-End	0	4	0	Night	Dry	Careless Driving
48	0.544	12/13/12	Thu	1200	Rear-End	0	1	0	Day	Dry	Careless Driving
49	0.553	04/10/12	Tue	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
50	0.555	01/09/12	Mon	0900	All Other	0	1	0	Day	Dry	Unknown/Not Coded
51	0.555	01/10/12	Tue	0800	All Other	0	4	0	Day	Dry	Unknown/Not Coded
52	0.555	06/25/12	Mon	1100	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	Unknown/Not Coded
53	0.555	07/11/12	Wed	0800	Rear-End	0	2	0	Day	Wet	Exceeded Safe Speed Limit
54	0.555	11/09/12	Fri	1900	All Other	0	2	0	Night	Dry	Unknown/Not Coded
55	0.592	09/02/12	Sun	2200	Coll. W/Mvble Obj On Road	0	1	0	Night	Dry	Exceeded Safe Speed Limit
56	0.594	11/24/12	Sat	0400	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	No Improper Driving/Act
57	0.644	09/17/12	Mon	0500	Overturned	0	0	1	Night	Wet	Unknown/Not Coded
58	0.644	10/25/12	Thu	0900	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
59	0.649	01/28/12	Sat	0400	Concrete Barrier Wall	0	1	0	Night	Dry	Unknown/Not Coded
60	0.649	03/19/12	Mon	0700	Concrete Barrier Wall	0	1	0	Day	Dry	Unknown/Not Coded
61	0.649	05/29/12	Tue	0900	All Other	0	1	0	Day	Dry	Unknown/Not Coded
62	0.649	06/26/12	Tue	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
63	0.649	07/16/12	Mon	1200	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	No Improper Driving/Act
64	0.649	08/25/12	Sat	0600	Hit Other Fixed Object	0	1	0	Night	Wet	Unknown/Not Coded
65	0.649	09/16/12	Sun	2000	Concrete Barrier Wall	0	0	1	Night	Wet	Careless Driving
66	0.649	10/14/12	Sun	1300	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	Careless Driving
67	0.656	02/29/12	Wed	1300	Rear-End	0	3	0	Day	Dry	No Improper Driving/Act
68	0.656	03/25/12	Sun	1400	Rear-End	0	2	0	Day	Dry	Careless Driving
69	0.668	07/20/12	Fri	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
70	0.687	01/15/12	Sun	0400	Rear-End	0	2	0	Night	Dry	Careless Driving

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**
ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**
STUDY PERIOD: FROM **1/ 12** TO **12/ 12** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	0.687	03/20/12	Tue	0800	Rear-End	0	3	0	Day	Dry	Careless Driving
72	0.704	04/14/12	Sat	0000	Rear-End	0	1	0	Night	Wet	No Improper Driving/Act
73	0.706	02/06/12	Mon	0700	Rear-End	0	1	0	Day	Wet	Careless Driving
74	0.706	03/24/12	Sat	1700	All Other	0	2	0	Day	Dry	Unknown/Not Coded
75	0.706	06/25/12	Mon	1000	All Other	0	1	0	Day	Dry	Unknown/Not Coded
76	0.716	07/26/12	Thu	0600	All Other	0	1	0	Day	Dry	Unknown/Not Coded
77	0.725	01/18/12	Wed	1900	Rear-End	0	5	0	Night	Dry	Unknown/Not Coded
78	0.725	02/21/12	Tue	1400	Rear-End	0	0	1	Day	Dry	Careless Driving
79	0.725	12/07/12	Fri	1500	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	No Improper Driving/Act
80	0.739	02/09/12	Thu	1500	Concrete Barrier Wall	0	0	1	Day	Wet	No Improper Driving/Act
81	0.744	06/23/12	Sat	0800	Concrete Barrier Wall	0	0	1	Day	Wet	No Improper Driving/Act
82	0.771	12/31/12	Mon	2100	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
83	0.790	11/15/12	Thu	0200	Head-On	0	1	0	Night	Wet	No Improper Driving/Act
84	0.795	11/17/12	Sat	1900	All Other	0	2	0	Night	Dry	Unknown/Not Coded
85	0.813	05/17/12	Thu	0800	Rear-End	0	1	0	Day	Wet	Careless Driving
86	0.818	09/14/12	Fri	2100	All Other	0	0	1	Night	Dry	Unknown/Not Coded
87	0.856	10/08/12	Mon	1000	Hit Guardrail	0	0	1	Day	Wet	Unknown/Not Coded
88	0.866	01/04/12	Wed	1500	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
89	0.885	01/06/12	Fri	1300	Angle	0	1	0	Day	Dry	Improper Turn
90	0.885	01/12/12	Thu	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
91	0.885	05/17/12	Thu	0800	Rear-End	0	1	0	Day	Wet	Careless Driving
92	0.885	12/09/12	Sun	0400	Concrete Barrier Wall	0	0	1	Night	Wet	Careless Driving
93	0.890	01/25/12	Wed	2100	All Other	0	0	1	Night	Dry	Unknown/Not Coded
94	0.890	02/03/12	Fri	1600	Rear-End	0	1	0	Day	Wet	Careless Driving
95	0.890	05/19/12	Sat	1200	Coll. W/Crash Attenuators	0	0	1	Day	Wet	Careless Driving
96	0.890	05/20/12	Sun	1200	Rear-End	0	0	1	Day	Wet	Careless Driving
97	0.890	08/18/12	Sat	0800	Angle	0	1	0	Day	Dry	Careless Driving
98	0.890	09/20/12	Thu	1300	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving
99	0.890	12/07/12	Fri	1200	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving
100	0.942	03/22/12	Thu	0900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
101	0.948	08/06/12	Mon	1500	Angle	0	0	1	Day	Dry	Unknown/Not Coded
102	0.979	02/17/12	Fri	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
103	0.979	02/23/12	Thu	1200	Rear-End	0	2	0	Day	Dry	Careless Driving
104	0.979	03/08/12	Thu	2100	Coll. W/ Mv On Roadway	0	1	0	Night	Wet	Unknown/Not Coded
105	0.979	05/27/12	Sun	0600	All Other	0	1	0	Day	Dry	Unknown/Not Coded
106	0.979	06/25/12	Mon	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
107	0.979	07/07/12	Sat	1500	All Other	0	0	1	Day	Dry	Unknown/Not Coded
108	0.979	11/16/12	Fri	0800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
109	0.990	01/27/12	Fri	1900	Rear-End	0	0	1	Night	Dry	No Improper Driving/Act
110	0.990	09/21/12	Fri	2000	Rear-End	0	1	0	Night	Wet	Followed Too Closely
111	0.990	11/30/12	Fri	0700	All Other	0	0	1	Day	Dry	No Improper Driving/Act
112	1.017	02/27/12	Mon	1900	Coll. W/ Mv On Roadway	0	1	0	Night	Dry	Careless Driving
113	1.017	02/29/12	Wed	1700	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
114	1.017	08/31/12	Fri	2000	Rear-End	0	2	0	Night	Dry	Careless Driving
115	1.017	10/06/12	Sat	0000	All Other	0	0	1	Night	Dry	Unknown/Not Coded
116	1.040	01/25/12	Wed	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
117	1.040	02/01/12	Wed	1800	All Other	0	0	1	Night	Dry	Unknown/Not Coded
118	1.040	02/15/12	Wed	1700	All Other	0	0	1	Day	Dry	Unknown/Not Coded
119	1.040	02/17/12	Fri	1300	All Other	0	0	1	Day	Dry	Unknown/Not Coded
120	1.040	03/13/12	Tue	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
121	1.040	03/17/12	Sat	1400	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
122	1.040	03/22/12	Thu	0700	All Other	0	1	0	Day	Dry	Unknown/Not Coded
123	1.040	03/27/12	Tue	0900	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
124	1.040	05/19/12	Sat	1200	Rear-End	0	4	0	Day	Wet	Followed Too Closely
125	1.040	06/14/12	Thu	1500	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	Careless Driving
126	1.040	08/21/12	Tue	0900	Rear-End	0	0	1	Day	Dry	Followed Too Closely
127	1.040	12/05/12	Wed	1900	Rear-End	0	1	0	Night	Dry	Careless Driving
128	1.040	12/06/12	Thu	1700	Rear-End	0	0	1	Night	Dry	Careless Driving
129	1.040	12/22/12	Sat	1100	All Other	0	0	1	Day	Dry	Unknown/Not Coded
130	1.044	05/01/12	Tue	1100	All Other	0	0	1	Day	Dry	Unknown/Not Coded
131	1.044	07/14/12	Sat	0400	All Other	0	0	1	Night	Dry	Unknown/Not Coded
132	1.044	10/01/12	Mon	0900	Rear-End	0	2	0	Day	Wet	Careless Driving
133	1.044	10/27/12	Sat	1600	All Other	0	0	1	Day	Dry	No Improper Driving/Act
134	1.044	11/26/12	Mon	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
135	1.063	10/25/12	Thu	1600	Angle	0	0	1	Day	Wet	Unknown/Not Coded
136	1.074	10/30/12	Tue	1200	All Other	0	3	0	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
136		**0**	**72**	**64**	**6**	**0**	**0**	**48**	**0**	**0**	
		0.00%	*52.94%*	*47.06%*	*4.41%*	*0.00%*	*0.00%*	*35.29%*	*0.00%*	*0.00%*	

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86070000** STATE ROUTE: **9**

ROADWAY LIMITS: **I-95 Mainline** M.P. **0.350** TO **1.200** ENGINEER: **N.J.**

STUDY PERIOD: FROM **1/ 12** TO **12/ 12** COUNTY: **Broward**

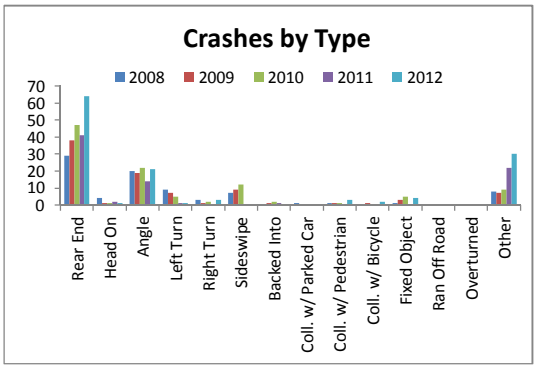
No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
20		**87**	**49**	**36**	**100**	**2**	**0**	**1**			
14.71%		*63.97%*	*36.03%*	*26.47%*	*73.53%*	*1.47%*	*0.00%*	*0.74%*			

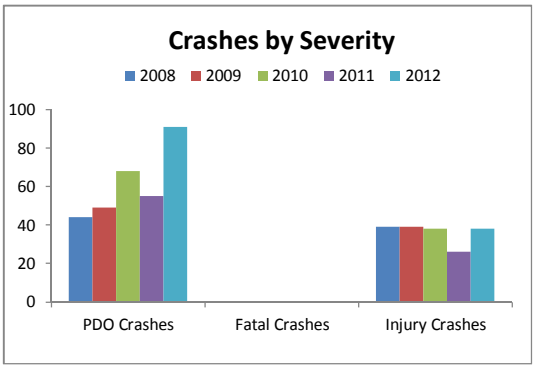
TOTAL ENTERING VEHICLES/ADT: **233,202**

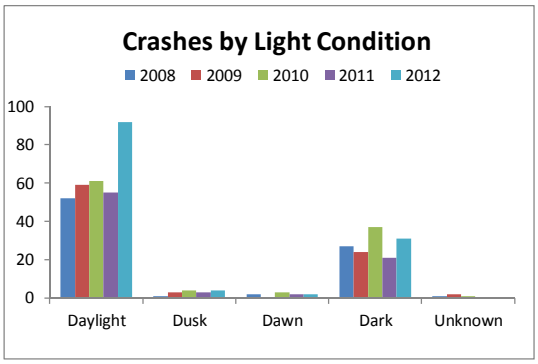
SEGMENT CRASH RATE: **1.880**

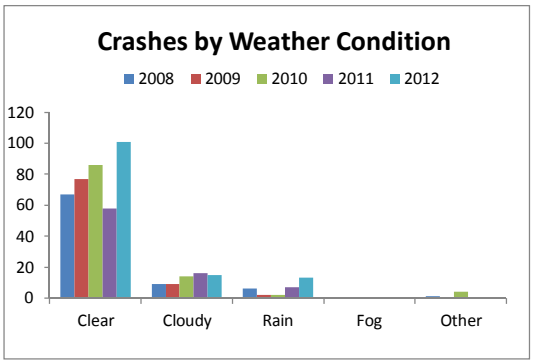
CRASH HISTOGRAMS

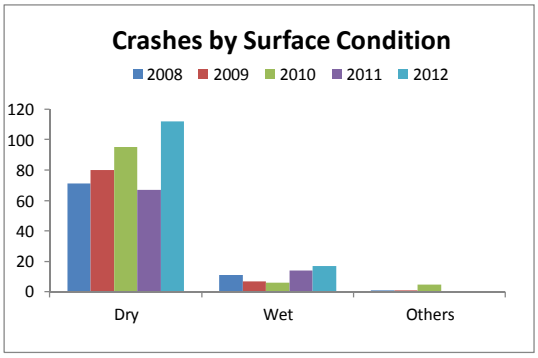
Hallandale Bch Blvd at I-95

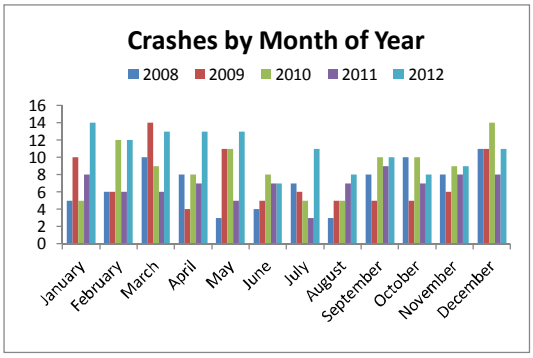


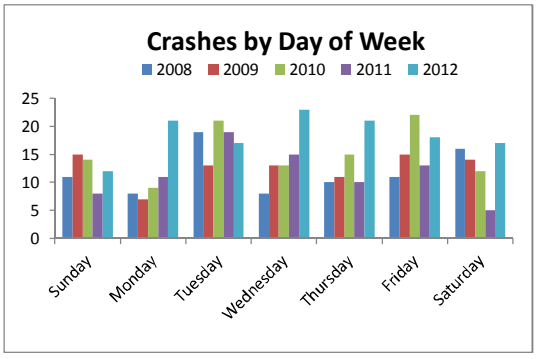


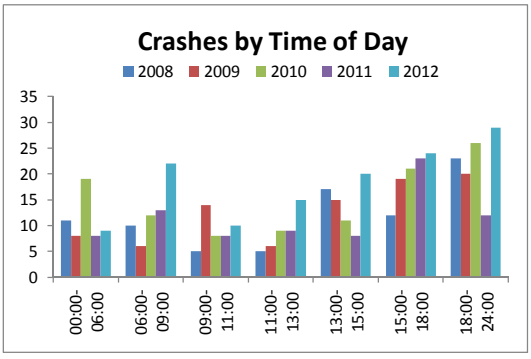












FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86200000 STATE ROUTE: 858
ROADWAY LIMITS: Hallandale Beach Boulevard M.P. 2.183 TO 2.790 ENGINEER: 0
STUDY PERIOD: FROM 1/ 08 TO 12/ 08 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	2.229	11/22/08	Sat	1000	Right-Turn	0	1	0	Day	Dry	Improper Turn
2	2.235	08/21/08	Thu	2200	Head-On	0	1	0	Night	Wet	No Improper Driving/Act
3	2.254	12/30/08	Tue	2300	Rear-End	0	0	1	Night	Dry	Followed Too Closely
4	2.310	03/15/08	Sat	1300	Rear-End	0	1	0	Day	Dry	Alchol-Under Influence
5	2.310	07/15/08	Tue	1400	Rear-End	0	1	0	Day	Wet	Unknown/Not Coded
6	2.324	02/03/08	Sun	1700	Rear-End	0	2	0	Day	Dry	Careless Driving
7	2.324	04/25/08	Fri	1300	Angle	0	4	0	Day	Dry	Improper Lane Change
8	2.330	03/18/08	Tue	1100	Head-On	0	1	0	Day	Dry	Careless Driving
9	2.417	12/28/08	Sun	0000	Rear-End	0	0	1	Night	Dry	Improper Lane Change
10	2.426	02/17/08	Sun	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
11	2.432	01/13/08	Sun	1600	Rear-End	0	0	1	Night	Wet	Followed Too Closely
12	2.461	07/13/08	Sun	1900	All Other	0	2	0	Day	Dry	Improper Lane Change
13	2.504	10/16/08	Thu	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
14	2.509	05/30/08	Fri	0200	Angle	0	0	1	Night	Dry	Failed To Yield Right-Of-Way
15	2.509	11/10/08	Mon	1400	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	No Improper Driving/Act
16	2.510	12/31/08	Wed	2300	Right-Turn	0	0	1	Unknown	Dry	Improper Turn
17	2.511	06/07/08	Sat	1300	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
18	2.511	09/09/08	Tue	1700	Angle	0	1	0	Day	Dry	Disregarded Traffic Signal
19	2.511	10/03/08	Fri	0900	Left-Turn	0	1	0	Day	Dry	Unknown/Not Coded
20	2.511	10/25/08	Sat	1600	Coll. W/ Mv On Roadway	0	1	0	Day	Wet	Failed To Yield Right-Of-Way
21	2.511	10/25/08	Sat	0800	Left-Turn	0	0	1	Day	Dry	Disregarded Traffic Signal
22	2.511	11/06/08	Thu	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
23	2.511	11/11/08	Tue	1300	Left-Turn	0	2	0	Day	Dry	Careless Driving
24	2.511	12/06/08	Sat	0400	Angle	0	1	0	Night	Dry	Unknown/Not Coded
25	2.522	01/16/08	Wed	0200	Coll. W/Fixed Obj Above Rd	0	2	0	Night	Dry	Fleeing Police
26	2.522	03/21/08	Fri	1400	Angle	0	0	1	Day	Dry	Careless Driving
27	2.522	03/25/08	Tue	1500	Left-Turn	0	2	0	Day	Dry	Disregarded Traffic Signal
28	2.522	07/21/08	Mon	1300	Left-Turn	0	1	0	Day	Dry	Disregarded Traffic Signal
29	2.522	10/04/08	Sat	1200	Left-Turn	0	0	1	Day	Wet	Disregarded Traffic Signal
30	2.522	10/06/08	Mon	1400	Angle	0	1	0	Day	Dry	Unknown/Not Coded
31	2.522	11/15/08	Sat	1200	Left-Turn	0	0	1	Day	Wet	Disregarded Traffic Signal
32	2.528	11/04/08	Tue	1000	Angle	0	0	1	Day	Unknown	Disregarded Traffic Signal
33	2.531	12/06/08	Sat	1800	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
34	2.533	04/13/08	Sun	0000	Sideswipe	0	1	0	Night	Dry	Improper Lane Change
35	2.587	02/05/08	Tue	1500	All Other	0	0	1	Day	Dry	Unknown/Not Coded
36	2.587	05/27/08	Tue	1900	Rear-End	0	0	1	Day	Dry	Followed Too Closely
37	2.587	06/21/08	Sat	1100	Head-On	0	0	1	Day	Dry	Disregarded Traffic Signal
38	2.587	07/01/08	Tue	0100	Angle	0	1	0	Night	Wet	Improper Lane Change
39	2.587	08/18/08	Mon	0300	Sideswipe	0	2	0	Night	Wet	Disregarded Traffic Signal
40	2.587	09/21/08	Sun	1900	Angle	0	1	0	Day	Dry	Unknown/Not Coded
41	2.587	09/27/08	Sat	2000	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
42	2.587	10/22/08	Wed	0300	Coll. W/ Parked Car	0	1	0	Night	Dry	Unknown/Not Coded
43	2.588	04/03/08	Thu	1900	Rear-End	0	0	1	Day	Dry	Followed Too Closely
44	2.597	04/14/08	Mon	1800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
45	2.597	10/29/08	Wed	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
46	2.597	12/06/08	Sat	2100	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
47	2.598	01/02/08	Wed	0800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
48	2.598	03/30/08	Sun	1400	All Other	0	0	1	Day	Dry	Improper Lane Change
49	2.598	07/11/08	Fri	0400	Right-Turn	0	0	1	Night	Dry	Unknown/Not Coded
50	2.598	09/16/08	Tue	0800	Rear-End	0	1	0	Day	Dry	Exceeded Safe Speed Limit
51	2.598	09/28/08	Sun	0900	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
52	2.598	09/29/08	Mon	2300	Left-Turn	0	2	0	Night	Dry	No Improper Driving/Act
53	2.603	10/07/08	Tue	2300	Head-On	0	4	0	Night	Dry	Unknown/Not Coded
54	2.635	02/29/08	Fri	1500	Coll. W/ Pedestrian	0	1	0	Day	Dry	No Improper Driving/Act
55	2.635	04/22/08	Tue	1400	Angle	0	0	1	Day	Dry	Improper Turn
56	2.638	03/25/08	Tue	1600	Sideswipe	0	0	1	Day	Dry	Careless Driving
57	2.639	01/17/08	Thu	1900	Rear-End	0	1	0	Night	Dry	Followed Too Closely
58	2.639	07/03/08	Thu	0800	Rear-End	0	0	1	Day	Dry	Improper Lane Change
59	2.645	12/22/08	Mon	0700	Rear-End	0	0	1	Night	Dry	Followed Too Closely
60	2.693	10/17/08	Fri	1300	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
61	2.712	09/23/08	Tue	1800	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
62	2.721	02/29/08	Fri	0600	Rear-End	0	0	1	Night	Dry	Careless Driving
63	2.726	04/29/08	Tue	1700	Sideswipe	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
64	2.727	12/23/08	Tue	1900	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
65	2.730	11/19/08	Wed	0900	Rear-End	0	1	0	Day	Dry	Careless Driving
66	2.731	06/21/08	Sat	1300	Sideswipe	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
67	2.736	11/22/08	Sat	1800	All Other	0	0	1	Night	Dry	Failed To Yield Right-Of-Way
68	2.740	02/14/08	Thu	2200	Angle	0	2	0	Night	Dry	Disregarded Traffic Signal
69	2.740	03/08/08	Sat	0600	Angle	0	0	1	Day	Wet	Disregarded Traffic Signal
70	2.740	03/15/08	Sat	1400	Left-Turn	0	0	1	Day	Dry	Unknown/Not Coded

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86200000** STATE ROUTE: **858**
ROADWAY LIMITS: **Hallandale Beach Boulevard** M.P. **2.183** TO **2.790** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 08** TO **12/ 08** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	2.740	03/25/08	Tue	1600	Angle	0	0	1	Day	Dry	Careless Driving
72	2.740	04/15/08	Tue	0700	Angle	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
73	2.740	04/27/08	Sun	1200	Angle	0	2	0	Day	Dry	Failed To Yield Right-Of-Way
74	2.740	08/10/08	Sun	1900	Angle	0	0	1	Night	Dry	Unknown/Not Coded
75	2.740	09/11/08	Thu	0700	Angle	0	2	0	Day	Dry	Disregarded Traffic Signal
76	2.740	12/19/08	Fri	0300	All Other	0	2	0	Night	Dry	Unknown/Not Coded
77	2.742	03/28/08	Fri	2200	Rear-End	0	1	0	Night	Dry	Unknown/Not Coded
78	2.746	06/04/08	Wed	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
79	2.746	07/18/08	Fri	2100	Rear-End	0	3	0	Night	Dry	Unknown/Not Coded
80	2.749	12/15/08	Mon	0000	Rear-End	0	1	0	Night	Dry	Disregarded Traffic Signal
81	2.751	01/23/08	Wed	1900	Rear-End	0	0	1	Night	Wet	Unknown/Not Coded
82	2.759	12/11/08	Thu	1900	Rear-End	0	0	1	Night	Wet	Followed Too Closely
83	2.764	05/08/08	Thu	1400	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
83		**0**	**39**	**44**	**20**	**9**	**3**	**29**	**7**	**1**	
		0.00%	*46.99%*	*53.01%*	*24.10%*	*10.84%*	*3.61%*	*34.94%*	*8.43%*	*1.20%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
2		**52**	**30**	**11**	**71**	**1**	**9**	**6**			
2.41%		*62.65%*	*36.14%*	*13.25%*	*85.54%*	*1.20%*	*10.84%*	*7.23%*			

TOTAL ENTERING VEHICLES/ADT: **51,783**

SEGMENT CRASH RATE: **7.235**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86200000 STATE ROUTE: 858
ROADWAY LIMITS: Hallandale Beach Boulevard M.P. 2.183 TO 2.790 ENGINEER: 0
STUDY PERIOD: FROM 1/ 09 TO 12/ 09 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	2.185	06/19/09	Fri	1000	All Other	0	0	1	Day	Dry	Careless Driving
2	2.195	03/16/09	Mon	0900	Rear-End	0	1	0	Night	Dry	Followed Too Closely
3	2.197	05/20/09	Wed	2000	Utility/Light Pole	0	1	0	Night	Dry	Exceed Stated Speed Limit
4	2.226	03/11/09	Wed	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
5	2.235	05/21/09	Thu	1200	Sideswipe	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
6	2.235	08/31/09	Mon	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
7	2.235	12/06/09	Sun	1200	Rear-End	0	2	0	Day	Dry	No Improper Driving/Act
8	2.235	12/24/09	Thu	1200	Rear-End	0	1	0	Day	Dry	Followed Too Closely
9	2.241	01/07/09	Wed	1400	Angle	0	0	1	Day	Dry	Careless Driving
10	2.292	01/31/09	Sat	1500	Rear-End	0	1	0	Day	Dry	Followed Too Closely
11	2.292	03/12/09	Thu	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
12	2.310	09/19/09	Sat	1200	All Other	0	0	1	Day	Dry	Obstructing Traffic
13	2.311	09/15/09	Tue	1200	Rear-End	0	3	0	Day	Dry	Careless Driving
14	2.330	05/30/09	Sat	1300	Head-On	0	1	0	Day	Dry	Careless Driving
15	2.388	02/21/09	Sat	1600	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
16	2.388	04/07/09	Tue	1300	Rear-End	0	1	0	Day	Dry	Careless Driving
17	2.426	01/21/09	Wed	1300	Rear-End	0	0	1	Day	Dry	Followed Too Closely
18	2.426	03/06/09	Fri	1700	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
19	2.426	03/06/09	Fri	1700	All Other	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
20	2.426	07/17/09	Fri	1700	Angle	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
21	2.426	07/27/09	Mon	1400	Backed Into	0	0	1	Day	Dry	Improper Backing
22	2.502	07/01/09	Wed	2300	Angle	0	0	1	Night	Wet	Improper Lane Change
23	2.510	11/13/09	Fri	1700	All Other	0	0	1	Day	Dry	Improper Turn
24	2.511	01/03/09	Sat	1700	Angle	0	1	0	Night	Dry	Failed To Yield Right-Of-Way
25	2.511	06/05/09	Fri	1000	Angle	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
26	2.511	08/30/09	Sun	0000	Left-Turn	0	3	0	Night	Dry	Disregarded Traffic Signal
27	2.511	10/18/09	Sun	1600	Left-Turn	0	0	1	Day	Dry	Disregarded Traffic Signal
28	2.513	04/23/09	Thu	2000	Sideswipe	0	0	1	Night	Dry	Improper Passing
29	2.522	03/03/09	Tue	1600	Angle	0	1	0	Day	Dry	Disregarded Traffic Signal
30	2.522	05/03/09	Sun	2300	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
31	2.522	07/19/09	Sun	0300	Angle	0	0	1	Night	Wet	Disregarded Traffic Signal
32	2.522	09/06/09	Sun	0500	Hit Sign/Sign Post	0	0	1	Night	Dry	Careless Driving
33	2.522	10/20/09	Tue	2100	Left-Turn	0	1	0	Night	Dry	Improper Turn
34	2.528	06/20/09	Sat	1000	Angle	0	2	0	Day	Dry	Disregarded Traffic Signal
35	2.537	05/01/09	Fri	2300	Rear-End	0	0	1	Night	Dry	Careless Driving
36	2.559	10/16/09	Fri	2000	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
37	2.568	03/15/09	Sun	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
38	2.570	10/04/09	Sun	2100	Angle	0	0	1	Night	Dry	Improper Lane Change
39	2.575	05/25/09	Mon	0200	Rear-End	0	1	0	Night	Dry	Careless Driving
40	2.587	05/26/09	Tue	1000	Angle	0	1	0	Day	Dry	Disregarded Traffic Signal
41	2.587	08/23/09	Sun	1400	Left-Turn	0	3	0	Day	Dry	Disregarded Traffic Signal
42	2.587	10/27/09	Tue	1000	Left-Turn	0	1	0	Day	Dry	Disregarded Traffic Signal
43	2.587	11/21/09	Sat	0300	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Improper Lane Change
44	2.587	12/26/09	Sat	0400	All Other	0	1	0	Unknown	Dry	No Improper Driving/Act
45	2.588	07/09/09	Thu	0700	Rear-End	0	1	0	Day	Dry	Careless Driving
46	2.596	07/03/09	Fri	2000	Angle	0	0	1	Night	Slippery	Unknown/Not Coded
47	2.597	03/06/09	Fri	1600	Angle	0	0	1	Day	Dry	Unknown/Not Coded
48	2.597	03/11/09	Wed	1300	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
49	2.597	04/09/09	Thu	1000	Angle	0	1	0	Day	Dry	Unknown/Not Coded
50	2.597	11/22/09	Sun	1000	Angle	0	0	1	Day	Dry	Careless Driving
51	2.597	12/12/09	Sat	0500	Rear-End	0	3	0	Night	Dry	Unknown/Not Coded
52	2.598	01/20/09	Tue	2100	Left-Turn	0	1	0	Night	Dry	Improper Turn
53	2.598	03/21/09	Sat	0500	Left-Turn	0	3	0	Unknown	Wet	Disregarded Traffic Signal
54	2.598	04/02/09	Thu	1500	Angle	0	3	0	Day	Dry	Disregarded Traffic Signal
55	2.598	05/10/09	Sun	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
56	2.607	03/21/09	Sat	2100	Rear-End	0	0	1	Night	Wet	Careless Driving
57	2.607	12/15/09	Tue	0900	Sideswipe	0	0	1	Day	Wet	Failed To Maintain Equipment
58	2.635	01/30/09	Fri	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
59	2.635	12/24/09	Thu	1000	Sideswipe	0	4	0	Day	Dry	Improper Lane Change
60	2.644	05/20/09	Wed	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
61	2.663	12/08/09	Tue	2200	Rear-End	0	2	0	Night	Dry	Careless Driving
62	2.664	05/12/09	Tue	2200	Rear-End	0	2	0	Night	Dry	Unknown/Not Coded
63	2.669	09/13/09	Sun	2200	Coll. W/ Bicycle	0	1	0	Night	Wet	Unknown/Not Coded
64	2.715	06/02/09	Tue	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
65	2.730	12/05/09	Sat	1500	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
66	2.731	02/24/09	Tue	1300	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
67	2.731	08/06/09	Thu	1500	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
68	2.731	12/23/09	Wed	1800	Angle	0	0	1	Night	Dry	Unknown/Not Coded
69	2.737	11/04/09	Wed	1000	Rear-End	0	1	0	Day	Dry	Careless Driving
70	2.737	11/11/09	Wed	0900	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86200000** STATE ROUTE: **858**
ROADWAY LIMITS: **Hallandale Beach Boulevard** M.P. **2.183** TO **2.790** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 09** TO **12/ 09** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	2.738	06/16/09	Tue	1100	Angle	0	1	0	Day	Dry	Unknown/Not Coded
72	2.738	12/09/09	Wed	1600	Right-Turn	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
73	2.739	02/13/09	Fri	1600	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
74	2.740	01/19/09	Mon	1300	Rear-End	0	1	0	Day	Dry	Followed Too Closely
75	2.740	02/12/09	Thu	2200	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
76	2.740	02/14/09	Sat	1800	Rear-End	0	0	1	Night	Dry	No Improper Driving/Act
77	2.740	02/27/09	Fri	0700	Utility/Light Pole	0	0	1	Day	Dry	Unknown/Not Coded
78	2.740	03/21/09	Sat	2100	Coll. W/ Pedestrian	0	0	1	Night	Wet	Careless Driving
79	2.740	08/20/09	Thu	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
80	2.740	11/01/09	Sun	1900	All Other	0	0	1	Night	Dry	Unknown/Not Coded
81	2.740	12/09/09	Wed	0900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
82	2.743	05/08/09	Fri	1600	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
83	2.744	01/18/09	Sun	1400	Rear-End	0	1	0	Day	Dry	Followed Too Closely
84	2.744	03/02/09	Mon	1300	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
85	2.745	03/29/09	Sun	1300	Rear-End	0	0	1	Day	Dry	Improper Lane Change
86	2.759	09/02/09	Wed	0600	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
87	2.768	01/09/09	Fri	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
88	2.778	01/26/09	Mon	1000	Rear-End	0	1	0	Day	Dry	Exceeded Safe Speed Limit

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
88		**0**	**39**	**49**	**19**	**7**	**1**	**38**	**9**	**2**	
		0.00%	*44.32%*	*55.68%*	*21.59%*	*7.95%*	*1.14%*	*43.18%*	*10.23%*	*2.27%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
4		**59**	**27**	**7**	**80**	**2**	**6**	**2**			
4.55%		*67.05%*	*30.68%*	*7.95%*	*90.91%*	*2.27%*	*6.82%*	*2.27%*			

TOTAL ENTERING VEHICLES/ADT: **50,087**

SEGMENT CRASH RATE: **7.930**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86200000 STATE ROUTE: 858
ROADWAY LIMITS: Hallandale Beach Boulevard M.P. 2.183 TO 2.790 ENGINEER: 0
STUDY PERIOD: FROM 1/ 10 TO 12/ 10 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	2.208	05/03/10	Mon	1800	Rear-End	0	0	1	Day	Dry	Careless Driving
2	2.216	05/04/10	Tue	1100	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
3	2.226	04/18/10	Sun	1400	Rear-End	0	1	0	Day	Wet	Followed Too Closely
4	2.237	04/04/10	Sun	0200	Rear-End	0	0	1	Night	Dry	Alc & Drugs-Under Infl
5	2.237	04/25/10	Sun	0400	Rear-End	0	0	1	Night	Dry	Alchol-Under Influence
6	2.238	12/01/10	Wed	1400	Hit Sign/Sign Post	0	0	1	Day	Dry	Improper Turn
7	2.249	12/02/10	Thu	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
8	2.254	02/17/10	Wed	1900	Rear-End	0	1	0	Night	Dry	No Improper Driving/Act
9	2.254	06/02/10	Wed	1600	Rear-End	0	1	0	Day	Dry	Followed Too Closely
10	2.273	10/22/10	Fri	1400	Sideswipe	0	0	1	Day	Dry	Improper Lane Change
11	2.291	07/16/10	Fri	1200	Rear-End	0	1	0	Day	Dry	Disregarded Traffic Signal
12	2.291	07/21/10	Wed	0800	Rear-End	0	1	0	Day	Dry	Followed Too Closely
13	2.417	06/10/10	Thu	2000	Rear-End	0	0	1	Night	Dry	Disregarded Traffic Signal
14	2.424	03/26/10	Fri	1100	All Other	0	0	1	Day	Dry	Unknown/Not Coded
15	2.426	08/11/10	Wed	1700	Rear-End	0	1	0	Day	Dry	Followed Too Closely
16	2.426	09/21/10	Tue	1600	Angle	0	0	1	Day	Dry	Careless Driving
17	2.426	12/15/10	Wed	2200	Angle	0	0	1	Night	Dry	Alchol-Under Influence
18	2.488	12/06/10	Mon	2000	All Other	0	0	1	Night	Dry	Careless Driving
19	2.497	04/29/10	Thu	0200	Hit Tree/Shrubbery	0	1	0	Night	Dry	Exceeded Safe Speed Limit
20	2.507	04/03/10	Sat	1900	All Other	0	1	0	Night	Dry	Failed To Yield Right-Of-Way
21	2.510	12/23/10	Thu	0900	All Other	0	0	1	Day	Dry	Careless Driving
22	2.511	09/12/10	Sun	0900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
23	2.513	11/26/10	Fri	0400	Angle	0	2	0	Night	Dry	Improper Lane Change
24	2.520	06/06/10	Sun	0200	Hit Tree/Shrubbery	0	1	0	Night	Dry	Careless Driving
25	2.522	03/09/10	Tue	0500	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
26	2.522	03/13/10	Sat	2200	Left-Turn	0	0	1	Night	Dry	Improper Turn
27	2.522	03/27/10	Sat	0300	Angle	0	2	0	Night	Dry	Unknown/Not Coded
28	2.522	05/23/10	Sun	0700	Left-Turn	0	2	0	Day	Dry	Disregarded Traffic Signal
29	2.522	05/29/10	Sat	1400	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Disregarded Traffic Signal
30	2.523	11/18/10	Thu	1600	Coll. W/ Pedestrian	0	1	0	Day	Dry	Unknown/Not Coded
31	2.528	02/02/10	Tue	1300	Rear-End	0	1	0	Day	Dry	Followed Too Closely
32	2.528	02/05/10	Fri	2100	Sideswipe	0	0	1	Night	Wet	Improper Turn
33	2.528	02/23/10	Tue	0700	Sideswipe	0	0	1	Night	Dry	Unknown/Not Coded
34	2.528	05/02/10	Sun	2000	Right-Turn	0	0	1	Night	Dry	Failed To Yield Right-Of-Way
35	2.528	07/13/10	Tue	0100	Hit Tree/Shrubbery	0	0	1	Night	Wet	Careless Driving
36	2.528	07/20/10	Tue	1600	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
37	2.528	11/05/10	Fri	0500	Head-On	0	0	1	Night	Dry	Careless Driving
38	2.530	01/21/10	Thu	1000	Rear-End	0	1	0	Day	Dry	Careless Driving
39	2.530	09/15/10	Wed	2000	Rear-End	0	0	1	Night	Dry	Careless Driving
40	2.541	10/29/10	Fri	0500	Coll. W/Fixed Obj Above Rd	0	1	0	Night	Dry	Exceeded Safe Speed Limit
41	2.559	11/14/10	Sun	0000	Rear-End	0	0	1	Night	Dry	Alc & Drugs-Under Infl
42	2.587	01/23/10	Sat	1500	Rear-End	0	0	1	Day	Slippery	Followed Too Closely
43	2.587	02/24/10	Wed	2100	Sideswipe	0	0	1	Night	Wet	Improper Turn
44	2.587	03/11/10	Thu	0700	Sideswipe	0	1	0	Day	Slippery	Unknown/Not Coded
45	2.587	04/11/10	Sun	1000	Left-Turn	0	1	0	Day	Dry	Disregarded Traffic Signal
46	2.587	08/15/10	Sun	1300	Rear-End	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
47	2.587	09/02/10	Thu	2100	Angle	0	0	1	Night	Dry	Alchol-Under Influence
48	2.587	09/24/10	Fri	0400	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
49	2.587	12/21/10	Tue	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
50	2.593	06/27/10	Sun	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
51	2.597	08/23/10	Mon	1100	Angle	0	0	1	Day	Dry	No Improper Driving/Act
52	2.597	10/24/10	Sun	0000	Angle	0	1	0	Night	Dry	Disregarded Traffic Signal
53	2.598	02/09/10	Tue	0100	All Other	0	1	0	Night	Dry	Unknown/Not Coded
54	2.598	03/13/10	Sat	0600	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
55	2.598	05/29/10	Sat	0500	All Other	0	0	1	Night	Dry	Unknown/Not Coded
56	2.598	09/10/10	Fri	1300	All Other	0	0	1	Day	Wet	Disregarded Traffic Signal
57	2.598	10/10/10	Sun	0300	Left-Turn	0	0	1	Night	Dry	Unknown/Not Coded
58	2.598	10/23/10	Sat	2300	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
59	2.603	01/30/10	Sat	0600	Rear-End	0	0	1	Night	Dry	Careless Driving
60	2.604	05/20/10	Thu	1800	Angle	0	0	1	Night	Dry	Careless Driving
61	2.607	02/19/10	Fri	2300	Sideswipe	0	0	1	Night	Dry	Improper Lane Change
62	2.616	06/15/10	Tue	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
63	2.631	12/13/10	Mon	1800	All Other	0	0	1	Unknown	Unknown	Unknown/Not Coded
64	2.633	04/30/10	Fri	2100	Rear-End	0	0	1	Night	Dry	Careless Driving
65	2.635	11/07/10	Sun	0300	Angle	0	1	0	Night	Dry	No Improper Driving/Act
66	2.637	10/07/10	Thu	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
67	2.655	03/23/10	Tue	1000	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
68	2.664	05/15/10	Sat	1700	Right-Turn	0	1	0	Day	Dry	Alchol-Under Influence
69	2.664	12/11/10	Sat	0900	Sideswipe	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
70	2.692	06/11/10	Fri	1600	Rear-End	0	0	1	Day	Dry	Careless Driving

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86200000** STATE ROUTE: **858**
ROADWAY LIMITS: **Hallandale Beach Boulevard** M.P. **2.183** TO **2.790** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 10** TO **12/ 10** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	2.702	05/03/10	Mon	1700	Angle	0	0	1	Day	Dry	Improper Lane Change
72	2.721	02/12/10	Fri	1600	Sideswipe	0	0	1	Day	Dry	Careless Driving
73	2.721	09/10/10	Fri	1100	Rear-End	0	0	1	Day	Dry	Careless Driving
74	2.734	05/28/10	Fri	2300	Rear-End	0	0	1	Night	Dry	Careless Driving
75	2.735	03/23/10	Tue	1600	Rear-End	0	1	0	Day	Dry	Careless Driving
76	2.736	02/23/10	Tue	1900	Backed Into	0	0	1	Day	Unknown	Unknown/Not Coded
77	2.736	09/08/10	Wed	0500	Rear-End	0	1	0	Night	Unknown	Improper Lane Change
78	2.738	08/20/10	Fri	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
79	2.738	08/25/10	Wed	0900	Rear-End	0	1	0	Day	Dry	Careless Driving
80	2.740	01/07/10	Thu	2100	Rear-End	0	2	0	Night	Dry	Careless Driving
81	2.740	01/19/10	Tue	1200	Angle	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
82	2.740	04/22/10	Thu	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
83	2.740	06/01/10	Tue	1100	Angle	0	0	1	Day	Dry	Careless Driving
84	2.740	06/23/10	Wed	1600	Angle	0	1	0	Day	Dry	Unknown/Not Coded
85	2.740	07/12/10	Mon	1200	Angle	0	3	0	Day	Dry	Failed To Yield Right-Of-Way
86	2.740	10/22/10	Fri	1600	Angle	0	1	0	Day	Dry	Careless Driving
87	2.740	11/04/10	Thu	2000	Angle	0	0	1	Night	Dry	Unknown/Not Coded
88	2.740	12/02/10	Thu	0900	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
89	2.741	02/15/10	Mon	1600	Rear-End	0	2	0	Day	Dry	Followed Too Closely
90	2.741	03/19/10	Fri	0000	Rear-End	0	0	1	Night	Dry	Followed Too Closely
91	2.741	12/20/10	Mon	1300	Backed Into	0	0	1	Day	Dry	Improper Backing
92	2.742	09/18/10	Sat	2100	Rear-End	0	0	1	Night	Dry	Careless Driving
93	2.742	10/26/10	Tue	0800	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
94	2.742	11/29/10	Mon	1600	Rear-End	0	1	0	Day	Dry	Careless Driving
95	2.744	09/24/10	Fri	1600	Sideswipe	0	0	1	Day	Wet	Careless Driving
96	2.744	10/29/10	Fri	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
97	2.749	02/12/10	Fri	1700	Left-Turn	0	0	1	Day	Dry	Improper Lane Change
98	2.749	11/30/10	Tue	0800	Rear-End	0	2	0	Day	Dry	Careless Driving
99	2.749	12/29/10	Wed	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
100	2.758	12/15/10	Wed	2300	Rear-End	0	0	1	Night	Dry	Alchol-Under Influence
101	2.759	10/26/10	Tue	1300	Rear-End	0	0	1	Day	Dry	Careless Driving
102	2.759	12/07/10	Tue	1500	Rear-End	0	1	0	Day	Dry	Careless Driving
103	2.770	02/09/10	Tue	0800	Rear-End	0	3	0	Day	Dry	Careless Driving
104	2.778	05/28/10	Fri	1600	Sideswipe	0	0	1	Day	Dry	Unknown/Not Coded
105	2.778	11/30/10	Tue	1900	Angle	0	0	1	Night	Dry	Unknown/Not Coded
106	2.787	12/30/10	Thu	1800	Rear-End	0	1	0	Night	Dry	Followed Too Closely

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
106		**0**	**38**	**68**	**22**	**5**	**2**	**47**	**12**	**1**	
		0.00%	*35.85%*	*64.15%*	*20.75%*	*4.72%*	*1.89%*	*44.34%*	*11.32%*	*0.94%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
7		**61**	**44**	**6**	**95**	**2**	**7**	**9**			
6.60%		*57.55%*	*41.51%*	*5.66%*	*89.62%*	*1.89%*	*6.60%*	*8.49%*			

TOTAL ENTERING VEHICLES/ADT: **52,690**

SEGMENT CRASH RATE: **9.080**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86200000 STATE ROUTE: 858
ROADWAY LIMITS: Hallandale Beach Boulevard M.P. 2.183 TO 2.790 ENGINEER: 0
STUDY PERIOD: FROM 1/ 11 TO 12/ 11 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	2.235	01/10/11	Mon	1300	Angle	0	1	0	Day	Dry	No Improper Driving/Act
2	2.235	01/28/11	Fri	1200	Backed Into	0	0	1	Day	Dry	Improper Backing
3	2.235	11/16/11	Wed	1500	Head-On	0	1	0	Day	Dry	Improper Turn
4	2.249	05/18/11	Wed	1500	All Other	0	0	1	Day	Dry	Unknown/Not Coded
5	2.273	10/13/11	Thu	1100	Rear-End	0	2	0	Day	Dry	Followed Too Closely
6	2.280	01/18/11	Tue	1600	Rear-End	0	1	0	Day	Dry	Careless Driving
7	2.292	05/02/11	Mon	1300	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
8	2.292	06/04/11	Sat	1200	All Other	0	1	0	Day	Dry	Disregarded Other Traffic Control
9	2.318	08/03/11	Wed	1000	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Improper Passing
10	2.323	11/28/11	Mon	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
11	2.418	01/21/11	Fri	1000	Rear-End	0	0	1	Day	Wet	Careless Driving
12	2.456	04/23/11	Sat	2100	Rear-End	0	0	1	Night	Dry	Careless Driving
13	2.456	05/03/11	Tue	2300	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Disregarded Traffic Signal
14	2.484	09/27/11	Tue	0600	Coll. W/ Mv On Roadway	0	2	0	Night	Wet	Improper Passing
15	2.485	07/27/11	Wed	1000	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	Failed To Yield Right-Of-Way
16	2.487	07/24/11	Sun	0800	Angle	0	0	1	Night	Dry	Unknown/Not Coded
17	2.488	11/22/11	Tue	0800	All Other	0	0	1	Night	Dry	Unknown/Not Coded
18	2.499	05/27/11	Fri	0400	Rear-End	0	0	1	Night	Dry	Disregarded Other Traffic Control
19	2.522	01/21/11	Fri	0800	Rear-End	0	2	0	Day	Wet	Followed Too Closely
20	2.522	06/05/11	Sun	1200	Angle	0	0	1	Day	Dry	No Improper Driving/Act
21	2.522	10/17/11	Mon	1000	Angle	0	0	1	Day	Wet	Careless Driving
22	2.522	11/04/11	Fri	2300	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
23	2.522	12/15/11	Thu	0000	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
24	2.522	12/24/11	Sat	1700	All Other	0	1	0	Night	Dry	Unknown/Not Coded
25	2.528	01/03/11	Mon	1600	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
26	2.528	11/06/11	Sun	0100	Angle	0	1	0	Night	Dry	Disregarded Traffic Signal
27	2.537	05/26/11	Thu	0800	Rear-End	0	0	1	Day	Wet	Careless Driving
28	2.547	07/22/11	Fri	1600	Rear-End	0	1	0	Day	Dry	Followed Too Closely
29	2.587	03/01/11	Tue	0600	Left-Turn	0	0	1	Night	Dry	No Improper Driving/Act
30	2.587	04/24/11	Sun	0200	All Other	0	1	0	Night	Wet	Exceeded Safe Speed Limit
31	2.587	12/07/11	Wed	1300	Rear-End	0	0	1	Day	Dry	Followed Too Closely
32	2.587	12/31/11	Sat	0000	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
33	2.597	04/13/11	Wed	1300	Rear-End	0	0	1	Day	Dry	Careless Driving
34	2.597	09/13/11	Tue	1600	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
35	2.598	02/16/11	Wed	2300	All Other	0	0	1	Night	Wet	Unknown/Not Coded
36	2.607	03/06/11	Sun	1100	Rear-End	0	0	1	Day	Dry	Careless Driving
37	2.608	11/08/11	Tue	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
38	2.616	10/04/11	Tue	1000	Rear-End	0	1	0	Day	Dry	Followed Too Closely
39	2.627	09/28/11	Wed	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
40	2.637	08/22/11	Mon	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
41	2.645	02/28/11	Mon	1800	All Other	0	1	0	Day	Dry	Unknown/Not Coded
42	2.648	03/13/11	Sun	0300	Angle	0	0	1	Night	Dry	Careless Driving
43	2.660	10/10/11	Mon	1600	Rear-End	0	1	0	Day	Dry	Followed Too Closely
44	2.664	04/21/11	Thu	1700	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
45	2.702	01/15/11	Sat	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
46	2.702	06/08/11	Wed	0600	Rear-End	0	1	0	Night	Dry	Followed Too Closely
47	2.702	06/19/11	Sun	0000	Rear-End	0	1	0	Night	Dry	Careless Driving
48	2.702	09/29/11	Thu	1300	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	Careless Driving
49	2.712	02/18/11	Fri	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
50	2.721	08/23/11	Tue	1600	Angle	0	0	1	Day	Dry	Unknown/Not Coded
51	2.721	11/01/11	Tue	1900	Rear-End	0	0	1	Night	Wet	Followed Too Closely
52	2.726	02/10/11	Thu	1000	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
53	2.728	06/07/11	Tue	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
54	2.731	12/09/11	Fri	1500	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
55	2.736	09/23/11	Fri	0800	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving
56	2.738	04/12/11	Tue	1500	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
57	2.738	08/11/11	Thu	1400	Rear-End	0	0	1	Day	Wet	Careless Driving
58	2.739	12/11/11	Sun	0700	Angle	0	2	0	Day	Dry	Unknown/Not Coded
59	2.740	02/16/11	Wed	1200	Rear-End	0	0	1	Day	Dry	Careless Driving
60	2.740	03/07/11	Mon	2200	Angle	0	2	0	Night	Dry	Unknown/Not Coded
61	2.740	03/25/11	Fri	1500	Head-On	0	0	1	Day	Dry	Careless Driving
62	2.740	04/06/11	Wed	1300	Rear-End	0	1	0	Day	Dry	Followed Too Closely
63	2.740	08/09/11	Tue	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
64	2.740	09/12/11	Mon	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
65	2.740	09/16/11	Fri	1200	Angle	0	0	1	Day	Dry	Careless Driving
66	2.740	09/27/11	Tue	0800	Rear-End	0	0	1	Day	Wet	Careless Driving
67	2.740	12/06/11	Tue	1900	Angle	0	0	1	Night	Dry	Careless Driving
68	2.741	12/12/11	Mon	1900	Rear-End	0	1	0	Night	Wet	Followed Too Closely
69	2.742	01/26/11	Wed	0000	Rear-End	0	0	1	Night	Wet	Careless Driving
70	2.742	10/25/11	Tue	1900	Rear-End	0	0	1	Night	Dry	Followed Too Closely

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86200000** STATE ROUTE: **858**
ROADWAY LIMITS: **Hallandale Beach Boulevard** M.P. **2.183** TO **2.790** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 11** TO **12/ 11** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	2.743	02/09/11	Wed	1700	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
72	2.744	04/13/11	Wed	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
73	2.744	06/14/11	Tue	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
74	2.746	10/27/11	Thu	1200	Rear-End	0	0	1	Day	Dry	Followed Too Closely
75	2.749	08/02/11	Tue	0900	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
76	2.749	09/16/11	Fri	1800	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	No Improper Driving/Act
77	2.751	11/04/11	Fri	1600	Rear-End	0	0	1	Day	Dry	Followed Too Closely
78	2.759	06/22/11	Wed	1600	Rear-End	0	0	1	Day	Dry	Followed Too Closely
79	2.759	08/18/11	Thu	0900	Rear-End	0	0	1	Day	Wet	Followed Too Closely
80	2.768	10/18/11	Tue	0800	Coll. W/ Mv On Roadway	0	1	0	Night	Wet	Failed To Yield Right-Of-Way
81	2.778	03/03/11	Thu	1700	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
81		**0**	**26**	**55**	**14**	**1**	**0**	**41**	**0**	**0**	
		0.00%	*32.10%*	*67.90%*	*17.28%*	*1.23%*	*0.00%*	*50.62%*	*0.00%*	*0.00%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
1		**55**	**26**	**14**	**67**	**1**	**2**	**1**			
1.23%		*67.90%*	*32.10%*	*17.28%*	*82.72%*	*1.23%*	*2.47%*	*1.23%*			

TOTAL ENTERING VEHICLES/ADT: **53,622**

SEGMENT CRASH RATE: **6.818**

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: 86200000 STATE ROUTE: 858
ROADWAY LIMITS: Hallandale Beach Boulevard M.P. 2.183 TO 2.790 ENGINEER: 0
STUDY PERIOD: FROM 1/ 12 TO 12/ 12 COUNTY: Broward

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
1	2.216	07/25/12	Wed	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
2	2.218	11/13/12	Tue	1000	Utility/Light Pole	0	1	0	Day	Dry	Unknown/Not Coded
3	2.235	02/14/12	Tue	0400	Hit Sign/Sign Post	0	1	0	Night	Dry	Unknown/Not Coded
4	2.235	11/24/12	Sat	0700	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
5	2.236	12/03/12	Mon	1400	All Other	0	0	1	Day	Dry	Unknown/Not Coded
6	2.237	05/07/12	Mon	1700	Rear-End	0	1	0	Day	Dry	Careless Driving
7	2.237	06/30/12	Sat	1400	Rear-End	0	2	0	Day	Dry	Followed Too Closely
8	2.240	12/24/12	Mon	0200	Rear-End	0	1	0	Day	Dry	Careless Driving
9	2.310	03/12/12	Mon	1600	Angle	0	0	1	Day	Dry	Improper Backing
10	2.329	01/14/12	Sat	1100	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
11	2.330	08/24/12	Fri	1700	Rear-End	0	2	0	Day	Dry	Followed Too Closely
12	2.337	12/03/12	Mon	0800	Coll. W/ Mv On Roadway	0	0	1	Day	Wet	Improper Passing
13	2.348	06/22/12	Fri	2000	Coll. W/ Mv On Roadway	0	0	1	Night	Wet	Improper Passing
14	2.398	01/02/12	Mon	1400	Rear-End	0	0	1	Day	Dry	Careless Driving
15	2.407	02/08/12	Wed	1300	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
16	2.411	06/11/12	Mon	2000	Hit Other Fixed Object	0	0	1	Night	Dry	Exceeded Safe Speed Limit
17	2.424	03/31/12	Sat	1000	Rear-End	0	1	0	Day	Dry	Followed Too Closely
18	2.424	10/06/12	Sat	0600	All Other	0	0	1	Night	Dry	Unknown/Not Coded
19	2.426	07/18/12	Wed	0700	Coll. W/ Pedestrian	0	0	1	Night	Dry	Disregarded Stop Sign
20	2.426	10/06/12	Sat	0600	Rear-End	0	0	1	Night	Dry	Followed Too Closely
21	2.432	11/22/12	Thu	1200	Rear-End	0	0	1	Day	Dry	Followed Too Closely
22	2.487	04/26/12	Thu	0300	All Other	0	0	1	Night	Dry	Exceeded Safe Speed Limit
23	2.487	09/03/12	Mon	0100	Hit Other Fixed Object	0	0	1	Night	Dry	Unknown/Not Coded
24	2.487	10/29/12	Mon	1900	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	No Improper Driving/Act
25	2.487	12/02/12	Sun	0800	All Other	0	0	1	Day	Dry	Unknown/Not Coded
26	2.487	12/11/12	Tue	1600	Angle	0	2	0	Day	Dry	Disregarded Other Traffic Control
27	2.488	01/08/12	Sun	2200	Right-Turn	0	0	1	Night	Dry	Unknown/Not Coded
28	2.488	03/29/12	Thu	1900	Rear-End	0	0	1	Night	Dry	Disregarded Other Traffic Control
29	2.496	10/01/12	Mon	2200	Rear-End	0	1	0	Night	Wet	Unknown/Not Coded
30	2.496	12/06/12	Thu	0800	Rear-End	0	0	1	Day	Dry	Followed Too Closely
31	2.504	06/26/12	Tue	2300	Rear-End	0	0	1	Night	Dry	Careless Driving
32	2.509	01/25/12	Wed	2000	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
33	2.509	02/17/12	Fri	1900	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
34	2.513	09/05/12	Wed	1100	All Other	0	0	1	Day	Dry	Unknown/Not Coded
35	2.516	03/25/12	Sun	1700	Rear-End	0	0	1	Day	Dry	Careless Driving
36	2.522	05/02/12	Wed	1800	Rear-End	0	0	1	Day	Dry	Improper Backing
37	2.522	05/27/12	Sun	1200	Left-Turn	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
38	2.522	07/19/12	Thu	2300	Rear-End	0	1	0	Night	Dry	Followed Too Closely
39	2.525	09/19/12	Wed	1200	All Other	0	0	1	Day	Dry	Unknown/Not Coded
40	2.527	11/24/12	Sat	2300	Rear-End	0	0	1	Night	Dry	Unknown/Not Coded
41	2.531	03/26/12	Mon	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
42	2.532	11/21/12	Wed	0800	Rear-End	0	1	0	Day	Dry	Followed Too Closely
43	2.551	04/05/12	Thu	1500	All Other	0	0	1	Day	Dry	Unknown/Not Coded
44	2.560	12/31/12	Mon	1600	All Other	0	0	1	Day	Dry	Unknown/Not Coded
45	2.573	09/10/12	Mon	1600	Rear-End	0	2	0	Day	Dry	Followed Too Closely
46	2.579	01/15/12	Sun	1900	All Other	0	0	1	Night	Dry	Unknown/Not Coded
47	2.587	02/08/12	Wed	0400	All Other	0	0	1	Night	Wet	Unknown/Not Coded
48	2.587	05/15/12	Tue	1800	Rear-End	0	1	0	Day	Dry	Careless Driving
49	2.587	07/12/12	Thu	1200	Angle	0	1	0	Day	Dry	Disregarded Traffic Signal
50	2.587	08/13/12	Mon	1100	Angle	0	2	0	Day	Dry	Disregarded Traffic Signal
51	2.587	11/16/12	Fri	1000	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
52	2.587	11/16/12	Fri	1300	All Other	0	0	1	Day	Dry	Unknown/Not Coded
53	2.588	12/04/12	Tue	1000	Rear-End	0	0	1	Day	Wet	Followed Too Closely
54	2.588	12/13/12	Thu	0900	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
55	2.597	02/02/12	Thu	1100	Angle	0	0	1	Day	Dry	Careless Driving
56	2.597	02/25/12	Sat	1000	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
57	2.597	07/13/12	Fri	1600	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	Disregarded Traffic Signal
58	2.597	07/26/12	Thu	1600	Rear-End	0	1	0	Day	Dry	Careless Driving
59	2.597	09/02/12	Sun	0700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
60	2.604	04/21/12	Sat	0600	Angle	0	2	0	Night	Wet	Failed To Yield Right-Of-Way
61	2.604	05/08/12	Tue	1400	Rear-End	0	0	1	Day	Wet	Followed Too Closely
62	2.604	07/22/12	Sun	1400	Coll. W/ Mv On Roadway	0	0	1	Day	Wet	Unknown/Not Coded
63	2.604	09/02/12	Sun	1200	Head-On	0	1	0	Day	Dry	No Improper Driving/Act
64	2.607	04/13/12	Fri	0800	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
65	2.608	02/23/12	Thu	2100	Rear-End	0	0	1	Night	Dry	Careless Driving
66	2.616	03/27/12	Tue	2000	Angle	0	0	1	Night	Wet	Failed To Yield Right-Of-Way
67	2.616	08/23/12	Thu	1200	Angle	0	0	1	Day	Dry	Unknown/Not Coded
68	2.623	10/16/12	Tue	1600	Rear-End	0	0	1	Day	Dry	Careless Driving
69	2.627	01/27/12	Fri	2200	Coll. W/ Pedestrian	0	0	1	Night	Dry	No Improper Driving/Act
70	2.627	04/05/12	Thu	2100	Rear-End	0	0	1	Night	Dry	Careless Driving

FLORIDA DEPARTMENT OF TRANSPORTATION
CRASH SUMMARY

SECTION: **86200000** STATE ROUTE: **858**
ROADWAY LIMITS: **Hallandale Beach Boulevard** M.P. **2.183** TO **2.790** ENGINEER: **0**
STUDY PERIOD: FROM **1/ 12** TO **12/ 12** COUNTY: **Broward**

No.	MILE POST	DATE	DAY	TIME	CRASH TYPE	FATAL	INJURY	PROP DAM	DAY / NIGHT	WET / DRY	CONTRIBUTING CAUSE
71	2.627	04/26/12	Thu	1700	Rear-End	0	0	1	Day	Dry	Followed Too Closely
72	2.627	06/20/12	Wed	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
73	2.627	12/09/12	Sun	0800	Rear-End	0	2	0	Day	Wet	Careless Driving
74	2.645	02/10/12	Fri	1700	Rear-End	0	0	1	Day	Wet	Unknown/Not Coded
75	2.645	08/08/12	Wed	1200	Rear-End	0	1	0	Day	Dry	Careless Driving
76	2.646	02/04/12	Sat	1600	Rear-End	0	0	1	Day	Dry	Improper Backing
77	2.646	04/25/12	Wed	1700	Coll. W/ Bicycle	0	1	0	Day	Dry	No Improper Driving/Act
78	2.646	05/23/12	Wed	0200	Coll. W/ Mv On Roadway	0	2	0	Day	Dry	Careless Driving
79	2.646	08/28/12	Tue	1500	Rear-End	0	0	1	Day	Dry	Careless Driving
80	2.646	09/22/12	Sat	0900	Right-Turn	0	1	0	Day	Wet	Improper Turn
81	2.665	04/06/12	Fri	1500	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
82	2.683	02/22/12	Wed	1300	Angle	0	0	1	Day	Dry	Careless Driving
83	2.693	02/10/12	Fri	0200	Angle	0	0	1	Day	Wet	Failed To Yield Right-Of-Way
84	2.702	04/14/12	Sat	0700	Rear-End	0	1	0	Day	Wet	Exceeded Safe Speed Limit
85	2.702	08/15/12	Wed	0700	Rear-End	0	1	0	Day	Dry	Followed Too Closely
86	2.712	01/06/12	Fri	1300	Angle	0	0	1	Day	Dry	Careless Driving
87	2.721	01/09/12	Mon	1700	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
88	2.721	01/27/12	Fri	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
89	2.721	03/24/12	Sat	0400	Rear-End	0	5	0	Night	Dry	Careless Driving
90	2.721	04/06/12	Fri	1400	Rear-End	0	2	0	Day	Wet	Careless Driving
91	2.721	05/02/12	Wed	0800	Rear-End	0	0	1	Day	Dry	Careless Driving
92	2.721	06/11/12	Mon	1500	Rear-End	0	0	1	Day	Dry	Followed Too Closely
93	2.721	07/19/12	Thu	1300	Coll. W/ Bicycle	0	1	0	Day	Dry	Unknown/Not Coded
94	2.721	11/22/12	Thu	1300	Coll. W/ Mv On Roadway	0	1	0	Day	Dry	Unknown/Not Coded
95	2.726	01/17/12	Tue	0700	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving
96	2.726	08/20/12	Mon	0800	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Careless Driving
97	2.730	03/27/12	Tue	1400	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
98	2.730	07/17/12	Tue	0800	Coll. W/ Mv On Roadway	0	0	1	Day	Dry	Unknown/Not Coded
99	2.731	09/24/12	Mon	0800	Angle	0	0	1	Day	Dry	Careless Driving
100	2.733	03/21/12	Wed	0900	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
101	2.733	03/23/12	Fri	1700	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
102	2.734	01/18/12	Wed	1700	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
103	2.736	10/03/12	Wed	1900	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Failed To Yield Right-Of-Way
104	2.737	04/26/12	Thu	1200	Rear-End	0	0	1	Day	Dry	Followed Too Closely
105	2.738	03/05/12	Mon	1300	Rear-End	0	0	1	Day	Dry	Careless Driving
106	2.738	07/06/12	Fri	0900	Rear-End	0	1	0	Day	Dry	Unknown/Not Coded
107	2.738	12/12/12	Wed	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
108	2.740	01/24/12	Tue	1800	Angle	0	0	1	Night	Dry	Careless Driving
109	2.740	02/26/12	Sun	1800	Rear-End	0	0	1	Night	Dry	Followed Too Closely
110	2.740	03/04/12	Sun	1900	Angle	0	0	1	Night	Dry	Failed To Yield Right-Of-Way
111	2.740	03/17/12	Sat	1200	Angle	0	0	1	Day	Dry	Failed To Yield Right-Of-Way
112	2.740	04/18/12	Wed	1800	Angle	0	0	1	Night	Dry	Disregarded Traffic Signal
113	2.740	05/02/12	Wed	2100	Rear-End	0	1	0	Night	Dry	Followed Too Closely
114	2.740	05/03/12	Thu	0700	Right-Turn	0	0	1	Day	Dry	No Improper Driving/Act
115	2.740	05/18/12	Fri	0900	Angle	0	2	0	Day	Dry	Disregarded Traffic Signal
116	2.740	09/04/12	Tue	1300	Rear-End	0	0	1	Day	Wet	Careless Driving
117	2.740	09/20/12	Thu	1300	Angle	0	0	1	Day	Dry	Disregarded Traffic Signal
118	2.740	10/17/12	Wed	1900	Coll. W/ Pedestrian	0	1	0	Night	Wet	Unknown/Not Coded
119	2.740	11/27/12	Tue	1500	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
120	2.741	08/09/12	Thu	0700	Rear-End	0	1	0	Day	Dry	No Improper Driving/Act
121	2.743	01/02/12	Mon	1900	Rear-End	0	0	1	Night	Dry	Careless Driving
122	2.743	10/09/12	Tue	1100	Rear-End	0	0	1	Day	Dry	Followed Too Closely
123	2.744	06/30/12	Sat	1100	Rear-End	0	0	1	Day	Dry	Careless Driving
124	2.749	05/17/12	Thu	1300	Rear-End	0	0	1	Day	Dry	Careless Driving
125	2.759	01/06/12	Fri	1400	Rear-End	0	0	1	Day	Dry	Followed Too Closely
126	2.759	05/12/12	Sat	2300	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Unknown/Not Coded
127	2.775	04/28/12	Sat	1700	Rear-End	0	0	1	Day	Dry	No Improper Driving/Act
128	2.778	05/13/12	Sun	1300	Rear-End	0	0	1	Day	Dry	Unknown/Not Coded
129	2.778	07/09/12	Mon	0500	Coll. W/ Mv On Roadway	0	0	1	Night	Dry	Careless Driving

Total No.		Fatal	Injury	PDO	Angle	Left Turn	Right Turn	Rear End	Side swipe	Ped/ Bike	
129		**0**	**38**	**91**	**21**	**1**	**3**	**64**	**0**	**5**	
		0.00%	*29.46%*	*70.54%*	*16.28%*	*0.78%*	*2.33%*	*49.61%*	*0.00%*	*3.88%*	
One Vehicle		Day	Night	Wet	Dry	Excess Speed	FTYRW	DUI			
8		**92**	**37**	**17**	**112**	**3**	**10**	**1**			
6.20%		*71.32%*	*28.68%*	*13.18%*	*86.82%*	*2.33%*	*7.75%*	*0.78%*			

TOTAL ENTERING VEHICLES/ADT: **57,983**

SEGMENT CRASH RATE: **10.042**

Appendix E

Excerpts from ICDR's

No Build Conditions Traffic Operations Analysis

Table 8.3 – No-Build 2020 Intersection Analysis Results

Intersection	Approach Movement			Intersection Summary	
	Lane Group	AM	PM	AM	PM
Hallandale Beach Boulevard (SR 858) at SW 31st Avenue[2]	EB L	2.0 / A	2.6 / A	11.9 / B	11.4 / B
	EB T/R	22.1 / C	28.4 / C		
	WB L	11.9 / B	6.8 / A		
	WB T/R	1.5 / A	1.6 / A		
	NB R	14.8 / B	13.5 / B		
Hallandale Beach Boulevard (SR 858) at SW 30th Avenue[2]	EB T	37.8 / D	12.6 / B	20.5 / C	5.9 / A
	WB L	14.5 / B	18.3 / A		
	WB T	1.5 / A	1.6 / A		
Hallandale Beach Boulevard (SR 858) at I-95 SB Ramps[2]	EB T	63.2 / E	17.2 / B	54.6 / D	25.1 / C
	EB R[4]	4.4 / A	1.5 / A		
	WB L	160.0 / F	53.7 / D		
	WB T	12.3 / B	15.5 / B		
	SB L	22.5 / C	24.6 / C		
	SB R[4]	21.6 / C	40.4 / D		
Hallandale Beach Boulevard (SR 858) at I-95 NB Ramps[2]	EB L	88.6 / F	37.7 / D	90.0 / F	59.8 / E
	EB T	11.4 / B	12.7 / B		
	WB T	157.6 / F	54.9 / D		
	WB R[4]	11.7 / B	14.9 / B		
	NB L	35.1 / D	34.6 / C		
	NB R[4]	225.9 / F	247.7 / F		
Hallandale Beach Boulevard (SR 858) at SW/NW 10th Terrace[1]	EB L	13.7 / B	27.8 / C	14.5 / B	21.5 / C
	EB T	9.9 / A	14.7 / B		
	EB R	10.3 / B	15.1 / B		
	WB L	7.1 / A	11.8 / B		
	WB T	12.1 / B	19.4 / B		
	WB R	7.0 / A	10.0 / B		
	NB L	69.9 / E	74.8 / E		
	NB T/R	59.2 / E	53.1 / D		
	SB L	61.7 / E	57.4 / E		
	SB T/R	59.4 / E	54.4 / D		

(1) Delay and LOS reported from Synchro-HCM 2010
(2) Delay and LOS reported from Synchro-HCM 2000
(3) Free Flow condition, no delay
(4) Yield Control

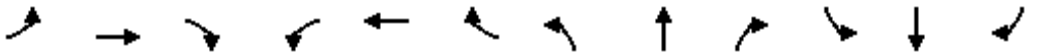
Table 8.4 summarizes the results of the off-ramp signals back-of-queue analyses for the AM and PM peak hours. Queues were calculated using Synchro since the Synchro implementation of the HCM 2010 methodology does not support clustered intersections. The results present the queue lengths in feet for each lane group movement. The analysis accounts for additional vehicles that may queue up in back while the front of the queue dissipates after the signal turns green. Therefore, the queue length results are not necessarily a multiple of 25 (length of vehicles including the space between). The

Table 10.3 – No-Build 2040 Intersection Analysis Results

Intersection	Approach Movement			Intersection Summary	
	Lane Group	AM	PM	AM	PM
Hallandale Beach Boulevard (SR 858) at SW 31st Avenue[2]	EB L	2.5 / A	26.0 / C	20.8 / C	16.6 / B
	EB T/R	38.3 / D	40.7 / D		
	WB L	9.8 / A	4.6 / A		
	WB T/R	1.6 / A	1.7 / A		
	NB R	17.4 / B	12.3 / B		
Hallandale Beach Boulevard (SR 858) at SW 30th Avenue[2]	EB T	42.4 / D	33.8 / C	23.7 / C	14.6 / B
	WB L	17.8 / B	7.9 / A		
	WB T	1.6 / A	1.7 / A		
Hallandale Beach Boulevard (SR 858) at I-95 SB Ramps[2]	EB T	51.1 / D	22.0 / C	66.9 / E	43.8 / D
	EB R[4]	4.3 / A	4.9 / A		
	WB L	231.6 / F	163.3 / F		
	WB T	15.4 / B	24.4 / C		
	SB L	27.4 / C	24.5 / C		
	SB R[4]	63.9 / E	43.0 / D		
Hallandale Beach Boulevard (SR 858) at I-95 NB Ramps[2]	EB L	157.8 / F	48.4 / D	128.0 / F	103.7 / F
	EB T	8.4 / A	16.1 / B		
	WB T	137.4 / F	150.9 / F		
	WB R[4]	30.2 / C	30.8 / C		
	NB L	61.8 / E	31.7 / C		
	NB R[4]	582.8 / F	323.1 / F		
Hallandale Beach Boulevard (SR 858) at SW/NW 10th Terrace[1]	EB L	86.8 / E	68.6 / E	34.4 / C	33.8 / C
	EB T	19.8 / B	18.5 / B		
	EB R	20.7 / C	19.3 / B		
	WB L	19.4 / B	19.7 / B		
	WB T	38.3 / D	32.3 / C		
	WB R	16.2 / B	12.7 / B		
	NB L	76.2 / E	187.3 / F		
	NB T/R	48.0 / D	52.1 / D		
	SB L	50.2 / D	56.4 / E		
	SB T/R	52.7 / D	59.3 / E		

(1) Delay and LOS reported from Synchro-HCM 2010
(2) Delay and LOS reported from Synchro-HCM 2000
(3) Free Flow condition, no delay
(4) Yield Control

Table 10.4 summarizes the results of the off-ramp signals back-of-queue analyses for the AM and PM peak hours. Queues were calculated using Synchro since the Synchro implementation of the HCM 2010 methodology does not support clustered intersections. The results present the queue lengths in feet for each lane group movement. The analysis accounts for additional vehicles that may queue up in back while the front of the queue dissipates after the signal turns green. Therefore, the queue length results are not necessarily a multiple of 25 (length of vehicles including the space between). The

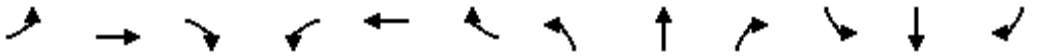


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1485	5	30	1425	35	0	0	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5083		1770	5067				1611			
Flt Permitted	0.16	1.00		0.12	1.00				1.00			
Satd. Flow (perm)	290	5083		233	5067				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	1563	5	32	1500	37	0	0	37	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	21	0	0	0
Lane Group Flow (vph)	26	1567	0	32	1537	0	0	0	16	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	92.0	40.0		78.0	92.0				40.0			
Effective Green, g (s)	74.0	40.0		72.0	78.0				40.0			
Actuated g/C Ratio	0.80	0.43		0.78	0.85				0.43			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	233	2210		850	4295				700			
v/s Ratio Prot		c0.31		0.02	c0.30				0.01			
v/s Ratio Perm	0.09			0.01								
v/c Ratio	0.11	0.71		0.04	0.36				0.02			
Uniform Delay, d1	1.9	21.2		6.5	1.5				14.8			
Progression Factor	1.00	1.00		1.81	1.00				1.00			
Incremental Delay, d2	0.1	0.9		0.0	0.0				0.0			
Delay (s)	2.0	22.1		11.9	1.5				14.8			
Level of Service	A	C		B	A				B			
Approach Delay (s)		21.8			1.8			14.8			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

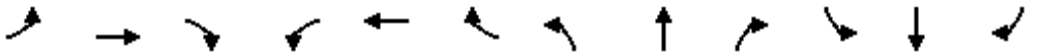
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1545	10	40	1400	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.49		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3647		1770	5085		
Flt Permitted	1.00		0.12	1.00		
Satd. Flow (perm)	3647		233	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1626	11	42	1474	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1636	0	42	1474	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	40.0		78.0	92.0		
Effective Green, g (s)	40.0		72.0	78.0		
Actuated g/C Ratio	0.43		0.78	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1585		850	4311		
v/s Ratio Prot	c0.45		0.02	c0.29		
v/s Ratio Perm			0.02			
v/c Ratio	1.03		0.05	0.34		
Uniform Delay, d1	26.0		6.6	1.5		
Progression Factor	0.37		2.19	1.00		
Incremental Delay, d2	28.2		0.0	0.0		
Delay (s)	37.8		14.5	1.5		
Level of Service	D		B	A		
Approach Delay (s)	37.8			1.9	0.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



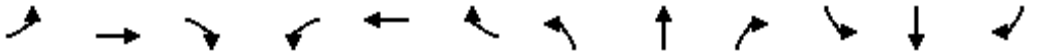
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1285	270	815	1045	0	0	0	0	810	0	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.64	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5961	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5961	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1353	284	858	1100	0	0	0	0	853	0	416
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	69
Lane Group Flow (vph)	0	1353	269	858	1100	0	0	0	0	853	0	347
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		19.0	62.0	17.5	42.5					37.0		37.0
Effective Green, g (s)		19.0	60.0	17.5	36.5					37.0		37.0
Actuated g/C Ratio		0.21	0.65	0.19	0.40					0.40		0.40
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1231	1032	653	2017					1380		636
v/s Ratio Prot		c0.23		c0.25	0.22					c0.25		
v/s Ratio Perm			0.17									0.22
v/c Ratio		1.10	0.26	1.31	0.55					0.62		0.55
Uniform Delay, d1		36.5	6.7	37.2	21.4					21.9		21.1
Progression Factor		0.47	0.65	0.48	0.58					1.00		1.00
Incremental Delay, d2		46.0	0.0	142.3	0.0					0.6		0.5
Delay (s)		63.2	4.4	160.0	12.3					22.5		21.6
Level of Service		E	A	F	B					C		C
Approach Delay (s)		53.0			77.0			0.0			22.2	
Approach LOS		D			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	121.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	800	1295	0	0	1555	690	305	0	505	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.76	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			7078	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			7078	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	842	1363	0	0	1637	726	321	0	532	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	0	155	0	0	0
Lane Group Flow (vph)	842	1363	0	0	1637	711	321	0	377	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	19.5	63.5			17.0	60.0	16.0		16.0			
Effective Green, g (s)	19.5	51.5			17.0	60.0	16.0		16.0			
Actuated g/C Ratio	0.21	0.56			0.18	0.65	0.17		0.17			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	727	2846			1307	1032	597		275			
v/s Ratio Prot	c0.25	0.27			c0.23		0.09					
v/s Ratio Perm						c0.45			c0.24			
v/c Ratio	1.16	0.48			1.25	0.69	0.54		1.37			
Uniform Delay, d1	36.2	12.2			37.5	10.1	34.6		38.0			
Progression Factor	0.44	0.94			1.00	1.00	1.00		1.00			
Incremental Delay, d2	72.8	0.0			120.1	1.5	0.5		187.9			
Delay (s)	88.6	11.4			157.6	11.7	35.1		225.9			
Level of Service	F	B			F	B	D		F			
Approach Delay (s)		40.9			112.7			154.1			0.0	
Approach LOS		D			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	90.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	121.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	110	1550	90	30	1935	20	160	10	30	40	10	75
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	116	1632	92	32	2037	14	168	11	4	42	11	8
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	3542	200	241	3594	1119	231	187	68	235	144	105
Arrive On Green	0.03	0.72	0.72	0.02	0.71	0.71	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1774	4926	278	1774	5085	1583	1388	1305	474	1393	1004	730
Grp Volume(v), veh/h	116	1123	601	32	2037	14	168	0	15	42	0	19
Grp Sat Flow(s),veh/h/ln	1774	1695	1814	1774	1695	1583	1388	0	1779	1393	0	1734
Q Serve(g_s), s	2.9	22.3	22.3	0.8	31.3	0.4	19.1	0.0	1.2	4.3	0.0	1.5
Cycle Q Clear(g_c), s	2.9	22.3	22.3	0.8	31.3	0.4	20.6	0.0	1.2	5.5	0.0	1.5
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.27	1.00		0.42
Lane Grp Cap(c), veh/h	204	2437	1304	241	3594	1119	231	0	255	235	0	249
V/C Ratio(X)	0.57	0.46	0.46	0.13	0.57	0.01	0.73	0.00	0.06	0.18	0.00	0.08
Avail Cap(c_a), veh/h	327	2437	1304	252	3594	1119	348	0	406	353	0	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.0	9.5	9.5	7.6	11.5	6.9	68.3	0.0	59.2	61.6	0.0	59.4
Incr Delay (d2), s/veh	0.7	0.5	0.9	0.1	0.7	0.0	1.7	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	10.5	11.3	0.4	14.7	0.2	7.4	0.0	0.6	1.7	0.0	0.7
LnGrp Delay(d),s/veh	13.7	9.9	10.3	7.7	12.1	7.0	69.9	0.0	59.2	61.7	0.0	59.4
LnGrp LOS	B	A	B	A	B	A	E		E	E		E
Approach Vol, veh/h		1840			2083			183			61	
Approach Delay, s/veh		10.3			12.0			69.0			61.0	
Approach LOS		B			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	119.6		29.4	9.0	121.5		29.4
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	16.0	88.5		36.5	4.0	100.5		36.5
Max Q Clear Time (g_c+I1), s	4.9	33.3		22.6	2.8	24.3		7.5
Green Ext Time (p_c), s	0.1	50.3		0.3	0.0	67.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

102: SW 31st Avenue/SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	26	1568	32	1537	37
v/c Ratio	0.09	0.71	0.04	0.30	0.05
Control Delay	0.6	23.4	1.4	0.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	23.4	1.4	0.2	0.1
Queue Length 50th (ft)	0	265	1	0	0
Queue Length 95th (ft)	0	319	4	0	0
Internal Link Dist (ft)		178		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	291	2211	854	5065	753
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.71	0.04	0.30	0.05

Intersection Summary

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1637	42	1474
v/c Ratio	1.03	0.05	0.29
Control Delay	40.8	1.7	0.1
Queue Delay	0.0	0.0	0.0
Total Delay	40.8	1.7	0.1
Queue Length 50th (ft)	~191	2	0
Queue Length 95th (ft)	#656	m5	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1586	854	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.03	0.05	0.29

Intersection Summary

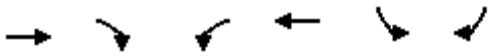
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1353	284	858	1100	853	416
v/c Ratio	1.10	0.26	1.31	0.47	0.56	0.54
Control Delay	66.1	3.4	163.6	9.9	20.6	16.2
Queue Delay	0.8	1.0	0.0	2.7	0.0	0.0
Total Delay	66.8	4.4	163.6	12.6	20.6	16.2
Queue Length 50th (ft)	~267	1	~348	75	182	121
Queue Length 95th (ft)	m#252	m1	m#234	m68	240	210
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1231	1080	653	2349	1529	769
Starvation Cap Reductn	0	552	0	1092	0	0
Spillback Cap Reductn	109	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.54	1.31	0.88	0.56	0.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	842	1363	1637	726	321	532
v/c Ratio	1.16	0.39	1.25	0.69	0.54	1.24
Control Delay	92.5	5.9	153.6	13.9	38.4	149.0
Queue Delay	0.2	0.9	0.4	0.0	0.0	0.0
Total Delay	92.7	6.8	154.0	13.9	38.4	149.0
Queue Length 50th (ft)	~313	155	~316	225	88	~291
Queue Length 95th (ft)	m#262	m143	#384	358	131	#491
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	727	3509	1307	1047	597	430
Starvation Cap Reductn	22	1717	0	0	0	0
Spillback Cap Reductn	0	0	122	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.76	1.38	0.69	0.54	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

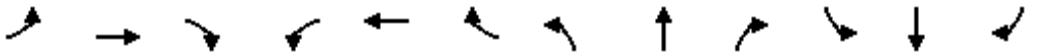
m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	1727	32	2037	21	168	43	42	90
v/c Ratio	0.59	0.48	0.17	0.61	0.02	0.84	0.15	0.20	0.28
Control Delay	29.6	12.0	8.5	18.0	0.1	98.1	22.9	58.0	15.7
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	12.3	8.5	18.0	0.1	98.1	22.9	58.0	15.7
Queue Length 50th (ft)	31	283	7	420	0	173	10	39	10
Queue Length 95th (ft)	108	393	20	599	0	248	45	74	60
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	251	3571	191	3345	1077	289	402	309	429
Starvation Cap Reductn	0	1013	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.68	0.17	0.61	0.02	0.58	0.11	0.14	0.21

Intersection Summary

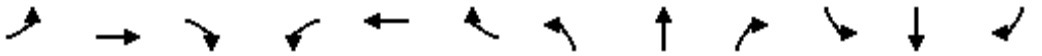


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	1170	10	35	1980	30	0	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5079		1770	5074				1611			
Flt Permitted	0.08	1.00		0.11	1.00				1.00			
Satd. Flow (perm)	149	5079		207	5074				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1232	11	37	2084	32	0	0	63	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	42	1242	0	37	2116	0	0	0	32	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	42.0		98.0	110.0				56.0			
Effective Green, g (s)	92.0	42.0		92.0	96.0				56.0			
Actuated g/C Ratio	0.84	0.38		0.84	0.87				0.51			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	124	1939		968	4428				820			
v/s Ratio Prot		c0.24		0.02	c0.42				0.02			
v/s Ratio Perm	0.28			0.01								
v/c Ratio	0.34	0.64		0.04	0.48				0.04			
Uniform Delay, d1	2.1	27.8		6.3	1.5				13.5			
Progression Factor	1.00	1.00		1.09	1.00				1.00			
Incremental Delay, d2	0.6	0.5		0.0	0.0				0.0			
Delay (s)	2.6	28.4		6.8	1.6				13.5			
Level of Service	A	C		A	A				B			
Approach Delay (s)		27.5			1.6			13.5			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

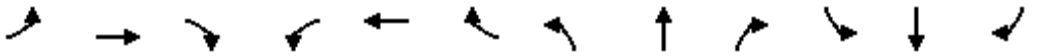
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1180	30	60	2035	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.52		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3860		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3860		207	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1242	32	63	2142	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1272	0	63	2142	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	42.0		98.0	110.0		
Effective Green, g (s)	42.0		92.0	96.0		
Actuated g/C Ratio	0.38		0.84	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1473		968	4437		
v/s Ratio Prot	c0.33		0.03	c0.42		
v/s Ratio Perm			0.02			
v/c Ratio	0.86		0.07	0.48		
Uniform Delay, d1	31.4		6.3	1.5		
Progression Factor	0.27		2.88	1.00		
Incremental Delay, d2	4.3		0.0	0.0		
Delay (s)	12.6		18.3	1.6		
Level of Service	B		B	A		
Approach Delay (s)	12.6			2.0	0.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



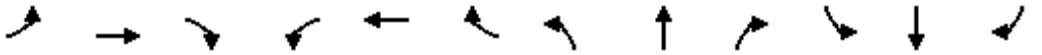
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑↑	↱	↰↰	↑↑↑					↰↰		↱
Volume (vph)	0	1000	255	665	1485	0	0	0	0	765	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.67	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6240	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6240	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1053	268	700	1563	0	0	0	0	805	0	642
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	502
Lane Group Flow (vph)	0	1053	255	700	1563	0	0	0	0	805	0	140
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		24.0	76.0	21.5	51.5					46.0		24.0
Effective Green, g (s)		24.0	70.0	21.5	45.5					46.0		24.0
Actuated g/C Ratio		0.22	0.64	0.20	0.41					0.42		0.22
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1361	1007	670	2103					1435		345
v/s Ratio Prot		c0.17		c0.20	0.31					c0.23		
v/s Ratio Perm			0.16									0.09
v/c Ratio		0.77	0.25	1.04	0.74					0.56		0.41
Uniform Delay, d1		40.4	8.7	44.2	27.3					24.3		36.9
Progression Factor		0.36	0.18	0.49	0.54					1.00		1.00
Incremental Delay, d2		2.5	0.0	32.1	0.7					0.3		3.5
Delay (s)		17.2	1.5	53.7	15.5					24.6		40.4
Level of Service		B	A	D	B					C		D
Approach Delay (s)		14.0			27.3			0.0			31.6	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	151.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	600	1165	0	0	1780	825	370	0	655	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.96	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			8941	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			8941	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	1226	0	0	1874	868	389	0	689	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	115	0	0	0
Lane Group Flow (vph)	632	1226	0	0	1874	857	389	0	574	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Effective Green, g (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Actuated g/C Ratio	0.20	0.63			0.22	0.69	0.25		0.25			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	670	3212			1950	1093	873		402			
v/s Ratio Prot	c0.18	0.24			c0.21		0.11					
v/s Ratio Perm						c0.54			c0.36			
v/c Ratio	0.94	0.38			0.96	0.78	0.45		1.43			
Uniform Delay, d1	43.6	9.8			42.5	11.5	34.5		41.0			
Progression Factor	0.51	1.29			1.00	1.00	1.00		1.00			
Incremental Delay, d2	15.3	0.0			12.4	3.5	0.1		206.7			
Delay (s)	37.7	12.7			54.9	14.9	34.6		247.7			
Level of Service	D	B			D	B	C		F			
Approach Delay (s)		21.2			42.3			170.8			0.0	
Approach LOS		C			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	59.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	151.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	95	1570	100	50	2200	30	170	40	50	50	20	120
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	100	1653	101	53	2316	20	179	42	22	53	21	75
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	3223	197	217	3299	1027	241	232	121	273	72	257
Arrive On Green	0.03	0.66	0.66	0.02	0.65	0.65	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	4901	299	1774	5085	1583	1294	1153	604	1332	358	1279
Grp Volume(v), veh/h	100	1143	611	53	2316	20	179	0	64	53	0	96
Grp Sat Flow(s),veh/h/ln	1774	1695	1810	1774	1695	1583	1294	0	1756	1332	0	1637
Q Serve(g_s), s	3.1	27.9	27.9	1.6	47.0	0.7	21.8	0.0	4.8	5.5	0.0	8.0
Cycle Q Clear(g_c), s	3.1	27.9	27.9	1.6	47.0	0.7	29.8	0.0	4.8	10.3	0.0	8.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		0.34	1.00		0.78
Lane Grp Cap(c), veh/h	155	2229	1190	217	3299	1027	241	0	353	273	0	329
V/C Ratio(X)	0.64	0.51	0.51	0.24	0.70	0.02	0.74	0.00	0.18	0.19	0.00	0.29
Avail Cap(c_a), veh/h	222	2229	1190	232	3299	1027	268	0	390	300	0	363
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.8	14.1	14.2	11.6	18.1	10.0	66.9	0.0	53.0	57.3	0.0	54.3
Incr Delay (d2), s/veh	1.0	0.5	1.0	0.2	1.3	0.0	7.9	0.0	0.1	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	13.2	14.2	0.8	22.3	0.3	8.3	0.0	2.4	2.0	0.0	3.6
LnGrp Delay(d),s/veh	27.8	14.7	15.1	11.8	19.4	10.0	74.8	0.0	53.1	57.4	0.0	54.4
LnGrp LOS	C	B	B	B	B	B	E		D	E		D
Approach Vol, veh/h		1854			2389			243			149	
Approach Delay, s/veh		15.5			19.1			69.1			55.5	
Approach LOS		B			B			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	110.3		38.7	9.6	111.7		38.7
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	11.0	94.5		35.5	5.0	100.5		35.5
Max Q Clear Time (g_c+I1), s	5.1	49.0		31.8	3.6	29.9		12.3
Green Ext Time (p_c), s	0.0	43.5		0.4	0.0	65.8		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	42	1243	37	2116	63
v/c Ratio	0.28	0.64	0.04	0.42	0.07
Control Delay	4.7	29.7	0.6	0.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	29.7	0.6	0.2	1.6
Queue Length 50th (ft)	0	259	0	0	0
Queue Length 95th (ft)	0	310	1	0	12
Internal Link Dist (ft)		178		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	149	1940	971	5075	856
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.64	0.04	0.42	0.07

Intersection Summary

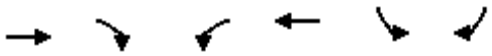
Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1274	63	2142
v/c Ratio	0.86	0.06	0.42
Control Delay	14.4	1.7	2.0
Queue Delay	0.1	0.0	0.0
Total Delay	14.6	1.7	2.0
Queue Length 50th (ft)	89	1	24
Queue Length 95th (ft)	85	m4	32
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1475	971	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	10	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.87	0.06	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1053	268	700	1563	805	642
v/c Ratio	0.77	0.23	1.04	0.66	0.52	0.76
Control Delay	17.2	1.0	56.4	13.1	22.9	9.6
Queue Delay	0.9	0.8	21.5	37.4	0.0	0.1
Total Delay	18.1	1.9	77.8	50.4	22.9	9.7
Queue Length 50th (ft)	97	0	~287	108	203	0
Queue Length 95th (ft)	m171	m0	m#310	m115	259	114
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1361	1160	670	2380	1560	847
Starvation Cap Reductn	109	620	81	924	0	0
Spillback Cap Reductn	94	0	0	62	36	7
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.50	1.19	1.07	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	632	1226	1874	868	389	689
v/c Ratio	0.94	0.38	0.96	0.79	0.45	1.33
Control Delay	40.9	12.7	55.9	17.5	36.4	190.0
Queue Delay	33.4	1.1	27.8	1.1	0.0	0.0
Total Delay	74.3	13.9	83.6	18.6	36.4	190.0
Queue Length 50th (ft)	247	195	274	356	119	~551
Queue Length 95th (ft)	#347	230	#330	552	165	#780
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	670	3235	1950	1104	873	517
Starvation Cap Reductn	81	1672	0	84	0	0
Spillback Cap Reductn	0	0	188	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.78	1.06	0.85	0.45	1.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	1758	53	2316	32	179	95	53	147
v/c Ratio	0.72	0.51	0.30	0.71	0.03	0.94	0.27	0.22	0.42
Control Delay	59.4	14.4	11.9	21.6	0.1	113.3	34.6	55.5	36.2
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	14.8	11.9	21.6	0.1	113.3	34.6	55.5	36.2
Queue Length 50th (ft)	54	340	15	576	0	184	52	47	79
Queue Length 95th (ft)	121	404	31	701	1	#306	105	88	148
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	167	3416	177	3263	1039	227	406	280	405
Starvation Cap Reductn	0	899	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.70	0.30	0.71	0.03	0.79	0.23	0.19	0.36

Intersection Summary

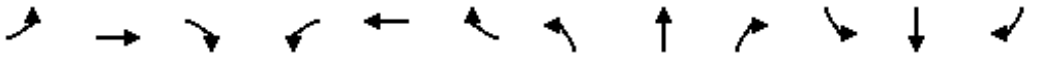
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

102: SW 31st Avenue/SW 31st Avenue & Hallandale Beach Boulevard

Hollywood Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	35	1916	68	1735	72
v/c Ratio	0.15	0.87	0.08	0.34	0.10
Control Delay	1.4	28.9	1.7	0.2	1.6
Queue Delay	0.0	2.2	0.0	0.0	0.0
Total Delay	1.4	31.1	1.7	0.2	1.6
Queue Length 50th (ft)	0	359	4	0	0
Queue Length 95th (ft)	0	428	10	0	11
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	231	2209	854	5060	753
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	176	0	0	3
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.94	0.08	0.34	0.10

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	1805	15	65	1595	53	0	0	68	0	0	0
Future Volume (vph)	33	1805	15	65	1595	53	0	0	68	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5079		1770	5061				1611			
Flt Permitted	0.12	1.00		0.12	1.00				1.00			
Satd. Flow (perm)	231	5079		233	5061				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	1900	16	68	1679	56	0	0	72	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	41	0	0	0
Lane Group Flow (vph)	35	1915	0	68	1735	0	0	0	31	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	92.0	40.0		78.0	92.0				40.0			
Effective Green, g (s)	74.0	40.0		72.0	78.0				40.0			
Actuated g/C Ratio	0.80	0.43		0.78	0.85				0.43			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	185	2208		850	4290				700			
v/s Ratio Prot		c0.38		0.03	c0.34				0.02			
v/s Ratio Perm	0.15			0.03								
v/c Ratio	0.19	0.87		0.08	0.40				0.04			
Uniform Delay, d1	2.1	23.6		6.7	1.6				15.0			
Progression Factor	1.00	1.00		1.86	1.00				1.00			
Incremental Delay, d2	0.2	3.7		0.0	0.0				0.0			
Delay (s)	2.3	27.3		12.4	1.6				15.0			
Level of Service	A	C		B	A				B			
Approach Delay (s)		26.9			2.0			15.0			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1990	51	1724
v/c Ratio	1.25	0.06	0.34
Control Delay	133.1	1.6	0.2
Queue Delay	0.0	0.0	0.0
Total Delay	133.1	1.6	0.2
Queue Length 50th (ft)	~737	3	0
Queue Length 95th (ft)	#851	m4	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1586	854	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.25	0.06	0.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

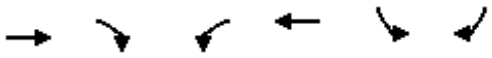
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1875	15	48	1638	0	0
Future Volume (vph)	1875	15	48	1638	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.49		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3647		1770	5085		
Flt Permitted	1.00		0.12	1.00		
Satd. Flow (perm)	3647		233	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1974	16	51	1724	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1989	0	51	1724	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	40.0		78.0	92.0		
Effective Green, g (s)	40.0		72.0	78.0		
Actuated g/C Ratio	0.43		0.78	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1585		850	4311		
v/s Ratio Prot	c0.55		0.03	c0.34		
v/s Ratio Perm			0.02			
v/c Ratio	1.26		0.06	0.40		
Uniform Delay, d1	26.0		6.6	1.6		
Progression Factor	0.36		2.01	1.00		
Incremental Delay, d2	117.7		0.0	0.0		
Delay (s)	127.0		13.3	1.6		
Level of Service	F		B	A		
Approach Delay (s)	127.0			2.0	0.0	
Approach LOS	F			A	A	

Intersection Summary			
HCM 2000 Control Delay	68.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard



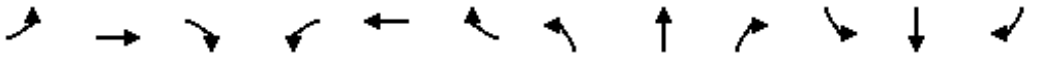
Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1582	405	945	1237	879	537
v/c Ratio	1.29	0.38	1.45	0.53	0.57	0.70
Control Delay	150.5	3.9	223.3	11.1	20.9	21.6
Queue Delay	0.5	2.0	0.0	10.9	0.0	0.0
Total Delay	150.9	5.9	223.3	22.0	20.9	21.6
Queue Length 50th (ft)	~354	2	~406	92	190	192
Queue Length 95th (ft)	m#200	m1	m#238	m80	248	317
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1231	1080	653	2349	1529	769
Starvation Cap Reductn	0	513	0	1095	0	0
Spillback Cap Reductn	126	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.43	0.71	1.45	0.99	0.57	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1503	385	898	1175	0	0	0	0	835	0	510
Future Volume (vph)	0	1503	385	898	1175	0	0	0	0	835	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.64	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5961	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5961	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1582	405	945	1237	0	0	0	0	879	0	537
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	69
Lane Group Flow (vph)	0	1582	390	945	1237	0	0	0	0	879	0	468
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		19.0	62.0	17.5	42.5					37.0		37.0
Effective Green, g (s)		19.0	60.0	17.5	36.5					37.0		37.0
Actuated g/C Ratio		0.21	0.65	0.19	0.40					0.40		0.40
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1231	1032	653	2017					1380		636
v/s Ratio Prot		c0.27		c0.28	0.24					0.26		
v/s Ratio Perm			0.25									c0.30
v/c Ratio		1.29	0.38	1.45	0.61					0.64		0.74
Uniform Delay, d1		36.5	7.4	37.2	22.1					22.1		23.4
Progression Factor		0.51	0.64	0.48	0.62					1.00		1.00
Incremental Delay, d2		128.9	0.0	202.0	0.0					0.7		3.8
Delay (s)		147.5	4.7	219.8	13.8					22.8		27.2
Level of Service		F	A	F	B					C		C
Approach Delay (s)		118.4			103.0			0.0			24.5	
Approach LOS		F			F			A			C	

Intersection Summary			
HCM 2000 Control Delay	88.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	147.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	879	1582	1787	868	395	595
v/c Ratio	1.21	0.45	1.37	0.83	0.66	1.38
Control Delay	115.3	5.2	202.1	20.3	41.5	209.9
Queue Delay	0.2	1.4	0.5	0.0	0.0	0.0
Total Delay	115.5	6.6	202.6	20.3	41.5	209.9
Queue Length 50th (ft)	~339	160	~364	327	111	~370
Queue Length 95th (ft)	m225	m119	#433	#556	160	#577
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	727	3509	1307	1047	597	430
Starvation Cap Reductn	22	1635	0	0	0	0
Spillback Cap Reductn	0	0	158	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.84	1.56	0.83	0.66	1.38

Intersection Summary

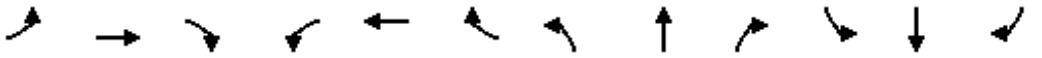
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	835	1503	0	0	1698	825	375	0	565	0	0	0
Future Volume (vph)	835	1503	0	0	1698	825	375	0	565	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.76	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			7078	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			7078	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	879	1582	0	0	1787	868	395	0	595	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	0	155	0	0	0
Lane Group Flow (vph)	879	1582	0	0	1787	853	395	0	440	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	19.5	63.5			17.0	60.0	16.0		16.0			
Effective Green, g (s)	19.5	51.5			17.0	60.0	16.0		16.0			
Actuated g/C Ratio	0.21	0.56			0.18	0.65	0.17		0.17			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	727	2846			1307	1032	597		275			
v/s Ratio Prot	c0.26	0.31			c0.25		0.12					
v/s Ratio Perm						c0.54			c0.28			
v/c Ratio	1.21	0.56			1.37	0.83	0.66		1.60			
Uniform Delay, d1	36.2	12.9			37.5	12.1	35.5		38.0			
Progression Factor	0.43	0.78			1.00	1.00	1.00		1.00			
Incremental Delay, d2	95.4	0.1			170.2	5.3	2.1		286.0			
Delay (s)	111.0	10.1			207.7	17.4	37.6		324.0			
Level of Service	F	B			F	B	D		F			
Approach Delay (s)		46.1			145.5			209.7			0.0	
Approach LOS		D			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	115.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	147.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hollywood Boulevard

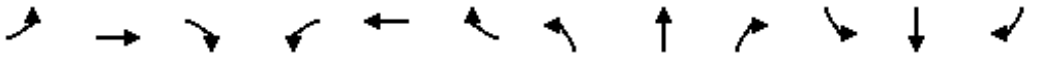
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	172	1977	35	2298	21	168	46	42	169
v/c Ratio	0.86	0.58	0.26	0.75	0.02	0.95	0.13	0.16	0.43
Control Delay	78.1	15.5	13.2	26.1	0.1	119.8	22.3	53.1	21.8
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.1	16.0	13.2	26.1	0.1	119.8	22.3	53.1	21.8
Queue Length 50th (ft)	127	408	10	645	0	174	12	37	48
Queue Length 95th (ft)	#249	483	23	760	0	#294	48	73	118
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	223	3422	136	3075	999	212	405	308	455
Starvation Cap Reductn	0	840	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.77	0.26	0.75	0.02	0.79	0.11	0.14	0.37

Intersection Summary

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

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hollywood Boulevard



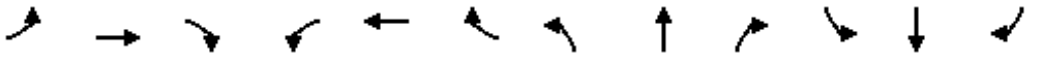
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	1760	118	33	2183	20	160	13	30	40	15	145
Future Volume (vph)	163	1760	118	33	2183	20	160	13	30	40	15	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5037		1770	5085	1583	1770	1668		1770	1610	
Flt Permitted	0.04	1.00		0.08	1.00	1.00	0.50	1.00		0.73	1.00	
Satd. Flow (perm)	72	5037		147	5085	1583	933	1668		1354	1610	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	172	1853	124	35	2298	21	168	14	32	42	16	153
RTOR Reduction (vph)	0	4	0	0	0	8	0	26	0	0	92	0
Lane Group Flow (vph)	172	1973	0	35	2298	13	168	20	0	42	77	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	116.8	107.4		100.2	96.8	96.8	30.2	30.2		30.2	30.2	
Effective Green, g (s)	116.8	107.4		100.2	96.8	96.8	30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.73	0.67		0.63	0.60	0.60	0.19	0.19		0.19	0.19	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	201	3381		126	3076	957	176	314		255	303	
v/s Ratio Prot	c0.07	0.39		0.01	0.45			0.01			0.05	
v/s Ratio Perm	c0.55			0.17		0.01	c0.18			0.03		
v/c Ratio	0.86	0.58		0.28	0.75	0.01	0.95	0.06		0.16	0.25	
Uniform Delay, d1	52.0	14.2		12.7	22.8	12.6	64.2	53.3		54.3	55.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	27.3	0.7		0.4	1.7	0.0	53.8	0.0		0.1	0.2	
Delay (s)	79.3	15.0		13.1	24.5	12.6	118.0	53.3		54.5	55.4	
Level of Service	E	B		B	C	B	F	D		D	E	
Approach Delay (s)		20.1			24.2			104.1			55.2	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	56	1382	82	2235	142
v/c Ratio	0.43	0.71	0.08	0.44	0.17
Control Delay	10.3	31.4	1.0	0.3	6.5
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay	10.3	31.5	1.0	0.3	6.5
Queue Length 50th (ft)	0	299	1	0	19
Queue Length 95th (ft)	0	354	9	0	52
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	129	1938	971	5070	856
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	70	0	0	1
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.74	0.08	0.44	0.17

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	1293	20	78	2083	40	0	0	135	0	0	0
Future Volume (vph)	53	1293	20	78	2083	40	0	0	135	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5074		1770	5071				1611			
Flt Permitted	0.07	1.00		0.11	1.00				1.00			
Satd. Flow (perm)	129	5074		207	5071				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	1361	21	82	2193	42	0	0	142	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	44	0	0	0
Lane Group Flow (vph)	56	1381	0	82	2235	0	0	0	98	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	42.0		98.0	110.0				56.0			
Effective Green, g (s)	92.0	42.0		92.0	96.0				56.0			
Actuated g/C Ratio	0.84	0.38		0.84	0.87				0.51			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	107	1937		968	4425				820			
v/s Ratio Prot		c0.27		0.04	c0.44				0.06			
v/s Ratio Perm	c0.43			0.03								
v/c Ratio	0.52	0.71		0.08	0.51				0.12			
Uniform Delay, d1	2.6	28.9		6.4	1.6				14.1			
Progression Factor	1.00	1.00		1.31	1.00				1.00			
Incremental Delay, d2	2.1	1.1		0.0	0.0				0.0			
Delay (s)	4.7	29.9		8.4	1.6				14.1			
Level of Service	A	C		A	A				B			
Approach Delay (s)		28.9			1.9			14.1			0.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1454	66	2277
v/c Ratio	0.99	0.07	0.45
Control Delay	28.6	1.5	2.3
Queue Delay	5.5	0.0	0.0
Total Delay	34.0	1.5	2.3
Queue Length 50th (ft)	98	1	24
Queue Length 95th (ft)	#629	m2	32
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1475	971	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	35	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.01	0.07	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

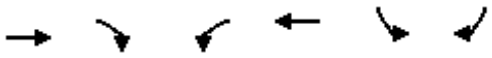
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1348	33	63	2163	0	0
Future Volume (vph)	1348	33	63	2163	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.52		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3861		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3861		207	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1419	35	66	2277	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1452	0	66	2277	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	42.0		98.0	110.0		
Effective Green, g (s)	42.0		92.0	96.0		
Actuated g/C Ratio	0.38		0.84	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1474		968	4437		
v/s Ratio Prot	c0.38		0.03	c0.45		
v/s Ratio Perm			0.02			
v/c Ratio	0.99		0.07	0.51		
Uniform Delay, d1	33.7		6.4	1.6		
Progression Factor	0.27		2.52	1.00		
Incremental Delay, d2	16.6		0.0	0.0		
Delay (s)	25.8		16.0	1.6		
Level of Service	C		B	A		
Approach Delay (s)	25.8			2.0	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1135	366	772	1700	926	642
v/c Ratio	0.83	0.32	1.15	0.71	0.59	0.76
Control Delay	19.3	1.2	94.1	15.7	24.4	9.6
Queue Delay	2.1	1.2	0.9	48.2	0.1	0.2
Total Delay	21.4	2.4	95.0	63.9	24.5	9.8
Queue Length 50th (ft)	146	0	~343	132	245	0
Queue Length 95th (ft)	m155	m0	m#329	m134	309	114
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1361	1160	670	2380	1560	847
Starvation Cap Reductn	114	562	81	924	0	0
Spillback Cap Reductn	101	0	0	139	109	17
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.61	1.31	1.17	0.64	0.77

Intersection Summary

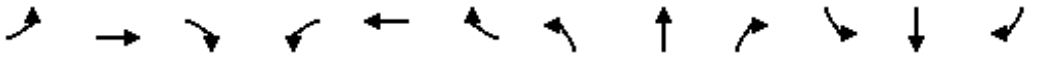
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1078	348	733	1615	0	0	0	0	880	0	610
Future Volume (vph)	0	1078	348	733	1615	0	0	0	0	880	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.67	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6240	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6240	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1135	366	772	1700	0	0	0	0	926	0	642
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	502
Lane Group Flow (vph)	0	1135	353	772	1700	0	0	0	0	926	0	140
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		24.0	76.0	21.5	51.5					46.0		24.0
Effective Green, g (s)		24.0	70.0	21.5	45.5					46.0		24.0
Actuated g/C Ratio		0.22	0.64	0.20	0.41					0.42		0.22
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1361	1007	670	2103					1435		345
v/s Ratio Prot		c0.18		c0.22	0.33					c0.27		
v/s Ratio Perm			0.22									0.09
v/c Ratio		0.83	0.35	1.15	0.81					0.65		0.41
Uniform Delay, d1		41.1	9.4	44.2	28.4					25.5		36.9
Progression Factor		0.41	0.20	0.49	0.63					1.00		1.00
Incremental Delay, d2		2.3	0.0	70.3	1.0					0.8		3.5
Delay (s)		19.1	1.9	91.8	18.9					26.3		40.4
Level of Service		B	A	F	B					C		D
Approach Delay (s)		14.9			41.7			0.0			32.0	
Approach LOS		B			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	168.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hollywood Boulevard

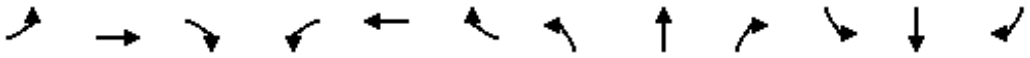
Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	642	1421	1993	966	477	793
v/c Ratio	0.96	0.44	1.02	0.88	0.55	1.53
Control Delay	41.4	12.7	68.8	23.8	38.3	275.7
Queue Delay	38.1	2.3	30.9	3.0	0.0	0.0
Total Delay	79.5	15.0	99.7	26.8	38.3	275.7
Queue Length 50th (ft)	251	231	~312	462	150	~707
Queue Length 95th (ft)	m#337	269	#367	#846	203	#945
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	670	3235	1950	1104	873	517
Starvation Cap Reductn	81	1623	0	71	0	0
Spillback Cap Reductn	0	0	226	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.88	1.16	0.94	0.55	1.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	610	1350	0	0	1893	918	453	0	753	0	0	0
Future Volume (vph)	610	1350	0	0	1893	918	453	0	753	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.96	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			8941	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			8941	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	642	1421	0	0	1993	966	477	0	793	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	115	0	0	0
Lane Group Flow (vph)	642	1421	0	0	1993	955	477	0	678	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Effective Green, g (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Actuated g/C Ratio	0.20	0.63			0.22	0.69	0.25		0.25			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	670	3212			1950	1093	873		402			
v/s Ratio Prot	c0.19	0.28			c0.22		0.14					
v/s Ratio Perm						c0.60			c0.43			
v/c Ratio	0.96	0.44			1.02	0.87	0.55		1.69			
Uniform Delay, d1	43.8	10.3			43.0	13.3	35.5		41.0			
Progression Factor	0.50	1.22			1.00	1.00	1.00		1.00			
Incremental Delay, d2	16.1	0.0			26.2	7.7	0.4		319.8			
Delay (s)	38.2	12.7			69.2	21.0	35.9		360.8			
Level of Service	D	B			E	C	D		F			
Approach Delay (s)		20.6			53.4			238.8			0.0	
Approach LOS		C			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	80.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	168.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hollywood Boulevard

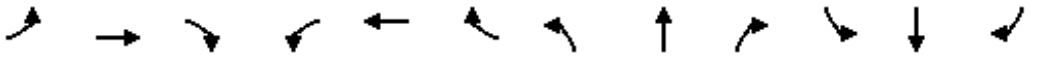
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	129	2053	53	2542	32	179	95	53	198
v/c Ratio	0.84	0.63	0.43	0.82	0.03	0.98	0.24	0.20	0.51
Control Delay	76.8	18.0	19.3	28.1	0.1	122.4	33.2	53.1	43.8
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.8	18.7	19.3	28.1	0.1	122.4	33.2	53.1	43.8
Queue Length 50th (ft)	83	468	16	769	0	186	50	45	130
Queue Length 95th (ft)	#193	514	31	832	1	#345	105	88	216
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	168	3282	126	3094	988	191	406	283	402
Starvation Cap Reductn	0	766	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.82	0.42	0.82	0.03	0.94	0.23	0.19	0.49

Intersection Summary

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

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

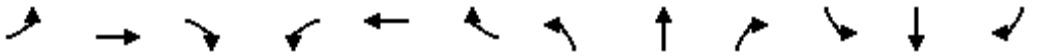
Hollywood Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	1805	145	50	2415	30	170	40	50	50	20	168
Future Volume (vph)	123	1805	145	50	2415	30	170	40	50	50	20	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.92		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5028		1770	5085	1583	1770	1707		1770	1613	
Flt Permitted	0.04	1.00		0.06	1.00	1.00	0.46	1.00		0.68	1.00	
Satd. Flow (perm)	72	5028		117	5085	1583	865	1707		1276	1613	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	129	1900	153	53	2542	32	179	42	53	53	21	177
RTOR Reduction (vph)	0	5	0	0	0	13	0	28	0	0	45	0
Lane Group Flow (vph)	129	2048	0	53	2542	19	179	67	0	53	153	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	112.7	103.0		101.3	97.3	97.3	34.0	34.0		34.0	34.0	
Effective Green, g (s)	112.7	103.0		101.3	97.3	97.3	34.0	34.0		34.0	34.0	
Actuated g/C Ratio	0.70	0.64		0.63	0.61	0.61	0.21	0.21		0.21	0.21	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	153	3236		115	3092	962	183	362		271	342	
v/s Ratio Prot	c0.05	c0.41		0.01	0.50			0.04			0.09	
v/s Ratio Perm	c0.54			0.28		0.01	c0.21			0.04		
v/c Ratio	0.84	0.63		0.46	0.82	0.02	0.98	0.18		0.20	0.45	
Uniform Delay, d1	49.0	17.1		14.9	24.6	12.4	62.6	51.6		51.8	54.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.2	1.0		1.1	2.6	0.0	59.3	0.1		0.1	0.3	
Delay (s)	80.2	18.1		15.9	27.2	12.5	121.9	51.7		51.9	55.2	
Level of Service	F	B		B	C	B	F	D		D	E	
Approach Delay (s)		21.8			26.8			97.6			54.5	
Approach LOS		C			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

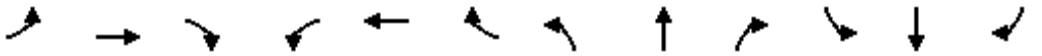


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	2125	25	100	1765	70	0	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	0.99				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5077		1770	5056				1611			
Flt Permitted	0.10	1.00		0.10	1.00				1.00			
Satd. Flow (perm)	184	5077		186	5056				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	2237	26	105	1858	74	0	0	105	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	57	0	0	0
Lane Group Flow (vph)	42	2262	0	105	1932	0	0	0	48	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	100.0	46.0		88.0	100.0				42.0			
Effective Green, g (s)	82.0	46.0		82.0	86.0				42.0			
Actuated g/C Ratio	0.82	0.46		0.82	0.86				0.42			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	150	2335		817	4348				676			
v/s Ratio Prot		c0.45		0.05	c0.38				0.03			
v/s Ratio Perm	0.23			0.05								
v/c Ratio	0.28	0.97		0.13	0.44				0.07			
Uniform Delay, d1	2.1	26.3		8.6	1.6				17.3			
Progression Factor	1.00	1.00		1.14	1.00				1.00			
Incremental Delay, d2	0.4	12.0		0.0	0.0				0.0			
Delay (s)	2.5	38.3		9.8	1.6				17.4			
Level of Service	A	D		A	A				B			
Approach Delay (s)		37.6			2.0			17.4			0.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

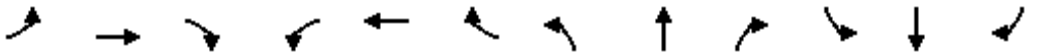
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	2205	20	55	1875	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.64		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	4762		1770	5085		
Flt Permitted	1.00		0.10	1.00		
Satd. Flow (perm)	4762		186	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2321	21	58	1974	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	2341	0	58	1974	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	46.0		88.0	100.0		
Effective Green, g (s)	46.0		82.0	86.0		
Actuated g/C Ratio	0.46		0.82	0.86		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	2190		817	4373		
v/s Ratio Prot	c0.49		0.03	c0.39		
v/s Ratio Perm			0.03			
v/c Ratio	1.07		0.07	0.45		
Uniform Delay, d1	27.0		8.4	1.6		
Progression Factor	0.27		2.13	1.00		
Incremental Delay, d2	35.0		0.0	0.0		
Delay (s)	42.4		17.8	1.6		
Level of Service	D		B	A		
Approach Delay (s)	42.4			2.1	0.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



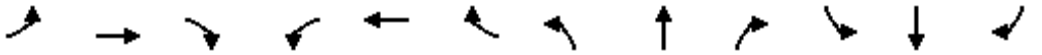
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1720	500	980	1305	0	0	0	0	860	0	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.79	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7358	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7358	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1811	526	1032	1374	0	0	0	0	905	0	658
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	64
Lane Group Flow (vph)	0	1811	513	1032	1374	0	0	0	0	905	0	594
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		23.0	67.0	20.5	49.5					38.0		38.0
Effective Green, g (s)		23.0	65.0	20.5	43.5					38.0		38.0
Actuated g/C Ratio		0.23	0.65	0.20	0.44					0.38		0.38
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1692	1028	703	2211					1304		601
v/s Ratio Prot		c0.25		c0.30	0.27					0.26		
v/s Ratio Perm			0.32									c0.37
v/c Ratio		1.07	0.50	1.47	0.62					0.69		0.99
Uniform Delay, d1		38.5	9.1	39.8	21.9					26.1		30.8
Progression Factor		0.47	0.48	0.51	0.70					1.00		1.00
Incremental Delay, d2		33.0	0.0	211.3	0.0					1.3		33.1
Delay (s)		51.1	4.3	231.6	15.4					27.4		63.9
Level of Service		D	A	F	B					C		E
Approach Delay (s)		40.5			108.1			0.0			42.8	
Approach LOS		D			F			A			D	

Intersection Summary			
HCM 2000 Control Delay	66.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	173.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	870	1710	0	0	1840	960	445	0	625	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.75	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			6985	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			6985	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	916	1800	0	0	1937	1011	468	0	658	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	13	0	0	144	0	0	0
Lane Group Flow (vph)	916	1800	0	0	1937	998	468	0	514	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.5	72.5			23.0	67.0	15.0		15.0			
Effective Green, g (s)	20.5	60.5			23.0	67.0	15.0		15.0			
Actuated g/C Ratio	0.20	0.60			0.23	0.67	0.15		0.15			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	703	3076			1606	1060	514		237			
v/s Ratio Prot	c0.27	0.35			c0.28		0.14					
v/s Ratio Perm						c0.63			c0.32			
v/c Ratio	1.30	0.59			1.21	0.94	0.91		2.17			
Uniform Delay, d1	39.8	12.1			38.5	14.8	41.8		42.5			
Progression Factor	0.52	0.69			1.00	1.00	1.00		1.00			
Incremental Delay, d2	137.3	0.1			98.9	15.4	20.0		540.3			
Delay (s)	157.8	8.4			137.4	30.2	61.8		582.8			
Level of Service	F	A			F	C	E		F			
Approach Delay (s)		58.8			100.6			366.3			0.0	
Approach LOS		E			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	128.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	173.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	215	1970	145	35	2430	20	160	15	30	40	20	215
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	226	2074	148	37	2558	10	168	16	6	42	21	133
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	3060	217	141	2803	873	228	297	111	350	51	321
Arrive On Green	0.10	0.63	0.63	0.02	0.55	0.55	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1774	4848	344	1774	5085	1583	1228	1293	485	1384	220	1396
Grp Volume(v), veh/h	226	1446	776	37	2558	10	168	0	22	42	0	154
Grp Sat Flow(s),veh/h/ln	1774	1695	1802	1774	1695	1583	1228	0	1777	1384	0	1616
Q Serve(g_s), s	15.1	43.9	44.6	1.5	72.7	0.5	21.6	0.0	1.5	3.9	0.0	13.0
Cycle Q Clear(g_c), s	15.1	43.9	44.6	1.5	72.7	0.5	34.6	0.0	1.5	5.4	0.0	13.0
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.27	1.00		0.86
Lane Grp Cap(c), veh/h	234	2139	1137	141	2803	873	228	0	409	350	0	372
V/C Ratio(X)	0.96	0.68	0.68	0.26	0.91	0.01	0.74	0.00	0.05	0.12	0.00	0.41
Avail Cap(c_a), veh/h	234	2139	1137	161	2803	873	241	0	428	365	0	389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	19.0	19.1	19.0	32.4	16.2	67.1	0.0	48.0	50.1	0.0	52.4
Incr Delay (d2), s/veh	31.0	0.8	1.6	0.4	5.8	0.0	9.1	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	20.7	22.7	0.7	35.4	0.2	7.9	0.0	0.8	1.5	0.0	5.8
LnGrp Delay(d),s/veh	86.8	19.8	20.7	19.4	38.3	16.2	76.2	0.0	48.0	50.2	0.0	52.7
LnGrp LOS	F	B	C	B	D	B	E		D	D		D
Approach Vol, veh/h		2448			2605			190			196	
Approach Delay, s/veh		26.3			37.9			73.0			52.2	
Approach LOS		C			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	22.0	94.7		43.3	9.2	107.5		43.3
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	16.0	86.5		38.5	5.0	97.5		38.5
Max Q Clear Time (g_c+I1), s	17.1	74.7		36.6	3.5	46.6		15.0
Green Ext Time (p_c), s	0.0	11.8		0.3	0.0	50.1		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	34.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	42	2263	105	1932	105
v/c Ratio	0.23	0.97	0.13	0.38	0.14
Control Delay	2.9	39.6	2.4	0.2	4.9
Queue Delay	0.0	12.7	0.0	0.0	0.0
Total Delay	2.9	52.2	2.4	0.2	4.9
Queue Length 50th (ft)	0	498	8	0	3
Queue Length 95th (ft)	0	#632	20	0	34
Internal Link Dist (ft)		178		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	184	2335	819	5055	725
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	129	0	0	2
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	1.03	0.13	0.38	0.15

Intersection Summary

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

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	2342	58	1974
v/c Ratio	1.07	0.07	0.39
Control Delay	45.7	1.5	0.2
Queue Delay	13.8	0.0	0.0
Total Delay	59.5	1.5	0.2
Queue Length 50th (ft)	~621	0	0
Queue Length 95th (ft)	m#666	m2	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	2192	819	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	387	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.30	0.07	0.39

Intersection Summary

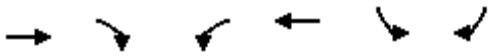
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1811	526	1032	1374	905	658
v/c Ratio	1.07	0.49	1.47	0.55	0.63	0.91
Control Delay	53.3	3.8	233.7	12.5	25.2	41.3
Queue Delay	12.8	1.8	0.5	18.3	0.0	0.0
Total Delay	66.1	5.6	234.3	30.8	25.2	41.3
Queue Length 50th (ft)	~312	3	~487	119	228	335
Queue Length 95th (ft)	m#225	m3	m#361	m109	294	#571
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1692	1073	703	2517	1441	725
Starvation Cap Reductn	216	370	54	1169	0	0
Spillback Cap Reductn	229	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.75	1.59	1.02	0.63	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	916	1800	1937	1011	468	658
v/c Ratio	1.30	0.49	1.21	0.94	0.91	1.73
Control Delay	160.2	4.3	133.8	32.5	65.5	360.6
Queue Delay	0.5	1.2	0.6	2.7	0.0	0.0
Total Delay	160.7	5.5	134.5	35.2	65.5	360.6
Queue Length 50th (ft)	~402	183	~403	501	153	~531
Queue Length 95th (ft)	m#358	m120	#473	#870	#245	#752
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	703	3686	1606	1073	514	381
Starvation Cap Reductn	54	1561	0	27	0	0
Spillback Cap Reductn	0	0	266	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.41	0.85	1.45	0.97	0.91	1.73

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

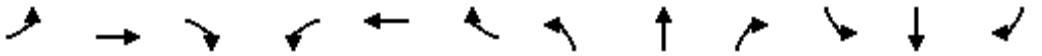
Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	226	2227	37	2558	21	168	48	42	247
v/c Ratio	0.97	0.70	0.37	0.92	0.02	1.00	0.12	0.13	0.54
Control Delay	98.4	21.4	21.7	40.5	0.1	129.1	21.7	49.2	32.6
Queue Delay	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	22.6	21.7	40.5	0.1	129.1	21.7	49.2	32.6
Queue Length 50th (ft)	~192	570	12	884	0	175	13	35	120
Queue Length 95th (ft)	#378	622	26	956	0	#334	50	72	215
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	234	3191	103	2766	909	175	427	325	473
Starvation Cap Reductn	0	670	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.88	0.36	0.92	0.02	0.96	0.11	0.13	0.52

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

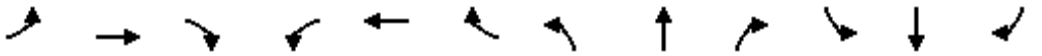


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1415	30	120	2185	50	0	0	210	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5069		1770	5068				1611			
Flt Permitted	0.06	1.00		0.13	1.00				1.00			
Satd. Flow (perm)	112	5069		240	5068				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	1489	32	126	2300	53	0	0	221	0	0	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	40	0	0	0
Lane Group Flow (vph)	68	1519	0	126	2353	0	0	0	181	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	37.0		98.0	110.0				61.0			
Effective Green, g (s)	92.0	37.0		92.0	96.0				61.0			
Actuated g/C Ratio	0.84	0.34		0.84	0.87				0.55			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	93	1705		1049	4422				893			
v/s Ratio Prot		c0.30		0.07	0.46				0.11			
v/s Ratio Perm	c0.61			0.03								
v/c Ratio	0.73	0.89		0.12	0.53				0.20			
Uniform Delay, d1	3.8	34.6		5.1	1.7				12.3			
Progression Factor	1.00	1.00		0.89	1.00				1.00			
Incremental Delay, d2	22.2	6.1		0.0	0.1				0.0			
Delay (s)	26.0	40.7		4.6	1.7				12.3			
Level of Service	C	D		A	A				B			
Approach Delay (s)		40.1			1.9			12.3			0.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

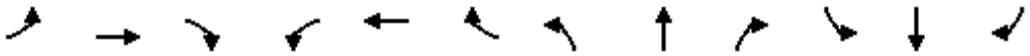
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1515	35	65	2290	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.64		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	4752		1770	5085		
Flt Permitted	1.00		0.13	1.00		
Satd. Flow (perm)	4752		240	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1595	37	68	2411	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1630	0	68	2411	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	37.0		98.0	110.0		
Effective Green, g (s)	37.0		92.0	96.0		
Actuated g/C Ratio	0.34		0.84	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1598		1049	4437		
v/s Ratio Prot	c0.34		0.04	c0.47		
v/s Ratio Perm			0.02			
v/c Ratio	1.02		0.06	0.54		
Uniform Delay, d1	36.5		5.0	1.7		
Progression Factor	0.32		1.58	1.00		
Incremental Delay, d2	22.2		0.0	0.0		
Delay (s)	33.8		7.9	1.7		
Level of Service	C		A	A		
Approach Delay (s)	33.8			1.9	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



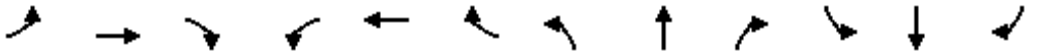
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1155	440	800	1745	0	0	0	0	995	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.75	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6985	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6985	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1216	463	842	1837	0	0	0	0	1047	0	642
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	0	519
Lane Group Flow (vph)	0	1216	451	842	1837	0	0	0	0	1047	0	123
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		21.0	77.0	20.5	47.5					50.0		21.0
Effective Green, g (s)		21.0	71.0	20.5	41.5					50.0		21.0
Actuated g/C Ratio		0.19	0.65	0.19	0.38					0.45		0.19
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1333	1021	639	1918					1560		302
v/s Ratio Prot		0.17		c0.25	c0.36					c0.30		
v/s Ratio Perm			0.28									0.08
v/c Ratio		0.91	0.44	1.32	0.96					0.67		0.41
Uniform Delay, d1		43.6	9.7	44.8	33.4					23.5		39.0
Progression Factor		0.42	0.50	0.43	0.68					1.00		1.00
Incremental Delay, d2		3.7	0.0	144.0	1.6					0.9		4.0
Delay (s)		22.0	4.9	163.3	24.4					24.5		43.0
Level of Service		C	A	F	C					C		D
Approach Delay (s)		17.3			68.1			0.0			31.5	
Approach LOS		B			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	43.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	186.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	620	1535	0	0	2005	1010	535	0	850	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.97	1.00	0.97		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			9034	1583	3433		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			9034	1583	3433		1583			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	653	1616	0	0	2111	1063	563	0	895	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	106	0	0	0
Lane Group Flow (vph)	653	1616	0	0	2111	1053	563	0	789	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.5	63.5			21.0	77.0	34.0		34.0			
Effective Green, g (s)	20.5	63.5			21.0	77.0	34.0		34.0			
Actuated g/C Ratio	0.19	0.58			0.19	0.70	0.31		0.31			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	639	2935			1724	1108	1061		489			
v/s Ratio Prot	c0.19	0.32			c0.23		0.16					
v/s Ratio Perm						c0.66			c0.50			
v/c Ratio	1.02	0.55			1.22	0.95	0.53		1.61			
Uniform Delay, d1	44.8	14.4			44.5	14.8	31.4		38.0			
Progression Factor	0.44	1.11			1.00	1.00	1.00		1.00			
Incremental Delay, d2	28.6	0.1			106.4	16.1	0.3		285.1			
Delay (s)	48.4	16.1			150.9	30.8	31.7		323.1			
Level of Service	D	B			F	C	C		F			
Approach Delay (s)		25.4			110.7			210.5			0.0	
Approach LOS		C			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	103.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	186.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	150	2040	190	50	2630	30	170	40	50	50	20	215
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	158	2147	193	53	2768	18	179	42	24	53	21	181
Adj No. of Lanes	1	3	0	1	3	1	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	3087	275	140	3072	956	158	233	133	282	35	302
Arrive On Green	0.07	0.65	0.65	0.02	0.60	0.60	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1774	4755	423	1774	5085	1583	1175	1114	637	1330	167	1441
Grp Volume(v), veh/h	158	1524	816	53	2768	18	179	0	66	53	0	202
Grp Sat Flow(s),veh/h/ln	1774	1695	1788	1774	1695	1583	1175	0	1750	1330	0	1608
Q Serve(g_s), s	8.9	45.8	47.1	1.8	75.7	0.7	15.3	0.0	5.0	5.5	0.0	18.2
Cycle Q Clear(g_c), s	8.9	45.8	47.1	1.8	75.7	0.7	33.5	0.0	5.0	10.4	0.0	18.2
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.36	1.00		0.90
Lane Grp Cap(c), veh/h	178	2201	1161	140	3072	956	158	0	366	282	0	337
V/C Ratio(X)	0.89	0.69	0.70	0.38	0.90	0.02	1.14	0.00	0.18	0.19	0.00	0.60
Avail Cap(c_a), veh/h	180	2201	1161	155	3072	956	158	0	366	282	0	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.7	17.9	18.1	19.1	27.5	12.7	74.5	0.0	52.0	56.2	0.0	57.2
Incr Delay (d2), s/veh	15.9	0.6	1.2	0.6	4.8	0.0	112.8	0.0	0.1	0.1	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	21.6	23.5	0.9	36.5	0.3	11.9	0.0	2.4	2.0	0.0	8.3
LnGrp Delay(d),s/veh	68.6	18.5	19.3	19.7	32.3	12.7	187.3	0.0	52.1	56.4	0.0	59.3
LnGrp LOS	E	B	B	B	C	B	F		D	E		E
Approach Vol, veh/h		2498			2839			245			255	
Approach Delay, s/veh		21.9			32.0			150.8			58.7	
Approach LOS		C			C			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.8	103.2		40.0	9.6	110.4		40.0
Change Period (Y+Rc), s	6.0	6.5		6.5	6.0	6.5		6.5
Max Green Setting (Gmax), s	11.0	96.5		33.5	5.0	102.5		33.5
Max Q Clear Time (g_c+I1), s	10.9	77.7		35.5	3.8	49.1		20.2
Green Ext Time (p_c), s	0.0	18.8		0.0	0.0	52.9		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	68	1521	126	2353	221
v/c Ratio	0.61	0.89	0.12	0.46	0.24
Control Delay	24.9	42.4	1.1	0.3	8.1
Queue Delay	0.0	2.9	0.0	0.0	0.0
Total Delay	24.9	45.3	1.1	0.3	8.1
Queue Length 50th (ft)	0	369	3	0	44
Queue Length 95th (ft)	#28	434	12	0	85
Internal Link Dist (ft)		178		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	112	1707	1053	5070	926
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	110	0	0	1
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.95	0.12	0.46	0.24

Intersection Summary

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

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1632	68	2411
v/c Ratio	1.02	0.06	0.47
Control Delay	36.1	0.9	2.4
Queue Delay	15.9	0.0	0.0
Total Delay	52.1	0.9	2.4
Queue Length 50th (ft)	~89	1	21
Queue Length 95th (ft)	#551	m1	33
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1601	1053	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	66	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.06	0.06	0.47

Intersection Summary

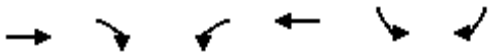
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1216	463	842	1837	1047	642
v/c Ratio	0.91	0.39	1.32	0.84	0.62	0.78
Control Delay	23.0	2.8	166.1	19.6	22.5	10.9
Queue Delay	9.2	1.4	0.6	47.9	0.8	0.3
Total Delay	32.1	4.3	166.6	67.5	23.3	11.1
Queue Length 50th (ft)	147	0	~408	513	269	0
Queue Length 95th (ft)	m143	m0	m#287	m462	337	120
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	325
Base Capacity (vph)	1333	1174	639	2195	1685	821
Starvation Cap Reductn	96	499	49	877	0	0
Spillback Cap Reductn	111	0	0	135	322	17
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.69	1.43	1.39	0.77	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	653	1616	2111	1063	563	895
v/c Ratio	1.02	0.55	1.22	0.95	0.53	1.50
Control Delay	51.2	16.3	145.1	33.2	33.6	261.4
Queue Delay	28.2	19.5	0.7	9.5	0.0	0.0
Total Delay	79.4	35.8	145.8	42.7	33.6	261.4
Queue Length 50th (ft)	~258	276	~379	584	168	~807
Queue Length 95th (ft)	m#304	m314	#433	#987	223	#1053
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	639	2958	1724	1118	1061	595
Starvation Cap Reductn	49	1383	0	61	0	0
Spillback Cap Reductn	0	0	344	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.03	1.53	1.01	0.53	1.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	158	2347	53	2768	32	179	95	53	247
v/c Ratio	0.95	0.71	0.54	0.90	0.03	1.28	0.25	0.20	0.65
Control Delay	98.5	19.7	37.3	32.9	0.1	217.5	34.3	54.6	53.5
Queue Delay	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.5	21.3	37.3	32.9	0.1	217.5	34.3	54.6	53.5
Queue Length 50th (ft)	115	572	15	889	0	~236	51	46	187
Queue Length 95th (ft)	#265	623	54	957	1	#401	107	90	290
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	168	3291	101	3069	981	140	385	266	380
Starvation Cap Reductn	0	714	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.91	0.52	0.90	0.03	1.28	0.25	0.20	0.65

Intersection Summary

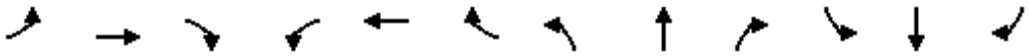
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Appendix F

Future Build Conditions Traffic Operations Analysis

102: SW 31st Avenue/SW 31st Avenue & Hallandale Beach Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	1485	5	30	1425	35	0	0	35	0	0	0
Future Volume (vph)	25	1485	5	30	1425	35	0	0	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5083		1770	5067				1611			
Flt Permitted	0.16	1.00		0.12	1.00				1.00			
Satd. Flow (perm)	290	5083		233	5067				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	1563	5	32	1500	37	0	0	37	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	21	0	0	0
Lane Group Flow (vph)	26	1567	0	32	1537	0	0	0	16	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	92.0	40.0		78.0	92.0				40.0			
Effective Green, g (s)	74.0	40.0		72.0	78.0				40.0			
Actuated g/C Ratio	0.80	0.43		0.78	0.85				0.43			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	233	2210		850	4295				700			
v/s Ratio Prot		c0.31		0.02	c0.30				0.01			
v/s Ratio Perm	0.09			0.01								
v/c Ratio	0.11	0.71		0.04	0.36				0.02			
Uniform Delay, d1	1.9	21.2		6.5	1.5				14.8			
Progression Factor	1.00	1.00		1.81	1.00				1.00			
Incremental Delay, d2	0.1	0.9		0.0	0.0				0.0			
Delay (s)	2.0	22.1		11.9	1.5				14.8			
Level of Service	A	C		B	A				B			
Approach Delay (s)		21.8			1.8			14.8			0.0	
Approach LOS		C			A			B			A	

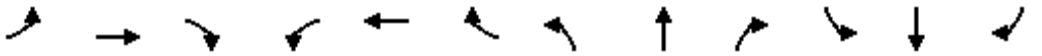
Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1545	10	40	1400	0	0
Future Volume (vph)	1545	10	40	1400	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.49		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3647		1770	5085		
Flt Permitted	1.00		0.12	1.00		
Satd. Flow (perm)	3647		233	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1626	11	42	1474	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1636	0	42	1474	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	40.0		78.0	92.0		
Effective Green, g (s)	40.0		72.0	78.0		
Actuated g/C Ratio	0.43		0.78	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1585		850	4311		
v/s Ratio Prot	c0.45		0.02	c0.29		
v/s Ratio Perm			0.02			
v/c Ratio	1.03		0.05	0.34		
Uniform Delay, d1	26.0		6.6	1.5		
Progression Factor	0.37		2.19	1.00		
Incremental Delay, d2	28.2		0.0	0.0		
Delay (s)	37.8		14.5	1.5		
Level of Service	D		B	A		
Approach Delay (s)	37.8			1.9	0.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

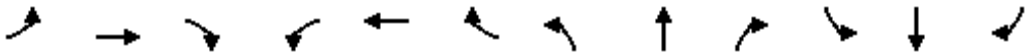


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1285	270	815	1045	0	0	0	0	810	0	395
Future Volume (vph)	0	1285	270	815	1045	0	0	0	0	810	0	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.64	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5961	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5961	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1353	284	858	1100	0	0	0	0	853	0	416
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	69
Lane Group Flow (vph)	0	1353	269	858	1100	0	0	0	0	853	0	347
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		19.0	62.0	17.5	42.5					37.0		37.0
Effective Green, g (s)		19.0	60.0	17.5	36.5					37.0		37.0
Actuated g/C Ratio		0.21	0.65	0.19	0.40					0.40		0.40
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1231	1032	653	2017					1380		636
v/s Ratio Prot		c0.23		c0.25	0.22					c0.25		
v/s Ratio Perm			0.17									0.22
v/c Ratio		1.10	0.26	1.31	0.55					0.62		0.55
Uniform Delay, d1		36.5	6.7	37.2	21.4					21.9		21.1
Progression Factor		0.47	0.65	0.48	0.58					1.00		1.00
Incremental Delay, d2		46.0	0.0	142.3	0.0					0.6		0.5
Delay (s)		63.2	4.4	160.0	12.3					22.5		21.6
Level of Service		E	A	F	B					C		C
Approach Delay (s)		53.0			77.0			0.0			22.2	
Approach LOS		D			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

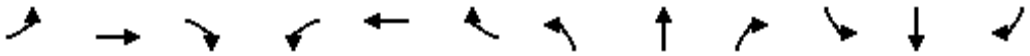
105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	800	1295	0	0	1555	690	305	0	505	0	0	0
Future Volume (vph)	800	1295	0	0	1555	690	305	0	505	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.76	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			7078	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			7078	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	842	1363	0	0	1637	726	321	0	532	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	0	0	0	0	0
Lane Group Flow (vph)	842	1363	0	0	1637	711	321	0	532	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	19.5	63.5			17.0	60.0	16.0		16.0			
Effective Green, g (s)	19.5	51.5			17.0	60.0	16.0		16.0			
Actuated g/C Ratio	0.21	0.56			0.18	0.65	0.17		0.17			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	727	2846			1307	1032	597		484			
v/s Ratio Prot	c0.25	0.27			c0.23		0.09					
v/s Ratio Perm						c0.45			c0.19			
v/c Ratio	1.16	0.48			1.25	0.69	0.54		1.10			
Uniform Delay, d1	36.2	12.2			37.5	10.1	34.6		38.0			
Progression Factor	0.44	0.94			1.00	1.00	1.00		1.00			
Incremental Delay, d2	72.8	0.0			120.1	1.5	0.5		70.7			
Delay (s)	88.6	11.4			157.6	11.7	35.1		108.7			
Level of Service	F	B			F	B	D		F			
Approach Delay (s)		40.9			112.7			81.0			0.0	
Approach LOS		D			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	78.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1550	90	30	1935	20	160	10	30	40	10	75
Future Volume (vph)	110	1550	90	30	1935	20	160	10	30	40	10	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.89		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5043		1770	5085	1583	1770	1655		1770	1617	
Flt Permitted	0.06	1.00		0.11	1.00	1.00	0.68	1.00		0.73	1.00	
Satd. Flow (perm)	111	5043		208	5085	1583	1270	1655		1358	1617	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	1632	95	32	2037	21	168	11	32	42	11	79
RTOR Reduction (vph)	0	3	0	0	0	7	0	27	0	0	67	0
Lane Group Flow (vph)	116	1724	0	32	2037	14	168	16	0	42	23	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	121.9	111.9		109.2	105.2	105.2	25.1	25.1		25.1	25.1	
Effective Green, g (s)	121.9	111.9		109.2	105.2	105.2	25.1	25.1		25.1	25.1	
Actuated g/C Ratio	0.76	0.70		0.68	0.66	0.66	0.16	0.16		0.16	0.16	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	195	3526		181	3343	1040	199	259		213	253	
v/s Ratio Prot	c0.04	c0.34		0.00	c0.40			0.01			0.01	
v/s Ratio Perm	0.41			0.12		0.01	c0.13			0.03		
v/c Ratio	0.59	0.49		0.18	0.61	0.01	0.84	0.06		0.20	0.09	
Uniform Delay, d1	20.4	11.0		8.8	15.7	9.5	65.6	57.4		58.7	57.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.2	0.5		0.2	0.8	0.0	25.6	0.0		0.2	0.1	
Delay (s)	23.6	11.5		9.0	16.5	9.5	91.1	57.5		58.9	57.8	
Level of Service	C	B		A	B	A	F	E		E	E	
Approach Delay (s)		12.2			16.3			84.3			58.1	
Approach LOS		B			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	74.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st Avenue/SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	26	1568	32	1537	37
v/c Ratio	0.09	0.71	0.04	0.30	0.05
Control Delay	0.6	23.4	1.4	0.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	23.4	1.4	0.2	0.1
Queue Length 50th (ft)	0	265	1	0	0
Queue Length 95th (ft)	0	319	4	0	0
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	291	2211	854	5065	753
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.71	0.04	0.30	0.05

Intersection Summary

103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1637	42	1474
v/c Ratio	1.03	0.05	0.29
Control Delay	40.8	1.7	0.1
Queue Delay	0.0	0.0	0.0
Total Delay	40.8	1.7	0.1
Queue Length 50th (ft)	~191	2	0
Queue Length 95th (ft)	#656	m5	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1586	854	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.03	0.05	0.29

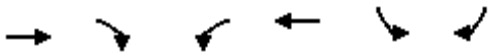
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1353	284	858	1100	853	416
v/c Ratio	1.10	0.26	1.31	0.47	0.56	0.54
Control Delay	66.1	3.4	163.6	9.9	20.6	16.2
Queue Delay	0.8	1.0	0.0	2.7	0.0	0.0
Total Delay	66.8	4.4	163.6	12.6	20.6	16.2
Queue Length 50th (ft)	~267	1	~348	75	182	121
Queue Length 95th (ft)	m#252	m1	m#234	m68	240	210
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1231	1080	653	2349	1529	769
Starvation Cap Reductn	0	552	0	1092	0	0
Spillback Cap Reductn	109	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.54	1.31	0.88	0.56	0.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	842	1363	1637	726	321	532
v/c Ratio	1.16	0.39	1.25	0.69	0.54	1.10
Control Delay	92.5	5.9	153.6	13.9	38.4	107.9
Queue Delay	0.2	0.9	0.4	0.0	0.0	0.0
Total Delay	92.7	6.8	154.0	13.9	38.4	107.9
Queue Length 50th (ft)	~313	155	~316	225	88	~201
Queue Length 95th (ft)	m#262	m143	#384	358	131	#312
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	727	3509	1307	1047	597	484
Starvation Cap Reductn	22	1717	0	0	0	0
Spillback Cap Reductn	0	0	122	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.76	1.38	0.69	0.54	1.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

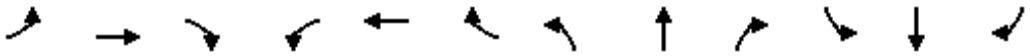
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	116	1727	32	2037	21	168	43	42	90
v/c Ratio	0.59	0.48	0.17	0.61	0.02	0.84	0.15	0.20	0.28
Control Delay	29.6	12.0	8.5	18.0	0.1	98.1	22.9	58.0	15.7
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	12.3	8.5	18.0	0.1	98.1	22.9	58.0	15.7
Queue Length 50th (ft)	31	283	7	420	0	173	10	39	10
Queue Length 95th (ft)	108	393	20	599	0	248	45	74	60
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	251	3571	191	3345	1077	289	402	309	429
Starvation Cap Reductn	0	1013	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.68	0.17	0.61	0.02	0.58	0.11	0.14	0.21

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	1805	15	65	1595	53	0	0	68	0	0	0
Future Volume (vph)	33	1805	15	65	1595	53	0	0	68	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5079		1770	5061				1611			
Flt Permitted	0.12	1.00		0.12	1.00				1.00			
Satd. Flow (perm)	231	5079		233	5061				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	1900	16	68	1679	56	0	0	72	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	41	0	0	0
Lane Group Flow (vph)	35	1915	0	68	1735	0	0	0	31	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	92.0	40.0		78.0	92.0				40.0			
Effective Green, g (s)	74.0	40.0		72.0	78.0				40.0			
Actuated g/C Ratio	0.80	0.43		0.78	0.85				0.43			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	185	2208		850	4290				700			
v/s Ratio Prot		c0.38		0.03	c0.34				0.02			
v/s Ratio Perm	0.15			0.03								
v/c Ratio	0.19	0.87		0.08	0.40				0.04			
Uniform Delay, d1	2.1	23.6		6.7	1.6				15.0			
Progression Factor	1.00	1.00		1.86	1.00				1.00			
Incremental Delay, d2	0.2	3.7		0.0	0.0				0.0			
Delay (s)	2.3	27.3		12.4	1.6				15.0			
Level of Service	A	C		B	A				B			
Approach Delay (s)		26.9			2.0			15.0			0.0	
Approach LOS		C			A			B			A	

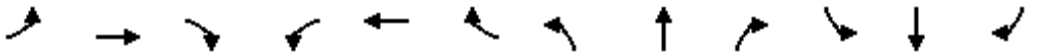
Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1875	15	48	1638	0	0
Future Volume (vph)	1875	15	48	1638	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.49		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3647		1770	5085		
Flt Permitted	1.00		0.12	1.00		
Satd. Flow (perm)	3647		233	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1974	16	51	1724	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1989	0	51	1724	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	40.0		78.0	92.0		
Effective Green, g (s)	40.0		72.0	78.0		
Actuated g/C Ratio	0.43		0.78	0.85		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1585		850	4311		
v/s Ratio Prot	c0.55		0.03	c0.34		
v/s Ratio Perm			0.02			
v/c Ratio	1.26		0.06	0.40		
Uniform Delay, d1	26.0		6.6	1.6		
Progression Factor	0.36		2.01	1.00		
Incremental Delay, d2	117.7		0.0	0.0		
Delay (s)	127.0		13.3	1.6		
Level of Service	F		B	A		
Approach Delay (s)	127.0			2.0	0.0	
Approach LOS	F			A	A	

Intersection Summary			
HCM 2000 Control Delay	68.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

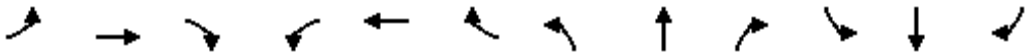


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑↑	↱	↰↰	↑↑↑					↰↰		↱
Traffic Volume (vph)	0	1503	385	898	1175	0	0	0	0	835	0	510
Future Volume (vph)	0	1503	385	898	1175	0	0	0	0	835	0	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.64	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		5961	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		5961	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1582	405	945	1237	0	0	0	0	879	0	537
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	0	0	0	69
Lane Group Flow (vph)	0	1582	390	945	1237	0	0	0	0	879	0	468
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		19.0	62.0	17.5	42.5					37.0		37.0
Effective Green, g (s)		19.0	60.0	17.5	36.5					37.0		37.0
Actuated g/C Ratio		0.21	0.65	0.19	0.40					0.40		0.40
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1231	1032	653	2017					1380		636
v/s Ratio Prot		c0.27		c0.28	0.24					0.26		
v/s Ratio Perm			0.25									c0.30
v/c Ratio		1.29	0.38	1.45	0.61					0.64		0.74
Uniform Delay, d1		36.5	7.4	37.2	22.1					22.1		23.4
Progression Factor		0.51	0.64	0.48	0.62					1.00		1.00
Incremental Delay, d2		128.9	0.0	202.0	0.0					0.7		3.8
Delay (s)		147.5	4.7	219.8	13.8					22.8		27.2
Level of Service		F	A	F	B					C		C
Approach Delay (s)		118.4			103.0			0.0			24.5	
Approach LOS		F			F			A			C	

Intersection Summary			
HCM 2000 Control Delay	88.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

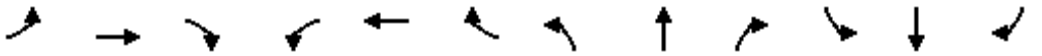
105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	835	1503	0	0	1698	825	375	0	565	0	0	0
Future Volume (vph)	835	1503	0	0	1698	825	375	0	565	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.76	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			7078	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			7078	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	879	1582	0	0	1787	868	395	0	595	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	0	0	0	0	0
Lane Group Flow (vph)	879	1582	0	0	1787	853	395	0	595	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	19.5	63.5			17.0	60.0	16.0		16.0			
Effective Green, g (s)	19.5	51.5			17.0	60.0	16.0		16.0			
Actuated g/C Ratio	0.21	0.56			0.18	0.65	0.17		0.17			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	727	2846			1307	1032	597		484			
v/s Ratio Prot	c0.26	0.31			c0.25		0.12					
v/s Ratio Perm						c0.54			c0.21			
v/c Ratio	1.21	0.56			1.37	0.83	0.66		1.23			
Uniform Delay, d1	36.2	12.9			37.5	12.1	35.5		38.0			
Progression Factor	0.43	0.78			1.00	1.00	1.00		1.00			
Incremental Delay, d2	95.4	0.1			170.2	5.3	2.1		120.3			
Delay (s)	111.0	10.1			207.7	17.4	37.6		158.3			
Level of Service	F	B			F	B	D		F			
Approach Delay (s)		46.1			145.5			110.1			0.0	
Approach LOS		D			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	99.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	92.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	1760	118	33	2183	20	160	13	30	40	15	145
Future Volume (vph)	163	1760	118	33	2183	20	160	13	30	40	15	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5037		1770	5085	1583	1770	1668		1770	1610	
Flt Permitted	0.04	1.00		0.08	1.00	1.00	0.50	1.00		0.73	1.00	
Satd. Flow (perm)	72	5037		147	5085	1583	933	1668		1354	1610	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	172	1853	124	35	2298	21	168	14	32	42	16	153
RTOR Reduction (vph)	0	4	0	0	0	8	0	26	0	0	92	0
Lane Group Flow (vph)	172	1973	0	35	2298	13	168	20	0	42	77	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	116.8	107.4		100.2	96.8	96.8	30.2	30.2		30.2	30.2	
Effective Green, g (s)	116.8	107.4		100.2	96.8	96.8	30.2	30.2		30.2	30.2	
Actuated g/C Ratio	0.73	0.67		0.63	0.60	0.60	0.19	0.19		0.19	0.19	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	201	3381		126	3076	957	176	314		255	303	
v/s Ratio Prot	c0.07	0.39		0.01	0.45			0.01			0.05	
v/s Ratio Perm	c0.55			0.17		0.01	c0.18			0.03		
v/c Ratio	0.86	0.58		0.28	0.75	0.01	0.95	0.06		0.16	0.25	
Uniform Delay, d1	52.0	14.2		12.7	22.8	12.6	64.2	53.3		54.3	55.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	27.3	0.7		0.4	1.7	0.0	53.8	0.0		0.1	0.2	
Delay (s)	79.3	15.0		13.1	24.5	12.6	118.0	53.3		54.5	55.4	
Level of Service	E	B		B	C	B	F	D		D	E	
Approach Delay (s)		20.1			24.2			104.1			55.2	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st Avenue/SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	35	1916	68	1735	72
v/c Ratio	0.15	0.87	0.08	0.34	0.10
Control Delay	1.4	28.9	1.7	0.2	1.6
Queue Delay	0.0	2.2	0.0	0.0	0.0
Total Delay	1.4	31.1	1.7	0.2	1.6
Queue Length 50th (ft)	0	359	4	0	0
Queue Length 95th (ft)	0	428	10	0	11
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	231	2209	854	5060	753
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	176	0	0	3
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.94	0.08	0.34	0.10

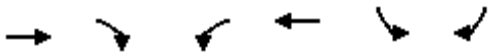
Intersection Summary

103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1990	51	1724
v/c Ratio	1.25	0.06	0.34
Control Delay	133.1	1.6	0.2
Queue Delay	0.0	0.0	0.0
Total Delay	133.1	1.6	0.2
Queue Length 50th (ft)	~737	3	0
Queue Length 95th (ft)	#851	m4	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1586	854	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.25	0.06	0.34

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1582	405	945	1237	879	537
v/c Ratio	1.29	0.38	1.45	0.53	0.57	0.70
Control Delay	150.5	3.9	223.3	11.1	20.9	21.6
Queue Delay	0.5	2.0	0.0	10.9	0.0	0.0
Total Delay	150.9	5.9	223.3	22.0	20.9	21.6
Queue Length 50th (ft)	~354	2	~406	92	190	192
Queue Length 95th (ft)	m#200	m1	m#238	m80	248	317
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1231	1080	653	2349	1529	769
Starvation Cap Reductn	0	513	0	1095	0	0
Spillback Cap Reductn	126	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.43	0.71	1.45	0.99	0.57	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	879	1582	1787	868	395	595
v/c Ratio	1.21	0.45	1.37	0.83	0.66	1.23
Control Delay	115.3	5.2	202.1	20.3	41.5	154.9
Queue Delay	0.2	1.4	0.5	0.0	0.0	0.0
Total Delay	115.5	6.6	202.6	20.3	41.5	154.9
Queue Length 50th (ft)	~339	160	~364	327	111	~244
Queue Length 95th (ft)	m225	m119	#433	#556	160	#360
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	727	3509	1307	1047	597	484
Starvation Cap Reductn	22	1635	0	0	0	0
Spillback Cap Reductn	0	0	158	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.84	1.56	0.83	0.66	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

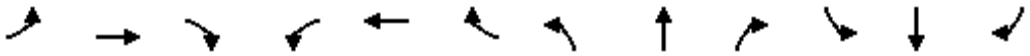
m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	172	1977	35	2298	21	168	46	42	169
v/c Ratio	0.86	0.58	0.26	0.75	0.02	0.95	0.13	0.16	0.43
Control Delay	78.1	15.5	13.2	26.1	0.1	119.8	22.3	53.1	21.8
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.1	16.0	13.2	26.1	0.1	119.8	22.3	53.1	21.8
Queue Length 50th (ft)	127	408	10	645	0	174	12	37	48
Queue Length 95th (ft)	#249	483	23	760	0	#294	48	73	118
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	223	3422	136	3075	999	212	405	308	455
Starvation Cap Reductn	0	840	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.77	0.26	0.75	0.02	0.79	0.11	0.14	0.37

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	2125	25	100	1765	70	0	0	100	0	0	0
Future Volume (vph)	40	2125	25	100	1765	70	0	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	0.99				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5077		1770	5056				1611			
Flt Permitted	0.10	1.00		0.10	1.00				1.00			
Satd. Flow (perm)	184	5077		186	5056				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	2237	26	105	1858	74	0	0	105	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	57	0	0	0
Lane Group Flow (vph)	42	2262	0	105	1932	0	0	0	48	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	100.0	46.0		88.0	100.0				42.0			
Effective Green, g (s)	82.0	46.0		82.0	86.0				42.0			
Actuated g/C Ratio	0.82	0.46		0.82	0.86				0.42			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	150	2335		817	4348				676			
v/s Ratio Prot		c0.45		0.05	c0.38				0.03			
v/s Ratio Perm	0.23			0.05								
v/c Ratio	0.28	0.97		0.13	0.44				0.07			
Uniform Delay, d1	2.1	26.3		8.6	1.6				17.3			
Progression Factor	1.00	1.00		1.14	1.00				1.00			
Incremental Delay, d2	0.4	12.0		0.0	0.0				0.0			
Delay (s)	2.5	38.3		9.8	1.6				17.4			
Level of Service	A	D		A	A				B			
Approach Delay (s)		37.6			2.0			17.4			0.0	
Approach LOS		D			A			B			A	

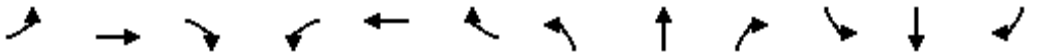
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2205	20	55	1875	0	0
Future Volume (vph)	2205	20	55	1875	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.64		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	4762		1770	5085		
Flt Permitted	1.00		0.10	1.00		
Satd. Flow (perm)	4762		186	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2321	21	58	1974	0	0
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	2341	0	58	1974	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	46.0		88.0	100.0		
Effective Green, g (s)	46.0		82.0	86.0		
Actuated g/C Ratio	0.46		0.82	0.86		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	2190		817	4373		
v/s Ratio Prot	c0.49		0.03	c0.39		
v/s Ratio Perm			0.03			
v/c Ratio	1.07		0.07	0.45		
Uniform Delay, d1	27.0		8.4	1.6		
Progression Factor	0.27		2.13	1.00		
Incremental Delay, d2	35.0		0.0	0.0		
Delay (s)	42.4		17.8	1.6		
Level of Service	D		B	A		
Approach Delay (s)	42.4			2.1	0.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

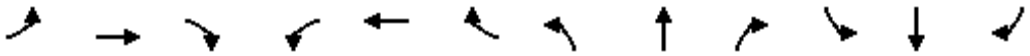


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1720	500	980	1305	0	0	0	0	860	0	625
Future Volume (vph)	0	1720	500	980	1305	0	0	0	0	860	0	625
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	6.5	6.5					2.0		2.0
Lane Util. Factor		*0.79	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7358	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7358	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1811	526	1032	1374	0	0	0	0	905	0	658
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	64
Lane Group Flow (vph)	0	1811	513	1032	1374	0	0	0	0	905	0	594
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			6 3 4									3 4
Actuated Green, G (s)		23.0	67.0	20.5	49.5					38.0		38.0
Effective Green, g (s)		23.0	65.0	20.5	43.5					38.0		38.0
Actuated g/C Ratio		0.23	0.65	0.20	0.44					0.38		0.38
Clearance Time (s)		6.0		6.5								
Vehicle Extension (s)		0.2		0.2								
Lane Grp Cap (vph)		1692	1028	703	2211					1304		601
v/s Ratio Prot		c0.25		c0.30	0.27					0.26		
v/s Ratio Perm			0.32									c0.37
v/c Ratio		1.07	0.50	1.47	0.62					0.69		0.99
Uniform Delay, d1		38.5	9.1	39.8	21.9					26.1		30.8
Progression Factor		0.47	0.48	0.51	0.70					1.00		1.00
Incremental Delay, d2		33.0	0.0	211.3	0.0					1.3		33.1
Delay (s)		51.1	4.3	231.6	15.4					27.4		63.9
Level of Service		D	A	F	B					C		E
Approach Delay (s)		40.5			108.1			0.0			42.8	
Approach LOS		D			F			A			D	

Intersection Summary			
HCM 2000 Control Delay	66.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	156.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

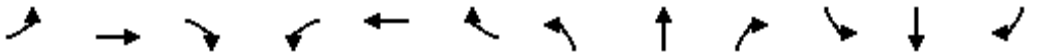
105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	870	1710	0	0	1840	960	445	0	625	0	0	0
Future Volume (vph)	870	1710	0	0	1840	960	445	0	625	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.75	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			6985	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			6985	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	916	1800	0	0	1937	1011	468	0	658	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	13	0	0	0	0	0	0
Lane Group Flow (vph)	916	1800	0	0	1937	998	468	0	658	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	5 6 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.5	72.5			23.0	67.0	15.0		15.0			
Effective Green, g (s)	20.5	60.5			23.0	67.0	15.0		15.0			
Actuated g/C Ratio	0.20	0.60			0.23	0.67	0.15		0.15			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	703	3076			1606	1060	514		418			
v/s Ratio Prot	c0.27	0.35			c0.28		0.14					
v/s Ratio Perm						c0.63			c0.24			
v/c Ratio	1.30	0.59			1.21	0.94	0.91		1.57			
Uniform Delay, d1	39.8	12.1			38.5	14.8	41.8		42.5			
Progression Factor	0.52	0.69			1.00	1.00	1.00		1.00			
Incremental Delay, d2	137.3	0.1			98.9	15.4	20.0		269.7			
Delay (s)	157.8	8.4			137.4	30.2	61.8		312.2			
Level of Service	F	A			F	C	E		F			
Approach Delay (s)		58.8			100.6			208.1			0.0	
Approach LOS		E			F			F			A	

Intersection Summary			
HCM 2000 Control Delay	101.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	156.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	1970	145	35	2430	20	160	15	30	40	20	215
Future Volume (vph)	215	1970	145	35	2430	20	160	15	30	40	20	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5033		1770	5085	1583	1770	1676		1770	1607	
Flt Permitted	0.04	1.00		0.05	1.00	1.00	0.39	1.00		0.73	1.00	
Satd. Flow (perm)	80	5033		90	5085	1583	730	1676		1352	1607	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	226	2074	153	37	2558	21	168	16	32	42	21	226
RTOR Reduction (vph)	0	5	0	0	0	10	0	25	0	0	88	0
Lane Group Flow (vph)	226	2222	0	37	2558	11	168	23	0	42	159	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	110.0	100.1		90.9	87.0	87.0	37.0	37.0		37.0	37.0	
Effective Green, g (s)	110.0	100.1		90.9	87.0	87.0	37.0	37.0		37.0	37.0	
Actuated g/C Ratio	0.69	0.63		0.57	0.54	0.54	0.23	0.23		0.23	0.23	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	234	3148		92	2764	860	168	387		312	371	
v/s Ratio Prot	c0.10	0.44		0.01	0.50			0.01			0.10	
v/s Ratio Perm	c0.56			0.22		0.01	c0.23			0.03		
v/c Ratio	0.97	0.71		0.40	0.93	0.01	1.00	0.06		0.13	0.43	
Uniform Delay, d1	57.7	20.1		19.1	33.5	16.8	61.5	47.9		48.8	52.5	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	48.5	1.4		1.0	6.7	0.0	69.4	0.0		0.1	0.3	
Delay (s)	106.2	21.4		20.1	40.3	16.8	130.9	48.0		48.9	52.8	
Level of Service	F	C		C	D	B	F	D		D	D	
Approach Delay (s)		29.2			39.8			112.5			52.2	
Approach LOS		C			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	38.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	42	2263	105	1932	105
v/c Ratio	0.23	0.97	0.13	0.38	0.14
Control Delay	2.9	39.6	2.4	0.2	4.9
Queue Delay	0.0	12.7	0.0	0.0	0.0
Total Delay	2.9	52.2	2.4	0.2	4.9
Queue Length 50th (ft)	0	498	8	0	3
Queue Length 95th (ft)	0	#632	20	0	34
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	184	2335	819	5055	725
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	129	0	0	2
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.23	1.03	0.13	0.38	0.15

Intersection Summary

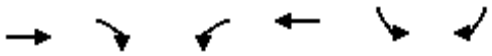
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	2342	58	1974
v/c Ratio	1.07	0.07	0.39
Control Delay	45.7	1.5	0.2
Queue Delay	13.8	0.0	0.0
Total Delay	59.5	1.5	0.2
Queue Length 50th (ft)	~621	0	0
Queue Length 95th (ft)	m#666	m2	0
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	2192	819	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	387	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.30	0.07	0.39

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1811	526	1032	1374	905	658
v/c Ratio	1.07	0.49	1.47	0.55	0.63	0.91
Control Delay	53.3	3.8	233.7	12.5	25.2	41.3
Queue Delay	12.8	1.8	0.5	18.3	0.0	0.0
Total Delay	66.1	5.6	234.3	30.8	25.2	41.3
Queue Length 50th (ft)	~312	3	~487	119	228	335
Queue Length 95th (ft)	m#225	m3	m#361	m109	294	#571
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1692	1073	703	2517	1441	725
Starvation Cap Reductn	216	370	54	1169	0	0
Spillback Cap Reductn	229	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.75	1.59	1.02	0.63	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	916	1800	1937	1011	468	658
v/c Ratio	1.30	0.49	1.21	0.94	0.91	1.57
Control Delay	160.2	4.3	133.8	32.5	65.5	300.7
Queue Delay	0.5	1.2	0.6	2.7	0.0	0.0
Total Delay	160.7	5.5	134.5	35.2	65.5	300.7
Queue Length 50th (ft)	~402	183	~403	501	153	~340
Queue Length 95th (ft)	m#358	m120	#473	#870	#245	#463
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	703	3686	1606	1073	514	418
Starvation Cap Reductn	54	1561	0	27	0	0
Spillback Cap Reductn	0	0	266	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.41	0.85	1.45	0.97	0.91	1.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

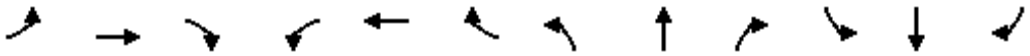
106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	226	2227	37	2558	21	168	48	42	247
v/c Ratio	0.97	0.70	0.37	0.92	0.02	1.00	0.12	0.13	0.54
Control Delay	98.4	21.4	21.7	40.5	0.1	129.1	21.7	49.2	32.6
Queue Delay	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	22.6	21.7	40.5	0.1	129.1	21.7	49.2	32.6
Queue Length 50th (ft)	~192	570	12	884	0	175	13	35	120
Queue Length 95th (ft)	#378	622	26	956	0	#334	50	72	215
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	234	3191	103	2766	909	175	427	325	473
Starvation Cap Reductn	0	670	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.88	0.36	0.92	0.02	0.96	0.11	0.13	0.52

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1170	10	35	1980	30	0	0	60	0	0	0
Future Volume (vph)	40	1170	10	35	1980	30	0	0	60	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5079		1770	5074				1611			
Flt Permitted	0.08	1.00		0.11	1.00				1.00			
Satd. Flow (perm)	149	5079		207	5074				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	42	1232	11	37	2084	32	0	0	63	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	42	1242	0	37	2116	0	0	0	32	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	42.3		97.7	110.0				55.7			
Effective Green, g (s)	92.0	42.3		91.7	96.0				55.7			
Actuated g/C Ratio	0.84	0.38		0.83	0.87				0.51			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	124	1953		964	4428				815			
v/s Ratio Prot		c0.24		0.02	c0.42				0.02			
v/s Ratio Perm	0.28			0.01								
v/c Ratio	0.34	0.64		0.04	0.48				0.04			
Uniform Delay, d1	2.1	27.6		11.7	1.5				13.7			
Progression Factor	1.00	1.00		1.09	1.00				1.00			
Incremental Delay, d2	0.6	0.5		0.0	0.0				0.0			
Delay (s)	2.6	28.1		12.8	1.6				13.7			
Level of Service	A	C		B	A				B			
Approach Delay (s)		27.3			1.7			13.7			0.0	
Approach LOS		C			A			B			A	

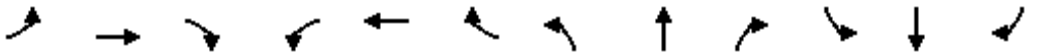
Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1180	30	60	2035	0	0
Future Volume (vph)	1180	30	60	2035	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.52		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3860		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3860		207	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1242	32	63	2142	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1272	0	63	2142	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	42.3		97.7	110.0		
Effective Green, g (s)	42.3		91.7	96.0		
Actuated g/C Ratio	0.38		0.83	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1484		964	4437		
v/s Ratio Prot	c0.33		0.03	c0.42		
v/s Ratio Perm			0.02			
v/c Ratio	0.86		0.07	0.48		
Uniform Delay, d1	31.1		11.9	1.5		
Progression Factor	0.27		2.88	1.00		
Incremental Delay, d2	4.0		0.0	0.0		
Delay (s)	12.2		34.3	1.6		
Level of Service	B		C	A		
Approach Delay (s)	12.2			2.5	0.0	
Approach LOS	B			A	A	

Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

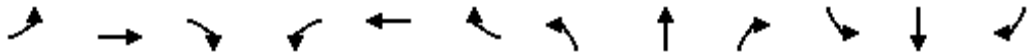
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1000	255	665	1485	0	0	0	0	765	0	610
Future Volume (vph)	0	1000	255	665	1485	0	0	0	0	765	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.67	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6240	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6240	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1053	268	700	1563	0	0	0	0	805	0	642
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	502
Lane Group Flow (vph)	0	1053	255	700	1563	0	0	0	0	805	0	140
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		24.0	76.0	21.5	51.5					46.0		24.0
Effective Green, g (s)		24.0	70.0	21.5	45.5					46.0		24.0
Actuated g/C Ratio		0.22	0.64	0.20	0.41					0.42		0.22
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1361	1007	670	2103					1435		345
v/s Ratio Prot		c0.17		c0.20	0.31					c0.23		
v/s Ratio Perm			0.16									0.09
v/c Ratio		0.77	0.25	1.04	0.74					0.56		0.41
Uniform Delay, d1		40.4	8.7	44.2	27.3					24.3		36.9
Progression Factor		0.37	0.18	0.49	0.54					1.00		1.00
Incremental Delay, d2		2.5	0.0	32.1	0.7					0.3		3.5
Delay (s)		17.3	1.5	53.7	15.5					24.6		40.4
Level of Service		B	A	D	B					C		D
Approach Delay (s)		14.1			27.3			0.0			31.6	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	133.4%	ICU Level of Service	H
Analysis Period (min)	15		

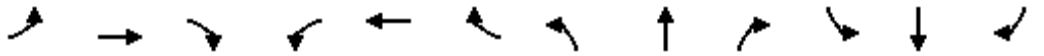
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	600	1165	0	0	1780	825	370	0	655	0	0	0
Future Volume (vph)	600	1165	0	0	1780	825	370	0	655	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.96	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			8941	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			8941	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	632	1226	0	0	1874	868	389	0	689	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	0	0	0	0
Lane Group Flow (vph)	632	1226	0	0	1874	857	389	0	689	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	21.5	69.8			24.0	76.0	27.7		27.7			
Effective Green, g (s)	21.5	69.8			24.0	76.0	27.7		27.7			
Actuated g/C Ratio	0.20	0.63			0.22	0.69	0.25		0.25			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	670	3226			1950	1093	864		701			
v/s Ratio Prot	c0.18	0.24			c0.21		0.11					
v/s Ratio Perm						c0.54			c0.25			
v/c Ratio	0.94	0.38			0.96	0.78	0.45		0.98			
Uniform Delay, d1	43.6	9.7			42.5	11.5	34.7		40.9			
Progression Factor	0.51	1.29			1.00	1.00	1.00		1.00			
Incremental Delay, d2	15.3	0.0			12.4	3.5	0.1		29.5			
Delay (s)	37.7	12.5			54.9	14.9	34.9		70.4			
Level of Service	D	B			D	B	C		E			
Approach Delay (s)		21.1			42.3			57.6			0.0	
Approach LOS		C			D			E			A	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	133.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	1570	100	50	2200	30	170	40	50	50	20	120
Future Volume (vph)	95	1570	100	50	2200	30	170	40	50	50	20	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.92		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5040		1770	5085	1583	1770	1707		1770	1623	
Flt Permitted	0.04	1.00		0.10	1.00	1.00	0.55	1.00		0.68	1.00	
Satd. Flow (perm)	70	5040		188	5085	1583	1026	1707		1263	1623	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	100	1653	105	53	2316	32	179	42	53	53	21	126
RTOR Reduction (vph)	0	4	0	0	0	11	0	29	0	0	48	0
Lane Group Flow (vph)	100	1754	0	53	2316	21	179	66	0	53	99	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	115.5	107.1		106.7	102.7	102.7	29.9	29.9		29.9	29.9	
Effective Green, g (s)	115.5	107.1		106.7	102.7	102.7	29.9	29.9		29.9	29.9	
Actuated g/C Ratio	0.72	0.67		0.67	0.64	0.64	0.19	0.19		0.19	0.19	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	139	3373		164	3263	1016	191	318		236	303	
v/s Ratio Prot	c0.04	c0.35		0.01	0.46			0.04			0.06	
v/s Ratio Perm	c0.48			0.21		0.01	c0.17			0.04		
v/c Ratio	0.72	0.52		0.32	0.71	0.02	0.94	0.21		0.22	0.33	
Uniform Delay, d1	38.7	13.4		10.6	18.8	10.4	64.1	55.0		55.2	56.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.8	0.6		0.4	1.3	0.0	46.5	0.1		0.2	0.2	
Delay (s)	52.4	14.0		11.0	20.2	10.4	110.6	55.1		55.4	56.6	
Level of Service	D	B		B	C	B	F	E		E	E	
Approach Delay (s)		16.1			19.8			91.4			56.3	
Approach LOS		B			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	42	1243	37	2116	63
v/c Ratio	0.28	0.64	0.04	0.42	0.07
Control Delay	4.7	29.5	0.6	0.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	29.5	0.6	0.2	1.6
Queue Length 50th (ft)	0	259	0	0	0
Queue Length 95th (ft)	0	310	1	0	12
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	147	1952	971	5075	856
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.64	0.04	0.42	0.07

Intersection Summary

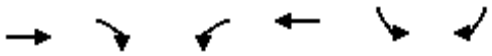
103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1274	63	2142
v/c Ratio	0.86	0.07	0.42
Control Delay	14.2	1.7	2.0
Queue Delay	0.1	0.0	0.0
Total Delay	14.3	1.7	2.0
Queue Length 50th (ft)	89	1	24
Queue Length 95th (ft)	85	m4	32
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1484	971	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	10	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.86	0.06	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1053	268	700	1563	805	642
v/c Ratio	0.77	0.23	1.04	0.66	0.52	0.76
Control Delay	17.4	1.0	56.4	13.1	22.9	9.6
Queue Delay	0.9	0.8	21.5	37.4	0.0	0.1
Total Delay	18.3	1.9	77.8	50.4	22.9	9.7
Queue Length 50th (ft)	97	0	~287	108	203	0
Queue Length 95th (ft)	172	m0	m#310	m115	259	114
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1361	1160	670	2380	1560	847
Starvation Cap Reductn	109	620	81	924	0	0
Spillback Cap Reductn	94	0	0	62	36	7
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.50	1.19	1.07	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	632	1226	1874	868	389	689
v/c Ratio	0.94	0.38	0.96	0.79	0.45	0.98
Control Delay	41.0	12.6	55.9	17.5	36.6	71.1
Queue Delay	33.4	1.1	27.8	1.3	0.0	0.0
Total Delay	74.4	13.7	83.6	18.8	36.6	71.1
Queue Length 50th (ft)	247	195	274	356	119	274
Queue Length 95th (ft)	#347	230	#330	552	165	#407
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	670	3247	1950	1091	873	709
Starvation Cap Reductn	81	1672	0	84	0	0
Spillback Cap Reductn	0	0	188	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.78	1.06	0.86	0.45	0.97

Intersection Summary

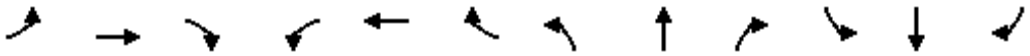
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	1758	53	2316	32	179	95	53	147
v/c Ratio	0.72	0.51	0.30	0.71	0.03	0.94	0.27	0.22	0.42
Control Delay	59.4	14.4	11.9	21.6	0.1	113.3	34.6	55.5	36.2
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	14.8	11.9	21.6	0.1	113.3	34.6	55.5	36.2
Queue Length 50th (ft)	54	340	15	576	0	184	52	47	79
Queue Length 95th (ft)	121	404	31	701	1	#306	105	88	148
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	167	3416	177	3263	1039	227	406	280	405
Starvation Cap Reductn	0	899	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.70	0.30	0.71	0.03	0.79	0.23	0.19	0.36

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	1293	20	78	2083	40	0	0	135	0	0	0
Future Volume (vph)	53	1293	20	78	2083	40	0	0	135	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5074		1770	5071				1611			
Flt Permitted	0.07	1.00		0.11	1.00				1.00			
Satd. Flow (perm)	129	5074		207	5071				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	56	1361	21	82	2193	42	0	0	142	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	44	0	0	0
Lane Group Flow (vph)	56	1381	0	82	2235	0	0	0	98	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	42.0		98.0	110.0				56.0			
Effective Green, g (s)	92.0	42.0		92.0	96.0				56.0			
Actuated g/C Ratio	0.84	0.38		0.84	0.87				0.51			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	107	1937		968	4425				820			
v/s Ratio Prot		c0.27		0.04	c0.44				0.06			
v/s Ratio Perm	c0.43			0.03								
v/c Ratio	0.52	0.71		0.08	0.51				0.12			
Uniform Delay, d1	2.6	28.9		6.4	1.6				14.1			
Progression Factor	1.00	1.00		1.31	1.00				1.00			
Incremental Delay, d2	2.1	1.1		0.0	0.0				0.0			
Delay (s)	4.7	29.9		8.4	1.6				14.1			
Level of Service	A	C		A	A				B			
Approach Delay (s)		28.9			1.9			14.1			0.0	
Approach LOS		C			A			B			A	

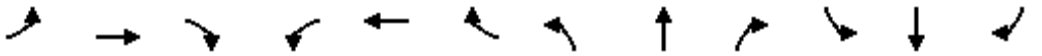
Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1348	33	63	2163	0	0
Future Volume (vph)	1348	33	63	2163	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.52		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	3861		1770	5085		
Flt Permitted	1.00		0.11	1.00		
Satd. Flow (perm)	3861		207	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1419	35	66	2277	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1452	0	66	2277	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	42.0		98.0	110.0		
Effective Green, g (s)	42.0		92.0	96.0		
Actuated g/C Ratio	0.38		0.84	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1474		968	4437		
v/s Ratio Prot	c0.38		0.03	c0.45		
v/s Ratio Perm			0.02			
v/c Ratio	0.99		0.07	0.51		
Uniform Delay, d1	33.7		6.4	1.6		
Progression Factor	0.27		2.52	1.00		
Incremental Delay, d2	16.6		0.0	0.0		
Delay (s)	25.8		16.0	1.6		
Level of Service	C		B	A		
Approach Delay (s)	25.8			2.0	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

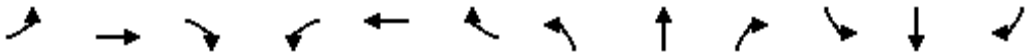
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1078	348	733	1615	0	0	0	0	880	0	610
Future Volume (vph)	0	1078	348	733	1615	0	0	0	0	880	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.67	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6240	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6240	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1135	366	772	1700	0	0	0	0	926	0	642
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	0	0	0	502
Lane Group Flow (vph)	0	1135	353	772	1700	0	0	0	0	926	0	140
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		24.0	76.0	21.5	51.5					46.0		24.0
Effective Green, g (s)		24.0	70.0	21.5	45.5					46.0		24.0
Actuated g/C Ratio		0.22	0.64	0.20	0.41					0.42		0.22
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1361	1007	670	2103					1435		345
v/s Ratio Prot		c0.18		c0.22	0.33					c0.27		
v/s Ratio Perm			0.22									0.09
v/c Ratio		0.83	0.35	1.15	0.81					0.65		0.41
Uniform Delay, d1		41.1	9.4	44.2	28.4					25.5		36.9
Progression Factor		0.41	0.20	0.49	0.63					1.00		1.00
Incremental Delay, d2		2.3	0.0	70.3	1.0					0.8		3.5
Delay (s)		19.1	1.9	91.8	18.9					26.3		40.4
Level of Service		B	A	F	B					C		D
Approach Delay (s)		14.9			41.7			0.0			32.0	
Approach LOS		B			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	148.3%	ICU Level of Service	H
Analysis Period (min)	15		

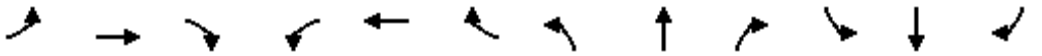
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	610	1350	0	0	1893	918	453	0	753	0	0	0
Future Volume (vph)	610	1350	0	0	1893	918	453	0	753	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.96	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			8941	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			8941	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	642	1421	0	0	1993	966	477	0	793	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	0	0	0	0
Lane Group Flow (vph)	642	1421	0	0	1993	955	477	0	793	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Effective Green, g (s)	21.5	69.5			24.0	76.0	28.0		28.0			
Actuated g/C Ratio	0.20	0.63			0.22	0.69	0.25		0.25			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	670	3212			1950	1093	873		709			
v/s Ratio Prot	c0.19	0.28			c0.22		0.14					
v/s Ratio Perm						c0.60			c0.28			
v/c Ratio	0.96	0.44			1.02	0.87	0.55		1.12			
Uniform Delay, d1	43.8	10.3			43.0	13.3	35.5		41.0			
Progression Factor	0.50	1.22			1.00	1.00	1.00		1.00			
Incremental Delay, d2	16.1	0.0			26.2	7.7	0.4		71.2			
Delay (s)	38.2	12.7			69.2	21.0	35.9		112.2			
Level of Service	D	B			E	C	D		F			
Approach Delay (s)		20.6			53.4			83.6			0.0	
Approach LOS		C			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	48.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	148.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	1805	145	50	2415	30	170	40	50	50	20	168
Future Volume (vph)	123	1805	145	50	2415	30	170	40	50	50	20	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.92		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5028		1770	5085	1583	1770	1707		1770	1613	
Flt Permitted	0.04	1.00		0.06	1.00	1.00	0.46	1.00		0.68	1.00	
Satd. Flow (perm)	72	5028		117	5085	1583	865	1707		1276	1613	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	129	1900	153	53	2542	32	179	42	53	53	21	177
RTOR Reduction (vph)	0	5	0	0	0	13	0	28	0	0	45	0
Lane Group Flow (vph)	129	2048	0	53	2542	19	179	67	0	53	153	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	112.7	103.0		101.3	97.3	97.3	34.0	34.0		34.0	34.0	
Effective Green, g (s)	112.7	103.0		101.3	97.3	97.3	34.0	34.0		34.0	34.0	
Actuated g/C Ratio	0.70	0.64		0.63	0.61	0.61	0.21	0.21		0.21	0.21	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	153	3236		115	3092	962	183	362		271	342	
v/s Ratio Prot	c0.05	c0.41		0.01	0.50			0.04			0.09	
v/s Ratio Perm	c0.54			0.28		0.01	c0.21			0.04		
v/c Ratio	0.84	0.63		0.46	0.82	0.02	0.98	0.18		0.20	0.45	
Uniform Delay, d1	49.0	17.1		14.9	24.6	12.4	62.6	51.6		51.8	54.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	31.2	1.0		1.1	2.6	0.0	59.3	0.1		0.1	0.3	
Delay (s)	80.2	18.1		15.9	27.2	12.5	121.9	51.7		51.9	55.2	
Level of Service	F	B		B	C	B	F	D		D	E	
Approach Delay (s)		21.8			26.8			97.6			54.5	
Approach LOS		C			C			F			D	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	56	1382	82	2235	142
v/c Ratio	0.43	0.71	0.08	0.44	0.17
Control Delay	10.3	31.4	1.0	0.3	6.5
Queue Delay	0.0	0.1	0.0	0.0	0.0
Total Delay	10.3	31.5	1.0	0.3	6.5
Queue Length 50th (ft)	0	299	1	0	19
Queue Length 95th (ft)	0	354	9	0	52
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	129	1938	971	5070	856
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	70	0	0	1
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.74	0.08	0.44	0.17

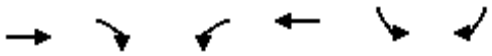
Intersection Summary

103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1454	66	2277
v/c Ratio	0.99	0.07	0.45
Control Delay	28.6	1.5	2.3
Queue Delay	5.5	0.0	0.0
Total Delay	34.0	1.5	2.3
Queue Length 50th (ft)	98	1	24
Queue Length 95th (ft)	#629	m2	32
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1475	971	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	35	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.01	0.07	0.45

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1135	366	772	1700	926	642
v/c Ratio	0.83	0.32	1.15	0.71	0.59	0.76
Control Delay	19.3	1.2	94.1	15.7	24.4	9.6
Queue Delay	2.1	1.2	0.9	48.2	0.1	0.2
Total Delay	21.4	2.4	95.0	63.9	24.5	9.8
Queue Length 50th (ft)	146	0	~343	132	245	0
Queue Length 95th (ft)	m155	m0	m#329	m134	309	114
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1361	1160	670	2380	1560	847
Starvation Cap Reductn	114	562	81	924	0	0
Spillback Cap Reductn	101	0	0	139	109	17
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.61	1.31	1.17	0.64	0.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	642	1421	1993	966	477	793
v/c Ratio	0.96	0.44	1.02	0.88	0.55	1.12
Control Delay	41.4	12.7	68.8	23.8	38.3	109.9
Queue Delay	38.1	2.3	30.9	3.0	0.0	0.0
Total Delay	79.5	15.0	99.7	26.8	38.3	109.9
Queue Length 50th (ft)	251	231	~312	462	150	~367
Queue Length 95th (ft)	m#337	269	#367	#846	203	#500
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	670	3235	1950	1104	873	709
Starvation Cap Reductn	81	1623	0	71	0	0
Spillback Cap Reductn	0	0	226	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.88	1.16	0.94	0.55	1.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

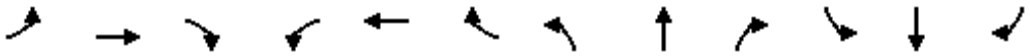
m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	129	2053	53	2542	32	179	95	53	198
v/c Ratio	0.84	0.63	0.43	0.82	0.03	0.98	0.24	0.20	0.51
Control Delay	76.8	18.0	19.3	28.1	0.1	122.4	33.2	53.1	43.8
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.8	18.7	19.3	28.1	0.1	122.4	33.2	53.1	43.8
Queue Length 50th (ft)	83	468	16	769	0	186	50	45	130
Queue Length 95th (ft)	#193	514	31	832	1	#345	105	88	216
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	168	3282	126	3094	988	191	406	283	402
Starvation Cap Reductn	0	766	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.82	0.42	0.82	0.03	0.94	0.23	0.19	0.49

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1415	30	120	2185	50	0	0	210	0	0	0
Future Volume (vph)	65	1415	30	120	2185	50	0	0	210	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0		6.5	6.5				6.5			
Lane Util. Factor	1.00	0.91		1.00	0.91				1.00			
Frt	1.00	1.00		1.00	1.00				0.86			
Flt Protected	0.95	1.00		0.95	1.00				1.00			
Satd. Flow (prot)	1770	5069		1770	5068				1611			
Flt Permitted	0.06	1.00		0.13	1.00				1.00			
Satd. Flow (perm)	112	5069		240	5068				1611			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	1489	32	126	2300	53	0	0	221	0	0	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	40	0	0	0
Lane Group Flow (vph)	68	1519	0	126	2353	0	0	0	181	0	0	0
Turn Type	custom	NA		custom	NA				pt+ov			
Protected Phases		6 8		5 7	1 2 3 4				5 7			
Permitted Phases	5 6 7 8			2 4								
Actuated Green, G (s)	110.0	37.0		98.0	110.0				61.0			
Effective Green, g (s)	92.0	37.0		92.0	96.0				61.0			
Actuated g/C Ratio	0.84	0.34		0.84	0.87				0.55			
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)	93	1705		1049	4422				893			
v/s Ratio Prot		c0.30		0.07	0.46				0.11			
v/s Ratio Perm	c0.61			0.03								
v/c Ratio	0.73	0.89		0.12	0.53				0.20			
Uniform Delay, d1	3.8	34.6		5.1	1.7				12.3			
Progression Factor	1.00	1.00		0.89	1.00				1.00			
Incremental Delay, d2	22.2	6.1		0.0	0.1				0.0			
Delay (s)	26.0	40.7		4.6	1.7				12.3			
Level of Service	C	D		A	A				B			
Approach Delay (s)		40.1			1.9			12.3			0.0	
Approach LOS		D			A			B			A	

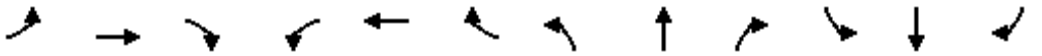
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1515	35	65	2290	0	0
Future Volume (vph)	1515	35	65	2290	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.5	6.5		
Lane Util. Factor	*0.64		1.00	0.91		
Frt	1.00		1.00	1.00		
Flt Protected	1.00		0.95	1.00		
Satd. Flow (prot)	4752		1770	5085		
Flt Permitted	1.00		0.13	1.00		
Satd. Flow (perm)	4752		240	5085		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1595	37	68	2411	0	0
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1630	0	68	2411	0	0
Turn Type	NA		custom	NA		
Protected Phases	6 8		5 7	1 2 3 4		
Permitted Phases			2 4			
Actuated Green, G (s)	37.0		98.0	110.0		
Effective Green, g (s)	37.0		92.0	96.0		
Actuated g/C Ratio	0.34		0.84	0.87		
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)	1598		1049	4437		
v/s Ratio Prot	c0.34		0.04	c0.47		
v/s Ratio Perm			0.02			
v/c Ratio	1.02		0.06	0.54		
Uniform Delay, d1	36.5		5.0	1.7		
Progression Factor	0.32		1.58	1.00		
Incremental Delay, d2	22.2		0.0	0.0		
Delay (s)	33.8		7.9	1.7		
Level of Service	C		A	A		
Approach Delay (s)	33.8			1.9	0.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		

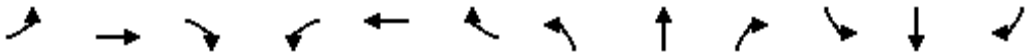
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑↑	↱	↰↰	↑↑↑					↰↰		↱
Traffic Volume (vph)	0	1155	440	800	1745	0	0	0	0	995	0	610
Future Volume (vph)	0	1155	440	800	1745	0	0	0	0	995	0	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	2.0	6.5	6.5					2.0		6.0
Lane Util. Factor		*0.75	1.00	0.97	0.91					0.97		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		6985	1583	3433	5085					3433		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		6985	1583	3433	5085					3433		1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1216	463	842	1837	0	0	0	0	1047	0	642
RTOR Reduction (vph)	0	0	12	0	0	0	0	0	0	0	0	519
Lane Group Flow (vph)	0	1216	451	842	1837	0	0	0	0	1047	0	123
Turn Type		NA	custom	Prot	NA					Prot		Perm
Protected Phases		6		5	1 2					3 4		
Permitted Phases			3 4 6									6
Actuated Green, G (s)		21.0	77.0	20.5	47.5					50.0		21.0
Effective Green, g (s)		21.0	71.0	20.5	41.5					50.0		21.0
Actuated g/C Ratio		0.19	0.65	0.19	0.38					0.45		0.19
Clearance Time (s)		6.0		6.5								6.0
Vehicle Extension (s)		0.2		0.2								0.2
Lane Grp Cap (vph)		1333	1021	639	1918					1560		302
v/s Ratio Prot		0.17		c0.25	c0.36					c0.30		
v/s Ratio Perm			0.28									0.08
v/c Ratio		0.91	0.44	1.32	0.96					0.67		0.41
Uniform Delay, d1		43.6	9.7	44.8	33.4					23.5		39.0
Progression Factor		0.42	0.50	0.43	0.68					1.00		1.00
Incremental Delay, d2		3.7	0.0	144.0	1.6					0.9		4.0
Delay (s)		22.0	4.9	163.3	24.4					24.5		43.0
Level of Service		C	A	F	C					C		D
Approach Delay (s)		17.3			68.1			0.0			31.5	
Approach LOS		B			E			A			C	

Intersection Summary			
HCM 2000 Control Delay	43.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	163.1%	ICU Level of Service	H
Analysis Period (min)	15		

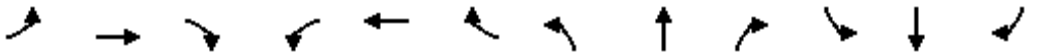
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	620	1535	0	0	2005	1010	535	0	850	0	0	0
Future Volume (vph)	620	1535	0	0	2005	1010	535	0	850	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.0			6.0	6.0	6.0		6.0			
Lane Util. Factor	0.97	0.91			*0.97	1.00	0.97		0.88			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	3433	5085			9034	1583	3433		2787			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	3433	5085			9034	1583	3433		2787			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	653	1616	0	0	2111	1063	563	0	895	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	11	0	0	0	0	0	0
Lane Group Flow (vph)	653	1616	0	0	2111	1053	563	0	895	0	0	0
Turn Type	Prot	NA			NA	custom	Prot		Perm			
Protected Phases	1	6 5 8			2		7					
Permitted Phases						2 7 8			7			
Actuated Green, G (s)	20.5	63.5			21.0	77.0	34.0		34.0			
Effective Green, g (s)	20.5	63.5			21.0	77.0	34.0		34.0			
Actuated g/C Ratio	0.19	0.58			0.19	0.70	0.31		0.31			
Clearance Time (s)	6.5				6.0		6.0		6.0			
Vehicle Extension (s)	0.2				0.2		0.2		0.2			
Lane Grp Cap (vph)	639	2935			1724	1108	1061		861			
v/s Ratio Prot	c0.19	0.32			c0.23		0.16					
v/s Ratio Perm						c0.66			0.32			
v/c Ratio	1.02	0.55			1.22	0.95	0.53		1.04			
Uniform Delay, d1	44.8	14.4			44.5	14.8	31.4		38.0			
Progression Factor	0.44	1.11			1.00	1.00	1.00		1.00			
Incremental Delay, d2	28.6	0.1			106.4	16.1	0.3		41.4			
Delay (s)	48.4	16.1			150.9	30.8	31.7		79.4			
Level of Service	D	B			F	C	C		E			
Approach Delay (s)		25.4			110.7			61.0			0.0	
Approach LOS		C			F			E			A	

Intersection Summary			
HCM 2000 Control Delay	72.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.5
Intersection Capacity Utilization	163.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	2040	190	50	2630	30	170	40	50	50	20	215
Future Volume (vph)	150	2040	190	50	2630	30	170	40	50	50	20	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5020		1770	5085	1583	1770	1707		1770	1607	
Flt Permitted	0.04	1.00		0.04	1.00	1.00	0.36	1.00		0.68	1.00	
Satd. Flow (perm)	73	5020		77	5085	1583	670	1707		1274	1607	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	2147	200	53	2768	32	179	42	53	53	21	226
RTOR Reduction (vph)	0	7	0	0	0	13	0	28	0	0	43	0
Lane Group Flow (vph)	158	2340	0	53	2768	19	179	67	0	53	204	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	113.5	103.5		100.6	96.6	96.6	33.5	33.5		33.5	33.5	
Effective Green, g (s)	113.5	103.5		100.6	96.6	96.6	33.5	33.5		33.5	33.5	
Actuated g/C Ratio	0.71	0.65		0.63	0.60	0.60	0.21	0.21		0.21	0.21	
Clearance Time (s)	6.0	6.5		6.0	6.5	6.5	6.5	6.5		6.5	6.5	
Vehicle Extension (s)	1.5	3.0		1.5	3.0	3.0	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	167	3247		90	3070	955	140	357		266	336	
v/s Ratio Prot	c0.06	0.47		0.01	0.54			0.04			0.13	
v/s Ratio Perm	c0.61			0.35		0.01	c0.27			0.04		
v/c Ratio	0.95	0.72		0.59	0.90	0.02	1.28	0.19		0.20	0.61	
Uniform Delay, d1	55.8	18.7		19.2	27.6	12.7	63.2	52.0		52.2	57.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	53.0	1.4		6.2	4.8	0.0	169.1	0.1		0.1	2.1	
Delay (s)	108.8	20.1		25.4	32.4	12.8	232.4	52.1		52.3	59.4	
Level of Service	F	C		C	C	B	F	D		D	E	
Approach Delay (s)		25.7			32.1			169.9			58.1	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM 2000 Control Delay	37.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

102: SW 31st /SW 31st Avenue & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	NBR
Lane Group Flow (vph)	68	1521	126	2353	221
v/c Ratio	0.61	0.89	0.12	0.46	0.24
Control Delay	24.9	42.4	1.1	0.3	8.1
Queue Delay	0.0	2.9	0.0	0.0	0.0
Total Delay	24.9	45.3	1.1	0.3	8.1
Queue Length 50th (ft)	0	369	3	0	44
Queue Length 95th (ft)	#28	434	12	0	85
Internal Link Dist (ft)		49		186	
Turn Bay Length (ft)	125		175		
Base Capacity (vph)	112	1707	1053	5070	926
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	110	0	0	1
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	0.95	0.12	0.46	0.24

Intersection Summary

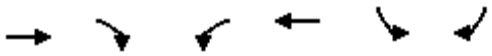
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

103: SW 30th Avenue & Hallandale Beach Boulevard

Lane Group	EBT	WBL	WBT
Lane Group Flow (vph)	1632	68	2411
v/c Ratio	1.02	0.06	0.47
Control Delay	36.1	0.9	2.4
Queue Delay	15.9	0.0	0.0
Total Delay	52.1	0.9	2.4
Queue Length 50th (ft)	~89	1	21
Queue Length 95th (ft)	#551	m1	33
Internal Link Dist (ft)	186		190
Turn Bay Length (ft)			
Base Capacity (vph)	1601	1053	5085
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	66	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.06	0.06	0.47

Intersection Summary
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

104: I-95 SB On-Ramp/I-95 SB Off-Ramp & Hallandale Beach Boulevard



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1216	463	842	1837	1047	642
v/c Ratio	0.91	0.39	1.32	0.84	0.62	0.78
Control Delay	23.0	2.8	166.1	19.6	22.5	10.9
Queue Delay	9.2	1.4	0.6	47.9	0.8	0.3
Total Delay	32.1	4.3	166.6	67.5	23.3	11.1
Queue Length 50th (ft)	147	0	~408	513	269	0
Queue Length 95th (ft)	m143	m0	m#287	m462	337	120
Internal Link Dist (ft)	190			249		
Turn Bay Length (ft)					700	700
Base Capacity (vph)	1333	1174	639	2195	1685	821
Starvation Cap Reductn	96	499	49	877	0	0
Spillback Cap Reductn	111	0	0	135	322	17
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.69	1.43	1.39	0.77	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

105: I-95 NB Off-Ramp/I-95 NB On-Ramp & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBT	WBR	NBL	NBR
Lane Group Flow (vph)	653	1616	2111	1063	563	895
v/c Ratio	1.02	0.55	1.22	0.95	0.53	1.04
Control Delay	51.2	16.3	145.1	33.2	33.6	79.2
Queue Delay	28.2	19.5	0.7	9.5	0.0	0.0
Total Delay	79.4	35.8	145.8	42.7	33.6	79.2
Queue Length 50th (ft)	~258	276	~379	584	168	~388
Queue Length 95th (ft)	m#304	m314	#433	#987	223	#525
Internal Link Dist (ft)		249	696			
Turn Bay Length (ft)				235	430	420
Base Capacity (vph)	639	2958	1724	1118	1061	861
Starvation Cap Reductn	49	1383	0	61	0	0
Spillback Cap Reductn	0	0	344	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.11	1.03	1.53	1.01	0.53	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

106: SW 10th Terrace/NW 10th Terrace & Hallandale Beach Boulevard

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	158	2347	53	2768	32	179	95	53	247
v/c Ratio	0.95	0.71	0.54	0.90	0.03	1.28	0.25	0.20	0.65
Control Delay	98.5	19.7	37.3	32.9	0.1	217.5	34.3	54.6	53.5
Queue Delay	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.5	21.3	37.3	32.9	0.1	217.5	34.3	54.6	53.5
Queue Length 50th (ft)	115	572	15	889	0	~236	51	46	187
Queue Length 95th (ft)	#265	623	54	957	1	#401	107	90	290
Internal Link Dist (ft)		696		441			716		502
Turn Bay Length (ft)	205		195		285	340		180	
Base Capacity (vph)	168	3291	101	3069	981	140	385	266	380
Starvation Cap Reductn	0	714	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.91	0.52	0.90	0.03	1.28	0.25	0.20	0.65

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Appendix G

Excerpt from FDOT 5-Year Work Program

Web Application

Office of Work Program and Budget

Lisa Saliba - Director

Five Year Work Program

Selection Criteria	
All in State	**2016-2021 G1**
(Updated: 2/17/2016-21.15.02)	**Item Number:**436111-1

Transportation System Description	Fiscal Year:	District	2016	Length	2017	Type of Work	2018	2019	Item	2020	2021
INTRASTATE STATE HIGHWAY		District 04 - Broward County		0.555		TRAFFIC SIGNAL UPDATE			436111-1		
SR-858/HALLANDALE BCH BLVD E OF RR XING #628290-Y TO W OF ANSIN BLVD										SIS	
Highways /Preliminary Engineering					$100,000						
Highways /Railroad & Utilities							$30,000				
Highways /Construction								$2,424,623			

This site is maintained by the Office of Work Program and Budget, located at 605 Suwannee Street, MS 21, Tallahassee, Florida 32399. For additional information please e-mail questions or comments to:
(Lisa Saliba: Lisa.Saliba@dot.state.fl.us or call 850-414-4622)

View Contact Information for Office of Work Program and Budget

Application Home: Work Program
Office Home: Office of Work Program and Budget

Web Application

Office of Work Program and Budget

Lisa Saliba - Director

Five Year Work Program

Selection Criteria	
All in State **(Updated: 2/17/2016-21.15.02)** **Category:**Highways **Item Number:**436903-1	**2016-2021 G1** **Broward County** **Phase:**PD & E

Transportation System Description	Fiscal Year:	District	Length	Type of Work	Item	2016	2017	2018	2019	2020	2021
INTRASTATE INTERSTATE		District 04 - Broward County	6.157	PD&E/EMO STUDY	436903-1						
SR-9/I-95 FROM S. OF SR-858/HALLANDALE BCH BLVD TO N.OF HOLLYWOOD BLVD										SIS	
	Highways /PD & E					$460,000	$2,570,000				

This site is maintained by the Office of Work Program and Budget, located at 605 Suwannee Street, MS 21, Tallahassee, Florida 32399. For additional information please e-mail questions or comments to:
(Lisa Saliba: Lisa.Saliba@dot.state.fl.us or call 850-414-4622)

View Contact Information for Office of Work Program and Budget

Application Home: Work Program
Office Home: Office of Work Program and Budget

Appendix H

FDOT Traffic Operations Office

Long Range Cost Estimate

Date: 3/15/2016 8:07:57 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 436111-1-52-01 **Letting Date:** 10/2018

Description: SR-858/HALLANDALE BCH BLVD E OF RR XING #628290-Y TO W OF ANSIN BLVD

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.555 MI

Project Manager: DORVIL

Version 3 Project Grand Total **$1,883,454.50**

Description: Safety improvement project on SR-858/Hallandale Beach Blvd from east of RR crossing #628290-Y to west of Ansin Blvd and NB off-ramp and SB off-ramp from I-95 to Hallandale Bch Blvd.

Sequence: 1 MIS - Miscellaneous Construction **Net Length:** 0.155 MI 818 LF

Description: LRE Update March 2016: Sequence 1 accounts for the improvements along Hallandale Bch Blvd from mile post 2.470 at rail road crossing #628290-Y to mile post 2.625 west of Ansin Blvd.

Special Conditions: Sequence 1 pays for the cost of widening in the median, milling 1-inch of pavement and resurfacing for the entire length of the sequence, installing pavement markings and signage, replacing traffic signals at both SB off-ramp and NB off-ramp intersections with Hallandale Bch Blvd, installing pedestrian signals and push buttons, and constructing miscellaneous sidewalk improvements.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	65.00	SY	$13.00	$845.00
	Comment: Removal of existing curb and gutter along the median at SW 30th Ave.				
160-4	TYPE B STABILIZATION	125.00	SY	$5.00	$625.00
	Comment: Based on 8-ft widening at the median near SW 30th Ave.				
285-711	OPTIONAL BASE,BASE GROUP 11	125.00	SY	$21.00	$2,625.00
	Comment: Based on 8-ft widening at the median near SW 30th Ave.				
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	10,935.00	SY	$2.50	$27,337.50
	Comment: Mill ten 12-ft lanes at 1-in.				
334-1-23	SUPERPAVE ASPH CONC, TRAF C, PG76-22,PMA	14.40	TN	$99.00	$1,425.60
	Comment: Based on 8-ft widening and 2-in thickness in the median near SW 30th Ave + 5% adjustment.				
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	7.20	TN	$135.00	$972.00
	Comment: Based on 8-ft widening and 1-in thickness in the median near SW 30th Ave + 5% adjustment.				
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	190.00	EA	$7.00	$1,330.00
	Comment: Spacing for RPMs at intersections.				
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.55	GM	$874.00	$1,354.70

	Comment: Assume half project length is 6-in solid white and 10 lane lines + 2 applications.			
710-11-102	PAINTED PAVT MARK,STD,WHITE,SOLID,8"	0.11 GM	$888.21	$97.70
	Comment: At median island near SW 30th Ave and 2 applications.			
710-11-123	PAINTED PAVT MARK,STD,WHITE,SOLID, 12"	340.00 LF	$0.70	$238.00
	Comment: 2 applications of cross walk markings.			
710-11-124	PAINTED PAVT MARK,STD,WHITE,SOLID, 18"	200.00 LF	$1.30	$260.00
	Comment: 2 applications.			
710-11-125	PAINTED PAVT MARK,STD,WHITE,SOLID,24"	870.00 LF	$1.97	$1,713.90
	Comment: 2 applications for stop bars + high emphasis cross walk markings at 4 cross walks.			
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.55 GM	$380.00	$589.00
	Comment: Assume half of sequence length and 2 applications + 10 lane lines.			
710-11-160	PAINTED PAVT MARK,STD,WHITE, MESSAGE	12.00 EA	$38.00	$456.00
710-11-170	PAINTED PAVT MARK,STD,WHITE, ARROWS	20.00 EA	$25.00	$500.00
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.62 GM	$890.00	$551.80
	Comment: Assume 2 applications + 2 solid yellow line over the entire length of the sequence.			
710-11-224	PAINTED PAVT MARK,STD,YELLOW,SOLID,18"	50.00 LF	$1.00	$50.00
	Comment: 2 applications.			
	Roadway Component Total			$40,971.20

SHOULDER COMPONENT

User Input Data

Description	**Value**

X-Items

Pay item	**Description**	**Quantity**	**Unit**	**Unit Price**	**Extended Amount**
520-1-10	CONCRETE CURB & GUTTER, TYPE F	140.00	LF	$22.00	$3,080.00
	Comment: Curb and gutter due to widening in the median near SW 30th Ave.				
	Shoulder Component Total				$3,080.00

SIGNING COMPONENT

Pay Items

Pay item	**Description**	**Quantity**	**Unit**	**Unit Price**	**Extended Amount**
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	6.00	AS	$370.00	$2,220.00
700-1-60	SINGLE POST SIGN, REMOVE	1.00	AS	$28.00	$28.00

Signing Component Total $2,248.00

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Signal at intersection of Hallandale Bch Blvd with SB I-95 off-ramp.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	$8.00	$5,600.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	$16.00	$4,800.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,853.07	$4,853.07
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	$516.00	$11,352.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$3,600.00	$3,600.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.40	$204.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	$1,153.54	$1,153.54
649-1-10	STEEL STRAIN POLE, F&I, PEDESTAL	1.00	EA	$1,915.67	$1,915.67
649-31-105	M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-78	4.00	EA	$37,703.00	$150,812.00
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	20.00	AS	$925.00	$18,500.00
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	6.00	AS	$640.00	$3,840.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	$195.00	$3,900.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	$760.00	$15,200.00
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00	EA	$204.00	$1,224.00
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$24,466.07	$24,466.07
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$311.00	$1,244.00
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	1.00	EA	$2,670.60	$2,670.60

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Traffic signal at the intersection of Hallandale Bch Blvd and NB I-95 off ramp.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.00	$5,600.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$16.00	$4,800.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$4,853.07	$4,853.07
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$516.00	$11,352.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$3,600.00	$3,600.00
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$3.40	$204.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,153.54	$1,153.54
649-1-10	STEEL STRAIN POLE, F&I, PEDESTAL	1.00 EA	$1,915.67	$1,915.67
649-31-105	M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-78	4.00 EA	$37,703.00	$150,812.00
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	20.00 AS	$925.00	$18,500.00
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	6.00 AS	$640.00	$3,840.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$195.00	$3,900.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$760.00	$15,200.00
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	6.00 EA	$204.00	$1,224.00
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$24,466.07	$24,466.07
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$311.00	$1,244.00
700-5-21	INTERNAL ILLUM SIGN, F&I OM, UP TO 12 SF	1.00 EA	$2,670.60	$2,670.60
	Signalizations Component Total			$510,669.90

Sequence 1 Total $556,969.10

Sequence: 2 WDU - Widen/Resurface, Divided, Urban **Net Length:** 0.200 MI
1,056 LF

Description: LRE Update March 2016: Widen southbound I-95 off-ramp (#86070-007) at Hallandale Bch Blvd to extend right turn lane and modify ramp approach alignment to improve SB off-ramp left turning radii.

Special Conditions: Sequence 2 accounts for the cost of extending the right turn lane and center lane for ramp #86070-007 a distance of approximately 500 feet. It also pays for realigning the ramp approach to Hallandale Bch Blvd to improve SB off-ramp left turn radii and sight distance. Additionally, cost includes removal right turn island, removal of existing concrete, provision of curb and gutter, sidewalk and pedestrian ramps, sod, sediment barrier, removal of existing guardrail, provision of new guardrail, end anchorages, milling and resurfacing and signing and markings.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.33
Alignment Number	1
Distance	0.200
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Existing Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.33	AC	$15,000.00	$4,950.00
	Earthwork Component Total				$4,950.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	165
Widened Friction Course Spread Rate	80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	206.70	SY	$13.00	$2,687.10
	Comment: Removal of exist. conc. island + curb & gutter				

	around the corner + curb and gutter below the exist. guardrail.			
160-4	TYPE B STABILIZATION	2,866.70 SY	$5.00	$14,333.50
	Comment: Type B Stab. for proposed widening and 4-ft outside shoulder and 2-ft inside shoulder for a distance of 1000 ft.			
285-709	OPTIONAL BASE,BASE GROUP 09	2,866.70 SY	$16.00	$45,867.20
	Comment: For widening area and 4-ft outside shoulder and 2-ft inside shoulder.			
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	3,158.50 SY	$2.50	$7,896.25
	Comment: 1-inch milling of existing SB off-ramp lanes up to 1000 ft long.			
334-1-23	SUPERPAVE ASPH CONC, TRAF C, PG76-22,PMA	317.00 TN	$99.00	$31,383.00
	Comment: Structural course: 2-inch pvmnt for roadway areas and 1.5-inch for shoulder areas.			
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	258.50 TN	$135.00	$34,897.50
	Comment: Friction course for existing surface and proposed widening surface + 5% Adjustment.			
520-1-11	CONCRETE CURB & GUTTER, VAR HT TYPE F	1,000.00 LF	$22.15	$22,150.00
	Comment: Proposed curb and gutter on the outside.			
536-1-1	GUARDRAIL- ROADWAY	500.00 LF	$24.00	$12,000.00
	Comment: For the length of widening only.			
536-73	GUARDRAIL REMOVAL	370.00 LF	$6.00	$2,220.00
	Comment: Removal of existing guardrail to allow ramp widening.			
536-85-22	GUARDRAIL END ANCHORAGE ASSEMBLY- FLARED	1.00 EA	$2,669.04	$2,669.04
	Comment: End anchorage assembly for the northern end.			
536-85-24	GUARDRAIL END ANCHORAGE ASSEM- PARALLEL	1.00 EA	$2,828.57	$2,828.57
	Comment: End anchorage assembly for the south most end near Hallandale Bch Blvd intersection.			
710-11-201	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	0.40 GM	$890.00	$356.00
	Comment: 2 applications of yellow pavement markings.			

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	3
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	54.00	EA	$7.00	$378.00
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.20	NM	$1,000.00	$1,200.00
710-11-131	PAINTED PAVT	0.40	GM	$380.00	$152.00

	MARK,STD,WHITE,SKIP, 6"	
	Roadway Component Total	$181,018.16

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
107-1	LITTER REMOVAL	3.00	AC	$48.00	$144.00
	Comment: Based on 10 cycles, 1000 ft long and 12 ft shoulder area.				
107-2	MOWING	3.00	AC	$88.00	$264.00
	Comment: Based on 10 cycles, 1000 ft long and 12 ft shoulder area.				
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	43.30	SY	$36.00	$1,558.80
	Comment: Conc. sidewalks and pedestrian ramps in the area of the SB off-ramp.				
570-1-2	PERFORMANCE TURF, SOD	200.00	SY	$2.70	$540.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,112.00	LF	$1.25	$2,640.00
104-18	INLET PROTECTION SYSTEM	2.00	EA	$86.00	$172.00
107-1	LITTER REMOVAL	1.74	AC	$48.00	$83.52
107-2	MOWING	1.74	AC	$88.00	$153.12
	Shoulder Component Total				$5,555.44

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	6.00	EA	$4,068.40	$24,410.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-3-41	JUNCTION BOX, DRAINAGE, P-7, <10'	6.00	EA	$3,335.63	$20,013.78
	Comment: Junction boxes due to new location of drainage structures resulting from widening.				
430-174-115	PIPE CULV, OPT MATL, ROUND,15"SD	96.00	LF	$55.00	$5,280.00
	Comment: Pipes linking new drainage inlets to the junction boxes.				

430-174-118	PIPE CULV, OPT MATL, ROUND,18"SD	16.00 LF	$82.00	$1,312.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	16.00 LF	$105.00	$1,680.00
430-174-130	PIPE CULV, OPT MATL, ROUND,30"SD	16.00 LF	$140.00	$2,240.00
	Drainage Component Total			$54,936.18

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	$370.00	$1,480.00
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,040.00	$1,040.00
700-1-60	SINGLE POST SIGN, REMOVE	2.00	AS	$28.00	$56.00
	Signing Component Total				$2,576.00

Sequence 2 Total $249,035.78

Sequence: 3 WDU - Widen/Resurface, Divided, Urban **Net Length:** 0.200 MI
1,056 LF

Description: LRE Update March 2016: Widen northbound I-95 off-ramp (#86070-009) at Hallandale Bch Blvd to create dual right turn lanes and dual left turn lanes.

Special Conditions: Sequence 3 pays for the cost of widening the right turn lane for ramp #86070-009. It also pays for the cost of clearing and grubbing, removal of existing concrete and guardrail, provision of curb and gutter, sidewalk and pedestrian ramps, stake silt fence, new guardrail, end anchorages, milling and resurfacing of the off-ramp and signing and markings. It further pays for reconfiguring the right turn island. Special Note: A 1000-ft retaining wall is maintained from the original LRE and the reason for which is unknown at this time.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 12.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.200
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Existing Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.29	AC	$15,000.00	$4,350.00
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	3,207.89	CY	$12.00	$38,494.68
	Earthwork Component Total				$42,844.68

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Existing Roadway Pavement Width L/R	24.00 / 12.00
Structural Spread Rate	165
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 12.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	275
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	1,710.72	SY	$5.00	$8,553.60
285-709	OPTIONAL BASE,BASE GROUP 09	1,446.72	SY	$16.00	$23,147.52

327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	4,224.00	SY	$2.50	$10,560.00
334-1-23	SUPERPAVE ASPH CONC, TRAF C, PG76-22,PMA	193.60	TN	$99.00	$19,166.40
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	168.96	TN	$135.00	$22,809.60
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	56.32	TN	$135.00	$7,603.20

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	177.80	SY	$13.00	$2,311.40
	Comment: Sidewalk + curb and gutter + right turn island modification.				
160-4	TYPE B STABILIZATION	266.67	SY	$5.00	$1,333.35
	Comment: Additional type B stab. to account for the extension of the existing right turn lane.				
285-709	OPTIONAL BASE,BASE GROUP 09	266.67	SY	$16.00	$4,266.72
	Comment: For extension of the existing NB right turn lane.				
334-1-23	SUPERPAVE ASPH CONC, TRAF C, PG76-22,PMA	32.30	TN	$99.00	$3,197.70
	Comment: For extension of the existing NB right turn lane.				
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	11.20	TN	$135.00	$1,512.00
	Comment: For extension of the existing NB right turn lane.				
536-1-1	GUARDRAIL- ROADWAY	500.00	LF	$24.00	$12,000.00
536-85-22	GUARDRAIL END ANCHORAGE ASSEMBLY- FLARED	1.00	EA	$2,669.04	$2,669.04
536-85-24	GUARDRAIL END ANCHORAGE ASSEM- PARALLEL	1.00	EA	$2,828.57	$2,828.57

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	54.00	EA	$7.00	$378.00
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.60	NM	$1,000.00	$1,600.00
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.40	GM	$380.00	$152.00
	Roadway Component Total				$124,089.10

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 22.00
New Total Outside Shoulder Width L/R	0.00 / 7.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 5.00
Sidewalk Width L/R	0.00 / 0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,056.00	LF	$22.00	$23,232.00
570-1-1	PERFORMANCE TURF	586.67	SY	$1.00	$586.67

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,112.00	LF	$1.25	$2,640.00
107-1	LITTER REMOVAL	1.74	AC	$48.00	$83.52
107-2	MOWING	1.74	AC	$88.00	$153.12

Shoulder Component Total $26,695.31

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	626.56	SY	$1.00	$626.56

Median Component Total $626.56

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.60	CY	$1,240.00	$4,464.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	8.00	EA	$4,068.40	$32,547.20
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00	EA	$6,592.13	$13,184.26
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	112.00	LF	$65.00	$7,280.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	32.00	LF	$110.00	$3,520.00
570-1-1	PERFORMANCE TURF	60.80	SY	$1.00	$60.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	$4,751.38	$4,751.38
430-174-115	PIPE CULV, OPT MATL, ROUND,15"SD	32.00	LF	$55.00	$1,760.00
430-174-130	PIPE CULV, OPT MATL,	16.00	LF	$140.00	$2,240.00

	ROUND,30"SD			
430-982-123	MITERED END SECT, OPTIONAL RD, 15" CD	1.00 EA	$1,325.97	$1,325.97
430-982-133	MITERED END SECT, OPTIONAL RD, 30" CD	1.00 EA	$2,017.13	$2,017.13
	Drainage Component Total			$73,150.74

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	7.00	AS	$370.00	$2,590.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,000.00	$4,000.00
	Signing Component Total				$6,590.00

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	1,000.00
Begin height	10.00
End Height	10.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	10,000.00	SF	$34.00	$340,000.00
	Retaining Walls Component Total				$340,000.00

Sequence 3 Total $613,996.39

Sequence: 4 MIS - Miscellaneous Construction **Net Length:** 0.400 MI
2,112 LF

Description: LRE Update March 2016: Sequence 4 accounts for street conventional lighting for the off-ramps and along Hallandale Bch Blvd.

Special Conditions: Sequence 4 pays for the proposed street lighting along both off-ramps to Hallandale Bch Blvd and on Hallandale Bch Blvd. Due to existing overhead power transmission lines on the SB off-ramp, one special light fixture (shorter pole) is included to avoid conflicts with existing power lines and to adhere to governing standards.

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,112.00	LF	$8.00	$16,896.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	275.60	LF	$16.00	$4,409.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	11.00	EA	$516.00	$5,676.00
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	6.00	EA	$1,212.00	$7,272.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	7,162.80	LF	$2.50	$17,907.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	11.00	EA	$615.00	$6,765.00
	Subcomponent Total				$58,925.60

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-4-112	LIGHT POLE COMP, F&I, WS150, 45'	10.00	EA	$6,020.00	$60,200.00
715-511-130	LI/PL COMP- SP,F&I, SGLARM-SD MT-AL,30'	1.00	EA	$4,185.00	$4,185.00
	Comment: Shorter light pole to avoid existing transmission power line				
	Lighting Component Total				$123,310.60

Sequence 4 Total $123,310.60

Date: 3/15/2016 8:07:59 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 436111-1-52-01 **Letting Date:** 10/2018

Description: SR-858/HALLANDALE BCH BLVD E OF RR XING #628290-Y TO W OF ANSIN BLVD

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English

Contract Class: 1 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.555 MI

Project Manager: DORVIL

Version 3 Project Grand Total **$1,883,454.50**

Description: Safety improvement project on SR-858/Hallandale Beach Blvd from east of RR crossing #628290-Y to west of Ansin Blvd and NB off-ramp and SB off-ramp from I-95 to Hallandale Bch Blvd.

Project Sequences Subtotal			**$1,543,311.87**
102-1	Maintenance of Traffic	10.00 %	$154,331.19
101-1	Mobilization	8.00 %	$135,811.44
Project Sequences Total			**$1,833,454.50**
Project Unknowns		0.00 %	$0.00
Design/Build		0.00 %	$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$50,000.00	$50,000.00
Project Non-Bid Subtotal					**$50,000.00**
Version 3 Project Grand Total					**$1,883,454.50**

Appendix I

Benefit – Cost Analysis

NET PRESENT VALUE ANALYSIS

I-95 at Hallandale Beach Boulevard IOAR Improvements

NET PRESENT VALUE (Benefits)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	*Discount Rate*
$41,544,888	$0	$0	$0	$0	$4,262,730	$4,363,143	$4,463,556	$4,563,969	$4,664,382	$4,764,796	$4,865,209	$4,965,622	$5,066,035	$5,166,448	$5,266,861	7%
						2031	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	
						$5,367,274	$5,467,687	$5,568,100	$5,668,513	$5,768,926	$5,869,340	$5,969,753	$6,070,166	$6,170,579	$6,270,992	

NET PRESENT VALUE (Costs)
$1,883,455

NET PRESENT VALUE = NPV (Benefits) - NPV (Costs)

$39,661,434

Assume 2020 as Opening Year of project
Calculated Present Value of 2040 benefits for 2020 assuming 7% CGR
Assume linear increase of delay benefits between 2020 and 2040
Includes Safety benefit of $1,517,978 per year due to an estimated annual reduction of 14.1 crashes.

OPERATIONAL BENEFITS for PROPOSED IMPROVEMENT PROJECT (2040)

June 30, 2016

I-95 Southbound Off-Ramp at Hallandale Beach Boulevard

PEAK TRAFFIC VOLUMES

2040 VOLUMES

Peak Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM PEAK	0	0	0	860	0	625	0	1720	500	980	1305	0
PM PEAK	0	0	0	995	0	610	0	1155	440	800	1745	0
24 Hour Total	**0**			**25900**			**64700**			**90900**		

ALTERNATIVES	Intersection Peak Hour Delay (Sec/Veh)		Daily Delay Cost
	AM	PM	
No Build	66.90	43.80	$28,764.08
Build Alternative	66.90	43.80	$28,764.08

DELAY COST

No Build	D1 =	$28,764.08
Build Alternative	D2 =	$28,764.08

Project Operational Benefit:		**Daily**	**Yearly**
Proposed Improvement Project	D1 - D2 =	$0.00	$0

Note:

1. Synchro Output was used for determination of Peak-Hour Delay for the Proposed Improvement Project
2. Daily Delay = [Peak Hour Delay (AM + PM) x AADT]/Peak Hour Volumes (AM + PM)
3. Daily Delay Cost = Daily Delay (V-H) x 1 x $16.80/V-H
4. Value of delay is assumed to be $16.80 per vehicle-hour
5. Build Alternative = Signalize the southbound right-turn lane

OPERATIONAL BENEFITS for PROPOSED IMPROVEMENT PROJECT (2040)

I-95 Northbound Off-Ramp at Hallandale Beach Boulevard

PEAK TRAFFIC VOLUMES

2040 VOLUMES

Peak Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM PEAK	445	0	625	0	0	0	870	1710	0	0	1840	960
PM PEAK	535	0	850	0	0	0	620	1535	0	0	2005	1010
24 Hour Total	**18500**			**0**			**64700**			**90900**		

ALTERNATIVES	Intersection Peak Hour Delay (Sec/Veh)		Daily Delay Cost
	AM	PM	
No Build	128.00	103.70	$52,110.32
Build Alternative	101.70	72.10	$39,088.36

DELAY COST

No Build	D1 =	$52,110.32
Build Alternative	D2 =	$39,088.36

Project Operational Benefit:		**Daily**	**Yearly**
Proposed Improvement Project	D1 - D2 =	$13,021.96	$4,753,014

Note:

1. Synchro Output was used for determination of Peak-Hour Delay for the Proposed Improvement Project
2. Daily Delay = [Peak Hour Delay (AM + PM) x AADT]/Peak Hour Volumes (AM + PM)
3. Daily Delay Cost = Daily Delay (V-H) x 1 x $16.80/V-H
4. Value of delay is assumed to be $16.80 per vehicle-hour
5. Build Alternative = Add 2nd NB right-turn lane, and signalize the NB right-turn movement

OPERATIONAL BENEFITS for PROPOSED IMPROVEMENT PROJECT (2020)

I-95 Southbound Off-Ramp at Hallandale Beach Boulevard

PEAK TRAFFIC VOLUMES

2020 VOLUMES

Peak Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM PEAK	0	0	0	810	0	395	0	1285	270	815	1045	0
PM PEAK	0	0	0	765	0	610	0	1000	255	665	1485	0
24 Hour Total	**0**			**18900**			**54900**			**73700**		

ALTERNATIVES	Intersection Peak Hour Delay (Sec/Veh)		Daily Delay Cost
	AM	PM	
No Build	54.60	25.10	$21,010.28
Build Alternative	54.60	25.10	$21,010.28

DELAY COST

No Build	D1 =	$21,010.28
Build Alternative	D2 =	$21,010.28

Project Operational Benefit:		**Daily**	**Yearly**
Proposed Improvement Project	D1 - D2 =	$0.00	$0

Note:

1. Synchro Output was used for determination of Peak-Hour Delay for the Proposed Improvement Project
2. Daily Delay = [Peak Hour Delay (AM + PM) x AADT]/Peak Hour Volumes (AM + PM)
3. Daily Delay Cost = Daily Delay (V-H) x 1 x $16.80/V-H
4. Value of delay is assumed to be $16.80 per vehicle-hour
5. Build Alternative = Signalize the southbound right-turn lane

OPERATIONAL BENEFITS for PROPOSED IMPROVEMENT PROJECT (2020)

I-95 Northbound Off-Ramp at Hallandale Beach Boulevard

PEAK TRAFFIC VOLUMES

2020 VOLUMES

Peak Period	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM PEAK	305	0	505	0	0	0	800	1295	0	0	1555	690
PM PEAK	370	0	655	0	0	0	600	1165	0	0	1780	825
24 Hour Total	**14000**			**0**			**54900**			**73700**		

ALTERNATIVES	Intersection Peak Hour Delay (Sec/Veh)		Daily Delay Cost
	AM	PM	
No Build	90.00	59.80	$34,032.51
Build Alternative	78.50	38.20	$26,512.65

DELAY COST

No Build	D1 =	$34,032.51
Build Alternative	D2 =	$26,512.65

Project Operational Benefit:		**Daily**	**Yearly**
Proposed Improvement Project	D1 - D2 =	$7,519.87	$2,744,752

Note:

1. Synchro Output was used for determination of Peak-Hour Delay for the Proposed Improvement Project
2. Daily Delay = [Peak Hour Delay (AM + PM) x AADT]/Peak Hour Volumes (AM + PM)
3. Daily Delay Cost = Daily Delay (V-H) x 1 x $16.80/V-H
4. Value of delay is assumed to be $16.80 per vehicle-hour
5. Build Alternative = Add 2nd NB right-turn lane, and signalize the NB right-turn movement

Excerpts from

FDOT Traffic Operations Office

Safety Study

ESTIMATED REDUCTION IN CRASHES

IMPROVEMENT	CRF Source	NUMBER OF CRASHES POTENTIALLY IMPACTED (2009-2011)						ARF[x]						ESTIMATED REDUCTION IN CRASHES (2009-2011)						AVERAGE CRASH REDUCTION PER YR
		REAR END	ANGLE	LEFT TURN	SIDESWIPE	PED/BIKE	OTHERS	REAR END	ANGLE	LEFT TURN	SIDESWIPE	PED/BIKE	OTHERS	REAR END	ANGLE	LEFT TURN	SIDESWIPE	PED/BIKE	OTHERS	
UPGRADE STREET LIGHTING	1	37.0	11.0	13.0	13.0	2.0	10.0	0.10	0.01	0.10	0.10	0.10	0.10	3.70	0.11	1.30	1.30	0.20	1.00	2.5
MODIFY THE EXISTING 'YIELD' CONTROLLED NB RT MOVEMENT TO A SIGNAL CONTROL MOVEMENT+ADD ADDITIONAL RT LANE	1	29.4						0.19						5.59	0.00	0.00	0.00	0.00	0.00	1.9
MODIFY THE EXISTING 'YIELD' CONTROLLED SB RT MOVEMENTTO A SIGNAL CONTROL	1	13.4						0.12						1.61	0.00	0.00	0.00	0.00	0.00	0.5
INSTALL ADDITIONAL SIGNAL HEADS FACING E/W TRAFFIC WITH BACK PLATES AND YELLOW-REFLECTORIZED TAPE	2	97.1	22.9	24.7	18.7	2.8	18.0	0.15	0.15	0.15	0.15	0.15	0.15	14.57	3.43	3.71	2.81	0.42	2.70	9.2
																			TOTAL	**14.1**

Notes:
1 - the FDOT approved Technical Report " Accident Reduction Factors for use in Calculating B/C",
2 - the CMFClearinghouse.org website

TOTAL CRASHES THAT ARE LIKELY TO BE REDUCED WITH PROPOSED IMPROVEMENTS = 14.1

BENEFIT-COST FORM

FORM 511

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

SAFETY OFFICE ANNUAL BENEFIT COST ANALYSIS

1.	SUBMITTED BY	AECOM		WPA NO.	5. X	SAFETY PRIORITY	
2.	DATE SUBMITTED	3/6/13				ENV. STUDY	
3.	PROJECT NO.	--				SKID (ID)	
4.	ALTERNATIVE NO.	--			SN	SPEED	35 mph

6.	DISTRICT	4	COUNTY	BROWARD	SECTION	86200-000	STATE RD	858	
7.	BEGIN MILE POST	2.528	END MILE POST	2.587	LENGTH	0.059	NODE		

8. DESCRIPTION OF LOCATION/FACILITY TYPE

The subject interchange of SR 858 and I-95 is made up of two four-legged signalized intersections. In the vicinity of the study location, SR 858 is an east-west, six-lane divided urban arterial. The posted speed limit approaching the study location is 35 mph.

9. CAUSE OF ACCIDENT PROBLEMS (LIST AND DISCUSS)

(1) High percentage of nighttime crashes (43% as compared to 34% statewide average).
(2) A total of 108 rear end crashes occurred during the referenced three-year period, of which 35% (38 crashes) occurred involving right-turn vehicles from the northbound and southbound off-

10. PROPOSED IMPROVEMENTS (LIST AND DISCUSS):

(1) It is recommended that light poles and wall pack lights be installed as shown on the proposed condition sketch.
(2) Widen the northbound off-ramp to provide an additional right turn lane as shown in the Proposed Improvements Sketch. This widening would potentially impact the existing palm trees, lighting poles and associated conduit, one mast arm, a curb inlet, drainage inlets/pipes, and requires the extension of 2 cross drains.
(3) It is suggested that the existing southbound off-ramp right-turn lane be revised to bring the right-turn lane perpendicular to the intersection, in line with the left-turn lanes.
(4) Install aditional signal heads facing E/W traffic with bacl plates and yellow-reflectorized tape.

	YEAR	2009	2010	2011	AVG
11.	No. of Crashes	63	79	57	66
12.	No. of Crashes Potentially Reduced By Project		42.30		14.1

14. CRASH INFORMATION FOR FACILITY

COST/CRASH	$	$107,658
CRASH CLEANUP	$	-100

13.

TYPE	2009	2010	2011
Rear-end	31	38	39
Left-turn	14	8	4
Angle	8	8	7
Sideswipe	7	11	2
Right-turn		7	4
Hit Tree/Shrubbery		3	
Bicycle	1	1	
Pedestrain		1	
Overturned			1
Hit Other Fixed Object		1	
Hit Sign/Sign Post	1		
Collision w/ Train		1	
Hit Guardrail	1		
TOTAL	63	79	57

15. ANNUAL COST OF IMPROVEMENTS

	TYPE	COST	LIFE	CRF	AN'L COST
A.	MOT,MOB, PE, CEI	$444,787.76	15	0.0899	$39,986
B.	RDWY	$234,466.78	15	0.0899	$21,079
C.	DRAINAGE	$24,250.97	15	0.0899	$2,180
D.	SIGNING,SIGNAL	$308,000.00	15	0.0899	$27,689
E.	LIGHTING	$26,332.60	15	0.0899	$2,367
F.	ANN. MAINT			1	$0
G.	SUBTOTAL	$1,037,838.11			$93,302
H.	CHANGE IN MAINT				
I.	CRASH CLEANUP				($1,410)
J.	TOTAL				$91,892

16. BENEFIT $1,517,978

17. BENEFIT / COST 16.5

PREPARED BY: AECOM

APPROVED BY: JACQUES DEFRANT,P.E.

DATE:

COMMENTS/CRASH REDUCTION METHOD:

Crash Reduction factors from the FDOT approved technical report titled " Accident Reduction Factors for use in Calculating B/C" and FHWA funded website "www.cmfclearinghouse.org" were utilized to estimate the reduction in crashes due to proposed improvements.

HIGH CRASH LISTINGS:

The study intersection was not listed in the FDOT High Crash List as a hight crash intersection for the years 2009, 2010, and 2011.